

Trade in Sturgeon Caviar in Bulgaria and Romania overview of reported trade in caviar, 1998-2008

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1) Acknowledgements

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2) Introduction

The aim of this briefing is to provide an overview of legal trade patterns of caviar of Acipenseriformes from Bulgaria and Romania (hereafter referred to as the ‘two target countries’) for the period 1998 to 2008 and to gather information of detected cases of illegal trade in sturgeon caviar where these two countries were implicated.

In response to reported declines in sturgeon populations and with the aim of ensuring that trade in sturgeon products, such as caviar, is sustainable and not threatening the species’ survival, all species of sturgeon and paddlefish have been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since April 1998. Accordingly, in April 1998, the order was also listed in Annex B of the EU Wildlife Trade Regulations¹ (EU Regulations) implementing CITES in the European Union (EU). The Annex B/Appendix II listing regulates trade in all parts and derivatives, including caviar, meat, etc. Fishing and export of sturgeon and sturgeon products of wild origin was banned in Romania in 2006 for 10 years.

Caviar trade in a global context

In an overview of global caviar trade for the period 1998 to 2006, TRAFFIC reported that legal international trade amounted to 1313 t; with Romania ranking as the world’s fifth largest caviar exporter, exporting 26 tonnes (t) over the period, after Iran (438 t), the Russian Federation (138 t), Kazakhstan (95 t), Azerbaijan (35 t) and China (29 t) (TRAFFIC, 2009). The EU was reported to be the world’s largest importer of caviar for the period 1998-2006, importing 619 t, followed by the USA (292 t), Switzerland (149 t) and Japan (132 t) (TRAFFIC, 2009). During the same period, the volumes of caviar reported in international trade per year plummeted from a peak at 263 tonnes (t) in 1999 to 44 t in 2006.

Regarding illegal trade in caviar, it is difficult to quantify its levels, as this is by nature a hidden activity. However, large seizures of illegal caviar in Europe indicate that there is a thriving black market in the luxury roe. They also demonstrate that caviar smugglers are well-organized and use sophisticated methods and the illegal caviar trade is considered to have strong links with organized crime groups. According to data reported to EU-TWIX, over 7 t of illegal caviar were seized by European authorities from 2000 to 2007 (TRAFFIC, 2009). However, the real size of the illegal trade is likely to be considerably higher, given that much of it is undetected and information is incomplete for some importing countries.

¹ Council Regulation (EC) No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein
Trade in Sturgeon Caviar in Bulgaria and Romania

3) Methodology

Legal trade

CITES trade data (data provided by CITES Parties in their annual reports) were used to analyse reported international trade in caviar. This briefing uses trade data for the years 1998 to 2008 (as 2008 was the most recent year for which comprehensive data were available at the time of writing). The data were downloaded from the CITES Trade Database (<http://www.unep-wcmc.org/citestrade/trade.cfm>), managed by UNEP-WCMC on behalf of the CITES Secretariat, in August 2010. For the purpose of this report, comparative tabulations, which compare the imports and exports reported by individual CITES Parties, were used.

The analysis looked at data at the order level (*Acipenseriformes* spp.) unless specified otherwise. Although the trade records should be reported identically by the importer and the exporter, in practice these often differ due to differences in reporting between the importing and exporting country. These discrepancies in reporting explain why the totals according to importers and exporters do not match in **Table 3**.

When *exports* are referred to, this includes direct exports from a country only and does not include re-exports (indirect trade).

The analysis focused exclusively on trade in caviar (eggs) and thus excluded other commodity types such as live specimens, sturgeon meat, live eggs or bodies from the analysis. Equally, specimens reported in cartons (crt) were also excluded from the analysis. All CITES trade descriptions and totals include all purposes (e.g. commercial, personal, etc.) and sources (e.g. wild, farmed, etc.) unless specified otherwise for data from 1998 to 2008. Data reported in grams were converted to kilograms and included in the analysis.

As the data reported by exporters and importers were largely the same (see **Table 3**), the analysis mainly used data reported by the exporters. Where discrepancies between the two datasets were apparent, both were analysed.

Illegal trade

Information on detected cases of illegal trade in caviar implicating Bulgaria and Romania was gathered from selected Member States of the European Union (henceforth EU Member States): Austria, Belgium, Bulgaria, France, Germany, Hungary, Italy, the Netherlands, Romania and the UK. Seizures information was downloaded from the EU-TWIX² database in July 2010, following approval by the relevant EU Member States and in the case of Italy, information on seizures was provided by TRAFFIC Italy (Massimiliano Rocco). Data were also collected through contacts with individual EU Member States. Seizures made in a total of 10 countries were gathered. Of these four (Belgium, Bulgaria, Romania and the UK) reported that no caviar seizures were made from 2000 to 2009 involving the two target countries and thus the compilation used information as reported by six EU Member States: Austria, France, Germany, Hungary, Italy and the Netherlands. The timeframe 2000 to 2009 was selected for investigation because most of the data used originated from EU-TWIX, which holds data from 2000 only.

CITES trade data reported using the source code "I" (namely, confiscated or seized specimens) were not analyzed in this section of the briefing as the interpretation and use of this code by the different countries often shows inconsistencies (i.e. different countries use it for different purposes; some for reporting seizures, others for reporting exports of seized specimens).

² The EU-TWIX (EU-Trade in Wildlife Information eXchange) database, maintained by TRAFFIC, gathers seizures data from European enforcement agencies and as of July 2010, held over 31 000 seizures data from 26 European countries, covering the period 2000-2010.

4) Legal trade from Bulgaria and Romania

Export quotas

CITES Resolution Conf. 12.7 (Rev. CoP14) *Conservation of and trade in sturgeons and paddlefish* recommends that all sturgeon range States of shared stocks should establish scientifically-based annual catch and export quotas for each sturgeon species and product and communicate these to the CITES Secretariat. These recommendations do not apply to specimens from aquaculture or from stocks found only in one country. Countries of the region (Bulgaria, Romania, Serbia and Ukraine) have regularly coordinated and jointly set CITES export quotas for wild-taken Danube sturgeons since 2001 through meetings held in 2001, 2003, 2006 and more recently in 2011 (Anon, 2011a).

Table 1 summarizes the export quotas published for caviar of wild origin from Bulgaria and Romania for 2001 to 2010, the period for which information was available on the CITES website in August 2010. The export quotas for wild-taken species were gradually decreased for all species (for which a quota was published) in both target countries through the period examined, going down to zero in 2006 in Romania for all species as well as in Bulgaria in 2007. The highest quotas for wild species were set for the most expensive beluga caviar (from Beluga *Huso huso*) in both countries. For 2011, the quotas communicated to the CITES Secretariat were zero for all wild-taken species in both countries.

Although the setting of export quotas for caviar from aquaculture is voluntary for CITES Parties, both target countries also set export quotas for farmed caviar in the period examined and communicate these to the CITES Secretariat. Bulgaria published quotas for farmed caviar in 2006 and 2007, while Romania did so in 2007, 2009 and 2010.

Table 1. Published export quotas for caviar of wild origin from Bulgaria and Romania, 2001-2010 (in kg)

Bulgaria	2001	2002	2003	2004	2005	2006		2007		2008			2009		2010	
	wild	wild	wild	wild	wild	wild	farmed	wild	farmed	wild	wild	farmed	wild	farmed		
<i>A. baerii</i>	NR	NR	NR	NR	NR	NR	450	NR	500	NR	NR	NP	NR	NP		
<i>A. gueldenstaedtii</i>	50	20	20	NP	-	-	2400	-	3880	-	-	NP	-	NP		
<i>A. naccari</i>	NR	NR	NR	NR	NR	NR	NP	NR	100	NR	NR	NP	NR	NP		
<i>A. nudiventris</i>	NP	NP	NP	NP	NP	-	NP	NP	NP	-	-	NP	-	NP		
<i>A. ruthenus</i>	NP	NP	NP	NP	-	-	150	-	100	-	-	NP	-	NP		
<i>A. stellatus</i>	NP	NP	NP	NP	NP	-	450	NP	NP	-	-	NP	-	NP		
<i>Huso huso</i>	5 000	1 720	1 720	1 720	1 460	1 000	300	NP	350	-	-	NP	-	NP		
<i>hybrids</i>	NR	NR	NR	NR	NR	NR	550	NR	500	NR	NR	NP	NR	NP		
Romania																
<i>A. baerii</i>	NR	NR	NR	NR	NR	NR	NP	NR	NP	NR	NR	70	NR	100		
<i>A. gueldenstaedtii</i>	1 750	1 200	900	160	160	-	NP	-	NP	-	-	-	-	-		
<i>A. nudiventris</i>	NP	NP	NP	NP	-	-	NP	-	NP	-	-	-	-	NP		
<i>A. ruthenus</i>	NP	NP	NP	100	100	-	NP	-	NP	-	-	20*	-	10		
<i>A. stellatus</i>	2 050	1 470	1 100	900	900	-	NP	-	30	-	-	130	-	10		
<i>Huso huso</i>	3 100	2 180	2 250	2 250	2 000	-	NP	NP	NP	-	-	-	-	30		

Source: CITES website (www.cites.org), August 2010.

Abbreviations: A. – Acipenser, NP – not published (by the CITES Secretariat, in practice it equals a zero export quota), - zero quota (set by the range State), NR – not relevant (for species that are not native to the Danube)

Note: the list of names of all species names mentioned in this briefing can be found in **Annex A**;

Information on quotas for farmed caviar was only included for the years when a quota was set.

History of SRG opinions

Prior to Bulgaria's and Romania's accession to the EU in 2007, the Scientific Review Group (SRG) formed a positive opinion³ for Beluga from Bulgaria. The details of the history of the SRG opinions can be found in **Table 2**. No SRG opinion related to sturgeons from Romania was recorded in the EU Wildlife Trade Regulation database of UNEP-WCMC (<http://www.unep-wcmc.org/eu/taxonomy/> viewed 19 August 2010).

Table 2. History of SRG opinions concerning imports of *Acipenseriformes* spp. from Bulgaria into the EU

Date	Species	SRG opinion
10 September 1998	<i>Huso huso</i>	Negative
22 April 1999	<i>Huso huso</i>	Positive
1 January 2007	<i>Huso huso</i>	positive removed due to accession to the EU

Source: EU Wildlife Trade Regulation database, UNEP-WCMC, Cambridge, UK (viewed 19 August 2010).

As of August 2010, the CITES 'Register of licensed exporters and of processing and repackaging plants for specimens of sturgeon and paddlefish species' (www.cites.org) lists four processing/repackaging plants in Bulgaria, one of which is also registered as an exporter. It also lists 14 exporters in Romania, of which 12 are also registered as processing/repackaging plants.

Trade patterns in legal caviar for the years 1998 to 2008

This section aims to provide an overview of trade patterns in caviar from Bulgaria and Romania in the period 1998 to 2008.

Direct exports of caviar (all sources)

Table 3 provides an overview of the volume of trade in caviar (all sources, including wild, farmed, etc.) from Bulgaria and Romania with a total of over 46 000 kg (exporters' reports) of caviar exported from the two countries during 1998-2008. Importers' reports show a somewhat smaller amount (over 41 000 kg in total) for the same period. The data indicate that in the period examined Romania was the bigger exporter of the two countries with a total of over 26 000 kg (exporters' reports) while Bulgaria reported a total of over 20 000 kg (exporters' reports) for the same period.

³ The EU Scientific Review Group (SRG) that consists of representatives of each Member States' Scientific Authority can form opinions on whether or not imports of certain species from a particular country of origin comply with the conditions set out in the EU Wildlife Trade Regulation. If the SRG determines that these conditions are met, a **positive opinion** is formed and import into the EU can take place. Otherwise, the SRG can form a **negative opinion**. In this case, imports of the species from the country under consideration are temporarily suspended and EU Management Authorities will reject all EU import permit applications for the relevant species-country combination. As soon as a negative opinion has been formed, a Member State or the European Commission informs and consults with the range State involved. Negative opinions are of a temporary nature and may be lifted immediately when new information on the trade or conservation status of the species in the country of concern is provided (anon, 2010b).

Table 3. Overview of direct exports of caviar from Bulgaria and Romania, all sources, 1998 to 2008 (based on exporters' and on importers' reports)

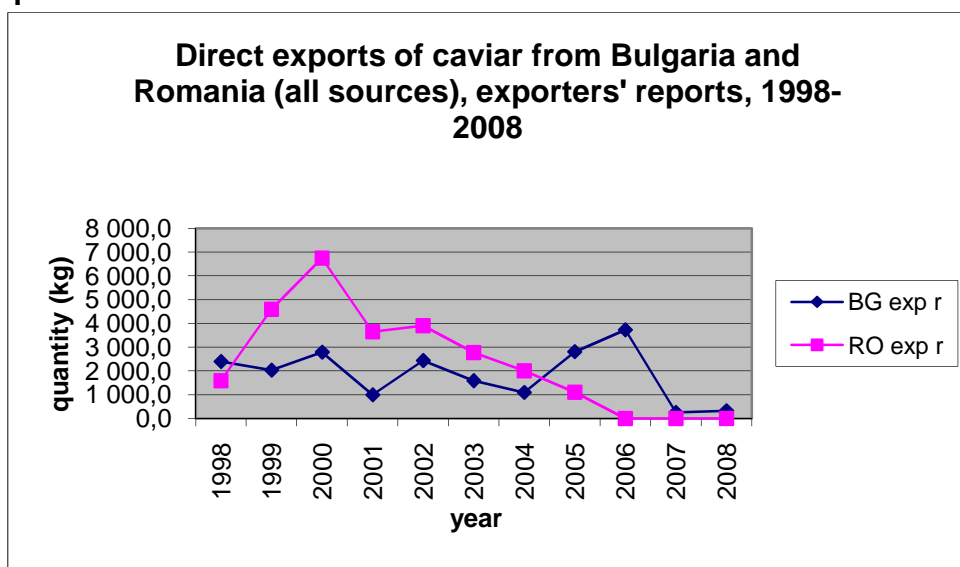
Exporter	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
BG imp r	1 717	1 768	2 131	1 303	2 046	1 403	1 149	2 854	2 904	109	366	17 750
BG exp r	2 392	2 025	2 788	992	2 437	1 588	1 092	2 803	3 726	250	324	20 417
RO imp r	1 265	4 301	6 566	3 734	3 282	2 291	1 684	938	0	2	0	24 063
RO exp r	1 588	4 590	6 751	3 645	3 902	2 773	2 004	1 099	0	0	0	26 350
Total imp r	2 982	6 069	8 697	5 037	5 328	3 695	2 833	3 792	2 904	111	366	41 814
Total exp r	3 980	6 616	9 539	4 636	6 338	4 361	3 096	3 901	3 726	250	324	46 767

Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: BG – Bulgaria, RO – Romania, imp r – importers' reports, exp r – exporters' reports

Figure 1 shows that direct exports of caviar from the two range States reached the highest amount in 2000 in Romania with over 6700 kg and in 2006 in Bulgaria with over 3700 kg. In Romania the reported amounts of caviar gradually decreased after the peak in 2000, going down to zero in 2006, the start of the sturgeon fishing and export ban in that country. Bulgaria's exports fluctuated between 1000 and 2803 kg per year between 1998 and 2005 and peaked in 2006. Although the CITES data indicate a sharp decline in 2007 and 2008 for caviar exports from Bulgaria, this does not necessarily indicate a declining trend. Both Bulgaria and Romania acceded to the EU in January 2007 and since then, caviar shipments to EU Member States have not been recorded in the CITES trade data. Therefore, caviar trade from Bulgaria and Romania to other EU Member States as of January 2007 was no longer reported as direct exports in the CITES trade data.

Figure 1



Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: BG – Bulgaria, RO – Romania, exp r – exporters' reports

Table 4 provides an overview of the species exported as caviar (all sources) from Bulgaria and Romania between 1998 and 2008. In both countries, the species exported in the largest amounts was Beluga *Huso huso* with approximately 15 000 kg exported from each of Bulgaria and Romania in the period examined. This amount represents over 76% of total caviar exports from Bulgaria and over 56% of total caviar exports from Romania in this period. In Bulgaria, caviar from Russian Sturgeon *Acipenser gueldenstaedtii* was the second most common species in trade with over 3700 kg (18% of total caviar exports) between 1998-2008 and Stellate Sturgeon *A. stellatus* as third with approx. 600 kg (3% of total caviar exports) in the same period. Other species reported by Bulgaria in trade were Siberian Sturgeon *A. baerii* and Sterlet *A. ruthenus* as well as a hybrid. In Romania, caviar from Stellate Sturgeon was the second most common species in trade with over 6700 kg (26% of total caviar exports) in 1998-2008 and Russian Sturgeon came as third with approx. 4500 kg (17% of total caviar exports) in the same period.

Table 4. Overview of species exported as caviar from Bulgaria and Romania, all sources, exporters' reports, 1998 to 2008

Exporter	Taxon	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
BG	<i>Huso huso</i>	2 392.0	2 025.4	2 747.5	991.6	2 327.8	1 548.4	960.4	1 534.1	1 048.3	-	-	15 575.4
	<i>A. gueldenstaedtii</i>	-	-	25.4	-	109.0	40.0	132.0	938.3	2 038.6	219.5	216.5	3 719.3
	<i>A. stellatus</i>	-	-	-	-	-	-	-	119.1	403.4	30.0	36.0	588.5
	<i>A. gueldenstaedtii x baerii</i>	-	-	-	-	-	-	-	60.0	236.1	-	71.7	367.8
	<i>A. baerii</i>	-	-	-	-	-	-	-	151.0	-	-	-	151.0
	<i>A. ruthenus</i>	-	-	14.8	-	-	-	-	-	-	-	-	-
BG Total		2 392.0	2 025.4	2 787.7	991.6	2 436.8	1 588.4	1 092.4	2 802.6	3 726.3	249.5	324.2	20 416.8
RO	<i>Huso huso</i>	872.9	1 757.5	3 200.0	1 788.6	2 381.6	2 169.5	1 785.7	1 035.4	-	-	-	14 991.1
	<i>A. stellatus</i>	325.8	1 709.9	2 117.3	1 146.9	933.5	351.1	138.0	56.0	-	-	-	6 778.5
	<i>A. gueldenstaedtii</i>	389.2	1 123.1	1 433.7	709.1	586.5	252.0	80.1	7.2	-	-	-	4 580.8
RO Total		1 587.9	4 590.4	6 751.1	3 644.5	3 901.6	2 772.6	2 003.8	1 098.6	-	-	-	26 350.4
Grand Total		3 979.9	6 615.8	9 538.8	4 636.1	6 338.4	4 361.0	3 096.1	3 901.1	3 726.3	249.5	324.2	46 767.1

Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: A. – *Acipenser*, BG – Bulgaria, RO – Romania

Note: the list of names of all species names mentioned in this briefing can be found in **Annex A**

Exports of caviar of wild origin

Regarding the source of caviar exported by Bulgaria and Romania, **Table 5** provides an overview of exports of caviar of wild origin compared to caviar from all sources. These show that Romania exported only wild caviar between 1998 and 2008 with a peak in 2000 with 6750 kg (exporters' reports) and then gradually decreased to about 1100 kg in 2005 and to zero in 2006. In Bulgaria the export figures of wild/all sources caviar were almost identical (fluctuating around 1000-2000 kg per year) during the period 1998 to 2004. From 2005, the amounts of wild caviar exports decreased to approx. 660 kg in 2006, while exports of caviar from all sources increased to a maximum in 2006 with 3726 kg. With Bulgaria's accession to the EU in 2007, intra-EU trade no longer appears in the CITES records and the amounts of caviar shipments to the EU are unknown. Therefore, CITES data for exports of caviar from all sources from 2007 indicating a sharp decline may be misleading as trade to other EU countries could have continued after 2007 without being recorded in the CITES data.

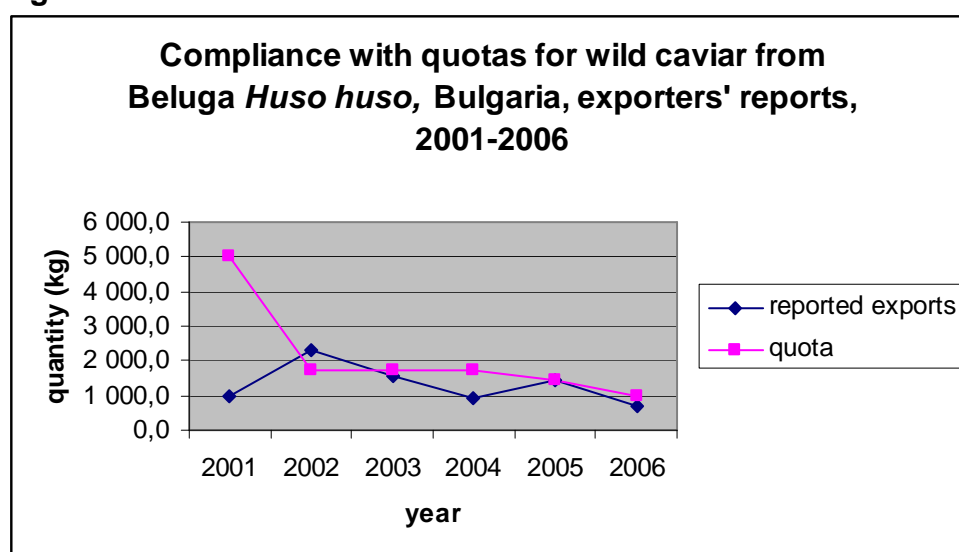
Table 5. Comparison of direct exports of caviar of wild origin and of caviar from all sources from Bulgaria and Romania, 1998-2008, exporters' reports

Exporter	Source	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
BG	all sources	2 392	2 025	2 788	992	2 437	1 588	1 092	2 803	3 726	250	324	20 417
BG	wild	2 392	2 025	2 788	992	2 337	1 563	920	1 421	667	0	0	15 104
BG	farmed	0	0	0	0	100	25	173	1382	3060	250	324	5 313
RO	all sources	1 588	4 590	6 751	3 645	3 902	2 773	2 004	1 099	0	0	0	26 350
RO	wild	1 588	4 590	6 751	3 645	3 902	2 773	2 004	1 099	0	0	0	26 350

Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.
Abbreviations: BG – Bulgaria, RO – Romania.

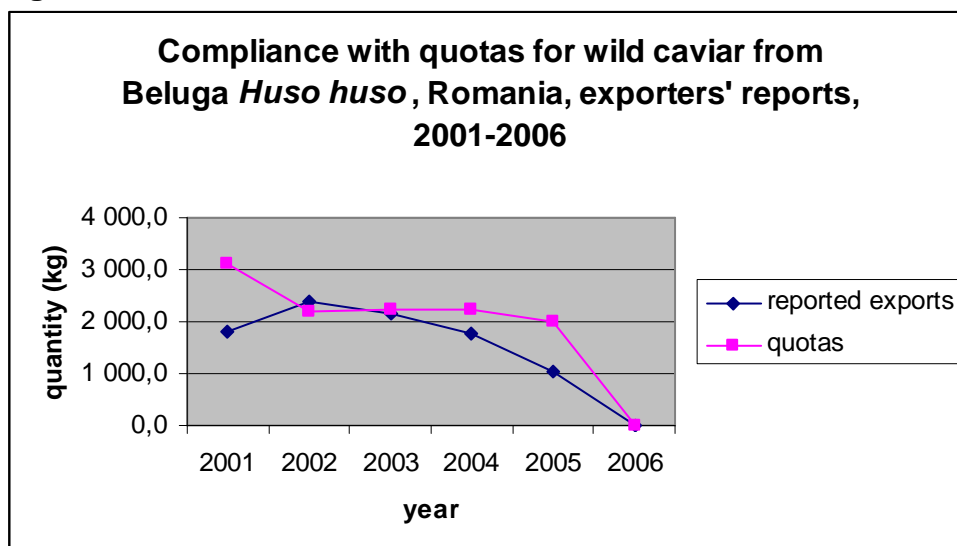
Regarding compliance with export quotas set by Bulgaria and Romania for caviar of wild origin, both target countries complied with the quotas set for the period 2001 to 2008, with the exception of exports of Beluga in the year 2002, when reported exports were higher than the quota for that year in both countries (**Figures 2** and **3**). This however, may be related to exporting caviar not reported in the previous quota year. Further details, including information on exports of wild caviar by species and on quota compliance, can be found in **Annex B**.

Figure 2



Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK; CITES website (www.cites.org), August 2010.

Figure 3



Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK; CITES website (www.cites.org), August 2010.

Exports of farmed caviar

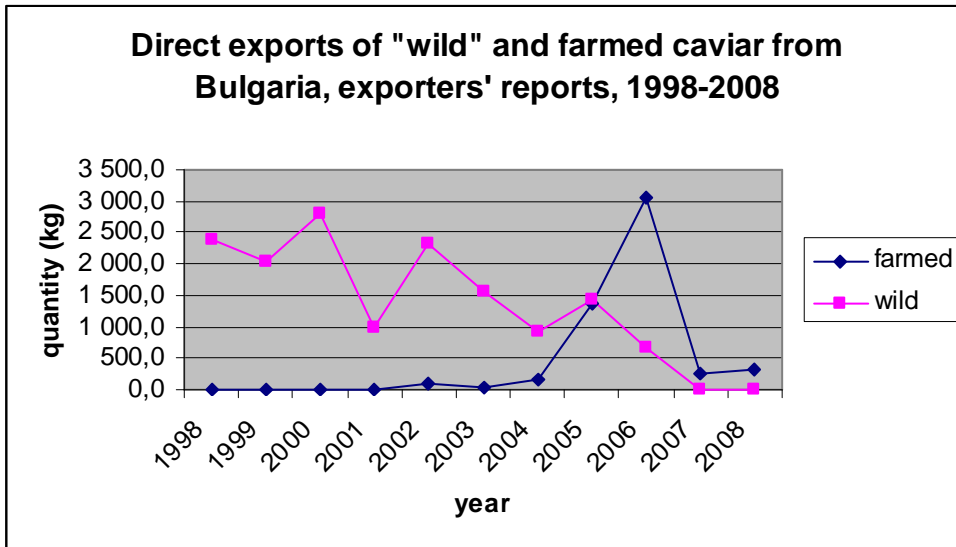
This section looks at exports of farmed caviar reported by the two target countries. For Romania no exports in specimens reported with source code “C” were included in the CITES trade database and according to exporters’ reports, the following source codes were used: ‘F’, ‘P’, ‘O’ and ‘W’⁴; importers’ data only recorded source code ‘W’). Information for Bulgaria is compiled in **Table 5**.

The absence of recorded exports of farmed caviar (source code ‘C’) from Romania appears to contradict the fact that export quotas have also been set for farmed caviar by Romania (although for smaller quantities, see **Table 1**). It may also seem to be in contrast with the large number of caviar processing/repackaging plants and exporters (14 and 12 each) listed in the most recent (Aug. 2010) version of the CITES ‘Register of licensed exporters and of processing and repackaging plants for specimens of sturgeon and paddlefish species’. However, it must be noted here that Romania has set export quotas for commodities other than caviar (e.g. fingerlings, larvae, fry, fertilized eggs, etc.) of farmed origin and which were not examined in this report.

Table 5 and **Figure 4** show a rapid increase in the export of farmed caviar from Bulgaria from 2004 with a peak in 2006 (over 3000 kg, according to exporters’ reports). The seeming decline in 2007 (250 kg, according to exporters’ reports) is again likely to be related to the country’s EU accession in that year and thus direct trade destined to EU Member States not being recorded in the CITES trade data. Exports of “wild” caviar decreased steadily over the years.

⁴ Source codes: C – animals bred in captivity and their parts and derivatives, F – animals born in captivity and their parts and derivatives, I – confiscated or seized specimen, O – Pre-Convention specimen (here specimen from before the CITES listing in 1998), W – specimen of wild origin.

Figure 4

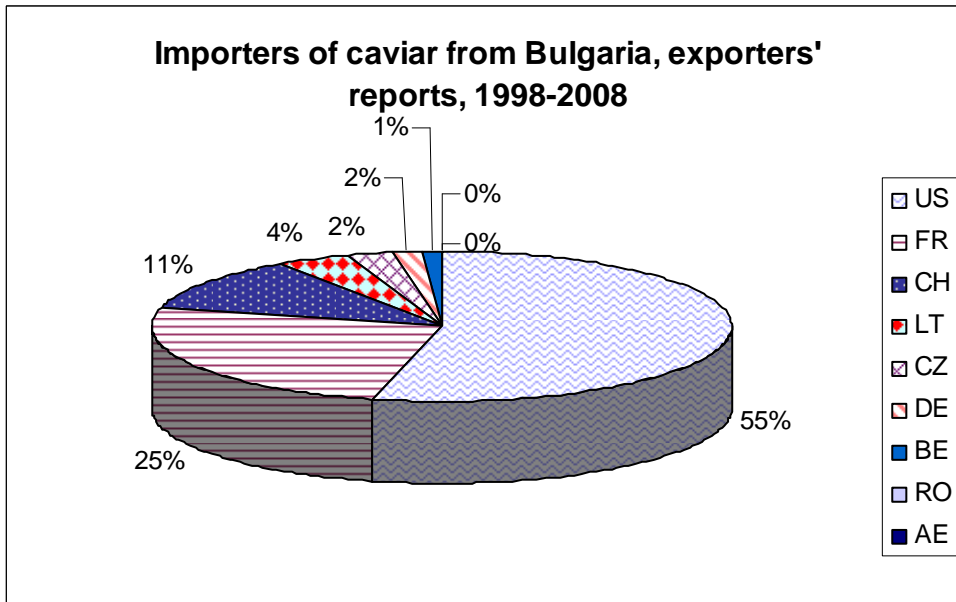


Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Importing countries of caviar from Bulgaria and Romania

The US (with over 11 000 kg) was the largest direct importer of caviar from Bulgaria based on exporters' data (**Figure 5**) in the years 1998-2008, followed by France and Switzerland (in order of importance). When imports to EU Member States are added up, the EU stands out as the second most important importer (with over 6500 kg) after the US. For further details see **Annex C**, which also illustrates that imports to the EU significantly increased in 2005-2006, the last two years before Bulgaria's accession to the EU.

Figure 5



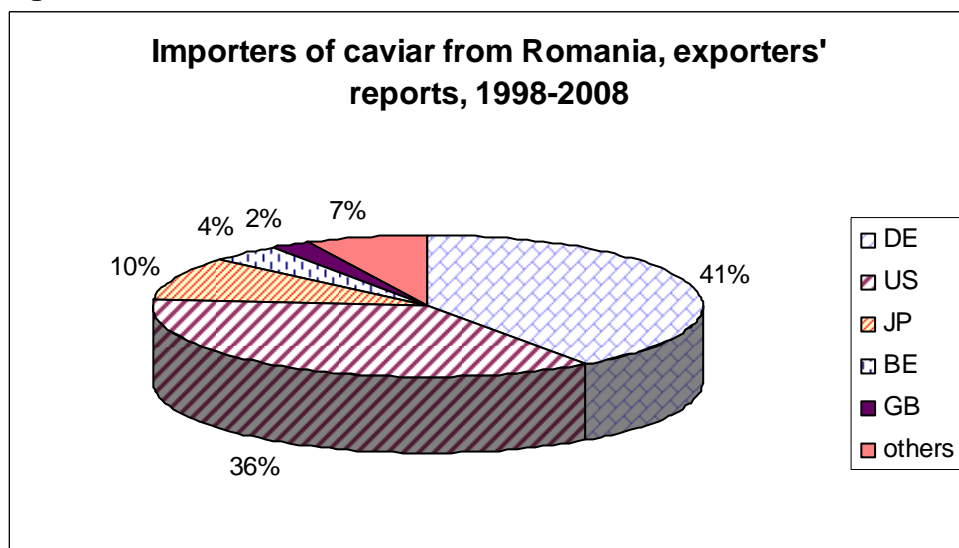
Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: AE – United Arab Emirates, BE – Belgium, CH – Switzerland, CZ – Czech Republic, DE – Germany, FR – France, LT – Lithuania, RO – Romania, US – United States of America

Figure 6 presents the importers of caviar from Romania for the same period, with Germany, the USA and Japan as the major importers (in order of importance, for detailed information see **Annex C**). When imports to EU Member States are considered together, the EU appears as the largest importer of caviar from Romania with over 13 500 kg in the same period. In the case of Romania however, the trend is

different from Bulgaria with exports to the EU peaking in 2000 and then decreasing sharply from 2003 with a small increase in 2005 before the introduction of the fishing and export ban in 2006.

Figure 6



Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: BE – Belgium, DE – Germany, GB – the United Kingdom, JP – Japan, US – United States of America

Re-exports of caviar through Bulgaria and Romania

Re-exports through Bulgaria and Romania were scarce in the period 1998 to 2008, with a total of two re-exports reported: one involved 1.5 kg of “wild” sturgeon caviar originating from the Russian Federation and re-exported by Romania to the USA in 2001; the other involved almost 90 kg of “wild” beluga caviar originating from Serbia, re-exported by Bulgaria to the USA in 2004.

Imports to Bulgaria and Romania

Caviar was rarely imported directly by the two target countries and only in small quantities. According to exporters' data, four such imports were made, two by Romania (29.5 kg from Bulgaria and Russia) and two by Bulgaria (over 92 kg from Serbia). According to importers' data, three such imports were made by Bulgaria and involved a total of about 100 kg of caviar from Russia and Serbia.

Caviar imported to the two target countries through re-exports involved small amounts according to importers' data with a total of 10 kg over the period 1998-2008. Countries of origin were Azerbaijan, France, Iran and Kazakhstan while the re-exporters were Belgium and Germany. According to exporters' data, caviar imported by the two target countries through re-exports also involved small amounts but higher than reports by importers' (a total of 169 kg over the period 1998-2008). The countries of origin were Azerbaijan, Bulgaria, France, Iran, Kazakhstan and Romania; the re-exporters were: Belgium, France, Germany, Switzerland, the UK and the USA. The re-exports to Romania where the country of origin was also Romania were reported in 2000 (97.9 kg of caviar from *A. stellatus* through France) and in 2002 (36 kg Beluga caviar through Germany). One similar case was also reported for Bulgaria in 2000 (16 kg Beluga caviar exported by Bulgaria through the USA and then back to Bulgaria).

Trade in other sturgeon products

Although the focus of the present briefing is caviar, it must be noted that international trade in all sturgeon specimens is regulated under CITES. Specimens reported in international trade in 1998-2008 for Bulgaria and Romania also included meat, live eggs, fingerlings, live specimens, bodies, extracts, derivatives, etc.

5) Illegal trade implicating Bulgaria and Romania and overview of seizures

Due to its high price and rarity, the luxury roe is often traded illegally. **Tables 6** and **7** provide an overview of reported seizures of illegal caviar made in selected EU Member States and where Bulgaria and Romania were implicated for the period 2000-2009. Of the 10 EU Member States contacted, four (Belgium, Bulgaria, Romania and the UK) reported not detecting any cases of illegal caviar trade involving Bulgaria and Romania in the period examined. The Romanian Customs however reported two significant seizures of sturgeon meat in 2005 (I. Surugiu, Romanian Customs, *in litt.* to K. Kecse-Nagy, July 2010). In-depth analysis of the seizures was impossible due to the relatively small number of detected cases (five for Bulgaria and nine for Romania). It must also be noted that the data presented in this section are far from being complete and therefore can only provide an indication of illegal caviar trade concerning these countries.

Seizures of illegal caviar implicating Bulgaria

Table 6 compiles five seizures where Bulgaria is implicated in illegal trade in caviar in 2000-2009. A total of 27.5 kg of caviar was seized in that period. In all cases Bulgaria was reported to be the country of departure of illegal trade. However, in two cases the seizure of Russian caviar was reported, which may mean that Bulgaria was a transit country. It is also worth noting that the seizure involving the highest quantity (over 10 kg) was made in France in 2007, following Bulgaria's accession to the EU. Eight kg of caviar were seized by Dutch authorities in 2009 because the CITES labels on the tins were easily removable with some having actually been broken or removed, which is against CITES labelling requirements (CITES Resolution Conf. 12.7 (Rev.CoP14)) as it could allow the addition of illegal caviar to the tins.

Table 6. Seizures of illegal caviar* reported by selected EU Member States and where Bulgaria is implicated, 2000-2009

Date	Mass	Unit	Reporting country	Country of departure	Transit country	Country of destination	Country of origin	Direction	Type of location	Transport/ Concealment	Source	Purpose	Remarks
2001	1,11	kg	Austria	Bulgaria	NA	Austria	Unknown	Import	Airport, Vienna	Personal baggage	U	NA	Russian caviar
2002	7,12	kg	Austria	Bulgaria	NA	Austria	Unknown	Import	Land border	Road, Nickelsdorf	U	NA	Russian caviar
2002	0,31	kg	Italy	Bulgaria	NR	NR	Unknown	Import	Airport, Verona	Unknown	W	P	<i>Acipenser gueldenstaedtii</i> Russian Sturgeon
2007	10,96	kg	France	Bulgaria	NR	NR	Bulgaria	Import	Land border, Beinheim	Personal baggage	U	NA	NA
2009	8,00	kg	Netherlands	Bulgaria	NA	NA	NA	Import	Airport	NA	W	NA	<i>Huso huso</i> Beluga, easily removable labels, some broken

Source: EU-TWIX database, Austrian Customs and CITES Management Authority, and Massimiliano Rocco, TRAFFIC, *in litt.* to K. Kecse-Nagy, Aug 2010

Abbreviations: NA - not available, NR - not relevant, P - personal, U - unknown, W - wild taken

* *Acipenseriformes* spp. unless specified further under remarks

In addition to the cases listed in **Table 6**, the German authorities also reported an ongoing investigation, in which Bulgaria was implicated. A witness in an organised crime investigation conducted by the Cologne Customs Investigation Office claimed that Russian caviar was smuggled into the EU, where it was subsequently commercialized as Bulgarian farmed caviar. This claim has been investigated by the German authorities using innovative techniques, such as isotope analysis. Some of the samples taken in 2009 appeared to support the claim and found caviar labelled as originating from Bulgarian aquaculture operations to originate actually from the Caspian Sea (T. Tietz, German Customs, *in litt.* to K. Kecse-Nagy, August 2010).

Seizures of illegal caviar implicating Romania

Table 7 compiles nine cases of caviar seizures where Romania is implicated in illegal trade in caviar in the period 2000-2009. A total of 25 kg of caviar was seized during this period. In eight of the nine cases Romania was the country of departure of illegal trade and only in one case did the illegal caviar transit through Romania with Moldova as country of departure and Hungary as the country of destination. It is worth noting that the seizure involving the highest amount (over 11 kg) was made in Hungary in 2006 in transit from Romania to Austria. It is also notable that Italy reported the largest number of cases, a total of over 9 kg of caviar was seized in five seizures, all detected at Verona Airport in personal baggage.

Table 7. Seizures of illegal caviar* reported by selected EU Member States and where Romania is implicated, 2000-2009

Date	Mass	Unit	Reporting country	Country of departure	Transit country	Country of destination	Country of origin	Direction	Type of location	Concealment/transport	Source	Purpose
2000	0,79	kg	Germany	Romania	NR	Germany	Unknown	Import	Airport, Frankfurt	Unknown	U	NA
2000	2,04	kg	Italy	Romania	NR	Italy	Unknown	Import	Airport, Verona/Villafranca	Personal baggage	U	NA
2001	0,34	kg	Germany	Romania	NR	Germany	Unknown	Import	Airport, München	Unknown	U	NA
2004	1,21	kg	Italy	Romania	NR	Italy	Romania	Import	Airport, Verona	Personal baggage	U	NA
2004	2,67	kg	Italy	Romania	NR	Italy	Romania	Import	Airport, Verona	Personal baggage	U	NA
2004	2,74	kg	Italy	Romania	NR	Italy	Romania	Import	Airport, Verona	Personal baggage	U	NA
2006	0,56	kg	Italy	Romania	NR	Italy	Romania	Import	Airport, Verona	Personal baggage	U	NA
2006	11,05	kg	Hungary	Romania	Hungary	Austria	Unknown	Transit	Border post in free trade zone, Győr	Inside vehicle	U	NA
2006	3,84	kg	Hungary	Moldova	Romania	Hungary	Unknown	Import	Border post in free trade zone, Nagylak	Inside vehicle	U	NA

Source: EU-TWIX database, Austrian Customs and CITES Management Authority, and Massimiliano Rocco, TRAFFIC, *in litt* to K. Kecse-Nagy, Aug 2010

Abbreviations: NA - not available, NR - not relevant, U - unknown

* *Acipenseriformes* spp.

In summary, it is of concern that the two target countries reported no seizures of caviar, while other EU Member States reported several seizures where Bulgaria and Romania were implicated. Noting that the real volume of illegal trade involving these countries is likely to be considerably higher than shown by the detected cases, it is advisable to increase awareness of enforcement agencies, their capacity and efforts to detect illegal caviar trade in the two target countries.

EU context

According to data reported to EU-TWIX up to 2009, over 7 t of illegal caviar were seized by European authorities from 2000 to 2007 (TRAFFIC, 2009). However, the real size of the illegal trade is likely to be considerably higher, given that much of it is undetected and information is incomplete for some importing countries.

6) Summary and conclusions

The present analysis focused on trade in caviar from Bulgaria and Romania. The analysis of legal trade showed that direct exports of caviar from the two range States peaked in 2000 in Romania with over 6700 kg and in 2006 in Bulgaria with over 3700 kg. In Romania the reported amounts of caviar gradually decreased after the peak in 2000, going down to zero in 2006, the start of the sturgeon fishing and export ban in that country. Bulgaria's exports fluctuated between 1000 and 2500 kg per year between 1998 and 2005 and peaked in 2006. Following the countries' accession to the EU in January 2007 caviar exported to other EU Member States have no longer been recorded in the CITES trade data.

Regarding the species in trade, both countries exported the most of the expensive beluga caviar; Bulgaria over 15 000 kg between 1998 and 2008 representing over 76% of total caviar exports from that country; Romania with almost 15 000 kg representing over 56% of total caviar exports in the same period.

The analysis demonstrated that Romania reported exporting practically only caviar of wild origin between 1998 and 2008, with a peak in 2000 with 6750 kg (exporters' reports) and then gradually decreasing to about 1100 kg in 2005 and to zero from 2006 following the country's fishing ban. In

Bulgaria, the export figures of wild/all sources caviar were almost identical (fluctuating around 1000-2000 kg per year) during the period 1998 to 2004. From 2005, the amounts of wild caviar exports also decreased in that country to approx. 660 kg in 2006. Exports of caviar from all sources increased to a maximum in 2006 with 3726 kg (according to exporters' figures) due to the export of farmed caviar. From 2007, the year for Bulgaria's accession to the EU, intra-EU trade does not appear in the CITES data therefore, for the period 2007-2008 trends cannot be identified.

Nevertheless, it appears that the Bulgarian aquaculture industry adapted fairly quickly to the decreasing quotas set for the export of "wild" caviar and managed to produce and export even more than the maximum "wild" caviar exports in the early 2000s. Although this quick adaptation of the aquaculture industry is quite possible, further investigation would be required to exclude any possibility of laundering caviar of wild origin (whether from the Danube or elsewhere) via aquaculture operations or to establish whether fraudulent labelling could be occurring. Such investigations should focus on, among others, national regulations on aquaculture operations and their enforcement, feasibility of obtaining mature specimens in a short time span, checking records of production at aquaculture facilities, DNA analysis of caviar samples, etc.

The major direct importers of caviar from Bulgaria in the years 1998-2008 were the USA (with over 11 000 kg, exporters' data), France and Switzerland (in order of importance). When imports to EU Member States were added up, the EU came in as the second most important importer (with over 6500 kg, exporters' data) after the US. Imports to the EU from that range State significantly increased in 2005-2006, the last two years before Bulgaria's accession to the EU. As for the importers of caviar from Romania for the same period, Germany, the US and Japan were reported to be the major players (in order of importance, based on exporters' reports). When imports to EU Member States were considered together, the EU appeared as the largest importer. In the case of Romania however, the trend is different from Bulgaria with exports to the EU peaking in 2000 and then decreasing sharply from 2003 with a small increase in 2005 before the introduction of the fishing and export ban.

Regarding illegal trade, a total of 14 caviar seizures implicating Bulgaria (27.5 kg in five seizures) and Romania (25 kg in nine seizures) were reported to the EU-TWIX database between 2000 and 2009. In addition to the seizures in EU-TWIX, the German authorities also reported about an ongoing investigation, in which a witness claimed that caviar of Russian origin was smuggled into the EU, where it was subsequently commercialized as Bulgarian farmed caviar. This claim has been investigated by the German authorities using innovative techniques, such as isotope analysis. Some of the samples taken in 2009 appeared to prove this claim and found caviar labelled as originating from Bulgarian aquaculture operations to originate actually from the Caspian Sea (T. Tietz, German Customs, *in litt.* to K. Kecse-Nagy, August 2010). This finding also supports the need for further investigation of the aquaculture industry in Bulgaria.

It is also of concern that Bulgaria and Romania reported no seizures of caviar, while other EU Member States reported several seizures where these two countries were implicated. Noting that the real volume of illegal trade involving these countries could be considerably higher than shown by the detected cases, and also the fact that these countries are now within the common market of the EU, without Customs control, it is therefore recommended that both countries increase the awareness of their control agencies about the significance of the illegal caviar trade, strengthen their capacity to control and monitor the caviar trade and increase enforcement efforts in both countries.

7) References

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ANNEX A

Scientific and common name of sturgeon species appearing in this briefing

Scientific name	Common name
<i>Acipenser baerii</i>	Siberian Sturgeon
<i>A. gueldenstaedtii</i>	Russian Sturgeon
<i>A. naccari</i>	Adriatic Sturgeon
<i>A. nudiventris</i>	Ship Sturgeon
<i>A. ruthenus</i>	Sterlet
<i>A. stellatus</i>	Stellate Strugeon
<i>Huso huso</i>	Beluga

ANNEX B

Quota compliance in Bulgaria and Romania, 2001-2006

Exporter	Taxon		2001		2002		2003		2004		2005		2006	
			exp r.	imp r.	exp r.	imp r.	exp r.	imp r.	exp r.	imp r.	exp r.	imp r.	exp r.	imp r.
BG	<i>A. gueldenstaedtii</i>	reported export	0	0	9	0	15	13	0	0	0	25	0	0
		quota	50	50	20	20	20	20	NP	NP	0	0	0	0
	<i>H. huso</i>	reported export	992	1 303	2 328	1 971	1 548	1 363	920	1 009	1 421	1 587	667	667
		quota	5 000	5 000	1 720	1 720	1 720	1 720	1 720	1 720	1 460	1 460	1 000	1 000
RO	<i>A. gueldenstaedtii</i>	reported export	709	853	587	379	252	165	80	60	7	7	0	0
		quota	1 750	1 750	1 200	1 200	900	900	160	160	160	160	0	0
	<i>A. stellatus</i>	reported export	1 147	1 131	934	761	351	394	138	138	56	56	0	0
		quota	2 050	2 050	1 470	1 470	1 100	1 100	900	900	900	900	0	0
	<i>H. huso</i>	reported export	1 789	1 749	2 382	2 130	2 169	1 732	1 786	1 469	1 035	875	0	0
		quota	3 100	3 100	2 180	2 180	2 250	2 250	2 250	2 250	2 000	2 000	0	0

Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK. and quotas from www.cites.org (viewed Aug 2010)

Abbreviations: BG – Bulgaria, RO – Romania, exp r. – exporters' reports, imp r. – importers' reports

ANNEX C

Destinations of direct exports of caviar from Bulgaria and Romania, exporters' reports, 1998-2008

Exporter	Importer	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
BG	US	-	1 117	2 668	980	2 217	1 563	691	634	570	250	322	11 012
	FR	650	470	-	-	220	25	82	1 549	2 175	-	-	5 171
	CH	1 742	413	120	12	-	-	-	-	41	-	-	2 328
	LT	-	-	-	-	-	-	135	439	283	-	-	856
	CZ	-	-	-	-	-	-	-	-	457	-	-	457
	DE	-	-	-	-	-	-	185	156	51	-	-	391
	BE	-	-	-	-	-	-	-	25	150	-	-	175
	RO	-	25	-	-	-	-	-	-	-	-	-	25
AE	-	-	-	-	-	-	-	-	-	-	-	2	2
BG Total		2 392	2 025	2 788	992	2 437	1 588	1 092	2 803	3 726	250	324	20 417
BG Total to EU		650	470	0	0	220	25	402	2 168	2 658	0	0	6 593
RO	DE	5	2 557	3 214	2 046	2 010	252	85	480	-	-	-	10 650
	US	1 079	697	1 492	382	1 258	2 230	1 844	471	-	-	-	9 452
	JP	498	750	1 034	224	62	114	-	-	-	-	-	2 683
	BE	-	-	309	488	197	34	-	71	-	-	-	1 099
	GB	-	290	120	128	6	-	-	-	-	-	-	544
	FR	-	22	250	52	62	82	12	-	-	-	-	479
	CH	-	80	-	225	128	-	-	-	-	-	-	432
	IT	-	40	20	71	37	44	-	-	-	-	-	212
	DK	-	68	115	-	-	-	-	-	-	-	-	183
	GR	5	87	40	30	-	-	-	-	-	-	-	161
	NL	-	-	157	-	-	-	-	-	-	-	-	157
	MX	-	-	-	-	-	-	48	43	-	-	-	91
	HK	-	-	-	-	82	-	-	-	-	-	-	82
	CN	-	-	-	-	60	-	-	-	-	-	-	60
	SE	-	-	-	-	-	-	-	34	-	-	-	34
	ZA	-	-	-	-	-	10	10	-	-	-	-	20
NZ	-	-	-	-	-	7	-	-	-	-	-	7	
SG	-	-	-	-	-	-	5	-	-	-	-	5	
CA	1	-	-	-	-	-	-	-	-	-	-	1	
RO Total		1 588	4 590	6 751	3 645	3 902	2 773	2 004	1 099	0	0	0	26 350
RO Total to EU		10	3 064	4 225	2 814	2 312	411	97	585	0	0	0	13 518
Grand Total		3 980	6 616	9 539	4 636	6 338	4 361	3 096	3 901	3 726	250	324	46 767

Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP-WCMC, Cambridge, UK.

Abbreviations: AE – United Arab Emirates, BE – Belgium, CA – Canada, CH – Switzerland, CN – China, CZ – Czech Republic, DE – Germany, DK – Denmark, FR – France, GB – United Kingdom, GR – Greece, HK – Hong Kong (Special Administrative Region of the People's Republic of China), IT – Italy, JP – Japan, LT – Lithuania, MX – Mexico, NL – The Netherlands, NZ – New Zealand, RO – Romania, SE – Sweden, SG – Singapore, US – United States of America, ZA – South Africa, - zero

Data in italics and with grey background indicate data regarding EU Member States.