



TACKLING THE IVORIES:

The Status of the US Trade in Elephant and Hippo Ivory

Douglas F. Williamson

A TRAFFIC North America Report



TRAFFIC
— NORTH AMERICA —

TACKLING THE IVORIES:

The Status of the US Trade in Elephant and Hippo Ivory

By
Douglas F. Williamson

September 2004

TRAFFIC North America
World Wildlife Fund
1250 24th Street NW
Washington DC 20037

Visit www.traffic.org for an electronic edition of this report, and for more information about TRAFFIC North America.

© 2004 WWF. All rights reserved by World Wildlife Fund, Inc.

ISBN 0-89164-174-2

All material appearing in this publication is copyrighted and may be reproduced with permission. Any reproduction, in full or in part, of this publication must credit TRAFFIC North America.

The views of the authors expressed in this publication do not necessarily reflect those of the TRAFFIC Network, World Wildlife Fund (WWF), or IUCN-The World Conservation Union.

The designation of geographical entities in this publication and the presentation of the material do not imply the expression of any opinion whatsoever on the part of TRAFFIC or its supporting organizations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The TRAFFIC symbol copyright and Registered Trademark ownership are held by WWF. TRAFFIC is a joint program of WWF and IUCN.

Suggested citation: Williamson, D. F. 2004. *Tackling the Ivories: The Status of the US Trade in Elephant and Hippo Ivory*. TRAFFIC North America. Washington D.C.: World Wildlife Fund.

Front cover photos from the top, clockwise, are: pygmy hippopotamus, *Hexaprotodon liberienis*, © Martin Harvey; forest elephant, *Loxodonta africana cyclotis*, © Martin Harvey; confiscated ivory and muzzle-loaders on display, © Meg Gawler.

Back cover photo, confiscated elephant ivory and rhino horn, © Martin Harvey.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iv
EXECUTIVE SUMMARY	1
BACKGROUND: THE LEGAL FRAMEWORK FOR TRADE IN IVORY	7
CITES	7
US FEDERAL LAWS	9
<i>THE ENDANGERED SPECIES ACT</i>	9
<i>THE LACEY ACT</i>	10
<i>THE AFRICAN ELEPHANT CONSERVATION ACT</i>	10
<i>THE CRIMINAL CODE</i>	10
IMPLEMENTING REGULATIONS	11
<i>Raw Ivory</i>	11
<i>Antique African Elephant Ivory</i>	12
<i>Antique Asian Elephant Ivory</i>	12
GENERAL REQUIREMENTS	13
US STATE LAWS	13
METHODS	15
THE US ELEPHANT IVORY MARKET	17
CUMULATIVE TRADE	17
IVORY IMPORTS	17
<i>Ivory Carvings</i>	18
<i>Trophies</i>	20
<i>Tusks</i>	21
<i>Jewelry</i>	21
<i>Ivory Pieces and Piano Keys</i>	22
IVORY EXPORTS AND RE-EXPORTS	24
THE DOMESTIC MARKET FOR WORKED IVORY	25
THE DOMESTIC MARKET FOR RAW IVORY	29
ILLEGAL TRADE	30
<i>Carved Ivory</i>	31
<i>Ivory Jewelry</i>	32
<i>Trophies and Tusks</i>	32
<i>Smuggling</i>	33
SUMMARY	34

US COMPLIANCE WITH CITES RESOLUTION CONF. 10.10 (REV. CoP12)	35
THE IMPACT ON ELEPHANT POPULATIONS	36
THE US HIPPO IVORY MARKET	39
THE GLOBAL HIPPO TRADE	39
THE CUMULATIVE US TRADE	39
US HIPPO IVORY IMPORTS	40
<i>Countries of Origin</i>	40
TRADE ROUTES	41
<i>Carved Hippo Ivory</i>	41
<i>Hippo Teeth</i>	42
<i>Hippo Jewelry and Pieces</i>	43
<i>Hippo Trophies</i>	43
THE DOMESTIC MARKET	44
ILLEGAL TRADE	46
THE IMPACT ON HIPPO POPULATIONS	47
CONCLUSIONS AND RECOMMENDATIONS	49
REFERENCES	53

LIST OF TABLES

TABLE 1	ELEPHANT IVORY IMPORTED/EXPORTED/RE-EXPORTED BY THE USA BY SHIPMENT, 1995–2002	17
TABLE 2	ELEPHANT IVORY IMPORTED BY THE USA BY PIECE, 1995–2002 (NO. OF ITEMS)	18
TABLE 3	IMPORTS OF ELEPHANT IVORY INTO THE USA BY SPECIES, 1995–2002 (NO. OF ITEMS)	18
TABLE 4	COUNTRY OF EXPORT FOR SHIPMENTS OF CARVED ELEPHANT IVORY LEGALLY IMPORTED INTO THE USA, 1995–2002 (NO. OF SHIPMENTS)	19
TABLE 5	COUNTRY OF ORIGIN FOR ELEPHANT TROPHIES IMPORTED INTO THE USA BY SHIPMENT, 1995–2002 (NO. OF SHIPMENTS)	21
TABLE 6	COUNTRY OF EXPORT FOR ELEPHANT TUSKS IMPORTED INTO THE USA BY PIECE, 1995–2002	22
TABLE 7	COUNTRY OF EXPORT FOR ELEPHANT IVORY JEWELRY IMPORTED INTO THE USA BY PIECE, 1995–2002 (NO. OF ITEMS)	23
TABLE 8	DESTINATION COUNTRIES FOR CARVED ELEPHANT IVORY EXPORTED FROM THE USA BY PIECE, 1995–2002 (NO. OF ITEMS)	24
TABLE 9	IVORY FOR SALE ON EBAY, FEBRUARY–MAY 2004	26
TABLE 10	ELEPHANT IVORY SEIZED BY ITEM, 1995–2002	31
TABLE 11	TOTAL GROSS EXPORTS OF HIPPO TEETH, TUSKS, CARVINGS, AND TROPHIES FROM AFRICAN RANGE STATES, 1995–2002	39
TABLE 12	HIPPO IVORY IMPORTED INTO THE USA BY SHIPMENT, 1995–2002	40
TABLE 13	HIPPO IVORY IMPORTED INTO THE USA BY UNIT AND YEAR, 1995–2002	40
TABLE 14	COUNTRY OF ORIGIN FOR HIPPO IVORY CARVINGS AND TEETH CLEARED FOR ENTRY INTO THE USA BY SHIPMENT, 1995–2002 (NO. OF SHIPMENTS)	41
TABLE 15	COUNTRY/JURISDICTION OF EXPORT FOR SHIPMENTS OF CARVED HIPPO IVORY IMPORTED INTO THE USA, 1995–2002 (NO. OF SHIPMENTS)	42
TABLE 16	COUNTRY OF EXPORT FOR SHIPMENTS OF HIPPO TEETH IMPORTED INTO THE USA, 1995–2002 (NO. OF SHIPMENTS)	43
TABLE 17	COUNTRY OF ORIGIN FOR SHIPMENTS OF HIPPO TROPHIES IMPORTED INTO THE USA, 1995–2002 (NO. OF SHIPMENTS)	44
TABLE 18	SEARCH RESULTS FOR HIPPO IVORY AVAILABLE VIA EBAY, FEBRUARY 13–MAY 14, 2004	45

ACKNOWLEDGEMENTS

TRAFFIC North America wishes to express its gratitude to Frances H. Lane, whose generous support made this report possible.

TRAFFIC would like to thank those who provided valuable insights and input during the early stages of this project, as well as those who reviewed initial drafts of the report, including Samuel Lee and Hongfa Xu of TRAFFIC East Asia; Rob Parry-Jones of TRAFFIC Oceania; Tom Milliken of TRAFFIC East/Southern Africa; and Kevin Adams, Ed Grace, and Andrea Gaski of USFWS.

The author would also like to thank several people who helped steer this report to conclusion. These include Craig Hoover of USFWS, formerly of TRAFFIC North America, who was there at the beginning of this project and provided critical guidance throughout. Simon Habel and Leigh Henry of TRAFFIC North America provided invaluable

assistance and support both substantively and editorially in producing the final product. Tina Leonard of TRAFFIC North America deserves special thanks for spending many hours searching Internet auction sites to find ivory for sale, and tabulating the results.

TRAFFIC would like to thank Patricia Want for teaching our researchers the workings and intricacies of Internet auction sites, and eBay in particular. Her pro bono help contributed significantly to the findings of this report. TRAFFIC is also deeply grateful to D.J. Mash of Image Works Creative Group for his speedy and solid work in preparing the layout and graphics to produce the final product.

Finally, TRAFFIC North America expresses its thanks to Aziz Gokdemir of Grammarians, Inc., as well as Steve Broad and Julie Gray of TRAFFIC International, for their important editorial contributions.

EXECUTIVE SUMMARY

The international ivory trade remains one of the world's most controversial wildlife trade issues. In recent decades, public attention has focused primarily on trade in ivory derived from the African Elephant *Loxodonta africana*. Following a decade in which African Elephant populations may have decreased by as much as 50% because of widespread hunting and poaching for ivory, in 1989 the international community acted through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to list the species in Appendix I, the maximum level of protection afforded by the treaty. Prior to that decision, the USA acted unilaterally through the African Elephant Conservation Act (AECA) to ban almost all imports to the USA of African Elephant ivory (Peter Thomas, Chief, Division of Management Authority, US Fish and Wildlife Service [USFWS], *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). The Asian Elephant *Elephas maximus* had previously been listed in CITES Appendix I in 1976 (O'Connell-Rodwell and Parry-Jones, 2002).

The CITES decision to list the Asian and African Elephants in Appendix I, along with the AECA, have commonly been interpreted to have effected a ban on all commercial trade in elephants, including their parts and derivatives such as ivory. That is only partially true. Many nations, including the USA, continue to allow the trade of antique ivory products that were in trade before the CITES decision was reached, subject to strict conditions. Therefore, some legal international trade of elephant ivory carvings, jewelry, and other products continues.

In addition, elephant ivory is not the only ivory in the international marketplace. There is also trade in ivory and ivory substitutes derived from sources ranging from the Common Hippopotamus *Hippopotamus amphibius*, to Mammoths *Mammuthus*, Walruses *Odobenus rosmarus*, Warthogs *Phacochoerus africanus*, Tagua Nuts *Phytelephas equatorialis*, and even Hornbills *Bucerotidae*. When the African Elephant was listed in CITES Appendix I, a particular concern emerged as to whether a market shift from elephant ivory to

hippopotamus ivory might come to threaten African hippo populations. In 1995, the Parties to CITES decided to list the Common Hippopotamus in the Convention's Appendix II, which includes species that are not rare or endangered at present but could become so if trade is not regulated.

As one of the world's largest markets for wildlife products, the USA has long played a significant role in the international ivory trade. Even after the 1989 passage of the AECA and the decision to list the African Elephant in CITES Appendix I, the USA continued to allow the legal importation of African Elephant ivory in the form of antique carvings, jewelry, worked tusks, pieces, and piano keys whose presence in trade pre-date the US legislative and CITES actions. The USA further continued to allow the importation of raw ivory in the form of sport-hunted tusks from certain African range states. The USA also remained a major destination for illegal ivory along with such legal ivory. For example, between 1996 and 2002 the USA reported nearly five times as many seizures of illegal ivory as did any other nation, primarily from the introduction of ivory curios as personal effects by US citizens returning from abroad (Milliken *et al.*, 2002). In addition to elephant ivory, the USA also imports large quantities of hippo ivory in the form of carvings, jewelry, teeth, and hunting trophies.

Between January and mid-April 2004, TRAFFIC researched and analyzed the contemporary role of the USA in the international trade of elephant and hippo ivory, focusing in particular on the international aspects of the trade. As this report describes in detail, some of TRAFFIC's major findings regarding elephant ivory include the following:

- Between 1995 and 2002, the USA imported more than 5400 shipments of worked ivory in various forms, involving more than 32 500 ivory items. The majority of these imports took the form of ivory carvings, with smaller numbers of imports of tusks, jewelry, ivory pieces, and piano keys.
- The principal source of this ivory is Europe—the UK in particular. Imports of

worked elephant ivory entering the USA are heavily concentrated among a relatively small group of import companies, galleries, antique dealers, and auction houses in New York City and elsewhere.

- The USA also continues to import raw ivory in the form of African Elephant tusks from sport hunters returning from a handful of African countries. Between 1995 and 2002, at least 1328 African Elephant trophies entered the USA legally, potentially representing the import of as many as 2656 tusks.
- The USA is also a re-exporter of worked elephant ivory, again primarily in the form of antique carvings.¹ From 1995 to 2002, the USA exported 1055 elephant ivory shipments involving close to 8600 carvings, as well as a smaller amount of ivory in the form of tusks, jewelry, and piano keys.
- The domestic trade of ivory inside the USA is not closely monitored, and its full extent is unknown. Along with ivory available from retail outlets, there is significant trade in elephant ivory conducted via the Internet, with little oversight.
- The domestic ivory trade involves both worked and raw ivory. Worked ivory readily available in the US market is most often in the form of carvings, jewelry, piano keys, and other items. Raw ivory is bought by companies and individuals for fashioning into specialized commercial items including knife handles, gun grips, and pool cues, as well as for non-commercial purposes.
- The absence of specific, strict regulation of the domestic US ivory market and carving industry have led the CITES Secretariat to indicate that the USA is not fully implementing the requirements of CITES Resolution Conf. 10.10 (Rev.

CoP12), discussed in detail below, regarding compliance with control of internal trade.

- Along with legal trade, there is evidence that the USA continues to serve as a major destination for illegal ivory. Much of this illegal activity is believed to involve US citizens, who may or may not be aware that they are breaking the law, attempting to bring in curios or souvenirs from trips abroad. However, TRAFFIC also found recurring instances of seizures involving the antique trade from Europe, as well as cases involving larger-scale smuggling of ivory for commercial purposes.
- TRAFFIC also found an active Internet trade in ivory advertised as being derived from elephant tusks via sellers based in China. TRAFFIC found that the operators of these Web-based “stores” routinely ship elephant ivory to the USA via express delivery service, and even offer to falsely label the shipments as containing “bone carving.”

Comparing the US trade in hippo ivory to that in elephant ivory, TRAFFIC found some similarities, but also many differences. Specifically:

- The USA imports significant quantities of hippo ivory, primarily in the form of carvings, but also recorded as tusks, teeth, trophies, and, to a much smaller degree, jewelry.² Although far fewer shipments of hippo ivory entered the USA between 1995 and 2002 than did shipments of elephant ivory, the cumulative amount of hippo ivory imported far exceeded that of elephant ivory. This reflects the fact that trade in hippo ivory involves primarily bulk commercial shipments, whereas the elephant ivory trade mostly involves the import of individual antique items.
- The primary African range states listed as countries of origin for hippo ivory

¹ Because the USA has no indigenous elephant population, all ivory exported from the USA to other nations can be presumed to have originally entered the USA as ivory imports. Therefore, while USFWS data record these shipments as exports, they are more appropriately termed re-exports. For the purposes of this document, all exports should be interpreted as including re-exports.

² USFWS data, as well as data reported by CITES and the United Nations Environment Programme’s World Conservation Monitoring Centre (UNEP/WCMC) all have separate categories to report imports and exports of both hippo tusks and teeth. However, TRAFFIC found that at least in the USFWS data these terms appeared to be used interchangeably. For the purposes of this report, hippo tusk and tooth imports are combined and described simply as teeth.

entering the USA are Tanzania, Uganda, South Africa, and Zimbabwe, with smaller amounts coming from a handful of other countries in Africa.

- Most of the worked hippo ivory entering the USA comes through Hong Kong, with the trade dominated by a small number of companies identified as craft shops, carving factories, and import and export firms. There is also some Internet trade directly from Hong Kong-based outlets to buyers in the USA. A secondary, less substantial route for hippo ivory entering the USA involves companies, curio shops, and individuals in African hippo range states that export directly to the US market.
- At the import end, hippo ivory entering the USA flows through a relatively small number of companies that regularly import hippo ivory carvings in bulk shipments, primarily on the East and West Coasts. TRAFFIC found in a couple of cases that these importers do retail business in the USA through Internet sites that offer a consistent stream of hippo ivory for sale to US customers.
- Unlike elephant ivory, there are very few records of hippo ivory exports from the USA to other nations, suggesting that the USA is primarily a destination market for hippo ivory products, absorbing virtually all of the ivory imported.
- Unfortunately, USFWS data on imports are recorded such that it is impossible to determine precisely how many of the shipments listed as teeth may represent raw or worked ivory, but TRAFFIC's analysis of these records showed that along with worked ivory there also appeared to be numerous cases of hippo ivory imports into the USA directly from Africa that were most likely raw teeth (in particular those shipments listed as "tusks"). TRAFFIC also found cases of raw hippo ivory being carved within the USA for commercial sale, and of raw teeth being offered for retail sale in whole form. However, the available data did not enable TRAFFIC to determine how many individual teeth, or hippos, were represented in the data.

- Illegal trade in hippo ivory appears to be less substantial than is illegal trade in elephant ivory. Whereas USFWS records showed an overall seizure rate of 21% for elephant ivory, the seizure rate for hippo ivory was four per cent. Some of these seizures involved small amounts of hippo ivory confiscated from individuals entering the USA; however, most seizures involved commercial shipments of carved ivory from Hong Kong and elsewhere.

Recommendations

- USFWS, in cooperation with state wildlife authorities, should undertake an initiative to determine the nature and scope of the US domestic ivory carving industry. Although TRAFFIC found no evidence of a significant domestic carving industry, the scattered examples discovered in the research for this report indicate that there continue to be companies and individuals carving raw ivory for commercial purposes within the USA. This raises obvious questions about the source of the tusks, the volume of the trade, and whether the activity is being carried out in compliance with relevant federal and state laws and regulations. Even if this aspect of the US ivory market is very limited as is likely, understanding its extent and dynamics would assist not only in efforts to monitor and regulate the US trade in raw ivory, but would also enhance US compliance with the provisions of CITES Resolution Conf. 10.10 (Rev. CoP12).
- Funding for the USFWS wildlife inspection program and related activities by US Customs and Border Protection needs to increase. USFWS has noted that the USA's focus on monitoring and policing the ivory trade concentrates on federal efforts at the border. Furthermore, to the extent that continuing illegal trade in ivory is driven by tourists who are knowingly or unknowingly breaking the law by trying to import elephant ivory souvenirs or curios into the USA, the most effective line of defense remains border inspections. Although the USA has perhaps the most effective law enforcement system in place today to

handle this problem, the fact that in recent years USFWS has not had a full complement of trained wildlife inspectors may be undercutting this vital element of the US response to illegal ivory trade.

- Enhanced funding is also needed to expand special operations and undercover investigations to identify and eliminate markets for illegal ivory within the USA and abroad. Although infrequent, the continuing phenomenon of cases of ivory being smuggled into the USA in commercial quantities suggests the continuing presence of an underground market. The presence of operations in nations such as China sending a steady stream of elephant ivory into the USA via Internet sales would also suggest the need to enhance cooperative international investigations to address the illegal trade in source nations as well as within the USA.
- At the same time, USFWS, nongovernmental organizations, and others should work with companies such as eBay to better police the sale of elephant ivory across international boundaries via the Internet. Eliminating the ready access to Internet “stores” such as those doing business from China would help to enhance overall US enforcement of its CITES obligations. If effective means cannot be found to ensure that such trade is carried out in compliance with CITES and domestic US wildlife laws, major sites such as eBay should consider prohibiting international ivory sales through their services.
- Public agencies such as USFWS should increase efforts to heighten awareness among consumers (tourists, etc.) and potential vendors (Internet sites, antique dealers, auction houses, retail operators, etc.) within the USA and abroad about what is legal and illegal with regard to trade in ivory. Nongovernmental organizations (NGOs) can assist these efforts by disseminating information through membership and public information bulletins or other media, publishing accurate and impartial updates on ivory trade issues, and conducting education and public awareness programs to inform the public about the ongoing problem of illegal ivory trade.
- To help accomplish this, the USA should consider the feasibility and efficacy of increasing the penalties for those caught bringing illegal ivory or other illicit wildlife products into the country, and then placing those funds into a dedicated account to enhance public awareness regarding illegal wildlife trade. Under such a scenario, those caught illegally importing wildlife or wildlife products would not only face substantially increased monetary penalties for each item seized as a deterrent, but the proceeds from those violations would go directly to financing programs to better educate US tourists and others about the illegal wildlife trade. USFWS and others should study whether such an approach might generate sufficient resources to have a tangible effect on public education and enforcement efforts.
- The USA should consult with nations identified as major sources of ivory entering the country about ways to better coordinate and standardize rules regarding ongoing legal trade in ivory. For example, while the USA considers “antique” ivory to be ivory that is at least 100 years old, the European Union (EU) sets the standard for antique ivory at 50 years. Such differing definitions and rules have created potential confusion and conflict regarding what ivory is allowed in the marketplace. To the extent that legal international trade in elephant ivory is to be allowed to continue, the international community should work to create a single set of standards.
- Finally, USFWS should improve the way that it records imports and exports of both elephant and hippo ivory into and out of the USA. Specifically, LEMIS data available for this report did not enable TRAFFIC to determine the precise number of elephant tusks entering the country annually as trophies, which is an important measure because such trophies represent the only raw elephant ivory entering the US legally at present. Some elephant trophy shipments were reported

as a single unit, while other records showed a single shipment of multiple “trophies.” USFWS should change the way it records such shipments to specify the number of raw or unprocessed elephant tusks being imported. USFWS should make the same distinction regarding the number of hippo teeth being imported in trophy shipments. Also regarding the hippo ivory trade,

TRAFFIC could not always distinguish whether imports of “teeth” represented raw or worked ivory, making it impossible to calculate the amount of raw hippo ivory entering the USA on an annual basis. USFWS should clarify its method of recording hippo tooth imports to clearly distinguish between raw and worked ivory.

BACKGROUND: THE LEGAL FRAMEWORK FOR TRADE IN IVORY

International trade in ivory derived from both elephants and hippos is regulated by international treaty, as well as by the domestic laws of importing and exporting nations. In the case of the USA, the conditions under which trade in ivory from these species is or is not allowed are dictated by the nation's obligations as a signatory to CITES, and also by the requirements of US wildlife laws, particularly those used to implement the Convention.

CITES requirements and several domestic laws enacted by the USA severely restrict international trade in elephant ivory, and also impose conditions on the legal trade in hippo ivory. However, a series of special rules and exceptions promulgated by USFWS in accordance with US laws have allowed for the continuation of trade in worked ivory from both African and Asian Elephants into, out of, and within the USA under certain conditions. To understand the terms under which the USA continues to participate in the international trade in ivory, and particularly elephant ivory, the following provides some basic background on CITES, relevant US domestic laws, and specific implementing regulations that pertain to ivory.

CITES

CITES, which entered into force in 1975, was developed to safeguard species vulnerable to over-exploitation through international trade. As of June 2004, 166 nations (known as "Parties") had acceded to the Convention (CITES, 2004a).

CITES established a worldwide system of controls on international trade in threatened and endangered wildlife and wildlife products. At present, some 5000 species of animals and 28 000 species of plants are covered by the Convention. Protection for species is provided under the Convention's three Appendices, which describe the status of the species and determine what species may enter international commercial trade. The most endangered species are listed in Appendix I, which includes all species threatened with extinction that are or may be affected by trade.



Confiscated ivory and muzzle-loaders on display in front of the Luangwa Wildlife Office near South Luangwa National Park, Zambia.

© WWF-Canon/Meg GAWLER

According to the Convention, commercial trade is not permitted for these species, and other trade for purposes such as scientific research is strictly controlled through import and export permits. Appendix II species are those that are not rare or endangered at present but could become so if trade is not regulated; international trade in such species requires the issuance of a CITES export permit by the exporting country. Appendix III species are not endangered but are subject to regulation within the listing nation for the purposes of preventing or restricting exploitation, and, as requested, promoting the cooperation of other parties in the control of trade (CITES, 2003a).

The Asian Elephant *Elephas maximus*, African Elephant *Loxodonta africana*, and Common Hippopotamus *Hippopotamus amphibius* came to be listed under CITES in different years and under different circumstances. Steep declines in elephant populations in the 1970s, particularly in East Asia, led to the Asian Elephant's listing in Appendix I in 1976. The African Elephant was listed in Appendix II at the same time (CITES, 2003b). The primary concern that prompted this initial listing was the threat posed to elephant populations by the worldwide demand for ivory. Continuing declines of African Elephant populations through the 1980s, during which the overall

numbers of the species were believed to have been reduced by as much as 50%, led the CITES Parties to transfer the African Elephant to Appendix I in 1989 (O'Connell-Rodwell and Parry-Jones, 2002).

The Common Hippopotamus was listed in CITES Appendix II in 1995; prior to that this species had been listed in Appendix III for Ghana since 1975. Although the hippo was not immediately threatened with extinction, several factors suggested that it could become so unless action was taken. Among these factors were increased subsistence hunting for meat, a possible increase in the demand for hippo tooth ivory because of the shifting dynamics of the elephant ivory trade, and the fact that the sedentary nature of the species makes the hippo particularly vulnerable to large-scale poaching, especially with automatic weapons. CITES and Customs data also appeared to show an increase in international trade in hippo ivory after the ban on international trade in elephant ivory took effect in 1990. This development raised concerns that the trade could pose a serious threat to hippo populations, justifying the species' inclusion in Appendix II (TRAFFIC and IUCN/SSC [World Conservation Union's Species Survival Commission], 1994).

With these decisions, by 1995 the CITES Parties had conferred the strongest trade restrictions available under CITES to both Asian and African Elephants, while providing wild hippo populations with a lesser but still important degree of trade regulation. Unfortunately, the variance in timing between the CITES listings for the African Elephant and the Common Hippopotamus precluded an attempt to directly compare the US market for ivory derived from African and Asian elephants to that for hippo ivory during the intervening years. Although gross reported exports of hippo teeth from African range states increased overall from 1991 to 1996, and peaked in 1994 at approximately 25 mt, the USA did not begin to keep detailed track of imports of hippo ivory until 1995 (CITES, 1999). Therefore, while the USA may have been a major destination for ivory derived from hippo teeth in the years between the listing of the African Elephant in 1989 and the Common Hippopotamus several years later, data are not available to show whether hippo ivory imports to the US market

increased significantly following the African Elephant's listing.

Furthermore, beginning in 1997 the CITES Parties began to modify trade restrictions pertaining to ivory and other products from some African Elephant populations, while also taking other actions regarding trade in elephant ivory that relate directly or indirectly to the USA.

First, at the Tenth Conference of the Parties to CITES (CoP10), held in Harare, Zimbabwe in June 1997, the Parties began to downlist the African Elephant populations of selected range states from Appendix I to Appendix II. Initially, the Parties downlisted the populations of Botswana, Namibia, and Zimbabwe, specifically authorizing the export of hunting trophies for non-commercial purposes, and also allowing specific quantities of raw ivory to be exported to Japan on a one-time basis beginning in 1999. The initial ivory quotas under this change were 25.3 mt for Botswana, 13.8 mt for Namibia, and 20 mt for Zimbabwe (UNEP/WCMC, 2004a).

In 2000, South Africa's elephant population was similarly downlisted, although with a zero quota for commercial exports of ivory. In 2003, Botswana, Namibia, and South Africa further received tentative permission to trade certain ivory from registered government-owned stocks (excluding seized ivory and ivory of unknown origin). If certain conditions were met, this ivory could be exported no sooner than in May 2004 to trading partners that had been verified by the CITES Secretariat to have sufficient national legislation and domestic trade controls to ensure that the imported ivory would not be re-exported and would be managed in accordance with the requirements of CITES Resolution Conf. 10.10 (Rev.), which is described below. Under this program, Botswana, Namibia, and South Africa received one-time ivory quotas of 20, 10, and 30 mt, respectively, to be dispatched in single shipments from each country under the supervision of the CITES Secretariat (UNEP/WCMC, 2004a).

Second, at CoP10 the Parties also adopted the aforementioned Resolution Conf. 10.10 (Rev. at the Twelfth meeting of the Conference of the Parties to CITES [CoP12]), which included a section regarding compliance with control of

internal trade. The resolution directed the CITES Secretariat to identify those Parties with an ivory carving industry and internal ivory trade whose domestic measures did not provide them with the authority to (1) register or license all importers, manufacturers, wholesalers and retailers dealing in raw, semi-worked or worked ivory products; (2) assert compulsory trade controls over raw ivory; and (3) establish a comprehensive and demonstrably effective reporting and enforcement system for worked ivory. The resolution further directed the Secretariat to seek information from each Party indicating the procedures, action and time frames needed to establish such measures. Finally, the resolution called for the Secretariat to report its findings, recommendations or progress to the CITES Standing Committee, which would consider appropriate measures, including restrictions on the commercial trade in specimens of CITES-listed species to or from such Parties (CITES, 2004b).

Third, at CITES CoP12, held in Santiago, Chile in November 2002, the Parties adopted another measure, CITES Decision 12.39. The decision called on the Secretariat to assess whether countries with active internal ivory markets (defined as Cameroon, China, the Democratic Republic of the Congo, Djibouti, Ethiopia, Japan, Nigeria, Thailand, Uganda, and the USA) have established the comprehensive internal legislative, regulatory and enforcement measures regarding compliance with control of internal trade that were specified in Resolution Conf. 10.10 (Rev. CoP12). The decision further stated that where such assessments demonstrate that a Party does not have adequate measures, the Secretariat shall seek an action plan outlining the Party's plan to adopt measures enabling it to adequately regulate trade in ivory. The purpose of such plans is for the Party in question to establish and commit to a timeframe for developing, approving, enacting, and implementing such measures (CITES, 2004c).

In response, USFWS provided a summary of the legislative, regulatory, and enforcement measures currently in place in the USA that would satisfy the CITES Resolution Conf. 10.10 (Rev.) and Decision 12.39. The following outlines the legal framework in place in the USA in relation to the international and domestic trade in ivory.

US Federal Laws

The USA relies primarily on three federal laws to regulate the import, export, and domestic sale of ivory—the Endangered Species Act (ESA), the Lacey Act, and the African Elephant Conservation Act (AECA).

The Endangered Species Act

Enacted in 1973, the ESA established the legal basis for the USA to protect and conserve species in danger of extinction, and the ecosystems upon which such species depend. Under the ESA, species may be listed as either endangered or threatened. According to the law, endangered species are those that are in danger of extinction throughout all or a portion of their range. Threatened species are defined as those that are likely to become endangered within the foreseeable future if measures are not taken to ensure their conservation (USFWS, 2002).

The ESA relates to the ivory trade in three ways. First, both the Asian and African Elephants are listed under the Act, and therefore are directly subject to its provisions. The Asian Elephant was listed as endangered in 1976; the African Elephant was listed as threatened in 1978. Under the ESA, it is illegal for any person subject to US jurisdiction to import, export, deliver, receive, carry, transport, ship, sell, or offer for sale in interstate commerce and in the course of a commercial activity, any species of plant or animal that has been listed as threatened or endangered pursuant to the Act (Hoover and Tarr, 1997). As is discussed below under implementing regulations, USFWS promulgated a Special Rule under the threatened listing for the African Elephant allowing for the trade of sport-hunted tusks and antique ivory, provided certain conditions are met.

Second, the ESA also serves as the US domestic enabling legislation for implementation of the provisions of CITES. The ESA makes it unlawful to engage in trade contrary to CITES, or to possess any specimen that was “traded contrary to the provisions of the Convention” (Hoover and Tarr, 1997). Consequently, because the Asian Elephant, African Elephant, and Common Hippopotamus are all CITES-listed species, trade in ivory from any of these species must

be conducted within the parameters of CITES to be legal under the ESA, even though the hippo is not currently listed under the Act as threatened or endangered.

Furthermore, the ESA makes it illegal for any person to engage in business as an importer or exporter of fish, wildlife, or plants unless that person first obtains permission from the Secretary of the Interior. USFWS has used this provision to establish a license requirement for wildlife importers and exporters. The Act specifies that any person required to obtain permission to do business shall keep adequate records of the animals and plants imported or exported, and their subsequent disposition; allow USFWS to examine those records and his or her inventory; and file any report required by the Secretary. The Act also makes it illegal for any importer or exporter to fail to file any declaration or report deemed necessary by the Secretary to facilitate the Act's enforcement or meet the obligations of CITES (Hoover and Tarr, 1997).

Another section of the ESA makes it illegal (with certain exceptions) to import or export any fish, wildlife, or plants at ports of entry other than those designated for wildlife shipments by the Secretary of the Interior. USFWS has identified 50 US ports of entry where wildlife imports and exports may be processed. These include 15 designated ports (through which the majority of all shipments pass), 30 border ports, and five special ports (USFWS, 2004a).

The Lacey Act

Originally enacted by Congress in 1900, the Lacey Act prohibits the import, export, transport, acquisition, receipt, sale, or purchase in interstate or foreign commerce of any fish or wildlife taken, possessed, transported, or sold in violation of any wildlife law or regulation of any state, or in violation of any foreign wildlife law. It also prohibits the import, export, transport, sale, receipt, acquisition or purchase of fish, wildlife, or plants taken, possessed, or sold in violation of any wildlife law, treaty, or regulation of the USA, or in violation of any Indian tribal law. Further, the Act prohibits attempts to commit any of these acts (Hoover and Tarr, 1997).

In addition, the Lacey Act prohibits the actual or attempted falsification of information, records, or accounts regarding species that have been imported, exported, transported, sold, purchased, or received in interstate or foreign commerce. The Act makes it illegal to import, export, or transport in interstate commerce, any container or package containing fish or wildlife unless it has "previously been plainly marked, labeled, or tagged" in accordance with USFWS marking regulations, and authorizes USFWS to detain any package or container (and accompanying papers) being imported into or exported from the USA (Hoover and Tarr, 1997).

The African Elephant Conservation Act

The AECA was enacted by Congress in 1988, in recognition of the particular threat posed to wild elephant populations in Africa because of poaching for the ivory trade. The Act makes it illegal to import raw ivory from any country other than an ivory producing country, or export any raw African Elephant ivory from the USA. It further makes it unlawful to import raw or worked ivory that was exported in violation of an ivory-producing country's laws. It is unlawful to import worked ivory, other than personal effects, unless the exporting or re-exporting country has certified that the ivory was from legal sources.

The AECA also makes it illegal to import raw or worked ivory from a country for which a moratorium is in effect. There are three such moratoria. A moratorium on the import of African Elephant ivory from non-CITES Parties was established on December 27, 1988. A moratorium on the import of African elephant ivory from Somalia was established February 24, 1989. And a moratorium (excluding sport-hunting trophies) on the import of all African raw or worked ivory from all ivory-producing nations was established on June 9, 1989 (USFWS, 1989).

The Criminal Code

In addition to these laws relating specifically to wildlife, federal prosecutors routinely use several provisions of the Criminal Code (Title 18, US Code), to prosecute CITES violations. The provisions of Title 18 most often used to prosecute violations of CITES, in addition to

penalties for violations of the wildlife laws themselves, include the following:

- “Document” smuggling, which makes it illegal to import or otherwise enter merchandise into the USA by means of false or fraudulent declarations or documents, or by means of any false oral or written statement;
- Clandestine smuggling, under which it is illegal to knowingly and willfully import or clandestinely introduce into the USA any merchandise contrary to law (it is also illegal to buy, sell, receive, conceal, or facilitate the transportation of merchandise that has illegally entered the USA);
- False statements, which makes it illegal to knowingly and willfully falsify a material fact, or make a false or fraudulent statement or entry (this section is often filed in conjunction with document-smuggling charges); and,
- Conspiracy, which occurs when two or more persons conspire to commit any offense against the USA, or to defraud the USA, and one of the conspirators commits any act to implement the conspiracy (Hoover and Tarr, 1997).

Implementing Regulations

This combination of federal laws severely restricts most trade in elephant ivory, and also regulates the US trade in hippo ivory. However, along with sport-hunted trophies, the USA allows the import of commercial and non-commercial antique elephant ivory, non-commercial pre-Convention ivory, and personal and household effects. Special rules established by USFWS pursuant to their statutory mandates govern the legality of such imports. In addition, rules differ on whether imported ivory can be legally resold after it has entered the USA. The basic rules governing the import, export, and sale of different forms of elephant ivory are as follows.

Raw Ivory

As a general rule, it is illegal to import raw African Elephant ivory into the USA with the exception of personal sport-hunted trophies. Even with trophies, rules differ on the need for import permits. Sport-hunted trophies

taken in four African countries—Botswana, Namibia, South Africa, and Zimbabwe—are exempt from import permit requirements. As noted above, elephant populations in these countries are listed in CITES Appendix II to allow for trade in certain products, one of which is the non-commercial export of personal sport-hunted trophies. Under a Special Rule promulgated as part of the African Elephant’s listing under the ESA, USFWS must ensure that each country has an ivory quota for the year of export and determine that the import of a sport-hunted trophy will enhance the survival of the species (50 Code of Federal Regulations [CFR] Ch. 1, §17.40). These findings have been made for the four countries in question, and will remain in effect unless new information reveals that the conditions of the Special Rule are no longer met. In addition, although all parts of a sport-hunted African Elephant may be imported, the ivory may not be re-exported from the USA (USFWS, 2003a).

The USA requires an import permit for sport-hunted trophies from all other African nations. Before issuing such a permit, USFWS looks at the overall management program for the species in each country. Factors considered may include the biological needs of the species, possible threats to the population, current population estimates, quotas, management plans, local community involvement, and the use of hunting fees for conservation. The process of making such a determination can be lengthy; however, less time is generally needed to process applications from countries for which USFWS has recent information indicating that management plans meet US CITES obligations. As of the summer of 2003, the only country to which the latter applies regarding African Elephants is Tanzania (USFWS, 2003a).

Finally, USFWS has established a marking requirement for trophies as part of the Special Rule under which the African Elephant was listed as a threatened species under the ESA. Under this part of the rule, to be legally imported the trophy must be legibly marked by means of punch-dies, under a marking and registration system established by the country of origin. The marking must include information on the country or origin, followed by the

registration number assigned to the last two digits of the year of registration and the weight of the ivory to the nearest kilogram. The mark must be placed on the lip mark area (defined as the area where the tusk emerges from the skull and is usually denoted by a ring of staining) and indicated by a flash of color that serves as a background (50 CFR Ch. 1, §17.40).

Antique African Elephant Ivory

The USA also allows the import, export, and sale of antique African Elephant ivory, subject to certain restrictions. An ivory item can be imported or exported for commercial or noncommercial purposes if it meets USFWS criteria as a “bona fide” antique. To make such a determination, USFWS requires documentation showing that the item is at least 100 years old and has not been repaired or modified with any new ivory since the effective date of the ESA (December 28, 1973). USFWS also requires a Pre-Convention Certificate from the CITES Management Authority of the exporting country (USFWS, 1999).

Rules governing the purely noncommercial import of African Elephant ivory have slightly more latitude. Worked ivory for non-commercial purposes may be imported if it is accompanied by a CITES Pre-Convention Certificate from the exporting country showing that the ivory was acquired before February 4, 1977. Worked ivory acquired and/or possessed by US residents for noncommercial purposes and exported from the USA with documentation from USFWS can also be re-imported as personal effects or household goods. For non-US residents, worked ivory can be imported as personal effects or household goods provided that the ivory was legally acquired in the country of usual residence and legally exported from that country (USFWS, 1999).

Antique Asian Elephant Ivory

Rules on the import, export, and sale of antique Asian Elephant ivory differ only slightly from those covering African Elephants. As with ivory from the African Elephant, special provisions in the ESA allow Asian Elephant ivory to be imported into, exported from, and sold within the USA under certain

limited circumstances. Requirements for legal sale include a determination that the ivory is a bona fide antique, and that the sale of ivory is allowed within the relevant US state of residence. Under these rules, an Asian Elephant ivory article can be imported or exported for commercial or noncommercial purposes if it is accompanied by documentation that shows the article is at least 100 years old; has not been repaired or modified with any new ivory since December 28, 1973 (the effective date of the ESA); and is also accompanied by a CITES Pre-Convention Certificate from the Management Authority of the exporting country (USFWS, 2003b).

By their listing as endangered under the ESA, Asian Elephants and their parts or products also cannot be sold across state lines or overseas, or imported or exported, unless the requirements of that law are met. Under the ESA, worked or raw pre-Act Asian Elephant ivory must meet several criteria. First, it must have been acquired or removed from the wild prior to June 14, 1976, the listing date of the Asian Elephant under the ESA. Second, it may not have been held in the course of a commercial activity (i.e., bought, bartered, offered for sale, or leased) since that time. Third, it must be accompanied by a pre-Act affidavit as outlined in the relevant regulations detailed in the US Code of Federal Regulations (50 CFR 17.4). And fourth, it must be imported or exported for noncommercial purposes and accompanied by a CITES Pre-Convention Certificate showing it was acquired before July 1, 1975 (USFWS, 2003b).

Furthermore, pre-Act Asian Elephant ivory can be sold only to others residing in the same state, and once the ivory has entered commerce, it loses its pre-Act status. If the ivory does not qualify as antique or pre-Act, a person may apply for a permit for scientific research, or for enhancement of propagation or survival of the species for the following activities. For import and export, CITES import and export permits are required in addition to ESA permits. CITES permits are issued when the export or the purpose of the import will not be detrimental to species survival, the specimens have been legally acquired, and the import is not for primarily commercial purposes. In addition, Asian Elephant ivory in interstate or foreign

commerce may be advertised for sale only provided that the advertisement contains a statement that the item may not be sold until an ESA permit has been obtained from USFWS. The ESA does not restrict the sale of ivory to another resident of the same US state; however, as is noted below there may be state requirements (USFWS, 2003b).

General Requirements

In addition to satisfying these basic requirements for both Asian and African Elephant ivory, anyone engaging in business as an importer or exporter of ivory must obtain an Import/Export License pursuant to the ESA. Ivory shipments must enter or leave the USA through a port designated for wildlife shipments or a non-designated port if there is a valid Exception to Designated Port Permit. If the item is a bona fide antique, it may be shipped through a Customs Service port designated for the import/export of antiques. All shipments must be marked on the outside of the container with the names and addresses of the exporter and importer, as well as an accurate identification of the species and number of items in the container. The following documents must be provided at the port: CITES permits or certificates; antique or pre-Act documentation, as appropriate; a Wildlife Declaration Form; and copies of the airway bill, or bill of lading and invoice (USFWS, 1999 and 2003b).

US State Laws

A number of US states have enacted laws that, along with these federal statutes, support federal endangered species and wildlife trade laws. Some of these state laws include provisions specific to the import or sale of elephant ivory. For example, California law prohibits the import of elephant ivory into the state for commercial purposes, to possess such ivory with intent to sell, or to sell it within the state. Connecticut law provides the state with the authority to regulate trade in raw elephant ivory or products if the trade in Connecticut is determined to contribute to the extinction or endangerment of elephants (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003).

In addition, 22 states (Connecticut, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Nebraska, New Hampshire, New York, North Carolina, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Vermont, and Virginia) either incorporate federally-listed threatened species into the state list or have specific provisions or permit requirements regarding threatened species or federally regulated wildlife (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). Therefore, along with federal restrictions and conditions, the import, export, sale, or purchase of ivory within the USA may be prohibited or subject to the permitting requirements of these individual states.

METHODS

TRAFFIC conducted primary research for this report between January and March 2004, with some follow-up information collected as late as September 2004. Data were collected primarily through published and unpublished reports, import and export data provided by USFWS, CITES trade records and documents, records and documents obtained through the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP/WCMC), and a review of relevant US federal and state laws and regulations pertaining to the international and domestic trade of both elephant and hippo ivory. TRAFFIC collected some further information through press releases, media outlets, and personal communications. Through these sources, TRAFFIC attempted to identify the volume, trade routes, major importers and exporters, and destination markets for ivory entering the USA, both legally and illegally.

TRAFFIC also made extensive use of the Internet, primarily to examine how this relatively recent phenomenon has emerged as a major vehicle through which elephant and

hippo ivory is imported into and then sold or distributed within the USA. TRAFFIC's Internet research encompassed two major elements. The first involved a regular weekly survey of elephant and hippo ivory available for sale from both domestic and foreign sources through eBay—<http://www.ebay.com>—the world's largest online auction site. TRAFFIC chose to examine eBay in particular because of the dominant position that the site plays in the Internet auction business, both domestically and internationally.

The second involved a specific investigation of several China-based sellers using eBay that TRAFFIC found to be routinely shipping carvings, jewelry, and other items identified as derived from elephant tusk ivory to customers in the USA in apparent contravention of CITES and US wildlife trade laws. The specific methods employed by TRAFFIC are detailed in the body of the report below. Finally, TRAFFIC reviewed other Web sites that are advertising and selling raw and worked ivory, from elephants and hippos, both via the Internet and at retail locations.

THE US ELEPHANT IVORY MARKET

With the aforementioned basic background on the legal framework for the ivory trade in mind, TRAFFIC examined the current status of the US trade in elephant ivory. As is detailed below, the USA remains an importer of both raw and worked elephant ivory, with the majority of the trade consisting of carved ivory items. The USA also continues to export worked elephant ivory in various forms. TRAFFIC found that while the legal international trade shows some clear patterns, less is known about the dynamics of the domestic trade in ivory once it enters the USA. Such trade is only loosely regulated or monitored. TRAFFIC also found that illegal trade in elephant ivory continues to be a problem, although the full extent of such trade remains unknown.

Cumulative Trade

Between 1995 and 2002, data provided through the USFWS Law Enforcement Management Information System (LEMIS) showed some 7908 records of legal imports, exports or re-exports of elephant ivory into and out of the USA, as well as 1440 records of shipments that were refused, with the items in question either seized, abandoned, or re-exported. These overall shipments included both raw and worked elephant ivory in various forms, including carved ivory items, trophies, tusks, pieces of ivory, and piano keys. Table 1 shows the total number of shipments of elephant ivory during this period by type of item, including legal (cleared) and illegal (refused) ivory, and shipments for both commercial and non-commercial purposes.

LEMIS data showed an additional 205 records (145 cleared imports, 16 refused imports, and 44 cleared exports) for which the type of elephant product was not specified in the database. TRAFFIC's analysis of these records suggested that some may have contained ivory, based on factors such as valuation, origin, importer/exporter, and others that were similar to identified ivory shipments. However, because TRAFFIC could not make a positive determination that the shipments were in fact elephant ivory, those records are not included in the totals provided below. It should be noted that their absence means that the figures herein may not represent a truly comprehensive estimate of the amount of elephant ivory reported as legally entering and leaving the USA between 1995 and 2002 (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Ivory Imports

TRAFFIC analyzed the available LEMIS data to determine how many ivory items were represented in the records of cleared shipments shown in Table 1, which species were involved, and what patterns were evident in the trade. As is shown in Table 2, this analysis showed that the legal trade in elephant ivory cumulatively accounted for the importation of a minimum of 33 864 ivory items in the form of carvings, trophies, tusks, jewelry, ivory pieces, and piano keys between 1995 and 2002 (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Table 1: Elephant Ivory Imported/Exported/Re-exported by the USA by Shipment, 1995–2002

Commodity	Import Shipments Cleared	Import Shipments Refused	Export/Re-export Shipments Cleared	Export/Re-export Shipments Refused
Carved Ivory	4874	730	1055	3
Trophies	1328	10	10	0
Tusks	180	134	6	1
Ivory Pieces	128	32	40	0
Ivory Jewelry	71	520	10	1
Piano Keys	166	9	40	0
Total	6747	1435	1161	5

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

TRAFFIC attempted to determine how much this trade in elephant ivory involved African as opposed to Asian Elephants. LEMIS records identify imports of ivory by species (African or Asian) where that information has been determined. In cases where the specific species is not identified, LEMIS classifies the import simply as “Elephantidae.” By separating these three categories of information, TRAFFIC’s analysis found that according to the available import data, the preponderance of the trade is in African Elephant ivory—with the second largest amount unspecified. Table 3 shows the cumulative breakdown of ivory imports into the USA by item and species between 1995 and 2002.

TRAFFIC’s analysis also showed different sources, trade routes, and principal players for the various commodities listed in the tables above. By commodity, the primary patterns of trade appeared to be as follows.

Ivory Carvings

During the period 1995 to 2002, the USA cleared 4874 shipments identified as ivory carvings, from at least 51 countries. TRAFFIC’s review of LEMIS import data, other information supplied by USFWS, and the findings of other studies (HSUS, 2002; IFAW, 2004) all indicate that most of this trade involves countries in Europe, and the UK in particular. For example, USFWS noted that in 2002, 88% of the ivory carvings imported into

Table 2: Elephant Ivory Imported by the USA by Piece, 1995–2002 (no. of items)

Item	1995	1996	1997	1998	1999	2000	2001	2002	Total
Carved Ivory	1373 ⁺	2588 ⁺	2523	2926	2526	3325	3015	1800	20 076 ⁺
Trophies	99	125	121	144	191	223	231	194	1328
Tusks	78	18	12	57	61	59	54 ⁺⁺	44	383 ⁺⁺
Ivory Pieces	0	0	0	345	274	1025 ⁺⁺⁺	101 ⁺⁺⁺	53	1798
Ivory Jewelry	13	40	46 ⁺⁺⁺	31	21	31	68	6	256
Piano Keys	54	367	1107	2952	1600	2967	436	540	10 023
Total	1617	3138	3809	6455	4673	7630	3905	2637	33 864

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ Minimum figure—does not include shipments involving 84.532 kg of ivory carvings imported in 1995 and 1996 because the number of carvings these shipments represent could not be determined.

++ Zimbabwe also exported one shipment identified as two kilograms of tusks to the USA in 2001.

+++ Total for 2000 does not include a shipment of 18 kg from Canada. Total for 2001 does not include a shipment of 10 grams.

++++ Total does not include a shipment of 25 kg from France.

Table 3: Imports of Elephant Ivory into the USA by Species, 1995–2002 (no. of items)

Commodity	African Elephant	Asian Elephant	Unspecified
Carved Ivory	15 136 +86kg	2682	2239 +532 gm
Trophies	1327	1	0
Tusks	368	8	7
Ivory Pieces	1559 + 10 gm	8	229 + 18 kg
Ivory Jewelry	190	34	32 +25 kg
Piano Keys	7240	54	2728
Total	25 820 + 86.010 kg	2787	5235 +43.532 kg

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004

the USA legally came from European countries (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). That pattern showed itself consistently in the

data in every year reviewed for this report. Table 4 shows the country of export for carved ivory shipments (combined African Elephant, Asian Elephant, and unspecified) entering the USA from 1995 to 2002.

Table 4: Country of Export for Shipments of Carved Elephant Ivory Legally Imported into the USA, 1995–2002 (no. of shipments)

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Europe									
UK	178	282	313	427	647	669	785	583	3884
France	6	12	22	32	23	40	30	27	192
Germany	3	15	37	4	5	31	28	25	148
Netherlands	2	4	5	0	3	9	49	3	75
Switzerland	1	7	5	5	12	15	3	6	54
Belgium	2	1	17	5	8	8	2	3	46
Italy	2	1	2	1	5	7	5	0	23
Russia	0	1	2	3	2	5	0	1	14
Spain	0	0	0	0	0	2	2	5	9
Austria	1	1	2	0	1	0	0	1	6
Sweden	0	0	0	0	0	1	0	2	3
Subtotal:	195	324	405	477	706	787	904	656	4454
Asia									
Japan	4	13	12	8	5	19	6	7	74
Hong Kong	1	2	4	1	1	0	3	2	14
Taiwan	1	5	0	0	0	2	0	0	8
China	0	0	3	0	1	1	0	0	5
India	1	0	0	1	0	0	0	0	2
Sri Lanka	0	0	0	0	1	0	0	0	1
Subtotal:	7	20	19	10	8	22	9	9	104
Africa									
Guinea Biss.	0	0	0	0	0	11	0	0	11
South Africa	1	1	0	0	0	3	1	0	6
Burkina Faso	0	0	0	3	0	0	0	0	3
Kenya	2	0	1	0	0	0	0	0	3
Egypt	0	0	0	0	0	0	0	1	1
Guinea	0	0	0	0	0	0	0	1	1
Congo	0	0	0	0	0	0	0	1	1
Nigeria	0	0	0	0	1	0	0	0	1
Sierra Leone	1	0	0	0	0	0	0	0	1
Zambia	0	0	0	0	0	1	0	0	1
Zimbabwe	0	0	0	0	0	1	0	0	1
Subtotal:	4	1	1	3	1	16	1	3	30
N. America									
Canada	32	35	30	30	5	11	6	8	157
Mexico	1	0	1	1	0	1	0	0	4
Subtotal:	33	35	31	31	5	12	6	8	161
Oceania									
Australia	1	3	3	2	3	0	10	8	30
New Zealand	0	0	0	0	0	2	4	1	7
Subtotal:	1	3	3	1	3	2	14	9	37
Others**	2	8	9	3	1	12	14	2	51
Unspecified	0	21	0	5	3	4	4	0	37
Total	242	412	468	531	727	855	952	687	4874

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

** Other countries with recorded exports to the USA include Argentina, Colombia, Denmark, Finland, Greece, Grenada, Israel, Lebanon, Liberia, Mauritius, Monaco, Palau, Peru, Portugal, Serbia, United Arab Emirates, Uruguay, and the Vatican.

TRAFFIC further found that, along with the heavy concentration of imports coming from the UK and other European countries clearly shown in Table 4, the import trade in ivory carvings is dominated by a small number of commercial art importers, antique dealers, and auction houses. For example, of the 583 imports of carved ivory imported from the UK in 2002, 167 (29%) were imported by just two New York-based operations, which also imported shipments from Germany and Switzerland in the same year. If a handful of other entities identified in LEMIS records as antique dealers, commercial galleries, and major auction houses are included in the analysis, roughly half of the imports came through fewer than 10 companies or dealers. This pattern suggests that, despite restrictions placed on the ivory trade by CITES requirements and US domestic legislation, there continues to be an active commercial trade in ivory certified by USFWS to be antique, and that trade is dominated by a relatively small number of players. A smaller proportion of the trade appeared to involve other small-scale commercial importers, individuals importing carved ivory for likely non-commercial purposes, and some trade among museums and cultural institutions (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Attempting to determine the value of the trade in elephant ivory carvings proved difficult. The value of individual shipments of carvings for different purposes varied so widely in the data that there was no useful way to determine an average value for the commodity. For example, LEMIS records indicated that the most valuable pieces were often those being exchanged by museums and therefore non-commercial in nature. Some individual pieces in the LEMIS records were valued at upwards of USD1 million; however, because such pieces frequently represented items being transferred between museums or cultural institutions, it appeared likely that they were intended for public display or research purposes rather than commercial sale. At the same time, individual shipments identified in the data as imports for commercial purposes varied from the hundreds to the tens-of-thousands of dollars, making it difficult to portray accurately an average value. In

addition, some shipments represented just one ivory carving, while others included multiple carvings, without specifying the individual value of each piece. It therefore did not prove useful to assign an overall or average value to the trade (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Trophies

The second category of legal elephant ivory trade into the USA involves imports identified as sport-hunted trophies. As was noted in the previous section, such African Elephant trophies represent the only legal source of raw or unprocessed elephant ivory allowed into the USA under current rules (USFWS, 1999).

Unfortunately, LEMIS data do not allow for a precise determination of the number of elephant tusks being imported under the trophy category. In some cases, LEMIS records list the importation of a single “trophy,” without specifying whether that trophy might represent one tusk or two. In other cases, LEMIS records the importation of multiple items in the same “trophy” shipment. For example, a 2001 record showed an individual simultaneously importing two shipments identified as “trophy” but consisting of a combined 31 items from a taxidermy business in Zimbabwe (TRAFFIC analysis of USFWS LEMIS data, March 2004). Because it proved impossible given the nature of such records to isolate exactly how many elephant tusks are included, Table 5 shows only how many shipments identified as trophies were imported into the USA legally between 1995 and 2002. If each of these 1328 trophy records included two tusks, these shipments would represent as many as 2656 raw tusks entering the USA.

As Table 5 indicates, the countries most heavily involved in sending trophy shipments to the USA are Zimbabwe, Botswana, South Africa, Tanzania, and Namibia. LEMIS records show that these trophies are non-commercial in nature as required by CITES and US law, and are imported almost exclusively by individuals, with the exporters typically listed in the records as being safari companies, hunting outfits, or taxidermy enterprises. Moreover, unlike the trade in carved ivory, these shipments mostly arrive in the USA directly from the African elephant

Table 5: Country of Origin for Elephant Trophies Imported into the USA by Shipment, 1995–2002 (no. of shipments)

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Zimbabwe	75	85	73	97	111	113	111	101	766
Botswana	0	1	22	22	51	76	71	63	306
South Africa	12	13	5	5	14	12	28	17	106
Tanzania	6	8	11	10	11	9	16	10	81
Namibia	2	11	8	4	3	11	3	3	45
Cameroon	1	3	1	6	0	0	0	0	11
Zambia	1	3	0	0	1	0	1	0	6
Mozambique	0	1	0	0	0	0	0	0	1
Kenya	1	0	0	0	0	0	0	0	1
Other+	1	0	1	0	0	2	1	0	5
Total	99	125	121	144	191	223	231	194	1328

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ Other countries for which there were records of trophy imports included Costa Rica (1), and no specified origin (5).

range state listed as the country of origin as well as the country of export. In a few cases, the ivory transited to the USA through a third country, either a neighboring range state or another intermediary nation (examples in the data included Canada, Mexico, Saudi Arabia, and Turkey). Such cases, however, were rare (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Tusks

LEMIS records also showed 180 shipments identified as elephant tusks legally imported into the USA between 1995 and 2002, from 22 exporting nations, with a cumulative total of 383 tusks. Although LEMIS data do not clearly identify how many of these tusks are raw ivory and how many represent worked, pre-Convention ivory, a close examination of the countries of origin, the exporting countries and individuals or enterprises involved, and the importing parties, led to the conclusion that there are two primary patterns to the trade. The first group, which represents the majority of the tusks legally imported, enters the USA from Africa, and likely comprises the tusks of sport-hunted African Elephants that are entered into the LEMIS system under the product category of “tusk” rather than “trophy.” TRAFFIC surmised this because the pattern of the trade in these tusks is the same as that seen for trophies (i.e., imported by individuals from African range states, with the exporters listed as safari companies, hunting outfits, or

taxidermy enterprises). Indeed, a cross-check of trophy and tusk import records showed that a preponderance of both came from a fairly limited set of the same African exporters (TRAFFIC analysis of USFWS LEMIS data, March 2004).

The second major group of ivory identified as elephant tusks comes from Europe and Canada, with a small number being imported from other sources. Because these shipments were cleared, TRAFFIC surmised that the imports likely represented worked antique or pre-Convention elephant tusks (TRAFFIC analysis of USFWS LEMIS data, March 2004). Table 6 shows the number of tusks imported into the USA between 1995 and 2002 broken down by the country of export.

Jewelry

Jewelry derived from African and Asian Elephants is perhaps the most problematic ivory product being imported to and exported from the USA. As Table 1 showed, whereas 71 shipments listed as ivory jewelry were cleared to enter the USA, 520 were refused and the items either seized or abandoned. Furthermore, cleared shipments represented only 256 items plus one 1997 shipment from France identified in LEMIS records as containing 25 kg of jewelry for commercial purposes. As with ivory carvings, the majority of elephant ivory jewelry entered the USA legally through Europe, and appeared to be a

Table 6: Country of Export for Elephant Tusks Imported into the USA by Piece, 1995–2002

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Africa									
Zimbabwe	28	4	0	7	11	17	12 ⁺	20	99
Botswana	0	0	0	8	25	16	27	10	86
Cameroon	35	0	0	26	2	0	0	0	63
South Africa	0	0	2	6	7	2	11	7	35
Namibia	4	2	0	0	8	4	0	2	20
<i>Subtotal:</i>	67	6	2	47	53	39	38	39	303
Europe									
UK	8	3	2	6	0	2	2	3	26
Netherlands	0	0	3	0	1	14	0	0	18
France	0	1	2	0	2	0	0	0	5
Switzerland	1	0	0	0	3	0	0	0	4
Other Eur.**	2	1	0	1	1	0	0	0	5
<i>Subtotal:</i>	11	5	7	7	7	16	2	3	58
N. America									
Canada	0	1	0	0	1	4	2	2	10
Others***	0	6	3	2	0	0	0	0	12
Total	78	18	12	57	61	59	54	44	383

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ In addition to 12 tusks, Zimbabwe exported one shipment identified as two kilograms of tusks to the USA in 2001.

** Other European nations exporting tusks to the USA included Denmark (2), Belgium (1), Germany (1), and Portugal (1).

*** Other nations exporting tusks to the USA included Palau (3), Hong Kong (2) Jordan (2), India (1), Ethiopia (1), Morocco (1), Russia (1), and Singapore (one shipment listed as 18 kg).

mixture of pieces for commercial sale and personal effects being brought into the country by individuals for noncommercial purposes (TRAFFIC analysis of USFWS LEMIS data, March 2004). Table 7 shows the countries of export for elephant ivory jewelry entering the USA between 1995 and 2002.

Ivory Pieces and Piano Keys

TRAFFIC’s analysis of LEMIS data showed the import of 166 shipments of ivory identified as consisting of elephant ivory piano keys between 1995 and 2002, with a total by quantity of more than 10 000 keys. However, the totals when measured by quantity in the data may be misleading. In some cases, shipments in the records appeared to measure the number of individual keys, often in lots of 52 or 88 keys per shipment. In other cases, shipments of elephant ivory piano keys were entered into the database with the quantity measured as one, which could represent a single piano key or, more likely, one piano or one set of elephant ivory piano keys. For example, LEMIS data for 2000 (the peak year

for imports of piano keys in the data) showed 21 cleared imports of elephant ivory into the USA identified as piano keys. Of these records, 13 involved shipments of multiple elephant ivory keys, in lots ranging from 50 to 104 keys. One shipment alone in that year consisted of the import of 1861 keys from France, valued at USD65 744. Five LEMIS records consisted of shipments reported in the data with the quantity of one “key,” although the values for those shipments ranged from USD3200 to 51 362. Given those valuations, it could be assumed that the records indicated the import of a piano with elephant ivory keys in unspecified quantities, rather than the import of individual keys. The final three records in 2000 fell in the middle. One shipment indicated the import of 12 “keys” from Germany, with a valuation of USD26 487, which TRAFFIC surmised may have represented the import of 12 pianos or key sets (TRAFFIC analysis of USFWS LEMIS data, March 2004).

This pattern of varying quantities and valuations for elephant ivory piano keys

Table 7: Country of Export for Elephant Ivory Jewelry Imported into the USA by Piece, 1995–2002 (no. of items)

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Europe									
UK	0	7	4	0	6	12	2	2	33
Italy	0	0	0	22	0	0	0	0	22
Germany	0	0	0	0	13	0	0	0	13
Belgium	0	11	0	0	0	0	0	0	11
Switzerland	0	0	0	7	0	2	0	1	10
Netherlands	0	0	8	0	1	0	0	0	9
France	0	4	1+	0	1	0	0	0	5
Austria	0	0	0	0	0	4	0	0	4
Sweden	4	0	0	0	0	0	0	0	4
Ireland	0	0	1	0	0	0	0	0	1
<i>Subtotal:</i>	4	22	14*	29	21	18	2	3	112
Africa									
South Africa	7	0	1	1	0	12	23	0	44
Zimbabwe	4	1	0	0	0	0	0	0	5
Cameroon	1	0	0	0	0	0	0	0	1
<i>Subtotal:</i>	12	1	1	1	0	12	23	0	50
Asia									
Hong Kong	0	0	17	0	0	0	0	0	17
Thailand	0	6	2	0	0	0	0	0	8
Japan	0	1	0	0	0	0	0	1	2
Taiwan	0	0	1	0	0	0	0	0	1
<i>Subtotal:</i>	0	7	20	0	0	0	0	1	28
N. America									
Canada	0	10	9	1	0	1	0	0	21
Mexico	0	0	0	0	0	0	1	2	3
<i>Subtotal:</i>	0	10	9	1	0	1	1	2	24
Oceania	0	0	0	0	0	0	42	0	42
Unspecified	0	0	3	0	0	0	0	0	3
Total	13	40	46+	31	21	31	68	6	256*

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ France exported a shipment recorded as 25 kg of ivory jewelry in 1997.

repeated itself throughout the data set from 1995 to 2002. Therefore, the figure of 10 023 “keys” identified in LEMIS records should be considered a minimum figure. Assuming that some of the imports were measured in the form of pianos with multiple keys or key sets as indicated in the example above, the number of individual keys imported may have been much higher. However, it proved impossible to measure with any accuracy the true number of keys being imported, or the quantity of elephant ivory such imports represented (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Similarly, TRAFFIC had difficulty identifying the exact nature of elephant ivory “pieces”

being imported into the USA between 1995 and 2002. Overall, TRAFFIC found records of 128 cleared shipments of ivory pieces into the USA during this period, with a total quantity of 1798 pieces of ivory. However, the vast majority of these pieces (1025) entered the USA in 2000, and it proved difficult given the lot sizes and valuations reported in the data to discern whether the ivory objects being imported were carvings, piano keys, or other items. Given the lack of specificity in the available information, TRAFFIC did not try to surmise the exact nature of each shipment represented (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Ivory Exports and Re-exports

In addition to importing elephant ivory in these various forms, the USA is also an exporter (or re-exporter) of ivory for both commercial and noncommercial purposes, with the majority of the trade going to Europe. As with imports, carved ivory is the dominant product in trade, and the UK is the principal destination market. Overall, TRAFFIC identified 1055 records of ivory carvings involving approximately 8600 pieces that were exported legally from the USA between 1995 and 2002 to at least 43 countries

around the world (some shipments did not specify the country to which the ivory was exported) (TRAFFIC analysis of USFWS LEMIS records, March 2004). Table 8 shows major destination countries for ivory carvings exported from the USA between 1995 and 2002.

As with the import trade, the export trade in elephant ivory involves a mix of players. Some of the trade appears to be noncommercial in nature, with exporters including individuals shipping ivory for personal purposes as well as public and private

Table 8: Destination Countries for Carved Elephant Ivory Exported from the USA by Piece, 1995–2002 (no. of items)

Importer	1995	1996	1997	1998	1999	2000	2001	2002	Total
Europe									
UK	567	591	874	1051	757	529	331	432	5132
Germany	18	8	75	3	1	55	128	65	353
Netherlands	25	15	24	9	81	77	20	47	298
Switzerland	3	19	10	7	51	47	8	76	221
Belgium	0	2	56	40	67	21	2	4	192
Austria	127	0	2	9	2	0	1	0	141
France	2	31	26	4	7	27	2	17	116
Russia	0	0	3	0	42	13	7	0	65
Italy	2	4	3	1	11	4	2	18	45
Spain	0	0	0	0	2	10	15	6	33
Other Eur.+	1	0	7	7	1	10	34	8	68
<i>Subtotal:</i>	<i>745</i>	<i>670</i>	<i>1080</i>	<i>1131</i>	<i>1022</i>	<i>793</i>	<i>550</i>	<i>673</i>	<i>6664</i>
Asia									
Japan	84	199	38	169	83	164	138	80	955
Hong Kong	3	3	8	14	0	30	24	0	82
Taiwan	13	3	29	9	0	2	4	1	61
Other Asia**	0	1	1	0	0	5	1	0	16
<i>Subtotal:</i>	<i>100</i>	<i>206</i>	<i>76</i>	<i>192</i>	<i>83</i>	<i>201</i>	<i>167</i>	<i>81</i>	<i>1114</i>
N. America									
Canada	59	75	69	23	30	27	12	3	298
Mexico	0	0	0	0	1	48	0	0	49
<i>Subtotal:</i>	<i>59</i>	<i>75</i>	<i>69</i>	<i>23</i>	<i>31</i>	<i>75</i>	<i>12</i>	<i>3</i>	<i>347</i>
Oceania									
Australia	27	3	0	4	1	2	30	36	103
New Zealand	0	19	0	0	7	2	0	0	28
<i>Subtotal:</i>	<i>27</i>	<i>22</i>	<i>0</i>	<i>4</i>	<i>8</i>	<i>4</i>	<i>30</i>	<i>36</i>	<i>131</i>
Other***	2	132	5	3	1	6	2	70	221
Unspecified	0	0	6	0	105	0	0	0	111
Total	933	1105	1236	1353	1250	1079	761	863	8588

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ Other countries in Europe that imported carved ivory from the USA included Bulgaria (2), Cyprus (1), Denmark (6), Finland (1), Greece (8), Ireland (1), Monaco (1), Norway (2), Portugal (14), Sweden (1), Turkey (29), and the Vatican (2).

++ Other Asian nations that imported carved ivory from the USA included China (8), Singapore (5), and Mongolia (3).

+++ Other nations around the world that imported carved ivory from the USA included Brazil (130), Egypt (1), French Guiana (3), Israel (4), Lebanon (1), Qatar (68), Reunion (2), Saudi Arabia (2), South Africa (6), Zimbabwe (1), and Various (i.e., unspecified) (3).

museums, cultural institutions, and other nonprofit organizations exchanging carved ivory pieces. The repeated involvement of such museums and similar institutions in the data indicates that some of the re-export trade may involve the movement of traveling exhibits of antiques for display or research purposes. Such cases further indicate that there may be some overlap in the data between noncommercial imports and re-exports, with the same ivory pieces entering the country for exhibit or other reasons and then being subsequently re-exported either directly back to the country from which they came or to a third country (TRAFFIC analysis of USFWS LEMIS data, March 2004).

However, it should also be noted that, particularly concerning the trade with Europe, a number of the exporters were the same import/export businesses, antique dealers, and auction houses that appeared repeatedly in the import records as bringing in carved ivory for commercial purposes. This suggests that, although the volume of imports exceeds the volume of exports, the commercial trans-Atlantic trade in carved ivory cleared by USFWS as being antique runs both ways. It should be further noted that a significant percentage of the carved ivory exports to Asia and Australia appeared to be commercial (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Along with carved ivory, the USA exported small quantities of elephant ivory tusks and jewelry between 1995 and 2002. As with ivory carvings, the primary destinations for these products were in Europe; however, the small number of export records (a total of six shipments of tusks and 10 of jewelry) made any meaningful trade pattern difficult to discern. TRAFFIC identified the small number of exports as likely being primarily personal effects or trade for other noncommercial purposes. The primary focus of the US export trade is ivory carvings (TRAFFIC analysis of USFWS LEMIS data, March 2004).

The Domestic Market for Worked Ivory

Unfortunately, the extent of the US domestic market for ivory cannot be gauged with any precision. Elephant ivory is available at the

retail level in many states and cities, and can also be readily purchased from domestic sources over the Internet. However, major gaps remain in our knowledge about the full extent of the market, for three primary reasons.

First, the USA's focus on monitoring and policing the ivory trade concentrates on federal efforts at the borders. Under the US Constitution, the federal government has limited authority to regulate or prohibit intrastate commerce, and there is no federal database comparable to LEMIS that tracks the sale or trade of ivory once it enters the USA. USFWS and other agencies therefore do not know how much ivory is actually being traded in US markets. Furthermore, according to its submission to the CITES Secretariat in response to CITES Conf. Res. 10.10 (Rev.) and Decision 12.39, USFWS is not aware of any US state that has assessed or quantified ivory markets within its jurisdiction (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003).

Second, as noted in the last section, there are 23 US states that have either enacted legislation specific to trade in elephant ivory and other products or have incorporated federal threatened and endangered species (such as the African and Asian Elephants) into their threatened and endangered species lists (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). That leaves 27 states without specific provisions or permit requirements related to the trade in elephant ivory, making it very difficult to discern the extent of trade in those states.

Third, the advent of Internet-based trade of elephant and other ivory has in recent years added a new dimension to the trade in that virtually anyone with a computer can now buy and sell ivory largely anonymously from anywhere in the country (or, as will be seen below, outside the USA), and deliver it through the postal service or a shipping company. The largest Internet auction site, eBay, has a policy that states:

This area is complex, and sellers should consult with the U.S. Fish and Wildlife Service and their state wildlife regulatory agency to ensure that the particular item

involved may lawfully be sold. Generally, ivory from African elephants may be sold within the United States so long as it was lawfully imported into the United States. Woolly mammoth ivory may be sold inside or outside the United States. Hippo ivory may be sold within the United States, but may only be imported/exported in compliance with CITES (eBay, September 2004).

TRAFFIC monitored eBay from February to May 2004 to try to determine how much elephant ivory is available in an average week. The specific purpose of the exercise was to establish the quantities, types of items, prices, and sources of elephant ivory readily accessible to the public through this major Internet auction site. After an initial search to determine which keywords would provide the best data set, TRAFFIC conducted regular searches using the terms “ivory carving”, “ivory carvings”, “ivory jewelry”, ivory piece”, “ivory pieces”, “ivory tusk”, “ivory tusks”, and “elephant ivory”. To allow turnover of items, TRAFFIC conducted these searches on a single day each week. Table 9 shows the results of TRAFFIC’s searches, and the dates on which they were conducted. Some of categories and keywords used are combined in the table (i.e., ivory carving and carvings, ivory piece and pieces, ivory tusk and tusks).

As the table shows, in most weeks during the survey period more than 1000 items advertised as being elephant ivory in one of these major forms was available through eBay.

TRAFFIC’s periodic review of the site during the survey period indicated that some of the trade occurs within the USA, and may be legal. However, TRAFFIC also found regular shipments of elephant ivory carvings and jewelry being sold over eBay to US customers from vendors based in China under circumstances that may be illegal.

Though some of the elephant ivory offered to the US market from China came from sellers listed as being located in Shanghai, the most significant source of elephant tusk ivory entering the USA from China via eBay involved vendors in Guangzhou, a city in southern China near Hong Kong. TRAFFIC determined that the two Guangzhou sites were run by the same operator(s), based on the fact that some items advertised referred shoppers to the other “store”, both vendors having been registered in Hong Kong in the same year, the similarity of the site graphics and layout, their nearly identical product lines and pricing, the similarity of product descriptions and shipping details, and other such factors.

The presence of such Internet operations selling ivory carvings and jewelry advertised as

Table 9: Ivory for Sale on eBay, February–May 2004

Date Carving(s)”	“Ivory Jewelry”	“Ivory Piece(s)”	“Ivory Tusk(s)”	“Ivory Ivory”	“Elephant	Total
2/5/04	228	70	127	266	308	999
2/13/04	253	67	119	297	371	1107
2/20/04	263	64	109	306	318	1060
2/27/04	280	83	140	276	356	1135
3/5/04	259	75	119	261	314	1028
3/12/04	284	97	145	281	341	1148
3/19/04	275	79	151	269	330	1104
3/26/04	334	97	195	340	374	1340
4/5/04	243	70	122	200	296	931
4/9/04	254	69	145	262	338	1068
4/19/04	227	67	118	229	286	927
4/23/04	271	76	131	230	301	1009
4/30/04	291	114	127	226	294	1052
5/14/04	299	94	110	269	316	1088

Source: Pers. comm., T. Leonard, TRAFFIC North America, June 4, 2004.

being derived from elephant tusks in China is of particular concern. In a 2002 study on China's management and trade in elephants and elephant products, TRAFFIC East Asia noted that with the state-run Chinese ivory-carving industry in decline following the CITES Appendix I listing of African Elephants in 1989, it is likely that much of the industry is now run by private, and illegal, family operations. That study also found that the main buyers of the ivory are believed to be Chinese nationals, with the cities of Shanghai, Guangzhou, and Beijing the main centers of ivory consumption (O'Connell-Rodwell and Parry-Jones, 2002).

A survey conducted by Stiles and Martin (2003) came to similar conclusions. That study found that stockpiles of elephant ivory held by private and government businesses listed in a 2002 survey by China's government were so incomplete that no estimate of the national stockpile could be made. However, it cited an estimate by the China CITES Management Authority (CMA) that between 1991 and 2002 some 110 mt of elephant ivory went missing from the national ivory stockpile, suggesting to the CMA that illegal selling has taken place. The survey further found that the ivory being processed in China in private workshops today must be for the most part smuggled African Elephant ivory, based on seizure records and the fact that neither private individuals, companies, nor the government can import legal ivory.

The precise status of the ivory-carving industry remaining in cities such as Shanghai, Guangzhou and Beijing is not known, as much of the information is anecdotal. Stiles and Martin (2003) estimated that there may be no more than 30 ivory carvers working in Guangzhou, maybe one in Shanghai, and about five to 10 in Beijing. That study also estimated that there were perhaps 10 larger ivory workshops still operating in China in 2003, with fewer than 200 craftsmen, including small family workshops. In 2000, workers at the largest ivory-carving factory in Guangzhou reported to TRAFFIC investigators that approximately 30% of their production was sold internationally (O'Connell-Rodwell and Parry-Jones, 2002; Stiles and Martin, 2003). Stiles and Martin (2003) also found 3855 ivory

elephant ivory items for sale at the retail level in Guangzhou, and 2045 items in Shanghai.

Research for this report showed that as of early 2004, ivory from sellers located in Shanghai and especially Guangzhou was also entering the USA via eBay. In reviewing eBay auctions conducted between January 1, 2004 and April 15, 2004, TRAFFIC found at least 46 sales of carvings and jewelry items advertised as elephant tusk ivory from the Guangzhou vendors alone to buyers located in the USA, as well as numerous sales to buyers in other countries including the UK, France, Canada, Germany, the Netherlands, Sweden, and Australia. TRAFFIC also documented smaller numbers of sales from vendors listed as being located in Shanghai. Furthermore, a seller provided TRAFFIC with the address of a retail store in Guangzhou should we prefer to purchase ivory in person, rather than through the Internet.

TRAFFIC suspects that the number of actual recent sales of elephant ivory from these sites to buyers in the USA may be higher, for two reasons. First, our review of eBay records showed only those sales for which the buyers in the USA posted feedback confirming delivery of the ivory items purchased. It is possible that there were other auctions during the period in question for which no feedback was posted, and those would not show up in the overall total. Second, beginning in March 2004, many of the auctions involving the two primary Guangzhou vendors were taken "private", which meant that TRAFFIC could not ascertain the nature of the item being purchased or the price that was paid for it. Because of the large number of items advertised as being elephant tusk ivory being offered by these vendors, TRAFFIC surmises that some percentage of these private auctions may well have involved elephant tusk ivory; however, because this could not be confirmed such auctions were not included in the totals.

TRAFFIC took several steps to try to determine the nature of this apparent pipeline of elephant ivory into the USA. As an initial step, we contacted two vendors in China using eBay—one in Shanghai and the other in Guangzhou—posing as a potential buyer to ask whether the sellers shipped to the USA, and what paperwork or permit we would need to

import one of their ivory pieces. The first vendor contacted replied simply that because they are selling antique ivory carving rather than “modern” ones, there would be no problem sending ivory from China, and indeed they had sent carvings to the USA before without any problems. The second vendor responded that they always say the shipment is “bone carving” when it is sent to the customers, and offered to refund the money if we did not receive the item.

We then contacted buyers in the USA to learn what we could about whether the ivory was genuine and whether they thought permits were necessary for its importation. Again posing as potentially interested buyers inquiring about the experience of others in doing business with the China-based sites, TRAFFIC sent e-mails to 18 US buyers of items advertised as elephant tusk ivory who had purchased their items in March or early April. Although most either did not respond or responded only in generalities confirming that they had satisfactorily received the ivory item they had bid on, several replies proved useful.

For example, TRAFFIC learned from several buyers that the time between purchase and delivery is two to three weeks, and confirmed that the ivory pieces in question are sent by an express delivery service. Three buyers also confirmed that they did not believe that they needed to obtain any permits for the imports and did not do so. In two of these cases, the buyers indicated their belief that because they were buying items they believed to be antiques, no permits were necessary. One buyer indicated his belief that sale of ivory obtained after the late 1960s or early 1970s would be illegal, but that these sites were legitimate sellers. The buyer also warned us to make sure that the item being purchased was real ivory instead of bone, and indicated that he was able to distinguish between the two and the items he purchased were genuine. Yet another buyer noted that the item he originally bid on turned out not to be available, so he was sent a similar piece instead.

TRAFFIC noted two other interesting patterns in this segment of the trade in elephant ivory from China. First, in reviewing the auctions for the items purchased by US buyers, TRAFFIC found that of the 46 confirmed

purchases between January and April, only a few involved competitive bidding. Most of the purchases involved either only one bid being submitted, or the item was purchased at the advertised “Buy It Now” price. This pattern held for many of the buyers identified as residing in Europe and elsewhere as well, suggesting to TRAFFIC that these Guangzhou-based vendors using eBay are acting almost as a global retail ivory outlet, with little competition for the individual items sold.

Second, while it was impossible for TRAFFIC to view any of the items purchased firsthand, the prices and types of ivory being purchased call into question whether the ivory is actually antique. For example, TRAFFIC found that ivory jewelry in the form of finger rings, bangles and brooches was being purchased for prices ranging from USD4.99 to 24.99. Prices for ivory netsuke carvings purchased from these sites ranged from USD19.99 to 99.00, with most at the lower end of that range. Furthermore, TRAFFIC found that the supply of similar items being advertised was considerable. Once an item was sold, it was typically replaced on the seller’s Internet store with an item very similar in carving and price. While not definitive, this pattern suggested to TRAFFIC that these items represent fairly low-end merchandise that is easily obtainable, rather than unique antique pieces.

Finally, TRAFFIC attempted to ascertain whether any of the ivory purchased through these outlets was being resold in the domestic US market. To do this, TRAFFIC examined the items offered for sale by those people confirmed to have bought ivory from the vendors utilizing eBay, and also reviewed the feedback comments these buyers had received on past sales to determine whether any of the items they sold consisted of ivory. TRAFFIC found that the majority of the buyers of ivory were just that, individual buyers, rather than people engaged in regular buying and selling activities. For those buyers who had been selling items as well, TRAFFIC was unable to find any re-sale of the ivory objects in the USA. However, TRAFFIC did find one case in the UK of an individual who regularly purchased items advertised as elephant tusk ivory from one of the Guangzhou vendors. Viewing feedback from that individual’s items sold, TRAFFIC discovered two instances of

items sold to other people in the UK as “mammoth ivory” that bore a strong semblance to items being sold from China as “elephant tusk ivory.”

Unfortunately, there were limitations to how much TRAFFIC was able to learn about the extent of this trade. For example, because feedback comments linked to specific items sold are only available on eBay for a couple of months, TRAFFIC was unable to determine how many ivory items entered the USA through this route over a longer time period. Also, as noted above, the number of auctions conducted privately restricted TRAFFIC’s ability to get a comprehensive count on how many ivory imports there may have been during the period examined. Furthermore, the largely anonymous nature of the eBay system makes it difficult to determine whether those buying the ivory lived in states with their own permit requirements for such trade. For example, under the eBay system, buyers’ locations remain anonymous unless they are also selling items through the system, in which case it is possible to determine the states in which they live. TRAFFIC’s review of those buying ivory from China showed that most were not also sellers, making it impossible to determine their location beyond the fact that they were in the USA. Therefore, while TRAFFIC concluded that there is an active market for elephant ivory from these foreign-based sources as well as domestic ones, not enough information was available to determine the specific location of the buyers in the USA.

The Domestic Market for Raw Ivory

TRAFFIC also conducted an Internet search to establish whether there remains a trade in raw ivory in the USA, and whether there is still a domestic carving industry. In its 2003 response to the CITES Secretariat to satisfy the requirements of Resolution Conf. 10.10 (Rev. CoP12) and Decision 12.39, USFWS noted its awareness that there may be a small and probably declining market for raw ivory from legal imports before the 1989 US prohibition on the domestic sale of such elephant ivory elephants (Peter Thomas, Chief, Division of Management Authority,

USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). However, as with the domestic trade in worked elephant ivory, the full extent of such trade is difficult to determine, as the ivory was not tracked once it entered the country.

TRAFFIC was able to find some examples of the carving and sale of raw elephant ivory being conducted as of Spring 2004. For example, TRAFFIC identified two operations that were advertising the sale of raw elephant ivory pieces, as well as custom-carved gun grips. One of these operations, based in Mississippi, advertised a variety of raw elephant tusk solids in various sizes selling for USD250 to 600 each (also available at USD150/pound); raw tusk hollows in various sizes selling for USD80 to 650 each (also available at USD145/pound); and raw elephant tusk tips selling for USD250 475 each. The site advertised raw elephant ivory slabs ranging from three to six inches in length and at varying weights and thicknesses for USD25 to 150 per slab (or USD50 to 300 per pair of slabs). Also advertised were custom-carved elephant ivory pistol grips selling for USD200 to over 500 per pair, depending on the model of the gun. Beyond selling raw ivory for customers to fit custom grips themselves, the site also offers customers the opportunity to send the gun to the operator of the Web site and have the grips custom fitted.

Another internet site that also has a retail outlet in Washington State offered a variety of raw elephant ivory products ranging from whole tusks to roughed “blocks,” tusk hollows, cross-cut sections, scraps, and slabs at a wide ranged of prices measured by piece, lineal inch, and weight. Advertised purposes for these various raw elephant ivory products included knife handles, gun grips, pool cue butts, joints, duck calls, pen blanks, and other items. The site also offered three sets of full tusks for sale, ranging from a matched pair four inches in diameter and 46 inches in length for USD3700 to a matched pair 5 3/4 inches in diameter and 67 inches in length for USD8745. Finally, the site also offered raw elephant ivory slabs and custom-made pistol, rifle/shotgun, and knife grips and grip cap pieces at a variety of prices.

TRAFFIC found other examples of companies and individuals offering to purchase raw elephant tusks for both commercial and personal purposes; however, TRAFFIC could reach no broad conclusions about the full extent of such domestic trade. As noted by USFWS, any legal commercial trade in such raw elephant ivory would have to derive from tusks imported into the USA before the 1989 trade ban under the AECA. Sport-hunted ivory imported legally under CITES, the ESA, and the AECA since 1989 cannot be carved and sold commercially, although it can be carved for personal use (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). Unfortunately, because the amount of legally imported, pre-1989 African Elephant tusks that may be in circulation domestically is unknown, and no state has conducted a survey of its ivory market or the potential number of remaining ivory carvers, it is impossible to determine the full extent of this trade.

Illegal Trade

A review of what is documented about the USA's involvement in the global illegal ivory trade reveals both negative and positive aspects regarding the extent of such trade and the effectiveness of country's wildlife trade enforcement system. On the negative side, according to data from the Elephant Trade Information System (ETIS),³ from 1989 to 2001 (inclusive), the USA reported nearly five times as many ivory seizures (2628) as did any other country. Namibia was second with 545 seizures. The global total recorded in ETIS was 7817 seizures as of August 2002, meaning that the USA accounted for slightly more than 33% of the world's seizures during the period, with 161 nations represented in the overall data. Although the individual seizures tended to be small in terms of the weight of ivory represented, cumulatively they accounted for some 4211 kg, a substantial volume of ivory (Milliken *et al.*, 2002).

On the positive side, an analysis of the USA's record prepared through ETIS for CITES

CoP12 in 2002 noted that the USA has the strongest law enforcement ratio of any country between the number of seizures made and reported by a particular country, and the number of seizures made elsewhere but which reportedly involve the same country. The analysis reasons that a relatively large volume of ivory moving into, through, and out of a country provides numerous opportunities for seizures, and that countries with well-developed law enforcement capabilities are likely to demonstrate a fairly consistent record of in-country seizures. By this measure, the USA's high ratio would indicate a relatively effective law enforcement program, with the primary challenge being the introduction of large numbers of ivory curios by US citizens returning from overseas (Milliken *et al.*, 2002). USFWS made a similar argument in its response to the CITES Secretariat regarding CITES Conf. Res. 10.10 (Rev.), in which it noted that 2002 law enforcement records indicate that 22% of the imported ivory inspected was intercepted and confiscated in that year. USFWS also noted the continuing challenge presented by US tourists purchasing ivory abroad and attempting to carry it into the country (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003).

For this report, TRAFFIC conducted its own analysis of USFWS import and export data to try to determine the extent to which the tourist trade alone accounts for elephant ivory entering the USA illegally. TRAFFIC also explored whether there are other clear patterns or routes for the illegal trade. This examination revealed that unlike the legal trade, the illegal trade in ivory is not as heavily concentrated among a few source nations or major players, although a few nations show more frequent cases of ivory shipments being intercepted. Instead, between 1995 and 2002, shipments of illegal ivory in various quantities were intercepted and seized from more than 80 countries spread across every continent except Antarctica. Table 10 shows the types and overall quantities of illegal ivory that were

³ ETIS, which is managed by TRAFFIC, is a comprehensive international monitoring system operating under the auspices of CITES to track the illegal trade in elephant products, particularly ivory. ETIS was mandated by the CITES Parties in Resolution Conf. 10.10 (Rev.) (Milliken *et al.* 2002).

Table 10: Elephant Ivory Seized by Item, 1995–2002

Item	1995	1996	1997	1998	1999	2000	2001	2002	Total
Carved Ivory	385	377	243	609	516	320	735+ 540 gm	849	4034+ 540 g
Ivory Jewelry	420	767	312	367	515	221	224	71	2897
Tusks	30	37+ ~8 kg	41	26	39	24	22+ ~1 kg	60+ ~1.2 kg	279+ ~10.2 kg
Ivory Pieces	0	0	9	7	23+ 495 gm	14	405	128	586+ 495 g
Trophies	0	2	3	0	3	1	1	0	10
Total	835	1183+ ~8 kg	608	1155	1368+ 495 g	580	1490+ ~2.5 kg	1108+ ~1.7 kg	8327+ 11.7 kg

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004

recorded as seized by US authorities for the years 1995 to 2002.

As with legal imports, TRAFFIC examined the source of these illegal shipments of ivory by commodity.

Carved Ivory

As Table 10 shows, LEMIS records indicate that more than 4000 carved ivory items were seized between 1995 and 2002. LEMIS records include interceptions of carved ivory from 73 nations all over the world, indicating the truly global nature of the illegal ivory trade. For example, illegal ivory carvings intercepted from African nations involved imports from Angola, Burundi, Cameroon, the Central African Republic, Congo, Côte d’Ivoire, the Democratic Republic of Congo, Egypt, Ethiopia, Gambia, Ghana, Guinea, Kenya, Liberia, Malawi, Morocco, Mozambique, Nigeria, Senegal, South Africa, Sudan, Tanzania, Togo, Zambia, and Zimbabwe. Countries in the Middle East from which carved ivory imports were seized included Iran, Israel, Kuwait, Syria, and the United Arab Emirates. Illegal carved ivory entering the USA from the Asian and Pacific region included imports from Australia, Cambodia, China, Hong Kong, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Pakistan, the Philippines, Singapore, the Republic of Korea, Taiwan, Thailand, Uzbekistan, and Viet Nam. European nations from which carved ivory was seized include

Austria, Belgium, Bulgaria, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Monaco, the Netherlands, Portugal, Russia, Spain, Sweden, Switzerland, and the UK. Finally, illegal ivory carvings were intercepted and seized from North, South, and Central American nations, as well as from Caribbean nations, including Argentina, Canada, Chile, Costa Rica, the Dominican Republic, Mexico, and Peru (TRAFFIC analysis of USFWS LEMIS data, March 2004).

LEMIS data indicate that much of this illegal ivory entered the USA carried by individuals in small quantities, consistent with the findings of ETIS and USFWS that it likely represented tourist curios or souvenirs. However, other records indicate that at least some of the ivory seized was commercial in nature, and was sometimes imported by the same antique dealers, auction houses, and other businesses that regularly recorded legal ivory imports. TRAFFIC found instances in every one of the years between 1995 and 2002 in which such shipments were seized, abandoned, or repatriated scattered in the import records. For example, one 1996 case involved the seizure of 12 carvings from a company that imported such ivory carvings into the USA regularly from the UK. In another 2001 instance, one of the two largest importers of ivory carvings between 1995 and 2002 had 112 carvings refused entry from the UK.

One explanation for such seizures may lie in the conflicting definitions of “antique” used by



Ivory carving is one of China's most ancient arts, with examples of skillfully carved ivory dating as far back as the Shang dynasty (18th–12th century BC).

the USA and the European Union (EU). Whereas the USA defines antique as any wildlife product (such as an ivory carving) that is 100 years or older, the EU defines antique as any item that is 50 years or older. Because of this conflicting definition, an item that may be declared as an antique in the EU and subsequently exported to the USA may be seized upon import because the item does not meet the definition of antique as required by the USA (Kevin Adams, Chief, Office of Law Enforcement, USFWS, *in litt.* to Craig Hoover, TRAFFIC North America, August 2004).

Although TRAFFIC did not attempt to sum up every one of these instances, the repeating pattern of importers identified as antique dealers, galleries, auction houses, and other commercial entities having some imports cleared while others are seized indicates that the tourist trade is not the only part of US commerce in ivory carvings that has proved troublesome.

Ivory Jewelry

Seizures of elephant ivory jewelry showed a similarly broad pattern, and one that is even more troubling. As Table 7 noted, between 1995 and 2002, the USA permitted the legal importation of only 256 items of ivory jewelry, plus 25 kg of jewelry, in 71 shipments. Conversely, during the same period US authorities confiscated 520 shipments totaling almost 2000 jewelry items, indicating a ratio of approximately 10 seizures for every legal import (TRAFFIC analysis of USFWS LEMIS records, March 2004).

LEMIS records show that these confiscated shipments entered the USA from 61 countries. As with carved ivory, illegal imports of ivory jewelry come from multiple sources. Most of the shipments involved small individual quantities of jewelry with fairly low valuations, and the majority came from Africa, suggesting that the pattern of this trade is indeed largely driven by individuals importing curios.

Interceptions of illegal jewelry directly from Africa included seizures of imports from Angola, Benin, Cameroon, Central African Republic, Congo, the Democratic Republic of Congo, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Guinea, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe. Asian and Pacific countries or administrative regions from which illegal ivory jewelry was intercepted included Australia, China, French Polynesia, Hong Kong, Indonesia, Japan, Malaysia, North Korea, the Philippines, Singapore, the Republic of Korea, Taiwan, Thailand, and Viet Nam. European countries involved in the trade included Belgium, Bulgaria, France, Germany, Italy, the Netherlands, Poland, Spain, Sweden, Switzerland, the UK, and Yugoslavia. Nations in the Middle East from which shipments were seized included Lebanon, Saudi Arabia, Syria, and the United Arab Emirates. Finally, shipments were intercepted from Canada, Jamaica, and Mexico in North America and the Caribbean (TRAFFIC analysis of USFWS LEMIS records, March 2004).

Unlike the illegal trade in carved ivory, however, for which the number of intercepted items was broadly distributed around the globe, interceptions of jewelry were more concentrated among a specific subset of countries. One was Nigeria, which accounted for 55 intercepted shipments involving 349 jewelry items, or more than one-tenth (12%) of the overall total. Other countries that figured prominently in the LEMIS records of ivory seizures included South Africa, Zimbabwe, and Thailand.

Trophies and Tusks

LEMIS records for the survey period showed only 10 records of trophies, presumably in the form of tusks, being refused clearance into the USA between 1995 and 2002. Compared to

the 1328 elephant trophy shipments cleared, this indicated that illegal trade in the form of sport-hunted trophies does not appear to be a major concern regarding illegal international trade, at least as far as this aspect of US ivory imports is concerned (TRAFFIC analysis of USFWS LEMIS data, March 2004).

More frequent were seizures listed in the data as tusks, or sometimes “teeth,” from countries around the world (TRAFFIC assumed that elephant teeth listed in LEMIS referred to tusks). TRAFFIC found records of 279 tusks that were seized or abandoned after being intercepted entering the USA, along with the seizure of approximately 10 kg of ivory entered into the database as being elephant tusk. These seizures involved ivory entering the USA from 39 countries in Africa, Asia and the Pacific, Europe, the Middle East, and North, Central and South America (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Nations in Africa or the Middle East from which such tusks entering the USA were confiscated included Botswana, the Democratic Republic of Congo, Egypt, Cameroon, Côte d’Ivoire, Ethiopia, Gabon, Ghana, Kenya, Morocco, Nigeria, Saudi Arabia, South Africa, Sudan, Tanzania, Togo, and Zimbabwe. Illegal tusks were seized or abandoned after arriving from Asian and Pacific nations, including Australia, Cambodia, China, India, Indonesia, Japan, Lao PDR, Thailand, and Viet Nam. European nations included in the seizure records were Belgium, France, Germany, Poland, Spain, Switzerland, and the UK. Finally, in the Western Hemisphere, illegal tusks were intercepted entering the USA from Argentina, Brazil, El Salvador, and Mexico (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Unfortunately, LEMIS records did not specify whether the ivory involved in these seizures was raw or worked. It could be surmised from the available data that it was likely a combination of both, based on the countries of origin and the pattern of legal trade in tusks. However, the precise proportion of the ivory that was raw or worked could not be ascertained. The pattern of the trade appeared to be similar to that for illegal trade in ivory jewelry, in that those listed as importing the

ivory were overwhelmingly individuals, bringing in items listed as tusks in quantities of one or two items (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Smuggling

The above instances of elephant ivory entering the USA illegally illustrate two forms of the illicit trade—individuals bringing in items in small quantities as curios or possibly for sale, and, in the case of ivory carvings, commercial shipments from routine importers, mostly involving the antique trade from Europe, that are occasionally seized by authorities. In recent years there have also been several cases and prosecutions involving both raw and work ivory being smuggled into the USA in larger quantities for commercial purposes.

For example, in 1999 USFWS inspectors assisted by inspectors from US Customs (now Customs and Border Protection, known as CBP) discovered 19 ivory carvings and other wildlife concealed in a shipment of furniture and ceramic vases imported from China. After the post-seizure investigation revealed that the items were destined for a commercial business, search warrants for that operation led to the recovery of another 100 smuggled ivory carvings valued at more than USD100 000. Three defendants pleaded guilty to felony smuggling charges and a misdemeanor Lacey Act violation and were sentenced to pay USD190 000 in fines and another USD99 000 in restitution (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003).

In September 2000, a citizen of Côte d’Ivoire was arrested for attempting to smuggle 57 African Elephant carvings valued at more than USD150 000 into the USA through New York’s John F. Kennedy Airport. An examination of the man’s luggage revealed the carvings, which had been concealed inside a sand and paper substance designed to resemble stone carvings and hide the ivory’s characteristics. Agents identified the concealment techniques because they were identical to those used in a January 2000 smuggling attempt by another Ivorian citizen who was serving a year in prison for the

offense. That individual had written the recent offender and provided business cards listing African art dealers in New York City. The man was sentenced to serve 11 months and 10 days in prison (USFWS, 2001).

In a similar, even larger case in Los Angeles in 2001, two individuals were arrested for running one of the largest elephant smuggling rings ever discovered on the West Coast when USFWS and US Customs inspectors intercepted two shipments containing some 250 pounds of raw and worked ivory. The shipments, which were imported into Los Angeles from Nigeria, had been declared as handicrafts and furniture. Ivory pieces were concealed in beaded cloth in the shipment, while whole tusks were found inside pieces of furniture. In that case, the individuals were charged with smuggling and conspiracy and sentenced to one year and six months in prison, respectively (USFWS, 2003c).

More recently, USFWS inspectors, along with CBP inspectors intercepted two individuals returning from China who were found to be in possession of ivory as well as other wildlife. After further investigation revealed that the individuals operated an art gallery, search warrants were served and items with a total value of more than USD1 million were recovered. Agents estimated that the pair traveled abroad several times per year on buying trips for their shop, and may have been doing so for some time. Yet another case involved the apprehension of an individual who smuggled 22 ivory carvings disguised and hidden in a shipment of wooden carvings. Post-seizure investigation revealed that the individual operated a store in Dallas, Texas where the African curios were sold (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003).

Finally, in March 2004 a Canadian resident from Cameroon was indicted on two counts of violations of the Lacey Act and two counts of Aiding and Abetting the Smuggling of Goods into the USA for alleged activities relating to illegal ivory trade. According to the indictment, in November of 2002 and again in December 2003, the woman, who operated several Internet-based wildlife and African art businesses, smuggled raw ivory and tusks into

the USA from Cameroon in two separate shipments. The ivory was concealed in terra cotta pottery. The first shipment contained two raw elephant tusks in a shipping package that was falsely labeled and identified as containing wood and terra cotta sculptures. The second shipment was falsely labeled as containing terra cotta flower pots (USFWS, 2004b).

Summary

Taken together, the examples above suggest that the illegal trade in ivory entering the USA takes several forms. Small-scale, tourist-driven importation of illicit ivory, while certainly a concern, is not the only challenge. The regular occurrence of seizures of commercial ivory shipments from established dealers operating in the trans-Atlantic market suggests that wildlife trade enforcement officials must remain vigilant in monitoring the trade in antique ivory. USFWS inspectors, CBP inspectors, and others involved in border security must also remain vigilant against larger-scale concealment and smuggling of ivory in commercial quantities for the US market. Lastly, TRAFFIC is particularly concerned that wildlife enforcement agents must closely monitor the trade in ivory through the Internet from China and elsewhere to prevent illegal ivory from entering the USA in substantial quantities.

Unfortunately, in confronting such challenges, the US wildlife trade control and enforcement program faces gaps in funding and staffing. Although USFWS estimated in 2003 that its inspectors typically process more than 117 000 wildlife shipments each year with a declared value in excess of USD1.25 billion, that this trade has nearly doubled over the last 20 years, and that in the past five years the number of wildlife shipments declared has increased by nearly 30 percent, staffing and funding has remained constant in recent years. In fact, by July 2001 the total number of USFWS special agents had dropped below 190, reducing the number of personnel available to its lowest level since 1986. Although USFWS has since hired a number of new special agents, the agency remains short of its authorized level. USFWS does not expect to achieve a full complement of staffing in the near term through new hires, even as agent ranks may continue to drop as veteran officers reach

retirement age. Funding cutbacks or continued flat budgets could jeopardize, if not undermine, USFWS efforts to create and maintain an adequately staffed investigative program. USFWS also faces staffing challenges for the wildlife inspection program. While USFWS has maintained overall port staffing levels, a number of the Service's veteran inspectors have reached or are reaching retirement eligibility. In 2003, USFWS also reported difficulty in recruiting and retaining wildlife inspectors, particularly on the East Coast (USFWS, 2003).

US Compliance with CITES Resolution Conf. 10.10 (Rev. CoP12)

As was noted earlier, at CITES CoP10, the Parties adopted Resolution Conf. 10.10 (Rev. CoP12). The resolution directed the CITES Secretariat to identify those Parties with an ivory carving industry and internal ivory trade whose domestic measures did not provide them the authority to strictly regulate the trade in elephant ivory. Such countries were defined as those without the authority to register and license all importers, manufacturers, wholesalers and retailers dealing in raw, semi-worked or worked ivory products; assert compulsory trade controls over raw ivory; and establish a comprehensive and effective reporting and enforcement system for worked ivory (CITES, 2004b).

In 2004, the CITES Secretariat indicated that the USA was not fully implementing the requirements of Resolution Conf. 10.10 (Rev. CoP12), and had written seeking an action plan as required in CITES Decision 12.39. The Secretariat based its action on the grounds that the USA does not have all of the regulatory measures identified in the resolution (CITES, 2004d; Milliken *et al.*, 2004).

For the purposes of this report, TRAFFIC did not attempt to undertake an extensive analysis of all the legal and Constitutional issues that implementing the requirements of CITES Resolution Conf. 10.10 (Rev. CoP12) to the satisfaction of the CITES Secretariat would raise for the US government. However, TRAFFIC's research for this report suggested that it would be a challenge, for several reasons.

First, as has been noted above, the US federal government has only limited authority to regulate or prohibit intrastate commerce (Peter Thomas, Chief, Division of Management Authority, USFWS, *in litt.* to Willem Wijnstekers, CITES Secretariat, August 2003). The USA does have domestic legislation such as the ESA, Lacey Act, and AECA that regulate and in some cases proscribe interstate or international commerce in designated wildlife and wildlife products, including ivory, but registering wholesalers, retailers, and others in individual states may not be legally feasible at the federal level.

Second, the fact that the US ivory market appears to be very diffuse, with ivory products available from multiple sources (e.g., retail outlets, auction houses, estate sales, the Internet, etc.) poses a significant challenge to any attempt to establish a comprehensive reporting and enforcement system. For example, as was shown above regarding the Internet, approximately 1000 ivory items in various forms are available on a weekly basis through eBay alone, mostly from domestic sources. How to effectively monitor and police such a large volume of small-scale trade would represent a significant challenge.

Third, regarding domestic ivory carving, there is room for question about whether it is extensive enough to constitute a true "industry." Although research for this report uncovered examples of ivory being carved and sold in several US states, the activities appeared to be small-scale. TRAFFIC found no examples of companies or individuals deriving their business or livelihood solely through the carving of ivory, although the possibility that some such enterprises may exist cannot be ruled out. Further investigation will be needed to determine to scope of significance of this activity in the USA.

Finally, it should be noted that even though the CITES Secretariat has indicated that the USA is not fully implementing the requirements of CITES Resolution Conf. 10.10, it regards the USA as a low priority in the initiative to control internal trade in ivory. The Secretariat notes that in the case of the USA, although official policies do not prohibit trade in ivory, they certainly do nothing to encourage it, make clear that imports are rigidly restricted to what

is allowed by CITES, and limit domestic trade to pre-Convention ivory. Furthermore, the Secretariat has noted that it is primarily through the USA's reporting of a significant number of ivory seizures, indicative of a strong law enforcement program, that the country features prominently in ETIS and was thus listed in Decision 12.39 (CITES, 2004d).

The Impact on Elephant Populations

Determining whether the US elephant ivory market is a significant factor driving ongoing poaching of elephants proved difficult, because the link between illegal ivory imports into the USA and the situation in African range states is often indirect. As was noted above, there is certainly reason for concern that the USA remains a destination market for illegal ivory entering the country through China-based Internet sellers, tourists, shipments of "antiques", and commercial smuggling. Assuming as Stiles and Martin (2003) did that there is a positive correlation between ivory demand and elephant poaching, the scale of the US ivory market should indicate the level of elephant killing needed to supply that demand. However, several factors combine to undermine efforts to directly correlate US market demand with contemporary levels of elephant poaching.

First, the precise relationship between unregulated ivory markets and illicit trade in ivory, particularly in Africa and Asia, remains unknown. Stiles and Martin (2003) noted that East Asia is likely the main destination point for illegal elephant ivory, most of it of African origin. According to the findings of that study, China has emerged as the largest illegal manufacturer and importer-exporter of ivory. However, Hunter *et al.* (2004) found that unregulated ivory markets in Africa appear to consume a higher volume of ivory than do those in Asia, although that study did not determine the exact source of the ivory. That study found that 13 countries in Africa (Cameroon, Central African Republic, Côte d'Ivoire, the Democratic Republic of Congo, Egypt, Ethiopia, Gabon, Nigeria, Mozambique, Senegal, South Africa, Sudan, and Zimbabwe) require 32–81 mt of raw ivory per year to sustain their domestic ivory markets. By contrast, 12 countries or administrative regions



© WWF-Canon / Martin HARVEY

Forest Elephant killed by poachers for tusks. Dzanga-Ndoki National Park, Central African Republic (CAR).

in Asia (Cambodia, China, Hong Kong, Japan, Lao PDR, Myanmar, Nepal, Sri Lanka, Taiwan, Thailand, and Vietnam) require 13–34 mt. If the regulated ivory requirements of South Africa, Zimbabwe, and Japan are excluded, Africa still requires some 26–65 mt of raw ivory compared with 7–18 mt for Asia. That finding runs contrary to many conventional notions about contemporary ivory trade dynamics, and raises questions about the workings of the market.

Second and closely related, there are questions about who is purchasing worked ivory from sources in both Asia and Africa. Stiles and Martin (2003) and O'Connell-Rodwell and Parry-Jones (2002) both noted that in 1999, main buyers reported in six cities in China were from Japan, China, Hong Kong, Taiwan, and Thailand. From Europe, the main buyers were from Italy, Spain, France, and the UK. By 2001, O'Connell-Rodwell and Parry Jones (2002) reported that Chinese nationals had become the main retail ivory buyers, and in 2002 Stiles and Martin (2003) indicated that buyers of worked ivory were primarily foreign Chinese and Japanese. From Africa, Hunter *et al.* (2004) cited Martin and Stiles (2000), Stiles and Martin (2001), and Courouble *et al.* (2003) in noting that buyers of worked ivory included European and Asian diplomats, French military, Asian businessmen, United Nations staff, West African traders, expatriates, and tourists from Europe, the USA, and Asia.

Such reports lead to two potentially conflicting conclusions regarding the specific role of the USA in the illicit ivory trade from these

sources. On the one hand, the US market is not specifically listed in any of these sources as a primary destination market, apart from the role of US tourists. On the other hand, Hunter *et al.* (2004) also noted that these reports indicated that such trade likely represents not only individual demand for personal effects, but also potentially significant amounts of carved ivory being purchased for commercial sale elsewhere. Furthermore, as was noted above, the USA recorded seizures of illegal ivory in various forms and quantities from all 25 of the countries examined by Hunter *et al.* (2004) and also from numerous other countries in Africa, Asia, and Europe. It is therefore possible and even likely that some of the illicit ivory moving through these various channels may be destined for the US market; however, precisely quantifying how much ivory is being procured to meet US demand as opposed to other global buyers cannot be determined.

Third, the numbers of elephants being poached to serve these unregulated or illicit markets remains unknown. Within Africa, Hunter *et al.* (2004) cited the belief that almost all of the ivory used in the carving industries of West and central Africa comes from elephants that have been killed illegally, because tusks from natural mortality are rarely found in forest habitats. Some small quantities of ivory from natural mortality may come from savannah habitats, although such ivory cannot legally cross international borders without CITES permits. Other ivory may derive from various

government-owned stockpiles, while yet more may derive from elephants killed for meat for human consumption or in defense of life or property. In the latter case, obtaining ivory may not be the primary motive for killing the elephants, but the ivory may subsequently end up in trade (Hunter *et al.*, 2004). In Asia, as was previously noted, in China alone some 110 mt of elephant ivory went missing in the years between 1991 and 2002, and as of 2002 no estimate of the national stockpile could be made (Stiles and Martin, 2003).

Given such variables, quantifying the number of elephants being killed each year to supply unregulated domestic markets or illegal international trade is extremely difficult. Hunter *et al.* (2004) used one set of data and extrapolation methods to estimate that the ivory from between 4862 to 12 249 African Elephants and 123 to 349 Asian Elephants is required annually to supply the unregulated markets examined in their report. Even taking those figures as an accurate range, however, the question of what percentage of those elephants may be taken to serve the US market remains unknown. With no accurate surveys on the extent or nature of the US domestic ivory trade, legal or illegal, and only incomplete information on potential sources and routes of illegal ivory entering the USA, it is not possible to find definitive evidence linking the US ivory market to a quantifiable level of poaching of wild elephants.

THE US HIPPO IVORY MARKET

The global trade in hippo parts includes a wide range of products ranging from skin and leather products to bone, trophies, skulls, feet, shoes, and raw and carved ivory. TRAFFIC’s 2004 examination of the hippo trade concentrated on the import and export of carved hippo ivory, tusks/teeth (canine and incisor teeth),⁴ trophies, and jewelry, focusing in particular on the USA’s role in the international marketplace. TRAFFIC found that the USA is a significant importer of these products, with the primary exporting jurisdiction being Hong Kong. TRAFFIC also found a second, smaller trade flow of hippo ivory products coming directly from African nations. TRAFFIC’s examination further revealed that the trade of hippo ivory into the USA is dominated by a relatively small number of importers and exporters who account for the overwhelming majority of the products entering the US market.

The Global Hippo Trade

The contemporary international trade in hippo ivory differs from the elephant ivory trade in fundamental ways. Most significantly, because the hippo is currently only listed in CITES Appendix II and is not otherwise prohibited from trade by US or international law, there remains an ongoing legal commercial trade in hippo ivory and other products. The commercial trade in hippo ivory that existed before the species was listed in CITES Appendix II in 1995 continued afterwards, albeit under closer international monitoring.

However, as Table 11 shows, gross exports of various hippo ivory products from African

range states declined following the 1995 listing, especially regarding the amount of ivory measured by individual teeth and the number of carvings exported from Africa. These figures show that while there have been significant fluctuations in the trade from Africa of various ivory commodities during these years, substantial amounts of ivory have continued to come out of Africa to feed the US and other world markets.

The Cumulative US Trade

The USA imports significant amounts of hippo ivory in the form of carvings, teeth, trophies, and, to a lesser degree, jewelry and pieces. Between 1995 and 2002, for example, USFWS LEMIS data show that the USA cleared some 2479 shipments of hippo ivory in various forms, while refusing 93 others. Table 12 shows the total number of hippo ivory shipments cleared and refused by the USA for the period 1995 to 2002.

Although the USA imported far fewer shipments of hippo ivory than elephant ivory during this period, the amount of actual hippo ivory imported far exceeded that of elephant ivory, demonstrating a distinct difference in the pattern of trade between the two commodities. For example, between 1995 and 2002 the USA reported 6796 cleared shipments of elephant ivory—almost three times the number of cleared hippo ivory shipments. However, as Table 13 shows, the hippo shipments cumulatively represented close to 87 500 individual ivory items, as well as 1436 kg of hippo ivory reported by weight. There were also a total of 1160 trophy

Table 11: Total Gross Exports of Hippo Teeth, Tusks, Carvings, and Trophies from African Range States, 1995–2002

Item	1995	1996	1997	1998	1999	2000	2001	2002	Total
Teeth	42 295	28 046	2459	3939	11 091	4570	4299	1037	97 736
Teeth (kg)	5250	24 477	14 695	8642	12 766	19 631	12 500	8840	106 801
Carvings	2543	560	297	187	3613	2	396	212	7810
Trophies	248	377	315	196	257	384	617	334	2728

Source: TRAFFIC and IUCN/SSC (2004).

⁴ For the purposes of this report, hippo “tusk” and “tooth” imports are combined and described simply as teeth.

imports. Added together, those shipments total well more than three times the 33 864 ivory items and approximately 125 kg of ivory by weight represented in the elephant ivory shipments (see Table 2 in the previous section). The primary reason for the juxtaposition of these totals is that, whereas the majority of shipments of elephant ivory included small numbers of items, often just one antique ivory carving or tusk, hippo ivory tended to be imported in bulk commercial shipments, with sometimes hundreds of individual ivory carvings or teeth included in each (TRAFFIC analysis of USFWS LEMIS data, March 2004).

These data show that, as with elephant ivory, the preponderance of US trade in hippo ivory consists of carved pieces. The trade in these items peaked in 1999 and then decreased substantially in the years 2001 and 2002. This trend is roughly consistent with the fall-off of reported exports of hippo ivory from Africa range states shown in Table 11 (CITES, 2004c).

US Hippo Ivory Imports

Analysis by TRAFFIC of available trade data from CITES, UNEP-WCMC, and USFWS revealed several other broad patterns in the US commercial hippo ivory trade regarding countries of origin for the ivory, major importers and exporters, trade routes, and destination markets in the USA.

Countries of Origin

Far more information is available about the countries of origin for hippo ivory imported to the USA than is known about the origin of elephant ivory. Whereas current legal commercial trade in elephant ivory is restricted to antiques for which the original source may no longer be known, the trade in hippo ivory involves a continuous, contemporary stream of ivory from range states to world markets.

Tanzania is identified by USFWS LEMIS data as the country of origin for the vast majority of hippo ivory commercially imported into the USA, which is consistent with that nation's

Table 12: Hippo Ivory Imported into the USA by Shipment, 1995–2002

Commodity	Shipments Cleared	Shipments Refused
Carved Ivory	810	41
Trophies	1160	4
Hippo Teeth	502	46
Ivory Jewelry	5	2
Pieces	2	0
Total	2479	93

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

Table 13: Hippo Ivory Imported into the USA by Unit and Year, 1995-2002

Item	1995	1996	1997	1998	1999	2000	2001	2002	Total
Carved Ivory	7957 + 31.35 kg	9548 + 154 kg	7477 + 332.3 kg	11 340 + 576.6 kg	12 813 + 25.7 kg	9330 + 27.3 kg	3866 + 23 kg	3402 + 12.8 kg	65 733 + 1183 kg
Trophies	91	94	107	143	175	205	174	171	1 160
Teeth	3872	4600	3262	2083 + 3.35 kg	1476	2089 + 60 kg	1455 + 80 kg	1630 + 116.5 kg	20 467 + 260.1 kg
Jewelry	0	0	0	1 + 290 g	77	5	0	0	83 + 290 g
Raw/Pieces	0	0	0	6	0	0	0	12	18
Total	11 827 + 31.35 kg	14 148 + 154 kg	10 736 + 332.3 kg	13 429 + 580.2 kg	14 364 + 25.7 kg	11 431 + 80.3 kg	5318 + 103 kg	5041 + 129.3 kg	87 468+ 1 436 kg

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004

prominent role as an exporter of hippo tusks and teeth. Other nations that figure prominently in the trade include Zimbabwe, South Africa, Uganda, Zambia, Burundi, the Democratic Republic of Congo, and Malawi. For example, of the 810 shipments of carved ivory recorded as entering the USA legally between 1995 and 2002, Tanzania was identified as the source country for 517 (64%) of those shipments. Similarly, LEMIS recorded Tanzania as the country of origin for 199 (40%) of the 502 imports identified as consisting of hippo teeth. Table 14 shows the recorded country of imports for hippo ivory carvings and teeth for the years 1995 to 2002.

Trade Routes

TRAFFIC also examined the routes through which commercial shipments of carved ivory and hippo teeth reached the USA. TRAFFIC's analysis of LEMIS data showed three broad patterns in the trade. First, the overwhelming majority of shipments of carved hippo ivory and hippo teeth that entered the USA legally between 1995 and 2002 passed through Hong Kong. Second, there is a smaller segment of the trade in shipments recorded as carved hippo ivory that entered the USA directly from Africa. And third, the majority of shipments recorded as hippo teeth entered the USA directly from African range states (TRAFFIC analysis of USFWS LEMIS data, March

2004). The following examines each of these trade patterns.

Carved Hippo Ivory

Of the 810 shipments of carved hippo ivory reported in LEMIS as cleared between 1995 and 2002, 699 (86%) listed Hong Kong as the exporting jurisdiction. An additional 22 shipments that list Tanzania as the country of export also show the foreign supplier to be a company identified by TRAFFIC as based in Hong Kong. If shipments from Hong Kong-based companies are used to determine the trade route of the ivory, therefore, Hong Kong's role in the trade becomes even more significant. Using that analysis, 721 (89%) of the 810 shipments of carved hippo ivory imported into the USA between 1995 and 2002 involved Hong Kong-based suppliers (TRAFFIC analysis of USFWS LEMIS data, March 2004). Table 15 shows the countries of export for shipments of carved hippo ivory into the USA by year between 1995 and 2002.

The countries of origin recorded for these shipments were primarily Tanzania, Uganda, Burundi, the Democratic Republic of Congo, Malawi, and China (likely ivory exported from Africa to China and then re-exported through Hong Kong). This trade pattern suggests that carved hippo ivory entering the USA originates in East, Southern, and to an extent Central Africa, flows to Hong Kong or China to be

Table 14: Country of Origin for Hippo Ivory Carvings and Teeth Cleared for Entry into the USA by Shipment, 1995–2002 (no. of shipments)

Country of Origin	Carved Ivory	Hippo Teeth	Total
Tanzania	517	199	716
Zimbabwe	30	127	157
South Africa	40	88	128
Uganda	93	13	106
Zambia	4	34	38
Burundi	35	3	38
Dem. Rep. of Congo	22	5	27
Malawi	13	6	19
Other	56+	27++	83
Total	810	502	1312

Source: TRAFFIC analysis of USFWS LEMIS data, March 2003

+ Other countries identified in LEMIS as origins of shipments of carved hippo ivory include China (23), Hong Kong (7), Belgium (4), Botswana (2), Russia (3), Korea (1), Egypt (1), Saudi Arabia (1), Ethiopia (1), Brunei (1), and unspecified/unknown (12).

++ Other countries identified in LEMIS as origins of shipments of hippo teeth include Botswana (3), China (2), Hong Kong (2), Kenya (2), Belgium (1), Saudi Arabia (1), Colombia (1) and unspecified/unknown (15).

Table 15: Country/Jurisdiction of Export for Shipments of Carved Hippo Ivory Imported into the USA, 1995–2002 (no. of shipments)

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Hong Kong	58	88	99	108	141	103	61	41	699
South Africa	3	6	5	5	5	5	5	0	34
Zimbabwe	0	2	8	7	1	5	4	2	29
Tanzania ⁺	9	2	5	1	4	1	0	0	22
China	1	2	0	5	2	1	0	0	11
Others ⁺⁺	0	2	0	3	3	4	3	0	15
Total	71	102	117	129	156	119	73	43	810

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ Although Tanzania is listed as the country of export for these shipments, TRAFFIC's examination of LEMIS records shows that the foreign suppliers listed for all of these records are Hong Kong-based companies.

++ Other countries of export for carved hippo ivory shipments include Malawi (2), the UK (2), the Netherlands (2), Taiwan (2), Ethiopia (1), France (1), Switzerland (1), and unspecified/unknown (3).

worked, and is then re-exported from Hong Kong to the USA (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Furthermore, TRAFFIC's examination of who in Hong Kong is listed as the foreign supplier showed that the trade is dominated by a small number of companies. For example, between 1995 and 2002, 13 Hong Kong-based companies accounted for 642 (79%) of all carved hippo ivory shipments to the USA. The top five listed exporters alone accounted for 443 of these shipments (54%). The remainder of shipments of carved hippo ivory imported into the USA that listed Hong Kong as the jurisdiction of export came primarily from other suppliers recorded in LEMIS as being craft shops, carving factories, and trading companies, although in some cases the ivory was imported by individuals (TRAFFIC analysis of USFWS LEMIS data, March 2004).

A second, smaller trade route for carved hippo ivory involves shipments entering the USA directly from African range states, in particular South Africa and Zimbabwe. Shipments from these nations accounted for 63 LEMIS records between 1995 and 2002. The foreign suppliers for these carvings were primarily a small number of curio shops, safari companies, and trading companies. In addition, LEMIS records indicate that while some of these African shipments are commercial in nature, involving company-to-company transactions, the majority appeared to be noncommercial in nature. These involved small numbers of carved ivory pieces, often imported by

individuals, perhaps as souvenirs or curios. There were also several records in LEMIS showing a specialty trade in carved ivory by companies identified as custom knife-makers (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Hippo Teeth

Similar to records listed as carved hippo ivory, a significant trade route for shipments of hippo teeth from African range states to the US market passes through Hong Kong, and involves the same limited number of suppliers. As Table 16 shows, Hong Kong-based companies accounted for 160 (32%) of the 502 reported shipments of hippo teeth into the USA between 1995 and 2002.

However, as the table shows, TRAFFIC found that the majority of shipments of hippo teeth (often coded in LEMIS as "tusks") that entered the USA between 1995 and 2002 were imported directly from African range states. These records indicated that these imports consisted of a mixture of hippo ivory for commercial and noncommercial purposes. TRAFFIC's analysis of the import data showed that hippo teeth imported into the USA commercially from Africa came in shipments of multiple pieces from Zimbabwe and, to a smaller extent, South Africa. These same nations dominated the trade in hippo teeth entering the USA in smaller quantities for purposes identified in the records as noncommercial, likely as tourist curios or souvenirs. Foreign suppliers for these records

Table 16: Country of Export for Shipments of Hippo Teeth Imported into the USA, 1995–2002 (no. of shipments)

Exporter	1995	1996	1997	1998	1999	2000	2001	2002	Total
Asia									
Hong Kong	29	30	36	18	15	10	14	8	160
Africa									
Zimbabwe	7	12	13	23	20	19	21	11	126
South Africa	7	11	6	13	9	28	21	17	112
Tanzania+	5	11	4	11	9	8	4	6	58
Zambia	2	2	4	9	6	2	1	0	26
Others++	1	0	5	1	2	3	1	7	20
Total	51	66	68	75	61	70	62	49	502

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ Although Tanzania is listed as the country of export for these shipments, TRAFFIC's examination of LEMIS records shows that the foreign suppliers listed for all of these records are Hong Kong-based companies.

++ Other countries of export for shipments of hippo ivory shipments include the UK (10), Japan (2), Kenya (2), Botswana (1), Canada (1), the Democratic Republic of Congo (1), Malawi (1), Peru (1), and Switzerland (1).

included primarily safari companies, curio and art shops, and taxidermists. Unfortunately, as noted above for elephant tusks LEMIS data do not clearly differentiate between raw and worked ivory in recording imports into the USA. TRAFFIC could not therefore definitely determine how many of the imports listed as teeth may have represented raw as opposed to worked ivory (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Hippo Jewelry and Pieces

Along with these major commodities, TRAFFIC found a few import records identified as hippo ivory jewelry or pieces. Some of these shipments appeared to be commercial in nature. For example, in 1998 there was one shipment totaling 290 grams of hippo ivory identified as jewelry from an arts company in Hong Kong to an importer identified by TRAFFIC as a US-based Internet site dealing in hippo ivory. In 1999 there were two commercial shipments, one consisting of 35 pieces from Zimbabwe, the other of 42 pieces from Hong Kong, also to regular importers in the USA. In 2000 there was also a shipment of five pieces from a hunting outfit in South Africa to a US African arts store, with the origin of the ivory listed as Malawi. In addition to those shipments, TRAFFIC also noted one case of an individual importing a single piece of jewelry from an export company in Zimbabwe. Although it cannot be discounted that some hippo ivory jewelry may

be entering the USA listed in the import records under different categories, the rare occurrence of jewelry in LEMIS appears to indicate that such items do not appear to represent a significant feature of the overall trade (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Similarly, TRAFFIC found only two import records identified as ivory pieces. One was a shipment of six pieces from a South African company to a U.S. machinery company, while the other consisted of 12 pieces, likely teeth, from a curio shop in Zimbabwe to a US individual (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Hippo Trophies

In addition to the commercial and non-commercial trade in carvings, teeth and other items, the USA also reported 1160 imports of hippo trophies between 1995 and 2002. As with the trade in African Elephant trophies that was described in the last section, it was not possible to determine exactly how many of these imports involved hippo ivory, or in what quantity. In fact, determining the amount of ivory included in hippo trophy shipments is even more difficult than it is in the case of elephants. Whereas the complication in estimating the amount of ivory included in elephant trophies involves the difference between one or two tusks, with hippos a trophy shipment may range anywhere from one or two tusks to several teeth. This complication has

vexed attempts to determine the amount of ivory involved in international trade in the form of hippo trophies since before the 1995 decision to list the species in CITES Appendix II (TRAFFIC and IUCN/SSC, 1994 and 2004; CITES, 1999).

The largest source of hippo trophies imported into the USA between 1995 and 2002 was Tanzania, which accounted for 495 (43%) of the total number of imports. Zimbabwe, Zambia, and South Africa were other prominent sources. Trophy imports entered the USA almost exclusively from the identified country of origin for the hippo. As with the trade in elephant trophies, listed importers tended to be individual US citizens, and listed exports were safari companies, hunting outfits, or taxidermy enterprises. Not surprisingly, a cross-check between listed exporters of elephant trophies and hippo trophies found many of these companies, outfits, and taxidermy shops were the same in both sets of data. This likely reflects the fact that significant sport-hunting for African Elephants and Hippos occurs in a fairly defined subset of African range states, served by a fairly specialized pool of hunting guides (TRAFFIC analysis of USFWS LEMIS data, March 2004).

Table 17 shows the number of hippo trophies imported into the USA by year from 1995 to 2002.

The Domestic Market

The domestic market for hippo ivory in the USA differs from that seen for elephant ivory

in several ways. First, as was noted above, unlike the legal elephant ivory trade, which tends to concentrate on the import of carvings, tusks, and other items in individual shipments or small lots of antiques, hippo ivory tends to be imported in larger bulk shipments for commercial resale. It also proved far easier to link imports of hippo ivory to specific physical and Internet retail operations.

Second, because there are no restrictions on the legal import or resale of raw hippo ivory for commercial purposes similar to those placed on elephant ivory, TRAFFIC found a greater variety of hippo ivory for sale. Along with pre-carved ivory items imported from Hong Kong and elsewhere, raw ivory is readily available at the retail level.

Third, unlike the trade in elephant ivory, in the case of hippo ivory the USA appears to be almost exclusively a destination market. As was discussed in the previous section on the US elephant trade, along with importing elephant ivory, the USA also exported (or re-exported) close to 8600 elephant ivory items between 1995 and 2002—carvings in particular. By contrast, in the same eight years of LEMIS data analyzed for hippos, TRAFFIC found only 24 total records of hippo ivory exports from the USA, and 10 of those involved the export of trophies for commercial or noncommercial purposes. TRAFFIC found only eight export records for carved hippo ivory (totaling 81 pieces) that appeared to be commercial in nature, as well as two carved ivory shipments totaling three pieces that were

Table 17: Country of Origin for Shipments of Hippo Trophies Imported into the USA, 1995–2002 (no. of shipments)

Origin	1995	1996	1997	1998	1999	2000	2001	2002	Total
Tanzania	29	35	46	59	71	86	74	95	495
Zimbabwe	33	14	23	43	36	48	55	49	301
Zambia	20	34	32	33	56	52	20	3	250
South Africa	7	8	6	7	6	16	17	20	87
Mozambique	0	2	0	0	3	3	6	4	18
Cameroon	1	1	0	0	2	0	2	0	6
Botswana	0	0	0	1	0	0	0	0	1
Ethiopia	0	0	0	0	1	0	0	0	1
Other+	1	0	0	0	0	0	0	0	1
Total	91	94	107	143	175	205	174	171	1160

Source: TRAFFIC analysis of USFWS LEMIS data, March 2004.

+ One 1995 record did not specify the country of origin or the country of export.

exported for likely noncommercial purposes. The remaining four exports were listed as teeth. Two of these exports were commercial in nature, including 25 teeth exported to a custom knife-making company in South Africa and two kilograms of teeth exported to Indonesia. The other two appeared to be a personal effects shipment involving one tooth by an individual to Greece, and the shipment of a tooth to a Japanese museum. Thus, not only is it apparent that the USA now imports significantly more hippo ivory than elephant ivory, it would also appear that the US market is absorbing virtually all of the hippo ivory coming in (TRAFFIC analysis of USFWS LEMIS data, March 2004).

TRAFFIC found several major domestic channels of trade for various hippo ivory products. One is direct retail through physical stores. For example, TRAFFIC located a business in New York City that advertises itself as a major importer carrying more than 6000 items in stock, including carvings made from elephant, hippo, and mammoth ivory that range in price from USD39 to 4000. LEMIS records showed that between 1995 and 2002 this business imported 102 shipments of hippo ivory carvings and 14 shipments listed as hippo teeth, all but one of which were from major exporters in Hong Kong. Cumulatively, the imports attributed to this company included 6693 ivory carvings and 618 kg of carvings, and 1181 teeth plus 3.35 kg of teeth

(TRAFFIC analysis of USFWS LEMIS data, March 2004). TRAFFIC found similar records of other importers of hippo ivory doing business at the retail level; however, as with elephant ivory, it was not possible to put together a nationwide, comprehensive list of such outlets.

The Internet is another significant outlet for hippo ivory in the US market. As with elephant ivory, TRAFFIC monitored the availability and prices of hippo ivory available through eBay, and found that the amount of hippo ivory available through this major site ranged from 94 to 184 items per week between mid-February and mid-May. That is only about 10–20 percent of the amount found by TRAFFIC in the comparable evaluation of the average availability of elephant ivory on eBay weekly. Table 18 shows the results of periodic eBay searches during the survey period using the terms “hippo ivory” and “hippopotamus ivory.”

TRAFFIC noted a couple of interesting things about this aspect of the trade. First, much of the hippo ivory available from domestic vendors through eBay was attributable to two virtual “stores”, one based in Maryland and the other in Pennsylvania. LEMIS data showed that the operators of both of these stores had legally imported carved hippo ivory from Hong Kong (TRAFFIC analysis of USFWS LEMIS data, March 2004). Other hippo ivory available through eBay for which TRAFFIC

Table 18: Search Results for Hippo Ivory Available via eBay, February 13–May14, 2004

Date	“Hippo Ivory”	“Hippopotamus Ivory”	Total
2/13/04	90	4	94
2/20/04	97	1	98
2/27/04	142	0	142
3/05/04	106	4	110
3/12/04	161	2	163
3/19/04	170	5	175
3/26/04	182	2	184
4/05/04	158	5	163
4/09/04	176	5	181
4/19/04	139	4	143
4/23/04	159	5	164
4/30/04	147	3	150
5/14/04	142	3	145

Source: Pers. comm., T. Leonard, TRAFFIC North America, June 4, 2004.

found records of US purchases came from sites based in Hong Kong, suggesting some level of retail trade in hippo ivory carvings entering the USA directly from overseas.

Second, there was a parallel between these US-based vendors selling primarily hippo ivory carvings and the China-based vendors selling similar elephant ivory items that were described in the last section. TRAFFIC found that the domestic vendors selling carved hippo ivory and the China-based vendors selling carved elephant ivory appeared to share a market niche. For example, both sets of vendors offered various items of two-to-three inch netsuke carvings at prices ranging from approximately USD25 to 50, with some items priced above that level. Various jewelry items were offered by both sets of vendors in the range of USD10 to 20. Thus, on at least one level it would appear that the domestic vendors selling hippo ivory and the vendors based in China selling elephant ivory are competing for what might be termed the low-end ivory market, given that ivory carvings imported into the USA from Europe as antiques are sometimes valued in LEMIS records in the thousands of dollars each. On another level, however, there is a major difference. Whereas TRAFFIC could trace the hippo ivory offered by the domestic stores on eBay to ivory shipments cleared by USFWS, TRAFFIC has serious reservations about the legality of the ongoing trade in elephant ivory carvings from the vendors based in China.

And third, there is an active market for hippo ivory being sold through the Internet outside eBay. TRAFFIC found numerous sites selling both raw and worked ivory, catering to different parts of the US market. Some of these sites advertised pre-carved netsuke and other pieces of hippo ivory art similar to those advertised on eBay, but typically at higher prices. Others advertised ivory dolls, figurines, and other items that had entered the USA as raw ivory that had been then carved inside the country. Still others advertised specialty items such as custom ivory knife handles and gun grips. In one case, TRAFFIC found an operation that encouraged customers to send their knives or guns to the dealer who would, for varying prices, custom carve the handle or grip and return the finished product.

Yet another segment of the US market for hippo ivory involves the sale of raw tusks. TRAFFIC found whole tusks available both on eBay and through other Internet sites, catering to those who might want to carve items themselves for various purposes. Unlike pre-carved hippo ivory, which would be priced by the retailer or those who did the actual carving, this end of the market was largely priced by the size and quality of the individual tusks. For example, TRAFFIC found one business in Washington State, mentioned earlier, that sold raw tusks in three varieties: “lower curved,” “hippo straights,” and “upper curved.” Lower-curved tusks available ranged from 1 1/4 inches in diameter and 7 1/2 inches in length to 2 1/2 inches in diameter and 17 inches in length, and varied in price from USD20 to 130. Hippo straights ranged from 1 1/8 inches in diameter and seven inches in length to 1 3/4 inches in diameter and 14 inches in length, and sold for USD38 to 215. Upper-curved tusks ranged in size from 1 1/4 inches in diameter and six inches in length to 1 1/2 inches in diameter and 7 1/2 inches in length, and ranged in price from USD20 to 65. TRAFFIC noted that the business offering these tusks had imported 36.5 kg of hippo ivory identified as teeth between 2000 and 2002 (TRAFFIC analysis of USFWS LEMIS data, March 2004). Another Internet site, based in Mississippi and also mentioned earlier, offered hippo tusks seven to eight inches in length, with prices ranging from USD65 to 70.

Illegal Trade

The patterns and routes of illegal trade in hippo ivory take some of the same forms seen in the illicit elephant ivory trade. In both cases, a percentage of the seizures reported by USFWS stem from small amounts of illegal ivory being discovered in the possession of individuals entering the USA. As with seizures of antique elephant ivory between Europe and the USA, TRAFFIC also found the occasional seizure of shipments of hippo ivory from major suppliers in Hong Kong and elsewhere, destined for regular commercial importers in the USA. One difference between the two trade patterns was the apparent absence of instances of attempts to smuggle large quantities of hippo ivory into the country.

Overall, TRAFFIC found far fewer recorded seizures of hippo ivory than elephant ivory. The ratio of seizures to cleared imports was also far lower. Whereas between 1995 and 2002 LEMIS showed an overall 21% seizure rate for elephant ivory (1435 seizures of elephant ivory compared to 6796 cleared imports), for hippo ivory the seizure rate was approximately 4% (93 seizures compared to 2 481 cleared imports) (TRAFFIC analysis of USFWS LEMIS data, March 2004). That is not surprising, given the greater level of protection afforded to elephants under CITES and the more elaborate rules governing legal importation of elephant ivory under US law.

Of the hippo ivory shipments seized, TRAFFIC determined that that 62 (66%) were likely noncommercial in nature, while 31 (34%) were commercial; however, the commercial shipments accounted for the majority of the ivory confiscated. For example, the noncommercial seizures totaled only 133 pieces, including carvings, teeth, and jewelry. These items tended to be seized in small quantities from individuals entering the USA from African range states, most prominently South Africa and Zimbabwe. Other nations or jurisdictions from which apparently non-commercial shipments were confiscated included Belgium, Cameroon, Canada, Ethiopia, Hong Kong, Kenya, Lao PDR, Nigeria, Singapore, Tanzania, Viet Nam, and Zambia (TRAFFIC analysis of USFWS LEMIS data, March 2004).

By contrast, the 31 commercial hippo ivory shipments seized accounted for 1067 ivory pieces, including 677 carvings, 254 teeth, and 18 jewelry items. The majority of these items (737, or 69%) entered the USA from Hong Kong, often destined for companies that appeared in LEMIS records as regular importers of hippo ivory. Other countries from which apparent commercial shipments of illegal hippo ivory were confiscated included Belgium, China, Ghana, Malaysia, Morocco, South Africa, the UK, and Zimbabwe (TRAFFIC analysis of USFWS LEMIS data, March 2004).

This seizure pattern suggests that individuals—perhaps tourists—account for the majority of total seizures by shipment. However, because such seizures involve only individual pieces or

small lots of ivory, the majority of the overall hippo ivory seized comes from commercial sources. The fact that the importers and exporters from which the ivory was seized were often the same as those that reported regular legal shipments of hippo ivory suggests the need for continued vigilance of this aspect of the trade.

The Impact on Hippo Populations

Because it is difficult to calculate with any precision how many hippos the US trade data represent, it is similarly difficult to determine the possible impact that the US trade in hippo ivory may be having on the species in the wild. In 1995, TRAFFIC's statement in support of the CITES Appendix II listing for the species noted estimates by Eltringham (1993) that the total hippo population in Africa was conservatively estimated at approximately 157 000 animals (TRAFFIC and IUCN/SSC, 1994).

In 1999, the CITES Animals Committee initiated a Significant Trade Review for the species, to determine the potential impacts of trade and other activities on hippo populations in Africa. That report found that, among the primary countries of origin for hippo ivory entering the world market—and by implication the US market—hippo populations were considered stable in South Africa, Tanzania and Zimbabwe, and increasing in Zambia. The only country that has appears regularly in recent hippo ivory trade data for which the



Upper and lower canines and incisors are the most common sources for hippo ivory, which may be used in carvings, scrimshaw, and knife handles.

© WWF / Martin HARVEY

Significant Trade Review found a decreasing population was Uganda; however, the document noted that much of the poaching had taken place in earlier decades during a period of civil strife (CITES, 1999).

The Animals Committee issued recommendations for Botswana, the Democratic Republic of Congo, Malawi, Mozambique, Rwanda, South Africa, Tanzania, Zambia, and Zimbabwe (TRAFFIC and IUCN/SSC, 2004). Most significant among those recommendations was the imposition of a CITES export quota for exports of hippo teeth from Tanzania, which as seen above was by far the largest source of supply for the world hippo ivory market between 1995 and 2002. Consequently, CITES established an

export quota for Tanzania beginning in 2001 of 10 598 kg of teeth per year, composed of the teeth and hunting trophies of 1200 animals (UNEP/WCMC, 2004b).

Recent concerns have also been expressed regarding population declines in Burundi and in parts of the Democratic Republic of Congo (TRAFFIC and IUCN/SSC, 2004). However, beyond concerns for declines in specific populations, which may involve both hunting for hippo ivory and other concerns in strife-torn countries, TRAFFIC detected no indications that trade levels during the period 1995 to 2002 had a significant impact on overall hippo populations. Both trade and population levels deserve continued monitoring and regulation.

CONCLUSIONS AND RECOMMENDATIONS

Based on the above information, TRAFFIC drew several conclusions regarding the status of the US trade in elephant and hippo ivory.

- The USA remains an active player in the international ivory trade. Between 1995 and 2002, the USA legally imported more than 5400 shipments of worked ivory in various forms, involving more than 32 500 ivory items in the form of carvings, worked tusks, jewelry, piano keys, and other items. During the same period, the USA exported 1055 shipments of elephant ivory involving some 8600 carvings as well as smaller amounts of items in the form of tusks, jewelry, and piano keys.
- This trade is dominated by a fairly limited number of primary importers and exporters, and involves both commercial and non-commercial activity. Europe—the UK in particular—is the principal source of worked elephant ivory entering the USA legally. The UK and other European nations are also the primary destination for ivory exports from the USA. The USA engages in far more limited legal ivory trade with nations in Asia, Africa, and other regions around the world.
- The USA also continues to import raw or unprocessed ivory in the form of sport-hunted African elephant tusks. Between 1995 and 2002, the USA reported 1328 such trophy imports. However, the exact number of tusks actually imported could not be determined, because USFWS import data did not specify whether each such trophy import represented elephant tusks, and if so whether the shipment included one tusk or two. If each trophy shipment included two tusks, these imports would represent as many as 2656 raw tusks entering the USA during the eight year period analyzed.
- The full extent of the US domestic ivory market remains difficult to quantify. Because the US federal government has only limited authority to regulate or prohibit intrastate trade, and individual US states have not assessed or quantified

ivory markets in their jurisdictions, there is no reliable information about how much ivory is actually being traded in US markets. TRAFFIC's research indicated that the domestic trade appears to be diffuse, with ivory products available at the retail level from shops and galleries, auction houses, estate sales, and other outlets. Elephant ivory in various forms is also readily accessible over the Internet through eBay and specialty sites.

- In addition to the sale of worked elephant ivory in the form of antique carvings and other objects, TRAFFIC found evidence of a limited domestic carving industry for raw ivory. Items in the trade include ivory components for pool cues, knife and gun grips, and other commercially available items. As with the antique trade, the full scope of the domestic trade in raw ivory among hobbyists and those buying and selling the commodity for commercial purposes is not known. Further investigation will be required to determine the extent and possible significance of this aspect of the US market.
- Along with legal trade, there is ample evidence of continuing illegal trade in ivory into the USA for both commercial and non-commercial purposes. USFWS and other agencies that monitor wildlife trade at the nation's borders recorded the seizure of more than 1400 ivory shipments between 1995 and 2002 from some 80 different nations. Many of these seizures were individual ivory pieces taken from individuals, and likely represented curios or souvenirs being brought into the USA by tourists or other US citizens for non-commercial purposes. Other seized ivory came from commercial shipments between antique dealers, auction houses, and others involved primarily in the ongoing trans-Atlantic ivory trade. In addition, in recent years there have been cases involving the smuggling of commercial volumes of ivory concealed in various ways into the USA.

- TRAFFIC also found a disturbing pattern of Internet trade in apparently illegal worked ivory in the form of carvings, jewelry, and other items entering the USA from China. The ready availability of such ivory to US customers represents a potentially significant gap in efforts to monitor and regulate the ivory trade.
- The contemporary US trade in hippo ivory is larger by volume than is the current trade in elephant ivory. Imports of this commodity in the form of items recorded as ivory carvings, tusks, and teeth enter the USA primarily through Hong Kong, with a secondary pipeline of hippo ivory imports directly from African range states.
- The primary source countries for hippo ivory entering the USA were Tanzania, South Africa, Zambia, and Zimbabwe. Although some imports came directly from these nations and others in the form of trophies, the majority of the trade represented commercial shipments of likely pre-worked ivory.
- As with the trade in elephant ivory, the trade in hippo ivory is dominated by a limited number of export and import companies. However, unlike elephant ivory, hippo ivory tends to be imported into the USA in bulk shipments of sometimes hundreds of pieces. The ivory is then distributed and sold within the USA through both retail and Internet outlets.
- The trade in hippo ivory also differs from that of elephant ivory in that raw ivory in the form of tusks and teeth can be legally imported and sold. Although USFWS import records do not specify what percentage of hippo ivory is imported into the USA in raw form, TRAFFIC found companies importing hippo tusks and then selling them domestically to customers interested in converting the ivory into figurines, knife and gun grips, and other items.
- TRAFFIC found that carved hippo ivory serves a market niche similar in form and price to the carved elephant ivory being imported into the USA from China. This hippo ivory, which is carved primarily in

Hong Kong, is available from both US and foreign sources.

- Along with legal trade, TRAFFIC found a degree of illegal trade in hippo ivory entering the USA. As with elephant ivory, this trade involved both small amounts of ivory seized from individuals at US points of entry, and bulk commercial shipments occasionally confiscated by authorities. However, TRAFFIC did not find evidence of commercial smuggling of hippo ivory similar to that seen in recent years involving elephant ivory.

Based upon these conclusions, TRAFFIC makes the following recommendations:

- USFWS, in cooperation with state wildlife authorities, should undertake an initiative to determine the nature and scope of the US domestic ivory carving industry. Although TRAFFIC found no evidence of a significant domestic carving industry, the scattered examples discovered in the research for this report indicate that there continue to be companies and individuals carving raw ivory for commercial purposes within the USA. This raises obvious questions about the source of the tusks, the volume of the trade, and whether the activity is being carried out in compliance with relevant federal and state laws and regulations. Even if this aspect of the US ivory market is very limited as is likely, understanding its extent and dynamics would assist not only in efforts to monitor and regulate the US trade in raw ivory, but would also enhance US compliance with the provisions of CITES Resolution Conf. 10.10 (Rev. CoP12).
- Funding for the USFWS wildlife inspection program and related activities by US Customs and Border Protection needs to increase. USFWS has noted that the USA's focus on monitoring and policing the ivory trade concentrates on federal efforts at the border. Furthermore, to the extent that continuing illegal trade in ivory is driven by tourists who are knowingly or unknowingly breaking the law by trying to import elephant ivory souvenirs or curios into the USA, the

most effective line of defense remains border inspections. Although the USA has perhaps the most effective law enforcement system in place today to handle this problem, the fact that in recent years USFWS has not had a full complement of trained wildlife inspectors may be undercutting this vital element of the US response to illegal ivory trade.

- Enhanced funding is also needed to expand special operations and undercover investigations to identify and eliminate markets for illegal ivory within the USA and abroad. Although infrequent, the continuing phenomenon of cases of ivory being smuggled into the USA in commercial quantities suggests the continuing presence of an underground market. The presence of operations in nations such as China sending a steady stream of elephant ivory into the USA via Internet sales would also suggest the need to enhance cooperative international investigations to address the illegal trade in source nations as well as within the USA.
- At the same time, USFWS, nongovernmental organizations (NGOs), and others should work with companies such as eBay to better police the sale of elephant ivory across international boundaries via the Internet. Eliminating the ready access to Internet “stores” such as those doing business from China would help to enhance overall US enforcement of its CITES obligations. If effective means cannot be found to ensure that such trade is carried out in compliance with CITES and domestic US wildlife laws, major sites such as eBay should consider prohibiting international ivory sales through their services.
- Public agencies such as USFWS should increase efforts to heighten awareness among consumers (tourists, etc.) and potential vendors (Internet sites, antique dealers, auction houses, retail operators, etc.) within the USA and abroad about what is legal and illegal with regard to trade in ivory. NGOs can assist these efforts by disseminating information through membership and public information bulletins or other media, publishing accurate and impartial updates on ivory trade issues, and conducting education and public awareness programs to inform the public about the ongoing problem of illegal ivory trade.
- To help accomplish this, the USA should consider the feasibility and efficacy of increasing the penalties for those caught bringing illegal ivory or other illicit wildlife products into the country, and then placing those funds into a dedicated account to enhance public awareness regarding illegal wildlife trade. Under such a scenario, those caught illegally importing wildlife or wildlife products would not only face substantially increased monetary penalties for each item seized as a deterrent, but the proceeds from those violations would go directly to financing programs to better educate US tourists and others about the illegal wildlife trade. USFWS and others should study whether such an approach might generate sufficient resources to have a tangible effect on public education and enforcement efforts.
- The USA should consult with nations identified as major sources of ivory entering the country about ways to better coordinate and standardize rules regarding ongoing legal trade in ivory. For example, while the USA considers “antique” ivory to be ivory that is at least 100 years old, the European Union (EU) sets the standard for antique ivory at 50 years. Such differing definitions and rules have created potential confusion and conflict regarding what ivory is allowed in the marketplace. To the extent that legal international trade in elephant ivory is to be allowed to continue, the international community should work to create a single set of standards.
- Finally, USFWS should improve the way that it records imports and exports of both elephant and hippo ivory into and out of the USA. Specifically, LEMIS data available for this report did not enable TRAFFIC to determine the precise number of elephant tusks entering the country annually as trophies, which is an important measure because such trophies

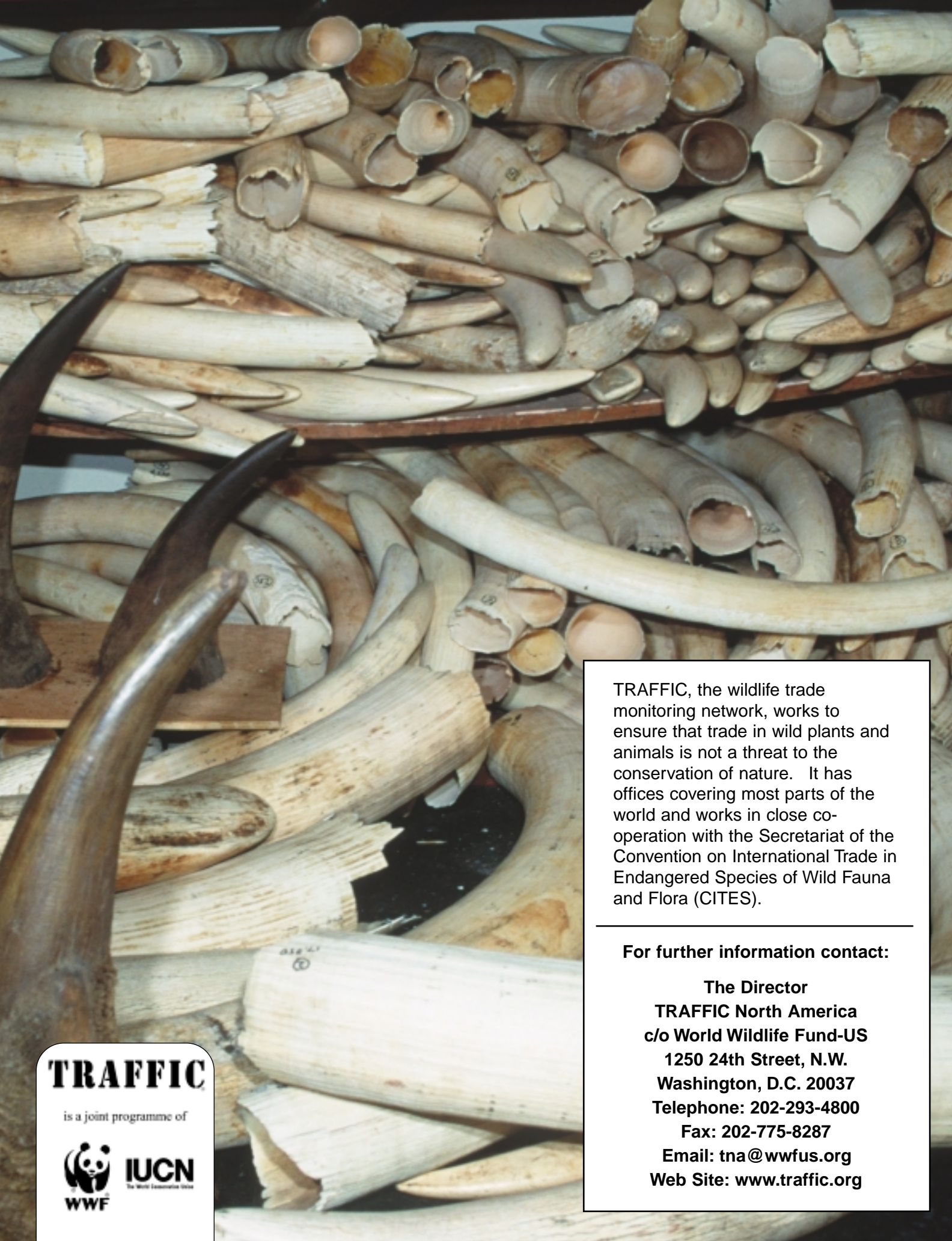
represent the only raw elephant ivory entering the USA legally at present. Some elephant trophy shipments were reported as a single unit, while other records showed a single shipment of multiple “trophies.” USFWS should change the way it records such shipments to specify the number of raw or unprocessed elephant tusks being imported. USFWS should make the same distinction regarding the number of hippo

teeth being imported in trophy shipments. Also regarding the hippo ivory trade, TRAFFIC could not always distinguish whether imports of “teeth” represented raw or worked ivory, making it impossible to calculate the amount of raw hippo ivory entering the USA on an annual basis. USFWS should clarify its method of recording hippo tooth imports to clearly distinguish between raw and worked ivory.

REFERENCES

- CITES (1999). *Trade in Wild-caught Animal Specimens: A Review of Selected Animal Species*. Draft Report to CITES Animals Committee prepared by WCMC, IUCN/SSC and TRAFFIC International. AC15.14.4.
- CITES (2003a). How CITES works? <http://www.cites.org>.
- CITES (2003b). The CITES species. <http://www.cites.org>.
- CITES (2004a). What is CITES? <http://www.cites.org>.
- CITES (2004b). CITES Resolution Conf. 10.10. Trade in elephant specimens. http://www.cites.org/eng/resols/10/10_10.shtml.
- CITES (2004c). CITES Decisions 12.36–12.39. Elephants—control of internal ivory trade. http://www.cites.org/eng/decis/valid12/12-36_39.shtml.
- CITES (2004d). Control of internal ivory trade. Report prepared for the Fiftieth meeting of the Standing Committee, Geneva, Switzerland. SC50 Doc. 21.1 (Rev. 1).
- Courouble, M. Hurst, F., and Milliken, T. (2003). *More Ivory than Elephants: Domestic Ivory Markets in Three West African Countries*. Traffic International, Cambridge, UK.
- EBay (September 2004). EBay policy on ivory. <http://www.eBay.com>.
- Eltringham, K. S. (1993). The common hippopotamus (*Hippopotamus amphibius*). In: Olivier, W. L. R., *Status Survey and Conservation Action Plan Pigs, Peccaries and Hippos*. IUCN/SSC Pigs and Peccaries Specialist Group/Hippo Specialist Group. IUCN, Gland, Switzerland.
- Hoover, C. and Tarr, T. (1997). *The U.S. Fish and Wildlife Service Division of Law Enforcement: A review of the program primarily responsible for enforcing CITES*. TRAFFIC USA and World Wildlife Fund, Washington, D.C. 34 pp.
- HSUS (2002). *An Investigation of Ivory Markets in the United States*. The Humane Society of the United States, Washington, D.C. 20 pp.
- Hunter, N., Martin, E., and Milliken, T. (2004). Determining the number of elephants required to supply current unregulated ivory markets in Africa and Asia. *Pachyderm* 26 (January–June 2004): 116–128.
- IFAW (2004). *Elephants on the High Street: An Investigation into Ivory Trade in the UK*. International Fund for Animal Welfare, London, U.K. 41 pp.
- Martin, E. B. and Stiles, D. (2000). *The Ivory Markets of Africa*. Save the Elephants, Nairobi and London.
- Milliken, T., Burn, R. W., and Sangalakula, L. (2002). Illegal trade in ivory and other elephant specimens: Summary report on the Elephant Trade Information System (ETIS). Report prepared for the Twelfth meeting of the Conference of the Parties, Santiago, Chile, November 2002. CoP12 Doc. 34.1.
- Milliken, T., Burn, R. W., Underwood, F. M., and Sangalakula, L. (2004). The Elephant Trade Information System (ETIS) and the illicit trade in ivory: A report to the 13th Meeting of the Parties to CITES. TRAFFIC East/Southern Africa, August 2004. COP 13 Doc. 29.2.
- O’Connell-Rodwell, C. and Parry-Jones, R. (2002). *An Assessment of China’s Management of Trade in Elephants and Elephant Products*. TRAFFIC International, Cambridge, U.K.
- Stiles, D. and Martin, E. B. (2001). Status and trends of the ivory trade in Africa, 1989–1999. *Pachyderm* 30: 24–36.
- Stiles, D. and Martin, E. B. (2003). The trade in African and Asian ivory in East Asia. *Pachyderm* 35 (July–December 2003): 82–99.

- TRAFFIC and IUCN/SSC (1994). *Analyses of Proposals to Amend the Appendices*. Submitted to the Ninth Meeting of the Conference of the Parties, Fort Lauderdale, Florida, 7–18 November, pp. 88–92.
- TRAFFIC and IUCN/SSC (2004). *Taxa Identified as Possible Candidates for Inclusion in the Review of Significant Trade in Specimens of Appendix-II Species*. Paper prepared by TRAFFIC and the IUCN/SSC Wildlife Trade Programme for the Twentieth Meeting of the CITES Animals Committee, Johannesburg, South Africa, 29 March–2 April 2004. AC 20, Doc. Inf. 12.
- UNEP/WCMC (2004a). *Loxodonta africana*. CITES-listed species database. <http://www.sea.unep-wcmc.org/isdb/CITES/Taxonomy>.
- UNEP/WCMC (2004b). *Hippopotamus amphibius*. UNEP-WCMC Species Database. <http://www.sea.unep-wcmc.org/isdb/Taxonomy>.
- USFWS (1989). Moratorium on importation of raw and worked ivory from all ivory producing and intermediary nations. *Federal Register*, Vol. 54, No. 110. Friday, June 9, 1989, pp. 24758–24761.
- USFWS (1999). African Elephant ivory fact sheet. US Fish and Wildlife Service Division of Management Authority, Arlington, VA, November.
- USFWS (2001). Ivory Coast citizen convicted in New York federal court. USFWS Press Release, August 1.
- USFWS (2002). ESA basics fact sheet. US Fish and Wildlife Service Endangered Species Program, Arlington, VA, October.
- USFWS (2003a). Importing your leopard or African Elephant trophy fact sheet. US Fish and Wildlife Service Division of Management Authority, Arlington, VA, Summer.
- USFWS (2003b). Asian Elephant ivory fact sheet. US Fish and Wildlife Service Division of Management Authority, Arlington, VA, Summer.
- USFWS. (2003c). FY 2004 law enforcement budget request. US Fish and Wildlife Service, Washington, D.C.
- USFWS. (2004a). Wildlife ports of entry and exit. http://www.le.fws.gov/Info_Importers_Exporters.htm.
- USFWS. (2004b). West African art dealer indicted on ivory smuggling charges. USFWS Press Release, March 3.



TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close cooperation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

For further information contact:

**The Director
TRAFFIC North America
c/o World Wildlife Fund-US
1250 24th Street, N.W.
Washington, D.C. 20037
Telephone: 202-293-4800
Fax: 202-775-8287
Email: tna@wwfus.org
Web Site: www.traffic.org**

TRAFFIC

is a joint programme of



IUCN
The World Conservation Union