

In the Black

Status, Management, and Trade Of the American Black Bear (*Ursus americanus*) In North America

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PREFACE

The complicated relationship between people and bears dates back many thousands of years. Ancient cultures around the world used bears as sources of food and skins, in traditional or folk medicine, and in ceremonies or rituals. Some of these practices continue today. In a less utilitarian sense, contemporary human accounts of encounters with bears frequently include elements of fascination, respect, fear, curiosity, and mystery. Unfortunately, it is impossible to determine exactly what sentiments bears may take away from their encounters with people.

Shades of difference exist in the relationships between man and various bear species. The brown and polar bears of North America and northern Europe and Asia symbolize to many the majesty of untamed wilderness, evoking both awe for their ability to survive in harsh climates and fear of their occasional violent confrontations with human beings. On the other hand, the shy and reclusive spectacled bear of South America and sloth and sun bears of Asia exemplify some of the mysteries of the natural world because they are not often observed and in some cases little studied or understood. In major zoos across the world, public fascination and affinity with the giant panda of China shows the power of an exotic animal to inspire conservation efforts, even as it highlights the plight of critically endangered species worldwide.

Among the world's bear species, perhaps those connected to people most intimately are the black bears of Asia and North America, which share similarities beyond their names and general physical appearance. Both are broadly distributed in populated areas of their continental ranges, bringing them into contact with people more frequently than may be the case with other bear species. Possibly as a result, both are historically the bears most heavily exploited by man. Use of gallbladder, paws, and other parts from the Asiatic black bear dates back millennia in the traditional cultures of nations such as China, Korea, Vietnam, Cambodia, and Japan. American black bears were traditionally hunted for food and for ceremonial use by native cultures, and the species remains the primary focus of bear-related sport hunting and trapping in North America.

In recent decades, Asiatic and American black bears have become even more closely linked by virtue of the role that their parts play in international wildlife trade, and particularly that trade driven by market demand for traditional Asian medicine. The bear trade became a focal point of attention and debate in the conservation and animal welfare communities in the late 1980s and early 1990s, when evidence indicated that Asian bear species were in decline, attributable at least in part to Asian demand for gallbladders and other parts. In a 1991 report, Mills and Servheen concisely summarized the issue facing the conservation community. While the report found the highest demand to be for gallbladders from the Asiatic black bear, the scale and value of the trade and the declining status of many Asian bear populations led the authors to conclude that "There is...every indication that bear populations found in other parts of the world will increasingly feel pressure from the Asian demand for bears and bear parts."

As concern intensified, TRAFFIC North America (then TRAFFIC USA) became particularly interested in how such potential trade pressure might affect the American black bear. Should populations of the Asiatic black bear and other Asian species continue to decline, North America's black bear population seemed a logical substitute source for gallbladders and other parts. For one thing, the American black bear was by far the world's most abundant bear species. Equally important, it was at the time the only bear species whose trade was not regulated under the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). TRAFFIC therefore decided to investigate the American black bear trade.

In examining the subject, however, TRAFFIC immediately encountered a fundamental obstacle—a lack of detailed data on black bear populations in North America and the extent of their involvement in international trade. Based on information available at the time, TRAFFIC was unable to draw firm conclusions to a number of important questions. For example, how many black bears were being killed legally and illegally each year in North America? What was

known about levels of legal and illegal trade, both domestic and international? Was there evidence of trade or other factors causing populations to decline? What steps were management authorities taking to maintain healthy populations of the species, and how closely did those authorities monitor trade? How might management and trade monitoring systems be improved?

To answer such questions, TRAFFIC initiated a series of surveys to gather basic data on the status, management, and trade of the American black bear. The purpose of the effort was to establish a baseline of information on the species and to examine trends over a period of years. TRAFFIC published the results of the first two surveys in a previous report. This report culminates the project, summarizing information from TRAFFIC's third survey and comparing the data it provided to what was learned earlier.

Overall, TRAFFIC believes that the data presented here are encouraging. With the exception of Mexico, about whose black bear

populations little is known, the species is generally robust and well managed in North America. TRAFFIC found no evidence that domestic or international trade poses a current threat to the species. Illegal trade remains a concern, and its elimination should be a priority for wildlife management and law enforcement authorities. However, an equally significant challenge to management of the species in many jurisdictions appears to be how to deal with the increasing number of encounters between black bears and people, as growing human populations expand into areas inhabited by black bears and vice versa.

TRAFFIC believes that our surveys have helped to identify important gaps in information, management, and regulatory systems employed in North America that need to be addressed. This report concludes with a set of specific recommendations that we hope will prove helpful to wildlife managers, policy makers, and others interested in the future of the American black bear.

ACKNOWLEDGMENTS

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I. INTRODUCTION

Background: The Status of Bear Species Worldwide

Worldwide, there are eight species of bear inhabiting parts of Asia, Europe, and North and South America. Four bear species are endemic to Asia: the giant panda (*Ailuropoda melanoleuca*); the sun bear (*Helarctos malayanus*); the sloth bear (*Melursus ursinus*); and the Asiatic black bear (*Ursus thibetanus*). One species, the spectacled bear (*Tremarctos ornatus*), is endemic to the Andean region of South America and another, the American black bear (*Ursus americanus*), is native to North America. The range of two bear species extends across continents. These are the brown bear (*Ursus arctos*) of North America, Eurasia, Japan, and parts of Western Europe, and the polar bear (*Ursus maritimus*), which inhabits the far regions of northern Eurasia and northern North America (Servheen et al., 1999; Servheen, 2001).

Most bear species have experienced population declines in recent decades. Habitat loss and habitat degradation are primary reasons for these declines, but human hunting for the bear parts trade is also a contributing factor. Asian bear species have been particularly hard hit. The World Conservation Union (IUCN) currently classifies the giant panda, which occurs in remote bamboo forests in China, as endangered, with perhaps fewer than 1,000 individuals left in the wild. The sloth bear, which at one time inhabited parts of India, Sri Lanka, Nepal, Bhutan, and Bangladesh, but whose presence in some of these countries is now uncertain, is classified by IUCN as vulnerable. IUCN also classifies as vulnerable the Asiatic black bear, whose range at one time covered large parts of Central and Eastern Asia, but whose current status in many countries is unknown. Not enough is known about the status of the sun bear, which is native to Southeast Asia, to make a determination. The status of the brown bear in many Asian nations is also unknown, although there is concern that the range of these populations is becoming increasingly fragmented and threatened (Servheen et al., 1999; Hilton-Taylor, 2000).

European populations of the brown bear show a mixed record of conservation success. According to information reported to IUCN and TRAFFIC Europe, the species is believed to be increasing in Sweden, Slovakia, and possibly European Russia, and stable in Finland, Estonia, Poland, Croatia, Slovenia, and perhaps Albania. However, IUCN also recently reported decreasing populations in Romania, Ukraine, Bosnia, the Yugoslav Federation, and Bulgaria. Very small populations that are considered threatened or endangered continue to exist in Norway, Latvia, the Czech Republic, Greece, Macedonia, Austria, Italy, Spain, and France. There is no reliable information on the status of populations in Belarus or Turkey (Berkhoudt, 1999; Servheen et al., 1999).

South America's spectacled bear faces threats throughout its Andean range. Recent IUCN surveys concluded that populations in Colombia and Venezuela are small and threatened, while the species is in decline in its other range countries of Ecuador, Peru, and Bolivia. Continuing conversion of habitat from the original tropical montane forest to commercial agriculture and crops for the drug trade, the threat of illegal trade in bear parts, and hunting and poaching all point to an accelerated rate of decline for this species (Peyton, 1999).

Polar bear populations in Canada, Norway, Greenland, Russia, and the United States are believed to be stable, although the species is considered vulnerable in Canada by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (N. Chalifour, WWF-Canada, pers. comm., 2000). Similarly, North American populations of the brown bear are thought to be stable in Canada and stable or increasing in the United States, where the majority of the population is found in Alaska. However, COSEWIC lists the prairie population of grizzly bears (*Ursus arctos horribilis*) in Canada as extirpated (N. Chalifour, WWF-Canada, pers. comm., 2000), and in the lower 48 United States this brown bear subspecies was extirpated from most of its historical range by the 1920s and 1930s and was listed as threatened under the Endangered Species Act in 1975.

While progress has been made in stabilizing and even increasing remnant populations of the grizzly bear, much work remains to be done. Both the polar bear and the brown bear are classified as at lower risk by IUCN (Servheen et al., 1999; Hilton-Taylor, 2000).

Why the Concern About the American Black Bear?

The American black bear is the only bear species that can be considered thriving throughout most of its current range. Although the species was long ago extirpated from significant parts of its historical range (figure 1), estimates provided to TRAFFIC indicate that some 735,000 to 941,000 black bears continue to inhabit much of Canada and large areas of the United States. Black bears are also present in a portion of Northern Mexico (figure 2). IUCN classifies the American black bear as at lower risk (Servheen et al., 1999).

Nevertheless, the status, management, and commercialization of the American black bear have become priority issues for the conservation community in recent years. Among the concerns is the commercial trade in bear parts, especially gallbladders for use in traditional Asian medicines and paws for food. In the early 1990s, apprehension that bear parts from *protected* Asian bears were entering trade falsely labeled as *unprotected* American black bears led to national and international action to prevent this illegal practice. In 1991, Canada placed its black bear population on Appendix III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).¹ In 1992, the CITES Parties decided to include the species in Appendix II.² The listing came under the provisions of Article II, paragraph 2(b) of the Convention, known as the “look-alike” provision. Its purpose was to impose documentation requirements for export and reexport of all bears and their parts so that trade in Asian bear parts could not occur by fraudulently mislabeling the parts as derived from the American black bear (McCracken et al., 1995).

Concerns also arose that with the decline of Asian bear populations, other bear species would

be increasingly targeted to meet the demand for bear gallbladders and other parts (Knights, 1996). Some remain concerned that North America’s black bear population could come under increased pressure from poachers to replace the dwindling supply of parts available from other species. The fact that trade in black bear parts is regulated primarily at the state, provincial, and territorial levels, rather than at the federal level, has drawn sharp criticism that the current “patchwork” of laws hinders effective national enforcement. Those concerns spawned a campaign to enact a federal law in the United States banning all trade in bear gallbladders and other “viscera.” Legislation entitled “The Bear Protection Act” has been proposed in the past several sessions of the U.S. Congress and was reintroduced in 2001.

Recently, attention has begun to focus on the increasing contact between human and black bear populations in the United States and Canada. As black bear populations continue to increase in North America, newspaper and television reports are documenting a growing number of incidents of black bear sightings in suburban and ex-urban areas where the species had long been absent. Part of the increasing contact between bears and humans may stem from the fact that American cities and populations are growing and expanding into bear country, and part may conversely result from the fact that black bear numbers are increasing and the species is expanding back into former range areas. For bear managers, conservationists, and residents, the question of how to accommodate the needs of both human and bear populations without conflict is becoming increasingly important.

History of TRAFFIC North America’s Black Bear Work

TRAFFIC North America, formerly TRAFFIC USA, is a regional office in the TRAFFIC Network, which is the wildlife trade monitoring program of WWF and IUCN. Through research, reports, and investigations, TRAFFIC works to provide objective assessments of international wildlife trade for international and national government agencies, nongovernmental

¹ CITES provides a regulatory mechanism to protect endangered species of wildlife and plants against overexploitation through international trade. Species subject to regulation are included in one of three appendices to the Convention. Appendix I includes species and subspecies threatened with extinction that are, or may be, affected by trade. Appendix II includes species, subspecies, or populations which may become threatened if trade in them is not controlled and monitored. Appendix III contains species subject to regulation within individual countries and for which the cooperation of other Parties is sought to control trade.

² The American black bear was the only bear species not then regulated by CITES.



Figure 1. Historic Distribution of the American Black Bear in North America

Source: Pelton and van Manen, 1997
Note: 1.6 kilometers = 1 mile



Figure 2. Current Distribution of the American Black Bear in North America

Source: Pelton and van Manen, 1997
Note: 1.6 kilometers = 1 mile

organizations (NGOs), and the CITES Secretariat in Geneva, Switzerland.

TRAFFIC has long been involved in monitoring the trade in American black bear parts. A brief history of that work follows.

- **1989.** TRAFFIC conducted its first formal survey of state, provincial, and territorial wildlife management agencies regarding black bear populations, regulations on legal harvest, and information about legal and illegal trade (see Sheeline, 1990; McCracken et al., 1995).
- **1991.** TRAFFIC published *The Asian Trade in Bears and Bear Parts*, the first systematic overview of the trade of bears and bear parts in Asia, based on an 18-month field investigation of 11 consuming Asian nations (see Mills and Servheen, 1991).
- **1992.** TRAFFIC conducted a second survey of the status of the American black bear in the United States, Canada, and Mexico. In 1995 TRAFFIC published the resulting report, *Status, Management, and Commercialization of the American Black Bear (Ursus americanus)*, a compilation of data from 62 U.S. and Canadian state, provincial, and territorial governments (see McCracken et al., 1995).
- **1994.** In cooperation with the Woodland Park Zoo and the IUCN/SSC Bear Specialist Group, TRAFFIC cosponsored the first international symposium on the trade of bear parts for medicinal use, and later published papers, abstracts, and discussion forum reports in *Proceedings of the International Symposium on the Trade of Bear Parts for Medicinal Use* (see Rose and Gaski, 1995).
- **1995.** TRAFFIC East Asia conducted new studies and investigations to update the 1991 study on the Asian trade. *The Bear Facts: The East Asian Market for Bear Gall Bladder* offered increased evidence that the Asian demand for bear gallbladder was reaching bears throughout the world, and recommended specific actions necessary to better understand, monitor, and control the trade in bear gallbladders and bile (see Mills et al., 1995).
- **1997.** TRAFFIC and the Woodland Park Zoo cosponsored the second international symposium on the trade of bear parts in cooperation with WWF-US, WWF-Canada, and the IUCN/SSC Bear Specialist Group. Papers and forum discussion reports were published in *Proceedings of the Second*

International Symposium on the Trade of Bear Parts (see Williamson and Gaski, 1997).

- **1999.** TRAFFIC North America participated in a third international symposium on the trade in bear parts, organized by TRAFFIC East Asia in partnership with Korea's Ministry of Environment and in cooperation with the IUCN/SSC Bear Specialist Group. Papers and forum presentations were published in *Proceedings of the Third International Symposium on the Trade in Bear Parts* (see Williamson and Phipps, 2001).

TRAFFIC North America initiated two additional studies on black bear issues to follow up on previous work. The results of one were published in 1999 in *A Review of State Bear Trade Laws: U.S. Statutes and Regulations Regarding the American Black Bear (Ursus americanus)* (see Williamson, 1999). The purposes of that report were to provide a reference for interested parties to review the legal framework used to regulate the take and trade of black bears in the United States, and to facilitate a more comprehensive review and discussion of ways to make state laws governing the sale of black bear parts, and more broadly black bear management, more effective on an interstate and international level. The other study, which forms the basis for this report, was TRAFFIC's 1996 Black Bear Questionnaire, the third survey in TRAFFIC's project to provide comprehensive North American governmental data and information on American black bears over an extended period.

The Survey Behind this Report

The remainder of this report summarizes and analyzes information collected through the 1996 Black Bear Questionnaire (appendix 1), which was sent to state, provincial, and territorial wildlife management agencies in July 1997. The 16-page questionnaire asked respondents to provide quantitative and qualitative information on population status and trends, legal status and hunting regulations, annual harvests, the significance and trends of black bear trade, and the effectiveness or perceived effectiveness of law enforcement in addressing illegal trade of black bear parts. It was virtually identical to the questionnaire sent by TRAFFIC in 1992, which formed the basis for the 1995 report by McCracken et al. on status, management, and commercialization.

The goal of the 1996 questionnaire was to ask states, provinces, and territories to provide updated information as part of TRAFFIC's roughly 10-year study of trends and developments regarding population status, management, and trade of the American black bear. The information requested covered the years 1992 to 1995. However, because many jurisdictions did not respond immediately, some of the responses received on questions such as population estimates and trends may be more recent.

Forty-six U.S. states and 10 Canadian provinces and territories responded to the 1996 questionnaire. Sixty-one of 62 states, provinces, and territories responded to the 1992 questionnaire, as did the country of Mexico. The new Canadian territory of Nunavut is not included here as a separate entity because it was officially established only in 1999 (it was part of the Northwest Territories during the survey period). Therefore, references to the 12 provinces and territories throughout this report should be interpreted as pre-Nunavut and not as a failure to acknowledge the territory's establishment. A 1996 questionnaire was also sent to Mexico, but that country did not respond. In addition, partial information was collected from the four states and two Canadian provinces that failed to fully complete the survey form.

This report focuses on four major issues regarding the American black bear: its status; its management; trade; and poaching, law enforcement, and penalties.

Status of the American black bear in the United States and Canada

In examining the status of the American black bear, TRAFFIC sought information on two basic questions. First, what size are the various black bear populations and what are the trends in their growth? Populations of the American black bear are on the whole very healthy in both the United States and Canada. The species is broadly distributed, and conservation and management efforts appear to be translating into a gradual but steady increase in numbers throughout most of its range. However, the species' distribution is uneven, raising the questions of whether the black bear is at its maximum numbers, and where there may be regions with room for further growth.

Second, what is the status of legal protection for the species in the political jurisdictions it inhabits? The American black bear is found in the vast majority of U.S. states and Canadian provinces and territories, but its uneven distribution means that the species is treated very differently under state, provincial, and territorial laws. Does the species' fragmented legal status affect its conservation at the national and international levels?

Black bear management in the United States and Canada

The American black bear has long been hunted for sport, for commercial trade in fur and other parts, and for control of nuisance animals. In recent decades state, provincial, and territorial authorities have become far more careful in controlling harvests, usually through the imposition of strict seasons, mandatory licensing of hunters, reporting requirements to monitor take, and regulation of acceptable hunting methods. This report examines the status of rules and regulations controlling the management and harvest of American black bears in the United States and Canada. What are the prevailing patterns or trends in management practices, and what are some of the pressures driving decisions? Are there gaps in the existing regulatory framework that need to be addressed to ensure the continued conservation of the species? What specific regulatory actions might further reduce any future threat either to the American black bear or other bear species from illegal trade?

The American black bear in trade

Black bear parts including meat, gallbladders, paws, hides, claws, teeth, and skulls are valued for consumption or commercial sale by disparate communities within and beyond North America. Recent attention has focused particularly on the demand for bear gallbladders for traditional Asian medicine, although there are also well-established markets for other parts that serve a variety of purposes, from food (especially paws as a delicacy), to hunting trophies, to souvenir jewelry, to essential components in Native American ceremonies.

This report examines several components of the American black bear trade. The first component involves a basic but very important question: what trade in bear parts is legal, and what trade is not? TRAFFIC has attempted here to compile

a straightforward explanation of the legal framework governing trade in black bear parts, which, by its fragmented nature, can appear anything but clear. The second part of TRAFFIC's exploration of the black bear trade looks at markets and users, both within and beyond North America. Is there a single dominant market that is driving the demand for black bear parts, or are there numerous markets for various parts? Who are the users? And third, TRAFFIC looks at the prices that American black bear parts are believed to command in the market. Are prices rising, falling, or stable?

Poaching, law enforcement, and penalties

Unfortunately, it is clear that black bear poaching occurs in North America. Less clear, however, is whether the driving force behind poaching is the illegal parts trade as opposed to other motives such as personal consumption or the gratification of the hunter. TRAFFIC attempted to gather information about poaching in the United States and Canada. Is this activity having a detrimental impact on black bear populations? Is the level of poaching increasing or decreasing? TRAFFIC presents the information learned here with the caveat that, as with many aspects of the bear trade, much is unknown—although the continuing increase in black bear populations suggests broadly that poaching is not currently at a level that threatens the species.

However, even if poaching is having no significant impact at present, strong efforts to eliminate the illegal take and trade of American black bears must continue in order to ensure the long-term conservation of the species. This report examines law enforcement efforts to combat illegal take and trade, and compiles

information on subjects such as arrests and convictions during the survey years. Finally, TRAFFIC looks at the various penalties for illegal killing of black bears and illegal sale of their parts.

At the close of this report, TRAFFIC offers some conclusions and recommendations for how wildlife managers might strengthen efforts to conserve the American black bear by building on the framework of current laws and policies. Overall, the roughly 10 years of data gathered by successive TRAFFIC surveys points out that the black bear can in many respects be considered a conservation success story. Fears expressed early in the 1990s that demand from the traditional Asian medicine market might soon become a threat to the existence of U.S. and Canadian black bear populations have not proved true. Rather, careful management efforts in both countries have resulted in large, healthy bear populations.

A major question for the future is what further steps need to be taken to conserve the American black bear, given the full range of challenges facing the species, from habitat loss to illegal trade. TRAFFIC hopes that this report helps put some of the key issues into perspective.

Unless otherwise noted, information contained in this report was derived from the questionnaires or from conversations with wildlife management authorities in relevant states and provinces. In some cases, telephone calls or e-mails to respondents were used to clarify answers or request additional information. Because this report is part of a series, the information presented is compared where possible with the results from the 1992 and 1989 surveys.

II. STATUS OF THE AMERICAN BLACK BEAR IN THE UNITED STATES AND CANADA

Responding to TRAFFIC's 1996 survey, 41 of the 50 U.S. states and 11 of Canada's 12 provinces and territories reported resident populations of the American black bear. Only 6 U.S. states (Delaware, Hawaii, Illinois, Indiana, Iowa, and Kansas) and one Canadian province (Prince Edward Island) reported no presence of wild black bears. Three U.S. states reported occasional or marginal populations. These were South Dakota, which reported no bear population as recently as 1992 but in 1996 reported its population "unknown," and Nebraska and Rhode Island, which reported occasional cross-border migrants. Including those three, black bears may be present at least occasionally in 44 U.S. states.

IUCN currently classifies the American black bear as at lower risk (Servheen et al., 1999). While most black bear populations in North America are not considered threatened or endangered, there are three exceptions. One is the Louisiana black bear subspecies (*U. a. luteolus*), which inhabits parts of Louisiana, eastern Texas, and Mississippi. It is listed as threatened under the Endangered Species Act (ESA) (USFWS, 2001). The second exception is the Florida black bear subspecies (*U. a. floridanus*) in Florida and Alabama, which is protected as a threatened species in Florida, with the exception of populations in certain areas of the state. The U.S. Fish and Wildlife Service (USFWS) reviewed the status of the Florida black bear, and indicated initially that federal listing was warranted but precluded by higher priority species. USFWS later concluded that the subspecies does not merit listing as a threatened or endangered species (Florida Fish and Wildlife Conservation Commission, 2000). Figure 3 shows the ranges of the Louisiana and Florida black bear subspecies in the southeastern United States.

The third exception, which is not covered in depth in this study, is Mexico's black bear

population. There is little accurate information on the current status of the black bear in Mexico, although the species is considered a priority by Secretaria de Medio Ambiente, los Recursos Naturales y Pesca (Secretariat of Environment, Natural Resources and Fisheries) or SEMARNAP (known as SEMARNAT since November 2000). The black bear is listed in the Norma Oficial Mexicana (NOM-059-ECOL-1994) as "in risk of extinction" (SEMARNAP, 1999). Black bear hunting was banned in 1985. According to IUCN, an increasing human population and a weak economy are contributing to habitat loss and poaching, as poor rural populations engage in overgrazing livestock, clearing land, and cutting wood in an effort to survive (Pelton et al., 1999).

In a 1999 report on Mexico's black bears, SEMARNAP noted that the species is found only in northern Mexico. While little is known about its current distribution, SEMARNAP reported that the black bear's overall range is thought to have been reduced by about 80 percent, and the species is usually reported at altitudes from 2,100 to 9,900 feet (650 to 3,000 meters). There have been sightings of individuals in the states of Nuevo León, Chihuahua, Zacatecas, and Durango, but no population studies in these areas are known. The only population that has been studied and monitored is in the Serranías del Burro in the state of Coahuila, where during 1998 and 1999 a total of 300 individuals (68 adult males, 16 juvenile males, 61 females, 82 cubs, and 73 unidentified individuals) were observed in an area of 107,052 acres (48,660 hectares). That translates into a population density of around 0.25 individuals per square mile (0.62 per square kilometer). According to the study, black bears are abundant in this particular region (SEMARNAP, 1999).

There is some ongoing work being done to improve management of Mexico's population of

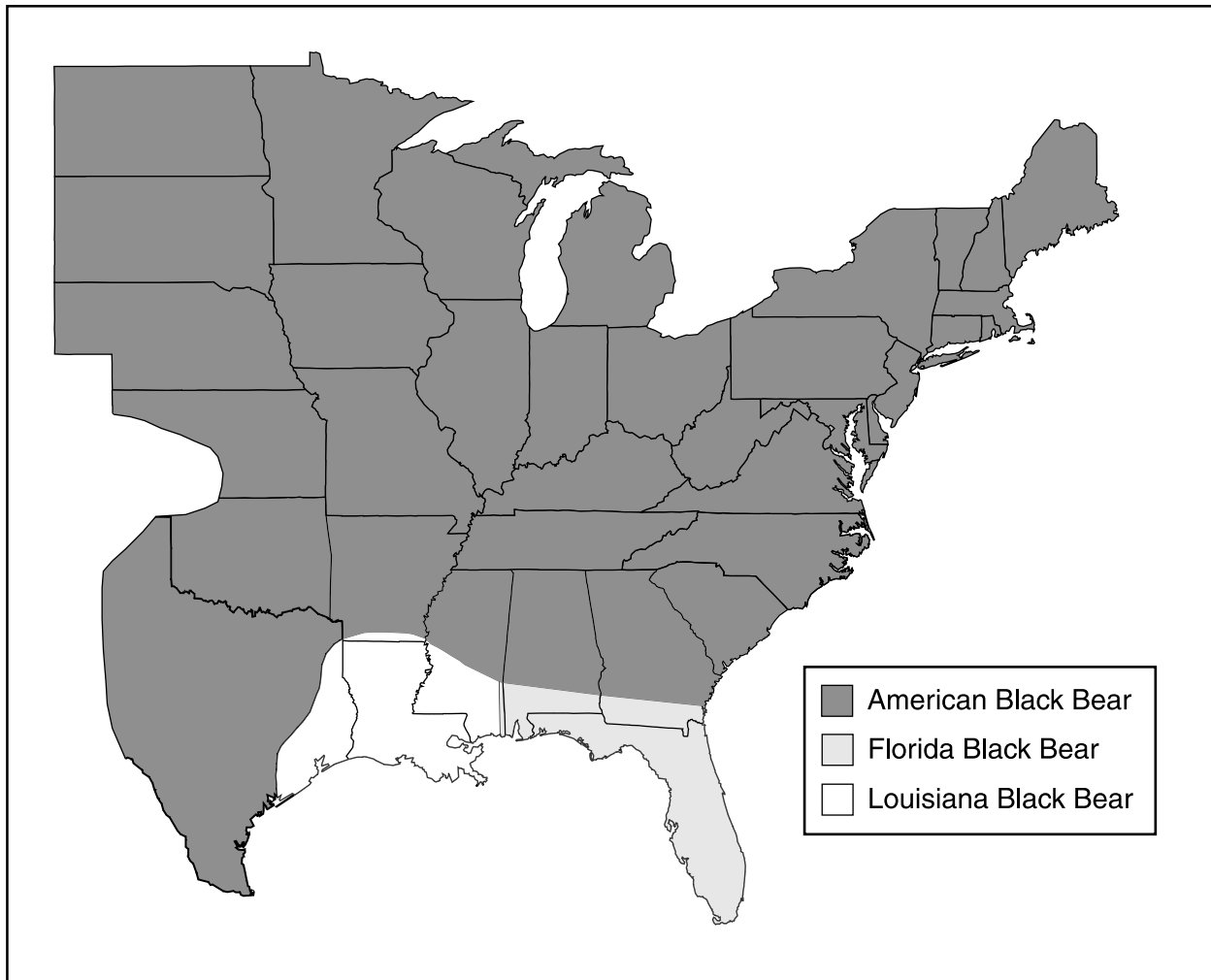


Figure 3. Range of the Louisiana Black Bear and Florida Black Bear in the United States

Source: Florida Fish and Wildlife Conservation Commission, 2000

black bears. The SEMARNAP report noted that 18 management zones in Mexico have a black bear management plan. Also, in March 2000 the Black Bear Protection, Conservation and Recovery Subcommittee, composed of experts, was established (Adrian Reuter, TRAFFIC North America-Mexico Representative, *in litt.* to TRAFFIC North America, 2001). Even so, it is believed that further scientific studies would be needed to devise comprehensive conservation and management plans for Mexico's black bears (Pelton et al., 1999).

Comparing the estimated black bear populations of the United States and Canada produced by TRAFFIC's 1996 survey against figures reported in earlier studies, TRAFFIC concludes that overall black bear numbers are on the rise in North America, notwithstanding the many

unknowns of Mexico's bear population. TRAFFIC's surveys measured the status of American black bear populations in the United States and Canada in two principal ways. First, the surveys asked state, provincial, and territorial wildlife managers to estimate the numerical size of their bear populations. Second, they asked respondents to estimate the population trend in their jurisdiction. TRAFFIC also looked at how black bear populations are distributed in North America and found that, while the species is present across large areas of the continent, its numbers are concentrated heavily in a limited number of jurisdictions.

TRAFFIC also examined the black bear's legal status in the United States and Canada as an indicator of the level of protection afforded to the species in various jurisdictions. This

examination found that most states, provinces, and territories classify the black bear as a game animal, although it does receive greater levels of legal protection in U.S. states where the species is rare or where the population consists of a threatened or endangered subspecies. One significant omission lies in the fact that, as of 1999, four U.S. states and one Canadian province without black bear populations conferred no legal status, and thus no legal protections whatsoever, on the black bear.

Black Bear Populations in the United States and Canada

TRAFFIC surveys in 1989, 1992, and 1996 suggest a steady increase in estimated black bear numbers in both the United States and Canada over the period of about a decade. The first TRAFFIC survey produced a 1988 overall estimated black bear population of roughly 625,000 to 757,500¹ (Sheeline, 1990, as cited in McCracken et al., 1995). TRAFFIC's 1992

survey produced an estimate of 641,000 to 804,000 black bears in the United States and Canada (McCracken et al., 1995). Responses from the 1996 survey indicated a total population of some 735,000 to 941,000 black bears. Table 1 shows in detail estimated black bear populations from these three surveys.

In the United States, the estimated black bear population reported by state wildlife authorities grew by some 25 to 35 percent during the overall survey period, from some 253,000 to 375,000 in 1988 (Sheeline, 1990, as cited in McCracken et al., 1995), to some 289,000 to 417,000 in 1992 (McCracken et. al., 1995), to the estimate of some 339,000 to 465,000 black bears produced by TRAFFIC's 1996 survey. These numbers include neither Wyoming, which reported the size of its black bear population as "unknown" in each survey, nor South Dakota, which reported no bears in 1988 and 1992 and responded "unknown" in 1996.

Table 1. U.S. and Canadian Black Bear Population Estimates, 1988-1996

State/Province/Territory	1988*	1992**	1996***
<i>The United States</i>			
Alabama	50	40	50
Alaska	100,000-200,000	100,000-200,000	100,000-200,000
Arizona	2,500	2,500-2,700	2,000-3,000
Arkansas	1,700-2,000	2,300	3,000
California	15,000	15,000-18,000	17,000-23,000
Colorado	7,000-15,000	8000-12000	10,000-12,000
Connecticut	30	15-30	30-60
Delaware	0	0	0
Florida	1,000	1000-1500	1,000-1500
Georgia	1,500	1,700	1,800-2,000
Hawaii	0	0	0
Idaho	18,000-25,000	20,000-25,000	20,000-25,000
Illinois	0	0	0
Indiana	0	0	0
Iowa	0	0	0
Kansas	0	0	0
Kentucky	100	Unknown	25-75
Louisiana	100	300+	>300
Maine	21,192	19,000	22,000-23,000
Maryland	200	170	250-300
Massachusetts	700-750	700-750	1,200-1,800
Michigan	NA/NR	7,000-10,000	~12,000
Minnesota	9,200	10,500-14,500	20,000
Mississippi	25	25	<50
Missouri	50-100	50-150	100-200

¹ The figures published in McCracken et al. are 725,062 -757,512. However, these figures do not show a minimum estimate for Alaska, which has responded consistently to surveys throughout the 1990s with a figure of 100,000 - 200,000 black bears. The figure here is adjusted to reflect that minimum estimate as well as the maximum estimate.

Table 1. U.S. and Canadian Black Bear Population Estimates, 1988-1996
(continued)

State/Province/Territory	1988*	1992**	1996***
Montana	NA/NR	9,000-10,000	20,000
Nebraska	0	0	0
Nevada	300	200-400	200-400
New Hampshire	2,500	3,000	2,000-3,000
New Jersey	175-225	275-325	550+
New Mexico	3,300	3,000	4,000†
New York	4,100	4,000-5,000	4,000-5,000
North Carolina	3,000-4,000	5,500-6,250	8,500
North Dakota	0	50	>10
Ohio	0	20	12-30
Oklahoma	NA/NR	200	100-150
Oregon	20,000-25,000	25,000	25,000-30,000
Pennsylvania	7,500	7,500	7,500
Rhode Island	0	0-2	0-2
South Carolina	100	300	275+
South Dakota	0	0	Unknown
Tennessee	1,500-2,000	1,000-2,000	900-1,200
Texas	NA/NR	50	75-100
Utah	750	800-1,000	800-1,300
Vermont	2,000-2,500	2,100	2,500
Virginia	2,500	3,000-3,500	3,000-3,500
Washington	19,000	27,000-30,000	~30,000
West Virginia	2,000	3,000	5,000-6,000
Wisconsin	5,790	5,800	14,000
Wyoming	NA/NR	Unknown	Unknown
U.S. Subtotal	252,862-375,312	289,095-416,662	339,000-465,000
Canada			
Alberta	48,700	40,000	40,000
British Columbia	120,000	100,000-120,000	120,000-160,000
Manitoba	30,000	25,000-30,000	25,000-30,000
New Brunswick	Not Available	Not Available	14,000
Newfoundland	6,000	6,000-10,000	6,000-10,000
Nova Scotia	2,500	3,000	~8,000
Northwest Territories	Not Available	5,000+	10,000
Ontario	65,000-75,000	75,000	75,000-100,000
PEI	0	0	0
Quebec	60,000	60,000	60,000+
Saskatchewan	30,000	24,000	24,000
Yukon Territory	10,000	14,000-20,000	Unknown
Canada Subtotal	372,200-382,200	352,000-387,000	396,000-476,000
TOTAL:	625,000-757,500	641,000-804,000	735,000-941,000
<p>Key: NA/NR = Not available/Not reported</p> <p>* Sheeline, 1990 as cited in McCracken et al., 1995</p> <p>** McCracken et al., 1995</p> <p>*** 1996 TRAFFIC survey of state wildlife authorities</p> <p>† A recently published study on black bear ecology in New Mexico yielded a statewide population estimate of approximately 5,950 black bears. This estimate does not refute those provided by the state earlier, but is based on better information and believed to be more reliable (Costello et al., 2001).</p>			

Some of the greatest increases when measured by percentage occurred in states with relatively small black bear populations. For example, between 1992 and 1996 the estimated bear population in Arkansas rose from 2,300 to 3,000, an increase of 30 percent; in Connecticut estimates rose from 15-30 to 30-60, an increase of 100 percent; in New Jersey estimates rose from 275-325 to more than 550, an increase of some 70 to 100 percent;² and in Massachusetts estimates rose from 700-750 to 1,200-1,800, an increase of as much as 240 percent.

Among states with larger bear populations, the greatest increases in numbers were reported by California, whose estimate rose from 15,000-18,000 in 1992 to 17,000-23,000 in 1996; Minnesota, whose estimate rose from 10,500-14,500 in 1992 to 20,000 in 1996; Montana, whose estimate rose from 9,000-10,000 in 1992 to 20,000 in 1996; and Wisconsin, whose estimate rose from 5,800 in 1992 to 14,000 in 1996. The growth of these states' population estimates, combined with more modest gains in a number of other states, account for much of the increase in the United States' overall black bear population estimate. In both the 1992 and 1996 surveys Alaska alone accounted for much of the wide variance in the total population number because Alaska's estimate has ranged consistently from 100,000 to 200,000.

Canada's estimated black bear population also grew during the TRAFFIC survey period, from some 372,200-382,200 reported in 1988, to approximately 352,000-387,000 in 1992, to the range of 396,000-476,000 reported in 1996.³ That the minimum population estimated in 1992 is lower than that reported in 1988 is explained by a decline in the estimated bear populations of Alberta and Saskatchewan from 1988 to 1992, and by the fact that the 1988 survey did not produce minimum and maximum estimates for some provinces. The higher figures reported in 1996 reflect significant estimated increases in black bear populations in British Columbia, Newfoundland, Nova Scotia, Northwest Territories (for which the estimate of 10,000 was reported as "conservative"), and Ontario.

TRAFFIC asked wildlife authorities to indicate how they reached the figures reported, and it is

important to note that some estimates are just that—estimates—not extrapolations of scientific surveys. For example, in large, sparsely populated jurisdictions with vast areas of forest and wilderness such as Alaska, British Columbia, and Ontario, it is difficult to obtain precise readings of how many black bears may exist, and estimates are based on the best professional assessments of wildlife authorities or on techniques such as extrapolation of numbers based on habitat potential.

Forty-six states, provinces, and territories provided information on how they determined their estimates for the 1996 survey, and reported employing a variety of techniques to measure black bear populations. Thirteen specified the use of radio telemetry studies, 15 reported gathering data from harvest numbers and/or trends (sex ratio, mean age, etc.), 6 reported the use of bait station surveys, 8 reported using mark-recapture or tagging programs, 8 reported the use of computer modeling and assessment, and two (Connecticut and Ohio) reported their estimates as based on sightings. Arizona and Florida reported using GIS habitat mapping, a technology that was not available at the time of some earlier surveys.⁴ Twelve jurisdictions reported that their figure was based on an unspecified "professional estimate" or "best assessment." Many jurisdictions reported the use of more than one of the above methods. Non-reporting jurisdictions did not have black bear populations, did not have information available, or did not respond to this survey question. A complete breakdown of responses in the 1996 survey can be found in appendix 2, along with the responses from TRAFFIC's 1992 survey for comparison.

Population Trends

Along with requesting numerical data on black bear populations, TRAFFIC asked wildlife authorities to estimate whether the population trend in their jurisdiction showed black bear numbers to be increasing, stable, or decreasing, with allowances for variations such as "slightly increasing," "stable to increasing," or "stable to decreasing."

Fifty-three jurisdictions in the United States and Canada provided estimates in response to the

² Some recent media reports have estimated that New Jersey's black bear population could be as high as 1,000.

³ This number assumes that the Yukon Territory's numbers remained most likely stable from the 1992 survey (14,000-20,000), although the exact number is unknown. Yukon is currently undertaking a review of its bear population.

⁴ Other jurisdictions may also have used GIS surveys in their modeling assessments. Arizona and Florida were the only ones to specifically mention the use of the technology in their responses to the survey.

1996 survey. Twenty-one (39%) reported their populations as stable, 15 (29%) reported their populations stable to increasing or slightly increasing, and 17 (32%) reported their populations increasing. No jurisdictions reported decreasing populations. This compares favorably to the 50 jurisdictions that provided estimates for TRAFFIC's 1992 survey, in which 18 (36%) reported their numbers as stable, 11 (22%) reported populations stable to increasing or slightly increasing, 19 (38%) reported populations increasing, one (2%) reported a population stable to decreasing, and one (2%) reported a decreasing population.

Looking back further, a 1990 effort to gather such information produced responses from 42 jurisdictions, with 27 reporting populations as stable, 5 reporting populations stable to increasing or slightly increasing, 7 reporting populations increasing, one reporting its population stable to decreasing, one reporting "increased take," and one reporting its population as "critically rare" (Servheen, 1990, cited in McCracken et al., 1995).

Overall, the trend appears to be towards stability or some level of increase in populations, which is reflected in the growing estimates of black bear numbers. Figures 4 and 5 show estimated population trends for jurisdictions in Canada and the United States, respectively. A table comparing the responses in 1996 to those from 1990 and 1992 can be found in appendix 3.

As with population estimates, TRAFFIC asked respondents to indicate how they reached their conclusions about their black bear population trends. Again, a wide variety of methods was employed. Appendix 4 shows the responses to this question in the 1992 and 1996 surveys.

Distribution

Although the American black bear inhabits parts of at least 41 U.S. states and 11 Canadian provinces and territories, the species' distribution is far from even. A close review shows that the vast majority of black bears live in a relatively few jurisdictions. Part of this can be explained by the loss of much of the black bear's historic range, as shown previously in figures 1 and 2. Whereas the species' range once stretched unbroken across much of the continent, today it exists only in pockets in some regions, especially in the southern and eastern United States, where human settlement has displaced much bear habitat.

An examination of the distribution of black bears in Canada finds the species concentrated in three provinces. British Columbia, Ontario, and Quebec together account for 255,000 to 320,000, or some 67 to 70 percent, of Canada's overall estimated black bear population. While this may in part be explained by the size of these jurisdictions relative to others such as Nova Scotia or New Brunswick, it also appears that Canada's black bear population is more heavily concentrated in certain parts of the country. For example, the Northwest Territories and the Yukon Territory cover a large, sparsely populated area, yet they are home to only 24,000 to 30,000 black bears, or some 6 percent of the estimated Canadian population. Newfoundland, another fairly large and sparsely populated province in Canada's far northeast, reported a population of only 5,000 to 6,000 black bears. From this distribution pattern TRAFFIC drew the general conclusion that while Canada is a vast country with a human population only one-tenth that of the United States, the range of its black bear population is limited by factors such as climate and habitat suitability, with the vast majority of these bears concentrated in the southern and western coastal regions of the country (see figure 6).

In the United States, Alaska alone accounts for 30 to 45 percent of the overall estimated U.S. black bear population. Add to Alaska the estimated black bear populations of Washington, Oregon, Idaho, California, Maine, Montana, and Minnesota, each of which in 1996 reported a population close to or above 20,000 black bears, and it becomes evident that approximately 251,000 to 371,000 (74 to 80 percent) of the estimated U.S. population reside in just eight states. While not trying to overgeneralize the lopsided distribution of the American black bear in the United States, a look at their distribution shows that the species is heavily concentrated in the northern and especially northwestern regions of the country (see figure 7).

The concentration of black bears in these regions and states contrasts sharply with other parts of the United States. For instance, in the northeastern United States (New England, New Jersey, New York, and Pennsylvania) there is believed to be a generally healthy and stable black bear population, but it numbers only some 39,000 to 44,000 bears, about 10 percent of the total estimated U.S. population (Maine alone accounts for 22,000 to 23,000 of this figure).

Moving south, the mid-Atlantic and southern states combined (Delaware, Maryland, Virginia, West Virginia, Kentucky, North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Florida, Louisiana, Mississippi, and Texas) reported a black bear population of some 24,000 to 26,000, or about 5 to 7 percent of the estimated U.S. population, with about one third of these found in North Carolina.

The midwestern United States show a great disparity in distributions of the American black bear. In the upper midwest, black bear populations inhabiting the northern forests of Michigan, Minnesota, and Wisconsin are thought to be substantial and increasing, whereas the black bear has been virtually extirpated from the rest of the region. Michigan, Minnesota, and Wisconsin together reported an estimated bear population of some 46,000 in the 1996 survey, 10 to 14 percent of the estimated U.S. total. By contrast, the black bear was long ago extirpated from the states of Illinois, Indiana, Iowa, and Kansas as prairie habitat was converted to human use for agriculture. Missouri, Ohio, Oklahoma, and North Dakota reported very small remnant populations of black bears. South Dakota reported an “unknown” black bear population in the 1996 survey, and Nebraska reported that it may get an occasional cross-border migrant.

Finally, the Rocky Mountain and southwestern region of the United States (Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming) reported an estimated black bear population of some 17,000+ (Wyoming responded “unknown”). This large region of diverse habitats thus accounted for at most 5 percent of the total estimated U.S. population.

The methodology used to combine states and regions for this analysis could be changed, and it does not account for the size of the individual states, human populations, and other factors. Some of these factors are examined in more detail below. But however one divides the United States geographically, the general point that the distribution of the American black bear is skewed heavily towards the northern and northwestern parts of the country is clear.

To further analyze black bear distribution patterns and determine where there may be room for further population growth and expansion of range, TRAFFIC asked survey respondents to estimate the percentage of available habitat

occupied by bear populations. This called for a subjective conclusion on behalf of the various wildlife authorities, because it was left to them to define “available,” and states, provinces, and territories responded differently as to how they made their estimates. Appendix 5 details the responses of all the jurisdictions.

Thirty-nine jurisdictions provided numerical estimates of occupied bear habitat, while another 17 either did not respond to the question, answered “unknown,” or noted that the question does not apply. Eleven jurisdictions (Arizona, California, Colorado, Idaho, Michigan, Nevada, North Carolina, Oklahoma, Wisconsin, Wyoming, and Saskatchewan) reported 100 percent of bear habitat occupied. Another 14 (Arkansas, Louisiana, Maine, New Hampshire, New Jersey, Oregon, Tennessee, Utah, Vermont, British Columbia, Nova Scotia, Ontario, Quebec, and the Yukon Territory) reported 75 to 100 percent of bear habitat as occupied. Two states (Maryland and Virginia) provided estimates in the range of 50 to 75 percent, while Massachusetts estimated habitat in the western part of the state as 100 percent occupied and habitat in the central part of the state as 50 percent or less occupied. Connecticut, South Carolina, and West Virginia estimated the percentage of occupied habitat at between 25 and 50 percent. Seven states (Alabama, Florida, Kentucky, Mississippi, Missouri, Ohio, and Texas) reported less than 25 percent of bear habitat as occupied.

TRAFFIC could not draw hard conclusions from this information, because the methods used to calculate occupied habitat were not uniform. For example, whereas California based its estimate of 100 percent of habitat occupied on observed range expansions compared to distribution in 1900, Oklahoma made its best estimate of 100 percent of habitat occupied based on existing habitat, which is primarily limited to one national forest. Others used calculations based on various factors such as historic range vs. current range, presence of existing habitat in historic range, GIS mapping, habitat modeling and radio telemetry studies, harvest reporting, sightings, nuisance activities, road kills, extrapolations from similar work on grizzly bears, and habitat knowledge.

However, the information provided did point to some broad trends that are consistent with other data gathered. It is apparent, for instance, that

CANADA

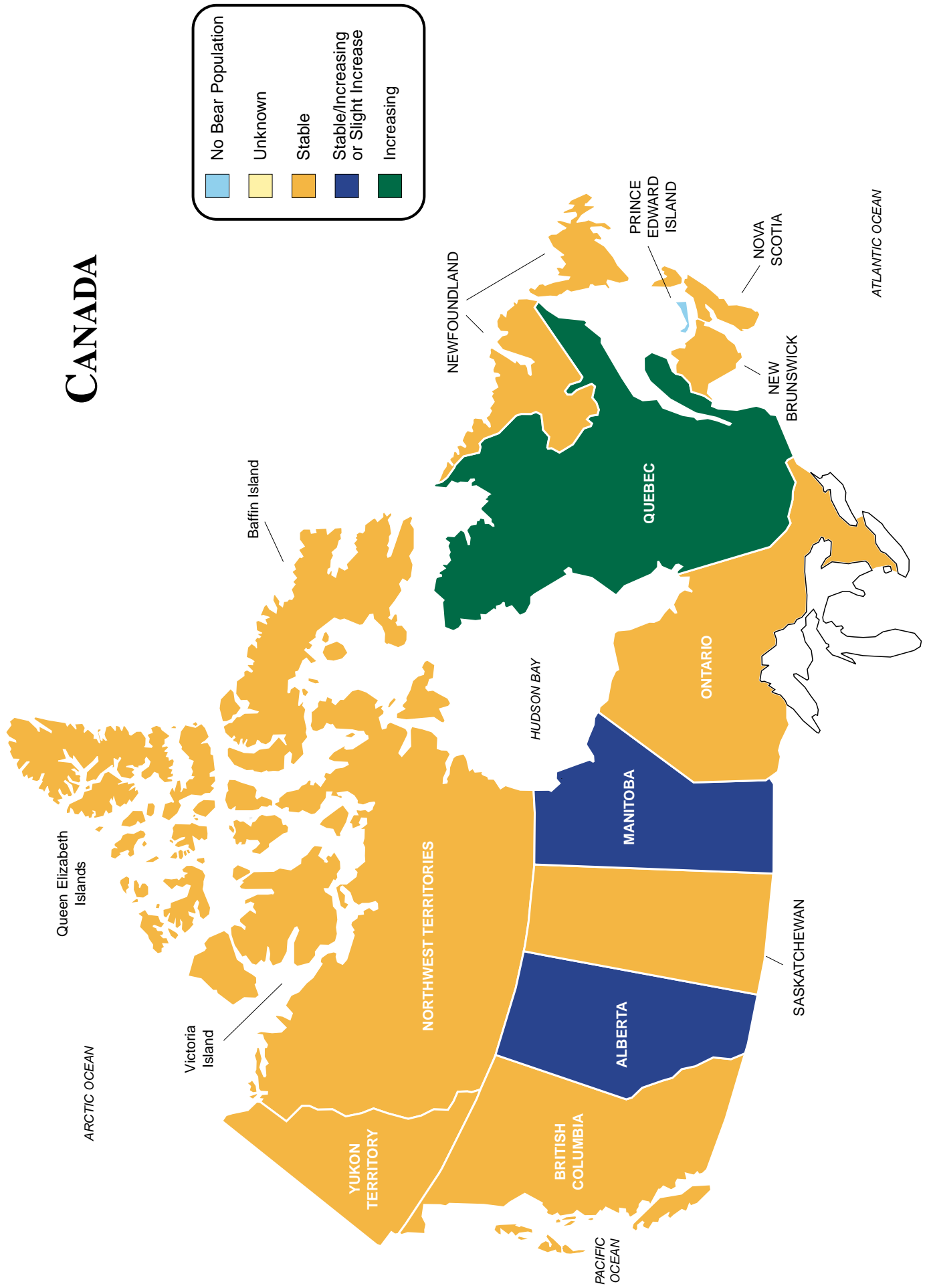


Figure 4: Estimated Black Bear Population Trends in Canada

UNITED STATES

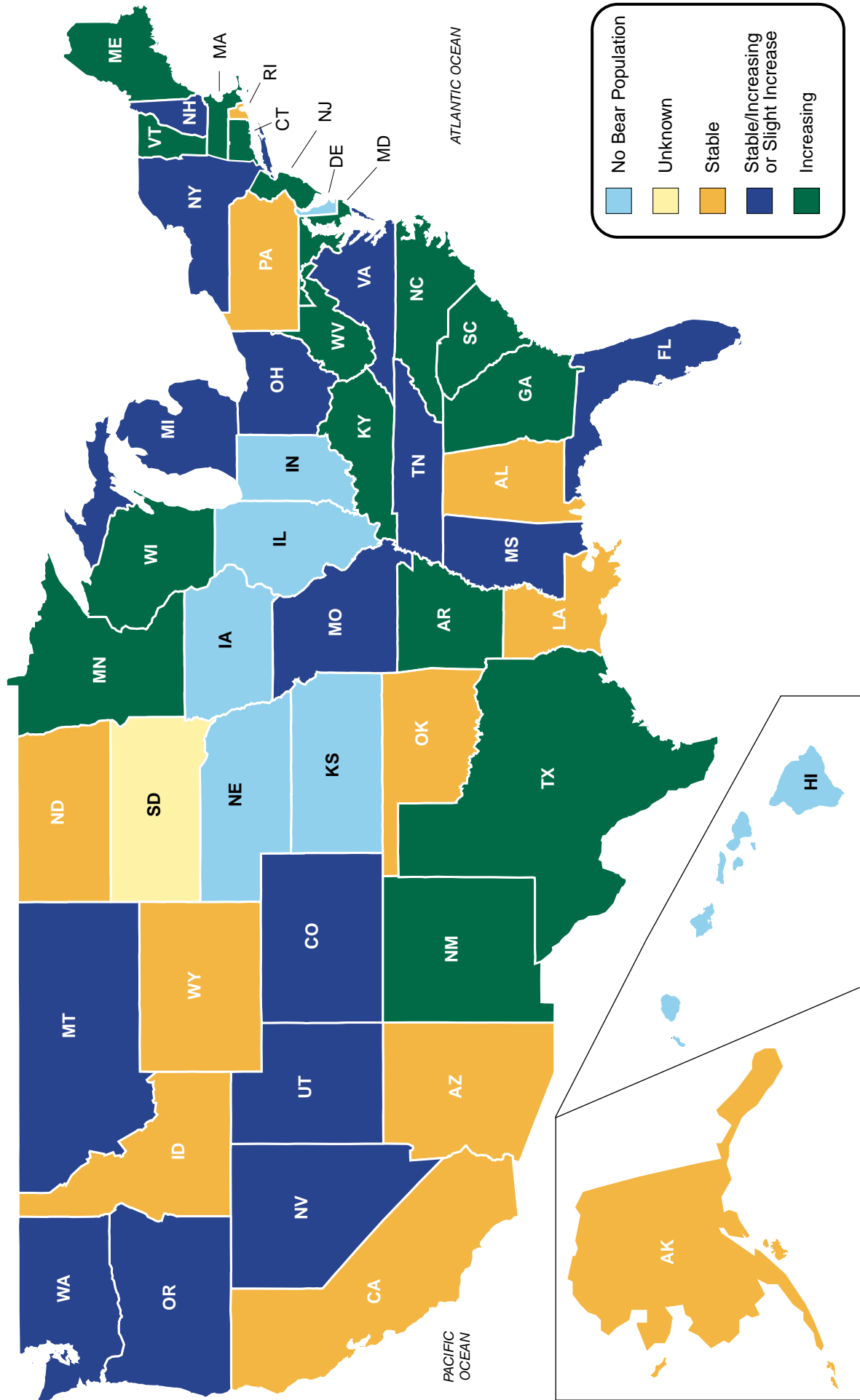


Figure 5: Estimated Black Bear Population Trends in the United States

CANADA

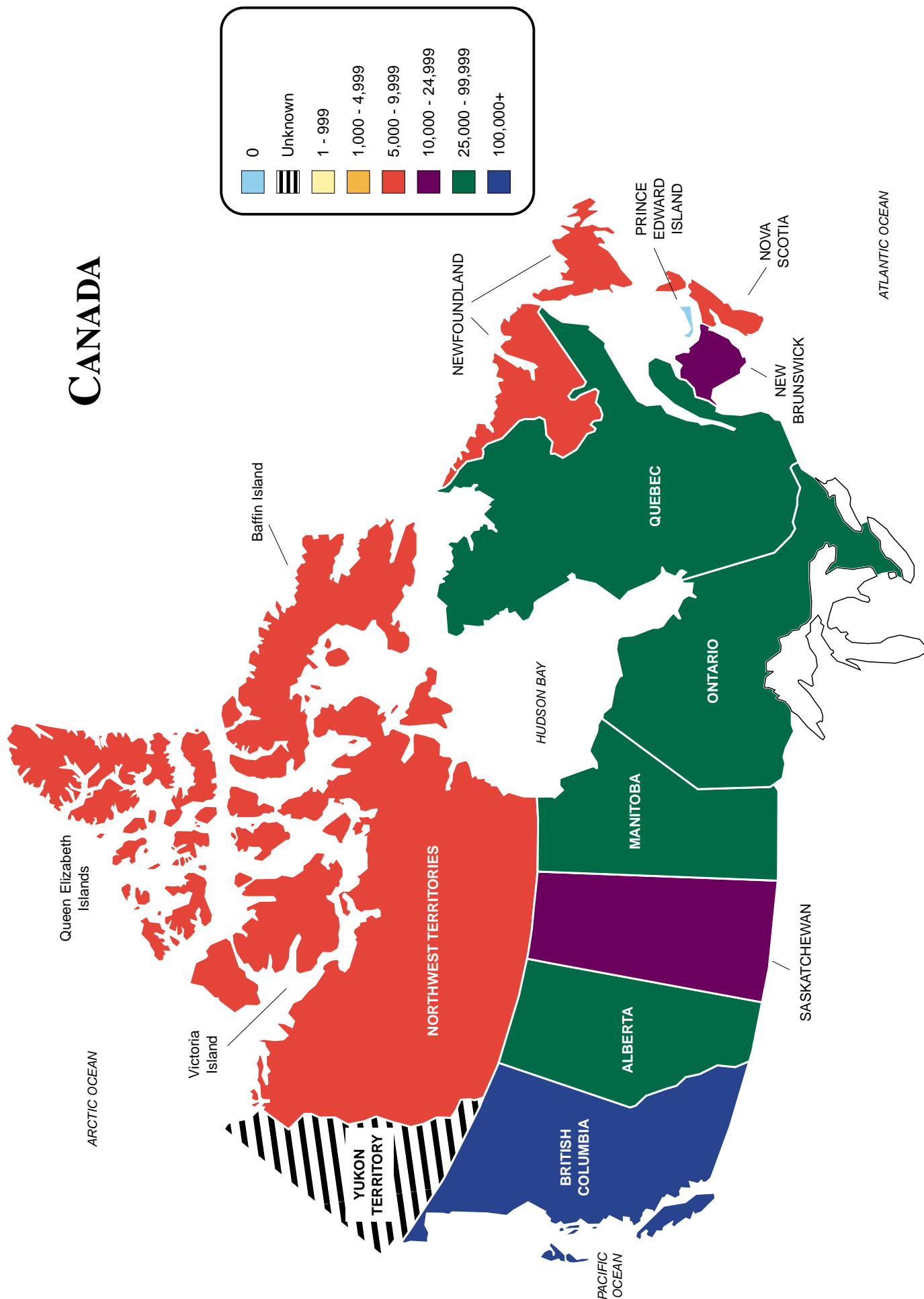


Figure 6: Distribution of Black Bear Populations in Canada

UNITED STATES

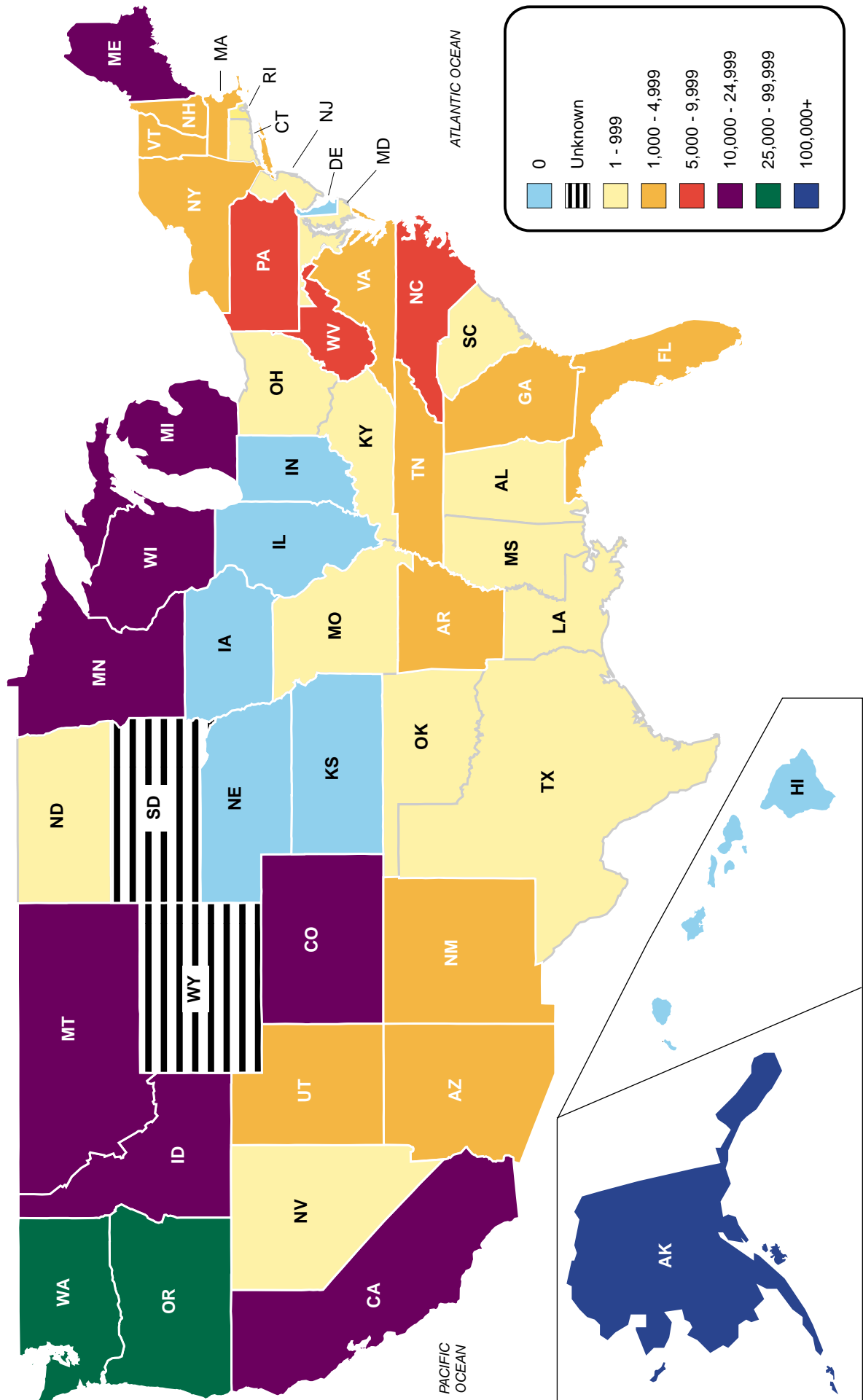


Figure 7: Distribution of Black Bear Populations in the United States

black bears occupy a far greater percentage of available habitat in Canada as a whole than in the United States. No responding Canadian jurisdiction reported less than 75 percent of available habitat as occupied, whereas in the United States 14 of the 33 jurisdictions that provided numerical estimates reported less than 75 percent of available habitat as occupied.

This makes some sense given Canada's large land area and relatively small human population compared to the United States. Yet it should also be noted that most of the U.S. states that reported among the lowest percentages of available habitat occupied are concentrated in the southern and eastern parts of the country. Overall, black bears are estimated to occupy some 20 percent of their historic range in the southeastern United States. Extensive clearing for agriculture largely forced bears from the Piedmont region beginning in the late 1700s, and although forests have returned to parts of this region, fragmentation in association with heavy human population has restricted black bears to the coastal plain and mountain regions, where they survive in sometimes isolated pockets. Recent research has identified large areas of potential range in the region, and a proposed combination of sanctuaries and repatriations to historic range provides some grounds for optimism that the Piedmont region may soon support resident black bear populations, once again linking the current coastal and mountain populations (Pelton and van Manen, 1997).

Legal Status

Most U.S. states and almost all Canadian provinces and territories classify the black bear as a game animal. In some jurisdictions the designation is more specific, placing the bear in certain categories of game—big game or trophy game for example—for which different restrictions and regulations often apply regarding harvest. Other legal classifications for the black bear include forest game, furbearer, wildlife, non-game wildlife, quadruped, rare, protected, endangered, threatened, species of special concern, and in one case pest or nuisance species. Table 2 summarizes the black bear's current legal classification in the 50 U.S. states.

How the species is legally classified is particularly important in the United States because many state statutes contain no direct reference to black bears. Instead, laws and regulations are written to cover general

categories of species, and how an individual state classifies the black bear in the overall scheme of its wildlife population can subject the species to widely varying laws regarding take and trade. Thirty-four U.S. states classify the black bear as a game animal, which means that take and trade are regulated under the state's game laws. In 13 of these states the black bear is classified more specifically as big game. One state classifies the species as trophy game.

Classification as a game species does not always mean that black bears can be hunted; in some states classification as a game animal provides the legal mechanism to protect the black bear from hunting and prevent sale of its parts. For example, until 1995 the black bear had no legal designation in Nebraska, largely because there are no wild bears in the state except for an occasional migrant. Because of that omission, bears that might wander into Nebraska from another state received no protection from take or sale of parts. In 1995 the Nebraska legislature classified the black bear as a game species, further specifying that there would be no hunting season. That decision removed the species from a legal limbo and gave it protection from take and trade under the state's game laws. Alabama, Maryland, Missouri, and Nevada are other states in which the bear's status as a game species with no open season provides such protection.

Nine states classify the black bear as protected, threatened, or endangered. Connecticut, Kentucky, and Rhode Island classify the species as protected, a designation which legally shields indigenous populations from take or trade. Mississippi and Ohio classify their small bear populations as endangered, which also precludes take and trade of indigenous black bears under those states' endangered species statutes. Similar protections are afforded black bear populations in Florida, Louisiana, South Dakota, and Texas, which classify the black bear under state law as threatened. The Louisiana black bear subspecies in Louisiana, Mississippi, and Texas is also listed as threatened under the federal Endangered Species Act, which provides the additional federal protections conferred by that law.

Perhaps the greatest gap in U.S. state laws regarding the black bear is the fact that four states—Hawaii, Illinois, Indiana, and Iowa—provide the species with no legal designation, and thus trade in bear parts falls into a legal limbo subject to the possibility of inconsistent administrative controls or no controls at all.

Table 2. Legal Classification of the Black Bear in the United States

State	Legal Classification
Alabama	Game Animal — Protected
Alaska	Big Game
Arizona	Big Game
Arkansas	Game
California	Game Mammal
Colorado	Big Game
Connecticut	Quadruped; Protected
Delaware	Non-game Wildlife
Florida	Threatened — State
Georgia	Big Game
Hawaii	No Designation
Idaho	Big Game
Illinois	No Designation
Indiana	No Designation — General Category “Wildlife”
Iowa	No Designation
Kansas	Non-game Wildlife
Kentucky	Species of Special Concern — Protected
Louisiana	Threatened — State and Federal
Maine	Game
Maryland	Forest Game Animal
Massachusetts	Game
Michigan	Big Game
Minnesota	Big Game
Mississippi	Endangered — State; Threatened — Federal
Missouri	Game Mammal — also classified by state as “Rare”
Montana	Game Animal
Nebraska	Game Species
Nevada	Big Game Mammal
New Hampshire	Game Animal
New Jersey	Game
New Mexico	Game
New York	Big Game
North Carolina	Big Game
North Dakota	Fur-bearer
Ohio	Endangered — State
Oklahoma	Game/Furbearer
Oregon	Game Mammal
Pennsylvania	Big Game
Rhode Island	Protected
South Carolina	Game
South Dakota	Threatened — State
Tennessee	Game
Texas	Threatened — State
Utah	Game
Vermont	Big Game Animal
Virginia	Game
Washington	Big Game
West Virginia	Game
Wisconsin	Game
Wyoming	Trophy Game

Source: 1996 TRAFFIC survey of state wildlife authorities.

None of these states have wild bears, so while hunting might be legal, it is unlikely that any black bear would be taken. However, the absence of an official classification for the black bear presents a significant loophole in terms of regulating trade in bear parts because no laws cover the species or prevent these states from becoming markets for parts laundered from other jurisdictions. Delaware promulgated regulations in 1999 to close the loophole in its laws by classifying the black bear as non-game wildlife and prohibiting the trade in gallbladders or other viscera from any species of bear, or any part of other species listed as prohibited by CITES. In addition, the possession of any part of a bear must be in conformance with CITES (Delaware Division of Fish and Wildlife, 1999).

TRAFFIC encourages the states that do not currently have a classification for the black bear to follow suit. Even though at present the trade in black bear parts may not be a priority for these states, there seems good reason for them to afford the species some level of protection, given concerns that the trade in black bear parts could become a problem in the future. The necessary steps can be relatively straightforward. In Illinois, for example, state law prohibits trade in designated wildlife without a permit from the

Department of Natural Resources. Adding the black bear to the state's list of wildlife as a game, furbearer, or other designated species would close that state's legal loophole.

Eleven of the 12 Canadian provinces and territories classify the black bear as a game animal. The sole exception is Prince Edward Island, which has no legal designation for the species, as it reported no black bears in the wild or in captivity. Hunting of black bears is legal in all jurisdictions where the species is designated as game.

Four provinces (British Columbia, Nova Scotia, Quebec, and Saskatchewan) classify the black bear as a furbearer as well as a game animal, which could reflect the fact that these jurisdictions allow the trapping of black bears. Saskatchewan is unique in its designation of the black bear as a pest or nuisance species along with its classification of the black bear in that province as both a game animal and a furbearer. Table 3 summarizes the black bear's current legal classification in Canada. As with those U.S. states that do not legally classify the black bear, TRAFFIC encourages Prince Edward Island to enact legal protections for the species.

Table 3. Legal Classification of the Black Bear in Canada

Province/Territory	Legal Classification
Alberta	Big Game Animal
British Columbia	Game Animal/Furbearer
Manitoba	Big Game Animal
New Brunswick	Game Animal
Newfoundland	Game Animal
Nova Scotia	Game Animal/Furbearer
Northwest Territories	Game Animal
Ontario	Game Animal
Prince Edward Island	No Designation
Quebec	Game Animal/Furbearer
Saskatchewan	Game Animal/Furbearer/Pest or Nuisance Species
Yukon Territory	Big Game Animal/Wildlife

Source: 1996 TRAFFIC survey of provincial/territorial wildlife authorities.

III. BLACK BEAR MANAGEMENT IN THE UNITED STATES AND CANADA

Responsibility for management of black bears in the United States and Canada falls primarily under the jurisdiction of state, provincial, and territorial wildlife management agencies rather than federal authorities. In the United States, this provision of state authority reflects the general constitutional principle that outside of the national park system and other federally regulated lands, and within certain limits (for example international and interstate commerce), the states are responsible for the management and protection of the wildlife species that reside within or migrate across their borders (Musgrave and Stein, 1993). Similarly, in Canada the provinces and territories have jurisdiction over wildlife within their borders, while the federal government has jurisdiction over wildlife on federal lands. The Canadian federal government also has jurisdiction over international and interprovincial trade (Canadian Constitution Act, s. 91 and 92).

At a practical level, this delineation of authority means that state, provincial, and territorial authorities make the bulk of decisions regarding the management of black bear populations. These authorities determine whether black bears may be harvested in a given jurisdiction and under what circumstances, what hunting or trapping methods may be used, what bag limits to set, when hunting seasons will open and close, whether special licenses or permits will be required, and what harvest reporting requirements to place on hunters and trappers.

Rules and regulations on these subjects vary greatly between jurisdictions, ranging from those that allow for almost open harvest of black bears with few reporting requirements to those that prohibit the killing of black bears under any circumstances. These disparities can be

explained largely by the broad but unequal distribution of the species in North America. Individual state, provincial, and territorial laws and regulations are written to accommodate widely divergent management needs and interests, so it is not surprising that laws and regulations governing bear management in Alaska (100,000 to 200,000 bears) do not parallel those in Kentucky (25 to 75 bears).

Survey responses also indicated that wildlife authorities adjust management policies and regulations periodically as needs evolve. For example, in some U.S. states public expression through state ballot initiatives has precipitated changes in hunting seasons and legal hunting methods. The rules and regulations outlined here should be read to reflect a “snapshot” in time in a fluid environment—they will likely continue to change as circumstances warrant and priorities shift.

The following section focuses on the various regulatory systems through which states, provinces, and territories manage black bear populations and their harvest. It shows that while the harvest of black bears is legal in the majority of jurisdictions which report resident populations, important differences exist in the ways those jurisdictions manage harvest practices and levels.

Legal Take of Black Bears in the United States and Canada

All 11 Canadian provinces and territories which have black bears, and 27 of the 41 U.S. range states, allow sport-hunting of the species.¹ Prior to 1994, when the Florida legislature closed that state’s bear season, the number of U.S. states with black bear populations that allowed hunting

¹ Nebraska, Rhode Island, and South Dakota are not included as range states here because Nebraska and Rhode Island report only occasional migrants and South Dakota reports an “unknown” population. Nunavut is also not included here, as the years covered by the survey fall before its establishment in 1999.

of black bears was 28. Black bear hunting is technically legal—or at least not defined as illegal—in some other U.S. states which do not legally classify the species, although the absence of black bears in those states makes any harvest highly unlikely.

Trapping of black bears is legal in only one U.S. state, Maine. Trapping is more prevalent in Canada, where nine provinces (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, and Saskatchewan) allow the practice. Information on this subject for Alberta and New Brunswick, which did not fully respond to the TRAFFIC survey, was derived from published hunting and trapping regulations. The Northwest Territories and the Yukon Territory ban the trapping of black bears.

In addition to sport hunting and trapping, most U.S. and Canadian jurisdictions permit the killing of black bears when they become “nuisance” or “problem” animals—for example, when they damage property or crops.² Only 15 U.S. states (Alabama, Connecticut, Florida,

Louisiana, Maryland, Mississippi, Missouri, Nevada, New Jersey, North Dakota, Ohio, Oklahoma, Rhode Island, South Dakota, and Texas) make it illegal to kill black bears under almost all circumstances. It is legal in every Canadian province and territory to kill black bears that threaten property or human safety.

Table 4 shows in the most general terms the legality of the take of black bears in the United States and Canada. As it demonstrates, laws on the subject change periodically. Over the past several decades some U.S. states have moved to prohibit black bear hunts to conserve vulnerable populations. Other U.S. states and Canadian provinces have enacted laws to clarify the rules under which hunting is allowed or to rectify situations in which there were no regulations. Most recently, both Maryland and New Jersey have considered (and for the time-being rejected) calls to open black bear seasons to reduce growing populations of the species. As both human populations and the number of black bears continue to grow, it is quite possible that the number of U.S. states that allow bear hunting could increase.

Table 4. Legality of Take of Black Bears in the United States and Canada

State/Province/Territory	Legal to hunt as game (since what year?	Legal to trap as game or furbearer?	Legal to kill when damaging property, crops, etc?
<i>The United States</i>			
Alabama	No	No	No
Alaska	Yes	No	Yes
Arizona	Yes (1968)	No	Yes
Arkansas	Yes	No	Yes
California	Yes (1948)	No	Yes
Colorado	Yes	No	Yes
Connecticut	No (prior to 1960)	No	No
Delaware	Not applicable	Not applicable	Not applicable
Florida	No (1994)+	No	No
Georgia	Yes (1979)	No	Yes
Hawaii	No regulations	Not applicable	Not applicable
Idaho	Yes	No	Yes
Illinois	No regulations	No regulations	Not applicable
Indiana	No regulations	No regulations	Not applicable
Iowa	No regulations	No regulations	Not applicable
Kansas	No regulations	No	Not applicable
Kentucky	No	No	Yes (otherwise protected)
Louisiana	No	No	No
Maine	Yes	Yes	Yes

² Colorado makes an exception to its general ban on the trapping of black bears by allowing the practice when they are destroying crops, property, etc.

Table 4. Legality of Take of Black Bears in the United States and Canada
(continued)

State/Province/Territory	Legal to hunt as game (since what year?)	Legal to trap as game or furbearer?	Legal to kill when damaging property, crops, etc?
Maryland	No (1953)+	No	No
Massachusetts	Yes	No	Yes
Michigan	Yes (1925)	No	Yes
Minnesota	Yes (1971)	No	Yes
Mississippi	No (1932)	No	No
Missouri	No (1936)	No	No (1992)
Montana	Yes	No	Yes
Nebraska	No (1995)	No	Yes
Nevada	No	No	No
New Hampshire	Yes (1903)	No	Yes
New Jersey	No (1971)+	No	No
New Mexico	Yes	No	Yes
New York	Yes	No	Yes
North Carolina	Yes (1936)	No	Yes (1935)
North Dakota	No (early 1990s)	No	No
Ohio	No (prior to 1900)	No	No
Oklahoma	No (1915)	No	No
Oregon	Yes (1925)	No	Yes (1900)
Pennsylvania	Yes	No	Yes
Rhode Island	No	No	No
South Carolina	Yes	No	Yes
South Dakota	No	No	No
Tennessee	Yes	No	Yes
Texas	No (1973)	No	No
Utah	Yes	No	Yes
Vermont	Yes (1941)	No	Yes
Virginia	Yes	No	Yes
Washington	Yes	No	Yes
West Virginia	Yes	No	Yes
Wisconsin	Yes	No	Yes
Wyoming	Yes (1911)	No	Yes (1939)
Canada			
Alberta	Yes	Yes	Yes
British Columbia	Yes	Yes	Yes
Manitoba	Yes (1980)	Yes (1940s)	Yes (1940s)
New Brunswick	Yes	Yes	Yes
Newfoundland	Yes (1962)+	Yes	Yes
Northwest Terr.	Yes	No	Yes
Nova Scotia	Yes+	Yes	Yes
Ontario	Yes (1961)	Yes	Yes
PEI	Not applicable	Not applicable	Not applicable
Quebec	Yes	Yes	Yes
Saskatchewan	Yes (1960)	Yes (1968)+	Yes
Yukon Territory	Yes	No	Yes

Source: 1996 TRAFFIC survey of state wildlife authorities.

+ Additional information:

Florida: Black bear hunting was legal in Florida during part of the survey period. It was closed by the state legislature in 1994. **Maryland:** State has considered opening a limited black bear season to reduce population. **New Jersey:** State has considered opening a limited black bear season to reduce population. **Newfoundland:** No regulations prior to 1962. Bear seasons were closed in 1976, 1977, and 1978. **Nova Scotia:** It was legal to harvest black bears long before modern wildlife management practices came into place. Since 1988 special licenses have been required to hunt or snare. **Saskatchewan:** Legal to kill black bears as a furbearer since 1968 under the Fur Act of 1968.

Licensing

Licensing sport hunters and trappers is an essential way for states, provinces, and territories in the United States and Canada to regulate the harvest of black bears. Overall, 37 of the 38 jurisdictions that allow hunting and/or trapping of black bears have some license requirements for all hunters, although these vary widely in their specificity, costs, distinction between resident and nonresident hunters, and methods of allocation.

License requirements

Licensing requirements for sport hunting black bears in the United States can be divided into several categories, distinguishable from one

another by whether or not there is a mandatory need for a hunter to obtain a special license or permit and whether or not residents and nonresidents face different requirements. In one category, 17 of the 27 U.S. states that allow black bear hunting require that all resident and nonresident hunters obtain a specific black bear license/permit or a big game license with a special tag at all times. In a second category, six states require only a general big game license to hunt black bears. In a third category, some states take hybrid or individual approaches to licensing. New York and North Carolina, for example, require a specific black bear license for nonresident hunters but only a general big game license for residents. Alaska is unique in that

Table 5. Licensing Requirements for Residents and Nonresidents in the United States

State	License/permit or tag to hunt/trap black bears?	
	<i>Residents</i>	<i>Nonresidents</i>
Alaska	General license only required+	Black bear tag required+
Arizona	Specific license required	Specific license required
Arkansas	General big game license only	General big game license only
California	Specific license required	Specific license required
Colorado	Specific license required	Specific license required
Georgia	General big game license only	General big game license only
Idaho	General big game license only	General big game license only
Maine	Variable depending on deer season+	Variable depending on deer season+
Massachusetts	Specific permit required	Specific permit required
Michigan	Specific license required	Specific license required
Minnesota	Specific license required	Specific license required
Montana	Specific license required	Specific license required
New Hampshire	Big game license plus bear tag required	Big game license plus bear tag required
New Mexico	Specific license required	Specific license required
New York	General big game license only	Specific license required
North Carolina	General big game license only	Specific license required
Oregon	License and specific bear tag required	License and specific bear tag required
Pennsylvania	Specific license required	Specific license required
South Carolina	General big game license only+	General big game license only+
Tennessee	General big game license only	General big game license only
Utah	Specific license required	Specific license required
Vermont	General big game license only	General big game license only
Virginia	Specific license required+	Specific license required+
Washington	Big game license with bear option+	Big game license with bear option+
West Virginia	Specific license required	Specific license required
Wisconsin	Specific license required	Specific license required
Wyoming	Specific license required	Specific license required

Sources: 1996 TRAFFIC survey of state wildlife authorities; Alaska Hunting Regulations 1997-1998; Washington Big Game Seasons and Rules 1999.

+ Additional Information:

Alaska: Residents require only general hunting license. Nonresidents require license and special tag. Nonresident aliens require license, tag, and guide. **Maine:** Special permit not required during open deer season or when trapping for black bears. **South Carolina:** Those hunting with dogs must register their party. **Virginia:** Requires purchase of general license plus annual big game license (deer, bear, turkey) and special permit/tag for each species. **Washington:** Washington offers big game licensing "options" at various prices that include black bears with other specified species.

residents need only a general hunting license to hunt black bears, while nonresidents must obtain a nonresident license and a specific locking tag, and nonresident aliens face even more requirements. Table 5 summarizes in general terms these various license requirements for black bear hunters in the United States.

In Canada, every province and territory requires that both resident and nonresident sport hunters obtain a specific license or permit to hunt black bears. One partial exception is in the Northwest Territories, where there is a licensing category called the “General Hunting License.” It is provided primarily to hunters of aboriginal descent, who do not have to obtain a bear tag to hunt black bears. There are also differences regarding the treatment of resident and nonresident hunters. For example, in Alberta nonresident (Canadian) and nonresident alien (non-Canadian) hunters must be accompanied by either a professionally licensed guide or by a “Hunter Host,” defined as an adult resident—usually a relative or friend—who obtains a valid Hunter Host License and agrees to certain restrictions and conditions, including not receiving any compensation for providing the service (Alberta General Regulations, 2001).

Other provinces and territories also place restrictions on nonresidents.

One difference between the United States and Canada is the greater prevalence in Canada of black bear trapping. Unlike sport hunters, trappers do not need specific licenses to take black bears in British Columbia, Manitoba, Ontario, Quebec, and Saskatchewan, which require only a general trapper’s license. Newfoundland and Nova Scotia require a specific license to trap black bears. Alberta and New Brunswick manage the species as game animals only, with individual requirements for trappers. Table 6 summarizes in general terms the various license requirements for resident and nonresident black bear hunters and trappers in Canada.

License numbers, costs, and revenues

States, provinces, and territories issue several hundred thousand black bear hunting and trapping licenses each year, and their costs vary widely. In most jurisdictions, nonresident licenses cost far more than resident licenses but are issued in fewer numbers. Some states, provinces, and territories reported selling licenses in numbers and at prices that brought in significant revenues, while others reported that

Table 6. Licensing Requirements for Residents and Nonresidents in Canada

Province/Territory	License or tag to hunt/trap black bears?	
	<i>Residents</i>	<i>Nonresidents</i>
Alberta	Specific license required to hunt+	Specific license required+
British Columbia	Specific license required to hunt+	Specific license required
Manitoba	Specific license required to hunt+	Specific license required+
New Brunswick	Specific license required	Specific license required+
Newfoundland	Specific license required	Specific license required
Northwest Terr.	Separate black bear tag required+	Separate black bear tag required
Nova Scotia	Specific license required	Specific license required
Ontario	Specific license required to hunt+	Specific license required
Quebec	Specific license required to hunt+	Specific license required
Saskatchewan	Specific license required to hunt+	Specific license required
Yukon Territory	Specific license required	Specific license required

Sources: 1996 TRAFFIC survey of provincial and territorial wildlife authorities; Alberta Big Game Regulations;

+ Additional Information:

Alberta: Nonresidents must be accompanied by licensed professional or host guide. Registered trappers face restrictions during the open hunting season — species is managed as big game. **British Columbia:** Only a general trapper’s license/permit is required to trap black bears. **Manitoba:** Only a general trapper’s license/permit is required to trap black bears. Nonresident (non-Canadian hunters must book their hunt through a registered lodge or outfitter and be accompanied by a licensed Manitoba guide. **New Brunswick:** Nonresident hunters are required to hunt with a licensed New Brunswick guide. **Northwest Territories:** The Northwest Territories has several classifications of hunters: *Nonresident alien* (those from outside Canada; *Nonresident* (a Canadian or landed immigrant who lives outside the NWT or has not resided in the NWT for a full two years); and *Resident* (a Canadian citizen who has been living in the NWT for at least two years). A fourth category, the General Hunting License, is granted primarily to hunters of Aboriginal descent. All hunters except those with a *General Hunting License* require a separate black bear tag. **Ontario:** Only a general trapper’s license/permit required to trap black bears. **Quebec:** Only a general trapper’s license/permit required to trap black bears. **Saskatchewan:** Only a general trapper’s license/permit required to trap black bears.

revenues derived from license sales were comparably negligible. Because some jurisdictions do not require specific licenses or tags to hunt black bears, and others have complex gradations of licenses from which total revenue attributable to black bears could not be accurately calculated, it proved impossible to come up with a figure for the overall revenue from bear license sales. The following summarizes briefly the numbers from states, provinces, and territories for which information was available. Appendix 6 provides a year-by-year comparison of licenses issued, prices, and annual revenues (where possible) in the United States from 1992 to 1995.

The United States. Of the 27 U.S. states in which bear hunting is legal, 15 provided information on the number of licenses issued: Arizona, California, Colorado, Florida,³ Idaho, Maine, Michigan, Minnesota, New Hampshire, North Carolina, Oregon, Utah, West Virginia, Wisconsin, and Wyoming. In aggregate, these states issued roughly 117,000 resident and 10,000 nonresident licenses in 1992; 125,000 resident and 8,000 nonresident licenses in 1993; 132,000 resident and 10,000 nonresident licenses in 1994; and 136,000 resident and 11,000 nonresident licenses in 1995. These figures should be read as approximate because some states did not differentiate between resident and nonresident licenses, and others provided figures for big game licenses that could be used to hunt other species besides black bear.

Overall, TRAFFIC found a steady increase in the number of resident licenses issued by this group of states, both during the survey period and when data from the 1996 survey were compared to data from the 1992 survey (see McCracken et al., 1995). However, TRAFFIC found that the number of nonresident licenses dropped from figures reported for the earlier survey: In 1990, 17,000 nonresident licenses were reported, and in 1991 roughly 16,000 nonresident licenses were reported (these are the only years from the 1992 survey for which figures from all 15 states were available). TRAFFIC surmises that the growth in resident license sales could reflect the general growth in black bear numbers, which may have led management authorities in some states to liberalize the number of hunts allowed. As appendix 6 shows, the number of such license sales in individual states fluctuated slightly in some cases, but over the entire survey period trended upwards. TRAFFIC is uncertain of the reasons for the overall decrease in the number of nonresident license sales.

TRAFFIC could not calculate the number of black bear licenses in a number of other states because they require only general licenses or big game licenses for residents to hunt black bears, so no figures specific to black bears were available. However, it is fair to conclude that if black bear hunters in all such states were added to the above figures, the number of licenses issued to those who might hunt bear would add considerably to the totals.



Photo by Howard Bufflet

Though bear hunting licenses exceed 100,000 annually in the United States, the vast majority are issued in a small number of states.

As with the distribution of black bear populations in the United States, TRAFFIC found that the number of bear hunting licenses issued differed greatly between states during the survey period. For example, by far the greatest reported number of resident licenses sold in the United States were in Idaho, which ranged from 24,000 in 1992 to 26,800 in 1994 and 1995, accounting for some 25 percent of the total number of licenses reported by the 15 states for which data were available. Maine sold the greatest number of licenses to nonresidents, averaging slightly more than 4,000 per year, which represented some 35 to 50 percent of the total reported in that subset of

³ Florida provided information for 1992 and 1993. The state closed its bear season in 1994.

states in various years.⁴ At the other end of the scale, Utah reported an average of 150 resident and 15 to 21 nonresident licenses per year. TRAFFIC concluded generally that while well over 100,000 resident black bear licenses and 10,000 nonresident licenses may have been sold annually during the survey period, those sales likely concentrated in a relative handful of states.

Twenty states reported resident license prices, ranging from free in Florida in 1992 and 1993 to Utah's price of \$58 in 1994 and 1995. Overall, resident license prices were fairly low. Besides Florida and Utah, resident licenses cost less than \$10 in one state; between \$10 and \$20 in eight states; between \$20 and \$30 in four states; between \$30 and \$40 in three states; and between \$40 and \$50 in two states. These figures do not include states that allow hunting on a general license, those which have significant gradations in license costs, and those in which hunters purchase license packages or options covering several species. Along with these hunting license prices, a trapping license in Maine cost \$30 for residents.

Nonresidents typically paid far more to hunt black bears in a given state, the exceptions being Florida, which did not distinguish between residents and nonresidents in granting free licenses, and New Hampshire, which charged residents and nonresidents alike \$3 for licenses. Four states charged roughly between \$50 and \$100 for a nonresident license; eight charged between \$100 and \$200; two charged between \$200 and \$300; and two charged more than \$300. The price of a nonresident trapping permit in Maine was also in excess of \$300.

Canada. British Columbia, Manitoba, Newfoundland, the Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, and the Yukon Territory provided information on black bear hunting licenses issued between 1992 and 1995. Combined, the totals for these jurisdictions were roughly 151,000 resident and 17,000 nonresident licenses in 1992; 143,000 resident and 17,500 nonresident licenses in 1993; 136,000 resident and 21,000 nonresident licenses in 1994;⁵ and 140,000 resident and 22,000 nonresident licenses in 1995.

TRAFFIC was unable to compare the figures for resident licenses directly with those provided for the 1992 survey because British Columbia changed the way that it reported its figures. That province reported approximately 100,000 licenses per year, which TRAFFIC believes is the total number of big game licenses rather than specific bear licenses. In the 1992 survey, the number of resident licenses issued from 1989 to 1991 ranged from approximately 51,000 to 58,000 for these nine provinces and territories, while the number of nonresident licenses ranged from around 20,000 to 22,000 (McCracken et al., 1995). With the exception of British Columbia, the number of licenses issued in other provinces in the 1996 survey held generally stable at the levels reported in 1992 for both residents and nonresidents. TRAFFIC deduced that the much higher total figure for the period from 1992 to 1995 came from a change in British Columbia's method of reporting rather than a significant increase in black bear licenses and tags sold.

As with the United States, figures are approximate. Alberta and New Brunswick did not provide information, although both allow black bear hunting and require licenses. If those provinces were added, the number of licenses sold per year would undoubtedly rise (in the 1992 survey, Alberta reported issuing approximately 9,000 to 12,500 resident and 1,000 to 1,500 nonresident licenses annually). There were also indications beyond British Columbia that not all licenses sold were to be used to hunt black bears in a given year. In the Yukon Territory, for example, a special bear seal is required along with a license to hunt bear, and fewer seals were reported sold than licenses in each year. Thus, as with the United States, the number of licenses sold may not reflect the actual number of sport hunters pursuing black bears in a given year.

Also as in the United States, most hunting licenses were issued in only a few jurisdictions. Ontario, Quebec, and British Columbia each reported selling well over 10,000 resident licenses annually in both the 1992 and 1996 surveys, while the Northwest Territories and Nova Scotia never reported selling more than a

⁴ Maine is also the only state to allow black bear trapping. The state reported selling 2,846 trapping licenses in 1992; 2,624 in 1993; 2,707 in 1994; and 2,495 in 1995. However, because the state does not sell trapping licenses by individual species, it was impossible to determine how many of these were used to trap for black bears. Maine also reported issuing "complimentary" trapping licenses to Native Americans: 1,998 in 1992; 1,995 in 1993; 2,001 in 1994; and 1,934 in 1995.

⁵ Figure does not include Newfoundland, for which numbers were unavailable for this year.

few hundred. Ontario sold the most nonresident hunting licenses. Whereas in the rest of Canada the number of licenses sold to residents outnumbered the number sold to nonresidents by at least a factor of two-to-one (and often ten-to-one or twenty-to-one), in Ontario the numbers were about even and accounted annually for some 50 percent of all nonresident licenses sold in the country. TRAFFIC concluded from these data that black bear hunting in Canada is primarily concentrated in a small subset of provinces that have high bear populations, a situation very similar to that found in the United States.

Canadian jurisdictions also issued thousands of trapping licenses during the survey period. However, as noted above and as in the case of Maine in the United States, in several provinces trapping licenses are not specific to black bears so it is not possible to determine how many were used by black bear trappers.

Canadian provinces and territories showed a favoritism to resident hunters in their license fees similar to that found in the United States.⁶ The Northwest Territories had the lowest resident license cost at \$10CAD. All other jurisdictions charged residents between \$20CAD and \$30CAD for licenses. Nonresidents in Canada paid fees ranging from \$20CAD in the Northwest Territories to \$165CAD in Manitoba for a black bear license. Appendix 7 provides a year-by-year comparison of licenses issued, prices, and annual revenues (where possible) in Canada from 1992 to 1995.

As noted before, the variety of licensing systems in U.S. states and Canadian provinces and territories, and the number of variables within these systems, made it difficult for TRAFFIC to assess the total revenue that many jurisdictions derived from the sale of black bear licenses and tags. Information from those jurisdictions where calculations could be made indicate that in some places the sale of black bear licenses is a source of considerable revenue. For example, the large number of licenses sold in Idaho generated amounts estimated to range from a low of \$664,000 in 1993 to \$750,000 in 1992. Revenues in Maine averaged more than \$400,000 per year, and in California, Colorado, and West Virginia close to or above \$300,000 per year. In Canada, license sales in Ontario

brought in from \$1.3 millionCAD to close to \$2 millionCAD.

Other jurisdictions that limited the number of licenses sold or priced them low collected significantly less. Utah, which issued few licenses, averaged revenue of \$11,000 to \$13,000 per year, as did the Northwest Territories at only \$2,500CAD to \$3,000CAD per year. New Hampshire sold more licenses, but at \$3 each revenue ranged from \$30,000 to \$44,000 per year.

TRAFFIC also found that even though states, provinces, and territories generally sold nonresident licenses at far higher prices than they charged for resident licenses, the bulk of revenue earned still derived from resident sales. Most jurisdictions sold so many more licenses to residents than to nonresidents that the cumulative amount generated by the resident sales overwhelmed the amount generated by the relatively few higher-priced nonresident sales. There were some exceptions to this pattern. In Ontario the fact that a roughly equal number of resident (\$20-\$24CAD) and nonresident (\$105-\$123CAD) licenses were sold during the survey period meant that the bulk of revenue derived from nonresident sales. Similar patterns were evident in Manitoba, Saskatchewan, and the Yukon Territory in Canada, and Maine and Wyoming in the United States.

Overall, TRAFFIC concluded that sales of black bear hunting and trapping licenses could provide significant resources for conservation of the species in many jurisdictions. However, this will not occur unless states, provinces, and territories in which black bear hunting and/or trapping are legal dedicate their license and tag fees specifically to black bear conservation efforts. Some jurisdictions in which fees for residents or nonresidents remain relatively low might also consider raising them to fund priority research, conservation, or law enforcement programs.

Current Legal Hunting Methods

Wildlife management authorities in each state, province, and territory define permissible methods by which sport hunters can take black bears. Many jurisdictions allow only the use of firearms, while others also permit archery. Rules and regulations regarding the legality of the use

⁶ Monetary figures reported for Canada are provided in Canadian dollars (CAD). During the survey period, the conversion rate to U.S. dollars averaged \$0.83CAD/\$1US in 1992, \$0.78CAD/\$1US in 1993, and \$0.73CAD/\$1US in 1994 and 1995.

of dogs and bait vary widely. Some jurisdictions ban use of dogs and bait outright, thereby limiting bear harvest to still or stalk hunting. Others permit one or both practices, although often only under specified conditions or during special, restricted dog or bait seasons.

In Canada, 8 provinces permit the hunting of black bears over bait—Nova Scotia is unique in that it requires all hunters to hunt only at approved bait sites. Hunting with dogs is legal in 4 provinces. The Northwest Territories and the Yukon Territory prohibit both practices. In the United States, 7 states prohibit hunters from using either bait or dogs while hunting black bears; 9 states allow hunters to hunt black bears over bait; 18 states allow hunting with dogs for at least part of the hunting season; and 7 states permit the use of both bait and dogs (although not simultaneously). Figures 8 and 9 show the legality of dog and bait hunting methods in Canada and the United States.

States, provinces, and territories that allow these practices often issue regulations restricting their use. Common regulations on baiting include the type of bait which can be used, where it can or cannot be placed, what types of containers may be used, how many bait stations a hunter may set up, who may use them, and how they must be cleaned up. Restrictions on hunting with dogs commonly include limiting how many dogs a hunter can use in a “pack,” banning the use of “relay” or “replacement” dogs once a hunt has begun, requiring that a hunter be involved continuously once the dogs are set loose, restricting the number of permits allowing nonresidents to hunt with dogs, setting specific seasons in which use of dogs is allowed, forbidding “canned hunts,” and closing certain areas or management units to hunting with dogs. Many jurisdictions also require hunters to obtain a specific permit to hunt black bears over bait or with dogs. A summary of regulations and restrictions can be found in appendix 8.

In some U.S. states, controversy over legal hunting methods for black bears has led to ballot initiatives to outlaw some practices. Twenty-four states provide for an initiative process in their state constitutions, allowing citizens groups to put measures directly before voters, thereby bypassing their state legislatures. Both animal welfare organizations and groups advocating for hunters turned to this

process during the 1990s in battles over legal hunting methods and seasons for black bears, with mixed success.

For example, in Colorado, citizens and groups opposed to the use of bait and dogs and to the practice of spring bear hunts placed Amendment 10 on the November 1992 ballot. The amendment was designed “...to prohibit the taking of black bears by the use of bait or dogs at any time, and to prohibit the taking of black bears by any means between March 1 and September 1 of any calendar year...” The amendment passed with the support of 70 percent of Colorado voters (Loker and Decker, 1995; Pascelle, in press). In 1994, Oregon voters approved a measure to prohibit the sport hunting of bears and mountain lions with dogs. In 1996, in an especially active year, Massachusetts voters banned the “hounding” of bears; Washington voters approved an initiative to ban bear baiting and the use of dogs to hunt bears, cougars, bobcats, and lynx; and Oregon voters turned back an effort to repeal the state’s ban on bear baiting and use of dogs to hunt black bears and mountain lions. However, in that same year, Michigan and Idaho voters rejected proposals to ban the hunting of black bears with bait or dogs and to close those states’ spring bear seasons (Pascelle, in press).

The use of ballot initiatives to determine wildlife management policy and establish legal hunting methods is controversial. Summarizing the 1992 ballot initiative in Colorado, Loker and Decker described the main issues in the controversy: concerns about bears, including well-being of the population and welfare of individual bears (i.e. orphaned cubs); concerns about the ethics of certain bear hunting practices; the general conflict between animal rights activists and hunting advocates; and the broad public policy issue of whether wildlife management decisions should be made by the general voting public or by wildlife management authorities (with public input), or by some other decision-making process (Loker and Decker, 1995). State wildlife management authorities, which had approved plans for a spring hunting season and favored allowing the use of dogs and bait, were overruled by the Colorado initiative’s passage.

In some cases, proponents or opponents of individual initiatives spend significant sums. In 1996, for instance, hunting groups spent an

CANADA

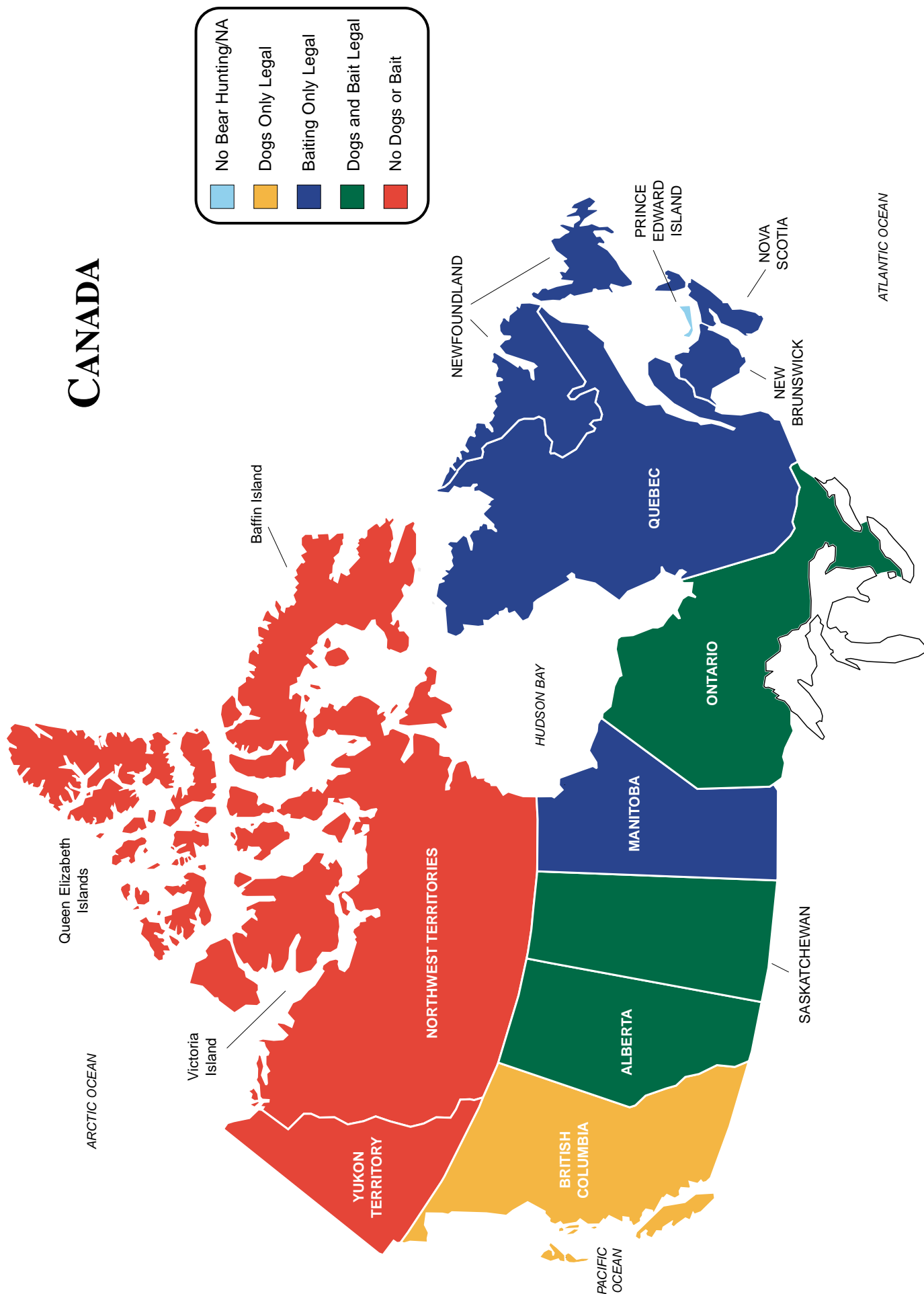


Figure 8: Provisions for Hunting with Dogs or Bait in Canada

UNITED STATES

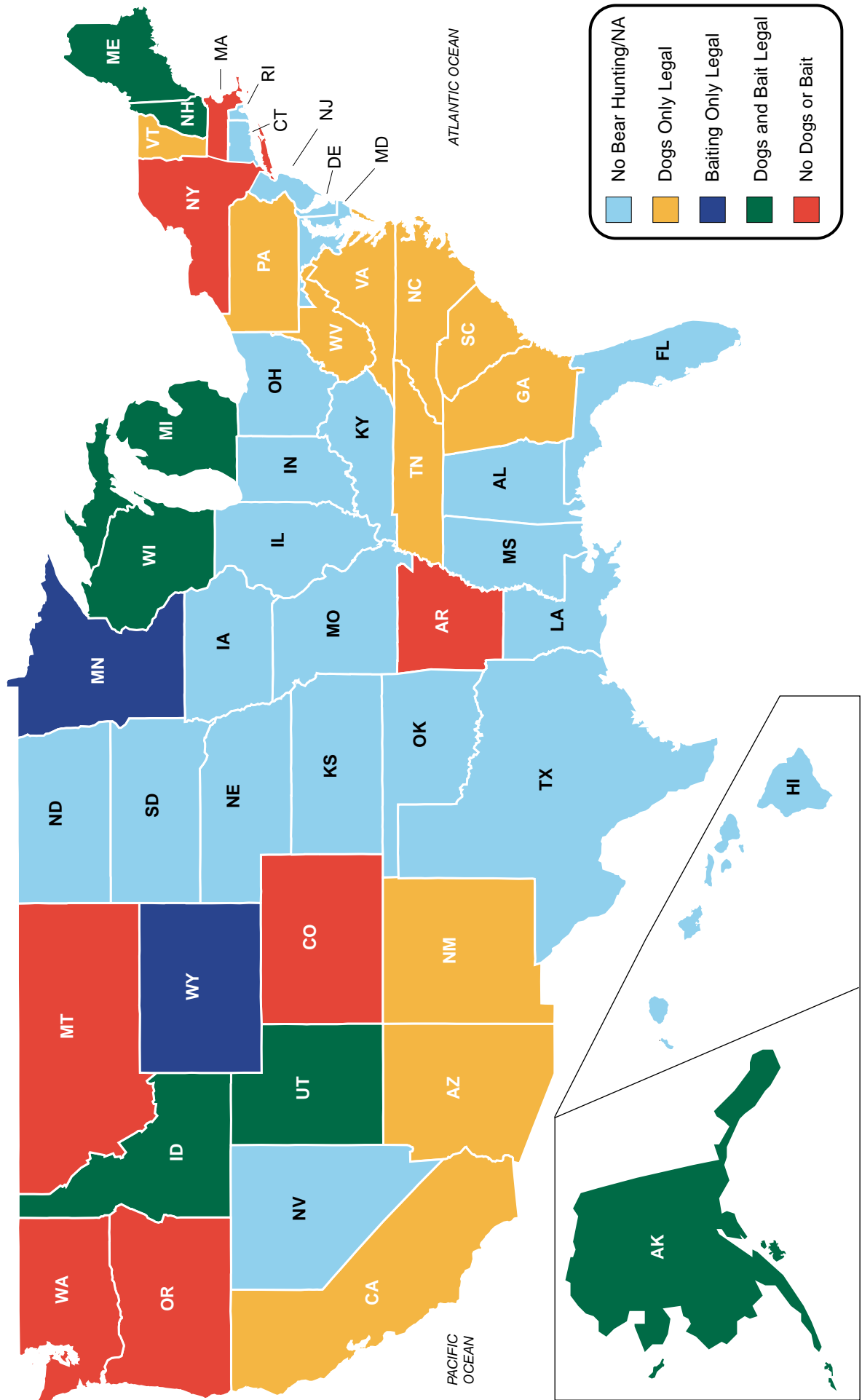


Figure 9: Provisions for Hunting with Dogs or Bait in the United States

estimated \$2.5 million in Michigan and \$750,000 in Idaho in their successful efforts to defeat initiatives to close spring bear seasons and ban the use of bait and dogs. In 1998, Utah voters approved a ballot proposition to require a two-thirds majority of voters for approval of any wildlife protection initiative, and similar measures may be put before voters in other states (Pascelle, in press). How ballot initiatives may affect the future legality of various hunting methods remains uncertain. Table 7 summarizes recent state ballot initiatives affecting black bear hunting methods and seasons.

Hunting and Trapping Seasons And Bag Limits

The majority of U.S. states and Canadian provinces and territories that allow black bear hunting and/or trapping designate open seasons, limiting the period of time during which bears can be taken legally. Only three jurisdictions—Alaska, the Northwest Territories, and the Yukon Territory—allow some residents to sport-hunt black bears year-round. The most common open seasons are in the fall and winter, when all of the states, provinces, and territories that allow hunting and/or trapping of black bears set seasons that vary in length over a period roughly from August to January. Spring hunting/trapping seasons for black bears over a period roughly from April to July are common in Canada but more limited in the United States. The typical bag limit for sport hunters is one to two bears,

although there are a few exceptions. One practice that is less closely regulated is trapping for black bears in Canada, for which there is an unlimited bag limit in a number of provinces. Figures 10 and 11 illustrate broadly which jurisdictions allow fall/winter and spring seasons in Canada and the United States. Appendix 9 shows in more detail the range of dates for sport-hunting and trapping of black bears in Canada and the United States from 1992 to 1995.

Canada. All Canadian provinces and territories except for Nova Scotia allowed the sport hunting of black bears in both fall/winter and spring/summer seasons during the period covered by TRAFFIC's 1996 survey. Nova Scotia allowed hunting only during a fall season, and subsequent to the survey period Ontario also enacted legislation that effectively closed the spring bear season beginning in 1999 (Ontario Ministry of Natural Resources, 2000). Fall seasons generally occurred during set periods in the months from August to November, while spring seasons occurred from April to mid-June or early July. The Northwest Territories and the Yukon Territory provided exceptions to these general seasons.

Trapping seasons for black bears in Canada varied among provinces. Newfoundland and Ontario set their trapping seasons at the same time as their hunting seasons, and the trapping seasons of Nova Scotia and Quebec closely paralleled their hunting seasons. British

Table 7. Black Bear-related Ballot Measures in the United States, 1992-1996

Year	State	Purpose	Designation	Outcome	
				Yes	No
1992	CO	Prohibit sport hunting of bears in spring and with bait and hounds	Amendment 10	70%	30%
1994	OR	Prohibit sport hunting of bears and mountain lions with hounds	Measure 18	52%	48%
1996	ID	Prohibit the hunting of black bears during spring and ban baiting or hounding of black bears	Proposition 2	40%	60%
1996	MA	Ban the use of body-gripping traps, outlaw hounding of bears or bobcats; reform Fisheries and Wildlife Board	Question 1	64%	36%
1996	MI	Ban the hunting of black bears with bait or hounds or during the spring	Proposal D	40%	60%
1996	OR	Repeal the ban on bear baiting and the hound hunting of bears and mountain lions	Measure 34	42%	58%
1996	WA	Ban bear baiting and the use of hounds to hunt bears, cougars, bobcats, and lynx	Initiative 655	63%	37%

Source: Pascelle, in press

Columbia, Manitoba, and Saskatchewan allowed broader opportunities. Trapping seasons in British Columbia were established by management unit, but generally were held from October to May. Manitoba allowed trapping from mid-September until the end of May. Saskatchewan allowed trapping in two seasons, one between January and May and the other between October and December.

Bag limits in Canada differed for hunters and trappers, with bag limits more liberal for trappers in some jurisdictions. While British Columbia, Newfoundland, and Nova Scotia set a bag limit for trappers equal to that for sport hunters, Manitoba, Ontario, Quebec, and Saskatchewan allowed unlimited trapping of black bears during their trapping seasons. All Canadian provinces and territories prohibited the killing of sows with cubs at any time.

Table 8 summarizes hunting and trapping seasons and bag limits for Canada during the years 1992 to 1995.

The United States. All 27 states that permit black bear hunting have fall or fall/winter seasons. These vary in length, with most states

setting specific dates, often year-by-year, for fall seasons of two weeks to roughly two months between August and December. The 1996 TRAFFIC survey found that only six states still allowed spring hunting seasons for black bear, and that these seasons were typically set for predetermined lengths of time over the months of April-June. TRAFFIC further found that fall, fall/winter, and spring sport-hunting seasons often varied by county or game management unit within states.

Three states—Colorado, Utah, and New Mexico—that allowed spring hunts during TRAFFIC's 1992 survey period have since halted the practice. Like the use of dogs or bait, spring bear hunts are controversial, largely because of public and animal welfare concern about the implications of accidentally killing sow bears who may have cubs. This concern is strong even though the killing of a sow with cubs is illegal in all states. The decision to halt spring hunts in Colorado was the result of the same 1992 ballot initiative that ended the use of bait and dogs. The Colorado Wildlife Commission had recommended continuing spring hunts and lengthening the season by two weeks, while

Table 8. Summary of Hunting Seasons, Trapping Seasons, and Bag Limits in Canada for the Years 1992 to 1995

Province/ Territory	Fall Hunting Season	Fall Bag Limit	Spring Hunting Season	Spring Bag Limit	Trapping Season	Trapping Bag Limit
Alberta	Yes	2*	Yes	2*	Yes	N/A
British Columbia	Yes	2	Yes	2	Yes	2
Manitoba	Yes	1	Yes	1	Yes	Unlimited
New Brunswick	Yes	1	Yes	1	Yes	N/A
Newfoundland	Yes	2	Yes	2	Yes	2
Northwest Terr.	Yes	1*	Yes	1*	No	—
Nova Scotia	Yes	1	No	—	Yes	1
Ontario	Yes	1/license*	Yes*	1/license*	Yes	Unlimited
Quebec	Yes	2	Yes	2	Yes	Unlimited
Saskatchewan	Yes	1	Yes	1	Yes	Unlimited
Yukon Territory	Yes*	2/Yr.	Yes*	2/Yr.	No	—

Source: 1996 TRAFFIC survey of provincial and territorial wildlife authorities; Alberta and New Brunswick Hunting Regulations.

* Additional Information:

Alberta: The bag limit is one black bear per license, but more than one license may be purchased by residents, nonresident Canadians for use in some wildlife management units. Non-Canadian hunters may purchase no more than one license. **Northwest Territories:** General Hunting License Holders in the NWT may take any number of black bears in accordance with the number of tags held. **Ontario:** Hunters may take one bear per license, with hunters allowed to purchase more than one license. Ontario allowed a spring bear season for the period covered by the survey, but enacted legislation closing the spring bear season as of 1999. **Yukon Territory:** Some hunting is open all year under certain conditions.

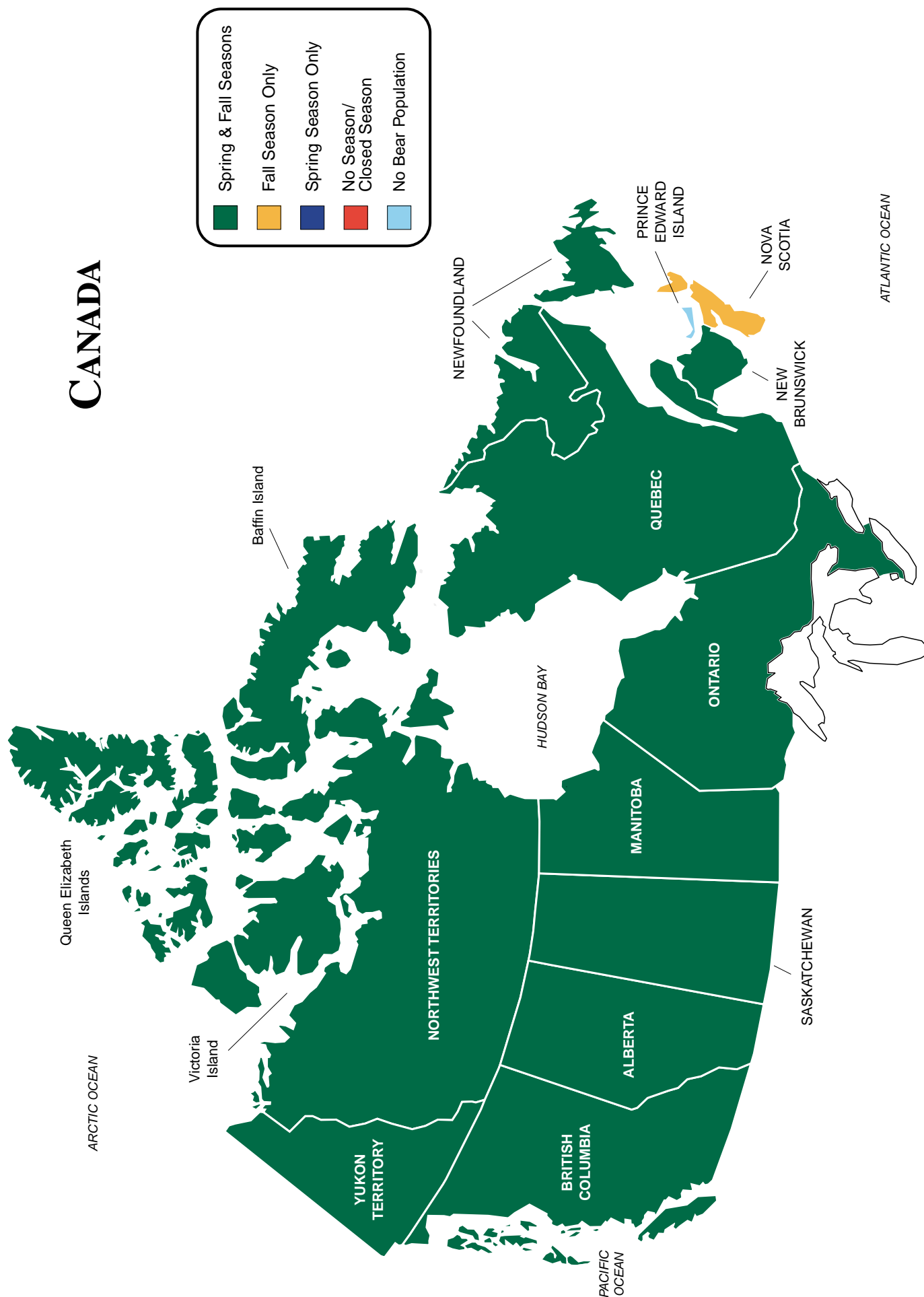


Figure 10: Black Bear Hunting and Trapping Seasons in Canada

The map displays the following distribution of bear season status across the United States:

- Spring & Fall Seasons (Dark Green):** MT, WY, AZ, AK, WA, OR, ID, UT, CO, NM, HI.
- Fall Season Only (Orange):** ME, NH, VT, NY, PA, MI, WI, MN, IA, IL, IN, TN, NC, SC, GA, CA.
- Spring Season Only (Dark Blue):** None.
- No Season/Closed Season (Red):** FL, AL, MS, LA, TX, OK, MO, KY, OH, WV, VA, DE, NJ, CT, RI, MA, NV.
- No Bear Population (Light Blue):** None.

Figure 11: Black Bear Hunting and Trapping Seasons in the United States

reducing the number of licenses issued. That decision was overruled by the passage of Amendment 10 (Loker and Decker, 1995). Similar ballot initiatives failed in Idaho and Michigan in 1996 (Pascelle, in press).

The common bag limit for black bears in the United States during the survey period was one per year, and it remains so at present. Twenty-five states enforce such a limit for fall/winter hunts, as do five for spring hunts. Only two states permit sport hunters to take more than one black bear in a season. Maine permits hunters to take one bear per year either by hunting or

trapping, but not both. Table 9 summarizes bag limits for U.S. states that allow hunting and trapping seasons for the years 1992 to 1995.

Harvest Reporting

Twenty-six of the 27 U.S. states that allow black bear hunting had regulations requiring reporting of black bear kills through a physical check-in of the animal taken, the return of a filled out license tag, and/or a phone call to the regulating agency. Required reporting of black bear kills was less universal in Canada, where only four jurisdictions indicated the mandatory registration

Table 9. Summary of Hunting Seasons, Trapping Seasons, and Bag Limits in the United States for the Years 1992 to 1995

State	Fall Hunting Season	Fall Bag Limit	Spring Hunting Season	Spring Bag Limit	Trapping Season	Trapping Bag Limit
Alaska	Yes	1-3*	Yes	1-3*	No	Not Allowed
Arizona	Yes	1	Yes	1	No	Not Allowed
Arkansas	Yes	1	No	Not Allowed	No	Not Allowed
California	Yes	1	No	Not Allowed	No	Not Allowed
Colorado	Yes	1	No*	Not Allowed	No*	(see below)
Georgia	Yes	1	No	Not Allowed	No	Not Allowed
Idaho	Yes	1	Yes	1	No	Not Allowed
Maine	Yes	1*	No	Not Allowed	Yes	1*
Massachusetts	Yes	1	No	Not Allowed	No	Not Allowed
Michigan	Yes	1	No	Not Allowed	No	Not Allowed
Minnesota	Yes	1	No	Not Allowed	No	Not Allowed
Montana	Yes	1	Yes	1	No	Not Allowed
New Hampshire	Yes	1	No	Not Allowed	No	Not Allowed
New Mexico	Yes	1	No	Not Allowed	No	Not Allowed
New York	Yes	1	No	Not Allowed	No	Not Allowed
North Carolina	Yes	1	No	Not Allowed	No	Not Allowed
Oregon	Yes	1	Yes	1	No	Not Allowed
Pennsylvania	Yes	1	No	Not Allowed	No	Not Allowed
South Carolina	Yes	1	No	Not Allowed	No	Not Allowed
Tennessee	Yes	1	No	Not Allowed	No	Not Allowed
Utah	Yes	1*	No*	Not Allowed	No	Not Allowed
Vermont	Yes	1	No	Not Allowed	No	Not Allowed
Virginia	Yes	1	No	Not Allowed	No	Not Allowed
Washington	Yes	1-2*	Yes	1-2*	No	Not Allowed
West Virginia	Yes	1	No	Not Allowed	No	Not Allowed
Wisconsin	Yes	1	No	Not Allowed	No	Not Allowed
Wyoming	Yes	1	Yes	1	No	Not Allowed

Source: TRAFFIC 1996 survey of state wildlife authorities

* Additional Information:

Alaska: Bag limits vary by management for both residents and nonresidents. In some cases both may take only one bear, in others two bears, and in still others up to three bears. Some management units allow residents to take two bears but nonresidents only one. **Colorado:** Colorado closed its spring hunting season after 1992. Trapping of black bears is legal for damage control when bears are causing damage to crops, livestock, property. **Maine:** In all years bag limit is one bear per year, by either hunting or trapping. **Utah:** Utah has a limited entry system setting the overall number of bears that can be taken. No hunter may take more than one in a season. Utah had a spring season in 1992, but closed it after that year. **Washington:** Only one black bear may be taken per annual hunting season in eastern Washington. Two black bears may be taken per annual hunting season in western Washington.

of harvested bears. These reporting systems remain relatively unchanged at present, and a comparison of various requirements helps gauge how closely states, provinces, and territories monitor the harvest of bears and the disposition of their parts. A detailed examination of reporting requirements in the United States and Canada is spelled out in appendix 10.

The United States. Eighteen U.S. states require the physical registration of all black bear kills at designated check stations within a time period specified by the state. Among the other states that allow black bear hunting, two require physical check-in of carcasses only in some areas, while allowing for registration by phone in others; one requires check-in and sealing of

hides and skulls in some management units, but not all; three allow registration by phone statewide; and one requires written notice of harvest to the regulating agency and the return of a tooth from the harvested bear.

Oregon is the only state that does not have a statewide mandatory harvest verification/reporting system for black bears, although it does require that a carcass be tagged and checked in with the state if possession is transferred. Oregon does, however, provide hunters with a tooth envelope and requests that hunters return a premolar tooth to monitor population structure. In 1997 Oregon also required “check out” of bears with the state in three big game management units as part of research projects to

Table 10. Summary of Black Bear Harvest Reporting Requirements in the United States

State	Physical Check-in All Areas	Physical Check-in Some Areas	Phone/Written Registration Only	Return of Parts	Sealing Requested
Alaska		✓*			✓*
Arizona			✓*	✓	
Arkansas	✓			✓	
California			✓*	✓	
Colorado	✓				
Georgia	✓				
Idaho	✓			✓	
Maine	✓				
Massachusetts	✓				
Michigan	✓				
Minnesota	✓			✓	
Montana		✓		✓	
New Hampshire	✓			✓	
New Mexico	✓			✓	
New York		✓		✓	
North Carolina	✓				
Oregon		✓*		✓*	
Pennsylvania	✓				
South Carolina			✓*		
Tennessee	✓				
Utah	✓				
Vermont	✓				
Virginia	✓			✓	
Washington			✓*	✓	
West Virginia	✓			✓	
Wisconsin	✓				
Wyoming	✓				

Source: TRAFFIC 1996 survey of state wildlife authorities

* Additional Information:

Alaska: Reporting and sealing required only in designated management units. **Arizona:** Phone registration. **California:** Phone registration. **Oregon:** Voluntary program. Physical check-in management units designated for research projects. **South Carolina:** Phone registration instituted in 1997, replacing mandatory physical check-in. **Washington:** Written notice to regulating agency.

determine age and sex characteristics, pregnancy and birth rates, and habitat use (Oregon Big Game Regulations, 1997).

To supplement mandatory registration of harvest or notice to the regulating agency, many U.S. states also use other reporting requirements to monitor the take of black bears. At least 12 states require submission of certain parts (tooth, skull, hide) to the state regulating agency for age/sex determination. In some cases this presentation must be done in person, in others a tooth or skull can be sent by the hunter within a specified time period. Several states further require official “sealing” of bear carcasses, some with the requirement that the tags remain attached to the carcass or specified parts until processing for consumption or mounting. Table 10 shows in general terms the reporting requirements in the United States.

Canada. Canadian jurisdictions vary widely in their harvest reporting requirements, although in general reporting requirements are not as stringent as they are in the United States (see appendix 10). For example, in the Northwest Territories, registration of kills by nonresident and nonresident alien hunters is a by-product of the procurement of wildlife export permits, which are required to move any wildlife, in whole or in part, from the jurisdiction. Resident hunters can volunteer information in an annual

hunter harvest survey (typically 30 to 50 percent reply) and general hunting license holders are not required to report their harvest. Table 11 shows in general terms the reporting requirements in Canada.

The various reporting requirements described here suggest that there is a system in place that could prove very useful to investigation of the disposition of bear parts from the legal black bear hunt, especially in the United States. Unfortunately, TRAFFIC’s survey indicated that little attempt is made by most states, provinces, or territories to determine the destination or fate of parts such as gallbladders or paws once a carcass has been registered. Most jurisdictions use their reporting requirements simply to identify the age and sex of the animals for research and management purposes or to determine when state hunting quotas have been met.

Harvest Results

In its 1992 survey, TRAFFIC determined that roughly 40,000 black bears were taken legally by hunters and trappers in the United States and Canada each year between 1989 and 1991. The U.S. harvest totaled 20,959 in 1989, 19,574 in 1990, and 19,559 in 1991, while Canadian authorities reported a harvest of 18,845 black bears in 1989, 20,997 in 1990, and 16,235 in 1991 in the 10 jurisdictions that responded⁷

Table 11. Summary of Black Bear Harvest Reporting Requirements in Canada

Province/ Territory	Physical Check-in All Areas	Physical Check-in Some Areas	Phone/Written Registration Only	Return of Parts	Sealing Requested
Alberta			✓*		
British Columbia*					
Manitoba			✓*		
New Brunswick	✓			✓	
Newfoundland			✓	✓	
Northwest Terr.		✓*			
Nova Scotia			✓*	✓	
Ontario*					
Quebec	✓			✓*	
Saskatchewan	✓		✓*	✓	
Yukon Territory			✓	✓	

Source: TRAFFIC 1996 survey of provincial/territorial wildlife authorities; Alberta and New Brunswick hunting regulations

* Additional Information:

Alberta: Professional guides/outfitters and Hunter Hosts required to report all harvest by nonresidents. Residents may participate in voluntary phone surveys. **British Columbia:** Reporting not required. **Manitoba:** Nonresidents only; no resident reporting required. **Northwest Territories:** Nonresidents register kills to procure export permits; resident reporting voluntary. **Nova Scotia:** Hunters must present report card to wildlife authorities whether successful or not. **Ontario:** Reporting not required. **Quebec:** Return of tooth voluntary. **Saskatchewan:** Voluntary questionnaires to resident hunters; mandatory reporting by outfitters and fur dealers.

⁷ New Brunswick did not participate in the 1992 survey.

(McCracken et al., 1995). Based on the results of TRAFFIC's 1996 survey, TRAFFIC estimates that the rough annual harvest increased during the years 1992-1995, consistent with the overall rise in black bear populations.

The United States. Twenty-five U.S. states responded to TRAFFIC's 1996 request for harvest information, and TRAFFIC collected data from other sources regarding harvests in states that did not respond. These figures showed that the U.S. harvest totaled 22,150 black bears in 1992; 22,646 in 1993; 21,861 in 1994; and 24,666 in 1995.

Overall, the roughly 22,000-25,000 bears taken legally through hunting and trapping represents an annual harvest level well under 10 percent of even the minimum estimated U.S. black bear population. Given the general trend of stable or rising black bear populations, and the fact that this trend is apparent both in those states that permit hunting and those that do not, TRAFFIC did not see evidence that current legal harvest levels constitute a threat to the species. Table 12 shows the recorded legal harvest of black bears for the years 1992-1995.

Canada. For the 1996 survey, TRAFFIC received harvest information for all 11 Canadian

Table 12. Number of Reported Black Bear Hunting and Trapping Kills in the United States, 1992-1995

State	1992	1993	1994	1995
Alaska ¹	1,668 ('92-'93)	1,494 ('93-'94)	1,787 ('94-'95)	—
Arizona	121	117	236	197
Arkansas	44	115	126	124
California	1,266	1,426	1,607	1,484
Colorado	483	278	360	533
Florida ²	22	64	0	0
Georgia	101	215	143	200
Idaho	1,370	1,275	1,319	1,223
Maine	2,042	2,055	2,243	2,645
Massachusetts	68	59	62	134
Michigan	1,225	1,292	1,260	1,527
Minnesota	3,175	3,003	2,329	4,956
Montana	1,245	1,043	1,024	1,131
New Hampshire	263	306	260	480
New Mexico ³	228	348	623	526
New York	827	695	722	693
North Carolina	1,074	824	785	1,079
Oregon	805	1,179	1,250	624
Pennsylvania	1,589	1,790	1,365	2,190
South Carolina	5	9	2	8
Tennessee	78	103	120	81
Utah	35	35	42	53
Vermont	337	363	336	380
Virginia	488	789	517	602
Washington	1,442	1,507	1,073	1,218
West Virginia	455	767	732	690
Wisconsin	1,474	1,258	1,329	1,737
Wyoming	220	237	209	151
TOTAL	22,150	22,646	21,861	24,666

Sources: TRAFFIC survey of state wildlife authorities; Costello et al., 2001; Glenn Erickson, Montana Department of Fish, Wildlife and Parks, in litt. to TRAFFIC North America, January 2, 2002; WDFW, 1998.

¹ Alaska permits year-round hunting for black bears by residents in many of that state's management units, which is why the state reports the number of bears taken across a two-year interim.

² Florida closed its bear season in 1994.

³ Harvest numbers for 1994 represented an exceptional success level related to hunter effort (13%), and the largest statewide harvest between 1985 and 1999 (Costello et al., 2001).

provinces and territories that allow the take of black bears. They report harvests of at least 20,920 black bears in 1992; 22,382 in 1993; 22,970 in 1994; and 26,218 in 1995. With the exception of 1995, for which there is a spike in the number of bears legally harvested in several provinces, these figures roughly match the levels reported in 1992, with the addition of harvest figures for New Brunswick accounting for one reason that the overall numbers are higher. Because in some areas such as Ontario reporting of bears taken by trappers is voluntary, it is likely that these figures are conservative. Table 13 shows Canadian harvest figures for the years 1992-1995.

Other Mortality

Kills of nuisance bears, management kills, bear deaths through vehicle accidents, known poaching kills, and estimated poaching kills or other unreported human-related incidents accounted for the loss of approximately 8,500 black bears between 1992 and 1995 in the United States and Canada, an approximate annual average of more than 2,000 bears. This represents a very rough estimate taken from figures reported to TRAFFIC in 1996, and should be taken with several caveats. First, information from nine states and provinces was not available to TRAFFIC. Some jurisdictions do

not keep track of various categories of information, and others declined to provide estimates but only counted actual dead bears. The total given is therefore likely to be conservative, but does provide a snapshot of what is known or estimated by those jurisdictions that responded to the question.

Table 14 summarizes the numbers from all responding jurisdictions for the survey period. Appendix 11 breaks down the numbers in detail by year.

As the numbers in table 14 and in appendix 11 indicate, the greatest sources of known mortality for black bears in North America besides hunting are nuisance or management kills and bear/vehicle accidents. The numbers of such kills naturally tend to be much higher in states with large black bear populations.

Perhaps the hardest figures to pin down are the estimates for unknown poaching kills and other unreported kills. The figures for estimated unknown poaching kills in table 14 are heavily skewed by the fact that California reported an estimate of some 400 per year, whereas other states reported none or responded that they do not try to guess. Fear of compromising ongoing undercover wildlife investigations could be another reason that some jurisdictions declined to give figures. Overall, while it is clear that

Table 13. Number of Reported Black Bear Hunting and Trapping Kills in Canada, 1992-1995

State	1992	1993	1994	1995
Alberta	Not Available	2,154	2,030	2,949
British Columbia	4,200 ^{1,4}	3,819 ^{1,4}	3,450 ^{1,4}	3,835 ^{1,4}
Manitoba	1,460 ²	1,557 ²	1,725 ²	1,967 ²
New Brunswick	1,053	1,207	1,360	1,491
Newfoundland	254 ²	274 ²	229 ²	220 ²
Nova Scotia	119 ²	171 ²	342 ²	327 ²
Northwest Territories	9 ('92-'93) ³	17 ('93-'94) ³	25 ('94-'95) ³	—
Ontario	6,917 ⁴	6,807 ⁴	7,261 ⁴	8,168 ⁴
Quebec	5,227 ²	4,423 ²	4,917 ²	5,515 ²
Saskatchewan	1,586 ^{2,4}	1,885 ^{2,4}	1,543 ^{2,4}	1,663 ^{2,4}
Yukon Territory	95	68	88	83
TOTAL	20,920+	22,382+	22,970+	26,218+

Source: TRAFFIC 1996 survey of provincial and territorial wildlife authorities.

¹ Hunting only. British Columbia did not report trapping kills.

² Hunting and trapping combined.

³ Resident kills only, likely to underestimate total black bears harvested.

⁴ Ontario and British Columbia had only voluntary reporting.

⁵ Saskatchewan trapping kills based on number of pelts marketed.

some 2,000 or more bears are probably killed each year outside of sport hunting or trapping, the exact figure is impossible to determine. A

more thorough discussion of poaching mortality can be found in Section V of this report.

Table 14. Non-hunting or Trapping Kills of Black Bears in the United States and Canada, 1992-1995

Year	# of Reported Nuisance or Management Kills	# of Known Kills Except by Poaching (e.g. vehicles)	# of Known Poaching Kills	Estimated # of Unknown Poaching Kills	Estimated # of Unreported Kills Except Poaching	Total by Year
1992	703	683	125	432	336	2,279
1993	500	543	91	425	265	1,824
1994	559	576	100	425	235	1,895
1995	804	690	150	436	401	2,480
Total by type:	2,565	2,492	466	1,718	1,237	
TOTAL:						8,478

Source: TRAFFIC 1996 survey of state, provincial and territorial wildlife authorities.

IV. THE AMERICAN BLACK BEAR IN TRADE

The Use of Bears for Food, Medicine, and Commerce

The use of bears as a source for food and medicine dates back many centuries. Medicinal use of bear parts may have begun in China as early as 3,500 B.C. Today, a number of Asian cultures use bear gallbladder, meat, brain, bone, paw, and spinal cord to treat a variety of ailments and conditions. While traditional Chinese medicine (TCM) is the best known of these practices, bear parts are also used for medicine and food in countries such as South Korea in traditional Korean medicine (TKM), Japan, Vietnam, Cambodia, and others. In the United States and Canada, along with the use of bear gallbladder for traditional medicine, primarily in Asian communities, other parts are used as trophies, souvenirs, and jewelry, as well as in the ceremonies of Native Americans in the United States and Canada.

Bear bile

The most common medicinal application of bear parts in TCM and TKM involves the use of bile from bear gallbladders. Use of bear bile as a medicine was first prescribed in the *Tang Materia Medica*, published in 659 A.D. as the first official pharmacopoeia in the world (Mills et al., 1995; Huang, 1995). Bear bile is considered a “cold” medicine, effective in clearing “heat” and detoxifying various forms of “fire,” which can be manifested externally as burns or internally as liver disease. “Cold” medications fight fever, reduce inflammation and swelling, reduce pain, and detoxify (Dong Liang Lin et al., 1997), and over the years bear bile has been used to treat a variety of ailments. A review of recent literature showed the use of bear bile to treat inflammation

and bacterial infection (including acute cerebrovascular disease), soothe burns, reduce swelling from fractures and hemorrhoids, reduce pain and redness of the eyes (conjunctivitis), treat asthma and sinusitis, alleviate high fever and convulsions, treat spasms, and relieve pain in general (Kim, 1997; Mills et al., 1995; Lee et al., 1998). Bear bile is also used to treat serious liver ailments such as hepatic cancer (Kim, 1997), and as a tonic to prevent liver damage caused by overconsumption of alcohol (Mills et al., 1995).

The active ingredient in bear bile is ursodeoxycholic acid (UDCA). UDCA has better bioactivity than other bile acids, and is found only in bears. Because UDCA is the unique component in bear bile, it is used to distinguish bear bile from the common bile acids of other animals (Huang, 1995; Baik, 2001). Before the 1970s, the clinical efficacy of UDCA was based on the experience of TCM and TKM practitioners, who observed improvements in liver function, cholestasis, dyspepsia, and other conditions. In the 1970s and 1980s, researchers



Photo by C. Serivheen

Bear gallbladders have been used in traditional Chinese medicine for at least 1,300 years. The active ingredient in bear bile is now used in synthetic form in Western medicine.

studied the efficacy and etiology of using UDCA to treat gallstones and hepatitis. More recently, following development of the etiology of liver-based diseases, bile function, and immunology, UDCA has been reported effective for the treatment of autoimmune hepatitis, viral hepatitis, cholestatic liver diseases and transplantation, and prevention of colon cancer. Research continues on the efficacy of UDCA related to immunomodulation, hormonemodulation, and prophylactic cancer (Baik, 2001).

It should be noted that synthetic UDCA (which is not manufactured from bear gallbladders) is prescribed in many countries, under a variety of brand names, for treatment of liver-related diseases such as gallstones and chronic hepatitis. In the United States, Actigall and URSO were approved by the Food and Drug Administration (FDA) to dissolve gallstones in 1985 and for gallstone prophylaxis in 1996. In other countries, major UDCA products include Ursofalk in Germany, Ursovan in France, Ursofalk in the United Kingdom, Ursodio in Italy, Urso in Japan, and Ursa in Korea. The pharmacological mechanism of UDCA to treat liver disease is understood to include three functions: protecting normal cells and recovering damaged cells through protection of hepatocytes; cleansing the liver by excreting toxins and waste products accumulated in the bile duct; and activating the metabolism of the liver by increasing hepatic blood flow (Baik, 2001).

There is significant concern and debate regarding the necessity of continuing to use bear gallbladders as a source of UDCA. Some have pointed out that there are currently at least 54 herbal alternatives to bear bile, as well as ongoing research into synthetic alternatives (Baik, in press; Ge Gabriel, 2001; Pong et al., 2001). And, while bear bile may be effective in treating certain diseases, it is also being used in nonessential products such as tonics, shampoo, throat lozenges, teas, and wines, raising worries that bears may be killed for their gallbladders for purposes that have little if anything to do with medicine (Robinson, 2001; Ge Gabriel, 2001). Even some practitioners voice concerns that the "reckless" use of bear bile threatens to undermine the legitimacy of its use in traditional Asian medicine (Lee, 2001). Combating the illegitimate use of bear gallbladders and bear bile remains a challenge for conservationists, wildlife

managers, and practitioners of traditional Asian medicine alike.

Other bear parts

Along with bile from gallbladders, numerous other bear parts have uses in traditional medicine. Bear bone is used in arthritis treatments. Bear fat is cooked until it becomes oil, and the oil is drained and allowed to congeal for topical application to treat chronic skin ulcers. It is also used in an oral application with boiling water for muscle spasm and weight loss. Bear brain medullary substance is cooked and eaten for hearing loss and tinnitus. Bear paws are cooked and eaten for physical exhaustion, arthritis, and injury (Huang, 1995). In Cambodia, paws and parts of the bear's body including the heart, liver, and intestines can make a soup used to improve sexual energy. Soup from bear lungs is used to treat people with lung disease or sore throats, and bear blood mixed with wine is used for strength and to treat high body temperatures (Suon, 2001). In other cultures, bear tendons are cooked and eaten, or infused in liquor, for tendonitis and muscle weakness (Huang, 1995).

Beyond medicinal applications, various parts from black bears have value within North America and beyond as food, souvenirs, trophies, and as elements of Native American rituals. While there is not really a market for bear meat, some hunters and others consume the animals they harvest. Paws, meat, and fat are also used for food, with paws considered a special delicacy. Carcasses and hides can be sold to taxidermists to be made into mounted trophies, wall hangings, or rugs. In Canada, hides are regularly sold in fur markets and auctions. Skulls, teeth, and claws are sold in the United States, Canada, and abroad as tourist souvenirs in curio and artifact shops, and are also used in jewelry-making. In some places paws are also for sale as exotic souvenirs. There is a market for live bears as well, with some jurisdictions reporting to TRAFFIC the sale of live bears to Asian countries such as China and Korea. Others reported the sale of live bears to other jurisdictions in North America for use in zoos or wildlife exhibits.

In short, the American black bear is in demand for a variety of uses among disparate consumer groups. Demand for bears and bear parts is present both domestically and abroad, and wildlife managers must carefully monitor the trade.

Legality of Trade in Black Bears And Their Parts

International trade, federal laws, and CITES

While the focus of this report is on the findings of TRAFFIC's survey of state, provincial, and territorial wildlife managers, it is important to briefly review the federal laws governing the international trade of American black bears and their parts in the United States and Canada. The primary international mechanism controlling the trade is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Species subject to regulation are included in one of three appendices to the Convention. Appendix I includes species and subspecies threatened with extinction that are, or may be, affected by trade. Appendix II includes species, subspecies, or populations which may become threatened if their trade is not controlled and monitored. Appendix III contains species subject to regulation within individual countries and for which the cooperation of other CITES Parties is sought to control trade.

Canada listed its black bear population on CITES Appendix III in 1991. Then, at the Eighth Conference of the Parties in Kyoto, Japan, in 1992, the American black bear was listed on CITES Appendix II. This listing came about not because of the conservation needs or status of the American black bear itself, but rather because of its similarity in appearance to endangered bear species listed in Appendix I, particularly those found in Asia (Gnam, 1997). The gallbladders and other parts of endangered bears were reported to be traded under the guise of being from the American black bear, triggering its listing under the provisions of Article II, paragraph 2(b) of the Convention, known as the "look-alike" provision, as a means of controlling trade in other bear species (McCracken et al., 1995). As a result, all species of bears (Ursidae) are currently listed in either CITES Appendix I or Appendix II.

Under this listing, any commercial exports of gallbladders, paws, or other parts require an Appendix II permit from federal CITES management authorities. In the United States, CITES is implemented under the Endangered Species Act, and CITES permits are under the authority of the U.S. Fish and Wildlife Service's Division of Management Authority (formerly Office of Management Authority). Violations can be punished under the Lacey Act, which

prohibits the import, export, transport, sale, purchase, receipt, or acquisition of wildlife which has been taken, possessed, transported, or sold in violation of a state, federal, foreign, or tribal law or regulation. It also prohibits mismarking of wildlife shipments (Anderson, 1997). Individual hunters can take legally acquired sport-hunted bear trophies out of the country with a CITES Appendix II personal effects exemption (Gnam, 1997).

In Canada, permission for commercial export of CITES Appendix II species must be provided by either the provincial or territorial wildlife agency responsible for management of the species or the CITES Office at the Canadian Fish and Wildlife Service. Canada implements CITES through the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA). WAPPRIITA makes it an offense to import an animal or plant, part or derivative, that is listed on CITES Appendix I or II without the necessary permits, or when it has been taken, possessed, distributed, or transported in violation of any law in a foreign state. It also makes it an offense to export an animal or plant, part or derivative, that is listed in a CITES Appendix or controlled by a provincial or territorial law without necessary permits, or to transport from one province or territory to another an animal, plant, part, or derivative when it was taken, possessed, distributed, or transported without required provincial or territorial permits (Canadian Wildlife Service, 2001).

Together, these federal laws form the basis for compliance with the provisions of CITES in the United States and Canada. They are not the only laws that regulate trade of wild animals or plants, or that can punish violations, but for the purposes of this report they are the central ones at the federal level.

State, provincial, and territorial laws

While federal CITES authorities govern international trade and regulate certain interstate, interprovincial, and interterritorial commerce in wild animals and plants, the legality of trade within the United States and Canada can also fall under the authority of state, provincial, and territorial laws. TRAFFIC surveys from 1989, 1992, and 1996 indicate a consistent trend towards stricter laws governing the trade of black bear parts at the state, provincial, and territorial levels, particularly regarding the trade in gallbladders. Since 1992 the number of U.S.

states that prohibit the sale of black bear gallbladders has increased from 30 to 35, and the number of Canadian jurisdictions banning the gallbladder trade went from 7 to 9. As more attention is focused on the bear trade issue, the trend towards adopting more specific laws and regulations could well continue.

The United States. In 1999, TRAFFIC completed a study of laws and regulations governing the sale of black bear parts in the United States. The report, *A Review of Black Bear Trade Laws: U.S. State Statutes and Regulations Regarding the American Black Bear (Ursus Americanus)* (Williamson, 1999), found that 46 of the 50 states (92%) have laws which govern the trade in black bear parts. Nineteen states (38%) prohibit all sale within their borders. Laws among the other states vary on a part-by-part basis. Cumulatively, 35 states (70%) prohibit the sale of black bear gallbladders, 32 states (64%) prohibit the sale of bear paws, and 27 states (54%) prohibit the

sale of claws and teeth. The most permissive trade is in heads and hides, which is prohibited in only 19 states. Table 15 provides a snapshot of the current legality of sale of various black bear parts.

As seen in table 15, the number of states that permit sale of parts from their own (i.e., indigenous) bear populations is narrower than the number that permit sale of parts from bears taken legally in other jurisdictions. Perhaps the greatest gap in U.S. state laws on bear trade is the fact that four states do not provide the species with any legal protection, and thus bear trade falls into a legal limbo and is subject to inconsistent—or nonexistent—administrative controls. While none of these states have wild black bears, the absence of legal protection presents a loophole in terms of regulating trade in bear parts because nothing prevents them from becoming markets or conduits for parts laundered from other jurisdictions.

Table 15. Sale of Black Bear Parts in the United States

Part	Sale of Parts Taken In State Is Legal	Sale of Parts Taken In State Is Illegal	Sale of Parts Taken Legally In Other Jurisdiction Is Legal	No Law
Gallbladders	5 States: ID, ME, NV, VT, WY	35 States: AL, AK, AZ, CA, CO, DE, FL, GA, KY, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NC, OH, OR, PA, RI, SC, SD, TN, TX, UT, VA, WA, WV, WI	6 States: AR, CT, KS, LA, ND, OK	4 States: HI, IL, IA, IN
Paws	7 States: AZ, ID, MI, NH, NY, VT, WY	32 States: AL, AK, CA, CO, FL, GA, KY, MD, MA, ME, MN, MS, MO, MT, NE, NV, NJ, NM, NC, OH, OR, PA, RI, SC, SD, TN, TX, UT, VA, WA, WV, WI	7 States: AR, CT, DE, KS, LA, ND, OK	4 States: HI, IL, IA, IN
Claws and Teeth	8 States: AZ, CO, ID, ME, MN, NM, ¹ NY, WY	27 States: AL, AK, CA, FL, GA, KY, MD, MA, MI, MS, MO, MT, NE, NH, NJ, NC, OR, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI	11 States: AR, CT, DE, KS, LA, ND, NV, OH, ² OK, PA, RI	4 States: HI, IL, IA, IN
Heads and Hides	16 States: AZ, CO, ID, ME, MI, MN, MT, NH, NM, NY, UT, VT, WA, WV, WI, ³ WY	19 States: AL, AK, ⁴ CA, FL, GA, KY, MD, MA, MS, MO, NE, NC, NJ, OR, SC, SD, TN, TX, VA	11 States: AR, CT, DE, KS, LA, ND, NV, OH, ² OK, PA, RI	4 States: HI, IL, IA, IN

Source: Williamson, 1999

¹ Claws only.

² Claws, teeth, hides and hair legally acquired allowed.

³ Hide may be sold provided claws, head, and teeth are attached.

⁴ Alaska allows the use of black bear fur for use in making handicrafts (primarily by native people in rural areas).

Canada. A detailed analysis has not yet been completed for Canada's bear trade laws, but basic information is available from the 1992 and 1996 TRAFFIC surveys. To summarize, 11 of 12 Canadian provinces and territories (92%) have laws covering trade in bear parts.¹ The sole exception is Prince Edward Island, which has no black bears or laws on the subject. Including Prince Edward Island, three jurisdictions (25%) allow the sale of gallbladders, five (42%) allow the sale of bear paws, seven (58%) allow the sale of teeth and claws, and all allow the sale of hides, with some restrictions. As table 16 shows, various provinces and territories have individual requirements for making the sale of various black bear parts legal.

TRAFFIC has updated tables 15 and 16 several times since TRAFFIC's tracking of laws and regulations governing trade in black bear parts began. The updates reflect the fact that state, provincial, and territorial laws change on a frequent basis. The reasons for these changes vary. For example, Virginia legislation in 1994 made it illegal "to offer for sale, sell, offer to purchase, or purchase, at any time or in any manner, any wild bird or wild mammal or the carcass or any part thereof, except as specifically

permitted by law" (Virginia Game, Inland Fish and Boat Laws, Section 29.1-521 (11)). New Jersey's 1998 law reads very similarly. Both laws replaced more permissive legislation and are examples of a general move among states to regulate wildlife trade more closely.

West Virginia's 1999 decision to specifically prohibit the trade in black bear gallbladders and paws related in part to concern over the state's possible role in illegal parts trade. Prior to the most recent change in the law it was already illegal in West Virginia to sell black bear claws and teeth. The new prohibition narrowed legal sale of black bear parts in the state to only the head and hide of a legally taken black bear.

Before 1995 the black bear had no legal designation as a species in Nebraska, largely because there are no wild bears in the state except for an occasional migrant. Because of that omission, bears that might wander into Nebraska from another state received no protection from take or sale of parts. In 1995 the Nebraska legislature classified the black bear as a game species, further specifying that there would be no hunting season. That decision removed the species from legal limbo and gave it protection from take and trade under the state's game laws,

Table 16. Sale of Black Bear Parts in Canada

Province/ Territory	Gallbladder	Paw	Teeth	Claws	Head/Hide
Alberta	X	X	X	X ¹	L
British Columbia	X	X ²	L	L	L
Manitoba	X	X ²	L	L	L
New Brunswick	X	X	X	X	L
Newfoundland	X	X	X	X	L ³
Nova Scotia	L ⁴	L ⁴	L ⁴	L ⁴	L
Northwest Territories	L	L	L	L	L
Ontario	X	X ⁵	X ⁵	X ⁵	L
PEI	No law	No law	No law	No law	No law
Quebec	X	L	L	L	L
Saskatchewan	X	L	L	L	L
Yukon Territory	X	X	X	X	L

Source: TRAFFIC 1996 survey of provincial and territorial wildlife authorities

Key: L = Sale legal; X = Sale illegal

¹ Claws may be sold only if attached to hide.

² Paws may be sold only if attached to hide.

³ Sale of hide requires permit.

⁴ Parts except for hide may be sold only with full documentation of legal take.

⁵ Skull, paws, claws, and teeth must be attached to skinned hide to be sold legally.

¹ Nunavut is not included here, as it was not officially established when the surveys were sent.

which preclude any sale of game animals or their parts not specifically allowed by the state. Delaware's 1999 regulations closed a similar loophole by classifying the black bear as "non-game wildlife" and prohibiting the trade in gallbladders or other viscera from any species of bear, or any part of other species listed as prohibited by CITES.

Simply understanding where sale of various black bear parts is legal or illegal, however, does not provide a full picture of the "patchwork" of black bear laws presently in force. To understand the how's and why's of laws and regulations that determine whether sale of various bear parts is legal or illegal requires a closer look at factors such as legal classification, general policies toward wildlife trade, and the specificity of laws and regulations.

This is particularly true of the United States. Whereas it is apparent that in Canada every jurisdiction with a black bear population has laws and regulations related specifically to trade in their parts, TRAFFIC found that only a minority of U.S. states have laws specific to black bear trade. In most, the legality of trade in black bear parts depends on general wildlife statutes. After examining the 50 states' statutes, TRAFFIC found that the current patchwork of laws can be loosely organized into seven basic categories.

The first subset of states has laws that specifically ban trade in all bear parts, without exception. A second group of states prohibits the sale of game and/or wildlife in general, unless a specific exemption is made for a particular species and/or part (this is where the black bear's legal classification comes most into play). With a few exceptions, most states in this category do not exempt the black bear or its parts from the overall prohibition on sale or trade. In the third group are states that specify which black bear parts (gallbladders, paws, etc.) cannot be legally sold in the state. Fourth are states where sale in bear parts is generally prohibited because the black bear is listed under state (or federal) law as endangered, threatened, or protected, and is thus protected by special statutes. The fifth group comprises states that have bear populations which are not considered threatened or endangered, yet do not allow sale of bear parts from bears taken within their state. They do, however, allow sale of parts from bears taken legally in other states and properly documented and reported. Sixth, several states have statutes that generally allow for sale of

parts from black bears legally taken within or outside of the state, unless sale of a specific part is prohibited. Seventh and finally are the four U.S. states which, along with Canada's Prince Edward Island, have no laws regulating trade in black bear parts.

Three important caveats should be noted here. First, terminology and inclusiveness under state laws covering "sale" or "purchase" of wildlife varies. For example, Alabama's statute on "Sale, Purchase, etc. of game birds or game animals" covers "Any person, firm or corporation who sells, offers or exposes for sale, buys, purchases, barter or exchanges anything of value for any game bird or game animal or any part thereof..." (Alabama Game, Fish and Wildlife Laws Sec. 9-11-237). Arizona's law states that it is unlawful for a person to "take, possess, transport, buy, sell, offer or expose for sale wildlife, except as expressly permitted..." (Arizona Revised Statutes 17-309.A.2). Other states expressly allow individuals to "possess" certain black bear parts legally purchased outside of state boundaries, but forbid resale or purchase inside the state's jurisdiction. For the purposes of this report, TRAFFIC's categories of "sale legal" or "sale prohibited" apply to whether trade is allowed inside the state, and do not factor in possession.

Second, while a comparative analysis of statutes showed that applying some overall organizing principles could group U.S. state laws into general categories, such as whether sale of black bear parts is specifically allowed or expressly prohibited, or whether the legality of black bear trade is covered under game or protected species laws, certain state statutes contain unique quirks and loopholes. For example, some states that classify indigenous black bear populations as endangered, threatened, or protected and allow no trade in their parts permit sale within the state of bear parts legally acquired elsewhere. Some states that permit trade make exceptions banning specific parts, while others that generally prohibit trade have exceptions allowing for the sale of certain parts.

Third, the kinds of anomalies found in many statutes suggest to TRAFFIC that many of these laws were written primarily to reflect local interests and constituencies rather than with a broader view toward national or international bear trade. Many of the laws were in place before the 1992 CITES listing of the American black bear, and may not reflect the more recent

intense interest in the bear trade issue. It is therefore difficult to categorize them consistently in terms of their impact on broader trade issues.

With those caveats in mind, the following sections elucidate more specifically how state, provincial, and territorial laws treat the sale of individual black bear parts, and how such laws fit into the seven general categories listed previously. For a more complete summary of U.S. state laws, see Williamson 1999.

Gallbladders. Canadian provincial and territorial laws and regulations regarding sale of black bear gallbladders are explicit. TRAFFIC found that all jurisdictions which ban the trade mention the prohibition specifically. A review of Canadian provincial and territorial hunting regulations also revealed that in Canada it is standard practice to include a section on CITES and export requirements in the regulations.

Laws and regulations in the United States are often less explicit on the subject. Of the 35 U.S. states that prohibit sale of gallbladders, seven—Alaska, California, Florida, Georgia, North Carolina, South Carolina, and Tennessee—do so under statutes that prohibit sale of all black bear parts inside the state, without exception. Seven others—Colorado, Michigan, Minnesota, New Hampshire, New Mexico, Utah, and Washington—ban sale of bear gallbladders specifically, while allowing trade in certain other parts. Fourteen states—Alabama, Arizona, Delaware, Maryland, Massachusetts, Missouri, Montana, Nebraska, Nevada, New Jersey, Oregon, Pennsylvania, Virginia, and Wisconsin—ban sale of gallbladders under general statutes that prohibit sale of game animals or parts unless specifically allowed under the law, and no exceptions are made for bear gallbladders. Six states—Kentucky, Mississippi, Ohio, Rhode Island, South Dakota, and Texas—prohibit trade in gallbladders under statutes banning the sale of parts from endangered, threatened, or protected wildlife.

Among the other 11 U.S. states with laws covering bear trade, Idaho, Maine, New York, Vermont, and Wyoming allow the legal sale of bear gallbladders taken inside the state. Arkansas, Connecticut, Kansas, Louisiana, North Dakota, and Oklahoma ban the sale of gallbladders from bears taken within their state, but allow trade in gallbladders from bears taken legally in other states.

The laws of Connecticut and Louisiana are exceptions to the category of U.S. states that prohibit black bear trade because the species is classified as protected or threatened wildlife. Connecticut lists its small indigenous black bear population as “protected” and prohibits any hunting or sale of parts from these animals. The state does, however, allow purchase or sale of parts of wildlife legally obtained in other states that permit sale and exportation. Louisiana’s endangered species law also prohibits any trade in parts from that state’s threatened population of the Louisiana black bear subspecies, but specifically allows trade in parts of wildlife, including black bears, legally obtained in other states.

Nevada, Pennsylvania, and Rhode Island base the legality of sale of black bear parts taken in other states on whether they are legally taken and whether they are “edible” or “nonedible.” Gallbladders cannot be sold in these states because they are considered edible parts.

Figures 12 and 13 illustrate the overall effect of these various laws and regulations on the legality of sale of black bear gallbladders in Canada and the United States.

Bear paws. Of the 11 Canadian jurisdictions with laws on the subject, 4 ban the sale of paws outright, 3 specify that paws may be sold legally only if they are attached to the hide, and 4 permit the sale of black bear paws.

Among the 32 U.S. states that prohibit the sale of bear paws, 7 do so because their statutes ban trade in all bear parts; 12 ban the trade under statutes that prohibit sale of game animals or parts unless explicitly allowed, and no exceptions are made for bear paws; 3 ban sale of bear paws specifically; 4 prohibit the sale of bear paws because they are not included in the state’s list of allowed parts; and 6 prohibit sale of paws under endangered, threatened, or protected species statutes. Seven states allow legal sale of bear paws taken inside the state, and 7 others allow sale of paws from bears taken legally in other jurisdictions (see Williamson, 1999).

Because few state statutes mention bear paws explicitly, rules regarding their sale need explanation in several cases. Colorado allows the sale of “non-edible portions of wildlife,” which it defines as legally taken “fur, feathers, hides, hair, teeth, claws, hooves, horns, antlers, skulls and bones” (Colorado Wildlife Regulation #013). Sale

CANADA

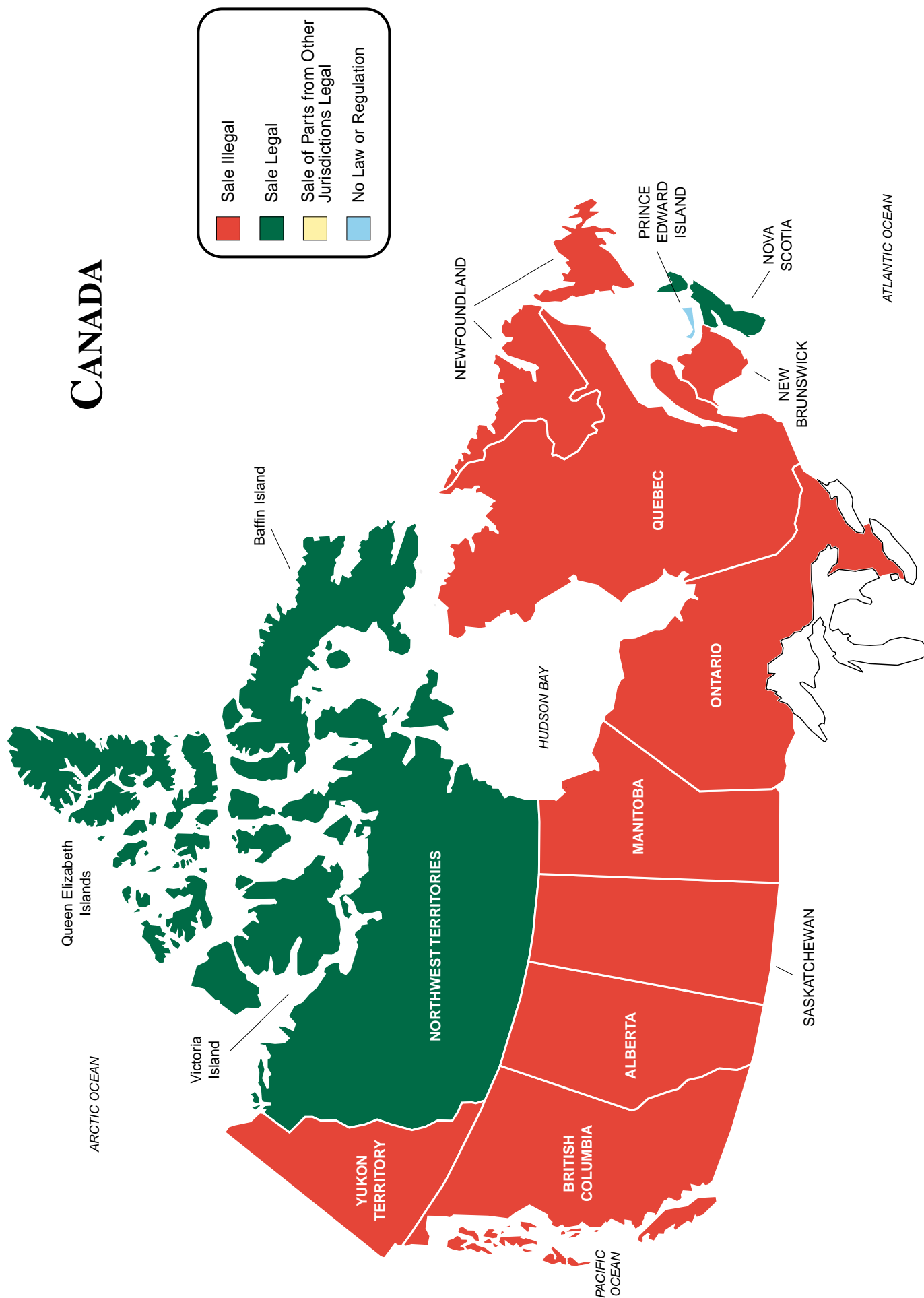


Figure 12: Sale of Black Bear Gallbladders in Canada

UNITED STATES

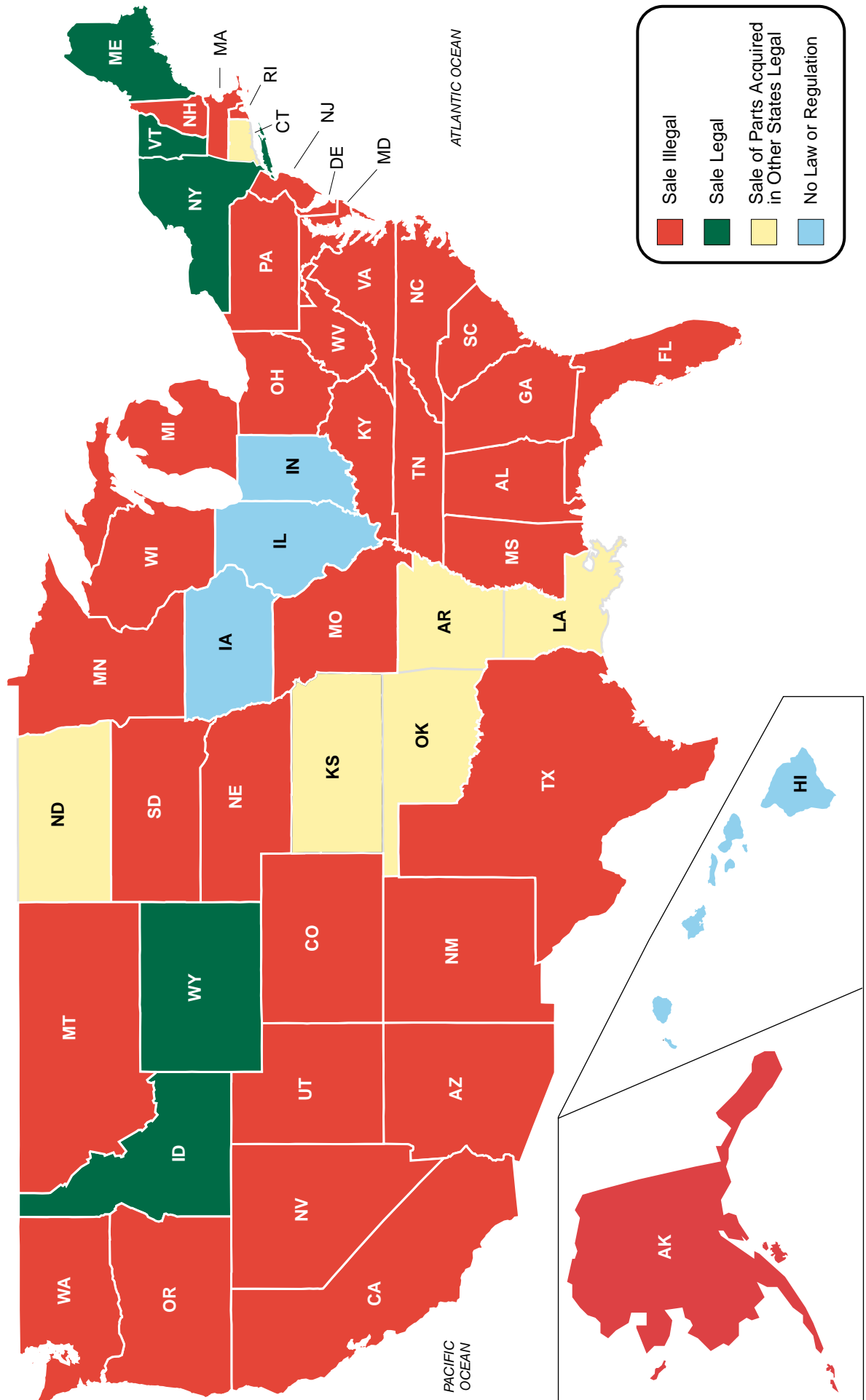


Figure 13: Sale of Black Bear Gallbladders in the United States

CANADA

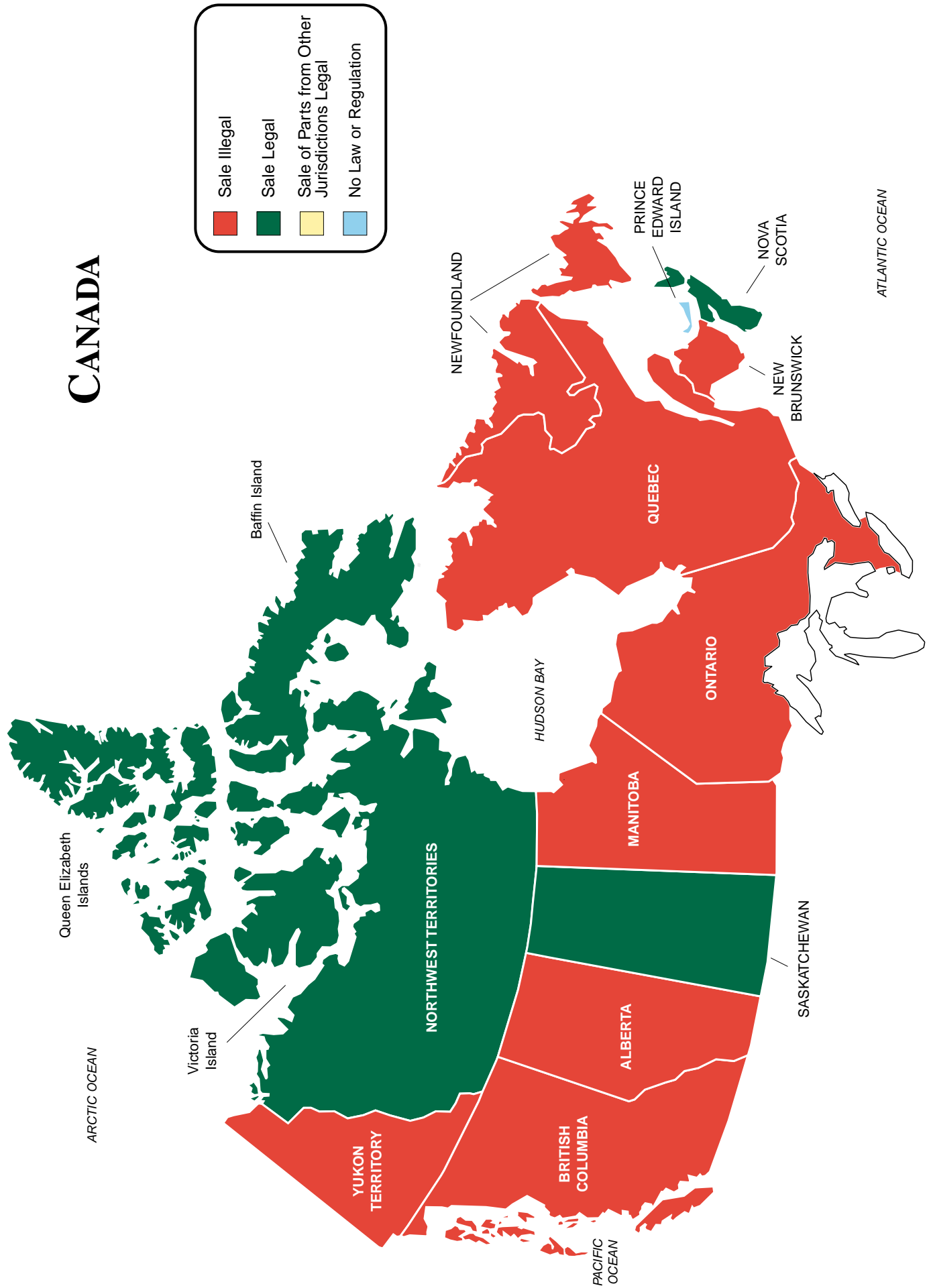


Figure 14: Sale of Black Bear Paws in Canada

UNITED STATES

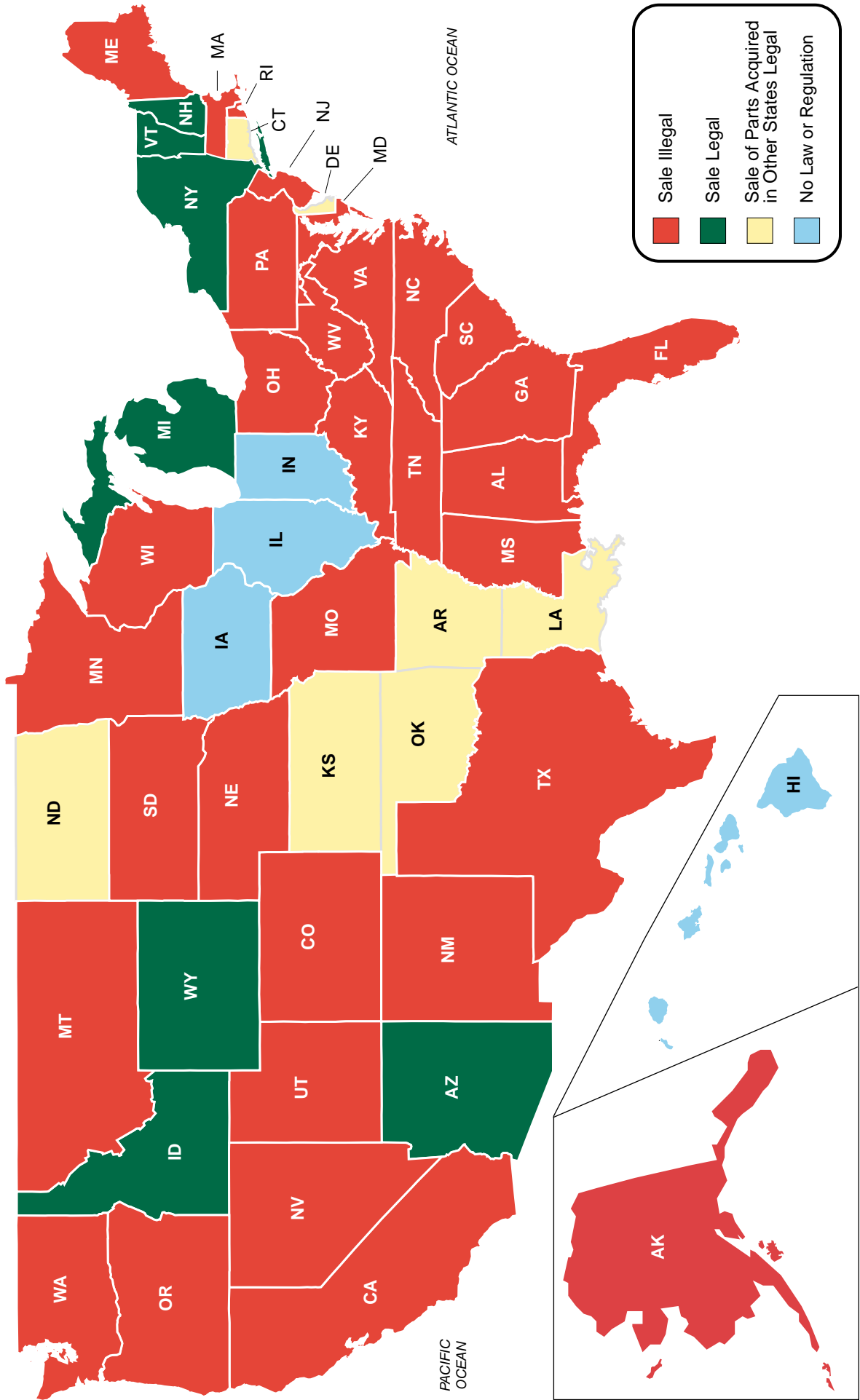


Figure 15: Sale of Black Bear Paws in the United States

of paws is illegal because they do not fit under the definition of non-edible. Similarly, Washington bans sale of bear paws because the relevant statute allows the sale of only “non-edible parts of wild animals” (WAC 232-12-071). Nevada, Pennsylvania, and Rhode Island prohibit sale of bear paws because, as with gallbladders, they allow only the sale of nonedible parts of wildlife legally acquired elsewhere.

Maine prohibits sale of paws because they are not included in the state’s list of specific parts that can be legally sold, which are “head, teeth, gall bladder, claws, and hide of bear” (Maine Revised Statutes 12-7452(15)(B)). New Mexico allows sale only of “skins, heads, antlers, horns, or claws” of game protected by statute, and bear paws do not fall under that exemption (19 NMAC 31.1, Section 9.4).

On the other hand, Michigan allows sale of bear paws because they do not fall under the state’s law specifically banning sale of “teeth, claws, flesh, or internal organs of game” (Michigan Natural Resources Commission “Wildlife Conservation Order,” Section 4.3). It is not clear whether this omission was intentional on the part of Michigan’s legislature. Minnesota law is unique in the United States, and closer to laws in several Canadian provinces, in that it specifically allows sale of paws only if attached to a legally sold hide (Minnesota Statutes Annotated, Section 97A.512).

Connecticut and Louisiana, which protect their own indigenous black bear populations against hunting and trade in parts, specifically allow sale of legally taken parts from other states, including paws. Delaware’s regulation prohibiting sale of bear gallbladders does not cover bear paws, but would if such trade were to be banned by CITES.

Figures 14 and 15 show the legality of the sale of black bear paws in Canada and the United States.

Claws and teeth. Laws in both Canada and the United States are more permissive toward the sale of black bear claws and teeth than toward the sale of gallbladders and paws. Among Canadian jurisdictions, 3 ban the sale of teeth and claws explicitly, 2 allow sale of teeth and/or claws when attached to a bear hide, and 6 allow the sale of teeth and claws independent of the hide and skull. In the United States, 27 states prohibit the sale of claws, and 28 ban the sale of teeth.

Among the 27 U.S. states in which sale of both claws and teeth is illegal, 7 ban trade in all bear parts; 9 prohibit sale of game animals or parts unless specified under the law, and no exceptions are made for claws and teeth; 7 ban sale of bear claws and teeth specifically; and 4 prohibit sale under endangered, threatened, or protected species statutes. Among the 19 states that permit the sale of bear claws and/or teeth, 8 allow the legal sale of these parts from bears taken inside the state, while 11 allow sale of claws and teeth only from bears taken legally in other jurisdictions.

As with gallbladders and paws, an explanation is needed of why some state statutes prohibit the sale of claws and teeth. New Hampshire, Vermont, and West Virginia, which permit sale of some black bear parts, do not allow sale of claws and teeth because these parts are not included under the states’ lists of legal parts. New Hampshire allows sale only of the “head, hide, or feet” (New Hampshire Game and Fish Laws, Section 188:11). Vermont allows sale of “the head, hide, paws and internal organs of a black bear, legally taken” (Vermont State Code, Title 10, Section 4783). West Virginia allows for the legal sale of “the hide, head, and skull of a legally killed black bear” (West Virginia Natural Resources Laws, Section 20-2-11).

On the other hand, Arizona and Minnesota laws specifically allow for the sale of claws and teeth, although they ban the sale of most other parts. New Mexico similarly exempts the sale of claws from that state’s general prohibition on the sale of most parts from protected game. Colorado, Nevada, and Pennsylvania allow for the sale of claws and teeth because of statutes that permit the sale of nonedible parts. In the case of Nevada and Pennsylvania, this provision allows only for the sale of claws and teeth legally acquired elsewhere.

As with gallbladders and paws, Connecticut and Louisiana allow sale of claws and teeth from bears taken legally in other states. Two other states that classify indigenous bear populations as protected or endangered have legal exceptions allowing the sale of claws and teeth. Ohio, which classifies its own black bear population as endangered, specifically provides that “legally acquired bear claws, teeth, hair, and hides may be bought or sold at any time” (Special Endangered Wild Animal Regulations, Section 1531-15-02). Rhode Island, which classifies the

black bear as protected, allows for the sale of nonedible parts brought in from other states (Rhode Island General State Code, Section 20-13-14).

Figures 16 and 17 illustrate the legality of sale of black bear claws and teeth in Canada and the United States.

Hides and heads. More Canadian and U.S. jurisdictions allow the sale of black bear heads and hides than allow the sale of any other bear parts. Their sale is legal in every Canadian province and territory and in 27 U.S. states.

In Canada, heads and hides are the only black bear parts that can be sold legally in Alberta, New Brunswick, Newfoundland, Ontario, and the Yukon Territory. Newfoundland alone requires a permit to sell black bear hides, and in Nova Scotia hides are the only part of a black bear that may be sold without full documentation of legal take. In Alberta, bear claws may be sold as part of a hide, and in Ontario the skull, paws, claws, and teeth may also be sold only when attached to a skinned hide.

Among the 19 U.S. states that ban the trade in hides and heads, 7 prohibit their sale because of statutes banning sale of all black bear parts; 8 ban sale of bear hides and heads under statutes that prohibit sale of game animals or parts unless specified under the law; and 4 prohibit trade in black bear hides and heads under state endangered, threatened, or protected species statutes. Among the 27 states that permit the trade, 16 allow the legal sale of hides and heads from bears taken inside the state, while 11 allow sale of these parts from bears taken legally in other jurisdictions only.

States with laws that need some explanation include Colorado, Connecticut, Louisiana, Nevada, Ohio, Pennsylvania, and Rhode Island. These states have laws that either allow the legal sale of nonedible parts or specifically exempt hides and heads from general prohibitions on sale of parts from protected species. The reasons that these states permit sale of hides and heads from bears taken within or outside of the jurisdiction are the same as those spelled out in the section on claws and teeth.

Two other states with unique provisions are Utah, which allows only the sale of legally obtained tanned bear hides (Utah Proclamation: Black Bear 1997, R657-33-22), and Wisconsin, in which a hide may be sold provided claws, head, and teeth are attached (Wisconsin Fish and Game Code, Section 29.48).

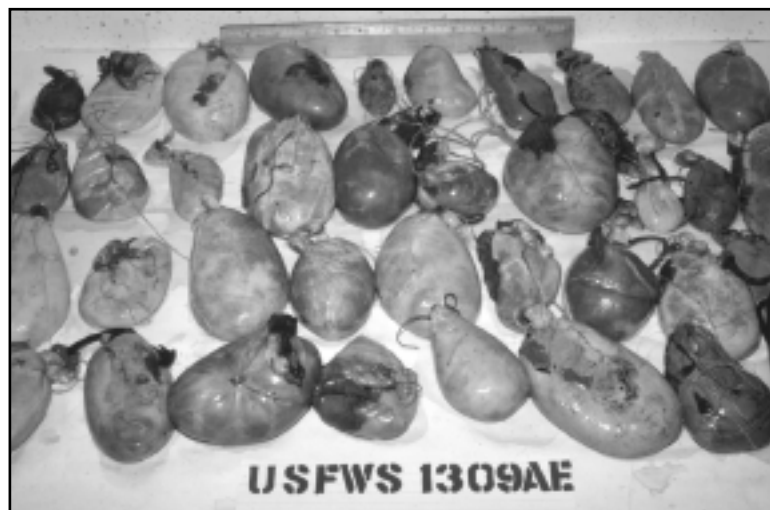
Figures 18 and 19 illustrate the legality of sale of hides and heads in Canada and the United States.

Trade Activities and Trends

The 1992 and 1996 TRAFFIC surveys asked respondents to indicate the level of trade in bear parts in their state, province, or territory, and to estimate whether such trade was decreasing, stable, or increasing. The responses to these questions, while subjective, provide a useful assessment of the status of legal and illegal trade in black bears and their parts from the perspective of wildlife management authorities.

In 1992, 59 of 61 respondents answered this section of the questionnaire. Trade activity was considered “very significant” by 2 states and 2 provinces; “somewhat significant” by 18 states and 4 provinces; and “not significant” by 14 states and 3 provinces or territories. Five states and one province reported “no known trade.” The answer “do not know” was reported by 9 states and one territory (McCracken et al., 1995).

Assessing the trend in trade activity, in 1992 15 states reported trade as “increasing,” as did 6 provinces or territories. Twelve states and 2 provinces reported trade “stable”; 2 states and



There is no question that illegal trade in bear parts, such as these gallbladders, continues to occur in North America. What impact this activity is having on bear populations is a more difficult question to answer.

CANADA

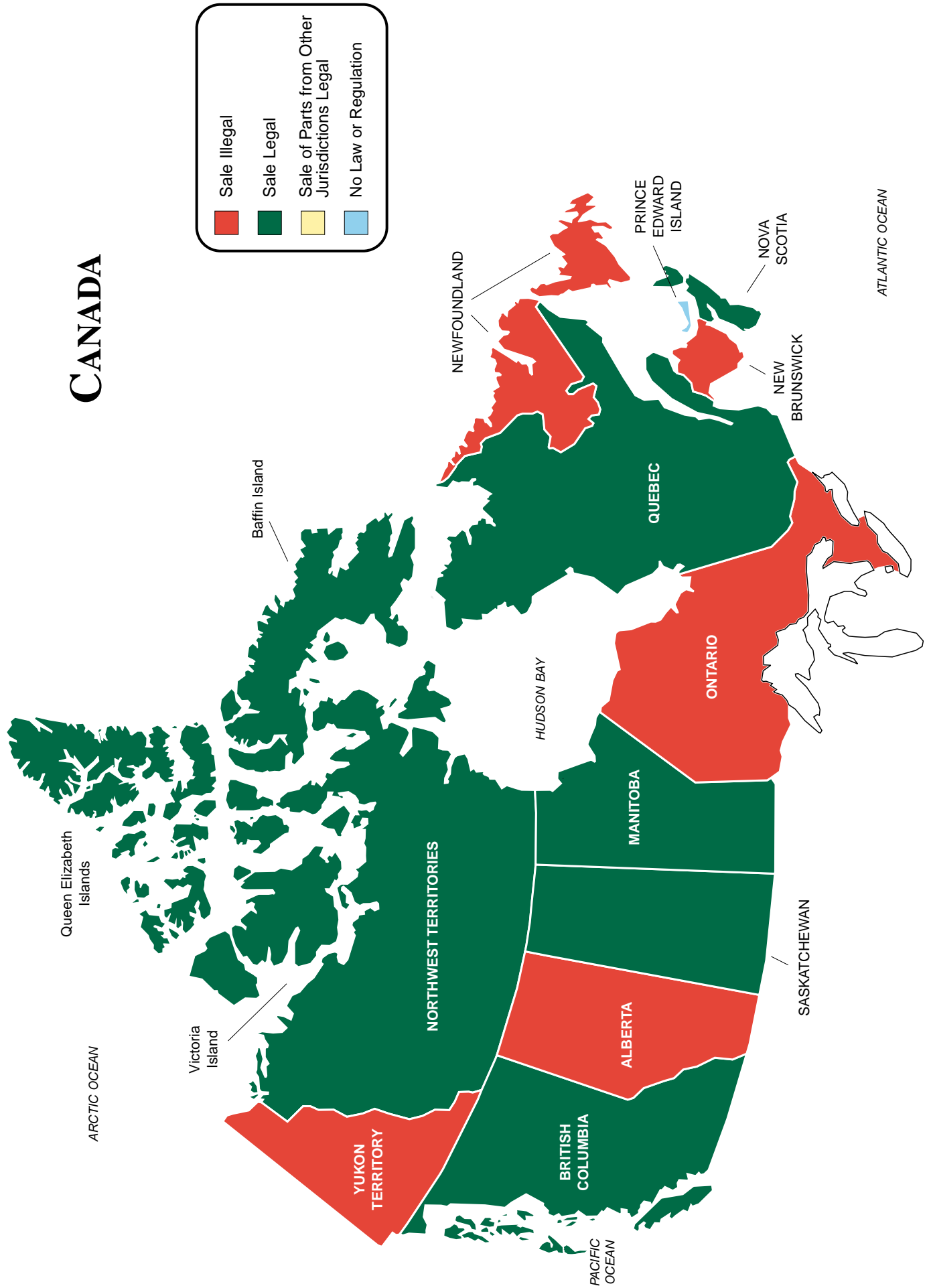
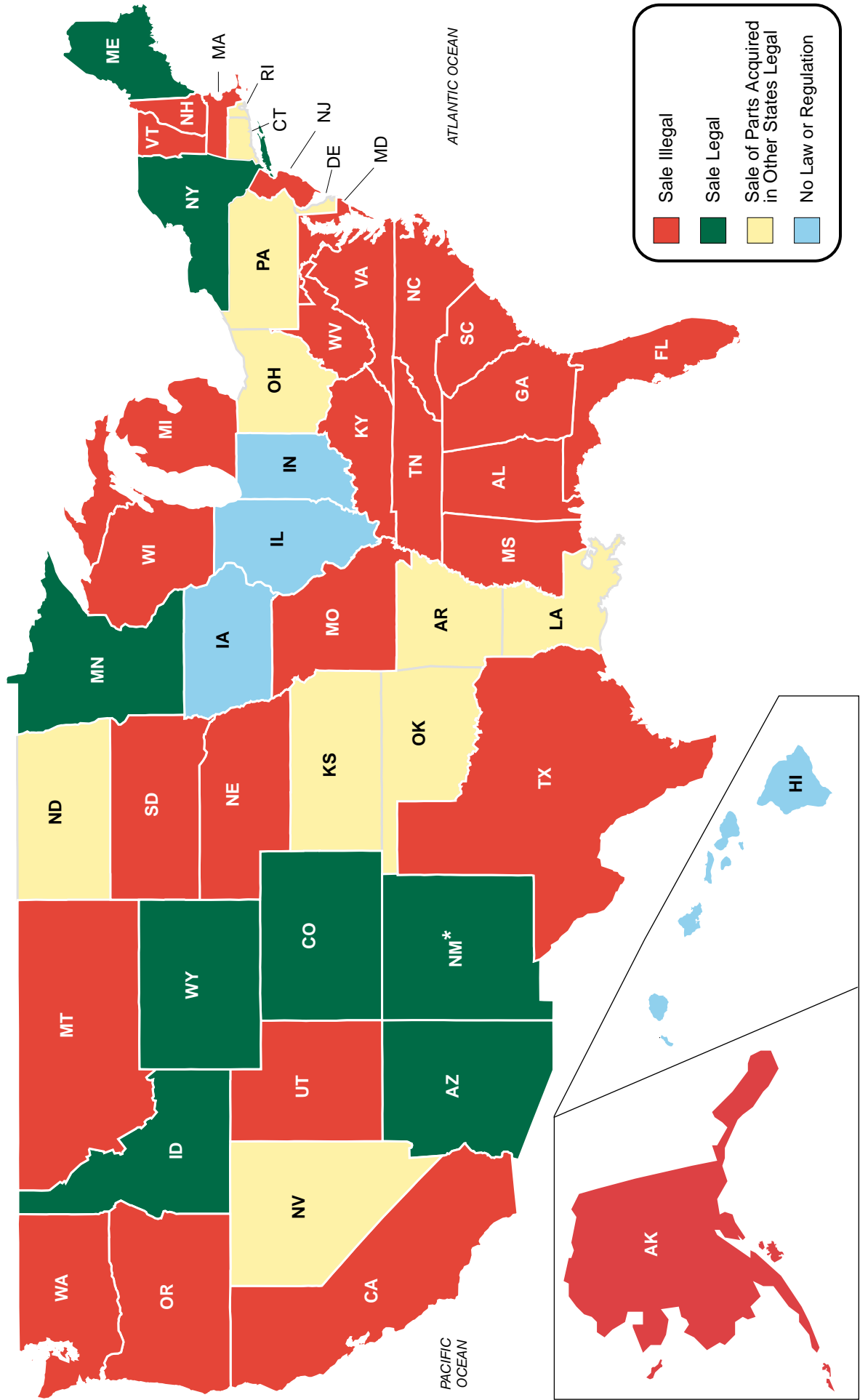


Figure 16: Sale of Black Bear Claws and Teeth in Canada

UNITED STATES



*Claws Only

Figure 17: Sale of Black Bear Claws and Teeth in the United States

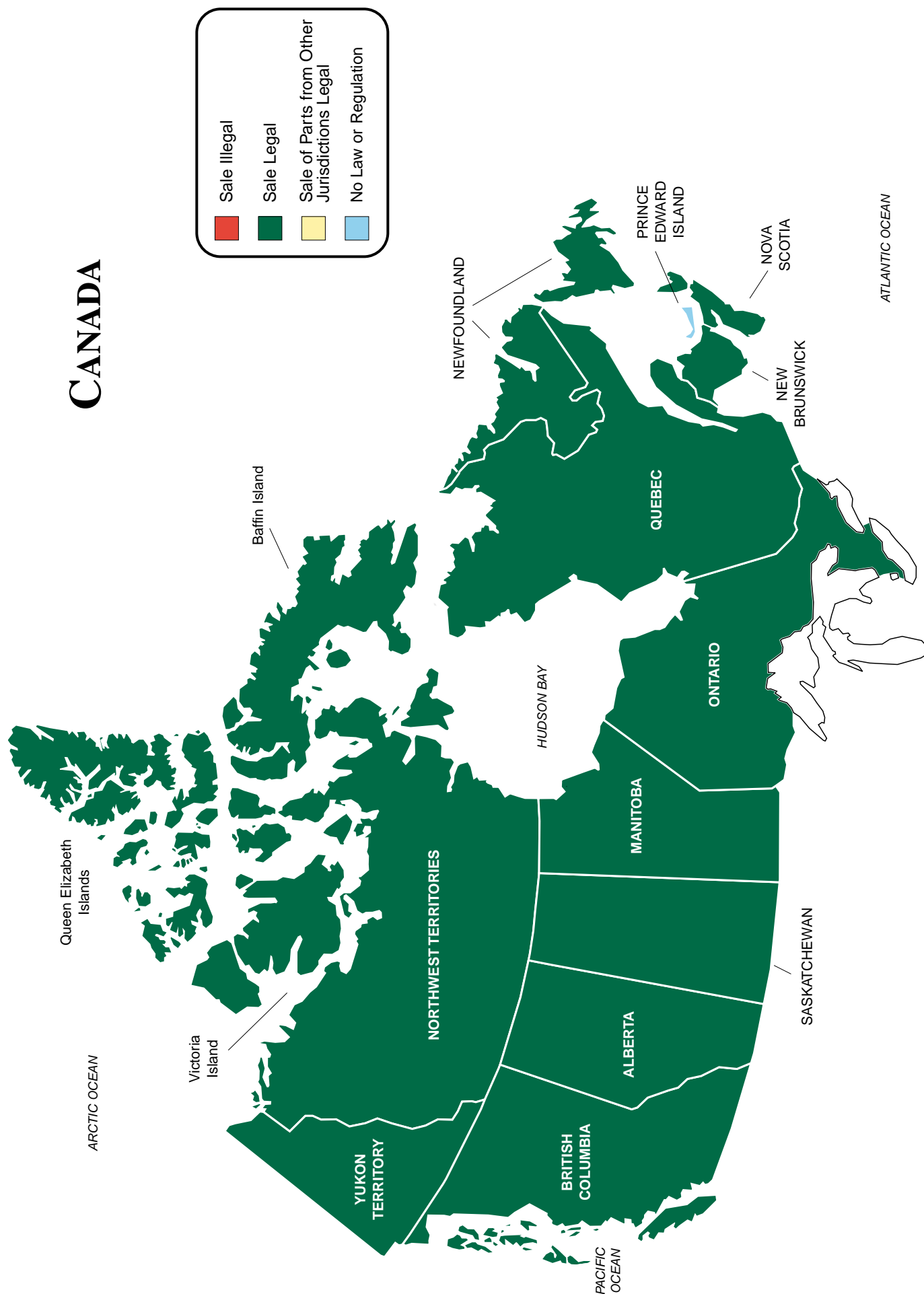


Figure 18: Sale of Black Bear Heads and Hides in Canada

UNITED STATES

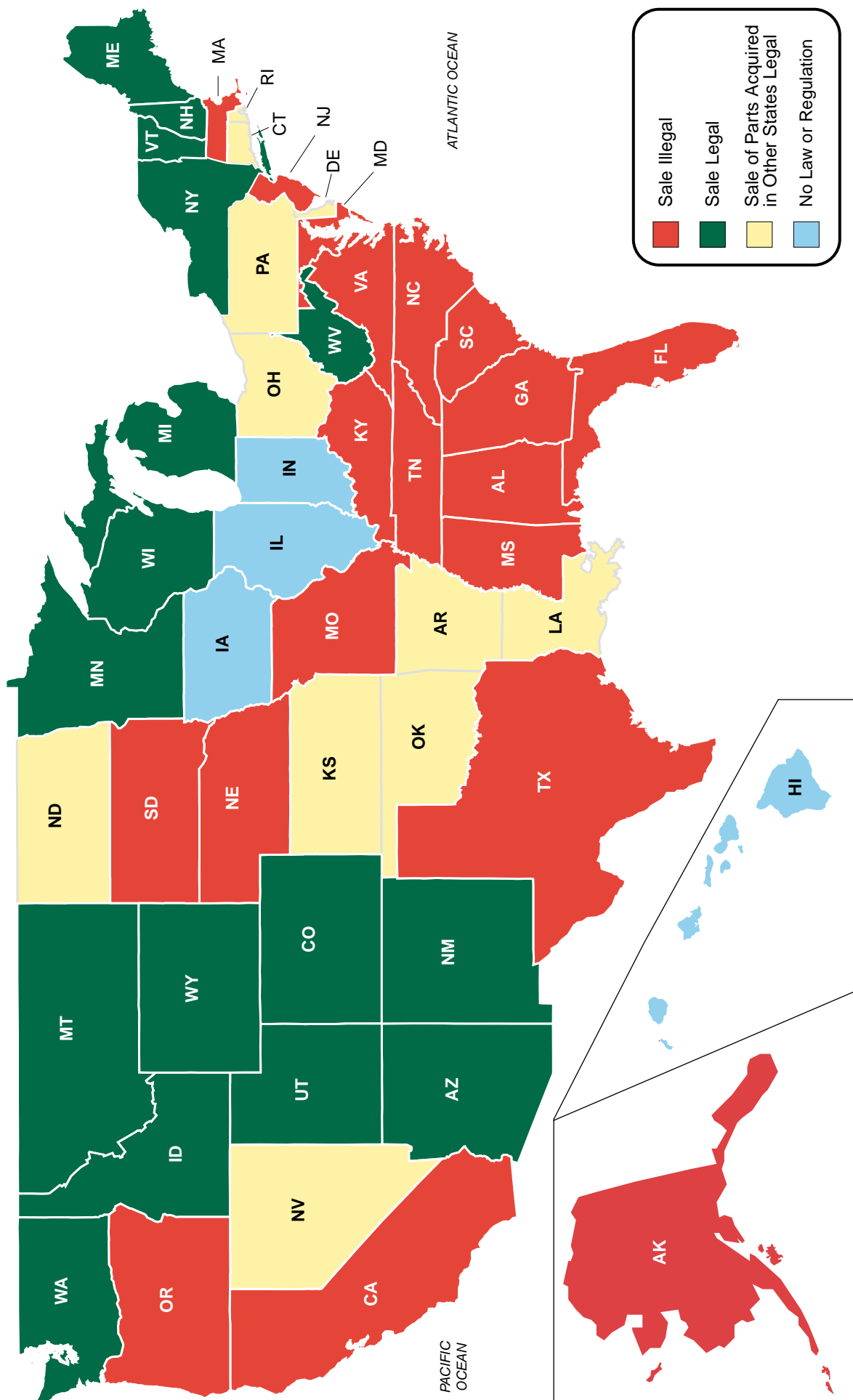


Figure 19: Sale of Black Bear Heads and Hides in the United States

one province reported trade “decreasing”; and 18 states and one territory reported “do not know.” The respondent from one state indicated that the trade “fluctuates wildly,” while the respondent from one province answered that the question did not apply (McCracken et al., 1995).

TRAFFIC also requested information on the basis for the estimates given. In 1992, most respondents based their estimates of trade levels and trends on personal assessments and law enforcement experience rather than on sales or trade records, with many indicating more than one source. Thirty-four of the 59 responding states, provinces, and territories (58 percent) indicated that their answers were based on the respondent’s best assessment of the trade situation; 27 (46 percent) indicated that their responses were based on information received as the result of undercover investigations; 22 (27 percent) indicated that their responses were based on enforcement activities; 15 (25 percent) indicated that their responses were based on reports from legal hunters; and 14 (24 percent) indicated other sources of information such as public inquiries, reports from outfitters, and information from other agencies (McCracken et al., 1995).

Responding to TRAFFIC’s 1996 survey, 51 states, provinces, and territories provided information on trade activity and trends in their jurisdictions. No states, provinces, or territories reported trade as “very significant.” Nine states and 2 provinces reported trade as “somewhat significant”; 13 states and 6 provinces or territories reported trade as “not significant”; 8 states reported “no known trade”; and 11 states and one territory responded “do not know.” The

balance of the jurisdictions did not respond to the question.

Regarding the perceived trend in trade, 21 states, one province, and one territory responded “do not know” or “no known trade” to this question in 1996. Two states reported trade in black bear parts to be “increasing”; 10 states and 5 provinces and or territories reported trade as “stable”; and 2 states and 2 provinces reported trade in black bear parts to be “decreasing.” Several jurisdictions did not respond to this section of the questionnaire.

As in 1992, TRAFFIC’s 1996 survey requested information on the basis for the estimates given. Most respondents based their estimates of trade levels and trends on personal assessments and law enforcement experience rather than on sales or trade records, with many indicating more than one source. Thirty-five states, provinces, and territories provided information, with 24 of these (68 percent) indicated that their answers were based on the respondent’s best assessment of the trade situation; 20 (57 percent) indicated that their responses were based on information received as the result of undercover investigations; 23 (66 percent) indicated that their responses were based on enforcement activities; 8 (23 percent) indicated that their responses were based on reports from legal hunters; and 6 (17 percent) indicated other sources of information such as public inquiries, reports from outfitters, and information from other agencies. Table 17 summarizes responses of U.S. states and Canadian provinces and territories regarding estimated activity and trends in black bear trade.

Table 17. Activity and Trends in Trade in Black Bears and Black Bear Parts in the United States and Canada
(41 States and 10 Canadian Provinces and Territories)

State/Prov/Terr	TRAFFIC 1996 Survey		Basis for 1996 Assessments of Trade				
	Level of Trade	Trend in Trade	Undercover Investigations	Reports from Legal Hunters	Enforcement Efforts	Best Assessment	Other
United States							
Alabama	Not significant	Unknown				✓	
Alaska	Not significant	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Arizona	Not significant	Stable	✓		✓		
California	Somewhat significant	Stable	✓	✓	✓	✓	
Colorado	Somewhat significant	Stable	✓		✓	✓	
Connecticut	Not significant	Unknown				✓	
Delaware	Unknown	Unknown				✓	
Florida	Not significant	Decreasing	✓		✓		

Table 17. Activity and Trends in Trade in Black Bears and Black Bear Parts in the United States and Canada

(Continued)

State/Prov/Terr	TRAFFIC 1996 Survey		Basis for 1996 Assessments of Trade				
	Level of Trade	Trend in Trade	Undercover Investigations	Reports from Legal Hunters	Enforcement Efforts	Best Assessment	Other
Georgia	Not significant	Decreasing	✓	✓	✓	✓	
Hawaii	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Idaho	Somewhat significant	Stable	✓	✓	✓	✓	✓+
Illinois	Unknown	Stable					✓+
Indiana	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Iowa	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Kansas	Not significant	Unknown	✓		✓	✓	
Kentucky	No known trade	Unknown				✓	
Louisiana	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Maine	Somewhat significant	Stable	✓	✓	✓		
Maryland	No known trade	Unknown			✓	✓	
Massachusetts	No known trade	No known trade	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Michigan	Not significant	Stable	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Minnesota	Not significant	Unknown	✓		✓	✓	
Mississippi	Somewhat significant	Increasing	✓		✓		
Nebraska	No known trade	Unknown				✓	
Nevada	Somewhat significant	Stable	✓		✓	✓+	
New Hampshire	Not significant	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
North Carolina	Not significant	Stable				✓	
North Dakota	No known trade	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Ohio	Not significant	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Oklahoma	Unknown	Unknown				✓	
Oregon	No known trade	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Rhode Island	No known trade	No trade			✓	✓	
South Carolina	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Tennessee	Somewhat significant	Stable	✓				
Texas	No known trade	Unknown			✓	✓	
Utah	Not significant	Unknown	✓		✓	✓	
Vermont	Unknown	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Virginia	Unknown	Unknown	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
West Virginia	Somewhat significant	Unknown			✓	✓	
Wisconsin	Somewhat significant	Increasing	✓		✓		
Wyoming	Unknown	Unknown	✓	✓	✓		✓+
Canada							
British Columbia	Somewhat significant	Stable	✓		✓		
Manitoba	Not significant	Stable	✓	✓	✓	✓	✓+
Newfoundland	Not significant	Stable	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Northwest Terr.	Unknown	Unknown				✓	
Nova Scotia	Not significant+	Decreasing		✓			✓+
Ontario	Somewhat significant	Stable	✓		✓	✓	
PEI	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Quebec	Not significant	Unknown			✓	✓	
Saskatchewan	Not significant	Decreasing	✓	✓	✓	✓	✓+
Yukon Territory	Not significant	Stable	✓	✓	✓	✓	

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Data not available/not reported

+ Additional Comments:

Idaho: Information gathered through mandatory reporting of sale of bear parts; licensed dealers. **Illinois:** Retail shops in Chicago. Trade "does occur," but level is not known. **Nevada:** Information received from federal undercover investigations. **Wyoming:** Information from permits/registration and/or mandatory reporting of sale of bear parts. **Manitoba:** Information gathered through mandatory reporting of sale of bear parts; licensed dealers. **Nova Scotia:** Depends on definition of significant. There was trade in gallbladders from 10-30% of legally taken bears during survey period but activity did not appear to have increased (on the contrary, 1992/27%, 1994/10%, 1995/8%). Trade decreased up to 1996, then grew to as much as 57% possibly due to the attention focused on the issue in the media and the introduction of gallbladder sealing regulations. Information from permits/registration and/or mandatory reporting of sale of bear parts. **Saskatchewan:** Information from permits/registration and/or mandatory reporting of sale of bear parts.

Assessment of the Impact of Harvest and Trade

TRAFFIC asked respondents for their best professional assessment of the impact of the trade in black bear parts on the number of bears harvested legally or illegally, and whether trade was having a negative impact on overall black bear populations in their state, province, or territory. TRAFFIC further asked whether, in the best professional assessment of the respondent, illegal harvesting of black bears was reducing opportunities for legal sport hunting. These questions called for subjective answers, but TRAFFIC posed them to try to obtain a sense of how wildlife authorities perceive the effects of poaching and trade on black bear populations in

their jurisdictions. TRAFFIC received responses to these questions from 33 of the 41 states with known resident black bear populations, and 9 out of 10 responding Canadian provinces and territories. Table 18 summarizes these responses.

In the United States, the question of whether trade in black bear parts might be affecting the legal harvest of bears applied only to those 27 states that allow sport-hunting or, in the case of Maine, trapping as well. Only one state, Wisconsin, responded “yes” to this question. The question of whether trade was affecting the number of black bears harvested illegally in their jurisdiction applied more broadly to all jurisdictions with bear populations. Of the 33 states for which information was available,

Table 18. Subjective Assessment of the Impact of Poaching and Trade on Black Bear Populations in the United States and Canada
(33 States and 9 Canadian Provinces and Territories)

State/Province/ Territory	Is trade affecting no. of black bears harvested legally?	Is trade affecting no. of black bears harvested illegally?	Is trade having a negative impact on bear population?	Is illegal harvest reducing opportunities for legal sport hunting?
United States				
Alabama	N/A	No	No	N/A
Alaska	No	No	No	No
Arizona	No	Yes+	No	No
California	No	No	No	No
Colorado	No	No	No	No
Connecticut	N/A	No+	No	N/A
Florida	N/A	No	No	N/A
Georgia	No	No	No	No
Idaho	No	No	No	No
Kentucky	N/A	No	No	N/A
Louisiana	N/A	No	No	N/A
Maine	No	Yes+	No	No
Maryland	N/A	No	No	N/A
Massachusetts	No	No	No	No
Michigan	No	No	No	No
Minnesota	No	No	No	No
Mississippi	N/A	No	No	N/A
Nevada	N/A	No	No	N/A
New Hampshire	No	No	No	No
North Carolina	No	No	No	No
North Dakota	N/A	No	No	N/A
Ohio	N/A	No	No	N/A
Oklahoma	N/A	No	No	N/A
Oregon	No	N/R	N/R	No
South Carolina	N/R	N/R	N/R	No
Tennessee	No	No	No	No
Texas	N/A	No	No	N/A
Utah	No	No	No	No
Vermont	No	No	No	No

Table 18. Subjective Assessment of the Impact of Poaching and Trade on Black Bear Populations in the United States and Canada
(continued)

State/Province/ Territory	Is trade affecting no. of black bears harvested legally?	Is trade affecting no. of black bears harvested illegally?	Is trade having a negative impact on bear population?	Is illegal harvest reducing opportunities for legal sport hunting?
Virginia	No	No	No	+
West Virginia	No	Yes	No	No
Wisconsin	Yes	Yes	Yes	N/R
Wyoming	No	No	No	No
Canada				
British Columbia	No	No	No	No
Manitoba	No	No	No	No
Newfoundland	No	No	No	No
Northwest Terr.	No	No	No	No+
Nova Scotia	Yes+	No	No	No
Ontario	No	No	No	No
PEI	N/R	N/R	N/R	N/R
Quebec	No	No	No	No
Saskatchewan	No	No	No+	No
Yukon Territory	No	No	No	No

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: N/A = Not applicable; N/R = Data not reported.

+ Additional Comments:

Arizona: "Illegal bears are killed for their parts." **Connecticut:** "Known incidents of poaching are infrequent and not motivated by parts trade."

Maine: "Minimal exploitation so far." **Virginia:** Noted that any poaching can have an impact, termed question "inappropriate." **Northwest Terr.:** Noted that "To date, there has been little evidence of illegal hunting for bear parts within the boundaries of the Northwest Territories." **Nova Scotia:** Noted that "It always has because they are taken by trappers for value (meat, hide, claws, gall)." **Saskatchewan:** "Not at all."

4 responded "yes" to this question. Responding to the question of whether trade in black bear parts was having a negative impact on bear populations, only Wisconsin responded "yes." All states for which information was available responded "no" to the question of whether illegal harvest of black bears was reducing opportunities for legal sport hunting, although the respondent from Virginia pointed out that any poaching can have an impact.

The nine responding Canadian provinces and territories with bear populations produced a similar set of responses to these questions. Among these, only Nova Scotia responded "yes" to the question of whether trade in black bear parts was believed to be affecting the number of bears harvested legally. No Canadian province or territory indicated that trade was affecting the number of bears harvested illegally or that trade was having a negative impact on bear populations. Furthermore, all responded "no" to the question of whether illegal harvest was believed to be reducing opportunities for legal sport hunting.

TRAFFIC infers from the overall response to these questions that, with a few exceptions, trade in black bear parts was not perceived by wildlife managers to be having a significant impact on the harvest of black bears in the United States or Canada. These assessments are generally consistent with the upward trend in black bear populations in both countries during the survey period, and the corresponding increase in the level of legal harvest. During the survey period there did not seem to be much evidence that trade or poaching was perceived by wildlife management authorities as a major threat to legal harvest or to black bear populations overall.

Markets, Users, and Prices

TRAFFIC requested information on markets for bear parts or live bears in its 1989, 1992, and 1996 surveys. Responses to all three surveys indicated that inside the United States and Canada the different groups of users of black bear parts included hunters, tourists, taxidermists, jewelry makers, folk medicine and traditional Asian medicine practitioners, and

Native Americans. Respondents indicated that outside of North America there are markets for gallbladders, primarily in Asia, and for other parts in Asia, Europe, and other nonspecified “overseas” destinations.

A comparison of survey data from 1992 and 1996 on prices for live bears and various bear parts indicates that, as far as can be determined, prices for black bears and their parts did not rise or fall significantly. In both surveys, TRAFFIC asked respondents to estimate the amount received by hunters, middlemen, and retailers for gallbladders, carcasses and hides, paws, skulls, teeth, claws, and live bears, and found that the average price ranges for some products rose, while others held roughly stable in both surveys. The following sections, along with relevant tables and appendices, detail the responses to TRAFFIC’s 1996 survey questions on markets, users, and prices for black bears and black bear parts.

Markets and users

External Markets and Users. In 1992, 27 U.S. states and 11 Canadian provinces and territories reported the existence of external markets for black bear gallbladders or other parts; in 1996, only 13 U.S. states and 5 Canadian provinces and territories indicated the presence of such markets. However, it is important to note that several jurisdictions did not have information available or did not respond to this question in the 1996 survey. Beyond the general question of whether external markets for black bears or black bear parts exist, TRAFFIC’s surveys requested information on what parts are in demand, and

what is known of the initial and final destinations of bears or bear parts being marketed outside of the jurisdiction.

One particularly important question concerned the existence of external markets for gallbladders. In 1992, 16 states and 8 provinces or territories reported the existence of such markets. Eleven of these states and all 8 provinces or territories indicated demand in Asia for black bear gallbladders harvested in their jurisdictions (McCracken et al., 1995).

In response to TRAFFIC’s 1996 survey, 9 U.S. states and 4 Canadian provinces reported external markets for black bear gallbladders. Six states and 3 provinces indicated that the final destination markets for these gallbladders included Asia, while the others did not specify by country or region. Two states reported that the existence of external markets for black bear gallbladders from their jurisdictions is “unknown,” and 2 provinces indicated that the United States was a final destination for gallbladders from their jurisdictions.

Table 19 shows the responses of U.S. and Canadian jurisdictions to the 1996 survey question about external markets for black bear gallbladders. For comparative purposes, appendix 12 shows the responses to this question from all three of TRAFFIC’s black bear surveys.

TRAFFIC’s 1996 survey also asked respondents to list known or suspected markets for live black bears and for parts other than gallbladders from their jurisdictions. Twelve U.S. states and 5 Canadian provinces reported external markets for black bear parts including paws, carcasses and/or hides, claws, teeth, skulls, penis, and baculum. Several also reported outside markets for live black bears.

Nine U.S. states and 3 Canadian provinces reported the existence of external markets for black bear paws. Five of these reported Asia as the final destination for the paws, while one reported the final destination as “Orientals” and one simply as “U.S. and other countries.” Other jurisdictions listed the final destination as “unknown.”

Seven states and 4 provinces reported the existence of external markets for carcasses and hides. The most frequently mentioned final market



Photo by S. Chan, TRAFFIC

Several states and provinces identified Asian markets, such as this Korean bear bile stall, as the destinations for bear gallbladders and other parts.

Table 19. External Markets Reported for Black Bear Gallbladders from within the United States and Canada, 1996 Survey

State/Province/Territory	Initial Destination	Final Destination
United States		
Arizona	Not reported	"Orientals"
California	California	Korea
Colorado	U.S., other countries	U.S., other countries
Idaho	California/other states	California and Orient
Maine	New York	Korea, China
Minnesota	Minneapolis	South Korea
Utah	Not reported	South Korea
Virginia	"Buyers"	Unknown
West Virginia	Unknown	Unknown
Wisconsin	Unknown	Unknown
Wyoming	Wyoming	Asia
Canada		
British Columbia	Asian traffickers/Apothecary shops	U.S., Korea, Hong Kong, Taiwan
Newfoundland	Mainland Canada, U.S.	Asia
Nova Scotia	Ontario, Quebec	U.S. "take-homes"
Ontario	Asian community in Toronto	Korea, other Asian markets

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

was the United States. Canada, Asia, Germany, and Europe were also reported as markets.

Five U.S. states and 4 Canadian provinces reported external markets for black bear teeth, with the United States and Canada mentioned as the primary destination markets. Similarly, 6 states and 4 provinces reported external markets for black bear claws, with most listing the United States as the final destination. While Europe was mentioned as a market for both teeth and claws, and Asia as a market for claws, it would appear that the largest market for these parts is domestic.

Finally, 4 U.S. states and 2 Canadian provinces reported external markets for live bears. Destination markets reported included South Korea, the United States, and China. Table 20 summarizes the initial and final destinations reported for live black bears and black bear parts other than gallbladders in TRAFFIC's 1996 survey. For comparison, appendix 13 shows the full range of answers from the 1992 survey as well. This subject was not included in TRAFFIC's 1989 survey.

Local Markets and Users. Regarding local markets and users, TRAFFIC surveys in 1989 and 1992 indicated that hunters often retained bear hides, skulls, teeth, and claws as curios, or

sold them to tourists. Taxidermists provided a demand for hides. Teeth, claws, and hides were also indicated as being widely used by Native Americans to make crafts for personal use and for sale to tourists. Black bear gallbladders were found in those surveys to be used by traditional folk medicine practitioners as well as by Asian communities (McCracken et al., 1995; Sheeline, 1990).

Responses to TRAFFIC's 1996 survey indicate that there continued to be local markets for various bear products. Whereas in the 1992 survey 26 of 38 responding states (68 percent) and 9 of 11 responding provinces or territories (81 percent) indicated in-state markets for bears and bear parts, in the 1996 survey 21 of 36 responding states (58 percent) and 6 of 7 responding provinces or territories (86 percent) reported such markets.

Clearly, the United States and Canada are not just a source of black bears or their parts; both countries represent markets as well. Carcasses and hides were the most broadly used bear part identified by TRAFFIC's 1996 survey. Twenty-four of the 28 U.S. states and Canadian provinces and territories that indicated the existence of local markets for black bear products noted the use of carcasses or hides. The

Table 20. External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1996 Survey

State/Province/Territory	Item	Initial Destination	Final Destination
United States			
Arizona	Live bears Paws	NA/NR NA/NR	South Korea "Orientals"
California	Carcasses/Hides Paws Skulls Teeth Claws	California California California California California	Unknown Unknown Unknown Unknown Unknown
Colorado	Live bears Carcasses/Hides Paws Skulls Teeth Claws	U.S., other countries U.S., Canada, Asia U.S., other countries U.S., other countries U.S., other countries U.S., other countries	U.S., other countries U.S., Canada, Asia U.S., other countries U.S., other countries U.S., other countries U.S., other countries
Idaho	Carcasses/Hides Paws Skulls Teeth Claws Baculum	U.S., Overseas California, Overseas U.S., Overseas U.S., Overseas U.S., Overseas California, Overseas	U.S., Overseas California, Overseas U.S., Overseas U.S., Overseas U.S., Overseas California, Overseas
Maine	Hides Paws Skulls Teeth Claws	U.S. New York All U.S. All U.S. All U.S.	U.S. Korea U.S. U.S. U.S.
Michigan	Live bears Carcasses/Hides	NA/NR NA/NR	Various Various
Minnesota	Carcasses/Hides Claws	NA/NR NA/NR	Western U.S. Locally
Oklahoma	Live bears	Surrounding states	Unknown
Utah	Paws	NA/NR	South Korea
Virginia	Paws Skulls Teeth Claws	Unknown Unknown Unknown Unknown	Unknown Unknown Unknown Unknown
West Virginia	Carcasses/ Hides Paws	Taxidermists NA/NR	Unknown Unknown
Wisconsin	Paws?	Unknown	Unknown
Canada			
British Columbia	Carcasses/Hides Paws Skulls Teeth Claws Penis	U.S., Canada (for furs for fishing, rugs, etc.) U.S. NA/NR NA/NR NA/NR U.S.	Germany, Europe Europe U.S., Europe, Canada U.S., Europe, Canada U.S., Europe, Canada U.S., Europe, Canada

Table 20. External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1996 Survey

State/Province/Territory	Item	Initial Destination	Final Destination
Newfoundland	Paws	Mainland Canada, U.S.	Asia
	Teeth	NA/NR	Mainland Canada, U.S.
	Claws	Mainland Canada, U.S.	Asia
Nova Scotia	Carcasses/Hides	Ontario, Quebec	NA/NR
Ontario	Live bears	Ontario	China
	Carcasses/Hides	Ontario	Ontario, U.S.
	Paws	Ontario	Korea
	Skulls	Ontario	Ontario
	Teeth	Ontario	Ontario, U.S.
	Claws	Ontario	Ontario, U.S.
Saskatchewan	Live bears	South Dakota	South Dakota
	Carcasses/Hides	U.S.	U.S.
	Skulls	U.S.	U.S.
	Teeth	U.S.	U.S.
	Claws	U.S.	U.S.

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/No response

most commonly mentioned local users were taxidermists, hunters, tanneries, fur dealers, merchants, outdoor enthusiasts, and private collectors. Along with being a source of meat for hunters, other uses for carcasses and hides ascribed to various groups include trophy mounts, interior design, the jewelry and fur trades, private collections, and retail sale to tourists.

Other black bear parts also have fairly widespread local markets. Claws, teeth, and skulls are used in jewelry making, for sale to tourists and curiosity seekers, as hunter trophies, in taxidermy and craft/trade shows, as part of Native American design and ceremonies, and by primitive weapons enthusiasts. The most common local use for black bear gallbladders cited in the 1996 survey was for traditional medicine among Asian communities. Local use of bear paws ranged from taxidermy and jewelry-making to food and traditional medicine, and local use of live bears was usually by game farms, commercial and noncommercial wildlife breeders, private collectors, and zoos and exhibits. Table 21 shows those jurisdictions which indicated local use of black bears for the 1996 survey.

A full set of comments on local markets and users for black bears and black bear parts from

the 1989, 1992, and 1996 surveys can be found in appendix 14.

Prices

In the 1992 and 1996 surveys, TRAFFIC asked respondents to estimate the market price of black bear parts and live bears. The purpose of the question was to try to determine whether prices trended upward or downward, or remained relatively stable during the survey period.

Unfortunately, determining price trends proved to be one of the most difficult parts of TRAFFIC's survey effort, for several reasons. First, two different sets of states, provinces, and territories reported price information in the two surveys, which made direct comparisons difficult. Second, because in many jurisdictions the sale of various parts is illegal, it is impossible to determine an open market price. What is known in these jurisdictions often comes from undercover investigations and other law enforcement efforts, with the information gathered reflecting only those operations that were successful.

Third, because information on trade and markets is sketchy and often anecdotal, individual cases can sometimes skew the perception of prices. Reports of black bear gallbladders selling for \$10,000-\$15,000 in Korea exemplify this

Table 21. Local Use of Black Bear Parts Indicated, the United States and Canada, 1996

State/Province/ Territory	BLACK BEAR PARTS IN LOCAL USE						
	Live Bears	Carcass/Hide	Gallbladder	Paws	Skulls	Teeth	Claws
Arizona		✓	✓	✓	✓	✓	✓
California			✓	✓	✓+	✓	✓+
Colorado	✓	✓	✓	✓	✓	✓	✓
Connecticut		✓			✓	✓	✓
Georgia		✓		✓	✓	✓	✓
Idaho		✓	✓		✓	✓	✓
Illinois			✓	✓			
Kansas	✓						
Maine		✓+	✓	✓	✓	✓	✓
Michigan	✓	✓		✓	✓	✓	✓
Minnesota		✓	✓				✓
Mississippi+	✓	✓		✓	✓	✓	✓
Nevada		✓		✓		✓	✓
North Carolina		✓+					
Ohio	✓	✓		✓	✓	✓	✓
Oklahoma	✓						
Utah		✓			✓+	✓+	✓+
Virginia+		✓	✓	✓	✓	✓	✓
West Virginia		✓			✓	✓	✓
Wisconsin	✓	✓					
Wyoming		✓			✓		✓
Brit. Columbia+		✓	✓	✓	✓	✓	✓
Newfoundland+		✓			✓		
Northwest Terr.		✓					
Nova Scotia		✓+	✓+	✓+	✓+	✓+	✓+
Ontario	✓	✓	✓	✓	✓	✓	✓
Saskatchewan		✓	✓				✓
Yukon Terr.		✓			✓		

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife officials

+ Additional Information:

California: Did not specify local "users," but did indicate local use for jewelry-making, etc. **Maine:** Hides only. **Mississippi:** Note — "Almost all of these parts are brought in from other states." **North Carolina:** For meat used legally by those hunting black bears. **Utah:** Survey did not indicate local users, but rather trade for tourists and jewelry makers. Utah did indicate local use for the "fur trade" for interior design. **Virginia:** Answers pertain to survey period prior to state making sale of bear parts illegal in 1994. **Brit. Columbia:** Also indicated use of black bear penis by hunters; and market as a novelty item. **Newfoundland:** Also indicated local use of meat by hunters. **Nova Scotia:** "Meat used by most hunters and trappers at home; required to recover by law." Very little use of other parts.

phenomenon. Prices that high may have been paid for gallbladders, usually at public auctions, but they do not necessarily represent a true measure of the average value of all gallbladders in the market. For instance, in a 1991 report, *The Asian Trade in Bears and Bear Parts*, researchers found that while some gallbladders in South Korea were being auctioned publicly for prices of \$10,000 or higher, others were available for well under \$1,000 (Mills and Servheen, 1991). The fact that unusual or anecdotal cases of extreme prices occur from time to time should not translate into a misleading impression of the average selling price of bear parts.

Given these variables, TRAFFIC was unable to reach any firm conclusions about price trends based on the 1992 and 1996 surveys. Overall, prices estimated to be paid to hunters, middlemen, and retailers varied greatly from place to place. For our purposes here, price ranges in the United States and Canada are presented separately because the two countries have currencies whose exchange rate makes a direct-dollar comparison impossible. It is fair to say that, on average, price ranges reported in 1996 in both the United States and Canada were equivalent to or higher than those reported in 1992.

Table 22. Reported Prices for Black Bear Parts in the United States

ITEM	1992				1996			
	# States Reporting	Hunter (\$)	Middleman (\$)	Retailer (\$)	# States Reporting	Hunter (\$)	Middleman (\$)	Retailer (\$)
Gallbladder	14	0-120	0-500	75-600	10	20-300	50-400	250-1,000
Carcass/Hide	14	0-600	100-700	200-1,500	9	20-300	30-500	150-2,000
Paws (each)	8	5-35	5-50	25-60	8*	0-100	20-100	150-250
Skulls (each)	7	10-50	10-200	50-500	5	10-75	25-50+	50-150
Teeth (each)	15	0-20	3-30	4-100	6*	1-25	1+ -40	25-100
Claws (each)	18	0-125*	2-10	5-100*	9*	1-10	2-15	10-40
Live Bears	3	100-300	200-1,200	300-2,000	2+	1,000	250+	3,000+

Source: 1996 TRAFFIC survey of state wildlife authorities; McCracken et al., 1995

+ Additional Information:

Paws: West Virginia is not included here. The state indicated that the price of paws is included in hide sales. **Teeth:** West Virginia indicated that the price of teeth was included in hide sales. **Claws:** 1992 — The price at the hunter level was \$0 to \$10 in 14 of 15 reporting states. The exception of Montana, which reported \$5 to \$125, explains the high end of the estimate. Similarly, the estimate of retail prices for claws includes Wisconsin, which reported \$35 to \$100 for the finished product. 1996 — West Virginia indicated that the price of teeth was included in hide sales. **Live Bears:** Colorado estimates for the middleman and retail levels are given by weight: \$3-6/lb. at the middleman level, and \$7-10/lb. at the retail level.

United States. Table 22 shows the number of U.S. states reporting prices in each survey, and the range of prices for various parts. A detailed comparison of prices reported by U.S. states in 1992 and 1996 can be found in appendix 15.

Canada. Canadian responses to TRAFFIC's 1996 survey showed a similar pattern to those of the U.S. states. Prices reported at the hunter, middleman, and retail levels generally held constant or rose above those reported in 1992,

although in some cases there was a similar problem in drawing direct comparisons because of lower response rates or responses from different jurisdictions. The number of provinces and territories that answered this part of the survey and the prices they reported are summarized in table 23. A more complete breakdown by province and territory comparing 1992 and 1996 survey responses can be found in appendix 16.

Table 23. Reported Prices for Black Bear Parts in Canada

ITEM	1992				1996			
	# Prov/Terr Reporting	Hunter (\$CAD)	Middleman (\$CAD)	Retailer (\$CAD)	# Prov/Terr Reporting	Hunter (\$CAD)	Middleman (\$CAD)	Retailer (\$CAD)
Gallbladder	8	0-200	50-1,000	500-1,000+	4*	50-300+	\$200*	200-1,200
Carcass/Hide	8	50-100	100-300	400-600	7*	5-200	150-1,000	1,000-1,500
Paws (each)	4	5-25	\$10+	\$100+	3*	5-25	20+	200*
Skulls (each)	0	N/R	N/R	N/R	2	\$5-50	N/R	N/R
Teeth (each)	1	5-10	N/R	N/R	2*	1-5	N/R	N/R
Claws (each)	7	1-5	2-100+	5-100+*	4*	1-5	5-10	10-20
Live Bears	2*	100s	50-1,000s	50-10,000s	0	N/R	N/R	N/R
Penis	0	N/R	N/R	N/R	1*	5	10	20

Source: 1996 TRAFFIC survey of provincial and territorial wildlife authorities; McCracken et al., 1995

Key: N/R = No response

Note: Monetary figures reported for Canada are provided in Canadian dollars (CAD). During the survey period, the conversion rate to U.S. dollars averaged \$0.83CAD/\$1US in 1992, \$0.78CAD/\$1US in 1993, and \$0.73CAD/\$1US in 1994 and 1995.

* Additional Information:

Gallbladders: Nova Scotia reported the price of galls at \$5/gm. Saskatchewan reported \$6/gm. British Columbia reported its price based on dried galls. Ontario reported that galls could go for \$50-\$150 whole or for \$5-\$11/gm. **Carcass/Hides:** All jurisdictions reported the estimated price of hides only. In the Northwest Territories the prices were reported based on black bear hide furs sold at auction houses. In 1992 21 were sold at an average value of \$100, in 1993 10 were sold at an average value of \$53, in 1994 23 were sold at an average value of \$80, and in 1995 11 were sold at an average value of \$81. **Paws:** Only British Columbia reported paw prices at all three levels. Price for hunters is for frozen paws. Price at retail level is for paws for soup. **Teeth:** Price of teeth for Ontario is per incisor. **Claws:** Price of claws in Nova Scotia is specifically estimated for trappers. **Live Bears:** Prices for Alberta are for \$50 for an orphaned bear for middlemen, and \$50 to \$75 at the retail level for a live bear sold to U.S. zoos. **Penis:** British Columbia reported \$5 for hunters for a boiled penis, and \$20 at the retail level for a penis boiled and dried.

V. POACHING, LAW ENFORCEMENT, AND PENALTIES

Although it is clear that black bear poaching and illegal trade in parts occurs in the United States and Canada, precisely quantifying the level of such activities is virtually impossible. Overall, responses to TRAFFIC's 1989, 1992, and 1996 surveys indicate that illegal take for sport or for trade is not extensive enough to threaten the viability of the species or significantly affect legal hunting opportunities. As noted in the previous section on trade, when TRAFFIC asked survey respondents whether or not, in their professional judgment, illegal harvesting of black bears was reducing opportunities for legal sport hunting, no jurisdiction responded "yes." The upward trend of black bear populations in many regions, and their stability throughout almost all of their range, would support the broad conclusion that poaching and illegal trade are not extensive enough to have anything more than a very local impact on black bear populations.

It remains critical, however, for states, provinces, and territories to closely monitor and, through strict law enforcement, seek to halt illegal killing of black bears and shut down illegal trade to the maximum extent possible. Upward trends in poaching for sport or for the parts trade, especially in jurisdictions with relatively small numbers of black bears, could become a threat to some populations if left unchecked. This is especially true in regions where black bears exist in fragmented or isolated habitat "islands," largely cut off from other populations.

In this section, TRAFFIC examines bear poaching in the United States and Canada. We attempt to analyze the phenomenon of poaching and what may motivate those who kill bears and other wildlife illegally. We also report the number of bears known or estimated to have been poached during the survey period, and whether there are indications that such poaching resulted from demand for the parts trade.

TRAFFIC also summarizes results of the 1996 survey regarding law enforcement activity to combat poaching and trade. All states, provinces, and territories have law enforcement personnel dedicated to wildlife, but not all reported involvement in investigations of trade in black bear parts. Gathering comprehensive statistics on arrests, convictions, and sentences for illegal take or killing of black bears or commercialization of parts proved difficult.

Lastly, TRAFFIC looks at the provisions in place among states, provinces, and territories to punish those arrested and convicted of illegal take, killing, or commercialization of black bears and their parts. The analysis shows that some jurisdictions have adopted strong penalties for various infractions, but others have only weak penalties or in some cases none at all. It is also interesting to note that, because of the flexibility and discretion given to prosecutors and judges, penalties received by those caught violating the law are often far less than could be handed down. Although not a principal subject of this report, we also look briefly at applicable federal laws and penalties for illegal trade of wildlife, including black bears and black bear parts.

Black Bear Poaching

There is no dispute that poaching of black bears occurs throughout North America, some of it for valuable parts such as gallbladders and paws. As noted by Gaski (1997), however, the conclusion that bear poaching is always the result of illegal trade pressure, or that illegal trade is necessarily the end result of poaching, is not necessarily accurate. Gaski cites a study by the Canadian Wildlife Federation (Gregorich, 1992), that identifies three types of poaching: the first for personal use or family/friends; the second for personal gratification; and the third for commercial purposes.

According to this analysis, poaching for personal or family use often occurs when the poacher is ignorant of the law and tradition makes the activity socially acceptable. In cases of personal gratification, the poacher is fully aware that he is taking the animal illegally and takes steps to evade being caught. This taking either exceeds legal limits, gives the poacher the thrill of illicit activity, or results simply from determination to get the trophy at any cost. In some subcultures this behavior can make the poacher a hero for defying government regulations. Poaching for commercial purposes is the most detrimental because it has the greatest impact in terms of numbers of animals taken and is the most difficult to stop. The characteristics of this type of poaching often include the taking of threatened or endangered species; the killing of very large numbers of these species; the targeting of special by-products such as gallbladders or paws; and, poachers operating alone or as part of a sophisticated poaching ring (Gaski, 1997).

In addition to these types of poaching, TRAFFIC recognizes that simple greed can be a motivator in the illegal take and trade of wildlife, where an individual or group wants to take more of a species than is legally allowed and believes that they can sell the by-products for enough to make the risk of being caught worthwhile.

TRAFFIC did not attempt to break out all of these different types of poaching in its surveys. Motive can be difficult to prove conclusively, and anecdotal evidence from individual cases is often not recorded or easily recovered. This analysis is included here merely to highlight that the reasons that individuals might poach can be complex, with commercial trade only part of the equation. TRAFFIC's surveys did attempt to quantify overall poaching, and also sought to determine if states, provinces, and territories have evidence of poaching for commercial trade.

Known and estimated poaching kills

TRAFFIC's 1996 survey asked states, provinces, and territories to report the number of known poaching kills during the years 1992 to 1995, and also to provide an estimate of how many poaching kills they suspect might be occurring but do not have enough information to classify as known kills.

Twenty-one U.S. states and 5 Canadian provinces responded to the question. The question did not apply to those states and provinces that have no black bear populations, and most of the others responded either "unknown" or reported that they do not track such information. In some cases, TRAFFIC surmised that authorities might be reluctant to reveal what they know or provide estimates that could compromise law enforcement efforts. Recent operations and events in two U.S. states illustrate the sensitivity of such information.

For example, Oregon did not respond to TRAFFIC's request for data on known or estimated black bear kills. Yet in 1996 the state had begun an investigation into the activities of a poaching ring that Oregon officials estimated might have killed 50 to 100 bears per year over a period of 5 to 10 years. Following an undercover investigation, in 1998 Oregon State Police arrested 12 people and seized 28 gallbladders. Included in the arrest was one ringleader who was convicted in 1999 of felony racketeering charges related to 49 separate wildlife offenses, one count of theft, and one count under the Racketeer Influenced and Corrupt Organizations Act (RICO) (*TRAFFIC North America*, September 1999; Barcott, 1999). The state may have had suspicions of black bear poaching while responding to the survey, but may not have wanted to release information while an investigation was ongoing.

Similarly, Virginia left TRAFFIC's survey questions regarding poaching kills blank. Though the state simply may not keep records of such information, it is interesting to note that another high-profile operation, dubbed "Bear SOUP,"¹ resulted in 1999 in criminal charges against 52 people involved in a ring that sold approximately 300 gallbladders a year over a period of 13 years to customers in Maryland, New York, and the District of Columbia. Along with local and state charges related to the poaching, nine people were charged federally with violating the Lacey Act (*TRAFFIC North America*, September 1999).

While cases like these are anecdotal and unusual in their scope, they do point out that there may be known or suspected poaching operations (and law enforcement efforts to stop them) that do not appear in the statistics gathered by TRAFFIC. It is also impossible to quantify the number of

¹ "SOUP" stands for Special Operation to Uncover Poaching. This was a joint operation of the U.S. Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, and the National Park Service.

bears that may have been taken by poaching rings or individuals that have not yet been detected. Again, judging by the continuing growth of bear numbers, there is no evidence that such poaching activity is widespread enough to threaten the overall black bear population. Table 24 presents the numbers of known and estimated black bear poaching kills by respondents.

Most states and provinces were reluctant to estimate the number of poaching kills beyond what was actually known. West Virginia, for example, responded that it does not estimate kills, but reports only when there is an actual dead bear. As can be seen in table 24, the majority of those that provided numbers estimated a few per year.

Poaching linked to bear trade

TRAFFIC also specifically asked respondents: "Have there been any reported cases of black bear poaching kills in your state/province/territory in which only the gallbladder and/or paws were removed?" The purpose of this question was to get an indication from wildlife authorities of how often they encounter poached bears that are likely to have been killed for the parts trade.

Thirteen U.S. states and 7 Canadian provinces and territories reported such cases during the survey period, while a number of others indicated that they do not keep records on the subject. Of the U.S. states that responded,

Table 24. Known and Estimated Black Bear Poaching Kills in the United States and Canada, 1992-1995

(21 states and 5 provinces and territories)

	1992		1993		1994		1995	
State/Prov Territory	# Known Kills	#Est'd Kills	# Known Kills	#Est'd Kills	# Known Kills	#Est'd Kills	# Known Kills	#Est'd Kills
Alabama	0	1-2	0	1-2	0	1-2	0	1-2
Alaska	0	0	1	0	2	0	—	—
Arkansas	2	5	1	5	0	5	1	5
California	—	<400	—	<400	—	<400	—	<400
Connecticut	0	0	0	0	0	0	1	1
Florida	1	—	6	—	1	—	1	—
Georgia	6	12	3	7	0	5	9	15
Maryland	3	—	1	—	2	—	4	—
Massachusetts	4	—	0	—	1-2	—	2-3	—
Michigan	4	—	3	—	3	—	4	—
Minnesota	2	?	5	?	1	?	13	?
Nevada	0	0	0	—	1	1	0	—
New Hampshire	<5	—	<5	0	<5	—	<5	0
N. Carolina	23	—	8	—	14	—	11	—
Oklahoma	0	2	1	2	1	2	0	2
Rhode Island	0	0	0	0	0	0	0	0
S. Carolina	—	—	—	—	1	—	—	—
Tennessee	24	—	2	—	1	—	1	—
Utah	1	3	1	3	0	3	0	3
Vermont	4	—	4	—	2	—	7	—
West Virginia	17	—+	24	—+	10	—+	14	—+
Manitoba	—+	—+	—+	—+	—+	—+	—+	—+
Newfoundland	0	<5	0	<5	1	<5	0	<5
Nova Scotia	0	—	0	—	0	—	0	—
Ontario	4	—	18	—	37	—	44	—
Quebec	25	3	8	1	16	2	32	3

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

West Virginia: Does not estimate kills. Reports only when there is an actual dead bear. **Manitoba:** Did not provide numbers, estimated "minimal."

Arizona reported two cases in 1995 and California reported one in 1992, four in 1993, five in 1994, and two in 1995. Other states do not keep exact records, but did provide a general number of such cases seen per year. Colorado, for example, reported 20 or fewer per year, Idaho fewer than 10 per year, Maine 10 to 25 per year, Michigan about 2 per year, Utah about 6 per year, and West Virginia 1 to 2 per year. Minnesota, Tennessee, Virginia, Wisconsin, and Wyoming responded that such cases occurred, but that no records of how many exist. Mississippi reported one 1994 case in which paws were removed from a bear hit by an automobile—the respondent suggested that someone who found the bear may have wanted the claws.

In Canada, British Columbia, which reported that it does not keep records on the subject, gave a best professional estimate of about 25 cases per year of black bears found dead with only gallbladders and/or paws removed. Ontario reported that it averages about 2 such cases annually (although in 1995 there were 23, which was described as “abnormally high”), and Saskatchewan estimated having fewer than 5 such cases per year. The Yukon Territory reported 2 cases in 1994 but none for other years, while the Northwest Territories report that “only circumstantial evidence exists” of such activity. Quebec responded that such cases occur, but did not quantify how many per year. Manitoba had no data.

As with the general question of known and estimated poaching kills, it is clear from these responses that some poaching is related directly or indirectly to the parts trade. Some of the cases reported may be people poaching specifically for the value of the parts. In others, the bear itself may be the object of a poaching expedition, and the value of the parts a bonus.

Law Enforcement Activity

When TRAFFIC asked wildlife authorities whether trade was increasing, decreasing, or stable, many of the respondents indicated that their answers were based at least in part on the results of undercover investigations or enforcement activities. Another survey question asked respondents to indicate specifically whether enforcement personnel participated in

investigations involving trade of black bear parts in each of the survey years 1992 to 1995, and also in the years 1989 to 1991. TRAFFIC also asked whether state, provincial, and territorial wildlife agencies had established cooperative agreements for joint enforcement/investigations with other law enforcement agencies. The purpose of these questions was to get some idea of the extent of bear trade investigations, enforcement efforts, and interagency/interjurisdictional cooperation.

Participation in investigations

As detailed in table 25, of 51 responding jurisdictions, 21 U.S. states and 5 Canadian provinces and territories responded that they conducted bear trade investigations during at least some of the years 1989 to 1995. Of these, 9 U.S. states and 3 Canadian provinces reported the involvement of enforcement personnel in every one of the 7 years in question. Some further states, provinces, and territories reported bear trade investigations in specific years during the survey period, while others indicated that they did not participate in such investigations or left the survey section blank.

It is possible that the number of states, provinces, and territories with law enforcement investigations during the period was higher than reported, but the relevant information was not forwarded to TRAFFIC. One problem with the response rate seemed to be that in many jurisdictions wildlife management and law enforcement are handled by different divisions within wildlife agencies, and in some cases by separate agencies altogether. This bifurcation of responsibility also hindered efforts to gather information on arrests, convictions, and sentences.

The data gathered, however, do show that investigations into the bear trade were conducted in a number of jurisdictions during the survey period. TRAFFIC believes that such operations are a critical component in efforts to promote black bear conservation and stem illegal trade.

Table 25. Involvement of Enforcement Personnel in Investigations of Trade in Black Bear Parts

State/Prov/Territory	Personnel Involved in Bear Trade Investigations?						
	1989	1990	1991	1992	1993	1994	1995
<i>The United States</i>							
Alabama	No	No	No	No	No	No	No
Alaska	No	No	No	No	No	No	No
Arizona	No	No	No	No	No	Yes	Yes
California	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colorado	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connecticut	No	No	No	No	No	No	No
Delaware	No	No	No	No	No	No	No
Florida	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Georgia	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hawaii	No	No	No	No	No	No	No
Idaho	Yes	No	No	No	No	Yes	Yes
Illinois	No	No	No	No	No	No	No
Indiana	No	No	No	No	No	No	Yes
Iowa	No	No	No	No	No	No	No
Kansas	No	No	No	No	No	No	No
Kentucky	No	No	No	No	No	No	No
Louisiana	No	No	No	No	No	No	No
Maine	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Maryland	No	Yes	No	No	No	No	Yes
Massachusetts	No	No	No	No	No	No	No
Michigan	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Minnesota	No	No	No	No	No	No	Yes
Mississippi	No	No	No	No	No	Yes	Yes
Nebraska	No	No	No	No	Yes	No	No
Nevada	No	No	No	No	No	No	No
New Hampshire	No	No	No	No	No	No	No
North Carolina	Yes	Yes	Yes	No	No	No	Yes
North Dakota	No	No	No	No	No	No	No
Ohio	No	No	No	No	No	Yes	Yes
Oklahoma	No	No	No	No	No	No	No
Oregon	No	No	No	Yes	Yes	Yes	Yes
Rhode Island	No	No	No	No	No	No	No
South Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tennessee	No	No	No	No	Yes	Yes	No
Texas	No	No	No	No	No	No	No
Utah	No	Yes	Yes	Yes	Yes	Yes	Yes
Vermont	No	No	No	No	No	No	No
Virginia	No	No	No	No	No	No	No
West Virginia	No	No	No	No	No	No	No
Wisconsin	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wyoming	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Canada</i>							
British Columbia	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manitoba	No	No	No	No	Yes	Yes	Yes
Newfoundland	No	No	No	No	No	No	No
Northwest Territories	No	No	No	No	No	No	No
Nova Scotia+	No	No	No	No	No	No	No
Ontario	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PEI	No	No	No	No	No	No	No
Quebec	No	No	No	No	No	No	No
Saskatchewan	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yukon Territory	No	No	No	No	No	Yes	No

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

Nova Scotia: No investigations during this period. No requests from outside provinces.

Interagency/Interjurisdictional cooperation

TRAFFIC's survey requested that respondents indicate whether the wildlife agency in their state, province, or territory had established cooperative agreements for joint law enforcement/investigations with various other police, federal, or state agencies, and also with

wildlife agencies from other jurisdictions. Thirty-three states, provinces, and territories responded affirmatively. Only one state reported "none." A number of U.S. and Canadian jurisdictions pointed out that they work with many outside agencies but do not have formal agreements; joint undertakings are on a case-by-case basis. The full range of responses can be found in table 26.

Table 26. Interagency/Interjurisdictional Cooperative Agreements

State/Prov/Terr	Cooperative Agreement Established With				
	State/Prov/Territory Police	Fed Wildlife Agency	State/Prov/Territory Parks Agency	Fed Parks/Protected Area Agency	Wildlife Agencies in Other State/Prov/Terr
California	✓	✓+			
Colorado	✓	✓	✓	✓	✓
Connecticut		✓			
Florida		✓+		✓+	
Georgia		✓		✓	✓
Idaho	✓	✓	✓		✓
Illinois		✓			
Indiana		✓+			✓+
Kentucky+					
Maine		✓+			
Maryland		✓+			✓+
Michigan+					
Mississippi		✓			✓
Nebraska	✓	✓	✓	✓	✓
Nevada		✓			✓+
North Carolina		✓+			
Oklahoma		✓+			
Rhode Island		✓			✓
South Carolina		✓+			✓+
Tennessee		✓			
Texas		✓	✓	✓	
Utah		✓+			
West Virginia		✓	✓	✓	✓
Wisconsin					✓+
Wyoming		✓		✓	✓
Brit. Columbia+	✓+	✓+		✓+	✓+
Manitoba	✓	✓	✓	✓	✓
Newfoundland	✓+	✓+			
NWT		✓+			✓
Nova Scotia+	✓+	✓+	✓+	✓+	✓+
Ontario	✓+	✓+			✓+
Quebec	✓+	✓+	✓+	✓+	✓+
Saskatchewan	✓	✓			✓
Yukon Terr.		✓			✓

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Information:

California: USFWS. **Florida:** USFWS, US Forest Service. **Indiana:** USFWS, Colorado, Minnesota, Illinois. **Kentucky:** "Our agency cooperates with any other law enforcement agency involved in enforcing our wildlife laws." **Maine:** USFWS. **Maryland:** USFWS, West Virginia, Pennsylvania, Virginia. **Michigan:** Done on a case-by-case basis. **Nevada:** All western states. **North Carolina:** USFWS. **South Carolina:** USFWS, North Carolina Dept. of Natural Resources, Tennessee Dept. of Natural Resources. **Utah:** USFWS-APC. **Wisconsin:** Minnesota. **British Columbia:** RCMP, Environment Canada, Parks Canada, USFWS, states adjoining B.C. and Provinces to east. Except for Environment Canada, no formalized agreements exist. Rather, on a case-by-case basis, investigations of mutual concern are undertaken jointly. **Newfoundland:** Royal Newfoundland Constabulary, RCMP, Canadian Wildlife Service. **Northwest Territories:** Canadian Wildlife Service. **Nova Scotia:** Also Customs officers. "Not formal agreements but continue to work in cooperation" with other agencies. "Our staff make a point of keeping others informed of these matters and what to watch for." **Ontario:** Informal agreements – OPP-CISU-Toronto Metro Police. Canadian Wildlife Service, USFWS, RCMP, all provinces (numerous). **Quebec:** Surete du Quebec, GRC (RCMP); Canadian Wildlife Service, Canadian Fish and Wildlife; Reserves Fauniques et Parks Provinciaux; Parcs Federaux, Parks Canada; Ontario, New Brunswick; Newfoundland, etc; Direction des expertises judiciaires (provincial).

TRAFFIC was encouraged by both the range of cooperative agreements reported and the frequent reference to being willing to work on cases with other agencies and jurisdictions. Given the ability of the bear trade to move across both national and international borders, cooperation and information-sharing is critical to conservation efforts.

Arrests, Convictions, and Sentences

The low response rate to the survey question regarding arrests, convictions, and sentences for illegal take or killing of black bear and commercialization of bear parts proved somewhat disappointing. Only 17 U.S. states and 5 Canadian provinces and territories provided information related to illegal take or

Table 27. Arrests and Convictions for Illegal Take or Killing of Black Bear

State/Province/Territory	Arrests/Convictions			
	1992	1993	1994	1995
Alabama	0/0	0/0	0/0	0/0
California	1/1	4/4	5/5	2/2
Colorado	—	12/10	11/8	10/8
Connecticut	—	—	1/1+	1/0
Delaware	0/0	0/0	0/0	0/0
Florida	0/0	2/1+	1/1+	2/0+
Georgia	3/1+	7/6+	5/2+	13/10+
Idaho	11/6+	14/10+	22/15+	5/3+
Maryland	1/0	0/0	2/1+	2/2+
Michigan	1 case+	6 cases+	2 cases+	1 case+
Nevada	—	—	1/1+	—
Ohio	—	—	1/1+	1/1+
Rhode Island	0/0	0/0	0/0	0/0
South Carolina	0/0	2/2+	2/2+	2/1+
Tennessee	20/NA+	27/NA+	22/NA+	29/NA+
Utah	—+	4/4+	4/4+	4/4+
Vermont	0/0	2/0	0/0	0/0
British Columbia	0/0	2/1+	5/4+	2/2+
Nova Scotia	0/0+	0/0+	0/0+	0/0+
Ontario	—/4+	—/15+	—/28+	—/21+
Saskatchewan	—	3/3+	—	—
Yukon Territory	0/0	0/0	0/0	0/0

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

Connecticut: Punishment in 1994 case was \$800 fine and loss of firearm; evidence seized was 1 carcass. **Florida:** 1993 case resulted in fine of \$2,312.50 and jail sentence of 15 days; evidence seized were firearms (30/30 Marlin rifle and Remington 12-gauge shotgun). No data available on 1994 and 1995 cases. **Georgia:** 1992 conviction resulted in fine of \$250; evidence seized was 1 carcass. 1993 convictions resulted in 6 fines of \$100-\$1,500; evidence seized were 6 carcasses. 1994 convictions resulted in 2 fines of \$500; evidence seized was 2 carcasses. 1995 convictions resulted in 10 fines of \$1,765 (unclear if this is per or total); evidence seized was 10 carcasses. **Idaho:** 1992 cases resulted in 6 fines from \$50-\$350. 1993 cases resulted in 10 fines of \$15.50-\$200. 1994 cases resulted in 15 fines of \$15.50-\$300. 1995 cases resulted in 3 fines of \$15.50-\$200. **Maryland:** 1994 case resulted in community service; animal not recovered. 1995 case resulted in 2 fines of \$3,500 (unclear if per or total) and jail sentences of 60 and 30 days; carcass, hide, paws, skull seized. **Michigan:** Reported that in all cases the range of fines was ~\$300; jail time was unclear. **Nevada:** 1994 case resulted in fine of \$2,000 and seizure of 1 carcass. **Ohio:** 1994 case resulted in fine of \$500 and seizure of a carcass. 1995 case(s) resulted in 2 fines of \$1,500, 2 suspended jail sentences, and seizure of a carcass. **South Carolina:** 1993 case(s) resulted in 2 fines of \$1,500 (unclear if this is per or total) and seizure of a carcass. 1994 case(s) resulted in 2 fines of \$1,500 (unclear if this is per or total) and seizure of a carcass. **Tennessee:** State indicated that prosecution reports for these offenses are not computerized. They are archived, and time constraints did not allow for a search. **Utah:** Reported 1993, 1994 and 1995 cases resulted in fines in the range of \$1,000+ and suspended jail sentences. 1993 and 1994 cases involved seizures of carcasses/hides and in 1995 carcass(es), hide(s), and gall(s) – exact numbers not indicated. **British Columbia:** 1993 conviction resulted in fine of \$300. 1994 conviction resulted in 1 fine of \$200. 1995 cases resulted in 3 fines of \$100-\$300. **Nova Scotia:** "Only cases where property owners killed bear in defense of" (such property). **Ontario:** Reported only convictions, not arrests. 1992 cases resulted in 3 fines with a total of \$1,807; the number of carcasses seized was unknown. 1993 cases resulted in 11 fines with a total of \$8,378; the number of carcasses seized was unknown – 3 galls seized. 1994 cases resulted in 22 fines for a total of \$17,975; 4 carcasses and 8 galls seized. 1995 cases resulted in 12 fines totaling \$2,805; the number of carcasses seized was unknown. **Saskatchewan:** 1993 cases resulted in 3 fines in the range of \$750-\$1,300; 2 live bears and 1 carcass were seized. **Yukon:** "Note: Within the years 1992-1995 there were several prosecutions involving people who legally killed bears but failed to submit the required parts. Also there was one conviction for failing to report a bear killed in defense."

killing (poaching, illegal killing of nuisance bears, etc.), and 17 U.S. states and 5 Canadian provinces and territories also responded with information on arrests, convictions, and sentences for illegal commercialization (the same Canadian jurisdictions provided information for both questions, but responding U.S. states differed slightly).

Jurisdictions that did not respond gave different reasons. Several stated that such information is under the purview of other agencies or branches of government. Some indicated that the information is not computerized, but rather archived, and time and resource constraints did not allow for a thorough search. And in some U.S. states, violations involving black bears were

not separated from other species except on arrest sheets, and no attempt was made to record individual species violations. Thus databases may track wildlife arrests and convictions, but it is impossible to quickly sort black bears from cases involving other species. Table 27 details respondents' answers regarding arrests and convictions for illegal take or killing of black bears, and table 28 details arrests and convictions for illegal commercialization of black bear parts. For the latter, TRAFFIC notes that the number of arrests and convictions depended on the details of the law: In states, provinces, and territories where sale was legal, arrests and convictions occurred only when sales were made outside of the boundaries of legally authorized practices.

Table 28. Arrests and Convictions for Illegal Commercialization of Black Bear

State/Province/Territory	Arrests/Convictions			
	1992	1993	1994	1995
Alabama	0/0	0/0	0/0	0/0
Arizona	1/1+	0/0	0/0	0/0
California	1/1	4/4	5/5	2/2
Colorado	—	1/1+	—	3/3+
Connecticut	0/0	0/0	0/0	0/0
Delaware	0/0	0/0	0/0	0/0
Florida	4/1+	5/2	22/6+	27/7+
Georgia	9/0+	1/0+	0/0	10/0
Idaho	0/0	0/0	0/0	0/0
Maryland	0/0	0/0	0/0	0/0
Minnesota	—	—	—	1/1+
Mississippi	0/0	0/0	3/0+	7/0+
Ohio	0/0	0/0	0/0	0/0
South Carolina	0/0	1/1+	0/0	0/0
Tennessee	2/0+	1/0+	1/0	0/0
Utah	—+	—+	4/4	4/4
Vermont	0/0	0/0	0/0	0/0
British Columbia	0/0	1/0+	11/2+	28/4+
Nova Scotia+	—	—	—	—
Ontario	—/0+	—/3+	—/9+	—/0+
Saskatchewan	—	—	2/2+	—
Yukon Territory	0/0	0/0	0/0	0/0

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

Arizona: Resulted in \$300 fine; evidence seized was 2 galls. **Colorado:** 1993 evidence seized was gall/carcass/hide. 1995 evidence seized included gallbladders, carcasses, hides. Intelligence indicated galls were destined for overseas markets. **Florida:** 1992 conviction brought \$250 fine; evidence seized was 1 skull. 1993 case resulted in 2 fines of \$207.50. 1994 convictions brought 5 fines of \$0-\$200; 1 skull and 8 claws seized. 1995 convictions resulted in 6 fines (incomplete data available) between \$0-\$643, and 1 jail sentence of 30 days; 1 hide seized. **Georgia:** 1992 cases brought 1 fine of \$250. 1993 case brought \$500 fine. No info. on evidence seized available. **Minnesota:** Indicated a fine in 1995 case, but not amount; evidence seized was a gall. **Mississippi:** 1994 cases resulted in 3 fines of \$2,000-\$4,000, and 1 jail sentence of 1 month. 1995 cases resulted in 7 fines of \$2,000-\$4,000 and 1 jail sentence of 1 month. **South Carolina:** 1993 case resulted in fine of \$600 and seizure of a hide. **Tennessee:** Indicated teeth and claws were seized in these cases. **Utah:** Suggested TRAFFIC use Colorado statistics for 1992 and 1993 (joint effort between the states). **British Columbia:** Distinguished between trafficking and sale/purchase. 1993 trafficking charge brought no conviction. In 1994 11 charges of trafficking brought 2 convictions; evidence seized included galls and paws – fines for galls were \$8,100CAD each and \$250CAD for other parts, 2 jail sentences of 12 months each also given. In 1995, 4 convictions for trafficking brought fines of \$500-\$2,500 for the galls and no fines for the other parts, including paws, genitalia, and meat. **Nova Scotia:** "No investigations during this time." **Ontario:** Reported only convictions, not arrests. 1993 cases resulted in 3 fines in the range of \$3,000CAD; 3 galls seized. 1994 cases resulted in 8 fines of \$13,415CAD (perhaps this is total); 8 galls seized. **Saskatchewan:** 1994 cases resulted in 2 fines ranging from \$1,500-\$3,000CAD; 30 galls seized.

In its last question in this category, TRAFFIC asked: “Did any of the above cases involve evidence of illegal export of black bear parts or intended illegal export of black bear parts?” Fifteen of the 19 jurisdictions that answered the question responded “no,” and four responded “yes.” Colorado reported that intelligence indicated that gallbladders seized in its 1995 commercialization case were destined for overseas markets. Idaho noted a case involving gallbladders that turned out to be not from bears but from pigs. British Columbia reported a 1994 case involving the export of bear parts to the United States (California), that resulted in two fines of \$8,100 each. Ontario reported cases, but did not specify the details. In addition to these, one jurisdiction with an ongoing investigation into bear parts trade under way responded “no...comment,” an entirely appropriate response given the circumstances.

Penalties for Hunting Violations, Poaching, Sale of Parts

As demonstrated by the variety of judicial outcomes for convictions related to poaching or illegal trade in black bear parts, flexibility is a hallmark of U.S. and Canadian penalties for such violations. In the United States, a few states set specific penalties in their statutes covering bear trade, but in most states violations of wildlife laws fall under general criminal codes as various degrees of misdemeanors, offenses, violations, and felonies. Potential penalties can thus vary considerably within a single state, depending on the nature of the offense and the judgments of prosecutors and courts. Canadian maximum penalties for violations tend to be more severe than those in the United States, at least monetarily, with many provinces and territories implementing systems of fines that can rise well above \$10,000. However, some Canadian jurisdictions do not have provisions for jail time for offenders, and actual fines imposed are often far less than the maximum allowed by law.

Also, because the wide range of possible punishments precludes determination of what a “typical” penalty might be for a violation, TRAFFIC’s survey asked states, provinces, and territories to provide only the maximum penalties, thus defining the upper range of what offenders might face. These parameters are described in table 29, and a more detailed description of the range of offenses and penalties is provided in appendix 17.

Penalties for poaching/illegal take

Of the 42 U.S. states that responded to this question, most provide for both fines and possible jail time for illegal take of black bears. At the lenient end of the scale are states such as Alabama, which provides for a fine of \$250 to \$500 per offense, with no jail sentence. Other states can be lenient, especially with first time offenders, but have provisions that significantly escalate punishments for repeat or egregious offenders. For example, in Tennessee a simple poaching violation can bring a \$25 to \$50 fine. However, the maximum penalty possible is a fine of \$2,500 and a year or more in jail. At the other end of the spectrum, states with high fines include California, Florida, and Georgia (at \$5,000) and Colorado, where “willful destruction” of an animal can be punishable by up to \$100,000 and a lifetime license suspension. In short, in many states the punishment depends on the circumstance of the offense, and prosecutors and courts have a great deal of leeway in determining punishment.

Jail sentences vary similarly. Seven U.S. states reported maximum jail sentences between zero and 6 months, but one went as high as 5 years. Because of the wide range of possible charges for illegal take of black bears in some states, it proved difficult to determine likely penalties. For example, in Alaska, persons charged with a “violation” can receive a \$300 fine and no jail time. Persons charged with a Class B misdemeanor can receive up to a \$1,000 fine and up to 90 days in jail. Persons charged with a Class A misdemeanor can receive as much as a \$5,000 fine and up to a year in jail. Possible penalties therefore depend upon the circumstances of each case and what charges are brought against individuals for their role in the illegal activity.

Nine of the 10 Canadian jurisdictions that responded to this part of TRAFFIC’s survey have penalties for illegal take of black bears. Generally, fines in Canada tended to be much more severe during the survey period than they were in the United States. The most lenient fine structure was reported by Newfoundland, at a \$500 to \$1,000CAD maximum; the most severe structures were in Ontario and Saskatchewan, both of which reported maximum fines of \$25,000CAD. However, since the survey British Columbia has reported that its fine of \$10,000CAD for a first offense would likely increase to \$50,000CAD. On the other hand,

Table 29. Maximum Penalties for Illegal Taking or Killing of Black Bear

State/Prov/Terr	Maximum Fine				Maximum Jail Time		
	\$1-500	\$100-1000	\$1000-2000	\$2000+	0-6 Mo.	6-12 Mo.	1 Year +
Alabama	✓						
Alaska+							
Arizona			✓			✓	
California				✓+			✓
Colorado			✓+				✓+
Connecticut	✓+				✓		
Florida				✓+			✓+
Georgia				✓+		✓	
Idaho			✓				
Kentucky			✓+				✓
Louisiana				✓			✓
Maine			✓			✓	
Maryland			✓			✓	
Massachusetts		✓			✓		
Michigan			✓		✓		
Minnesota			✓			✓	
Mississippi				✓			✓
Nebraska			✓			✓	
Nevada				✓		✓	
New Hampshire+							
North Carolina				✓+	✓		
North Dakota+							
Ohio			✓				
Oklahoma		✓			✓		
Oregon+					✓		
Rhode Island		✓					
South Carolina				✓+			✓+
Tennessee	✓						✓
Texas		✓+	✓+	✓+		✓+	
Utah				✓			✓
Vermont		✓+			✓		
Virginia+							
West Virginia			✓				
Wisconsin				✓+		✓	
Wyoming			✓			✓	
British Columbia				✓+	✓		
Manitoba				✓+		✓	
Newfoundland		✓			✓		
Northwest Terr.			✓+			✓+	
Nova Scotia				✓+		✓+	
Ontario				✓+			
Quebec				✓+			
Saskatchewan				✓+	✓		
Yukon Territory				✓+		✓+	

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

Alaska: Can be a violation (up to \$300 and no jail time) or a class B misdemeanor (up to \$1,000 fine and 0-90 days in jail). **California:** \$5,000, plus 1 year in jail. **Colorado:** \$1,000 fine + 37% surcharge. If sale/willful destruction violation is Class 5 felony: 1-4 years, \$1,000/\$100,000 fine or both and lifetime license suspension. **Connecticut:** Per each offense. **Delaware:** No black bear population. Violation for illegal trade only. **Florida:** Maximum is \$5,000 fine, 5 years in prison. **Georgia:** Maximum \$5,000 fine, varies with court system. **Kansas:** No black bear population. Violation for illegal trade only. **Kentucky:** Also loss of license and replacement costs of animal. **New Hampshire:** "Violation" if a "Natural Person"; misdemeanor for anyone else. In addition to penalties person convicted of illegal take or possession may be fined up to \$500 restitution for each animal. **North Carolina:** Not less than \$2,000; also \$1,035 replacement cost of the animal. **North Dakota:** No state penalty set. **South Carolina:** Maximum \$2,500 fine plus \$1,500 restitution; 2 years prison. **Texas:** 1st offense \$25-500; 2nd offense \$200-1,000, up to 6 months jail; 3rd offense \$500-2,000, up to 1 year in jail. **Vermont:** \$250-499 is for 1st offense, \$500-999 is for second offense. **Virginia:** Illegal take and possession are Class 3 misdemeanors. **Wisconsin:** Plus costs. **British Columbia:** \$10,000CAD 1st Offense; 0-6 Months jail Sentence. Increase anticipated to \$50,000CAD and/or 6 Months. **Manitoba:** Fine \$0-\$50,000CAD, 6-12 months in jail. **Northwest Terr.:** Jail, fine, or both. **Nova Scotia:** \$2,350CAD fine each offense; Six months jail sentence. **Ontario:** \$25,000CAD fine; no jail sentence (proposed + 1 year jail under B.11 139). **Quebec:** Illegal Hunting \$2,281-\$6,843 fine including costs; illegal trapping \$604-\$1,843 including costs. No jail sentence. **Saskatchewan:** \$25,000CAD fine. **Yukon Territory:** \$10,000CAD fine; 12 months maximum jail sentence.

possible jail sentences in Canada are less severe. No Canadian jurisdiction reported possible jail sentences of more than a year.

Seven U.S. states and one Canadian province do not have laws that mandate punishment for illegal take of black bears—Delaware, Hawaii, Illinois, Indiana, Iowa, Kansas, North Dakota, and Prince Edward Island. Six of these states and Prince Edward Island have no black bears. North Dakota is unique in that it does have a small black bear population and state law protects the species from take and trade inside its borders, but there is no state penalty set.

Penalties for illegal sale

In the majority of U.S. states a first-time violation of laws on sale of game or protected species is a misdemeanor. Common penalties for first-time violations include loss of hunting privileges, fines, reimbursement or “restitution” to the state for each animal taken and sold, possible jail time, and forfeiture of some or all equipment used in the violation. Fines range from as low as \$25-\$50 (Tennessee) to up to \$10,000 (Minnesota) for a misdemeanor charge. In Montana the penalty for even a first offense can be a \$10,000 fine and/or one year in jail. Most states set the maximum penalty for a misdemeanor sale in the range of \$100 to \$5,000, plus possible jail time (in most cases not more than one year).

In a number of states, however, severe or repeated violations can be prosecuted as felonies, which along with increased fines and possible imprisonment carry the additional burden for violators of becoming a convicted felon. Table 30 shows the maximum penalties for illegal sale of black bear parts.

Criminal penalties for repeat offenders or for those caught selling multiple parts often increase significantly. Colorado fines for illegal sale of multiple bear parts can be up to \$10,000 per animal, plus possible jail time, and taking wildlife for only the parts and abandoning the carcass can bring a fine of up to \$100,000. In some states, authorities determine the severity of the offense on a case-by-case basis. Others use more specific criteria, spelling out escalating degrees of violation and

penalties based on the number of offenses. First offenses are generally low-level misdemeanors, punishable by fines and possibly a short jail sentence. Second, third, fourth (or in some laws simply “subsequent”) offenses are treated under these laws as increasingly serious misdemeanors, and sometimes even felonies, with an escalating scale of fines and possible imprisonment.

Five states link the severity of a violation and the applicable penalty to the value of the parts sold. In New York, for example, a violation is a misdemeanor when the value is \$250 or less (fine of \$500 and/or 15 days in jail), and also a misdemeanor when the value is \$250-\$1,500 (fine of \$5,000 and/or up to one year in jail). However, illegal sale of black bear parts is a Class E felony when the value exceeds \$1,500.

A number of states also have provisions for restitution to the state for animals illegally taken or sold. In Georgia the court may order restitution of not less than \$1,500 for each bear or bear part, along with other penalties. Kentucky law allows for the state to assess the “replacement cost” of the animal. Other states have similar systems.

Eight Canadian provinces and territories reported penalties for illegal sale of bear parts. As with illegal take, most jurisdictions can impose very heavy fines, far beyond those allowed in most U.S. states. Saskatchewan reported possible fines of \$100,000CAD, and British Columbia reported that its maximum fine of \$5,000CAD during the survey period would likely increase to



Penalties for poaching and illegal sale of bear parts vary greatly across North America. Though uniformity isn't critical, penalties should at least provide a significant deterrent to these activities.

Photo by W. J. Cook, National Park Service

\$25,000CAD or even \$100,000CAD. As table 30 shows, other Canadian jurisdictions also have severe existing or proposed financial penalties in their laws.

However, also as with illegal take, possible jail sentences in Canada are less severe than in the United States. Only Manitoba and Saskatchewan reported possible jail sentences of more than a year during the survey period, although Ontario noted a proposal to allow for sentences of up to two years.

As with poaching, five states and one province do not have state laws that mandate punishment for sale of black bear parts—Hawaii, Illinois, Indiana, Iowa, North Dakota, and Prince Edward Island. Delaware and Kansas, which do not have bears and do not have laws mandating punishment for take, do have laws mandating punishment for illegal sale. In responding to TRAFFIC's 1996 survey, several of these states indicated that in the absence of state bear laws, enforcement authorities rely on the federal Lacey Act to determine punishment if the sale violated that statute.

Federal Laws and Penalties

Finally, although it was not a major focus of this report or a category in TRAFFIC's surveys, we note that illegal commercialization of wildlife can also be punishable under federal laws in the United States and Canada.

Several such laws apply in the United States, the most prominent of which are the Lacey Act Amendments of 1981 (Lacey Act), which prohibit the import, export, transport, sale, purchase, receipt, or acquisition of wildlife taken, possessed, transported, or sold in violation of a state, federal, foreign, or tribal law or regulation, or which has been mismarked. Violators face a civil fine, forfeiture of wildlife, vehicles, and equipment. Violators can face a Class A misdemeanor penalty of a maximum one year in federal prison and a \$100,000 fine, or a Class D felony penalty, which carries a maximum of five years in prison and a \$200,000 fine. How a defendant is charged depends on certain proof elements such as knowledge of illegality and the market value of the wildlife (Anderson, 1997).

In addition to the Lacey Act, those apprehended for the illegal import, export, or sale of wildlife can also face punishment under other federal

laws indirectly related to wildlife trade. For example, U.S. federal law on Introduction of Merchandise Contrary to Law (Smuggling) prohibits import of "merchandise" (including wildlife) contrary to any federal law (ESA, Lacey Act, etc.) and provides a maximum felony penalty of five years in prison and a \$200,000 fine. "Conspiracy" occurs when two or more people agree to commit a federal crime and one of them takes any action (even a legal action) to further the agreement. Conspirators face misdemeanor or felony criminal sanctions, generally depending on whether the agreed-upon crime is a misdemeanor or felony. Laundering of Monetary Instruments (Money Laundering) is applicable to wildlife cases when a person transports, transfers, or transmits money from the United States to a foreign country (or vice versa) with the intent to promote smuggling activity, and it carries a maximum felony penalty of 10 years in prison and a \$500,000 fine. And False Statement, which also carries a felony penalty, occurs when a person makes a materially false statement to a government agency on a matter within that agency's jurisdiction. In the case of wildlife, all wildlife or wildlife products entering the United States must be presented for clearance to the U.S. Fish and Wildlife Service, thus lying on a customs or wildlife declaration form would trigger this law (Anderson, 1997).

Prior to 1996, and during the survey period, Canadian federal laws and penalties regarding trade in endangered and threatened wildlife existed in several different laws. These included the federal Game Export Act, which prohibited the removal of dead game or fur from a province or territory without a provincial permit; the Customs Tariff, which prohibited the import of listed wild specimens; and regulations under the Export and Import Permits Act, which put CITES into effect in Canada. In 1996, Canada enacted WAPPRIITA to bring these requirements together under one law, and also adopted the Wild Animal and Plant Trade Regulations.

While WAPPRIITA and the current regulations are relatively new, they effectively consolidate the trade controls that had been in effect for some time. Wild species controlled under the law are the same as those that were already subject to federal, provincial, territorial, or foreign laws. However, WAPPRIITA provides for more

Table 30. Maximum Penalties for Illegal Commercialization of Black Bear Parts

State/Prov/Terr	Maximum Fine				Maximum Jail Time		
	\$1-500	\$500-1000	\$1000-2000	\$2000+	0-6 Mo.	6-12 Mo.	1 Year +
Alabama	✓						
Alaska+							
Arizona				✓			✓
California				✓+			✓
Colorado				✓+			✓+
Connecticut	✓+				✓+		
Delaware	✓				✓		
Florida				✓+			✓+
Georgia				✓+		✓	
Idaho				✓+			✓
Kansas+							
Kentucky				✓+			
Louisiana				✓			✓
Maine			✓			✓	
Maryland			✓			✓	
Massachusetts		✓			✓		
Michigan			✓		✓		
Minnesota			✓			✓	
Mississippi				✓			✓
Nebraska		✓			✓		
Nevada				✓		✓	
New Hampshire+							
North Carolina				✓+	✓		
Ohio				✓+			✓+
Oklahoma		✓			✓		
Oregon							
Rhode Island		✓			✓		
South Carolina				✓+			✓+
Tennessee				✓+			✓
Texas			✓		✓		
Utah				✓			✓+
Vermont	✓+	✓+			✓		
Virginia+							
West Virginia			✓		✓		
Wisconsin				✓+		✓	
Wyoming			✓			✓	
British Columbia				✓+	✓		
Manitoba				✓+			✓
Newfoundland+							
Northwest Terr. +							
Nova Scotia				✓+	✓+		
Ontario				✓+			
Quebec				✓+			
Saskatchewan				✓+			✓
Yukon Territory				✓+		✓	

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities

+ Additional Comments:

California: Maximum \$5,000 fine. **Colorado:** For willful destruction or sale, penalty can be \$1,000 to up to \$100,000 + 37% surcharge, and 1 to 4 years in prison. **Connecticut:** \$200 fine, 60 days per each offense. **Florida:** Maximum \$5,000 fine, 5 years in prison. **Georgia:** \$5,000, varies with court system. **Idaho:** Depends on amount. **Indiana:** "No law relative to black bear in Indiana since they are not indigenous to Indiana. We would rely upon federal law upon conviction." **Kansas:** For simple violation, Class C misdemeanor; commercialization of wildlife having an aggregate value of less than \$500 is a Class A misdemeanor; commercialization of wildlife having an aggregate value of more than \$500 is a Class E felony. **Kentucky:** Violations punished with fines: first offense \$100-\$1,000; second offense \$500-\$1,500; subsequent offense \$2,000. **North Carolina:** Not less than \$2,000; also \$1,035 replacement cost of the animal. **Ohio:** 4th degree felony; maximum \$5,000 fine. **South Carolina:** \$2,500 fine plus \$1,500 restitution; 2 years in prison. **Tennessee:** Maximum \$2,500 fine. **Utah:** 0-5 years at the state level per 3d degree felony plus fines and restitution. **Vermont:** \$250-499 is for 1st offense, \$500-999 is for second offense. **Wisconsin:** Plus costs. **British Columbia:** \$5000CAD or 0-6 Months jail. Increase to \$25,000CAD and/or 6 months in jail, and possibly to \$100,000CAD and/or 1 year in jail anticipated in fall, 1999. **Manitoba:** Fine of \$0-\$50,000CAD, and one year or more in jail is possible. **Newfoundland:** Did not respond to this question. **Northwest Terr.:** Did not respond to this question. **Nova Scotia:** \$2,350CAD each offense; Six month jail sentence. **Ontario:** \$25,000CAD (proposed 100,000 & 2 years in jail under B.11139). **Quebec:** Illegal trade in gallbladders can be bring fines of \$2,281-\$6,843CAD (including costs); illegal possession can bring fines of \$302-\$937CAD (including costs). **Saskatchewan:** \$100,000CAD. **Yukon Territory:** \$10,000CAD.

effective and efficient enforcement and sets higher penalties for offenses (Canadian Wildlife Service, 2001).

Under WAPPRIITA, anyone who contravenes a provision of the act or the regulations can be found guilty of an offense on summary conviction and be liable to a fine not to exceed \$50,000CAD if a corporation, or to a fine of up to \$25,000CAD and/or six months in prison if not a corporation. Alternatively, offenders can be found guilty of an indictable offense and fined up to \$300,000CAD if a corporation, or up to \$150,000CAD and/or five years in prison if not a corporation. If a person is convicted of a second or subsequent offense, the amount of the fine may be doubled. Additionally, any fine involving more than one animal or plant, or part or derivative, may be computed in respect to each animal, plant, part, or derivative as though it had been the subject of a separate complaint and the fine imposed shall then be the sum payable in the aggregate of that computation. When an offense is committed or continued on more than one day, it is deemed a separate offense for each day.

Finally, when the court is satisfied that the offense brought monetary benefit to the person convicted, the court may order the person to pay (in addition to the fine) an amount equal to the court's estimation of those monetary benefits. The court can also order other restrictions and conditions on those convicted for a variety of reasons (Canadian Wildlife Service, 2001).

Because TRAFFIC's survey focused on state, provincial, and territorial wildlife management authorities, we did not compile statistics on how many arrests and convictions occurred during the survey period under federal laws. In general, however, it is clear that there is a fairly comprehensive set of federal laws in both the United States and Canada governing interstate, interprovincial, interterritorial, and international trade of wildlife. It remains important that federal authorities apply those laws vigorously in instances of illegal trade in bears and bear parts, and that they coordinate their enforcement activities with state, provincial, and territorial management authorities.

VI. CONCLUSIONS AND RECOMMENDATIONS

Information reported to TRAFFIC for this report revealed an encouraging picture of the status of the American black bear in the United States and Canada. On the whole, wildlife management authorities responsible for black bear conservation should take pride in and receive credit for the success of conservation efforts to date. The good news in this report should not, however, imply that complacency is in order. Although the data reported allowed TRAFFIC to draw some broad positive conclusions, it also suggested some specific areas where actions might be taken to further the cause of conserving North America's black bears.



Photo by Howard Buffett

The American black bear is largely a success story in North America. However, vigilance is needed to ensure that the species is adequately protected throughout the continent, so that the species continues to thrive.

Conclusions

The following conclusions summarize TRAFFIC's findings regarding the status, management, and trade of the American black bear, as well as the issues of poaching, law enforcement, and penalties.

Status

- Black bear populations increased significantly during the years covered by the three TRAFFIC surveys. The U.S. black bear population grew from an estimated 253,000-375,000 in TRAFFIC's first survey in 1988 to an estimated 339,000-465,000 reported in the 1996 survey, and the absence of data from some jurisdictions indicates that at least the minimum figure might be conservative. During the same period, Canada's black bear population estimate grew from 372,500-382,500 to 396,000-476,000.
- Black bear numbers appeared to be stable or increasing across the species' range. This would seem to indicate that wildlife

management efforts to conserve the species are showing some success.

- While resident populations of the American black bear inhabit 41 U.S. states and 11 Canadian provinces and territories, their distribution is uneven. The majority of the North American black bear population is concentrated in a limited number of states, provinces, and territories in the northern and western regions of the United States and the southern portions of Canada.
- Little information is available regarding the status of the black bear in Mexico. While some localized population surveys have been conducted and some management units have black bear management plans, it is not possible to provide a comprehensive estimate of the species' status in Mexico. In 2000, Mexico established a committee to study protection, conservation, and recovery issues, which may serve as a vehicle to address the current lack of data.

- Whereas all responding Canadian jurisdictions reported that at least 75 percent of available habitat was occupied by bears, a number of U.S. states reported much lower figures. Consistent with the previous conclusion regarding distribution, the majority of states reporting the lowest percentage of available habitat occupied were in the southern and southeastern portion of the country. It should be noted that the black bear was long ago extirpated from much of the midwestern United States, and many of those jurisdictions did not report “available” bear habitat.
 - There is an ongoing need to closely monitor black bear populations and develop scientifically based conservation plans for bears and bear habitat throughout North America. There is also a need to enhance programs to reintroduce the species in suitable areas of its historic range from which it is now absent.
 - Most U.S. states and all Canadian provinces and territories classify the black bear as a game species. Legal status as a game species does not mean in all cases that black bear hunting is allowed, and the designation often confers a species legal protection from trade under state law. In the United States, some states with small indigenous bear populations or populations of the Louisiana or Florida subspecies classify those populations as endangered, threatened, or protected. However, TRAFFIC also found that four U.S. states and one Canadian province do not have any legal classification for the black bear, which is a significant omission when it comes to the legality of trade in black bear parts.
- game license. Alaska and the Northwest Territories exempt some residents from these licensing requirements in certain areas.
- Licensing requirements and restrictions on nonresident hunters tend to be stricter than those for resident hunters. In addition, nonresident hunters are typically charged far more for licenses than are residents. Sale of black bear licenses generated significant revenue for a number of jurisdictions. These revenues can contribute significantly to black bear conservation.
 - States, provinces, and territories differ in the types of hunting methods they allow for black bears. Some allow the use of both dogs and bait, some allow one or the other, and some prohibit both practices. The use of dogs and bait has generated controversy, especially in the United States. Between 1992 and 1996, several U.S. states adopted ballot initiatives banning one or both practices, while other states rejected such restrictions. Given the strong constituencies on both sides of this issue, further efforts to either restrict or broaden legal hunting methods are likely.
 - The majority of U.S. states limit black bear hunting to a fall or fall/winter season (in some it begins as early as August). A far smaller number also allow bear hunting during a spring season. As with legal hunting methods, the practice of allowing spring bear hunts generates controversy in some U.S. states, and several banned the practice through ballot initiatives during the survey period. In Canada all jurisdictions but one allow bear hunting in both fall/winter and in the spring. Many Canadian jurisdictions also have far longer seasons for bear trapping.

Management

- Most jurisdictions with resident black bear populations allow black bear hunting. One U.S. state and 9 Canadian provinces also allow bear trapping. Most jurisdictions in both countries also permit the killing of problem or nuisance animals. Only 15 U.S. states prohibit the killing of black bears under almost all circumstances, and recently 2 of those have considered opening hunting seasons because of the growth of their bear populations.
- The majority of states, provinces, and territories require a specific license or tag to hunt black bears. A smaller number allow hunting with only a general or generic big
- In the United States, the vast majority of jurisdictions allow the take of only one black bear per year; in Canada, the limit typically varies from one to two bears per year. One key difference is that several Canadian provinces have no bag limits for black bear trapping.
- All U.S. states but one require hunters to report the take of black bears to management authorities. In the majority of these states, the reporting requirement includes physical check-in of the animal. The same is not true in Canada, where some provinces and territories have reporting requirements for sport hunters while others do not, and bear trappers often do not have to check-in or report animals taken.

TRAFFIC further found that little effort is made during the reporting process in either country to determine the extent to which gallbladders and other parts from legally harvested bears might be entering trade. Most jurisdictions use reporting requirements simply to record the age and sex of the animals for research and management purposes or to determine when hunting quotas have been met. Some jurisdictions mandate sealing or marking of harvested bears and their parts, and documentation of any sale, but many do not. An effort to harmonize reporting requirements and require sealing or marking of parts could provide useful information regarding the legal bear trade while helping to combat illegal trade.

- The number of bears legally harvested in the United States and Canada increased during the overall survey period. Whereas information provided to TRAFFIC for its 1992 survey indicated a harvest level of approximately 40,000 bears per year, figures provided for the 1996 survey suggest that this harvest level increased to 40,000-50,000 bears per year, with the higher numbers being reported in the later years of the survey period. This is perhaps not surprising given the concomitant increase in North America's black bear population.
- TRAFFIC was able to document an average of more than 2,000 black bears per year being killed during the period covered by the 1996 survey through nuisance animal control, road kills, poaching, and other human-caused mortality. That figure is probably somewhat conservative because not all jurisdictions keep statistics or reported numbers. Such human-bear conflicts may increase as both human and bear populations grow and communities expand into bear country.

Trade

- Black bear gallbladders and other parts are used by a number of different groups for various purposes, including traditional Asian medicine, food, souvenirs or curios, design and jewelry, trophies and taxidermy, and Native American ceremonies. Live bears are used in zoos, wildlife parks, and other collections or displays. Bear parts are used for these purposes both within North America and outside of it.

- A range of laws govern the trade in black bears and black bear parts. Federal laws control interstate, interprovincial, interterritorial, and international trade, while state, provincial, and territorial laws control sale within those jurisdictions.
- States, provinces, and territories have moved to tighten restrictions on trade in recent years, with a growing number banning the sale of gallbladders and other parts. Sale of gallbladders and paws is illegal in most places. The majority of jurisdictions overall also prohibit sale of claws and teeth. Laws regarding sale of hides are far less restrictive. Four U.S. states (Hawaii, Illinois, Indiana, and Iowa) and one Canadian province (Prince Edward Island) have no laws governing the bear trade. The fact that these jurisdictions have no black bear populations does not necessarily mean that they have no involvement in the trade. For example, Illinois reported trade, and other jurisdictions reported Illinois as a destination for black bear parts. This is a gap in the overall legal framework in North America that TRAFFIC believes should be remedied.
- Responses to TRAFFIC's 1996 survey regarding trade activities and trends for American black bears and their parts indicated little change from responses received in the 1992 survey. There is continuing trade, with nine U.S. states and two Canadian provinces assessing the level as "somewhat significant," but no responding jurisdiction describing it as "very significant." The trend in trade was reported to be increasing in two U.S. states, but only one U.S. state and one Canadian province responded that trade might be affecting the legal harvest of bears, with the Canadian province (Nova Scotia) adding that this has always been the case because trappers take the animals precisely because of their value. Only one U.S. state responded that it believed that illegal take might be having a negative impact on bear populations, and four others reported that trade might be having an impact on the number of bears taken illegally. No state, province, or territory reported that illegal harvest of bears was having an impact on opportunities for sport hunting, although one state pointed out that any poaching can have an impact.

- Markets for black bears and black bear parts exist in North America and overseas. Nine U.S. states and four Canadian provinces reported the existence of external markets for gallbladders, with some of these in Asia and others primarily in Asian communities in North America. Varying numbers of states, provinces, and territories also reported external markets for parts besides gallbladders.
- Twenty-one U.S. states and 7 Canadian provinces and territories reported local markets for black bears and their parts. The most widely used parts were carcasses and hides, for which local markets were reported in 24 jurisdictions. Twelve jurisdictions reported markets for gallbladders, 14 for paws, 19 for skulls, 17 for teeth, 20 for claws, and 8 for live bears. Some other jurisdictions did not have information available or did not respond to the survey, so these numbers are likely conservative.
- Prices for some black bear parts reported in TRAFFIC's 1996 survey increased from those reported in 1992, while others remained relatively stable. Unfortunately, many places did not have data on prices or did not respond to the question, so it was difficult to draw firm conclusions about price trends. Reported prices also varied considerably between jurisdictions for different individual parts. For example, in the United States estimated prices received by hunters for gallbladders ranged from \$20 to \$300, and for retailers from \$250 to \$1,000. Because trade is illegal in most places, TRAFFIC surmised that it is difficult to firmly establish a price because there is no open market. TRAFFIC believes that further work needs to be done by wildlife management authorities and law enforcement agencies to understand the price dynamics of the bear trade.
- Given the information gleaned from its surveys, and the continuing growth of most North American black bear populations, TRAFFIC concluded that further laws banning all trade in bear gallbladders or other parts at the national level are currently unnecessary. Indeed, concerns exist that closing legal markets have the unintended consequence of raising prices in the underground market and perhaps stimulating poaching and illegal trade. In addition, TRAFFIC is concerned that expending the necessary resources to enforce such a ban

could detract from the conservation of other species that are far more endangered or threatened by trade or for other reasons. The American black bear is listed in CITES Appendix II because of the similarity in appearance between its gallbladder and other parts to those of other severely threatened or endangered bear species elsewhere, not because it is itself facing a significant conservation threat. TRAFFIC concludes that, while some specific steps can and should be taken to better monitor and control trade in the American black bear, taking actions at this time to essentially treat it as an Appendix I species are not warranted.

- Both public agencies and private organizations could increase efforts to heighten consumer awareness within North America and abroad about what is legal and illegal with regard to trade in bear parts, the potential impacts of trade on bear populations, and the availability and efficacy of medicinally acceptable substitutes for bear parts.

Poaching, law enforcement, and penalties

- Information from the survey and anecdotal evidence from recent antipoaching investigations in the United States and Canada show that there continues to be illegal trade in black bear parts, which both countries must continue to combat even though it does not currently pose a significant threat to the overall abundance of the species.
- Illegal hunting remains poorly documented, with some jurisdictions not maintaining careful records of arrests, convictions, and seizures of black bear parts. In some cases incidents of black bear poaching are not recorded separately from those involving other species, which makes it difficult or impossible to determine how many reported poaching cases involve black bears. A number of states, provinces, and territories did provide information on poaching arrests, convictions, and seizures of black bear parts. Cases were reported in all regions of the black bear's range, which indicates that poaching is a widespread phenomenon. But not enough information was available for TRAFFIC to draw any firm estimates of how many bears are taken illegally in a given year. While in most of the reporting jurisdictions the numbers were fairly small, more needs to be learned about this subject.

- Motives for poaching can vary from taking for personal use to taking for commercial purposes. TRAFFIC's 1996 survey found incidents in a number of states and provinces of carcasses being found with only the paws and gallbladder removed, which suggests that the motive was to obtain those parts, in all likelihood for trade. Commercial poaching rings were also exposed during the survey period, and investigations into others were ongoing. But to draw the conclusion that bear poaching is the result of illegal trade pressure, or that illegal trade is necessarily the end result of poaching, is to overgeneralize a complex subject.
- Twenty-one states, provinces, and territories indicated in the 1996 survey that they conducted bear trade investigations during the survey period, some in every year and others only in specific years. In addition, almost all jurisdictions reported that they have formal or ad-hoc arrangements for interagency and interjurisdictional cooperation with other federal, state, provincial, or territorial authorities to investigate the trade. TRAFFIC believes that such activities are a crucial component of conservation efforts.
- Penalties for illegal take or commercialization of black bears vary widely among jurisdictions. Both the United States and Canada have federal laws that provide for stiff penalties for illegal import, export, or interjurisdictional trade. Some states, provinces, and territories also provide for large fines and possible jail time for those convicted. Others, however, have far more lenient penalties. In addition, TRAFFIC found that actual penalties given to offenders often fell far below the maximum allowed under the law, and some jurisdictions have no laws or penalties set at all. TRAFFIC concluded that an effort should be made to increase possible penalties in jurisdictions where they are weak, and to encourage prosecutors and judicial authorities to use the laws to impose penalties that actually serve as true deterrents to illegal take and trade.

Recommendations

Of course, to act on any of these fronts wildlife conservation agencies and others involved in bear conservation and law enforcement need adequate financial and staff resources. Current budgets for

habitat management, oversight of hunting and reporting, research, trade investigation, and law enforcement fall well short of what is necessary. Particularly needed are resources to support investigations of the dynamics of the black bear trade, such as the trends in demand and prices, which remain poorly understood. More resources are also needed to conduct undercover operations to expose illegal markets for black bear parts within North America and abroad, and to prosecute offenders effectively. TRAFFIC realizes that given current budgets, increasing support specifically for black bears or adding new mandates or responsibilities would likely mean less funding for other more threatened or endangered species. We do not mean to suggest that this should happen—ideally, budgets for wildlife conservation and management in general should be raised. In the interim, TRAFFIC believes that information from its surveys points to a number of actions that can be taken on behalf of the black bear at fairly low cost. Specifically, we recommend steps in the following areas.

Statutory Needs

- Every state, province, and territory should have a clear statute that directly addresses the issue of trade in black bear parts. TRAFFIC urges those jurisdictions currently without such laws to avoid being inadvertent consumers or conduits in the bear trade by passing laws to either ban trade or allow wildlife authorities to monitor and regulate it. In addition, all states, provinces, and territories that allow trade should review their statutes to determine whether they are adequate to detect and deter illegal sale of parts. This is especially true for those U.S. states that have no bear populations or allow for no hunting of and/or trade in parts from “indigenous” bears, but allow for trade in bear parts from other jurisdictions. At an absolute minimum, the black bear should receive legal classification and protection under state wildlife statutes.
- Another key statutory goal should be to develop more consistent and severe penalties for the sale of bear gallbladders, paws, and other parts to ensure that they pose a significant deterrent to illegal hunting and commercialization. Many jurisdictions have such statutes already, especially targeting repeat offenders or those caught with significant quantities of illegal bear parts. Every state, province, and territory should

adopt criminal statutes with provisions to make illegal commercialization a felony, and adopt penalties that include either steep minimum fines or a fixed mandatory penalty significantly higher than the value of illegally traded bear parts, as well as jail sentences that serve as genuine deterrents. Authorities should also consider earmarking revenue from all fines and penalties for direct application to bear conservation and management programs. In addition, every jurisdiction should consider providing for confiscation of any equipment used in the violation (weapons, vehicles, etc.) to serve as a further deterrent.

Conservation and monitoring needs

Long-term conservation of the American black bear will require scientifically based management plans and careful monitoring of populations. Every state, provincial, and territorial wildlife management agency (as well as federal authorities in some cases) needs to develop scientifically based management programs, using some common principles and practices.

- Management authorities should employ GIS modeling, conduct habitat surveys, or use comparable methods to develop accurate estimates of black bear populations and critical habitat. Such estimates are essential to establishing conservation and management plans, ensuring that hunting levels remain sustainable, and responding in a timely and effective manner to habitat loss or other factors that might lead to a decline in black bear populations.
- In those areas where potential bear habitat has been identified but the black bear has been extirpated, wildlife management authorities should work to reintroduce the species. Some such programs are under way in parts of the southeastern United States. TRAFFIC urges authorities at the state, provincial, territorial, and national levels to enhance such efforts.
- To help fund such activities, states, provinces, and territories should earmark revenues from bear hunting licenses and big game permits specifically for bear conservation and management programs. Some jurisdictions already do so, but others simply put these fees towards overall wildlife budgets or in the general treasury. These

revenues could be supplemented with funds from fines and penalties related to illegal take and trade as suggested above. Such a step could create a steady stream of funding for priority bear conservation activities, especially in jurisdictions with large numbers of bear hunters.

- It is especially important that Mexico undertake a comprehensive study of the size and status of its black bear population. Useful data would include identification of critical habitat, threats to that habitat and extant black bear subpopulations, and identification of conservation measures needed to ensure the survival of the black bear in Mexico. As in the United States, there could also be areas of potential black bear habitat where the species might be reintroduced.

Regulatory needs

- All states, provinces, and territories that allow black bear hunting should require reporting of kills to wildlife management authorities. Further, in the interest of learning more about the dynamics of the bear trade, TRAFFIC suggests that regulatory agencies that currently require reporting consider surveying hunters to try to determine the ultimate disposition (personal consumption, trophy, disposal, sale, etc.) of parts commonly associated with the bear trade. The various state, provincial, and territorial licensing and reporting requirements described in Section III of this report suggest that there is a framework in place which could prove useful to investigating the disposition of parts from the legal black bear hunt. Unfortunately, not all jurisdictions require reporting, and TRAFFIC's survey found that little attempt is made on the part of most to determine the destination or fate of parts such as gallbladders or paws once a carcass has been registered. By making a few changes to the current system and asking hunters to provide more information, wildlife management authorities could help fill a large gap in understanding of what happens to the parts of the 40,000-50,000 black bears taken annually.
- Additionally, jurisdictions which allow hunting of black bears should implement mandatory sealing or marking, registration, and recording systems to monitor levels and

trends of legal trade, assist in the enforcement of trade controls, and improve the availability and reliability of market information. Every jurisdiction should, at a minimum, require the sealing of black bear gallbladders, whether their sale is legal or not. An example of such a program can be found in Nova Scotia, which allows the sale of gallbladders. During the survey period, that province reported that all bear gallbladders must be sealed by the Department of Natural Resources with permanent locking devices having Nova Scotia identification and a recorded serial number prior to sale or export from the province. Records are kept of date of issue, hunter/trapper identification, license number, condition of the gallbladder (dried, frozen, or green), and the serial number. Gallbladders of other jurisdictions (any species of bear) passing through Nova Scotia are sealed only if accompanied by documentation proving legal origin from a jurisdiction that permits sale. A fee of \$5CAD per seal is charged to help cover administrative costs, as each seal requires additional time by department staff (Nette, 1997). Were a universal sealing requirement to be implemented throughout the United States and Canada, with records kept in a computer database accessible to federal, state, provincial, and territorial wildlife management authorities, it would become much more difficult to “launder” gallbladders across jurisdictional lines.

- Jurisdictions could also better coordinate and mutually enforce laws controlling bear trade by requiring accompanying documentation for all bear parts leaving or entering a jurisdiction. This is especially true for those that may not allow hunting or trade in their own bears, but do allow the import and sale of parts legally taken in other jurisdictions. Any gallbladder found without the required seal and documentation would automatically be considered contraband, and the person holding it subject to prosecution.
- Federal, state, provincial, and territorial authorities should further emphasize coordinated bear protection and management efforts. For example, authorities could promote regional strategies for bear conservation and conduct more interstate, interprovincial, and even international investigations of the bear trade.

Law enforcement needs

- Illegal trade in bear parts is fundamentally a law enforcement problem—the use of a public resource, wildlife, for illicit profit. Wildlife law enforcement agencies should expand special operations and undercover investigations to expose markets for black bear parts (within North America and abroad) and to track trends in demand and prices. A primary obstacle to combating illegal bear trade is the lack of intelligence on the scope and operation of the underground market. It is critical to maintain strong programs at the state, provincial, territorial, and national levels to undertake such activities.
- Essential to the success of such operations is the provision of resources for the law enforcement branches of the U. S. Fish and Wildlife Service and the Canadian Wildlife Service to thoroughly investigate the bear trade. Funding to conduct investigations into wildlife markets in North America should be increased, as should support for investigations of international trade. Such operations are currently among the most effective means for gathering information on the dynamics and impacts of illegal wildlife trade.

Information needs

- States, provinces, and territories, possibly in coordination with federal wildlife authorities, should consider ways to streamline and enhance their information systems. There is a basic lack of information available about critical aspects of the bear trade. Many jurisdictions left sections of the survey blank and reported that they do not track information such as prices, the number of arrests for bear poaching or seizures of illegal bear products, and other subjects. TRAFFIC realizes that compiling such information can be time-consuming, and resources and manpower are precious. We do not suggest setting up separate information systems just for black bears, but perhaps each jurisdiction might establish a database to track cases of poaching or illegal trade of all CITES-listed species, from which information on the black bear would be available. Even more broadly, such systems could track information on cases involving all federally listed species, species listed under other international treaties such as the Migratory Bird Conservation Act and the Marine Mammal

Protection Act, or species listed as threatened or endangered under state, provincial, or territorial law. Obviously, the costs involved in creating and maintaining such databases would be a factor in what is possible.

- In addition, greater effort should be made to exchange information on investigations and monitoring of bear populations among states, provinces, and territories and the U.S. Fish and Wildlife Service, the Canadian Wildlife Service, and perhaps other national agencies such as Environment Canada and the U.S. National Park Service, through a memorandum of understanding or other collaborative agreement.

Public awareness needs

- Public agencies and nongovernmental organizations (NGOs) should increase efforts to heighten consumer awareness within North America and abroad about what is legal and illegal with regard to trade in bear parts, the impacts of trade on bear populations, and the availability and relative efficacy of medicinally acceptable substitutes for bear parts. To accomplish this, local wildlife agencies, as well as the governments of the United States and Canada, should enhance public awareness campaigns, with special emphasis on potential consumer communities.
- NGOs can assist these efforts by disseminating information through membership and public information bulletins or other media; publishing accurate and impartial updates on bear trade issues; conducting education and awareness programs to inform the public about priority conservation needs; maintaining independent databases on bear trade in North America; monitoring the global trade in bear parts and law enforcement efforts in consumer countries; sponsoring forums to bring together wildlife managers, law enforcement personnel, policy makers, and researchers to help improve communication and foster cooperation; and, working with traditional medicine communities in North America and Asia to research and advocate appropriate substitutes for bear gallbladders.

Finally, both the United States and Canada must consider the international implications of how they manage bear trade. Unlike the American

black bear, many Asian bear species are truly at risk from overexploitation and trade, and a top priority should be to take all necessary steps to identify and address conservation priorities in Asia. At one level, this means shifting some attention to promote and fund research and conservation efforts within Asia. At another basic level, the United States and Canada should also continue to work with other CITES parties, especially Asian importers, to improve the enforcement of international trade controls and the accuracy and timeliness of data collection and reporting of trade in bear and other wildlife products.

Greater cooperation among governments is essential to improved law enforcement capabilities. Particular attention should be given to 1) the promotion of more effective interception of illegal bear parts at the point of export as well as import; 2) improvement of record-keeping for bears and bear parts intercepted at the point of export and import; 3) reporting of information to other CITES parties in a timely manner; 4) implementation of cost-effective means to target enforcement resources such as limiting designated ports of entry for wildlife shipments and better training of customs staff; and, 5) implementation of public education and awareness programs to actively discourage citizens from illegal trade in North American bears and their parts.

It is fortunate that the United States and Canada are in a position to take such actions at a time when conservation of the American black bear is generally a success story. It is increasingly rare around the world to have the opportunity to take action on behalf of a species on a purely preventative basis well before there is indication of a crisis. Unlike other species such as the tiger and rhinoceros that have become critically endangered at least in part because of pressures from wildlife trade and now require the highest degrees of protection and emergency support from the international community, the black bear can continue to thrive without such drastic measures. TRAFFIC North America will continue to closely monitor the status, management, and commercialization of the American black bear, and to advocate on behalf of measures to maintain the abundance of the species.

REFERENCES

- Alabama Game, Fish, and Wildlife Laws, Section 9-11-237, "Sale, Purchase, etc. of game birds or game animals; sale of furs, etc., of fur-bearing animals; sale of hides, etc., and of finished products."
- Alberta General Regulations. 2001. Hunting in Alberta.
www.albertaoutdoorsmen.org/huntingregs/genregs.html
- Anderson, R. 1997. An overview of U.S. federal charging and sentencing issues in bear parts trafficking cases. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 138-149.
- Arizona Revised Statutes (A.R.S.), Title 17 (Arizona Game and Fish Laws), sections A.R.S. 17-309.A.2. and A.R.S. 17-371.D.
- Baik, K. 2001. New developments in the use of synthesized bear bile in medicine. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- Barcott, B. 1999. The hunting of the poacher king. *Outside Magazine*, October 1999.
- Berkhoudt, K. 1999. *The Status of Bears in Europe and Russia*. TRAFFIC Europe, Brussels, Belgium. 159 p.
- Canadian Constitution Act, 1867, Part VI, Distribution of Legislative Powers.
- Canadian Wildlife Service. 2001. Wild animal and plant protection and regulation of international and interprovincial trade act. www.cws-scf.ec.gc.ca/cites/wappa/homepg.htm
- Colorado Revised Statutes, Title 33, Section 33-6-109, "Wildlife – illegal possession"; Section 33-6-113, "Illegal Sale of Wildlife"; Section 33-6-114, "Transportation, importation, exportation, and release of wildlife"; Section 33-6-117. Colorado Wildlife Regulation #013.
- Costello, C. M., Jones, D. E., Green Hammond, K. A., Inman, R. A., Inman, K. H., Thompson, B. C., Deitner, R. A., Quigley, H. B. 2001. *A Study of Black Bear Ecology in New Mexico with Models for Population Dynamics and Habitat Suitability*. Federal Aid in Wildlife Restoration Project W-131-R. Research performed under New Mexico Department of Game and Fish contracts by Hornocker Wildlife Institute, Ecosystem Modeling, and New Mexico State University. September, 2001.
- Dong Liang Lin, Lee Chen. Hsien-Cheh Chang, Chau-Yang Chen. 1997. Identification and differentiation of bear bile used in medicinal products in Taiwan. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 173-185.
- Florida Fish and Wildlife Conservation Commission. 2000. Black bear status report. Division of Wildlife, October 12, 2000. www.floridaconservation.org/whos-who/00/reports/nov00/bear.html
- Gaski, A. L. 1997. An update on the bear trade. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 62-76.
- Ge Gabriel, G. 2001. A bitter medicine: the use of bear bile in China. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.

- Gnam, R. 1997. Current CITES aspects of controlling trade in bear parts: U.S. perspectives. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C.
- Gregorich, L. J. 1992. *Poaching and the Illegal Trade in Wildlife and Wildlife Parts in Canada*. Canadian Wildlife Federation, Ottawa, Ontario, Canada.
- Hilton-Taylor, C. (compiler). 2000. *2000 IUCN Red List of Threatened Species*. IUCN, Gland, Switzerland and Cambridge, UK. xviii + 61 p. www.redlist.org
- Huang, J. 1995. Asian perspectives on therapeutic value of bear bile and alternatives. In *Proceedings of the International Symposium on the Trade of Bear Parts for Medicinal Use*, 9-11 September 1994, Seattle, Washington, D. Rose and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 32-36.
- Ishihara, A. 2001. Bear gallbladder trade in Japan. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- Kim, S., 1997. Can the prohibition of legal trade actually protect American black bears? In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 100-101.
- Knights, P. 1996. *From Forest to Pharmacy: The Global Underground Trade in Bear Parts*. The Investigative Network, Humane Society of the United States/Humane Society International, Washington, D.C., 53 p.
- Lee, S., Hoover, C., Gaski, A., and Mills, J. 1998. *A World Apart: Attitudes Toward Traditional Chinese Medicine and Endangered Species in Hong Kong and the United States*. Traffic East Asia, Traffic North America, and World Wildlife Fund, Washington, D.C. 80 p.
- Lee, Y. 2001. The use of bear bile as medicine versus tonic. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- Loker, C. A., and Decker, D. J. 1995. Colorado black bear hunting referendum: What was behind the vote? *Wildlife Society Bulletin*, 23(3):370-376.
- Maine Revised Statutes Annotated, Title 12 ("Conservation"), Sections 12-7451, 12-7452, and 12-7901.
- McCracken, C., Rose, D. A., and Johnson, K. A. 1995. *Status, Management, and Commercialization of the American Black Bear (Ursus americanus)*. TRAFFIC USA, Washington, D.C. 132 pp.
- Michigan Natural Resources Commission, The Wildlife Conservation Order, 1989, Chapter 4 ("Possession Importation and Sale"), sections 4.2, "Importation"; 4.3, "Buying and Selling." Authorized under the Michigan Compiled Laws Annotated, section 300.258. Statutory language on black bears includes: Part 401 ("Wildlife Conservation"), sections 324.40103, "Definitions, G to P"; 324.40113a, "Legislative findings and declarations; taking of game"; 324.40106, "game or protected animal; taking, releasing, transporting, selling, buying, or possessing; construction of section"; 324.40118, "Violation as misdemeanor; penalty"; and 324.40119, "Reimbursement of state for value of game or protected animal."
- Mills, J. A., Chan, S., and Ishihara, A. 1995. *The Bear Facts: The East Asian Market for Bear Gall Bladder*. TRAFFIC International, United Kingdom. 41 pp.
- Mills, J. A., and Servheen, C. 1991. *The Asian Trade in Bears and Bear Parts*. World Wildlife Fund, Washington, D.C. 113 pp.

- Minnesota Statutes Annotated, Chapter 97A, section 512, "Sale of Inedible Portions of Big Game Animals, Fur-Bearing Animals, and Game Birds Other than Migratory Waterfowl."
- Musgrave, R. S., and Stein, M. A. 1993. *State Wildlife Laws Handbook*. Center for Wildlife Law at the Institute of Public Law, University of New Mexico, Albuquerque, N.M. 840 pp.
- Nette, T. 1997. The regulation of bear management in Nova Scotia, Canada. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 94-99.
- New Hampshire Game and Fish Laws, 1995 Edition, Section 188:11, "Buying or Selling."
- New Mexico Administrative Code, 19NMAC 31.1. Game Regulations, Section 9.4, "Sale of Game Animal Parts."
- Ohio Revised Code Annotated, Section 1501:31-23-01 "Mammals"; Section 1531-15-02, "General hunting and trapping provisions." (Black bear was added to Section 1501:31-23-01 list in 1995 under Special Endangered Wild Animal Regulations.)
- Ontario Ministry of Natural Resources. 2000. Ontario Hunting Regulations, 2000/2001.
- Oregon Department of Fish and Wildlife, Oregon Big Game Regulations, 1997.
- Pascelle, W. In press. The animal protection movement: A modern day model use of the initiative process. In *The Battle Over Citizen Lawmaking*, M. D. Waters (ed.). Carolina Academic Press.
- Pelton, M. R., and van Manen, F. T. 1997. Status of black bears in the southeastern United States. In *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23 1997, Seattle, Washington, D. Williamson and A. L. Gaski (eds.). TRAFFIC USA/World Wildlife Fund, Washington, D.C. p. 31-44.
- Pelton, M. R., Coley, A. B., Eason, T. H., Doan Martinez, D. L., Pederson, J. A., van Manen, F. T., and Weaver, K. M. 1999. American black bear conservation action plan. In *Bears. Status Survey and Conservation Action Plan*, C. Servheen, S. Herrero, and B. Peyton (compilers). IUCN/SSC Bear and Polar Bear Specialist Groups. IUCN, Gland, Switzerland and Cambridge, UK. x + 309 pp.
- Peyton, B. 1999. Spectacled bear conservation action plan. In *Bears. Status Survey and Conservation Action Plan*, C. Servheen, S. Herrero, and B. Peyton (compilers). IUCN/SSC Bear and Polar Bear Specialist Groups. IUCN, Gland, Switzerland and Cambridge, UK. x + 309 pp.
- Pong, S., Yan, W.L., and Ka, C. H. 2001. Herbal alternatives to bear bile (bear gallbladder). In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- Rhode Island General Laws, Section 20-13-14.
- Robinson, J. 2001. Bear farming across Asia: An animal welfare perspective. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- Rose, D. A., and Gaski, A. L. (eds.) 1995. *Proceedings of the International Symposium on the Trade of Bear Parts for Medicinal Use*, 9-11 September 1994, Seattle, Washington, USA. TRAFFIC USA/World Wildlife Fund, Washington, D.C., USA. 167 pp.
- SEMARNAP. 1999. *Proyecto para la Conservacion y Manejo del Oso Negro (Ursus americanus) en Mexico*. Secretaria de Medio Ambiente, los Recursos Naturales y Pesca. Instituto Nacional de Ecologia. 1a edicion. 112 p.
- Servheen, C. 2001. The status of the bears of the world with emphasis on Asia. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.

- Servheen, C., Herrero, S., and Peyton, B. (compilers). 1999. *Bears. Status Survey and Conservation Action Plan*. IUCN/SSC Bear and Polar Bear Specialist Groups. IUCN, Gland, Switzerland and Cambridge, UK. x + 309 pp.
- Sheeline, L. 1990. *The North American Black Bear (Ursus americanus): A Survey of Management Policies and Population Status in the U.S. and Canada*. Unpublished report. TRAFFIC USA/World Wildlife Fund. Washington, D.C., USA.
- Suon, P. 2001. Trade in bears and bear parts in Cambodia. In *Proceedings of the Third International Symposium on Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea, D. Williamson and M. Phipps (eds.). TRAFFIC East Asia, Hong Kong.
- TRAFFIC North America newsletter, "Nine Indicted in Virginia for Sale of Bear Parts." Volume 2, No. 2, September 1999.
- U.S. Fish and Wildlife Service (USFWS). 2001. Species list: American black Bear. www.ecos.fws.gov/species_profile/species
- Utah Department of Natural Resources Division of Wildlife Resources, Proclamation of the Wildlife Board for Taking Bear, 1997, Regulation 657-33-22, "Purchasing or Selling"; Regulation 657-33-20, "Exporting Bear."
- Vermont Statutes Annotated, Title 10 ("Conservation"), sections 4781, "Big Game; Possession"; 4782, "Possession in storage of cold game"; and 4783 "Purchase and sale of big game"; Vermont Statutes Annotated, Title 10 App. ("Game"), Section 2, "Report, big game."
- Virginia Game, Inland Fish and Boat Laws, Section 29.1-521, "Unlawful to hunt, trap, possess, sell or transport wild birds and wild animals except as permitted"; Section 29.1-553, "Selling or offering for sale; penalty."
- Washington Administrative Code, Section 232-12-071, "Buying or selling game unlawful."
- Washington Department of Fish and Wildlife (WDFW). 1998. *State of Washington 1998 Game Status and Trend Report*. WDFW Wildlife Management Program.
- West Virginia Natural Resources Laws (1994 Edition), Section 20-2-11, "Sale of wildlife, transportation of same"; Section 20-2-12, "Transportation of wildlife out of state; penalties."
- Wisconsin Statutes Annotated, (91-92 Wis. Stats), Section 29.48, "Sale of game or fish."
- Williamson, D. F., and Phipps, M. (eds.). 2001. *Proceedings of the Third International Symposium on the Trade in Bear Parts*, 26-28 October, 1999, Seoul, Republic of Korea. TRAFFIC East Asia, Hong Kong.
- Williamson, D. F. 1999. *A Review of State Bear Trade Laws: U.S. State Statutes and Regulations Regarding the American Black Bear (Ursus Americanus)*. TRAFFIC North America/World Wildlife Fund, Washington, D.C. 171 pp.
- Williamson, D. F., and Gaski, A. L. (eds.). 1997. *Proceedings of the Second International Symposium on the Trade of Bear Parts*, March 21-23, 1997, Seattle, Washington, USA. TRAFFIC USA/World Wildlife Fund, Washington, D.C. USA. 239 pp.

APPENDICES

APPENDIX 1

1996 BLACK BEAR (*Ursus americanus*) QUESTIONNAIRE TRAFFIC USA

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report.

SECTION I — POPULATION STATUS

*Name of person completing this section: _____

State/Province: _____

Title: _____

Address: _____

Telephone: _____ Fax: _____

(*This information will only be used for follow-up if needed.)

1. Please complete the table on population status of black bears in your state/province/territory.

Category	The answers in this chart are provided for the following year/season: 19_____
Estimated size of black bear population in state/province: (specific number or range)	
Basis of population size estimate: (e.g., radio telemetry study, best assessment, harvest numbers)	
Estimated age structure of population: % cubs (less than 1 year) % subadult (1-3 years) % adult (greater than 3 years)	
Basis of age structure estimate: (e.g., data from specific study area, teeth collected from harvest, best assessment)	
Population trend: (Increasing/Stable/Decreasing)	
Basis of population trend estimate: (e.g., decreasing average age of individuals in harvest, best assessment)	
Estimate of percentage of available habitat occupied by bear populations	
Basis of estimate of percentage of occupied habitat	

1996 BLACK BEAR (*Ursus americanus*) QUESTIONNAIRE

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report.

SECTION II — HARVEST REGULATION AND HARVEST RESULTS

*Name of person completing this section: _____

State/Province: _____

Title: _____

Address: _____

Telephone: _____ Fax: _____

(*This information will only be used for follow-up if needed.)

1. How is the black bear classified in your state/province/territory? (*check all that apply*)

- ☐ State/province/territory endangered
- ☐ State/province/territory threatened
- ☐ Candidate for state/province/territory endangered
- ☐ Candidate for state/province/territory threatened
- ☐ Pest or nuisance species
- ☐ Game animal
- ☐ Furbearer
- ☐ No formal designation
- ☐ Other (specify) _____

2. Is it legal to kill black bear in your state/province/territory? (*check all that apply and indicate year if appropriate*)

- ☐ Yes, legal since _____ as a big game species.
- ☐ Yes, legal since _____ as a furbearer.
- ☐ Yes, legal since _____ when a bear is damaging property.
- ☐ No, illegal to kill black bear since _____.
- ☐ No, it has always been illegal to kill black bear.

3. Does black bear hunting require a special license or permit in your state/province/territory? (*check all that apply*)

- ☐ Yes, a license/permit specifically for black bear is required.
- ☐ Yes, a trapper's license/permit specifically for black bear is required.
- ☐ No, only a general big game license/permit is required to hunt black bear.
- ☐ No, only a general trapper's license/permit is required to trap black bear.

Section II — Harvest Regulation and Harvest Results/Page 2

4. Is there a mandatory black bear harvest verification/reporting system in your state/province/territory? (*check one*)

- ☐ Yes — **If Yes, please answer questions 4a and 4b.**
☐ No — **If No, go to question 5.**

4a. How are black bear harvests reported in your state/province/territory?
(*check all that apply*)

- ☐ Written notice by hunter to regulating agency.
☐ Phone call by hunter to regulating agency.
☐ Registration of harvest by hunter at designated check station.
☐ Return of tooth by hunter to regulating agency.
☐ Return of skull by hunter to regulating agency for tooth collection.
☐ Other (specify) _____

4b. Does mandatory harvest verification/reporting apply to all black bear management units?

- ☐ Yes
☐ No — **If No, please explain below.**

5. How is the estimated number of illegal kills of black bear by poaching determined?

- ☐ Modeling based on population estimates and reported kills.
☐ Best professional assessment.
☐ Other (please explain).
☐ No estimate is made for illegal kills.

6. According to your best professional assessment, is illegal harvest (poaching) of black bear in your state/province/territory reducing opportunities for legal sport hunting?

- ☐ Yes
☐ No

7. Please attach a copy of state/provincial/territorial hunting regulations to this questionnaire.

Section II — Harvest Regulation and Harvest Results/Page 3

- 8.** Please complete the table on regulations related to black bear harvest in your state/province/territory from 1992 to 1995.

Category	1992	1993	1994	1995
Dates of hunting season(s)				
Bag limit per hunter				
Bears required to be tagged at check station? (Yes or No)				
Trapping legal? (Yes or No)				
Dates of trapping season				
Harvest limit per trapper				

Section II — Harvest Regulation and Harvest Results/Page 4

9. Please complete the chart on results of black bear harvest in your state/province/territory from 1992 to 1995 (If no information is available, please leave the cell blank).

Category	1992	1993	1994	1995
# of resident licenses sold				
Cost of resident license				
# of reported legal resident kills				
# of non-resident licenses sold				
Cost of non-resident license				
# of reported legal non-resident kills				
Total # of reported legal hunting kills				
Sex ratio of legal hunting kills (%M : %F)				
# of trapping licenses sold				
Cost of trapping license				
# of reported legal trapping kills				
# of reported nuisance kills				
# of management kills				
# of other known kills <u>except</u> by poaching (e.g., vehicles)				
# of known poaching kills				
Estimated # of poaching kills				
Estimated # of unreported human-related kills <u>except</u> by poaching				

1996 BLACK BEAR (*Ursus americanus*) QUESTIONNAIRE

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report.

SECTION III — TRADE IN BEARS AND BEAR PARTS

*Name of person completing this section: _____

State/Province: _____

Title: _____

Address: _____

Telephone: _____ Fax: _____

(*This information will only be used for follow-up if needed.)

Please note the following definitions for this section of the questionnaire:

Trade — the commercial sale and transport of goods

Parts — parts of the black bear **other than** meat and whole mounted trophies (e.g., hides, skulls, gallbladders, claws, paws, teeth etc.)

- 1.** Please complete the table on regulations regarding the sale of legally acquired black bears and black bear parts in your state/province/territory.

Place an “L” in the box if the sale of that item is legal.

Place an “X” in the box if the sale of that item is not legal.

Leave the space blank if there are no regulations.

Category	ITEM							
	Live Bear	Hide	Gall Bladder	Paw	Skull	Teeth	Claw	Other (specify)
Item acquired in state or province								
Item acquired in other states or provinces								

If questions 2 through 5 are not applicable, please leave blank.

- 2.** Are black bear parts offered for sale in your state/province/territory required to be tagged or marked?

☐ Yes — Since what year? _____ If Yes, please explain below

☐ No

Section III — Trade in Bears and Bear Parts/Page 2

3. Is a special permit, license, or registration required for the sale of black bear parts in your state/province/territory?

- ☐ Yes - Since what year? _____ If Yes, please answer question 3a.
☐ No - If No, please proceed to question 4.

3a. Such permits, licenses, or registration may be issued to which of the following?

- ☐ Hunters ☐ Hide dealers
☐ Trappers ☐ Other (please specify): _____
☐ Outfitters

4. Is there a mandatory reporting/verification system in place for the sale of black bear parts in your state/province/territory? (*If Yes, please answer questions 4a-4c. If No, please proceed to question 5.*)

- ☐ Yes — Since what year? _____
☐ No

4a. Please indicate which dealers and which items are covered by the mandatory reporting/verification system:

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> Hunters | <input type="checkbox"/> Hides |
| <input type="checkbox"/> Trappers | <input type="checkbox"/> Gall bladders |
| <input type="checkbox"/> Outfitters | <input type="checkbox"/> Paws |
| <input type="checkbox"/> Hide dealers | <input type="checkbox"/> Skulls |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Teeth |
| | <input type="checkbox"/> Claws |
| | <input type="checkbox"/> Other: _____ |

4b. Please indicate the types of information required through mandatory reporting:

- | | |
|---|---|
| <input type="checkbox"/> Name and address of seller | <input type="checkbox"/> Number of items |
| <input type="checkbox"/> Name and address of purchaser | <input type="checkbox"/> Description of item(s) |
| <input type="checkbox"/> Name/number of hunting license | <input type="checkbox"/> Weight of item(s) |
| <input type="checkbox"/> Copy of valid hunting license | <input type="checkbox"/> Sale/purchase price of item(s) |
| <input type="checkbox"/> Other (please specify): _____ | |

Section III — Trade in Bears and Bear Parts/Page 3

- 4c.** Please indicate the number of reported sales of black bear parts from your state/province/territory in the table below. If information is not available, leave blank. Information for years not listed may be attached separately.

Year	ITEM							
	Live Bear	Hide	Gall Bladder	Paw	Skull	Teeth	Claw	Other (specify)
1992								
1993								
1994								
1995								

- 5.** Are there specific permit requirements/regulations for the export of black bear parts in your state/province/territory?

- ☐ Yes — If Yes, please describe below and attach copies of the relevant regulations and permit applications.
- ☐ No

- 6.** Please indicate the number of reported exports of black bear parts from your state/province/territory in the table below. If information is not available, leave blank. Information for years not listed may be attached separately.

Year	ITEM							
	Live Bear	Hide	Gall Bladder	Paw	Skull	Teeth	Claw	Other (specify)
1992								
1993								
1994								
1995								

Section III — Trade in Bears and Bear Parts/Page 4

7. Please attach copies of all relevant regulations, permit application forms, etc. pertaining to the sale of black bear parts (*including export*).

8. Is there an estimate available for the rate of retrieval of black bear parts from legal hunting and trapping kills in your state/province/territory? (*Note: rate of retrieval refers to the percentage of hunted and trapped bears from which hides, galls, and other parts are taken for use*)

☐ Yes - If Yes, please provide these estimates below:

_____ % Hides	_____ % Teeth
_____ % Gall bladders	_____ % Claws
_____ % Paws	_____ % Other (please specify)
_____ % Skulls	

☐ No

9. Have there been any reported cases of black bear poaching kills in your state/province/territory in which only the gall bladder and/or paws were removed?

☐ Yes — **If Yes, please answer question 9a.**

☐ No — **If No, please proceed to question 10.**

9a. Are records kept of black bear poaching kills in your state/province/territory in which only the gall bladder and/or paws were removed?

☐ Yes — If Yes, please provide the number of reported cases below:

1995: _____	1991: _____
1994: _____	1990: _____
1993: _____	1989: _____
1992: _____	

☐ No — If No, please provide the following:

Number of such cases that you have witnessed or have direct knowledge of (*please indicate year(s)*): _____

Best professional assessment of the number of such cases that occur annually in your state/province/territory: _____

10. Please indicate the level of trade in black bear parts (legal or otherwise) in your state/province/territory: (*check one*)

- ☐ Very significant
- ☐ Somewhat significant
- ☐ Not significant
- ☐ No known trade
- ☐ Do not know

Section III — Trade in Bears and Bear Parts/Page 5

11. Does the trade in black bear parts in your state/province/territory (legal or otherwise) appear to be: (*check one*)

- ☐ Increasing
- ☐ Stable
- ☐ Decreasing
- ☐ Do not know

12. According to your best professional assessment, does the trade in black bear parts appear to be affecting the number of black bears legally harvested in your state/province/territory?

- ☐ Yes — If Yes, please explain below
- ☐ No

13. According to your best professional assessment, does the trade in black bear parts appear to be affecting the number of black bears illegally harvested in your state/province/territory?

- ☐ Yes — If Yes, please explain below
- ☐ No

14. According to your best professional assessment, does the trade in black bear parts appear to be having a negative impact on black bear populations in your state/province/territory?

- ☐ Yes — If Yes, please explain below
- ☐ No

15. In general, where do users of black bears and black bear parts harvested in your state/province/territory (legal or otherwise) come from? (*check all that apply*)

- ☐ Within the state/province/territory of origin
- ☐ Other states/provinces/territories within the country of origin
- ☐ Other countries within North America
- ☐ Other countries outside North America

Section III — Trade in Bears and Bear Parts/Page 6

- 16.** Please complete the table on users of black bears and black bear parts located within your state/province/territory and located outside your state/province/territory (including users abroad). An example is provided for your information. (Note: Users may refer to a particular profession or ethnic group. Initial destination and Final destination may refer to a specific state/province/territory, a region, or a country.)

ITEM	MARKETS WITHIN STATE/PROVINCE/TERRITORY		MARKETS OUT OF STATE/PROVINCE/TERRITORY	
	Check if Used Locally	Who are Local Users	Initial Destination	Final Destination
EXAMPLE Claws	X	Tourists, Jewelry Makers	Oregon or Western U.S.	South Korea
Live Bears				
Carcasses or Hides				
Gallbladders				
Paws				
Skulls				
Teeth				
Claws				
Other (specify)				

Section III — Trade in Bears and Bear Parts/Page 7

- 17.** Please rank the demand for black bears and black bear parts (legally acquired or otherwise) in your state/province/territory in order of importance from 1-8 (with 1 being the most important). If you do not know what the demand for a particular item is, please leave the space blank.

CATEGORY	MARKETS WITHIN STATE/PROVINCE/TERRITORY	MARKETS OUT OF STATE/PROVINCE/TERRITORY
Live Bears		
Carcasses or Hides		
Gallbladders		
Paws		
Skulls		
Teeth		
Claws		
Other (specify)		

- 18.** Please provide information on the prices of black bears and black bear parts acquired (legally or otherwise) in your state/province/territory. If prices for gall bladders are given by weight, please indicate whether price is for fresh/frozen or dried gall bladders. If you do not know any of the requested information, please leave the space blank.

CATEGORY	PRICE RECEIVED BY: (\$ AMOUNT OR RANGE)		
	HUNTER	MIDDLEMAN	RETAILER
Live Bears			
Carcasses			
Hides			
Gallbladders			
Paws			
Skulls			
Teeth			
Claws			
Other (specify)			

Section III — Trade in Bears and Bear Parts/Page 8

19. At point of first sale, black bear gallbladders are sold in your state/province/territory:
(please check all that apply, and indicate which is most common)

- ☐ Fresh
- ☐ Frozen
- ☐ Dried
- ☐ With part of liver attached

20. At point of retail sale, black bear gallbladders are sold in your state/province/territory:
(please check all that apply, and indicate which is most common)

- ☐ Fresh
- ☐ Frozen
- ☐ Dried
- ☐ With part of liver attached

21. Please indicate the typical range and median weights of black bear gall bladders in your jurisdiction:

Fresh/Frozen galls: Weight range: _____ Median weight: _____
Dried galls: Weight range: _____ Median weight: _____

22. “Fake” bear gall bladders (e.g., pig gall bladders labeled/offered for sale as bear) are sold in your jurisdiction (check one):

- ☐ Frequently ☐ Occasionally ☐ Rarely ☐ Never ☐ Do not know

23. What is the basis for your answers to questions 8 through 22? (check all that apply)

- ☐ Information gathered through permits/registration and/or through mandatory reporting of sale of bear parts
- ☐ Information obtained through state/provincial/territorial enforcement activities
- ☐ Information obtained through state/provincial/territorial undercover investigations
- ☐ Information received from federal undercover investigations
- ☐ Reports from legal hunters
- ☐ Best professional assessment
- ☐ Other — please specify: _____

If you would like to make additional comments, please attach an additional page. Thank you.

1996 BLACK BEAR (*Ursus americanus*) QUESTIONNAIRE

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report.

SECTION IV — LAW ENFORCEMENT AND PUNISHMENT

*Name of person completing this section: _____

State/Province: _____

Title: _____

Address: _____

Telephone: _____ Fax: _____

(*This information will only be used for follow-up if needed.)

- 1.** Please indicate below whether the wildlife agency in your state/province/territory has established cooperative agreements for joint enforcement/investigations with the following (check all that apply, and indicate name(s) of agency(ies)):

- ☐ State/provincial/territorial police _____
- ☐ Federal wildlife agency _____
- ☐ State/provincial/territorial parks agency _____
- ☐ Federal parks/protected areas agency _____
- ☐ Wildlife agencies from other states/provinces/territories _____
- ☐ Other(s) _____

- 2.** Please indicate below whether enforcement personnel in your state/province/territory have participated in investigations involving trade of black bear parts in any of the following years:

- | | |
|-------------------------------|-------------------------------|
| <input type="checkbox"/> 1995 | <input type="checkbox"/> 1991 |
| <input type="checkbox"/> 1994 | <input type="checkbox"/> 1990 |
| <input type="checkbox"/> 1993 | <input type="checkbox"/> 1989 |
| <input type="checkbox"/> 1992 | |

- 3.** What are the maximum penalties (jail sentence and/or fines) under state/provincial/territorial law if convicted of illegal taking or killing of black bear?

- | | |
|---|---|
| <input type="checkbox"/> 0-3 months | <input type="checkbox"/> \$1-249 |
| <input type="checkbox"/> 3-6 months | <input type="checkbox"/> \$250-499 |
| <input type="checkbox"/> 6-12 months | <input type="checkbox"/> \$500-999 |
| <input type="checkbox"/> 1 year or more (specify) _____ | <input type="checkbox"/> \$1000-1499 |
| | <input type="checkbox"/> \$1500-1999 |
| | <input type="checkbox"/> \$2000+ (specify) \$ _____ |

Section IV — Law Enforcement and Punishment/Page 2

4. What are the maximum penalties (jail sentence and/or fines) under state/provincial/territorial law if convicted of illegal commercialization of black bear parts? (check one)

- | | |
|--|--|
| <input type="checkbox"/> 0-3 months | <input type="checkbox"/> \$1-249 |
| <input type="checkbox"/> 3-6 months | <input type="checkbox"/> \$250-499 |
| <input type="checkbox"/> 6-12 months | <input type="checkbox"/> \$500-999 |
| <input type="checkbox"/> 1 year or more (specify)_____ | <input type="checkbox"/> \$1000-1499 |
| | <input type="checkbox"/> \$1500-1999 |
| | <input type="checkbox"/> \$2000+ (specify) \$_____ |

5. Please complete the table on total enforcement activities related to illegal taking or killing of black bears in your state/province/territory from 1992 through 1995.

Category	YEAR			
	1992	1993	1994	1995
# of arrests for illegal taking or killing				
# of convictions for illegal taking or killing				
# of fines for conviction				
Range of fines for conviction (\$)				
# of jail sentences for conviction				
Range of jail sentences for conviction (months)				
#/type of evidence seized: l = live bear or bears c = carcasses h = hides g = gallbladders p = paws s = skulls t = teeth w = claws o = other (specify)				

Section IV — Law Enforcement and Punishment/Page 3

6. Please complete the table on total enforcement activities related to illegal commercialization of black bears in your state/province/territory from 1992 through 1995.

Category	YEAR			
	1992	1993	1994	1995
# of arrests for illegal sale of bear parts				
# of convictions for illegal sale of bear gall bladders				
# of fines for conviction				
Range of fines for conviction (\$)				
# of jail sentences for conviction				
Range of jail sentences for conviction (months)				
#/type of evidence seized: l = live bear or bears c = carcasses h = hides g = gallbladders p = paws s = skulls t = teeth w = claws o = other (specify)				

7. Did any of the above cases involve evidence of illegal export of black bear parts or intended illegal export of black bear parts?

- ☐ Yes - If Yes, please explain on the back of this page.
☐ No

APPENDIX 2

Basis for Estimates of Size of Black Bear Populations, 1992 and 1996

STATE/PROVINCE/ TERRITORY	1992 TRAFFIC SURVEY*	1996 TRAFFIC SURVEY**
Alabama	Prof. estimate/best assessment	Prof. estimate/best assessment
Alaska	Prof. estimate/best assessment; Density estimates	Best assessment
Arizona	Prof. estimate/best assessment; Radio telemetry; Harvest data or trends; Mark-recapture	Three habitat-specific radio telemetry studies; GIS habitat mapping
Arkansas	Mark-recapture studies	Radio telemetry studies; Harvest data or trends
California	1990 estimate based on age/sex ratios; Harvest data or trends	Harvest data; Hunter survey
Colorado	Sex ratios of harvest; Harvest data or trends; Study area data	Best assessment
Connecticut	Prof. estimate/best assessment; Number of sightings/complaints	Sighting reports
Delaware	Not applicable	Not applicable
Florida	Radio telemetry studies	Radio telemetry and density estimate extrapolated via habitat pattern recognition model in GIS
Georgia	Radio telemetry studies; Harvest data or trends; Bait station surveys	Harvest; Bait station surveys
Hawaii	Not applicable	Not applicable
Idaho	Study area data; Habitat quality/quantity extrapolated from research on six areas in state	Prof. estimate/best assessment
Illinois	Not applicable	Not applicable
Indiana	Not applicable	Not applicable
Iowa	Not applicable	Not applicable
Kansas	Not applicable	Not applicable
Kentucky	Number of sightings/complaints	Prof. estimate/best assessment
Louisiana	1994 update based on prof. estimate/best assessment; Study area data	Prof. estimate/best assessment; Radio telemetry studies
Maine	Radio telemetry studies	Radio telemetry studies/modeling 2 sites extrapolated to area in bear range
Maryland	Radio telemetry; Mark-recapture; Modeling	Prof. estimate/best assessment
Massachusetts	1988 estimate based on radio telemetry studies; Study area data	Radio telemetry study
Michigan	Age/sex ratios; Harvest data or trends; Mark-recapture studies	Harvest data or trends; Sex ratio and mean age; Mark-recapture studies
Minnesota	Mark-recapture studies	Statewide mark-recapture with tetracycline
Mississippi	NA/NR	Prof. estimate/best assessment
Missouri	Number of sightings/complaints; Bait station surveys	Bait station surveys in 45 counties
Montana	Harvest data or trends	NA/NR
Nebraska	Not applicable	No known bears in Nebraska
Nevada	Radio telemetry studies	Radio telemetry studies; Prof. estimate/best assessment
New Hampshire	Radio telemetry studies; Harvest data or trends	Harvest data; Best assessment
New Jersey	Radio telemetry studies; Mark-recapture studies; Number of sightings/complaints	Radio telemetry studies; Mark-recapture studies; Modeling
New Mexico	Prof. estimate/best assessment	NA/NR
New York	Prof. estimate/best assessment	NA/NR
North Carolina	1994 update based on prof. estimate/best assessment; Population reconstruction; Bait station surveys	Modeling; Harvest numbers; Live studies; Trend indicators

APPENDIX 2 (continued)

Basis for Estimates of Size of Black Bear Populations, 1992 and 1996

STATE/PROVINCE/ TERRITORY	1992 TRAFFIC SURVEY*	1996 TRAFFIC SURVEY**
North Dakota	Prof. estimate/best assessment	Prof. estimate/best assessment
Ohio	Prof. estimate/best assessment	Verified sightings
Oklahoma	Density estimates; Bait station surveys	Bait station survey in conjunction with research density information from Arkansas Game and Fish Commission for the Ouachita Highlands
Oregon	Age/sex ratios; Sex ratios of harvest; Harvest data or trends; Habitat productivity	Radio telemetry studies; Prof. estimate/best assessment
Pennsylvania	Radio telemetry studies; Mark-recapture studies	NA/NR
Rhode Island	Prof. estimate/best assessment	Prof. estimate/best assessment; No resident population but occasional migrant from MA or CT
South Carolina	Prof. estimate/best assessment; Radio telemetry studies; Mark-recapture studies; Bait station surveys	Mountain population – Scent station lines annually; Mark and release; Coastal population —Prof. estimate/best assessment
South Dakota	Not applicable	N/A
Tennessee	Prof. estimate/best assessment; Harvest data or trends; Bait station surveys	Prof. estimate/best assessment; Bait station index; Harvest numbers
Texas	Prof. estimate/best assessment	Prof. estimate/best assessment
Utah	Radio telemetry studies; Harvest data or trends; Study area data; Density estimates	Radio telemetry studies; Harvest data; Best assessment
Vermont	Prof. estimate/best assessment; Population calculations; Age/sex ratios; Harvest data or trends	Harvest numbers; Age structure data
Virginia	Prof. estimate/best assessment; Radio telemetry studies; Harvest data or trends	Harvest data
Washington	1972 estimate based on density estimates	NA/NR
West Virginia	Radio telemetry studies; Age/sex ratios; Harvest data or trends	Tagged/untagged ratio; Harvest numbers; Den visits (radioed sows)
Wisconsin	Mark-recapture studies; Bait station surveys	Harvest numbers; Tagging program; Bait surveys; Radio telemetry
Wyoming	Not provided	Currently testing new techniques
Alberta	Mark-recapture studies; Study area data	NA/NR
British Columbia	Prof. estimate/best assessment; Harvest data or trends	Prof. estimate/best assessment
Manitoba	Prof. estimate/best assessment	Population modeling; Habitat review
New Brunswick	Not available	NA/NR
Newfoundland	Radio telemetry studies; Harvest data or trends; Mark-recapture studies	Radio telemetry studies; Harvest numbers; Mark-recapture data
Northwest Terr.	Prof. estimate/best assessment; Density estimates	Best assessment
Nova Scotia	Harvest data or trends	Prof. estimate/best assessment
Ontario	Mark-recapture studies; Prof. estimate/best assessment	Extrapolation of population densities from studies to rest of range
PEI	Black bears extirpated; Last bear shot 1927	Not applicable
Quebec	Prof. estimate/best assessment	Partial surveys; Harvest figures; Computer modeling
Saskatchewan	Prof. estimate/best assessment	Habitat potential; Harvest numbers
Yukon Territory	Prof. estimate/best assessment; Radio telemetry studies	Nonscientific estimate (under review)

Source: *McCracken, et al., 1995

** 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/not reported

APPENDIX 3

Black Bear Population Trends in the United States and Canada

State/Prov./Terr.	Reported 1990 Trend*	Reported 1992 Trend**	Reported 1996 Trend***
Alabama	NA/NR	Stable	Stable
Alaska	Stable	Stable	Stable
Arizona	Stable	Stable	Stable
Arkansas	NA/NR	Increasing	Increasing
California	Static	Increasing	Stable
Colorado	Unknown	Stable	Stable/Increasing
Connecticut	Increasing	Increasing	Increasing
Delaware	Not Applicable	Not Applicable	Not Applicable
Florida	Stable/Slight Increase	Stable/Increasing	Stable/Increasing
Georgia	Stable/Increasing	Increasing	Increasing
Hawaii	Not Applicable	Not Applicable	Not Applicable
Idaho	Stable	Stable/Decreasing	Stable
Illinois	Not Applicable	Not Applicable	Not Applicable
Indiana	Not Applicable	Not Applicable	Not Applicable
Iowa	Not Applicable	Not Applicable	Not Applicable
Kansas	Not Applicable	Not Applicable	Not Applicable
Kentucky	Increasing	Increasing	Increasing
Louisiana	Stable	Stable/Increasing	Stable
Maine	Stable	Increasing	Increasing
Maryland	NA/NR	Increasing	Increasing
Massachusetts	Stable	Increasing	Increasing
Michigan	Stable	Increasing	Stable/Increasing
Minnesota	Increasing	Increasing	Increasing
Mississippi	NA/NR	Unknown	Slight Increase
Missouri	Unknown	Increasing	Slight Increase
Montana	Stable	Stable/Increasing	Stable/Increasing
Nebraska	Not Applicable	Not Applicable	Not Applicable
Nevada	Stable	Stable/Increasing	Stable/Increasing
New Hampshire	Increased Take	Stable/Increasing	Stable/Increasing
New Jersey	Increasing	Stable/Increasing	Increasing
New Mexico	Stable	Decreasing	Increasing
New York	Stable	Stable	Stable/Increasing
North Carolina	Increasing	Stable/Increasing	Increasing
North Dakota	NA/NR	Stable	Stable
Ohio	NA/NR	Increasing	Stable/Increasing
Oklahoma	NA/NR	Increasing	Stable
Oregon	Static/Slow Increase	Stable/Increasing	Stable/Increasing
Pennsylvania	Stable	Stable	Stable
Rhode Island	NA/NR	Not Applicable	Stable
South Carolina	Stable	Increasing	Increasing
South Dakota	"Critically Rare"	Not Applicable	Unknown
Tennessee	NA/NR	Stable	Stable/Increasing
Texas	Unknown	Increasing	Increasing

APPENDIX 3 (continued)

Black Bear Population Trends in the United States and Canada

State/Prov./Terr.	Reported 1990 Trend*	Reported 1992 Trend**	Reported 1996 Trend***
Utah	Stable/Slow Increase	Stable/Increasing	Stable/Increasing
Vermont	Stable	Increasing	Increasing
Virginia	Increasing/Stable	Increasing	Stable/Increasing
Washington	Stable	Stable/Increasing	Stable/Increasing
West Virginia	Increasing	Increasing	Increasing
Wisconsin	Increasing	Increasing	Increasing
Wyoming	Stable	Stable	Stable
Alberta	Stable	Stable	Stable
British Columbia	Stable	Stable	Stable
Manitoba	Stable	Stable	Stable/Increasing
New Brunswick	Stable/Decreasing	NA/NR	Stable
Newfoundland	Stable	Stable	Stable
Nova Scotia	Stable	Stable	Stable
Northwest Territories	Stable	Stable	Most Likely Stable
Ontario	Stable	Stable	Stable
PEI	Not Applicable	Not Applicable	Not Applicable
Quebec	Stable	Stable	Increasing
Saskatchewan	Stable	Stable/Increasing	Stable
Yukon Territory	Stable	Stable	Most Likely Stable

Source: * Sheeline, 1990, cited in McCracken, et al., 1995

** McCracken, et al., 1995

*** 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/not reported

APPENDIX 4

Basis for Estimates of Black Bear Population Trends in the United States and Canada

STATE/PROVINCE/ TERRITORY	1992 TRAFFIC SURVEY*	1996 TRAFFIC SURVEY**
Alabama	Prof. estimate/best assessment	Best assessment
Alaska	Prof. estimate/best assessment	Age/sex ratio of individuals harvested
Arizona	Prof. estimate/best assessment; Modeling	Sex/age class data; Harvest data
Arkansas	Modeling	Harvest data
California	Age/sex ratios; Harvest data or trends	Harvest data; Age structure
Colorado	Prof. estimate/best assessment; Harvest data or trends	NA/NR
Connecticut	Number of sightings/complaints	Trend in sighting reports
Delaware	Not applicable	Not applicable
Florida	Harvest data or trends; Number of sightings/complaints; Road kill data	Nuisance complaints; Bear/vehicle accidents; Field observations
Georgia	Age/sex ratios; Number of sightings/complaints; Bait station surveys	Bait station surveys; Sightings/complaints
Hawaii	Not applicable	Not applicable
Idaho	Age/sex ratios; Harvest data or trends	Best assessment
Illinois	Not applicable	Not applicable
Indiana	Not applicable	Not applicable
Iowa	Not applicable	Not applicable
Kansas	Not applicable	Not applicable
Kentucky	Number of sightings/complaints	Best assessment; Increased sightings/complaints
Louisiana	Prof. estimate/best assessment; Radio telemetry studies; Number of sightings/complaints	Best assessment
Maine	Radio telemetry studies	Computer model using study site data
Maryland	Study area data	Best assessment; Increased sightings/complaints
Massachusetts	Modeling; Density estimates; Increased distribution	Population model/habitat occupancy
Michigan	Harvest data or trends; Number of sightings/complaints	Harvest per unit of hunting effort; Nuisance bear activity; Sightings; Road kills
Minnesota	Study area data; Number of sightings/complaints; Modeling	Population model
Mississippi	Not indicated	Best assessment
Missouri	Number of sightings/complaints	Bait station surveys; Sightings by public
Montana	Age/sex ratios; Sex ratios of harvest; Harvest data or trends; Number of sightings/complaints	NA/NR
Nebraska	Not applicable	Not applicable
Nevada	Number of sightings/complaints; Increased distribution	Increase in human/bear interaction
New Hampshire	Number of sightings/complaints	Age structures
New Jersey	Prof. estimate/best assessment	Modeling; Tagging; Best assessment
New Mexico	Age/sex ratios; Sex ratios of harvest	NA/NR
New York	Prof. estimate/best assessment	NA/NR
North Carolina	Harvest data or trends; Number of sightings/complaints; Bait station surveys; Increased distribution	Modeling; Harvest and nonharvest trends; Trend indicators (bait stations); Range expansion; Nuisance complaint levels
North Dakota	Prof. estimate/best assessment	Best assessment

APPENDIX 4 (continued)

Basis for Estimates of Black Bear Population Trends in the United States and Canada

STATE/PROVINCE/ TERRITORY	1992 TRAFFIC SURVEY*	1996 TRAFFIC SURVEY**
Ohio	Number of sightings/complaints	Sightings; Best assessment
Oklahoma	Number of sightings/complaints; Density estimates; Bait station surveys	Bait station survey visitation rates; Sightings; Nuisance and depredation complaints
Oregon	Harvest data or trends; Number of sightings/complaints; Increased distribution/range	Harvest; Best assessment
Pennsylvania	Mark-recapture studies	NA/NR
Rhode Island	NA/NR	Number of reports over time
South Carolina	Mark-recapture studies; Number of sightings/complaints; Bait station surveys	Bait station trends; Harvest
South Dakota	Not applicable	NA/NR
Tennessee	Bait station surveys	Bait station index; Harvest
Texas	Prof. estimate/best assessment; Reoccupying former range	Best assessment; Sightings and reports
Utah	Harvest data or trends; Study area data; Aging data	Research; Tooth collection; Harvest data; Sightings; Increased nuisance; Hunter success data; Harvest data
Vermont	Prof. estimate/best assessment; Harvest data or trends	Harvest; Sighting reports; Nuisance activity
Virginia	Prof. estimate/best assessment; Age/sex ratios; Harvest data or trends	Increasing harvest; Nuisance complaints and sightings
Washington	Prof. estimate/best assessment; Age/sex ratios; Harvest data or trends	NA/NR
West Virginia	Harvest data or trends; Study area data; Number of sightings/complaints	Leveling off of kill data in traditional bear counties
Wisconsin	Tooth collection	Population model; Bait station surveys; Registration of harvest
Wyoming	Age/sex ratios; Harvest data or trends	Age/sex data from harvest
Alberta	Harvest data or trends; Number of sightings/complaints	NA/NR
British Columbia	Prof. estimate/best assessment	Prof. estimate/best assessment
Manitoba	Age/sex ratios	Best assessment; Hunter success rate; Field staff observations; Hunter reports
New Brunswick	NA/NR	NA/NR
Newfoundland	Prof. estimate/best assessment; Mark-recapture studies	Best assessment; High proportion of bears taken are adult males
Nova Scotia	NA/NR	Hunter and trapper success rates; Age profile; Number of road kills; Number of nuisance complaints
Northwest Terr.	Prof. estimate/best assessment	Best assessment
Ontario	Prof. estimate/best assessment; Age/sex ratios; Sex ratios at harvest	Indicators from harvest
PEI	Not applicable	Not applicable
Quebec	Prof. estimate/best assessment; Harvest data or trends	Harvest data
Sakatchewan	Age/sex ratios; Number of sightings/complaints	Premolar teeth from harvest
Yukon Territory	Harvest data or trends	Best assessment; Low human population and low harvest

Source: * McCracken, et al., 1995

** 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/not reported

APPENDIX 5

Estimate of Percentage of Available Habitat Occupied By Black Bear Populations in the United States and Canada, 1996 Survey

STATE/PROVINCE/ TERRITORY	ESTIMATED AVAILABLE HABITAT OCCUPIED BY BLACK BEARS	BASIS OF ESTIMATE
Alabama	5%	Best estimate
Alaska	NA/NR	NA/NR
Arizona	100%	GIS mapping
Arkansas	90%	Best estimate
California	100%	Range expansions are being observed compared to distribution in 1900
Colorado	100%	Harvest statistics
Connecticut	40%	Current range vs. towns with adequate forest and undeveloped land
Delaware	Not applicable	Not applicable
Florida	17%	GIS model
Georgia	Traditional range occupied	Best estimate
Hawaii	Not applicable	Not applicable
Idaho	100%	Harvest records
Illinois	Not applicable	Not applicable
Indiana	Not applicable	Not applicable
Iowa	Not applicable	Not applicable
Kansas	Not applicable	Not applicable
Kentucky	<25%	Best estimated based on regional sightings
Louisiana	80%	Historic range vs. current occupied habitat and presence of existing habitat in historic range
Maine	90%	Harvest data — registrations by township
Maryland	50-75%	Sightings
Massachusetts	100% in western Mass.; ≤ 50% in central Massachusetts	Radio telemetry study; Harvest and road kill records
Michigan	100%	Harvest; Nuisance bear activity; Road kills; Sightings
Minnesota	Unknown	Unknown
Mississippi	5%	Best estimate
Missouri	<10%	GIS habitat model and bait station surveys
Montana	NA/NR	NA/NR
Nebraska	Not applicable	Not applicable
Nevada	100%	Very limited habitat — bears observed throughout
New Hampshire	80%	Best assessment
New Jersey	85-90%	Not provided
New Mexico	NA/NR	NA/NR
New York	NA/NR	NA/NR
North Carolina	100%	Range mapping; GIS analyses
North Dakota	Unknown	Unknown
Ohio	Habitat 30% of Ohio = 12,300 sq. miles. <10% occupied = 1,230 sq. miles	Habitat requirements of bear; Verified bear observations
Oklahoma	100%	Best estimate of known existing bear habitat — it is primarily limited to Ouachita National Forest in LeFlore County
Oregon	90+%	Sightings; Damage
Pennsylvania	NA/NR	NA/NR

APPENDIX 5 *(continued)*

Estimate of Percentage of Available Habitat Occupied By Black Bear Populations in the United States and Canada, 1996 Survey

STATE/PROVINCE/ TERRITORY	ESTIMATED AVAILABLE HABITAT OCCUPIED BY BLACK BEARS	BASIS OF ESTIMATE
Rhode Island	0%	No resident bear population, only occasional migrants
South Carolina	30% statewide	Best estimate
South Dakota	Unknown	Unknown
Tennessee	90%	Bear habitat model
Texas	5%	Historical records vs. current habitat
Utah	80%	Use of arc view GPS modeling and estimating populations with available habitat
Vermont	87% of potential range 65% of state land area	GIS mapping of occupied and potential range using harvest data; Bear sightings; Habitat knowledge
Virginia	50%	Best estimate
Washington	NA/NR	NA/NR
West Virginia	33%	Increasing numbers of bears in previously unoccupied range
Wisconsin	100%	Best estimate — “They are everywhere”
Wyoming	100%	Harvest information
Alberta	NA/NR	NA/NR
British Columbia	~90%	Extrapolated from similar work on grizzly bears
Manitoba	98%	Reported sightings
New Brunswick	NA/NR	NA/NR
Newfoundland	Not available	Not available
Northwest Territories	Unknown	Unknown
Nova Scotia	90-100% depending on the definition of available	Frequency and distribution of hunter/trapper kills and nuisance complaints
Ontario	90%	Best estimate
PEI	Not applicable	Not applicable
Quebec	75%	Harvest figures; Habitat research
Saskatchewan	100% of commercial forest, forest fringe and nonproductive forest	Harvest statistics
Yukon Territory	98%?	Only 30,000 people in Territory — most habitat relatively intact

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/not reported

APPENDIX 6

Black Bear Hunting License Costs and Total Revenues in the United States, 1992

STATE	COST OF RESIDENT LICENSE/TAG (\$)	RESIDENT LICENSES/TAGS ISSUED 1992	COST OF NONRESIDENT LICENSE/TAG (\$)	NONRESIDENT LICENSES/TAGS ISSUED 1992	ESTIMATE OF TOTAL REVENUE 1992 (\$)
Alaska	12	NA/NR +	85+ ⁺	NA/NR +	NA/NR ⁺
Arizona	11	4,170	150	211	77,520
Arkansas ⁺	25	NA/NR	NA/NR	NA/NR	NA/NR
California	23.35	11,820	143.75	150	297,559.50
Colorado	30.25	1,744	250.25	128	84,788
Florida	0 ⁺	2,603 ⁺	0 ⁺	N/D	0
Georgia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Idaho	14 ⁺	24,000	212 ⁺	1,957	750,884
Maine	16 ⁺	6,107	78 ⁺	4,027	411,818
Massachusetts	12.50	NA/NR ⁺	48.50	1,717 ⁺	NA/NR
Michigan	14.35	5,038	150.35	77	83,872.25
Minnesota	34	8,305 ⁺	166	NA/NR ⁺	NA/NR ⁺
New Hampshire	3	9,786 ⁺	3	NA/NR ⁺	29,358 ⁺
North Carolina	40	12,000-14,000 ⁺	190	NA/NR ⁺	NA/NR ⁺
Oregon	11	16,573 ⁺	151	3% ⁺	252,169 ⁺
South Carolina	44	NA/NR	+	NA/NR	NA/NR
Tennessee ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Utah	52	147	205	15	11,719
Vermont	12	NA/NR ⁺	75	NA/NR ⁺	NA/NR
Virginia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
West Virginia	29	8,923	129	182	282,245
Wisconsin	30	2,552	120	53	82,910
Wyoming	11	3,261 ⁺	70	833 ⁺	94,181

Source: TRAFFIC 1996 survey of state wildlife authorities

Key: NA/NR = Not Available/Not Reported; N/D = Resident/nonresident licenses not differentiated

+ Additional information:

Alaska: 1992-1993 information; # of licenses sold not available (licenses not sold by species). Cost is \$12 resident license, \$85 nonresident license + \$225 or \$300 tag fee. **Arkansas:** Has no specific black bear license. **Florida:** Licenses free; Licenses issued included 2,199 for Apalachicola and 504 for Osceola. **Georgia:** Has no specific black bear license. **Idaho:** Residents \$7 license fee, \$7 tag fee; Nonresidents \$86 license fee, \$126 tag fee. **Maine:** \$16 resident cost for adult license; there is also a \$3 junior license available. Nonresident license is \$78 for an adult, \$11 for a junior. Total revenue may be high because adult/junior # of licenses not broken down. **Massachusetts:** Reported 119,265 total hunting licenses, but did not break down figure for bear tags only. Figure of 1,717 nonresident licenses was for big game licenses; not enough information provided to estimate total revenue. **Minnesota:** Provided total # of resident and nonresident licenses together; therefore not possible to assess total revenue. **New Hampshire:** Provided total # of resident and nonresident licenses together. Both licenses cost \$3. **North Carolina:** Figure includes both resident and nonresident licenses; therefore not possible to assess total revenue. **Oregon:** Reported number of nonresident licenses as being 3% of resident licenses. Assessment of total revenue is based on that calculation. Figures reported are for general fall season. **South Carolina:** State did not provide figures on number of licenses sold. Cost of nonresident license varies: \$231 for an annual license, \$206 for a 10-day license, or \$191 for a 3-day license. **Tennessee:** Has no specific black bear license. Hunters required to purchase regular and supplemental big game license. **Vermont:** Requires only general big game license. It reported selling 89,272 such resident licenses and 15,769 such nonresident licenses in 1992. Impossible to determine how many of these hunters pursued black bear. **Virginia:** Has a complicated licensing system based on age, lifetime and seasonal licenses, resident and nonresident bear, deer, and turkey licenses, and other license types. Not possible to determine numbers and revenues. **Wyoming:** State reported # of "hunts."

APPENDIX 6 (continued)

Black Bear Hunting License Costs and Total Revenues in the United States, 1993

STATE	COST OF RESIDENT LICENSE/TAG (\$)	RESIDENT LICENSES/TAGS ISSUED 1993	COST OF NONRESIDENT LICENSE/TAG (\$)	NONRESIDENT LICENSES/TAGS ISSUED 1993	ESTIMATE OF TOTAL REVENUE 1993 (\$)
Alaska	25	NA/NR +	85+ ⁺	NA/NR +	NA/NR ⁺
Arizona	11	3,136	150	39	40,346
Arkansas ⁺	25	NA/NR	NA/NR	NA/NR	NA/NR
California	22.50	11,080	145.75	96	263,292
Colorado	30.25	4,305	250.25	770	322,918.75
Florida	0 ⁺	2,368 ⁺	0 ⁺	N/D	0
Georgia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Idaho	14 ⁺	24,800	212 ⁺	1,494	663,928
Maine	16 ⁺	6,184	78 ⁺	4,007	411,490
Massachusetts	12.50	NA/NR	48.50	NA/NR	NA/NR
Michigan	14.35	5,003	150.35	60	80,814
Minnesota	34	9,036 ⁺	166	NA/NR ⁺	NA/NR ⁺
New Hampshire	3	11,510 ⁺	3	NA/NR ⁺	34,530 ⁺
North Carolina	40	12,000-14,000 ⁺	190	NA/NR ⁺	NA/NR ⁺
Oregon	11	17,196 ⁺	151	3% ⁺	261,396 ⁺
South Carolina	44	NA/NR	+	NA/NR	NA/NR
Tennessee ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Utah	52	147	205	15	11,719
Vermont	12	NA/NR ⁺	75	NA/NR ⁺	NA/NR
Virginia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
West Virginia	29	12,094	129	220	379,106
Wisconsin	30	2,025	120	50	66,750
Wyoming	11	3,553 ⁺	70	758 ⁺	92,143

+ Additional information:

Alaska: 1993-1994 information. Number of licenses sold not available (licenses are not sold by species). Cost is \$25 resident license 1993-1994. Nonresident \$85 license, \$225 or \$300 tag fee. **Arkansas:** Has no specific black bear license. **Georgia:** Has no specific black bear license. **Florida:** Licenses free; licenses issued were 2,368 for Apalachicola National Forest. **Idaho:** Residents \$7 license fee, \$7 tag fee; nonresidents \$86 license fee, \$126 tag fee. **Maine:** \$16 resident cost is for adult license, there is also a \$3 junior license available. Nonresident license is \$78 for an adult, \$11 for a junior. Total revenue may be high because adult/junior # of licenses not broken down. **Massachusetts:** State did not have information available for number of resident or nonresident licenses. Not possible to estimate total revenue. **Minnesota:** Provided total # of resident and nonresident licenses together. Not possible to assess total revenue. **New Hampshire:** Provided total # of resident and nonresident licenses together. Both licenses cost \$3. **North Carolina:** Figure includes both resident and nonresident licenses. Not possible to accurately assess total revenue. **Oregon:** Reported # of nonresident licenses as being 3% of resident licenses. Assessment of total revenue is based on that calculation. Figures reported are for general fall season. **South Carolina:** State did not provide figures on number of licenses sold. Cost of nonresident license varies: \$231 for an annual license, \$206 for a 10-day license, or \$191 for a 3-day license. **Tennessee:** Has no specific black bear license. Hunters required to purchase regular and supplemental big game license. **Vermont:** Requires only general big game license; reported selling 89,423 such resident licenses and 17,082 such non-resident licenses in 1993. Impossible to determine how many of these hunters were pursuing black bear. **Virginia:** Has a complicated licensing system based on age, lifetime and seasonal licenses, resident and nonresident bear, deer, and turkey licenses, and other license types. Not possible to determine numbers and revenues. **Wyoming:** State reported number of "hunts."

APPENDIX 6 (continued)

Black Bear Hunting License Costs and Total Revenues in the United States, 1994

STATE	COST OF RESIDENT LICENSE/TAG (\$)	RESIDENT LICENSES/TAGS ISSUED 1994	COST OF NONRESIDENT LINCENSE/TAG (\$)	NONRESIDENT LICENSES/TAGS ISSUED 1994	ESTIMATE OF TOTAL REVENUE 1994 (\$)
Alaska	25	NA/NR +	85+ ⁺	NA/NR +	NA/NR ⁺
Arizona	11	4,142	150	81	57,712
Arkansas ⁺	25	NA/NR	NA/NR	NA/NR	NA/NR
California	23	12,014	149.50	109	292,617.50
Colorado	30.25	5,729	250.25	795	372,251
Georgia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Idaho	14 ⁺	26,800	337 ⁺	946	694,002
Maine	18 ⁺	5,960	82 ⁺	4,022	437,084
Massachusetts	12.50	NA/NR ⁺	48.50	2,123 ⁺	NA/NR
Michigan	14.35	5,037	150.35	59	81,151.60
Minnesota	34	9,563 ⁺	166	NA/NR ⁺	NA/NR ⁺
New Hampshire	3	13,300 ⁺	3	NA/NR ⁺	39,900 ⁺
North Carolina	40	12,000-14,000 ⁺	190	300 ⁺	NA/NR ⁺
Oregon	11	17,242 ⁺	151	3% ⁺	262,042 ⁺
South Carolina	44	NA/NR	+	NA/NR	NA/NR
Tennessee ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Utah	58	150	225	18	12,750
Vermont	12	NA/NR ⁺	75	NA/NR ⁺	NA/NR
Virginia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
West Virginia	29	13,385	129	274	423,511
Wisconsin	30	2,114	120	56	70,140
Wyoming	11	4,125 ⁺	70	738 ⁺	97,035

+ Additional Information:

Alaska: 1994-1995 information. Number of licenses sold not available (licenses not sold by species). Cost is \$25 resident license 1994-1995. Nonresident \$85 license + \$225 or \$300 tag fee. **Arkansas:** Has no specific black bear license. **Georgia:** Has no specific black bear license. **Idaho:** Residents \$7 license fee, \$7 tag fee; nonresidents \$101 license fee, \$226 tag fee. **Maine:** \$18 resident cost is for adult license; also a \$6 junior license available. Nonresident license is \$82 for an adult, \$16 for a junior. Total revenue may be high because adult/junior # of licenses was not broken down. **Massachusetts:** State reported 114,221 total hunting licenses, but did not break down figure for bear tags only. Figure of 2,123 nonresident licenses was for big game licenses only. Not enough information was provided to estimate total revenue. **Minnesota:** Provided total number of resident and nonresident licenses together. It was therefore not possible to accurately assess total revenue. **New Hampshire:** Provided total number of resident and nonresident licenses together. Estimate of total revenue based on fact that both licenses cost \$3. **North Carolina:** State broke out # of nonresident licenses for 1994, but range provided precludes accurate assessment of total revenue. **Oregon:** Reported # of nonresident licenses as being 3% of resident licenses. Assessment of total revenue is based on that calculation. Figures reported are for general fall season. **South Carolina:** State did not provide figures on number of licenses sold. Cost of nonresident license varies: \$231 for an annual license, \$206 for a 10-day license, or \$191 for a 3-day license. **Tennessee:** No specific black bear license. Hunters required to purchase regular and supplemental big game license. **Vermont:** Requires only general big game license; reported selling 89,920 such resident licenses and 15,071 such non-resident licenses in 1994. Impossible to determine how many of these hunters were pursuing black bear. **Virginia:** Has a complicated licensing system based on age, lifetime and seasonal licenses, resident and nonresident bear, deer, and turkey licenses, and other license types. Not possible to determine numbers and revenues. **Wyoming:** State reported number of "hunts."

APPENDIX 6 (continued)

Black Bear Hunting License Costs and Total Revenues in the United States, 1995

STATE	COST OF RESIDENT LICENSE/TAG (\$)	RESIDENT LICENSES/TAGS ISSUED 1995	COST OF NONRESIDENT LINCENSE/TAG (\$)	NONRESIDENT LICENSES/TAGS ISSUED 1995	ESTIMATE OF TOTAL REVENUE 1995 (\$)
Alaska	25	NA/NR +	85+ ⁺	NA/NR +	NA/NR +
Arizona	11	4,316	150	270	87,976
Arkansas ⁺	25	NA/NR	NA/NR	NA/NR	NA/NR
California	23.50	12,006	152.75	163	307,039.25
Colorado	30.25	8,245	250.25	1,207	372,251
Georgia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Idaho	14 ⁺	26,800	337 ⁺	1,043	726,691
Maine	19 ⁺	6,674	84 ⁺	4,203	479,858
Massachusetts	12.50	NA/NR ⁺	48.50	2,258 ⁺	NA/NR
Michigan	14.85	5,582	150.85	70	93,452.20
Minnesota	34	12,563 ⁺	166	NA/NR ⁺	NA/NR ⁺
New Hampshire	3	14,385 ⁺	3	NA/NR ⁺	43,155 ⁺
North Carolina	40	12,000-14,000 ⁺	190	340	NA/NR ⁺
Oregon	11	13,981 ⁺	151	3% ⁺	212,591 ⁺
South Carolina	44	NA/NR	+	NA/NR	NA/NR
Tennessee ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
Utah	58	154	225	21	13,117
Vermont	12	NA/NR ⁺	75	NA/NR ⁺	NA/NR
Virginia ⁺	NA/NR	NA/NR	NA/NR	NA/NR	NA/NR
West Virginia	29	13,591	129	268	428,711
Wisconsin	30	2,625	120	68	86,910
Wyoming	11	3,066 ⁺	70	327 ⁺	56,616

+ Additional Information:

Alaska: 1995-1996 information. Number of licenses sold not available (licenses not sold by species). \$25 resident license 1995-1996. Nonresident \$85 license+ \$225 or \$300 tag fee. **Arkansas:** Has no specific black bear license. **Georgia:** Has no specific black bear license. **Idaho:** Residents \$7 license fee, \$7 tag fee; nonresidents \$101 license fee, \$226 tag fee. **Maine:** \$19 resident cost is adult license; \$6 junior license also available. Nonresident license is \$84 for an adult, \$16 for a junior. Total revenue may be high because adult/junior # of licenses was not broken down. **Massachusetts:** State reported 113,256 total hunting licenses, but did not break down figure for bear tags only. Figure of 2,258 nonresident licenses was for big game licenses. Not possible to estimate total revenue. **Minnesota:** Provided total number of resident and nonresident licenses together; Not possible to assess total revenue. **New Hampshire:** Provided total number of resident and nonresident licenses together. Both licenses cost \$3. **North Carolina:** Broke out number of nonresident licenses for this year, but range of number of resident licenses preclude accurate assessment of total revenue. **Oregon:** Reported number of nonresident licenses as being 3% of resident licenses. Assessment of total revenue is based on that calculation. Figures reported are for general fall season. **South Carolina:** State did not provide figures on number of licenses sold. Cost of nonresident license varies: \$231 for an annual license, \$206 for a 10-day license, or \$191 for a 3-day license. **Tennessee:** Has no specific black bear license. Hunters required to purchase regular and supplemental big game license. **Vermont:** Requires only general big game license; reported selling 83,965 such resident licenses and 14,456 such non-resident licenses in 1995. Impossible to determine how many of these hunters were pursuing black bear. **Virginia:** Has a complicated licensing system based on age, lifetime and seasonal licenses, resident and nonresident bear, deer, and turkey licenses, and other license types. Not possible to determine numbers and revenues. **Wyoming:** State reported number of "hunts."

APPENDIX 7

Black Bear Hunting License Costs and Total Revenues in Canada, 1992

PROVINCE/ TERRITORY	COST OF RESIDENT LICENSE/TAG (\$CAD)	RESIDENT LICENSES/TAGS ISSUED 1992	COST OF NONRESIDENT LICENSE/TAG (\$CAD)	NONRESIDENT LICENSES/TAGS ISSUED 1992	ESTIMATE OF TOTAL REVENUE 1992 (\$CAD)
British Columbia	20	110,911	150	622	2,311,520
Manitoba	20	1,808	165	882	181,690
Newfoundland	25	4,463	115	210	135,725
Northwest Terr. +	10	299	20	6	3,110
Nova Scotia	21.40	239	96.30	30	8,004
Ontario	20.25	11,745	105	10,518	1,342,226
Quebec	28.77	16,631	85.67	3,350	765,469
Saskatchewan	17 ⁺	1,687	55/110 ⁺	889 ⁺	122,564
Yukon Territory	5/10 ⁺	923/3,122 ⁺	75/150 ⁺	358/557 ⁺	NA/NR ⁺

Source: TRAFFIC 1996 survey of provincial and territorial wildlife authorities

Key: NA/NR = Not Available/Not Reported

+ Additional Information:

Northwest Territory: Information for 1992-1993. **Saskatchewan:** An \$11CAD Saskatchewan Wildlife Habitat Certificate must be purchased to validate a big game or fur license. This cost is not reflected here. Canadian residents not from Saskatchewan must pay \$55CAD for a nonresident license, while non-Canadians must pay \$110CAD. In 1992, 71 Canadian residents purchased such licenses while 818 non-Canadians did so.

Yukon Territory: Price of bear seal is \$5CAD for residents, price of license is \$10CAD. Both are needed to hunt bear. In 1992 Yukon Territory sold 3,122 resident licenses and 923 seals; also sold 557 nonresident licenses and 358 seals. Price of licenses for nonresidents are \$75CAD and \$150CAD, depending whether nonresident is Canadian. Respondent did not break out nonresident Canadians from nonresident aliens, precluding accurate determination of total revenue. There is an additional trophy fee of \$175CAD for nonresidents.

APPENDIX 7 (continued)

Black Bear Hunting License Costs and Total Revenues in Canada, 1993

PROVINCE/ TERRITORY	COST OF RESIDENT LICENSE/TAG (\$CAD)	RESIDENT LICENSES/TAGS ISSUED 1993	COST OF NONRESIDENT LICENSE/TAG (\$CAD)	NONRESIDENT LICENSES/TAGS ISSUED 1993	ESTIMATE OF TOTAL REVENUE 1993 (\$CAD)
British Columbia	20	104,920	150	537	2,178,950
Manitoba	20	1,949	165	976	200,020
Newfoundland	25	4,214	50/100 ⁺	417	NA/NR ⁺
Northwest Terr. ⁺	10	224	20	2	2,280
Nova Scotia	21.40	286	96.30	44	10,358
Ontario	24	10,235	123	10,233	1,504,299
Quebec	29.43	16,288	87.64	3,525	788,287
Saskatchewan	17 ⁺	1,758	55/110 ⁺	1,216 ⁺	159,466
Yukon Territory	5/10 ⁺	892/3,200 ⁺	75/150 ⁺	301/533 ⁺	NA/NR ⁺

Key: NA/NR = Not Available/Not Reported

+ Additional Information:

Newfoundland: In 1993 Newfoundland adopted a system in which nonresident Canadians paid \$50CAD for a license, while non-Canadians would pay \$100CAD for a license. This made calculating total revenue impossible. **Northwest Territory:** Information for 1993-1994. **Saskatchewan:** An \$11CAD Saskatchewan Wildlife Habitat Certificate must be purchased to validate a big game or fur license — this cost is not reflected here. Canadian residents not from Saskatchewan must pay \$55CAD for a nonresident license, while non-Canadians must pay \$110CAD. In 1993, 76 Canadian residents purchased such licenses while 1,140 non-Canadians did so. **Yukon Territory:** Price of bear seal is \$5CAD for residents, price of license is \$10CAD. Both are needed to hunt bear. In 1993 Yukon Territory sold 3,200 licenses and 892 seals to residents, and 533 licenses and 301 seals to nonresidents. Prices of licenses for nonresidents are \$75CAD and \$150CAD, depending whether nonresident is Canadian. Respondent did not break out nonresident Canadians from nonresident aliens, precluding accurate determination of total revenue. There is an additional trophy fee of \$175CAD for nonresidents.

APPENDIX 7 (continued)

Black Bear Hunting License Costs and Total Revenues in Canada, 1994

PROVINCE/ TERRITORY	COST OF RESIDENT LICENSE/TAG (\$CAD)	RESIDENT LICENSES/TAGS ISSUED 1994	COST OF NONRESIDENT LICENSE/TAG (\$CAD)	NONRESIDENT LICENSES/TAGS ISSUED 1994	ESTIMATE OF TOTAL REVENUE 1994 (\$CAD)
British Columbia	20	101,782	150	590	2,124,140
Manitoba	20	1,887	165	1,237	241,845
Newfoundland	25	NA/NR	50/100 ⁺	NA/NR	NA/NR ⁺
Northwest Terr.	10	243	20	7	2,570
Nova Scotia	21.40	481	96.30	37	13,857
Ontario	24	12,081	123	13,171	1,909,977
Quebec	30.10	15,026	89.86	3,868	799,861
Saskatchewan	17 ⁺	1,848	55/110 ⁺	1,504 ⁺	193,116
Yukon Territory	5/10 ⁺	824/3,074 ⁺	75/150 ⁺	338/535 ⁺	NA/NR ⁺

Key: NA/NR = Not Available/Not Reported

+ Additional information:

Newfoundland: In 1993 Newfoundland adopted a system in which nonresident Canadians paid \$50CAD for a license, while non-Canadians would pay \$100CAD for a license. This made calculating total revenue impossible. Newfoundland also did not have license figures available for this year.

Northwest Territory: Information for 1994-1995. **Saskatchewan:** An \$11CAD Saskatchewan Wildlife Habitat Certificate must be purchased to validate a big game or fur license — this cost is not reflected here. Canadian residents not from Saskatchewan must pay \$55CAD for a nonresident license, while non-Canadians must pay \$110CAD. In 1994, 68 Canadian residents purchased such licenses while 1,436 non-Canadians did so.

Yukon Territory: Price of bear seal is \$5CAD for residents, price of license is \$10CAD. Both are needed to hunt bear. In 1994, Yukon Territory sold 3,074 licenses and 824 seals to residents, and 535 licenses and 338 seals to nonresidents. Prices of licenses for nonresidents are \$75CAD and \$150CAD, depending whether nonresident is Canadian. Respondent did not break out nonresident Canadians from nonresident aliens, precluding accurate determination of total revenue. There is an additional trophy fee of \$175CAD for nonresidents.

APPENDIX 7 (continued)

Black Bear Hunting License Costs and Total Revenues in Canada, 1995

PROVINCE/ TERRITORY	COST OF RESIDENT LICENSE/TAG (\$CAD)	RESIDENT LICENSES/TAGS ISSUED 1995	COST OF NONRESIDENT LICENSE/TAG (\$CAD)	NONRESIDENT LICENSES/TAGS ISSUED 1995	ESTIMATE OF TOTAL REVENUE 1995 (\$CAD)
British Columbia	22.47	98,574	155.15	605	2,308,825
Manitoba	20	2,133	165	1,410	275,310
Newfoundland	25	3,666	50/100 ⁺	588	NA/NR ⁺
Northwest Terr.	10	235	20	4	2,430
Nova Scotia	21.40	708	96.30	81	22,952
Ontario	24	13,060	123	12,896	1,899,648
Quebec	30.49	17,373	91.26	3,877	883,518
Saskatchewan	17 ⁺	1,492	55/110 ⁺	1,513 ⁺	122,564
Yukon Territory	5/10 ⁺	820/3,053 ⁺	75/150 ⁺	375/604 ⁺	NA/NR ⁺

Key: NA/NR = Not Available/Not Reported

+ Additional information:

Newfoundland: In 1993 Newfoundland adopted a system in which nonresident Canadians paid \$50CAD for a license, while non-Canadians would pay \$100CAD for a license. This made calculating total revenue impossible. **Northwest Territory:** Information for 1995-1996. **Saskatchewan:** An \$11CAD Saskatchewan Wildlife Habitat Certificate must be purchased to validate a big game or fur license. This cost is not reflected here. Canadian residents not from Saskatchewan must pay \$55CAD for a nonresident license, while non-Canadians must pay \$110CAD. In 1995, 36 Canadian residents purchased such licenses while 1,477 non-Canadians did so. **Yukon Territory:** Price of bear seal is \$5CAD for residents, price of license is \$10CAD. Both are needed to hunt bear. In 1995 Yukon Territory sold 3,053 licenses and 820 seals to residents, and 557 licenses and 358 seals to nonresidents. Prices of licenses for nonresidents are \$75CAD and \$150CAD, depending whether nonresident is Canadian. Respondent did not break out nonresident Canadians from nonresident aliens, precluding accurate determination of total revenue. There is an additional trophy fee of \$175CAD for nonresidents.

APPENDIX 8

Current Legal Methods for Hunting Black Bear in the United States and Canada

STATE/PROVINCE TERRITORY	BAITING LEGAL?	DOGS LEGAL?	ADDITIONAL COMMENTS
Alaska	Yes	Yes	<i>Baiting:</i> Bait stations legal in certain areas and at restricted times only after registering with the Alaska Dept. of Fish and Game. <i>Dogs:</i> To hunt with dogs requires a permit from the Alaska Dept. of Fish and Game.
Arizona	No	Yes	<i>Dogs:</i> Prohibited during spring bear hunts.
Arkansas	No	No	
California	No	Yes	<i>Dogs:</i> A person in possession of a valid bear tag may use the general bear season to educate dogs for bear.
Colorado	No	No	
Georgia	No	Yes	<i>Dogs:</i> No closed season on training dogs. Unlawful to possess firearms or other equipment for taking game while training dogs. Persons training dogs for hunting must have a valid hunting license.
Idaho	Yes	Yes	<i>Baiting:</i> Restrictions for bait sites, type of bait, removal, permitting. <i>Dogs:</i> Nonresident permits restricted. If hunting, there must be an open take season in the area. If pursuing, there must be an open dog training season in the area. During dog training season black bear may be pursued and treed but not captured, killed or possessed.
Maine	Yes	Yes	<i>Baiting:</i> Restrictions on placement of bait, establishment and clean up of bait areas, permitting on public land, and permission of stand or blind owner. <i>Dogs:</i> Restrictions on season, number of dogs (up to 4), nonresidents, taking bear treed by another person's dogs.
Massachusetts	No	No	
Michigan	Yes	Yes	<i>Baiting:</i> Restrictions on season, containers, placement of bait, # of stations, clean up. <i>Dogs:</i> Restrictions on number of dogs (up to 6), nonresidents, training seasons, numbers of dogs trained per day (up to 8), and areas.
Minnesota	Yes	No	
Montana	No	No	
New Hampshire	Yes	Yes	<i>Baiting:</i> Permit needed – must include map of bait site. Site must have legible sign with baiter's name and address (may have names of 2 other people who could then take bear). <i>Dogs:</i> Nonresidents must show proof that hunting bear with dogs is allowed in their state of residence.
New Mexico	No	Yes	<i>Dogs:</i> Licensed hunter must be present continuously once any dog is released.
New York	No	No	
North Carolina	No	Yes	<i>Dogs:</i> May not be used to pursue bear in "bear sanctuaries"; unlawful to train dogs or allow dogs to run unleashed in certain sanctuaries from March 1 until the Monday on or nearest October 15.
Oregon	No	No	
Pennsylvania	No	Yes	<i>Dogs:</i> No closed season for training dogs; may not be armed during training; state has penalties for dogs chasing big game.
South Carolina	No	Yes	<i>Dogs:</i> Specific season for hunting bear with dogs (6 days).
Tennessee	No	Yes	<i>Dogs:</i> Use of dogs limited to certain areas; limited September dog training season; no bears may be taken; no weapon may be possessed; training during daylight hours only.
Utah	Yes	Yes	<i>Baiting:</i> Specific restrictions and permitting apply. <i>Dogs:</i> Allowed only during open seasons, dog owner must have permit, licensed hunter must be present when dogs are released and participate continuously until hunt is over.
Vermont	No	Yes	<i>Dogs:</i> Permit required; limit on number of dogs in a pack (6), and no "relaying" packs; limit on nonresident permits; nonresident may train dogs only while training season is in effect in nonresident's home state and subject to laws of Vermont.

APPENDIX 8 (continued)

Current Legal Methods for Hunting Black Bear in the United States and Canada

State/Province Territory	Baiting legal?	Dogs legal?	Additional Comments
Virginia	No	Yes	<i>Dogs:</i> Restrictions on hunting with dogs in certain areas at certain times; training on live wild animals is considered hunting and is unlawful during the closed season.
Washington	No	No	
West Virginia	No	Yes	<i>Dogs:</i> Illegal to pursue bear with dogs not in use at beginning of hunt; restrictions on nonresident use of dogs; specific dog training season with restrictions.
Wisconsin	Yes	Yes	<i>Baiting:</i> May hunt over material deposited by natural vegetation or found solely as a result of normal agriculture. Severe restrictions on baiting apply. <i>Dogs:</i> Training season (pursuit allowed) July 1-August 31; may not hunt, train, or pursue with more than 6 dogs, or replace a dog engaged in pursuit (may add dogs up to maximum 6); dogs restricted or banned in certain zones.
Wyoming	Yes	No	<i>Baiting:</i> Specific restrictions on type of bait, placement, permits, areas, sites apply.
Alberta	Yes	Yes	Restrictions on areas/placement of bait. Bait must be clearly identified with name and address of hunter. Baiting restricted to open season and preceding 2 weeks in each specific wildlife management unit.
British Columbia	No	Yes	None specified in regulations.
Manitoba	Yes	No	<i>Baiting:</i> Restrictions on type and placement of bait permitted. Bait must be clearly identified with name and address of hunter.
New Brunswick	Yes	No	Not reported.
Newfoundland	Yes	No	Not reported.
Northwest Terr.	No	No	
Nova Scotia	Yes	No	Black bear may be hunted only over bait.
Ontario	Yes	Yes	<i>Dogs:</i> Dogs may not be used from May 16 th -June 30 th except in designated management units.
Quebec	Yes	No	Not reported.
Saskatchewan	Yes	Yes	<i>Baiting:</i> Restrictions on type and placement of bait permitted. Bait must be clearly identified with name and address of hunter.
Yukon Territory	No	No	

Sources: State, provincial, and territorial hunting regulations; TRAFFIC phone survey.

APPENDIX 9

Black Bear Hunting and Trapping Seasons in the United States and Canada, 1992-1995

STATE/PROVINCE/ TERRITORY	HUNTING/TRAPPING SEASON (BY YEAR)			
	1992	1993	1994	1995
Alaska	Varies by GMU*	Varies by GMU*	Varies by GMU*	Varies by GMU*
Arizona	Variable fall & spring*	Variable fall & spring*	Variable fall & spring*	Variable fall & spring*
Arkansas	November	Nov - Dec	Nov - Dec	Nov - Dec
California	<i>General:</i> Oct - Dec* <i>Bow:</i> Aug - Sept	<i>General:</i> Oct - Dec* <i>Bow:</i> Aug - Sept	<i>General:</i> Oct - Dec* <i>Bow:</i> Aug - Sept	<i>General:</i> Oct - Dec* <i>Bow:</i> Aug - Sept
Colorado	Apr/May* Sept/Nov	Sept/Nov	Sept/Nov	Sept/Nov
Florida	<i>ANF:</i> 11/30-12/11 <i>Osceola:</i> 9/26-10/11 11/14-1/10/93	<i>ANF:</i> 11/29-12/10 <i>Osceola:</i> 9/25-10/10 11/13-1/9/94	Closed*	Closed*
Georgia	Varies Sept - Dec*	Varies Sept - Dec*	Varies Sept - Dec*	Varies Sept - Dec*
Idaho	Apr 15 - June 15* Sept 15 - Oct 31*	Apr 15 - June 15* Sept 15 - Oct 31*	Apr 15 - June 15* Sept 15 - Oct 31*	Apr 15 - June 15* Sept 15 - Oct 31*
Maine	<i>Bait:</i> Aug/Sept* <i>Hounds:</i> Sept/Oct <i>Still/Stalk:</i> Oct/Nov <i>Trap:</i> Oct 1-31	<i>Bait:</i> Aug/Sept* <i>Hounds:</i> Sept/Oct <i>Still/Stalk:</i> Oct/Nov <i>Trap:</i> Oct 1-31	<i>Bait:</i> Aug/Sept* <i>Hounds:</i> Sept/Oct <i>Still/Stalk:</i> Oct/Nov <i>Trap:</i> Oct 1-31	<i>Bait:</i> Aug/Sept* <i>Hounds:</i> Sept/Oct <i>Still/Stalk:</i> Oct/Nov <i>Trap:</i> Sept 24 - Oct 31
Massachusetts	1. 2 nd Mon. in Sept - following Sat. 2. 3 rd Mon. in Nov - following Sat.	1. 2 nd Mon. in Sept - following Sat. 2. 3 rd Mon. in Nov - following Sat.	1. 2 nd Mon. in Sept - following Sat. 2. 3 rd Mon. in Nov - following Sat.	1. 2 nd Mon. in Sept - following Sat. 2. 3 rd Mon. in Nov - following Sat.
Michigan	Sept 10 - Oct 21	Sept 10 - Oct 21	Sept 10 - Oct 21	Sept 10 - Oct 21
Minnesota	Sept 1 - Oct 18	Sept 1 - Oct 17	Sept 1 - Oct 16	Sept 1 - Oct 15
New Hampshire	Variable by unit*	Variable by unit*	Variable by unit*	Variable by unit*
North Carolina	Oct - Nov* Dec - Jan	Oct - Nov* Dec - Jan	Oct - Nov* Dec - Jan	Oct - Nov* Dec - Jan
Oregon	Varies by area Spring/Fall	Varies by area Spring/Fall	Varies by area Spring/Fall	Varies by area Spring/Fall
Pennsylvania	Nov 22-24	Nov 22-24	Nov 22-24	Nov 22-24
South Carolina	<i>Still:</i> Oct 19-24 <i>Dog:</i> Oct 25-31	<i>Still:</i> Oct 18-23 <i>Dog:</i> Oct 25-30	<i>Still:</i> Oct 17-22 <i>Dog:</i> Oct 24-29	<i>Still:</i> Oct 16-21 <i>Dog:</i> Oct 23-28
Tennessee	Oct 13-17* Dec 3-16	Oct 12-16* Dec 2-15	Oct 11-15* Dec 1-14	Oct 10-14* Nov 30 - Dec 13
Utah	Apr 28 - Jun 4* Oct 28 - Nov 30	Aug 28 - Oct 14 Nov 4 - Nov 30	Aug 28 - Oct 14 Nov 4 - Nov 30	Aug 28 - Oct 14 Nov 4 - Nov 30
Vermont	Sept 1 - Nov 18	Sept 1 - Nov 17	Sept 1 - Nov 16	Sept 1 - Nov 15
Virginia	<i>Bow:</i> Oct - Nov* <i>Gun:</i> Nov - Jan	<i>Bow:</i> Oct - Nov* <i>Gun:</i> Nov - Jan	<i>Bow:</i> Oct - Nov* <i>Gun:</i> Nov - Jan	<i>Bow:</i> Oct - Nov* <i>Gun:</i> Nov - Jan
Washington	Variable by GMU Aug - Nov	Variable by GMU Aug - Nov	Variable by GMU Aug - Nov	Variable by GMU Aug - Nov
West Virginia	<i>Bow:</i> Oct 17 - Nov 21 <i>Gun:</i> Dec 7 - Dec 31	<i>Bow:</i> Oct 16 - Nov 20 <i>Gun:</i> Dec 6 - Dec 31	<i>Bow:</i> Oct 15 - Nov 19 <i>Gun:</i> Dec 5 - Dec 31	<i>Bow:</i> Oct 14 - Nov 18 <i>Gun:</i> Dec 4 - Dec 30
Wisconsin	Sept 12 - Oct 9	Sept 11 - Oct 8	Sept 10 - Oct 7	Sept 9 - Oct 6
Wyoming	Apr 15 - Jun 15 Aug 15 - Nov	Apr 15 - Jun 15 Aug 15 - Nov	Apr 15 - Jun 15 Aug 15 - Nov	Apr 15 - Jun 15 Aug 15 - Nov

APPENDIX 9 (continued)

Black Bear Hunting and Trapping Seasons in the United States and Canada, 1992-1995

STATE/PROVINCE/ TERRITORY	HUNTING/TRAPPING SEASON (BY YEAR)			
	1992	1993	1994	1995
British Columbia	Varies by region*	Varies by region*	Varies by region*	Varies by region*
Manitoba	<i>Hunt:</i> Aug 30 - 1 st wk Oct; Apr 30 - mid-June <i>Trap:</i> mid-Sept - end May	<i>Hunt:</i> Aug 30 - 1 st wk Oct; Apr 30 - mid-June <i>Trap:</i> mid-Sept - end May	<i>Hunt:</i> Aug 30 - 1 st wk Oct; Apr 30 - mid-June <i>Trap:</i> mid-Sept - end May	<i>Hunt:</i> Aug 30 - 1 st wk Oct; Apr 30 - mid-June <i>Trap:</i> mid-Sept - end May
Newfoundland	Aug 31 - Sept 14* Sept 14 - Dec 14 May 2 - July 4	Aug 24 - Sept 12* Sept 12 - Oct 30 Apr 30 - July 2	Aug 28 - Sept 11* Sept 11 - Oct 30 Apr 30 - July 2	Aug 27 - Sept 10* Sept 10 - Oct 29 Apr 29 - July 1
Northwest Territories	<i>Res:</i> Aug 15 - Jun 30* <i>NR:</i> Aug 15 - Oct 31 <i>NRA:</i> Aug 15 - Jun 30 <i>Gen:</i> Unlimited	<i>Res:</i> Aug 15 - Jun 30* <i>NR:</i> Aug 15 - Oct 31 <i>NRA:</i> Aug 15 - Jun 30 <i>Gen:</i> Unlimited	<i>Res:</i> Aug 15 - Jun 30* <i>NR:</i> Aug 15 - Oct 31 <i>NRA:</i> Aug 15 - Jun 30 <i>Gen:</i> Unlimited	<i>Res:</i> Aug 15 - Jun 30* <i>NR:</i> Aug 15 - Oct 31 <i>NRA:</i> Aug 15 - Jun 30 <i>Gen:</i> Unlimited
Nova Scotia	<i>Hunt:</i> Sept 15 - last Sat. in Oct <i>Trap:</i> Oct 10 - Nov 7	<i>Hunt:</i> Sept 15 - last Sat. in Oct <i>Trap:</i> Oct 10 - Nov 7	<i>Hunt:</i> Sept 15 - last Sat. in Oct <i>Trap:</i> Oct 10 - Nov 7	<i>Hunt:</i> Sept 15 - last Sat. in Oct <i>Trap:</i> Oct 10 - Nov 7
Ontario	Apr 15 - Jun 15 or 30* Sept 1 or 15 - Oct 30, Nov 15 or 30	Apr 15 - Jun 15 or 30* Sept 1 or 15 - Oct 30, Nov 15 or 30	Apr 15 - Jun 15 or 30* Sept 1 or 15 - Oct 30, Nov 15 or 30	Apr 15 - Jun 15 or 30* Sept 1 or 15 - Oct 30, Nov 15 or 30
Quebec	<i>Hunt:</i> May 1- July 4; Sept 21 - Nov 24* <i>Trap:</i> Oct 25 - Dec 15; May 15 - Jun 30*	<i>Hunt:</i> May 1- July 4; Sept 21 - Nov 24* <i>Trap:</i> Oct 25 - Dec 15; May 15 - Jun 30*	<i>Hunt:</i> May 1- July 4; Sept 21 - Nov 24* <i>Trap:</i> Oct 25 - Dec 15; May 15 - Jun 30*	<i>Hunt:</i> May 1- July 4; Sept 21 - Nov 24* <i>Trap:</i> Oct 25 - Dec 15; May 15 - Jun 30*
Saskatchewan	<i>Hunt:</i> Apr 13 - Jun 27; Aug 24 - Oct 10* <i>Trap:</i> Jan 1 - May 31; Oct 15 - Dec 31	<i>Hunt:</i> Apr 12 - Jun 26; Aug 23 - Oct 9* <i>Trap:</i> Jan 1 - May 31; Oct 15 - Dec 31	<i>Hunt:</i> Apr 11 - Jun 25; Aug 22 - Oct 8* <i>Trap:</i> Jan 1 - May 31; Oct 15 - Dec 31	<i>Hunt:</i> Apr 10 - Jun 24; Aug 21 - Oct 7* <i>Trap:</i> Jan 1 - May 31; Oct 15 - Dec 31
Yukon Territory	Apr 15 - June 15; Aug 1 - Oct 31; or Open all year	Apr 15 - June 15; Aug 1 - Oct 31; or Open all year	Apr 15 - June 15; Aug 1 - Oct 31; or Open all year	Apr 15 - June 15; Aug 1 - Oct 31; or Open all year

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

* Additional comments:

Alaska: Alaskan hunting seasons are set by game management unit (GMU). In some parts of the state black bear hunting is open all year.

Arizona: Arizona bear hunting seasons vary by management unit. The earliest opening date set in the fall for some units during the survey period was August 1, while the latest was December 31. Spring dates set for bear hunting were in March and April. **California:** California sets seasons by days. From 1992 to 1995, these were a general season of 79 days beginning the second Saturday in October and an archery season of 23 days beginning the third Saturday in August. In 1992 and 1993 the season closed when 1,250 bears were reported taken. In 1994 and 1995 the season closed when 1,500 bears were reported taken. **Colorado:** Colorado allowed a spring bear hunt through 1992, when it was closed by state ballot referendum. **Florida:** ANF = Apalachicola National Forest. The Florida legislature closed bear hunting in 1994. **Georgia:** Georgia seasons vary depending on the zone and the type of hunting. In the northern zone archery season is in Sept./Oct. and firearms season is in Nov./Dec. In the southern zone seasons are set in Sept. and Oct. by county. **Idaho:** Variable among game management units. **Maine:** Seasons set within these months by year. **New Hampshire:** Seasons vary by management unit and type of hunt. **North Carolina:** Calendar dates change by year. In 1995 dates were Oct. 16 - Nov. 18; Nov 13-Nov. 18; Dec. 11-Jan. 1 (dates vary by county). These same general dates apply to all years. **Tennessee:** October season valid only in Blount, Sevier, and Cocke (South of I-40) counties, outside of Great Smoky Mountains National Park. **Utah:** Closed its spring bear hunt after 1992. **Virginia:** Seasons vary by county. Archery season is Oct. 10 to Nov. 7, except in counties where there is a closed firearm season on bears. Firearms seasons vary from Nov. 2 to Jan. 2, with most counties setting seasons from Nov. 23 to Jan. 2. Dogs are not allowed in Madison and Greene counties from Nov. 16 to 28. **Brit. Columbia:** Each management unit sets its own hunting and trapping seasons. These vary somewhat, but in general are held in September-November and April-May for hunting and October-May for trapping. **Newfoundland:** The August - September season is for pre-season bow hunting. Trapping seasons are the same as hunting seasons. **Northwest Territories:** NWT sets its seasons by license type: Resident (Res); Nonresident (NR); Nonresident Alien (NRA); and General License (Gen). **Ontario:** Seasons are set by area, within the above dates. Trapping seasons are the same as for hunting. **Quebec:** Hunting seasons can be longer depending on zone. Trapping seasons can be shorter depending on zone. **Saskatchewan:** Hunting dates vary depending on Wildlife Management Zone (WMZ).

APPENDIX 10

Black Bear Harvest Reporting Requirements in the United States and Canada

STATE/PROVINCE TERRITORY	REPORTING REQUIREMENTS
Alaska	Hides and skulls must be sealed in game management units 1-7, 11-17, and 20 (15 of the state's 26 game management units).
Arizona	Hunters must contact state agency, in person or by phone, within 48 hours of taking bear. Tooth must be sent to state within 20 days.
Arkansas	Wildlife check at official check station; hunter must return tooth to state.
California	Holder must fill out tag upon kill. Mandatory tag validation; mandatory tag return, even if unsuccessful. Return of skull by hunter to regulating agency for tooth collection.
Colorado	Hunter must present bear for inspection and sealing within 5 days. Check report must be completed at inspection.
Georgia	Phone call by hunter to regulating agency. Mandatory registration of harvest by hunter at designated check station.
Idaho	Mandatory registration of harvest by hunter at designated check station. Hunter is required to submit skull and hide.
Maine	Hunter must register bear at first state-administered station encountered, and within 18 hours of kill. Metal seal placed in bear, which must remain until processing.
Massachusetts	Mandatory registration of harvest by hunter at designated check station.
Michigan	Bear must be tagged and tag remain attached until bear is sealed and registered at check station within 72 hours of kill. Field validation kill tag must be surrendered to registrar.
Minnesota	Mandatory registration by hunter and sealing at designated check station. Hunter must return tooth to regulating agency.
Montana	Hunter must attach month and day from license/tag immediately. Tag must remain secure and visible until tanning. Hunter must present skull to regional official for aging within 10 days; must report personally within 48 hours of kill in Region 5.
New Hampshire	Must present bear to state within 24 hours of take to be sealed and tooth collected.
New Mexico	Must contact state within 5 days to make arrangement to present skull and hide. External genitalia must remain attached until hide has been inspected and tagged by state.
New York	Hunter must complete bear report card, phone regulating agency, and return tooth. Bears checked by biologist in southern part of state. Each part sold must be tagged; tag must remain until part is tanned, processed, or prepared for ingestion.
North Carolina	Bear must be tagged at site of kill and registered with state at designated check station.
Oregon	No mandatory statewide reporting system. Carcass must be tagged and checked in with state only if possession is transferred. Hunters are requested to return a tooth in a tooth envelope provided by the state. In 1997 hunters in three big game management units were required to "check out" with their bear as part of a research project.
Pennsylvania	Hunter must complete and attach game kill tag to remain until processed for consumption or mounting. Report to check station within 24 hours. Fill in report card and mail to state within 10 days of kill. Person not required to secure license must write to state within 5 days.
South Carolina	Registration at designated check station through 1996. Phone call only required as of 1997.
Tennessee	Registration of harvest by hunter at designated check station.
Utah	Permanent tag must be attached. Check-in required within 48 hours of kill.
Vermont	Bear must be reported to state within 48 hours of kill and carcass inspected. Animal tagged upon taking and must remain tagged until cut up for consumption.
Virginia	Registration of harvest by hunter at designated check station. Return of tooth by hunter to regulating agency. Seal affixed by check station operator and game check card secured to carcass until processed.
Washington	Successful hunters must complete harvest report card and return it within 10 days after taking an animal; must submit premolar tooth located behind the canine tooth of the upper jaw in tooth envelope provided by state. Unsuccessful hunters must complete and return report card within 10 days after close of season.

APPENDIX 10 *(continued)*

Black Bear Harvest Reporting Requirements in the United States and Canada

STATE/PROVINCE TERRITORY	REPORTING REQUIREMENTS
West Virginia	Registration of harvest by hunter at designated check station. Return of tooth by hunter to regulating agency.
Wisconsin	Registration of harvest by hunter at designated check station.
Wyoming	Registration of harvest by hunter at designated check station.
Alberta	Professional guides/outfitters/"Hunter Hosts" must report any take of black bear by a nonresident they accompany by December 31. Resident hunters may participate in phone survey.
British Columbia	There is no mandatory black bear harvest verification/reporting system in the province.
Manitoba	Nonresident hunters must inform regulating agency in writing of harvest. No requirement for resident hunters.
New Brunswick	Requires presentation by the licensed hunter of the entire carcass, including the hide, for registration and tagging at the first open bear registration station within 72 hours of the kill.
Newfoundland	Bear must be tagged by hunter with tag supplied with license. Written notice by hunter to agency; return of skull by hunter to regulating agency for tooth collection. Hunter is required to return license to the Wildlife Division following the hunting season, successful or not.
Nova Scotia	Report card must be completed by each hunter and submitted to provincial wildlife authorities, regardless of success. Hunter must return skull to regulating agency for tooth collection.
Northwest Territories	Registration of kills by nonresident and nonresident alien hunters is a by-product of the procurement of wildlife export permits, which are required to move any wildlife, in whole or in part, from the NWT. Resident hunters volunteer information in an annual hunter harvest survey (participation is not mandatory; typically 30-50% of resident hunters reply). General hunting license holders are not required to report their harvest.
Ontario	There is no mandatory black bear harvest verification/reporting system in the province.
Quebec	Registration of harvest by hunter at designated check station, but bears do not have to be tagged at check station. Hunters may return tooth to regulating agency, but this is not mandatory.
Saskatchewan	Registration of harvest by hunter at designated check station, but bears do not have to be tagged at check station. Return of tooth by hunter to regulating agency. Mail-out questionnaire to resident hunters. Mandatory reporting by outfitters. Mandatory reporting by fur dealers.
Yukon Territory	Compulsory Yukon Biological Submission – Hunter must provide complete skull for measurements and tooth collection as well as provide all harvest information per the YBS form.

Source: TRAFFIC 1996 survey of state, provincial, and territorial wildlife authorities; Williamson, 1999.

APPENDIX 11

Non-hunting or Trapping Kills of Black Bears in the United States and Canada, 1992

STATE/PROVINCE/ TERRITORY	# OF REPORTED NUISANCE KILLS	# OF MANAGEMENT KILLS	# OF OTHER KNOWN KILLS EXCEPT BY POACHING (E.G. VEHICLES)	# OF KNOWN POACHING KILLS	ESTIMATED # OF UNKNOWN POACHING KILLS	ESTIMATED # OF UNREPORTED HUMAN-RELATED KILLS EXCEPT BY POACHING
Alabama	0	0	1-2	0	1-2	1-2
Alaska	42 ('92-'93)	1	2	0	0	0
Arizona	—	—	1*	—	—	—
Arkansas	0	3	0	2	5	1
California	73	10*	—	—	<400	50
Connecticut	—	—	—	0	0	1
Florida	0	0	34	1	—	2
Georgia	—	—	15	6	12	18
Louisiana	—	—	—	—	—	—
Maine	—	<12	—	—	—	<50
Maryland	1	0	5	3	—	—
Massachusetts	1	—	13	4	—	—
Michigan	3	—	10	4	—	—
Minnesota	187	—	90	2	?	180
Mississippi	0	0	1	—	—	—
Nevada	1	0	2	0	0	0
New Hampshire	10	—	23	<5	—	—
North Carolina	9	—	85	23	—	—
Oklahoma	0	0	0	0	2	0
Oregon	—	220	5	—	—	—
Rhode Island	1*	0	0	0	0	0
South Carolina	0	0	?*	—	—	—
Tennessee	0	3	52*	24	—	—
Utah	—	12	2	1	3	2
Vermont	0	0	18*	4	—	—
Virginia	0	0	68	—	—	—
West Virginia	18	—	56*	17	—*	—
Wisconsin	—	—	~100	—	—	—
Wyoming	4	1	—	—	—	—
Newfoundland	~20	0	0	0	<5	~15
Northwest Territories	4 ('92-'93)	—	—	—	—	8 ('92-'93)
Nova Scotia	8	2	5	0	—	7
Ontario	—	—	—	4	—	—
Quebec	43	0	90	25	3	—
Yukon Territory	3	11	4	—	—	—

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities.

* Additional Information:

Arizona: Figure represents all known non-hunting kills. **California:** Figures in management kill category are an estimate for public safety kills.

Rhode Island: One black bear killed in 1992 as a nuisance after wreaking havoc on a town. **South Carolina:** Reports a few highway kills each year but these were not tracked until 1996. **Tennessee:** Of 52 bears killed, 39 were by vehicle. **Vermont:** Motor vehicle kills. **West Virginia:** Road kill 48, Misc. 8. WV does not estimate kills/only counts when there is a dead bear.

APPENDIX 11 (continued)

Non-hunting or Trapping Kills of Black Bears in the United States and Canada, 1993

STATE/PROVINCE/ TERRITORY	# OF REPORTED NUISANCE KILLS	# OF MANAGEMENT KILLS	# OF OTHER KNOWN KILLS EXCEPT BY POACHING (E.G. VEHICLES)	# OF KNOWN POACHING KILLS	ESTIMATED # OF UNKNOWN POACHING KILLS	ESTIMATED # OF UNREPORTED HUMAN-RELATED KILLS EXCEPT BY POACHING
Alabama	0	0	1-2	0	1-2	1-2
Alaska	28 ('93-'94)	0	0	1	0	0
Arizona	—	—	4*	—	—	—
Arkansas	0	3	0	1	5	1
California	51	10*	—	—	<400	50
Connecticut	—	—	—	0	0	1
Florida	0	1	41	6	—	2
Georgia	—	—	8	3	7	10
Louisiana	—	—	—	—	—	—
Maine	—	<12	—	—	—	<50
Maryland	0	0	5	1	—	—
Massachusetts	6	—	11	0	—	—
Michigan	3	—	12	3	—	—
Minnesota	111	—	54	5	?	100
Mississippi	0	0	0	0	—	—
Nebraska	—	—	—	—	—	—
Nevada	0	0	0	0	0	0
New Hampshire	9	—	23	>5	—	—
North Carolina	2	—	67	8	—	—
Oklahoma	0	0	0	1	2	0
Oregon	—	134	3	—	—	—
Rhode Island	0	0	0	0	0	0
South Carolina	0	0	?*	—	—	—
Tennessee	0	0	6	2	—	—
Utah	—	14	2	1	3	2
Vermont	0	0	18*	4	—	—
Virginia	0	0	43	—	—	—
West Virginia	4	—	46*	24	—*	—
Wisconsin	—	—	~100	—	—	—
Wyoming	13	0	—	—	—	—
Newfoundland	~20	0	0	0	<5	~15
Northwest Terr.	19 ('93-'94)	—	—	—	—	17 ('93-'94)
Nova Scotia	12	6	11	0	—	15
Ontario	—	—	—	18	—	—
Quebec	24	0	85	8	1	—
Yukon Territory	6	12	2	—	—	—

* Additional Information:

Arizona: Figure represents all known non-hunting kills. **California:** Figures in management kill category are an estimate for public safety kills. **South Carolina:** Reports a few highway kills each year but these were not tracked until 1996. **Vermont:** Motor vehicle kills. **West Virginia:** Road kill 40, Misc. 6. WV does not estimate kills but only counts when there is a dead bear.

APPENDIX 11 (continued)

Non-hunting or Trapping Kills of Black Bears in the United States and Canada, 1994

STATE/PROVINCE/ TERRITORY	# OF REPORTED NUISANCE KILLS	# OF MANAGEMENT KILLS	# OF OTHER KNOWN KILLS EXCEPT BY POACHING (E.G. VEHICLES)	# OF KNOWN POACHING KILLS	ESTIMATED # OF UNKNOWN POACHING KILLS	ESTIMATED # OF UNREPORTED HUMAN-RELATED KILLS EXCEPT BY POACHING
Alabama	0	0	1-2	0	1-2	1-2
Alaska	30 ('94-'95)	0	7	2	0	0
Arizona	—	—	16*	—	—	—
Arkansas	0	3	0	0	5	1
California	106	10*	—	—	<400	50
Connecticut	—	—	—	0	0	0
Florida	0	1	49	1	—	2
Georgia	—	—	8	0	5	10
Louisiana	—	—	—	—	—	—
Maine	—	<12	—	—	—	<50
Maryland	0	0	10	2	—	—
Massachusetts	1	—	13	1-2	—	—
Michigan	4	—	11	3	—	—
Minnesota	67	—	40	1	?	60
Mississippi	0	0	2	—	—	—
Nevada	0	0	0	1	1	0
New Hampshire	9	—	12	>5	—	—
North Carolina	5	—	89	14	—	—
Oklahoma	1	0	0	1	2	0
Oregon	—	151	4	—	—	—
Rhode Island	0	0	0	0	0	0
South Carolina	0	0	?*	1	—	—
Tennessee	1	1	3	1	—	—
Utah	3	20	2	0	3	2
Vermont	0	0	23*	2	—	—
Virginia	0	0	38	—	—	—
West Virginia	5	—	36*	10	—*	—
Wisconsin	—	—	~100	—	—	—
Wyoming	12	2	—	—	—	—
Newfoundland	~20	4	2	1	<5	~15
Northwest Terr.	14 ('94-'95)	—	—	—	—	23 ('94-'95)
Nova Scotia	25	5	10	0	—	20
Ontario	—	—	—	37	—	—
Quebec	19	0	97	16	2	—
Yukon Territory	22	6	2	—	—	—

* Additional Information:

Arizona: Figure represents all known non-hunting kills. **California:** Figures in management kill category are an estimate for public safety kills. **South Carolina:** Reports a few highway kills each year but these were not tracked until 1996. **Vermont:** Motor vehicle kills. **West Virginia:** Road kill 31, Misc. 5. WV does not estimate kills but only counts when there is a dead bear.

APPENDIX 11 (continued)

Non-hunting or Trapping Kills of Black Bears in the United States and Canada, 1995

STATE/PROVINCE/ TERRITORY	# OF REPORTED NUISANCE KILLS	# OF MANAGEMENT KILLS	# OF OTHER KNOWN KILLS EXCEPT BY POACHING (E.G. VEHICLES)	# OF KNOWN POACHING KILLS	ESTIMATED # OF UNKNOWN POACHING KILLS	ESTIMATED # OF UNREPORTED HUMAN-RELATED KILLS EXCEPT BY POACHING
Alabama	0	0	1-2	0	1-2	1-2
Alaska	—	—	—	—	—	—
Arizona	—	—	1*	—	—	—
Arkansas	0	3	0	1	5	1
California	86	10*	—	—	<400	50
Connecticut	—	—	—	1	1	1
Florida	0	0	51	1	—	1
Georgia	—	—	8	9	15	10
Louisiana	—	—	—	—	—	—
Maine	—	<12	—	—	—	<50
Maryland	1	1	9	4	—	—
Massachusetts	2	—	12	2-3	—	—
Michigan	3	—	11	4	—	—
Minnesota	232	—	68	13	?	230
Mississippi	0	1	0	0	—	—
Nebraska	—	—	—	—	—	—
Nevada	0	0	1	0	0	0
New Hampshire	11	—	41	>5	—	—
North Carolina	14	—	78	11	—	—
Oklahoma	0	0	0	0	2	0
Oregon	—	205	15	—	—	—
Rhode Island	0	0	0	0	0	0
South Carolina	0	0	?*	—	—	—
Tennessee	0	0	1	1	—	—
Utah	9	34	2	0	3	2
Vermont	0	0	36*	7	—	—
Virginia	0	0	37	—	—	—
Washington	4*	6*	—	—	—	—
West Virginia	6	—	45*	14	—*	—
Wisconsin	—	—	~100	—	—	—
Wyoming	4	1	—	—	—	—
Newfoundland	~20	5	2	0	<5	~15
Northwest Terr.	19 ('95-'96)	—	—	—	—	19 ('95-'96)
Nova Scotia	22	5	13	0	—	20
Ontario	—	—	—	44	—	—
Quebec	77	0	152	32	3	—
Yukon Territory	7	3	5	—	—	—

* Additional Information:

Arizona: Figure represents all known non-hunting kills. **California:** Figures in management kill category are an estimate for public safety kills. **South Carolina:** Reports a few highway kills each year but these were not tracked until 1996. **Vermont:** Motor vehicle kills. **Washington:** Figure taken from WDFW, 1998. **West Virginia:** Road kill 37, Misc. 8. WV does not estimate kills but only counts when there is a dead bear.

APPENDIX 12

External Markets for Black Bear Gallbladders from within the United States and Canada, 1989, 1992, 1996

STATE/PROVINCE/ TERRITORY	YEAR	INITIAL DESTINATION	FINAL DESTINATION
Arizona	1989	California	Korea
	1992	California	South Korea
	1996	Not reported	Oriental
California	1989	Not reported	Japan, Korea
	1992	California	China, Korea, Vietnam
	1996	California	Korea
Colorado	1989	Not reported	Not reported
	1992	United States, foreign	United States, foreign
	1996	United States, other countries	U.S., other countries
Idaho	1989	Alaska/other states; British Columbia	Japan
	1992	West Coast United States	Orient
	1996	California/other states	California and Orient
Maine	1989	New York, Pennsylvania, Maryland, Canada	Korea
	1992	New York, Canada	California, Japan, Korea
	1996	New York	Korea, China
Michigan	1989	Not reported	Not reported
	1992	Not reported	Various
	1996	Not reported	Not reported
Minnesota	1989	Canada	Asia
	1992	Chicago	Not reported
	1996	Minneapolis	South Korea
Montana	1989	California, Washington	Asia
	1992	Not reported	Not reported
	1996	Not reported	Not Reported
New Hampshire	1989	Boston, New York City	Asia
	1992	Not reported	Not reported
	1996	Not reported	Not reported
North Carolina	1989	New York, Chicago	Korea, other Asian markets
	1992	Michigan	South Korea
	1996	Not reported	Not reported
Oregon	1989	Not reported	Korea, other Asian markets
	1992	Western United States	Unknown
	1996	Not reported	Not reported
Pennsylvania	1989	Not reported	Not reported
	1992	New Jersey, New York	South Korea?
	1996	Not reported	Not reported
Tennessee	1989	Chicago	Korea
	1992	Not reported	Not reported
	1996	Not reported	Not reported
Utah	1989	Not reported	Not reported
	1992	California, Colorado	South Korea, Japan
	1996	Not reported	South Korea
Virginia	1989	Not reported	Not reported
	1992	Not reported	Asia
	1996	Buyers	Unknown
West Virginia	1989	New Jersey, New York	Asia
	1992	Unknown	Not reported
	1996	Unknown	Unknown

APPENDIX 12 (continued)

External Markets for Black Bear Gallbladders from within the United States and Canada, 1989, 1992, 1996

STATE/PROVINCE/ TERRITORY	YEAR	INITIAL DESTINATION	FINAL DESTINATION
Wisconsin	1989	Canada, Western U.S., Asian communities, Western states with bear hunting	Asia
	1992	Unknown	Asian markets
	1996	Unknown	Unknown
Wyoming	1989	Not reported	Not reported
	1992	Not reported	Not reported
	1996	Wyoming	Asia
Alberta	1989	Other Provinces	Asia
	1992	Not reported	Not reported
	1996	Not reported	Not reported
British Columbia	1989	Local and Ontario fur houses	Some to Asia
	1992	Not reported	Not reported
	1996	Asian traffickers/Apothecary shops	U.S., Korea, Hong Kong, Taiwan
Manitoba	1989	U.S., British Columbia, Ontario	Hong Kong, other Asian markets
	1992	Ontario, British Columbia	Asian countries, e.g. Korea, China
	1996	Not reported	Not reported
Newfoundland	1989	Not reported	Not reported
	1992	Mainland Canada, U.S.	Asia
	1996	Mainland Canada, U.S.	Asia
Northwest Territories	1989	Fur markets and auctions	None reported
	1992	British Columbia, Western U.S.	None reported
	1996	Not reported	Not reported
Nova Scotia	1989	Ontario, Hudson Bay	None reported
	1992	Ontario, Hudson Bay	None reported
	1996	Ontario, Quebec	U.S. "take-homes"
Ontario	1989	United States	Korea, China, other Asian markets
	1992	United States, Europe	China, Korea
	1996	Asian community in Toronto	Korea, other Asian markets
Quebec	1989	Ontario	Asia
	1992	Seattle, western Canada	Japan, Korea
	1996	Not reported	Not reported
Saskatchewan	1989	Not reported	Not reported
	1992	Asians throughout Canada	China, South Korea
	1996	Not reported	Not reported
Yukon Territory	1989	Not reported	Not reported
	1992	Alaska, British Columbia	Korea
	1996	Not reported	Not reported

Sources: 1989 and 1992 – McCracken et al., 1995
1996 – 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

APPENDIX 13

External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1992 and 1996

STATE/PROVINCE/ TERRITORY	YEAR	ITEM	INITIAL DESTINATION	FINAL DESTINATION
Arizona	1992	Paws	California	South Korea
	1996	Live bears Paws		South Korea Orientals
California	1992	Paws Skulls Teeth Claws	California California California California	Unknown Unknown Unknown Unknown
	1996	Carcass/Hides Paws Skulls Teeth Claws	California California California California California	Unknown Unknown Unknown Unknown Unknown
Colorado	1992	Live bears Carcass/Hides Paws Skulls Teeth Claws	U.S., foreign U.S., foreign U.S., foreign U.S., foreign U.S., foreign U.S., foreign	U.S., foreign U.S., foreign U.S., foreign U.S., foreign U.S., foreign U.S., foreign
	1996	Live bears Carcass/Hides Paws Skulls Teeth Claws	U.S., other countries U.S., Canada, Asia U.S., other countries U.S., other countries U.S., other countries U.S., other countries	U.S., other countries U.S., Canada, Asia U.S., other countries U.S., other countries U.S., other countries U.S., other countries
Idaho	1992	Paws	Western U.S., Alaska	Asia
	1996	Carcass/Hides Paws Skulls Teeth Claws Baculum	U.S., Overseas California, Orient U.S., Overseas U.S., Overseas U.S., Overseas California, Overseas	U.S., Overseas California, Orient U.S., Overseas U.S., Overseas U.S., Overseas California, Orient
Maine	1992	Carcass/Hides Skulls Teeth Claws	U.S. Various Various Various	U.S. Unknown Unknown Unknown
	1996	Hides Paws Skulls Teeth Claws	U.S. New York U.S. U.S. U.S.	U.S. Korea U.S. U.S. U.S.
Michigan	1992	Live bears Carcass/Hides Paws Skulls Teeth Claws		Various Various Various Various Various Various
	1996	Live bears Carcass/Hides		Various Various

APPENDIX 13 (continued)

External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1992 and 1996

STATE/PROVINCE/ TERRITORY	YEAR	ITEM	INITIAL DESTINATION	FINAL DESTINATION
Minnesota	1992	Live bears Carcass/Hides Paws Skulls Teeth	Game farms Unknown Unknown Unknown	Asia
	1996	Carcass/Hides Claws		Western U.S. Locally
Montana	1992	Live bears Carcass/Hides Teeth Claws	Western states Western states Western states Western states	
	1996	Not reported		
New Hampshire	1992	Teeth Claws	Western states Western states	
	1996	Not reported		
New Jersey	1992	Teeth	New Jersey	NJ, NY, PA
	1996	Not reported		
New Mexico	1992	Carcass/Hides Paws Skulls Teeth Claws	New Mexico, Calif., Texas New Mexico, Calif., Texas New Mexico, Calif., Texas New Mexico, Calif., Texas New Mexico, Calif., Texas	
	1996	Not reported		
New York	1992	Carcass/Hides Skulls Teeth Claws	Idaho, Oregon, Canada Texas, Oklahoma Idaho, Texas, Oregon, Okla. Idaho, Texas, Oregon, Okla.	
	1996	Not reported		
North Carolina	1992	Live bears Paws Claws	South Carolina Michigan Western U.S.	South Carolina South Korea Western U.S.
	1996	Not reported		
Oklahoma	1992	Live bears	Adjacent states	Unknown
	1996	Live bears	Surrounding states	Unknown
Oregon	1992	Carcass/Hides Paws Teeth Claws	Western U.S. Western U.S. Western U.S. Western U.S.	Unknown Unknown Unknown Unknown
	1996	Not reported		
Pennsylvania	1992	Live bears Paws	NJ, NY NJ, NY	South Korea? South Korea?
	1996	Not reported		
South Dakota	1992	Live bears	Nationwide	
	1996	Not reported		

APPENDIX 13 (continued)

External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1992 and 1996

STATE/PROVINCE/ TERRITORY	YEAR	ITEM	INITIAL DESTINATION	FINAL DESTINATION
Utah	1992	Live bears Carcass/Hides Paws Skulls Teeth	TX, NM, CA CA, CO, ID CA, CO UT, CA, CO UT, CA, CO, WY	South Korea South Korea
	1996	Paws		South Korea
Virginia	1992	Not reported		
	1996	Paws Skulls Teeth Claws	Unknown Unknown Unknown Unknown	Unknown Unknown Unknown Unknown
West Virginia	1992	Not reported		
	1996	Carcass/Hides Paws	Taxidermists	Unknown Unknown
Wisconsin	1992	Live bears Paws Teeth Claws	Western states Southwestern states Southwestern states	Oriental markets Oriental markets Artifact shops Artifact shops
	1996	Paws?	Unknown	Unknown
Alberta	1992	Live bears Carcass/Hides Skulls Claws	South Dakota U.S., Germany U.S., Germany U.S., Germany	
	1996	Not reported		
British Columbia	1992	Carcass/Hides Skulls	U.S., Europe Nonresident hunters, U.S., Europe	
	1996	Carcass/Hides Paws Skulls Teeth Claws Penis	U.S., Canada (for flies for fishing , rugs, etc.) U.S. U.S.	Germany, Europe Europe U.S., Europe, Canada U.S., Europe, Canada U.S., Europe, Canada
Manitoba	1992	Carcass/Hides Paws Skulls Teeth Claws	Other provinces, U.S., Europe Ontario, British Columbia Other provinces, U.S., Germany Other provinces, U.S., Europe Other provinces, U.S., Europe	Other provinces, U.S., Europe Asia (e.g. China, Korea) Other provinces, U.S., Germany Other provinces, U.S., Europe Other provinces, U.S., Europe
	1996	Not reported		
Newfoundland	1992	Teeth Claws	Mainland Canada, U.S. Mainland Canada, U.S.	Asia
	1996	Paws Teeth Claws	Mainland Canada, U.S. Mainland Canada, U.S.	Asia Mainland Canada, U.S. Asia
Northwest Territories	1992	Carcass/Hides Paws Skulls Teeth Claws	Yukon, B.C., Manitoba, Germany, U.S. British Columbia U.S. (jaws) Most provinces, U.S. Most provinces, U.S.	
	1996	Not reported		

APPENDIX 13 *(continued)*

External Markets for Live Black Bears and Black Bear Parts from within the United States and Canada, 1992 and 1996

STATE/PROVINCE/ TERRITORY	YEAR	ITEM	INITIAL DESTINATION	FINAL DESTINATION
Nova Scotia	1992	Claws	Ontario	
	1996	Carcass/Hides	Ontario, Quebec	
Ontario	1992	Live bears	China, Korea	China, Korea
		Carcass/Hides	U.S., Europe	China, Korea
		Paws	U.S., Europe	China, Korea
		Skulls	U.S., Europe	China, Korea
		Teeth	U.S., Europe	China, Korea
		Claws	U.S., Europe	China, Korea
	1996	Live bears	Ontario	China
		Carcass/Hides	Ontario	Ontario, U.S.
		Paws	Ontario	Korea
		Skulls	Ontario	Ontario
		Teeth	Ontario	Ontario, U.S.
		Claws	Ontario	Ontario, U.S.
Quebec	1992	Carcass/Hides		U.S., Austria, Germany, U.K.
		Claws		New Mexico
Quebec	1996	Not reported		
Saskatchewan	1992	Carcass/Hides	Local taxidermists	U.S. (as processed rugs)
		Paws	Asian people nationwide	China, Korea
		Skulls	U.S., Canada	U.S., Canada
		Teeth	Nationwide	U.S., Canada
		Claws	Nationwide, U.S.	U.S., Canada
		Grease	Nationwide	U.S., Canada
	1996	Live bears	South Dakota (Bear Country)	
		Carcass/Hides	U.S.	U.S.
		Skulls	U.S.	U.S.
		Teeth	U.S.	U.S.
		Claws	U.S.	U.S.
Yukon Territory	1992	Carcass/Hides	U.S., Europe	U.S., Europe
	1996	Not reported		

Sources: 1992 – McCracken et al., 1995

1996 – 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

APPENDIX 14

Comparison of In-State Users and Markets for Black Bears and Black Bear Parts in the United States and Canada, 1989-1996

State/Province/Territory*	Comments on in-state users and markets for black bears and black bear parts
Alaska	1989 - Local use for hides and meat 1992 - Local use for carcasses/hides, paws, skulls, teeth, claws, penis/testicles, but no users indicated. 1996 - No users or markets reported
Arizona	1989 - Teeth, claws, hides used by taxidermists, artists, Asians. 1992 - Hides used by tourists, taxidermists; galls used by Asians in general; paws used by Asians in general; skulls used by jewelers, tourists; teeth used by tourists, jewelers; claws used by tourists, jewelers. 1996 - Hides used by taxidermists; galls used in oriental medicine; paws used in oriental medicine; skulls used by taxidermists; teeth used by jewelry makers; claws used by jewelry makers.
Arkansas	1992 - Live bears used by illegal zoos/pet owners; claws used by curiosity seekers. 1996 - Information not available
California	1989 - Claws, paws, skulls, teeth, meat, galls used by Asians. 1992 - Hides used by interior decorators, taxidermists; galls used by Asian community as medicine; paws used by Asian community as food; skulls, teeth, claws used as artifacts. 1996 - Local use or markets indicated for galls, paws, skulls, teeth, and claws but no users specified.
Colorado	1992 - Live bears used by commercial wildlife parks; hides by hunters, retail sales, taxidermists; galls used by Asian medicine; paws used by Asian market; skulls used by tourists, hunters; teeth used by tourists, jewelry; claws used by tourists, jewelry. 1996 - Live bears used by game farms; Hides used in interior design, and by tourists, jewelry; galls used by Asian communities; paws used by Asian communities; skulls used in design; teeth used in art, jewelry; claws used by tourists, jewelry.
Connecticut	1992 - Hides may possibly be used by taxidermists; teeth used for jewelry (minimal); claws used for jewelry (minimal). 1996 - Hides used by hunters that acquired bears legally from other states and provinces; skulls and teeth used by same; claws used by hunters that acquired bears legally from other states and provinces and by jewelry makers.
Florida	1992 - Claws used for jewelry. 1996 - No local use or markets reported.
Georgia	1989 & 1992 - Not reported 1996 - Carcasses and hides used for meat and trophy mounts; paws, skulls, teeth (in skull) and claws used as hunter trophies.
Idaho	1989 - Claws, teeth, hides used by taxidermists, jewelers, black powder firearms enthusiasts. 1992 - Hides, skulls, and teeth used by sportsmen, taxidermists; claws used by sportsmen, taxidermists, jewelry makers. 1996 - Hides used by public, fur dealers, jewelry; galls used by some ethnic groups; skulls, teeth, and claws used by public, jewelry makers.
Illinois	1989 & 1992 - Not reported 1996 - Galls and paws used by Chicago oriental market.
Kansas	1989 & 1992 - Not reported 1996 - Use of live bears indicated, but users not specified.
Maine	1989 - Claws, teeth, hides used by taxidermists, jewelers. 1992 - Hides used by taxidermists; skulls, teeth, and claws used by tourists, taxidermists, jewelry manufacturers; minimal use of galls by resident Asians. 1996 - Hides used by taxidermists; gallbladders and paws used by oriental market; skulls used by taxidermists; teeth and claws used by Native Americans, taxidermists.
Michigan	1992 - Live bears used by animal enthusiasts; hides and skulls used by taxidermists, trophy; teeth and claws used for jewelry. 1996 - Live bears used by animal breeders; hides used as trophies; paws and skulls used in taxidermy; teeth and claws used in jewelry.

APPENDIX 14 (continued)

Comparison of In-State Users and Markets for Black Bears and Black Bear Parts in the United States and Canada, 1989-1996

State/Province/ Territory*	Comments on in-state users and markets for black bears and black bear parts
Minnesota	1992 - Live bears used by game farms; hides used by taxidermists; galls and paws by ethnic groups; skulls used in rendezvous; teeth and claws used for jewelry, rendezvous. 1996 - Carcasses and hides used by hunters, Korean descendants, outdoor enthusiasts; galls used by Koreans et al.; claws used by jewelry makers.
Mississippi	1989 & 1996 - Not reported 1996 - Live bears and carcasses/hides used by private collectors; paws, skulls, teeth and claws used in Native American design. "Most all parts are brought in from other states."
Montana	1989 - Claws, teeth, hides used by taxidermists, craft shops, tourist trade. 1992 - Live bears used by game farmers; hides, paws, skulls, teeth and claws used by taxidermists. 1996 - Not reported
Nevada	1989 & 1992 - Not reported 1996 - Carcasses/hides, paws, and claws used by jewelers, knife makers; teeth used by jewelers.
New Jersey	1989 - Claws, teeth, hides "used by hunters who have taken them illegally." 1992 - Galls and paws used in folk medicine; teeth used by jewelry makers. 1996 - Information not available.
New Mexico	1989 - Claws used by local craftsmen for jewelry; hides used for rugs. Most claws used in local markets are imported from northwestern U.S. and Canada. 1992 - Hides used by guides, hunters; galls used by guides; paws used by hunters; skulls, teeth, claws used by hunters. 1996 - Not reported
New York	1989 - Galls used by Asians; other parts by other segments of the population. 1992 - Live bears used by zoos (most legally taken from the wild); hides used by hunters, tourists, American Indians, buckskinners; skulls used by hunters, American Indians, buckskinners; galls used by Orientals. 1996 - Information not available.
North Carolina	1989 - Claws, teeth used by western dress enthusiasts. 1992 - Hides used by hunters. 1996 - Meat used by those legally harvesting bears.
Ohio	1989 & 1992 - Not reported 1996 - Live bears used by commercial and non-commercial propagators; Hides used as hobby craft items; paws, skulls, teeth, and claws used in craft/trade shows.
Oklahoma	1992 - Live bears used by commercial wildlife breeders. 1996 - Live bears used by commercial wildlife breeders.
Oregon	1989 - Galls and paws used by Asians. 1992 & 1996 - No local users or markets reported
Pennsylvania	1992 - Live bears used by menageries; carcasses in traditional medicine, hides for fur trade; galls and paws used in traditional medicine; skulls used by mountain men; teeth and claws used for jewelry. 1996 - Not reported
Rhode Island	1992 - Claws used for jewelry by American Indians. 1996 - No local users or markets reported.
South Carolina	1992 - Hides, paws, skulls, teeth, and claws used by hunters for trophies. 1996 - No local users or markets reported.
South Dakota	1992 - Live bears used by Bear Country (private park). 1996 - Information not available.
Tennessee	1989 - Galls used by Asians; claws and teeth used by jewelers. 1992 & 1996 - No local users or markets reported.

APPENDIX 14 (continued)

Comparison of In-State Users and Markets for Black Bears and Black Bear Parts in the United States and Canada, 1989-1996

State/Province/Territory*	Comments on in-state users and markets for black bears and black bear parts
Texas	1992 - Galls used by Asians 1996 - No local users or markets reported (survey returned with a question mark).
Utah	1992 - Live bears used by houndsmen, as pets, by movie industry; hides by taxidermists, tourists, hunters; galls and paws used by Asians; skulls used by tourists, taxidermists, hunters; claws and teeth used by mountain men, for jewelry, by tourists, hunters. 1996 - Hides used for the fur trade, interior design; local use or markets indicated for skulls, teeth, and claws but no users specified.
Vermont	1992 - Hides, paws, skulls, teeth, and claws used by taxidermists. 1996 - No local users or markets reported.
Virginia	1992 - Hides used for trophies/rugs; paws used by primitive weapons advocates; skulls used by primitive weapons advocates, as trophy; teeth used by primitive weapons advocates, as trophy; claws used by primitive weapons advocates, for jewelry. 1996 - Hides used by hunters; galls sold to fur buyers; use of paws indicated (but users unknown); skulls used as trophies; teeth used, but no users indicated; claws used for jewelry and by primitive weapons advocates. These answers pertain to period prior to state making sale of bear parts illegal in 1994.
West Virginia	1989 - Claws, hides, skulls used by muzzleloader enthusiasts. 1992 - Hides used by hunters; teeth and claws used for jewelry. 1996 - Carcass/hides used by taxidermists, for meat; skulls used as curios; teeth and claws for jewelry.
Wisconsin	1989 - Claws, teeth used by diverse groups (no specific cultural group), jewelers, buckskinners. 1992 - Live bears used by game farms; hides used by taxidermists. 1996 - Live bears used by game farms, zoos, exhibits; hides for private use or retail display.
Wyoming	1992 - Hides, paws, skulls, teeth, and claws used by taxidermists, tourists. 1996 - Hides used by hunters, taxidermists, tanneries; skulls used by hunters, taxidermists; claws used by hunters, taxidermists, for jewelry.
Alberta	1989 - Claws used by natives, other craftsmen. 1992 - Live bears used by zoos; hides used by hunters and for rug and fur trade; galls and paws used by Asians; skulls used by hunters as part of trophy; teeth must remain part of skull; claws must remain attached to hide as trophy. 1996 - Not reported.
British Columbia	1989 - Limited use by jewelers, taxidermists. 1992 - Hides used by hunters, trappers, taxidermists; galls and paws used by Asian population; skulls used by hunters (trophy); teeth and claws used for jewelry by Natives. 1996 - Hides used by taxidermists, hunters, tourists; galls used by Asian traffickers, apothecary shops; paws used by Asian restaurants; skulls used by taxidermists, fur traders; teeth and claws used by tourists, taxidermists, fur traders; penis used by hunters, as a novelty.
Manitoba	1989 - Claws, paws, hide - minimal use, primarily by Asians. 1992 - Hides used by fur dealers, tanners, taxidermists; galls used by Oriental community; paws used by Asian community; skulls used by fur dealers, taxidermists; teeth and claws used by tourists, taxidermists. 1996 - Data not available.
Newfoundland	1992 - Hides, skulls, meat used by hunters. 1996 - Hides, skulls, meat used by hunters.
Northwest Territories	1989 - Claws, hides used by Natives. 1992 - Hides, teeth, claws used by Native persons. 1996 - Hides used by tourists, taxidermists.
Nova Scotia	1989 - "Very limited" in-province trade. 1992 - Hides used by taxidermists; skull used by hunters as trophies; meat used by hunters, trappers. 1996 - "Very little" trade in-province.

APPENDIX 14 *(continued)*

Comparison of In-State Users and Markets for Black Bears and Black Bear Parts in the United States and Canada, 1989-1996

State/Province/ Territory*	Comments on in-state users and markets for black bears and black bear parts
Ontario	<p>1989 - All parts used by Asian medicine stores, souvenir shops.</p> <p>1992 - Live bears used by private and municipal zoos; hides used by tourists, fur dealers, taxidermists; paws used by selected restaurants (although this is not indicated within province); skulls, teeth, and claws used by tourists, fur dealers, taxidermists.</p> <p>1996 - Live bears used by dealers, zoos; hides used by hunters, trappers, Aboriginals; galls, paws, and skulls used by hunters, trappers, Aboriginals, dealers; teeth and claws used by hunters, trappers, Aboriginals, dealers, and craft shops.</p>
Quebec	<p>1989 - Claws, teeth used by Natives.</p> <p>1992 - Hides used by tourists, residents; skulls used by tourists; teeth used by Native people; galls used by Asian residents and tourists (small group).</p> <p>1996 - Not reported</p>
Saskatchewan	<p>1992 - Hides used by trappers, outfitters; galls and paws used by Oriental people in province; skulls used by trophy hunters; teeth used by jewelry makers; claws used by tourists, jewelry makers, Indian people; grease used by traditional Indian people in ceremonies.</p> <p>1996 - Use of hides indicated, but users not specified; galls used in Asian herbal medicine; claws used in Native artifacts stores.</p>
Yukon Territory	<p>1989 - Claws, teeth, hides used for tourist trade.</p> <p>1992 - Hides used by taxidermists.</p> <p>1996 - Use of hides and skulls indicated, but users not specified.</p>

Sources: Information from 1989 comes from Sheeline (1990), as cited in McCracken et al., 1995

Information for 1992 comes from McCracken et al., 1995

Information for 1996 comes from 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

* States and provinces not listed did not provide information or information was unknown for the 1989, 1992, and 1996 surveys.

APPENDIX 15

Reported Prices of Black Bears and Black Bear Parts in the United States, 1992 and 1996 Surveys

ITEM	STATE	AMOUNT RECEIVED BY EACH (1992)			AMOUNT RECEIVED BY EACH (1996)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Gallbladder (each unless indicated)	Overall Range:	\$0-120	\$0-500	\$75-600	\$0-300	\$50-400	\$250-1,000
	Alaska	\$40/oz*	\$40/g*	N/R	N/R	N/R	N/R
	Arizona	N/R	N/R	N/R	\$100-300	N/R	\$500
	California	\$75	\$150-200	\$350-600	\$200	\$400	\$1,000
	Colorado	N/R	N/R	N/R	\$20-40	\$50+	N/R
	Idaho	\$25	N/R	N/R	\$30	N/R	N/R
	Maine	N/R	N/R	N/R	\$100-150	+100%	N/R
	Michigan	\$40-75	\$75-200	\$250+	\$40-75	\$75-200	\$250+
	Minnesota	\$50-90	\$400-500	\$80/g	\$75-100	\$150	N/R
	Montana	\$50	\$36/oz	\$50/oz	N/R	N/R	N/R
	New Jersey	\$45	N/R	\$75-100	N/R	N/R	N/R
	New York	\$0-90	\$0-300	\$600	N/R	N/R	N/R
	Oregon	\$40-50	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$100-250	N/R	N/R	N/R	N/R
	Utah	\$35-50	\$70-100	N/R	\$0	\$200	"?"
	Virginia	\$50	N/R	N/R	N/R	N/R	N/R
	West Virginia	\$20-100	N/R	N/R	\$40	N/R	N/R
	Wisconsin	\$20	\$50	N/R	\$25-100	\$100	N/R
	Wyoming	\$70-120	N/R	N/R	N/R	N/R	N/R
Carcass/Hide (each)	Overall Range:	\$0-600	\$100-700	\$200-1,500	\$20-300	\$25+-500	\$150-2,000
	Alaska	\$250-500*	N/R	\$500+	N/R	N/R	N/R
	Arizona	\$50-100	\$150	\$200+	\$50-100*	N/R	\$150*
	California	\$250-300	\$400	\$400-800	\$200-250*	\$500*	1,000-2,000*
	Colorado	\$100-200	\$200-400	N/R	\$100-300*	\$200-500*	\$300/up*
	Idaho	\$50	N/R	N/R	\$50*	N/R	N/R
	Maine	N/R	N/R	N/R	\$25-75*	+15%	N/R
	Michigan	\$20-25*	N/R	N/R	\$20-25*	N/R	N/R
	Minnesota	\$30	\$100	\$700	N/R	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	N/R	\$1,500*
	Montana	\$100-600	N/R	N/R	N/R	N/R	N/R
	New Jersey	N/R	\$400*	N/R	N/R	N/R	N/R
	New York	\$0-200*	N/R	N/R	N/R	N/R	N/R
	Oregon	\$50	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$100-300*	N/R	N/R	N/R	N/R
	Utah	\$100-250	\$200-700	\$500-1500	N/R	N/R	N/R
	West Virginia	\$30	N/R	N/R	\$25*	N/R	N/R
	Wisconsin	\$25	\$250*	\$400	\$100*	N/R	\$400-500*
	Wyoming	\$100-200	N/R	N/R	N/R	N/R	N/R

APPENDIX 15 (continued)

Reported Prices of Black Bears and Black Bear Parts in the United States, 1992 and 1996 Surveys

ITEM	STATE	AMOUNT RECEIVED BY EACH (1992)			AMOUNT RECEIVED BY EACH (1996)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Paws (each)	Overall Range:	\$5-35	\$5-50	\$25-60	\$0-100	\$15+-100	\$150-200
	Alaska	\$5-10	N/R	\$60	N/R	N/R	N/R
	Arizona	\$10	\$20	\$30+	\$100	N/R	\$200
	California	\$20	\$25-30	\$50	\$25	\$50	\$150
	Colorado	N/R	N/R	N/R	\$10	\$20	N/R
	Maine	N/R	N/R	N/R	\$15	+15%	N/R
	Michigan	\$10-15	N/R	N/R	\$10-15	N/R	N/R
	Minnesota	\$5-10	\$25-50	\$50-60	N/R	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	\$100	N/R
	Montana	\$5	\$8	N/R	N/R	N/R	N/R
	New Jersey	N/R	N/R	\$25-45	N/R	N/R	N/R
	Oregon	\$5-8	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$5-10	N/R	N/R	N/R	N/R
	Utah	\$25-35	N/R	N/R	\$0	\$75	"?"
	Wisconsin	N/R	N/R	N/R	\$25	\$25	N/R
Skulls (each)	Overall Range:	\$10-50	\$10-200	\$50-500	\$10-75	\$25+-40	\$50-150
	Alaska	\$10-25	N/R	\$75-100	N/R	N/R	N/R
	Arizona	\$40-50	\$50-60	\$60+	\$25-75	N/R	\$100+
	California	\$20	\$25-30	\$50	\$25	\$40	\$50
	Idaho	\$10	N/R	N/R	\$10	N/R	N/R
	Maine	N/R	N/R	N/R	\$25-50	+10%	N/R
	Minnesota	\$10	\$35	\$60	N/R	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	\$25	\$150
	Montana	\$25-50	N/R	N/R	N/R	N/R	N/R
	New Jersey	N/R	N/R	\$75	N/R	N/R	N/R
	New York	N/R	N/R	\$50+	N/R	N/R	N/R
	Pennsylvania	N/R	\$10-15	N/R	N/R	N/R	N/R
	Utah	\$25-50	\$100-200	\$300-500	N/R	N/R	N/R

APPENDIX 15 (continued)

Reported Prices of Black Bears and Black Bear Parts in the United States, 1992 and 1996 Surveys

ITEM	STATE	AMOUNT RECEIVED BY EACH (1992)			AMOUNT RECEIVED BY EACH (1996)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Teeth (each)	Overall Range:	\$0-20	\$3-30	\$4-100	\$1-25	\$1+-40	\$25-100
	Alaska	\$5	N/R	\$25-50	N/R	N/R	N/R
	Arizona	\$1-2	\$3-4	\$4+	\$10-25	N/R	\$25+
	California	N/R	N/R	N/R	\$20	\$40	\$40
	Idaho	\$1.50	N/R	N/R	\$10	N/R	N/R
	Maine	\$3-6	+10%	N/R	\$1-3	+15%	N/R
	Michigan	\$5-20	\$20-30	\$50-100	\$5-20	\$20-30	\$50-100
	Minnesota	\$1	\$5	\$10	N/R	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	\$10	\$35
	Montana	\$2/fang	N/R	N/R	N/R	N/R	N/R
	New Jersey	N/R	N/R	\$5	N/R	N/R	N/R
	New York	\$0-2	N/R	\$5	N/R	N/R	N/R
	Oregon	\$2-3	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$5-10	N/R	N/R	N/R	N/R
	Utah	\$5-15	\$10-25	\$25-50	N/R	N/R	N/R
	Virginia	1-5	N/R	N/R	N/R	N/R	N/R
	West Virginia	\$10	N/R	N/R	N/R*	N/R*	N/R*
	Wisconsin	\$2	\$5	N/R	N/R	N/R	N/R
Claws (each)	Overall Range:	\$0-125	\$2-15	\$5-100+	\$1-10	\$2-25	\$10-40
	Alaska	\$5	N/R	\$50	N/R	N/R	N/R
	Arizona	\$4-5	\$5-6	\$10+	\$5-10	N/R	\$10+
	California	\$2-5	N/R	\$8-10	\$10	\$25	\$40
	Colorado	N/R	N/R	N/R	\$1-5	\$2-10	\$10+*
	Idaho	\$2	N/R	N/R	\$10	N/R	N/R
	Maine	\$1.50-4	+10%	N/R	\$1-3	+10-15%	N/R
	Michigan	\$4	\$5-8	\$10+	\$4	\$5-8	\$10
	Minnesota	\$1	\$8	\$12	\$1	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	\$10	\$20
	Montana	\$5-125	N/R	N/R	N/A	N/A	N/A
	New Jersey	N/R	N/R	\$5-15	N/A	N/A	N/A
	New York	\$0-1	N/R	N/R	N/A	N/A	N/A
	North Carolina	N/R	\$10	\$20	N/R	N/R	N/R
	Oregon	\$2-3	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$5-10	N/R	N/R	N/R	N/R
	Utah	\$1-5	\$5-15	N/R	\$5	\$5-15	N/R
	Virginia	\$5	N/R	N/R	N/R	N/R	N/R
	West Virginia	\$10	N/R	N/R	N/R*	N/R*	N/R*
	Wisconsin	\$5	\$10	\$35-100*	N/R	N/R	N/R
	Wyoming	\$10	N/R	N/R	N/R	N/R	N/R

APPENDIX 15 (continued)

Reported Prices of Black Bears and Black Bear Parts in the United States, 1992 and 1996 Surveys

ITEM	STATE	AMOUNT RECEIVED BY EACH (1992)			AMOUNT RECEIVED BY EACH (1996)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Live Bears (each)	Overall Range:	\$100-300	\$200-1,200	\$300-2,000	NA/NR	NA/NR	\$400-3,000
	Arizona	N/R	\$400+	N/R	N/R	N/R	N/R
	Colorado	N/R	N/R	N/R	\$1,000*	\$3-6/lb.*	\$7-10/lb.*
	Kansas	N/R	N/R	\$300-1,000	N/R	N/R	N/R
	Michigan	N/R	N/R	\$400+	N/R	N/R	\$400
	Minnesota	\$100	\$500	\$700	N/R	N/R	N/R
	Mississippi	N/R	N/R	N/R	N/A	\$250	\$3,000
	Montana	\$150-300	N/R	N/R	N/R	N/R	N/R
	Pennsylvania	N/R	\$200-1,200	\$2,000	N/R	N/R	N/R
	Wisconsin	\$250	\$1,000	N/R	N/R	N/R	N/R

Sources: Information for 1992 comes from McCracken et al., 1995

Information for 1996 comes from 1996 TRAFFIC survey of state wildlife authorities

Key: N/R = No figures reported/Unknown; N/A = Not applicable

* Additional Information

Alaska: 1992 amount of money received by hunter for a gallbladder is estimated by ounce for a wet gall. Amount of money received by middlemen for gallbladders varies by quality. Amount of money received for carcasses/hides is an estimate for hides only. **Arizona:** Amount of money received for carcasses/hides is an estimate for hides only. **California:** 1996 price estimates are different for carcasses and hides. Estimated amounts received for carcasses are \$200 (hunter), \$500 (middleman), and \$2,000 (retailer). Estimated amounts received for hides are \$250 (hunter), \$500 (middleman), and \$1,000 (retailer). **Colorado:** 1996 Amount of money received for carcasses/hides is an estimate for the hide. Prices for carcasses is estimated at \$2-5 per lb. for hunters, \$3-6 per lb. for middlemen, and \$7-10 per lb. for retailers. Estimated amount of money received for a live bear is \$1,000 for a game farm, \$3-6 per lb. for middlemen, and \$7-10 per lb. for retailers. Amount of money received for claws for retailers is \$10+, and more in jewelry items. **Idaho:** Amount of money received for carcasses/hides is an estimate for hides only. **Maine:** Amount of money received for carcasses/hides is an estimate for hides only. **Michigan:** Amount of money received for carcasses/hides is an estimate for hides only. **Mississippi:** Amount of money received for carcasses/hides is an estimate for hides only. **New Jersey:** Amount of money received for carcasses/hides is an estimate for hides only. **New York:** Amount of money received for carcasses/hides in 1992 survey is an estimate for hides only. **Pennsylvania:** Amount of money received for carcasses/hides is an estimate for the carcass. **West Virginia:** In the 1996 survey, West Virginia indicated that the amount of money received for paws, skulls, teeth, and claws is included in hide sales. **Wisconsin:** Amount of money received for hide in the 1992 survey is estimated for tanned flat. Amount of money received for claws by the retailer in the 1992 survey is estimated for finished product. In the 1996 survey, Amount of money received for carcasses/hides is an estimate for hides only.

APPENDIX 16

Reported Prices of Black Bears and Black Bear Parts in Canada, 1992 and 1996 Surveys

ITEM	PROVINCE/ TERRITORY	AMOUNT RECEIVED BY EACH (1992 - \$CAD)			AMOUNT RECEIVED BY EACH (1996 - \$CAD)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Gallbladder (each unless indicated)	Overall Range:	\$0-200	\$50-1,000	\$500-1,000+	\$50-150	NA/NR	\$200-1,200
	Alberta	\$40-100	\$75-200	\$150-210/g	N/R	N/R	N/R
	Brit. Columbia	\$60 (avg.)	N/R	N/R	\$75*	\$200*	\$850-1,200*
	Newfoundland	\$150 (max.)	N/R	N/R	N/R	N/R	N/R
	Nova Scotia	\$10-200	N/R	N/R	\$5/gm	N/R	N/R
	Ontario	\$100+	\$100-1,000	\$1,000+	\$50-150*	N/R	\$200-500*
	Quebec	\$2-7/g	N/R	N/R	N/R	N/R	N/R
	Saskatchewan	\$0-50	\$50-75	\$500	\$6/g	N/R	N/R
	Yukon Terr.	\$100	N/R	N/R	N/R	N/R	N/R
Carcass/ Hide (each)	Overall Range:	\$50-100	\$100-300	\$400-600	\$5-200	\$150-1,000	\$1,000-1,500
	Alberta	\$70*	\$250	\$400-500	N/R	N/R	N/R
	Brit. Columbia	\$100	N/R	N/R	\$100-200*	\$200-1,000	\$1,000-\$1,500
	Manitoba	\$70	\$300	\$500*	\$100	\$200-\$800	N/R
	Northwest Terr.	\$100	N/R	N/R	\$53-100*	N/R	N/R
	Nova Scotia	N/R	N/R	N/R	\$30-100*	N/R	N/R
	Ontario	\$50-100	\$100-300	\$400+	\$5-100*	N/R	N/R
	Quebec	\$80	N/R	N/R	N/R	N/R	N/R
	Saskatchewan	\$100	\$300	\$600	\$50-100*	\$150-200*	N/R
	Yukon Terr.	\$100	N/R	N/R	\$100	N/R	N/R
Paws (each)	Overall Range:	\$5-25	NA/NR	NA/NR	\$5-25	NA/NR	NA/NR
	Alberta	\$5-10	N/R	N/R	N/R	N/R	N/R
	Brit. Columbia	\$5	N/R	N/R	\$5*	\$20*	\$200*
	Manitoba	\$25	N/R	N/R	N/R	N/R	N/R
	Ontario	\$5+	\$10+	\$100+	\$20-25	N/R	N/R
	Saskatchewan	N/R	N/R	N/R	\$15	N/R	N/R
Skulls (each)	Overall Range:	N/R	N/R	N/R	\$5-50	N/R	N/R
	Brit. Columbia	N/R	N/R	N/R	\$25-50	N/R	N/R
	Saskatchewan	N/R	N/R	N/R	\$5-10	N/R	N/R
Teeth (each)	Overall Range:	\$5-10	N/R	N/R	\$1-5	N/R	N/R
	Ontario	\$5-10	N/R	N/R	\$1-5*	N/R	N/R
	Saskatchewan	N/R	N/R	N/R	\$1-2	N/R	N/R

APPENDIX 16 (continued)

Reported Prices of Black Bears and Black Bear Parts in Canada, 1992 and 1996 Surveys

ITEM	PROVINCE/ TERRITORY	AMOUNT RECEIVED BY EACH (1992 - \$CAD)			AMOUNT RECEIVED BY EACH (1996 - \$CAD)		
		HUNTER	MIDDLEMAN	RETAILER	HUNTER	MIDDLEMAN	RETAILER
Claws (each)	Overall Range:	\$1-5	\$2-100+	\$5-100+	\$1-5	\$5-10	\$10-20
	Alberta	\$1-4	\$2-10	N/R	N/R	N/R	N/R
	Brit. Columbia	N/R	N/R	N/R	\$5	\$5-10	\$10-20
	Manitoba	\$1-1.50	\$3	\$5-6	N/R	N/R	N/R
	Newfoundland	\$5 (max.)	N/R	N/R	N/R	N/R	N/R
	Nova Scotia	\$1	N/R	N/R	\$1*	N/R	N/R
	Ontario	\$2.50	\$100+	\$100+	\$1-3	N/R	N/R
	Quebec	\$2.50	N/R	N/R	N/R	N/R	N/R
	Saskatchewan	\$3-5	\$10	\$25*	\$2	N/R	N/R
Live Bears (each)	Overall Range:	\$100s	\$50-1,000s	\$50-10,000s	N/R	N/R	N/R
	Alberta	N/R	\$50*	\$50-75*	N/R	N/R	N/R
	Ontario	\$100s	\$1,000s	\$10,000s	N/R	N/R	N/R
Other (Penis)	Overall Range:						
	Brit. Columbia	N/R	N/R	N/R	\$5*	\$10	\$20*

Sources: Information for 1992 comes from McCracken et al., 1995

Information for 1996 comes from 1996 TRAFFIC survey of provincial and territorial wildlife authorities

Key: N/R = No figures reported. N/A = Not applicable

* Additional Information:

Alberta: Amount of money received for carcasses/hides in 1992 survey is an estimate for hides only. Estimate of \$50CAD for a live bear at the retail level in the 1992 survey is for orphans. Estimate of \$50-75 for a live bear at the retail level is for those sold to U.S. zoos. **British Columbia:** Amount received for gallbladders in 1996 survey is estimated for dried galls. Amount received retail is \$850-\$1,200CAD dried, or \$20-60CAD per gram. Amount received for carcasses/hides is an estimate for hides only. Amount received for paws is estimated for frozen paws, at retail the price is for paws for soup. Amount received for penis by the hunter in the 1996 survey is estimated for boiled penis. Amount received at the retail level is estimated for the penis boiled and dried. **Manitoba:** Amount of money received for hides at the retail level in the 1992 survey was \$500CAD or \$125CAD/ft. **Northwest Territories:** Northwest Territories provided information on black bear hide/furs sold at auction from 1992-1998. These monies were received by the hunter (year/#sold/Average \$CAD value): 1992/21/\$100, 1993/10/\$53, 1994/23/\$80, 1995/11/\$81, 1996/20/\$287, 1997/20/\$110, 1998/31/\$106. Only those sold during the 1992-1995 survey period are reflected in the table above. **Nova Scotia:** Amount received by hunter for hides and claws is specifically estimated for trappers. **Ontario:** Amount received by hunters for gallbladders was reported in the 1996 survey as \$50-\$150CAD whole or \$5-11CAD/g. dry. Amount received by the retailer was reported as one case in which the price was \$200-\$500CAD whole or \$23CAD/g. Amount received for teeth in the 1996 survey is the price per incisor. **Saskatchewan:** Amount received for claws at the retail level in 1992 survey was estimated for claws used in jewelry. Amount received for carcasses/hides in the 1996 survey is an estimate for hides only. **Yukon Territory:** Amount received for carcasses/hides in the 1996 survey is an estimate for hides only.

APPENDIX 17

Summary of Violations/Penalties by State/Province/Territory

STATE/PROVINCE/ TERRITORY	VIOLATION/PENALTY
Alabama	<i>Illegal Take:</i> Misdemeanor by statute; first offense \$50-\$500 fine and/or county jail up to 6 months; second offense \$100-\$500 fine and/or county jail up to 6 months; subsequent offense(s) \$250-\$500 fine and/or up to 6 months in jail. <i>Illegal Sale:</i> Misdemeanor by statute; \$250-\$500 fine for each offense.
Alaska	<i>Illegal Take:</i> Not reported. <i>Illegal Sale:</i> Depending on the offense, illegal sale can be: a "Violation" (up to \$300 fine and no jail time); Class B misdemeanor (up to \$1,000 fine and 0-90 days in jail); or, Class A misdemeanor (up to \$5,000 fine and up to a year in jail).
Arizona	<i>Illegal Take:</i> Illegal take of a black bear is a Class 2 misdemeanor (maximum penalty 6-12 months in jail and up to \$1,000 fine). <i>Illegal Sale:</i> Knowingly violating laws on sale is a Class 6 felony (potential penalty 1 year or more in jail and \$2,000+ in fines).
Arkansas	<i>Illegal Take:</i> Misdemeanor; fine of \$200 to \$1,000; jail sentence of 10 days, revocation of hunting privileges possible. <i>Illegal Sale:</i> Misdemeanor; fine of \$100 to \$1,000; jail sentence of 10 days, revocation of hunting privileges possible.
California	<i>Illegal Take:</i> Forfeiture of bear license tags, shall not apply for license for following license year. <i>Illegal Sale:</i> Forfeiture of bear license tags, shall not apply for license for the following license year.
Colorado	<i>Illegal Take:</i> Misdemeanor; fine of \$1,000 and assessment of 15 license suspension points. When 3 or more animals taken, fine of \$1,000 (minimum) per animal to \$10,000 per animal and/or up to 1 year in county jail, and suspension of any or all license privileges for a period from 1 year to life. <i>Illegal Sale:</i> Can be misdemeanor or felony. There is a range of stiff fines from \$1,000-\$100,000, license suspension points, and possible jail time, depending on the offense.
Connecticut	<i>Illegal Take:</i> Misdemeanor; fine up to 250, jail up to 3 months, or both per each offense. <i>Illegal Sale:</i> Misdemeanor; fine of \$200, jail up to 60 days, or both per each offense.
Delaware	<i>Illegal Take:</i> Not applicable <i>Illegal Sale:</i> Violations of rules or regulations are punished with fines and/or jail time depending on the nature of the offense. Fines can range from \$50 to \$500 and jail time from up to 30 days to not less than 60 days. Repeat offenders face the higher range of penalties.
Florida	<i>Illegal Take:</i> Maximum is \$5,000 fine and 1 year or more in jail. <i>Illegal Sale:</i> First offense is misdemeanor of the second degree. Second and subsequent offenses are misdemeanors of the first degree. Fines and/or jail time are possible. Court may also suspend or revoke license or permit.
Georgia	<i>Illegal Take:</i> Misdemeanor of a high and aggravated nature. Fine of \$500-\$5,000, or by confinement of up to 12 months, or both. Court may order restitution of not less than \$1,500 for each bear or bear part. Any equipment used, excluding vehicles, is forfeited. Hunting and fishing privileges suspended for 3 years. <i>Illegal Sale:</i> Same.
Hawaii	Not Applicable/No Law
Idaho	<i>Illegal Take:</i> Not reported. <i>Illegal Sale:</i> Felony. Penalties vary depending on the amount and degree of violation, with maximums of 1 year or more in jail and \$2,000+ in fines.
Illinois	Not Applicable/No Law
Indiana	Not Applicable/No Law
Iowa	Not Applicable/No Law

APPENDIX 17 (continued)

Summary of Violations/Penalties by State/Province/Territory

STATE/PROVINCE/ TERRITORY	VIOLATION/PENALTY
Kansas	<i>Illegal Take:</i> Not applicable/No bear population. <i>Illegal Sale:</i> For simple violation, Class C misdemeanor. Commercialization of wildlife with aggregate value less than \$500 is a Class A misdemeanor; more than \$500 is a Class E felony.
Kentucky	<i>Illegal Take:</i> Maximum 1 year or more in jail, fine of \$1,000-\$1,500, loss of license, and replacement costs of the animal. <i>Illegal Sale:</i> First offense, fine \$100-\$1,000; second offense, fine \$500-\$1,500; subsequent offense, fine \$2,000. Penalty can also include loss of license and replacement cost of animal.
Louisiana	<i>Illegal Take:</i> Maximum 1 year or more in jail and \$2,000+ fine. <i>Illegal Sale:</i> Class 4 violation. First offense, fine \$400-\$450 and/or jail up to 120 days; second offense fine of \$750-\$3,000 and jail of 90-180 days; subsequent offenses fine + jail of 180 days-2 years. Forfeit anything seized in connection with violation.
Maine	<i>Illegal Take:</i> Class D crime; imprisonment up to 180 days and fine not less than \$1,000. <i>Illegal Sale:</i> Class E crime; imprisonment up to 1 year and fine up to \$2,000.
Maryland	<i>Illegal Take:</i> Misdemeanor; first offense up to \$500 fine and costs in the discretion of the court; second or subsequent offense up to \$1,000 fine and/or up to 1 year in jail, plus costs. <i>Illegal Sale:</i> Same.
Massachusetts	<i>Illegal Take:</i> \$100-\$1,000 fine for each bear unlawfully killed or possessed and/or up to 6 months in jail. <i>Illegal Sale:</i> Fine of \$300-\$1,000 for sale of bear or bear part.
Michigan	<i>Illegal Take:</i> Misdemeanor; punishable by imprisonment of 5-90 days, fine of \$200-\$1,000, the cost of prosecution, and replacement cost of \$1,500 per animal. Loss of license for 3 years. A person convicted 2 times in the preceding 5 years adds a misdemeanor punished by prison term of 10-180 days, fine of \$500-\$2,000, costs of prosecution, and replacement cost of animal. <i>Illegal Sale:</i> Loss of license for 3 years, and first offense for sale is a misdemeanor punishable by imprisonment up to 90 days and/or fine up to \$1,000, costs of prosecution, and replacement cost of \$1,500 per animal. Subsequent offense is a felony.
Minnesota	<i>Illegal Take:</i> Maximum fine \$1,000-\$2,000 and/or 6-12 months in jail. <i>Illegal Sale:</i> Gross misdemeanor if sale is greater than \$300. Recommended fine is \$2,400 (with taxes and surcharges, but can be up to \$10,000. For sales less than \$300 recommended fine is \$1,000 for first animal and \$500 for each additional animal.
Mississippi	<i>Illegal Take:</i> Fine of \$1,000 and/or imprisonment up to 1 year. Forfeiture of equipment, merchandise, wildlife, or records seized. <i>Illegal Sale:</i> Same.
Missouri	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Fine up to \$500 and/or jail up to 3 months.
Montana	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Fine of \$10,000 and/or 1 year in state prison.
Nebraska	<i>Illegal Take:</i> Misdemeanor with latitude in possible penalties to reflect severity of the offense. Maximum 6-12 months in jail and \$1,000-\$1,500 fine. <i>Illegal Sale:</i> Misdemeanor; maximum 3-6 months jail and \$500-\$1,000 fine.
Nevada	<i>Illegal Take:</i> Gross misdemeanor. Maximum penalties 6-12 months in jail and \$2,000 fine. <i>Illegal Sale:</i> Same.
New Hampshire	<i>Illegal Take:</i> "Violation" if a "Natural Person"; misdemeanor for anyone else. May also be sentenced to restitution to state of \$500 for each animal. <i>Illegal Sale:</i> Same.

APPENDIX 17 (continued)

Summary of Violations/Penalties by State/Province/Territory

STATE/PROVINCE/ TERRITORY	VIOLATION/PENALTY
New Jersey	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Civil penalty not less than \$1,000 and not more than \$2,000 for first offense, and not less than \$1,500 and not more than \$3,000 for each subsequent offense, plus assessed replacement value of the animal. A person who purposely violates the sale law is guilty of a disorderly persons offense when the total value of the sale or purchase is less than \$200; is guilty of a crime of the fourth degree if the value is \$200-\$500; is guilty of a crime of the third degree if the value is \$500 or more.
New Mexico	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Misdemeanor; jail up to 6 months and fine up to \$1,000 per violation.
New York	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Misdemeanor where value is \$250 or less (fine of \$500 and/or 15 days in jail); misdemeanor where value is \$250-\$1,500 (fine of \$5,000 and/or up to 1 year in jail); Class E felony when value exceeds \$1,500.
North Carolina	<i>Illegal Take:</i> Misdemeanor; fine not less than \$2,000 and/or up to 3 months in jail, plus \$1,035 replacement cost of animal. Each act is a separate offense. <i>Illegal Sale:</i> Same
North Dakota	<i>Illegal Take:</i> No state penalty set. <i>Illegal Sale:</i> No state penalty set.
Ohio	<i>Illegal Take:</i> Maximum \$1,000-\$1,500 and 3-6 months in prison. <i>Illegal Sale:</i> Fourth degree felony. Possible 1 year or more in prison and \$5,000 fine.
Oklahoma	<i>Illegal Take:</i> Maximum 0-3 months in jail and \$500-\$1,000 fine. <i>Illegal Sale:</i> First violation punishable by fine of \$100-\$500, and/or imprisonment in county jail of 10-60 days; subsequent violations punishable by fine of not less than \$1,000 and/or 10-60 days in county jail.
Oregon	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> NA/NR
Pennsylvania	<i>Illegal Take:</i> NA/NR <i>Illegal Sale:</i> Summary offense of the first degree. Loss of hunting license for 5 years and \$800 fine. Second or subsequent offense in a two-year period, one and one-half times the amount shall be imposed. Each animal or part is a separate offense.
Rhode Island	<i>Illegal Take:</i> Maximum 0-3 months in jail and \$500-1,000 fine. <i>Illegal Sale:</i> Misdemeanor; punishable by fine up to \$500 and/or jail up to 90 days.
South Carolina	<i>Illegal Take:</i> Misdemeanor; fine up to \$2,500 and/or imprisonment up to 2 years. Hunting and fishing privileges suspended for 3 years. Equipment forfeited to state. Court may order restitution of not less than \$1,000. <i>Illegal Sale:</i> Same.
South Dakota	<i>Illegal Take:</i> Class 2 misdemeanor. <i>Illegal Sale:</i> Class 2 misdemeanor.
Tennessee	<i>Illegal Take:</i> Maximum penalty 1 year or more in prison and \$2,500 fine. <i>Illegal Sale:</i> Same.
Texas	<i>Illegal Take:</i> First offense, Class C Texas Wildlife and Parks Dept. misdemeanor (\$25-\$500 fine); second offense, Class B Texas Wildlife and Parks misdemeanor (\$200-\$1,000 fine and/or jail up to 180 days); two or more priors, Class A Texas Wildlife and Parks misdemeanor (\$500-\$2,000 fine and/or up to 1 yr. in jail). <i>Illegal Sale:</i> Maximum 0-3 months in jail and \$1,000-\$1,500 fine.

APPENDIX 17 (continued)

Summary of Violations/Penalties by State/Province/Territory

STATE/PROVINCE/ TERRITORY	VIOLATION/PENALTY
Utah	<i>Illegal Take</i> : Class B misdemeanor. Maximum 1 year or more in prison and \$2,000+ in fines. <i>Illegal Sale</i> : Third degree felony. Maximum 5 years state prison and \$2,000+ fines and restitution.
Vermont	<i>Illegal Take</i> : First offense, fine of \$200-\$500 and/or up to 60 days in jail as well as a violation of 20 license points (3-year revocation); second and subsequent convictions \$500-\$1,000 fine and/or up to 60 days in jail as well as revocation and forfeiture. In addition violator owes restitution to state of \$1,000 per animal. <i>Illegal Sale</i> : Same.
Virginia	<i>Illegal Take</i> : Class 1 misdemeanor. Penalty can include replacement value of animal. <i>Illegal Sale</i> : Class 1 misdemeanor. However, when the aggregate of sales total \$200 or more during a 90-day period, violation is a Class 6 felony.
Washington	<i>Illegal Take</i> : NA/NR <i>Illegal Sale</i> : Gross misdemeanor; \$250-\$1,000 fine and/or jail of 30 days to 1 year. If convicted of illegal killing or possession of a black bear or part, restitution to state of \$1,000 per animal.
West Virginia	<i>Illegal Take</i> : Misdemeanor. Maximum up to 6 months in jail and/or fine of \$1,000-\$1,500. <i>Illegal Sale</i> : Misdemeanor, fine of \$1,000+ and/or 6 months in jail.
Wisconsin	<i>Illegal Take</i> : Maximum penalty of 6-12 months in jail and \$2,000 fine plus costs. <i>Illegal Sale</i> : Maximum fine of \$1,000-\$2,000 and/or 6 months in jail.
Wyoming	<i>Illegal Take</i> : Maximum penalty 6-12 months in jail and up to \$2,000 fine. <i>Illegal Sale</i> : Maximum penalty 6-12 months in jail and up to \$2,000 fine.
Alberta	<i>Illegal Take</i> : NA/NR <i>Illegal Sale</i> : NA/NR
British Columbia	<i>Illegal Take</i> : Maximum 0-6 months imprisonment and \$10,000CAD for first offense. Increase pending to \$50,000CAD and/or 6 months jail. <i>Illegal Sale</i> : Maximum 0-6 months imprisonment and \$5,000CAD for first offense. Increase pending to \$25,000CAD and/or 6 months jail. Possibly to \$100,000CAD and/or 1 year in jail in fall 1999.
Manitoba	<i>Illegal Take</i> : Maximum 6-12 months in jail and \$0-\$50,000CAD fine. <i>Illegal Sale</i> : Maximum 1 year in jail and \$0-\$50,000CAD fine.
Newfoundland	<i>Illegal Take</i> : Maximum up to 6 months in jail and/or fine up to \$1,000CAD. <i>Illegal Sale</i> : NA/NR
Northwest Territories	<i>Illegal Take</i> : Maximum up to 1 year in jail and/or fine up to \$1,500CAD. <i>Illegal Sale</i> : NA/NR
Nova Scotia	<i>Illegal Take</i> : Maximum 6 months in jail and \$2,350 fine for each offense. <i>Illegal Sale</i> : Same.
Ontario	<i>Illegal Take</i> : Maximum \$25,000CAD fine. Proposed 1 year in jail. <i>Illegal Sale</i> : Maximum \$25,000CAD fine. Proposed \$100,000 and 2 years in jail.
Prince Edward Island	Not Applicable/No Law
Quebec	<i>Illegal Take</i> : Hunting — \$2,281-\$6,843CAD; trapping \$604-\$1,843, including costs. <i>Illegal Sale</i> : Sale — \$2,281-\$6,843CAD; possession \$302-\$937CAD including costs.
Saskatchewan	<i>Illegal Take</i> : Maximum up to 1 year in jail and \$25,000CAD fine. <i>Illegal Sale</i> : Maximum 1 year in jail and \$100,000CAD fine.
Yukon Territory	<i>Illegal Take</i> : Maximum 12 months jail and \$10,000CAD fine. <i>Illegal Sale</i> : Same.

Source: 1996 TRAFFIC survey of state, provincial, and territorial wildlife authorities

Key: NA/NR = Not available/No response