

### KEY POINTS:

- Regular online monitoring by TRAFFIC, particularly from 2012 onwards, of Chinese-language e-commerce platforms and websites has revealed a large number of online advertisements for illegal wildlife goods.
- More than half of the illegal products offered comprise ivory items. Regular removal of advertisements of concern has led to a dramatic and sustained drop in the number of such advertisements appearing online.
- However, the dramatic drop should not give cause for complacency: their number still remains high, **while of particular note and concern is the rising incidences of online sales of illegal goods through social media forums.**
- New avenues need to be explored to interdict illegal trade, such as co-operation with logistics and finance companies who ultimately are involved in facilitating the online transactions.

# MOVING TARGETS: TRACKING ONLINE SALES OF ILLEGAL WILDLIFE PRODUCTS IN CHINA



## BACKGROUND

The Internet has revolutionized communications world-wide, providing a mechanism for information dissemination and a medium for collaboration and interaction between individuals, regardless of their geographic location. As of 1<sup>st</sup> July 2014, according to "Internet Live Stats" there were more than 2.9 billion internet users, just over 40% of the world population (see Figure 1). China, with more than 641 million internet users, has the world's biggest online community<sup>1</sup>.

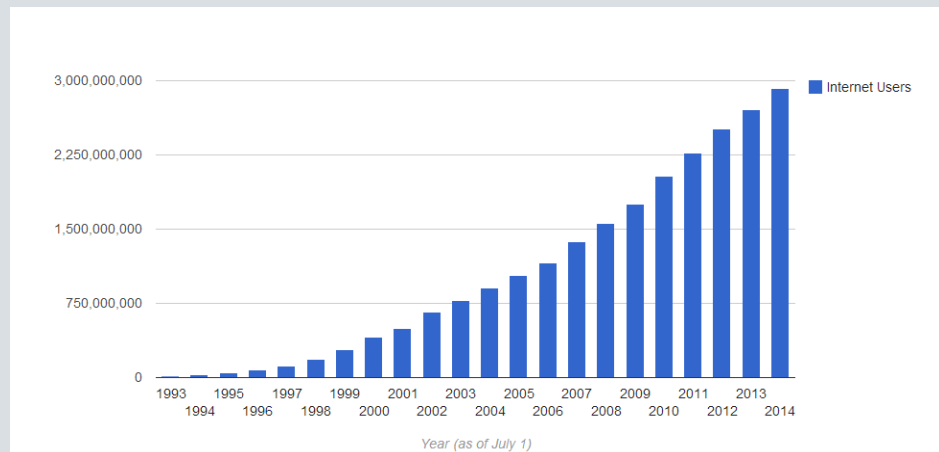


Figure 1: Internet Users in the world

As the number of internet users rises, e-commerce is booming. According to a February 2013 report on eMarketer, the value of Business to Consumer (B2C) trade in China was about 110 billion USD in 2012, with online trade (B2C and Consumer to consumer (C2C)) estimated to rise to USD 274.6 billion by 2014<sup>2</sup>. Given the high volume of e-commerce transactions and sales, there is an occurrence of illicit trade activities. The internet allows those involved in criminal online activities to interact under cover, hide

1 <http://www.internetlivestats.com/internet-users/> (accessed 1st July 2014)

2 <http://www.emarketer.com/Article.aspx?R=1009649> (accessed 5th February 2013)

their true identities and carry out their online transactions relatively unseen. Therefore, website monitoring is vital to understand the level and scope of illegal wildlife trade online.

In 2006, TRAFFIC undertook an 8-month survey of selected Chinese language websites and platforms in mainland China, Taiwan and Hong Kong SAR. Initial results revealed that significant quantities of endangered species products were being sold through the internet: 332 ivory products<sup>3</sup> and 193 rhino horn products were detected. Clearly, comprehensive online monitoring of online sales was warranted. In 2010, TRAFFIC began routinely surveying online markets, initially through simply counting the number of advertisements selling illegal wildlife products. The results were shared with law enforcement agencies through workshops held in conjunction with China's Management Authority for CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) in 2010 and 2011. These initial studies highlighted the need for a more thorough understanding of the trade in order to improve the methods to detect and deter it. In late 2011, a comprehensive programme of online monitoring in China began, with the results routinely shared with website and platform managers and with enforcement agencies such as the National Forest Police Bureau. TRAFFIC has also carried out regular training of e-commerce professionals, covering a range of relevant issues, including the latest code words used to conceal illegal transactions, changes in legislation, and species identification.

## MARKET MONITORING

### E-commerce platforms and websites:

In January 2012, TRAFFIC began closely tracking 15 selected websites for five key illegal wildlife products (ivory, rhino horn, tiger bone, hawksbill shells and pangolin scales), and routinely searching for 12 code words known to be used as cover for these illegal products. The scope of monitoring has been continually expanded and adapted through the addition of new products, websites and particularly new code words. Continual adaptation is necessary as illegal dealers have expanded the range of code words used to describe their products, largely in response to the rising number of terms being blocked and related advertisements being

deleted, owing to TRAFFIC's feedback to website managers (Table 1). For example, initially, the only code words used online for ivory were “象牙, XY, xiangya”; by September 2014, there were already 22 code words for ivory, including terms for ivory such as “African materials, yellow materials, white plastic, jelly”. In total, TRAFFIC has currently identified at least 64 code words for these monitored illegal wildlife products.

As of the end of September 2014, TRAFFIC continues to routinely monitor 25 e-commerce and antique selling websites every month for eight specific wildlife products (ivory, rhino horn, Tiger bone, hawksbill shells, pangolin scales, leopard bones, Saiga horn and Hornbill casques), searching for 64 terms used to describe illegal products. In the beginning, TRAFFIC's experts manually searched for product names and respective code words on monitored websites and recorded findings in a database. Data were then screened to remove duplications and to verify adverts.

Recently, TRAFFIC started applying automated searching and screening methods. The monthly total number of illegal wildlife product advertisements (TWPA) and the number of new wildlife products advertisements (NWPA) are recorded. Every code word is searched individually on each website, and the results recorded (including web links, title, description and seller), which are then sent separately to each website/platform owner to allow them to delete the respective posts. As a result of this feedback, several website/platform managers block certain code words so that they can no longer be used to advertise products, but websites managers cannot block all code words because some of them are often used for legal products. The combined monthly monitoring results are also sent to relevant enforcement agencies.

Certain characteristics help to distinguish fake from genuine wildlife products, e.g. through examination of written product descriptions and images posted online, particularly those involving ivory, rhino horn, hawksbill shell, pangolin scale, hornbill casque and saiga horn. With advertisements for Tiger and leopard bones, where it is difficult to distinguish fakes from genuine products visually, the seller's detailed description is used as a basis for informed judgment. It is also recognized that

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<sup>3</sup> Although limited legal ivory trade exists in China, online trading in ivory is not permitted and is thus illegal.

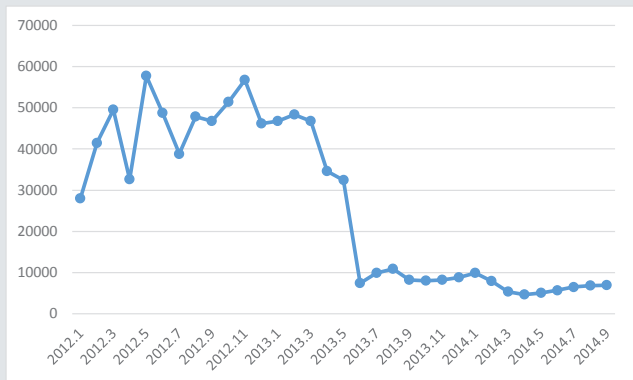
sellers may use images that do not represent the actual products on offer, while not all consumers are able to identify genuine products, so some advertisements may erroneously be included within the statistics as representing illegal wildlife products, although advertisements for clearly fake products are excluded from the results. TRAFFIC has also developed protocols for dealing with duplicate information—when advertisements for the same products appear on several different websites, often referring back to the same dealers. In these cases, the duplicate information will be counted as a single data point.

Time	No. of websites	No. of products	Products*	No. of key words for all products
2012.1	15	5	Ivory, RH, TB, HS, PS	9
2012.5	24	5	Ivory, RH, TB, HS, PS	12
2012.7	24	6	Ivory, RH, TB, HS, PS, LB	20
2012.8	24	7	Ivory, RH, TB, HS, PS, LB, SH	30
2012.10	24	7	Ivory, RH, TB, HS, PS, LB, SH	37
2013.1	24	8	Ivory, RH, TB, HS, PS, LB, SH, HC	40
2013.7	25	8	Ivory, RH, TB, HS, PS, LB, SH, HC	57
2014.6	25	8	Ivory, RH, TB, HS, PS, LB, SH, HC	64
2014.9	25	8	Ivory, RH, TB, HS, PS, LB, SH, HC	64

\*Rhino horn=RH, Tiger bone=TB, hawksbill shells=HS, pangolin scales=PS, leopard bones=LB, Saiga horn=SH, Hornbill casque=HC

**Table 1: Evolution of TRAFFIC’s online and e-commerce monitoring (January 2012 – September 2014)**

In January 2012, TRAFFIC discovered almost 30,000 advertisements for five illegal wildlife products on the 15 websites surveyed (Figure 2). This figure rose to more than 50,000 in the next two months but dropped again in April 2012 to around 30,000 after TRAFFIC contacted and shared the monitoring results with website managers, several of whom immediately deleted the identified advertisements. Thereafter the number of TWPA once again rose, as TRAFFIC began to monitor more websites (24 from May 2012) and additional products (Leopard bones from July 2012, Saiga horn from August 2012 and hornbill casque from January 2013), while the number of code words searched also increased to 37 by October 2014. Overall, the TWPA remained

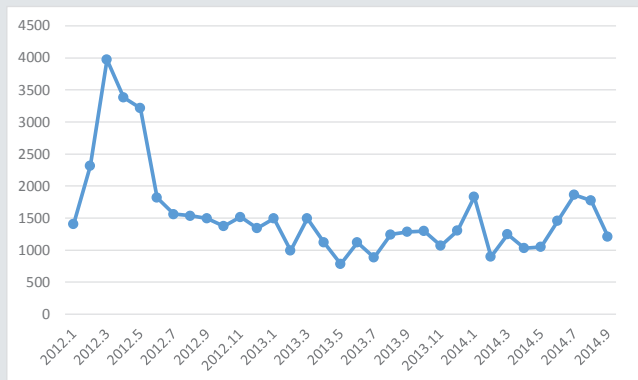


**Figure 2: Number of total illegal wildlife product advertisements (TWPA) in monitored Chinese-language websites (January 2012-September 2014)**

relatively steady because of the increasing efforts by website managers to block various code words and remove offending advertisements.

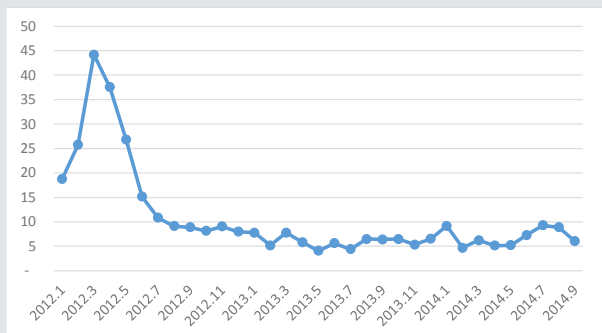
TRAFFIC’s ongoing training, guidance and sharing of information with managers of websites contributed to a steady and significant drop in the number of TWPA in the first half of 2013: it fell sharply to fewer than 10,000 advertisements and has remained there ever since, with only slight variance. This drop is remarkable, as the scope of the monitoring has been increasing continuously during that time (see Table 1), but is still problematic given that it concerns highly endangered or threatened species. Nevertheless, the demand for illegally traded wildlife products could not be reduced by removing advertisements from e-commerce platforms. It also has to be acknowledged that there are transactions of illegal wildlife products, which were not captured by TRAFFIC’s monitoring. This indicates that trade volumes of illegal wildlife products on e-commerce platforms might be even higher.

A more accurate reflection of the levels and trends within the online illegal wildlife trade is provided through the number of new wildlife products advertisements (NWPA) posted online each month. The NWPA removes the influence of old advertisements that have already been recorded meaning new trade trends can be observed more quickly (Figure 3). Following TRAFFIC’s monitoring and feedback to website managers resulting in advertisement removal, the NWPA fell dramatically to around 1500 from July 2012 and has remained around that level ever since, despite some variation caused by the introduction of additional website and code word monitoring.



**Figure 3: Number of monthly new wildlife products advertisements (NWPA) (January 2012-September 2014)**

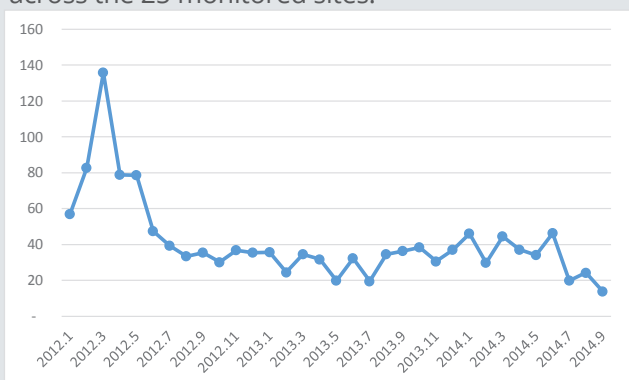
Because of the rising number of websites, products and code words used in monitoring, direct comparison between different months is not possible. TRAFFIC therefore developed an index based on the NWPA per product per website to compare trends in illegal online wildlife trade (Figure 4).



**Figure 4: Number of monthly new wildlife advertisements per products per websites (January 2012 - September 2014)**

Starting at 19 new advertisements per product per website in January 2012, the index peaked at 45 in March 2012 before sharply decreasing to 11 in July 2012 where it has been at or below until September 2014.

The dramatic four-fold decrease from July 2012 occurred shortly after a workshop held on 23<sup>rd</sup> June 2012, convened by the National Forest Police Bureau and in collaboration with China CITES Management Authority and TRAFFIC, where 15 of the leading e-commerce sellers operating in China, including Alibaba, Taobao, and Tencent, signed a declaration stating they had a zero-tolerance policy towards their services being used to conduct illegal wildlife trading. Following that public declaration, the NWPA index has fluctuated between five and 10 until September 2014; or around 1500 new advertisements per month across the 25 monitored sites.



**Figure 5: Number of new ivory product advertisements (January 2012-September 2014)**

Of the eight monitored products, ivory remains the most frequently advertised, generally comprising over half of the new advertisements posted each month (Figure 5).

At the beginning of the survey there were 57 new advertisements for ivory products per website. This peaked at 136 in March 2012, then decreased to 39 in July 2012, following the public declaration by the 15 leading e-commerce sellers. Following this development, the index fluctuated between 20 and 50 for the next 24 months, averaging around 35 new advertisements for ivory products on each of the monitored websites.

### Social Media:

In March 2014, TRAFFIC began research into the rising use of social media platforms to sell illegal wildlife products. Initial researches revealed dealers release photos and information about illegal wildlife products in order to attract and interact with potential customers. In contrast to posted advertisements on regular websites, which can be seen by all visitors, social media audiences can be selected by dealers and are generally based on personal introductions. This privacy means that sellers are better protected and monitoring is more challenging.

Some social media dealers use “agents” to extend their audiences. Agents re-post information about illegal wildlife products onto their own social media platform and, if someone in their circle wants to buy the product(s), the agent buys it from the dealer and resells it at a higher price to the contact within their circle. In this manner, dealers can sell their products quickly and get more people involved in the selling. Monitoring social media retailing presents considerable challenges. The operation of most social media platforms means only “recognized” members can see information posted by a dealer within his social media contacts. Dealers also check their followers regularly and may block those who never buy products or post updates (as it indicates that these users rarely use this account) or those who regularly ask questions. This makes it difficult for researchers to maintain a presence on these discreet internet circles. TRAFFIC is currently developing new survey methods and research techniques to overcome such challenges. Despite the inherent difficulties in monitoring such trade, TRAFFIC’s research

4 The index is calculated as: NWPA of one month/the number of species \*the number of websites monitored by TRAFFIC at this month



has revealed that considerable quantities of illegal wildlife products are bought through social media channels. Table 2 provides a summary of the number of transactions found on one social media platform during the course of one month.

Social media account	Ivory tusks	Ivory segments	Rhino: Entire horns or horn pieces and worked products, etc.	Helmeted hornbill casque	Ivory items
Dealer 1	60+	100+	10		thousands
Dealer 2	2	54		25	hundreds
Dealer 3	26	70+	50+	21	hundreds
Dealer 4	5	11			hundreds
Dealer 5	7	11	15		hundreds
Dealer 6	15	30+	2		hundreds
<b>Total</b>	<b>115+</b>	<b>276+</b>	<b>77+</b>	<b>46+</b>	<b>thousands</b>

**Table 2: Examples of advertisements for illegal wildlife products posted on social media within one month**

The data in Table 2 shows that significant amounts of illegal wildlife products are being sold through social media. That is why it is imperative that researchers and enforcement agencies – as well as social media platform administrators – concentrate their efforts on monitoring and deterring illegal wildlife trade on social media.

## MONITORING AND ENFORCEMENT CHALLENGES

The speed and anonymity of online commerce presents many challenges for routine monitoring of activity to detect those transactions where wildlife goods are being bought and sold illegally. Dealers are increasingly adept at concealing their activities, by selling through social media, introducing new code words to conceal the identity of the actual goods on offer and other means. Progress in eliminating illegal online trade is hampered by the practicalities of blocking certain code words, while limited capacity means it is simply not possible to find and delete all offending advertisements in time. The speed with which online transactions can take place is also a major impediment, both to monitoring and to effective enforcement action.

Therefore, any attempt to monitor online activities needs to be capable of rapid adaption to meet new challenges as they arise. TRAFFIC is continuously reviewing and adapting its monitoring approaches, including further researches into the illegal trade through social media, and is actively seeking new funding and expanded partnerships to increase the activities and scope of online

monitoring. New means of enforcement, which go beyond removing advertisements from websites, need to be identified and implemented. One recent example concerns a seller on the social media platform WeChat who was arrested owing to the phone records of his transactions<sup>5</sup>. Currently the posting of advertisements for illegal wildlife products is not in itself an offence but – for example – it is illegal to sell ivory online. It is a recurrent challenge for legislation to keep pace with technological developments.

Methods of payment offer an additional avenue for detecting sales of illegal products, with “guaranteed transaction” services being increasingly employed. Once a purchase has been agreed, the buyer pays money to a “guaranteed” intermediary. Once the money is received by the intermediary, the dealer sends the product to the buyer and, after it has been checked, the buyer then instructs the intermediary to release the money to the dealer. Tracking such financial flows would provide additional means to interdict illegal online transactions. Another approach to detecting and preventing illegal trade is through the courier companies used to deliver illegal products to buyers: TRAFFIC has already been in correspondence with a number of such companies with the aim of developing procedures to ensure they do not become the unwitting conduit for illegal wildlife transactions.

Nevertheless, after more than two years of co-operation with e-commerce platform and website managers and enforcement authorities, the total number of illegal wildlife products advertisements (TWPA) and the monthly number of new wildlife products advertisements (NWP) have remained stable for the past two years. This period of stability followed a public declaration made by 15 of the leading e-commerce sites in China stating they had a zero-tolerance policy towards their services being used to conduct illegal wildlife trading. Feedback from regular monitoring by TRAFFIC has resulted in website managers routinely removing offending adverts and blocking code words used to describe illegal products, and messaging to encourage such action has taken place through a series of targeted training workshops. While positive progress has been made, there is still much to do to eliminate trade in illegal wildlife products online, and through social media in particular.

<sup>5</sup> [http://www.fj.xinhuanet.com/news/2014-08/27/c\\_1112255004.htm](http://www.fj.xinhuanet.com/news/2014-08/27/c_1112255004.htm)



Figure 6: Typical processes used in securing an online transaction

As Figure 6 shows, a typical selling process can involve both websites and social media. So, e-commerce and social media can be interlinked. Sellers and buyers might switch communication channels during a transaction – which can further complicate the work of researchers and enforcement agencies. The payment can include both guaranteed and non-guaranteed services - Appendix I describes the steps of a typical online transaction in more detail.

## CONCLUSIONS

Regular online monitoring by TRAFFIC, particularly from 2012 onwards, of Chinese-language e-commerce platforms and websites has revealed a large number of online advertisements for illegal wildlife goods, peaking at around 4,000 new advertisements per month in March 2012 (Figure 3). TRAFFIC's data show that more than half of the illegal products offered comprise ivory items.

Regular removal of advertisements of concern, following regular feedback and training sessions held by TRAFFIC for platform and website managers, has led to a dramatic and sustained drop in the number of such advertisements appearing online. This was particularly marked following a public declaration made by 15 of the leading e-commerce websites made in June 2012 not to tolerate such advertisements on their platforms and the sustained co-operation of online managers has been much valued and appreciated. Levels of new online advertisements for illegal wildlife goods have stabilized at around 1,500 per month for the past 25 months. This is despite the increasing number of websites now monitored by TRAFFIC (currently 25), an expansion in the number of products monitored (currently 8), and a large increase in the number of search terms covered (currently 64).

However, the dramatic drop in the number of online advertisements for illegal wildlife goods should not give any reason for complacency: their number still remains high and the target

species are all of international conservation concern, whilst a lack of advertisements on routinely monitored websites could just indicate that they have been moved elsewhere, particularly so in the very rapidly developing world of online commerce. It should not be assumed that the reduction of advertisements for illegal wildlife products on monitored e-commerce platforms actually translates into an overall reduction in consumption. Therefore, TRAFFIC needs to understand if trade has shifted and needs to reveal related volumes, dynamics as well interactions. This study showed that social media seems to be an important factor in this shift.

Of particular note and concern is the rising incidences of online sales of illegal goods through social media forums, which present particular monitoring and enforcement challenges, and further difficulties in terms of the capacity needed to address such issues. TRAFFIC's data show that – currently – significant amounts of illegal wildlife products are sold through social media. New avenues need to be explored to interdict illegal trade, such as co-operation with logistics and finance companies who ultimately are involved in facilitating the online transactions.

With these findings in mind, TRAFFIC makes the following recommendations to improve the online monitoring of the e-commerce market place with a view to reducing substantially the incidences of it being used for sales of illegal wildlife products and increase the risk of arrest and prosecution of those dealing and purchasing such goods online.

## RECOMMENDATIONS

1. Logistics and courier companies need to become more involved in efforts to combat online illegal wildlife trade through regular and careful checking of their cargoes to ensure they comply with existing regulations. TRAFFIC stands ready to help train and provide awareness sessions to help achieve this aim.
2. The State Post Bureau of China, which oversee the management of the logistic and courier industry in China, should be encouraged to become members of China's National Inter-agency CITES Enforcement Coordination Group (NICE-CG) and the Provincial Inter-agency CITES Enforcement Coordination Group (PICE-CG), the two bodies who oversee the implementation of CITES in China.
3. Social media companies should be more proactive in combatting illegal wildlife trade. For example, this sector has the technical ability to monitor and search for key code words. Such companies have an obligation to share information about their client base if requested by relevant law enforcement agencies. This opportunity needs to be explored in more depth.
4. The government should issue clear messaging that the only legal sources of ivory in China are from designated ivory manufacturers and retail outlets, and all ivory sold online is done so illegally. Since online sales of ivory are illegal, it should be explored whether it is possible to promulgate regulations, which also make it illegal to advertise ivory and other wildlife products online (including code names).
5. The alliance of government bodies, non-governmental organizations (including TRAFFIC) and industry players established by the China CITES MA should be expanded to improve the monitoring and enforcement activities directed at combating illegal wildlife trade online (including social media).

## APPENDIX I: TYPICAL STEPS OF AN ONLINE TRANSACTION FOR ILLEGAL WILDLIFE PRODUCTS

This section describes the typical steps of an online transaction as presented in Figure 6. This description is based on observations of the TRAFFIC researchers.

### Step 1: Drawing attention to the product for sale

Dealers frequently post advertisements on online e-commerce sites (Figure 7), or visit antique collectors' forums, to initiate an online auction. The advertisement directs those interested in purchasing the item to a personal mobile account, and thereafter any conversation takes place out of the public domain. Dealers may direct purchasers to their own online shops or even to a physical store.

Figure 7 is a screenshot posted by a dealer of a piece of carved Helmeted Hornbill "ivory". Instead of a detailed description of the product, only a mobile account is provided together with a request for those interested in purchasing the item to join the account.



Figure 7. Screenshot of a post on an antique collectors' forum

### Step 2: Assembling purchasers through a mobile account or online shop

#### MOBILE ACCOUNT/"FRIEND CIRCLE":

Due to the privacy associated with using a mobile account, dealers use these widely to contact and attract those interested in purchasing products. Key characteristics of this preferred method of contact are:

- High privacy; low risk of getting caught. Unlike blogs or forums, mobile accounts need approval from a moderator (i.e. the dealer) before followers can access the account. Messages are not public and only followers of the account can see any messages;
- Followers become account members because they are interested in purchasing: they are self-selected as likely purchasers of the goods;
- It is very simple to advertise new products and approach potential purchasers, simply by uploading a photo and posting it; the image will automatically appear in every followers' screen;
- Once a follower has a track-record as a buyer, deals on future purchases can all be carried out directly through their mobile account.

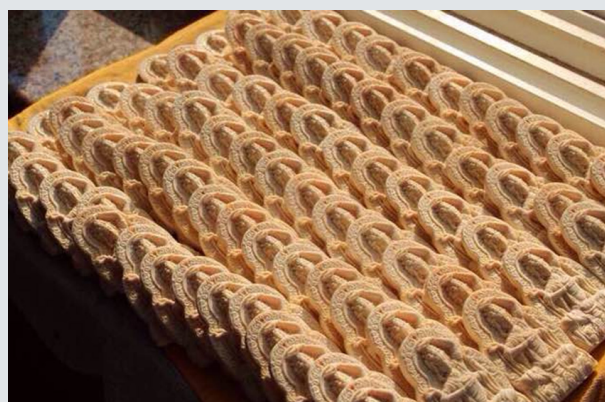


Figure 8: Screenshot of a dealer's mobile account



The dealer's account in Figure 8 is updated daily and news items posted regularly. Images from the account indicate that the dealer has a large quantity of stock. In public forums or online shops, dealers rarely disclose they have large numbers of items available, but they feel secure in private social media circles.

### ONLINE SHOPS

Unlike mobile accounts, online shops are very public places, so dealers know it is risky to post items there and often use other legal items as cover. In the screenshot in Figure 8, the dealer has an online shop that appears to sell legal products. However, this dealer is known to sell illegal wildlife products through a mobile account. E-commerce companies have confirmed that sometimes products displayed in online shops have not been the actual products sold.

### Step 3: Closing the deal

Depending on the relationship between seller and dealer, this step can include guaranteed and non-guaranteed payments (i.e. by bank transaction).

- A recent development is the ability to pay directly between mobile accounts: this is not only convenient for dealers and buyers, but owing to its privacy makes payments very challenging to trace.
- Online payment services can also play an important role. Dealers often negotiate with buyers privately, and use a regular online payment procedure. This appears to be a normal legal transaction and is difficult to monitor. Online payments usually offer guaranteed transaction services which allow the consumer to check product quality first.

Figure 9 shows a screenshot of an online auction for a Saiga horn that includes a description of the item, the dealer's mobile account details and an instruction that payment can only be completed through an e-payment service.



Figure 9: Screenshot showing a dealer initiating an online auction for a Saiga horn

TRAFFIC, the wildlife trade monitoring network, is the leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

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