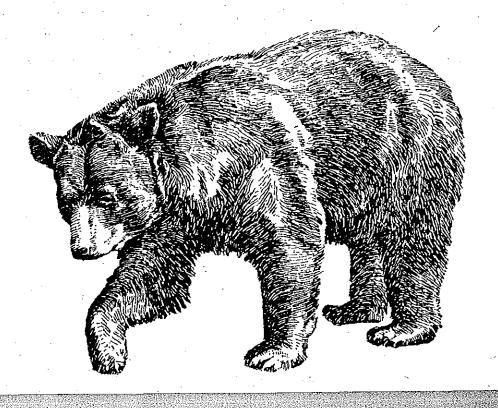
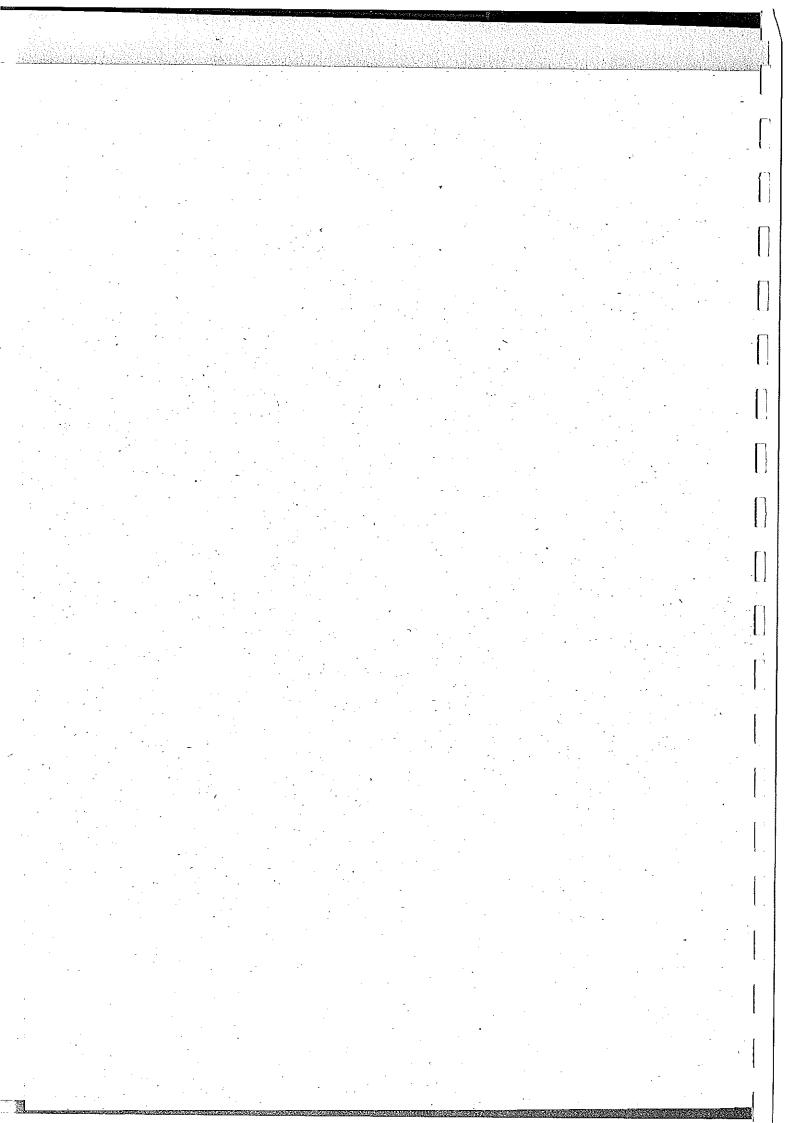
Status, Management, and Commercialization of the American Black Bear

(Ursus americanus)

Catherine McCracken
Debra A. Rose
Kurt A. Johnson







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Catherine McCracken
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January 1995

TRAFFIC USA 1250 24th Street NW Washington, DC 20037

Published in cooperation with World Wildlife Fund US World Wildlife Fund Canada Bears are made of the same dust as we, and breathe the same winds and drink of the same waters. A bear's days are warmed by the same sun, his dwellings are overdomed by the same blue sky, and his life turns and ebbs with heart-pulsings like ours, and was poured from the same First Fountain. And whether he at last goes to our stingy heaven or no, he has terrestrial immortality. His life not long, not short, knows no beginning, no ending. To him life unstinted, unplanned, is above the accidents of time, and his years, markless and boundless, equal Eternity.

John Muir (1871)

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### **EXECUTIVE SUMMARY**

The eight species of bears worldwide are increasingly impacted by the international trade of their valuable body parts. In Europe, North America, and much of Russia, bears are hunted as a game animal, and bear hides, claws, and teeth are traded domestically and internationally. In Asia and Asian communities elsewhere in the world, bear gallbladder, meat, brain, blood, bone, paw, and spinal cord are used in traditional medicines, and paws, meat, and fat used for food.

Asian bear species have been particularly affected by human population and economic growth, as well as a renewal of interest in traditional foods and medicines in some countries. Most Asian bear species are considered threatened or endangered because of both habitat loss and the demand for live animals and body parts. Because the native bear populations in many of those countries have been reduced to low levels, bear parts are believed to be increasingly imported from around the world, including North America. Of the world's eight bear species, only the giant panda of China is not hunted specifically for its gallbladder. All bears are regulated in international trade by their listing on Appendix I or II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a treaty that includes more than 120 countries.

The American black bear (<u>Ursus americanus</u>) is distributed throughout Canada, the United States, and Mexico. Although the black bear has been affected by habitat loss or alteration and increasing human-bear conflict, it is not considered a threatened or endangered species. By 1991, it had become apparent to some investigators that bear parts, especially gallbladders, from protected Asian species were being purposely labeled as American black bear—the only species not yet regulated by CITES—in order to bypass trade controls and prevent detection by authorities (CITES 1992). This illegal activity was the primary reason for the CITES Appendix II listing of the American black bear adopted by the Conference of Parties in March 1992 and implemented in June 1992.

Since 1981, however, investigations by state, provincial, and federal wildlife law enforcement agencies have suggested a wide-ranging North American trade in black bear parts and revealed a number of poaching operations for black bears in the United States (Gavitt 1989) and Canada (Gregorich 1992). The primary markets for gallbladders appear to be South Korea, China, Japan, Hong Kong, and Taiwan, but they are also sold in Asian communities in the United States and Canada.

In 1992, because of continuing reports of bear poaching and heightened public interest in the issue of bear trade (due in part to the 1992 CITES Appendix II listing), TRAFFIC USA initiated a survey of American black bear status, management, and commercialization in the United States, Canada, and Mexico. The objective of this project was to compile and analyze available governmental information on the management, harvest, and trade of American black bears in order to document and better understand their

commercialization, with emphasis on the illegal aspects of trade. The primary method used to gather information for this report was a 13-page questionnaire sent to state, provincial, and territorial wildlife management agencies in the United States and Canada in July 1992. Sixty-two of 63 states, provinces, and territories responded to the questionnaires between August 1992 and April 1993.

Survey results indicated that the total estimated population of black bears in the United States and Canada is 566,095 to 804,000 (not including New Brunswick, Kentucky, or Wyoming, which were unable to provide estimates). The legal hunting of American black bears occurs in 28 states and 10 provinces and territories. Based on survey responses, roughly 40,000 bears are harvested legally each year in North America by hunters and trappers. Twelve states and four provinces and territories allow the sale of black bear gallbladders legally acquired within their jurisdiction, while 20 states and five provinces and territories allow, or do not explicitly prohibit, the sale of bear gallbladders legally acquired outside their jurisdiction.

Several different types of local users of black bear parts were reported, including hunters, tourists, taxidermists, jewelry makers, folk and Oriental medicine practitioners and American Indians. Hunters often retain bear hides, skulls, teeth, and claws as curios, or these may be sold to tourists. Hides are also in great demand by taxidermists. Teeth and claws as well as hides are widely used by American Indians in the making of crafts for claws as well as hides are widely used by American Indians in the making of crafts for personal use or sale to tourists. Bear gallbladders are used by traditional folk medicine practitioners as well by Asian communities.

Thirty-three states and 10 provinces and territories reported that black bears and black bear parts are used within their jurisdiction, with 11 states and five provinces and territories reported the internal use of black bear gallbladders. The presence of external markets for black bear products was reported by 27 states and 11 provinces and territories. Sixteen states and eight provinces and territories reported the existence of external markets for black bear gallbladders, with 11 states and eight provinces and territories indicating for black bear gallbladders harvested within their jurisdiction. Trade of Asian demand for black bear gallbladders harvested within their jurisdiction. Trade of black bear parts was considered very significant or somewhat significant by 20 states and six provinces, while 15 states and six provinces and territories described the trade as increasing.

The impact of the trade of bear parts on black bear populations in North America remains difficult to assess, however. Reliable trade data for black bear gallbladders and other parts are lacking, and few of the states, provinces, and territories that allow the sale of bear gallbladders have mandatory reporting requirements for sale. The link between trade and widespread reports of increasing poaching within North America are also difficult to establish. According to the survey, reported and estimated mortality from poaching is lower than mortality from other causes, including legal harvest, control of problem animals, and road kills. Many states do not include any estimates of poaching kills in reported mortality data.

From a law enforcement perspective, the patchwork of state, provincial, and territorial legislation governing commercialization of wildlife creates also tremendous difficulties. Because many states lack a system to mark or register legally obtained bear parts, it may be impossible to prove the legal (or illegal) origin of gallbladders offered for sale. This situation is complicated further by the fact that seven states prohibit the sale of parts from bears harvested within the state, but allow the sale of bear parts from other states, provinces, and territories. Several states, provinces, and territories in which the sale of black bear parts is prohibited are bounded by jurisdictions in which such sale is permitted, which may facilitate laundering of bear parts from jurisdictions where bears are protected or their sale prohibited.

The relatively low prices reportedly received by hunters for bear gallbladders and other parts may have prevented the illegal trade from having a major impact on black bear populations in the past. However, high retail prices, as well as evidence of well-developed networks of hunters, middlemen, and retailers, suggest that the trade is likely to continue and may well expand in the future. The continuing decline of Asian bear populations may provide a further stimulus to the trade.

The trade of bear gallbladders, paws, and other parts has contributed significantly to the decline of many of the world's bear species, particularly Asian bears. Although the American black bear was listed on CITES Appendix II primarily to close a loophole threatening already endangered Asian species, information provided by federal, state, provincial, and territorial wildlife agencies in the United States and Canada indicates that there also exists a well-developed market for parts from the American black bear. This report highlights two important conclusions. First, the trade in black bears and black bear parts is known to occur throughout most of this species' range in the United States and Canada, and most of the range states surveyed report that the trade is either stable or increasing. Second, existing regulatory and law enforcement mechanisms are inadequate to control this trade. Although to date there has been no documented overall impact on American black bear populations, this market must increasingly be taken into account in black bear management and conservation decisions. In order to improve understanding and control of international trade in American black bears and black bear parts, TRAFFIC USA recommends the following:

- State, provincial, and territorial wildlife agencies should carefully monitor trends in black bear populations and develop reliable estimates of illegal black bear kills.
- A thorough review of state and provincial wildlife laws and regulations should be undertaken by regulators, wildlife law experts, and others, with a view towards developing more consistent restrictions on and penalties for the sale and trade of bear gallbladders, paws, and other products at the subregional, regional, and possibly national levels.

- Mandatory marking, registration, and recording systems should be implemented in those states, provinces, and territories that allow the sale of black bear parts acquired within their jurisdiction. Related documentation should be required in all states, provinces, and territories that allow the sale of black bear parts.
- Federal, state, provincial, and territorial governments should ensure that penalties are sufficient to deter illegal hunting and commercialization. These penalties should include mandatory jail sentences and fines higher than the value of illegally traded bear parts.
- A centralized data base should be created by federal law enforcement agencies to record seizures and develop estimates of illegal harvest and commercialization nationwide.
- Federal, state, provincial, and territorial agencies should ensure that adequate resources are devoted to special investigations and that law enforcement investigations may operate internationally when needed.
- Wildlife managers and other interested parties should assist efforts to obtain and update detailed information on markets for black bear parts, both within North America and abroad.
- Trading nations should work to improve the enforcement of international trade controls and the accuracy and timeliness of data collection and reporting of trade of bear and other wildlife products.
- Greater effort should be made to heighten the awareness of consumers about the impacts of trade on bear populations and the availability and relative effectiveness of substitutes for bear parts.

# I. INTRODUCTION

# The Status of Bear Species Worldwide

There are eight species of bears worldwide: the sun bear (<u>Helarctos malayanus</u>) and sloth bear (<u>Melursus ursinus</u>) from southeast Asia; Asiatic black bear (<u>Ursus thibetanus</u>) from central and eastern Asia; brown bear (<u>U. arctos</u>) from parts of western Europe, Siberia, Japan, and North America; American black bear (<u>U. americanus</u>) from North America; polar bear (<u>U. maritimus</u>) from northern Eurasia and northern North America; the giant panda (<u>Ailuropoda melanoleuca</u>), which occurs in small areas of China; and the spectacled bear (<u>Tremarctos ornatus</u>), which lives in the Andean region of South America. Bears inhabit every continent except Australia and Antarctica (Nowak 1991).

All bear species, except the polar bear, the American black bear, and the Alaskan and Canadian populations of the brown bear, have experienced dramatic population declines in recent decades. The sun bear, Asiatic black bear, most populations of the brown bear in Eurasia, and sloth bear have probably suffered the most significant declines. Scientists estimate that close to 600,000 American black bears and 20,000 polar bears still inhabit their existing range. Sloth bears, by contrast, number fewer than 10,000 throughout their wide range in southeast Asia, while probably no more than 1,000 giant pandas remain in the wild in China (Nowak 1991).

As with most large carnivores, bears have declined primarily due to habitat loss and human persecution. More and more often, however, bears are being killed for their valuable body parts. In Europe, North America, and much of Russia, bears are most highly valued as a game animal, while bear hides, claws, and teeth are traded domestically and internationally. In Asian countries and Asian communities elsewhere in the world, bears are valued for their parts--gallbladder, meat, brain, blood, bone, paw, and spinal cord for traditional medicines, and paws, meat, and fat for food. Asian bear species have been particularly affected by human population and economic growth, as well as a renewal of interest in traditional foods and medicines in some countries. Most Asian bear species are considered threatened or endangered because of both habitat loss and the demand for live

Bear gallbladders bring high prices on the international market. In Taiwan, a bear gallbladder of average weight was worth US\$800 to US\$3,000 (C\$1,096 to C\$4,110) in 1991 (Mills and Servheen 1991). In South Korea, a bear gallbladder could bring more than US\$10,000 (C\$13,700) in 1994 (Watkins 1994). Many bear species are reportedly being killed for this organ alone. The bile salts of bear gallbladders are used in various remedies in traditional oriental medicine. According to Asian medical practitioners, bile salts can cure various intestinal, liver, fever, and cardiac-related illnesses. Research has shown that gallbladder derivatives are effective as an antispasmodic, poison antidote, antihypertensive,

or anticoughing agent. Contrary to popular western belief, bear gallbladders are not prescribed as aphrodisiacs.

Bear parts are also considered food delicacies in some countries. In 1991, a bowl of bear paw soup fetched up to US\$1,500 (C\$2,055) in some upscale Taiwanese restaurants catering to rich clients looking for unusual or endangered animals (Mills and Servheen 1991).

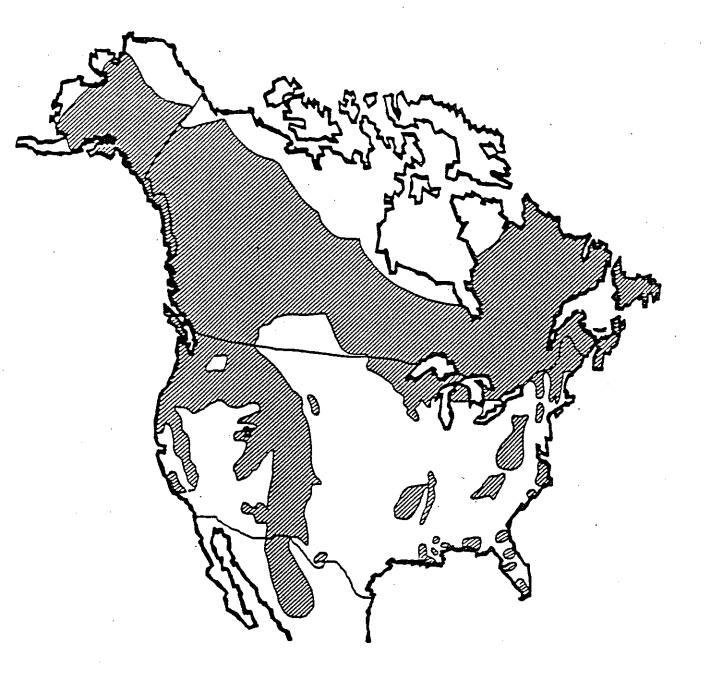
At least 18 Asian countries have been documented to trade in bear parts (Mills and Servheen 1991). Because the native bear populations in many of those countries have been reduced to low levels, bear parts are believed to be increasingly imported from around the world, including North America. Of the world's eight bear species, only the giant panda of China is not hunted specifically for its gallbladder. All bears are regulated in international trade by their listing on Appendix I or II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a treaty that includes more than 120 countries. The Asiatic black bear, sun bear, sloth bear, giant panda, spectacled bear, and certain populations of brown bear are listed on Appendix I, which prohibits all commercial trade. All other bear species and populations are listed on Appendix II of CITES, which regulates commercial trade through a permit system.

In addition, the U.S. Endangered Species Act (ESA) restricts commerce in grizzly bear (<u>U. arctos horribilis</u>) from the lower 48 states and several other endangered bear species such as the giant panda. The ESA also prohibits the trade in some listed nonnative brown bear subspecies in Europe. The U.S. Marine Mammal Protection Act (MMPA) prohibits trade in the polar bear except for certain subsistence uses by American Indians.

#### The American Black Bear

The American black bear (<u>Ursus americanus</u>) is distributed throughout Canada, the United States, and Mexico (Figure 1), with a total estimated population of more than 600,000 in the United States and Canada. Although the black bear has been affected by habitat loss or alteration and increasing human-bear conflict, it is not considered a threatened or endangered species, with the exception of the Louisiana black bear (<u>U. a. luteolus</u>), now listed as threatened under the ESA, and the Florida black bear (<u>U. a. floridanus</u>), a candidate for ESA listing. By 1991, it had become apparent to some investigators that bear parts, especially galibladders, from protected Asian species were being purposely labeled as American black bear—the only species not yet regulated by CITES—in order to bypass trade controls and prevent detection by authorities (CITES 1992). This illegal activity was the primary reason for the CITES Appendix II listing of the American black bear adopted by the Conference of Parties in March 1992 and implemented in June 1992. The species was listed under the provisions of Article II, paragraph 2(b) of the Convention, the so-called "look-alike" provision. According to this provision, listing is intended to impose documentation requirements for export or reexport

Figure 1. Distribution of <u>Ursus americanus</u> in North America (From Servheen 1990 (from Pelton 1982 and Maehr 1984))



of bears or bear parts, but it is unclear whether parties are required to issue a "no-detriment" finding before authorizing trade.

The American black bear has long been hunted for sport, predator control, meat, hides, and parts such as skulls, teeth and claws used for jewelry or decorative purposes (Pelton 1987). Within the last two decades, markets for gallbladders, paws, and other parts have also developed in response to the demand for medicinal use, the decline of Asian bear species, and the growth of Asian populations and economies. Despite the 1992 CITES Appendix II listing of the American black bear, however, there remains little reliable information on the scale of the legal and illegal trade of this species.

The trade of smaller bear parts such as gallbladders and paws is particularly difficult to document and control. For example, dried gallbladders can be concealed easily in hand luggage carried on an airplane and are light enough to be shipped by mail, while packaged medicines containing bear bile are difficult to identify because the labeling is often in a foreign language (CITES 1992). Even if bear parts in trade are detected, forensic scientists may not be able to determine the species from which galibladders and bile are obtained.

Since 1981, investigations by state, provincial, and federal wildlife law enforcement agencies have suggested a wide-ranging North American trade in black bear parts and revealed a number of poaching operations for black bears in the United States (Gavitt 1989) and Canada (Gregorich 1992). The primary markets for gallbladders appear to be South Korea, China, Japan, Hong Kong, and Taiwan, but they are also sold in Asian communities in the United States and Canada. Public concern has risen in response to the possibility that both trades, particularly illegal trade, may increase as Asian bear populations continue to decline. Many states and provinces have responded by prohibiting the commercialization of bear parts, and two bills have been introduced into the U.S. Congress that would supercede current state regulations by instituting a federal ban of all sale of black bear viscera (internal organs).

What impact does commercialization of bear parts have on the status and management of the American black bear? Trade in gallbladders and other parts clearly does occur, as evidenced by federal, state, and provincial records, but in order to assess its effects on bear management and conservation, several additional issues remain to be addressed. These include the species' overall and regional status, the size of harvest solely for gallbladder trade relative to other consumptive uses and sources of mortality, and the effectiveness of current federal, state, provincial, and territorial management and conservation efforts. This report represents an effort to compile available information on American black bear status, management, and commercialization in order to assess the impact of trade on this species.

#### The TRAFFIC USA Study

The TRAFFIC Network is the wildlife trade monitoring programme of World Wildlife Fund (WWF) and the World Conservation Union (IUCN) and is the only international nongovernmental organization working exclusively on wildlife trade issues. TRAFFIC USA was founded in 1979 by World Wildlife Fund-US and is one of 17 TRAFFIC offices working worldwide to combat illegal wildlife trade and ensure that legal wildlife trade is conducted in a sustainable, nondetrimental manner. Through research, reports, and investigations, TRAFFIC works to provide objective assessment of international wildlife trade for international and national government agencies, private nongovernmental organizations, and the CITES Secretariat in Geneva, Switzerland.

TRAFFIC USA has actively monitored the trade of American black bear parts for several years. In 1989, TRAFFIC conducted an initial survey of state, provincial, and territorial wildlife management agencies regarding black bear populations, regulations on legal harvest, and information about legal and illegal trade (Sheeline 1990). Of the 34 U.S. states and nine Canadian provinces and territories that responded to the survey, ten states and 6 provinces or territories described trade in black bear parts within their boundaries as active or very active, while 14 jurisdictions described the trade as growing (Sheeline 1990).

In 1991, TRAFFIC USA published The Asian Trade in Bears and Bear Parts, the result of an 18-month field investigation in eleven consuming Asian nations and the most extensive overview to date on the scale and economics of trade in bear parts (Mills ans Servheen 1991). The authors described a thriving Asian bear trade, often in violation of domestic and international law. This trade is driven by the resurgence of interest in traditional medicines and by prices of up to US\$120 (C\$164) per gram for gallbladders (which typically weigh 50 to 150 grams after drying) and up to US\$700 (C\$959) per serving for dishes that contained bear paw. The Asiatic black bear is the preferred species as a source of gallbladders, followed by the Chinese brown bear and other Asian bear species, with only scattered evidence from Hong Kong, Singapore, and South Korea suggestimg use of gallbladders from the American black bear. Japanese customs data indicated imports of less than 5 kilos of bear gallbladders from Canada in 1988 and 1989, and Taiwanese customs reported imports of 6 kilos from Canada from 1979 through 1983. However, the scale and value of the Asian trade and declining supply of Asian bears led the researchers to conclude that "There is . . . every indication that bear populations found in other parts of the world will increasingly feel pressure from the Asian demand for bears and bear parts" (Mills and Servheen 1991).

In 1992, because of continuing reports of bear poaching and heightened public interest in the issue of bear trade (due in part to the 1992 CITES Appendix II listing), TRAFFIC USA initiated a second survey of American black bear status, management, and commercialization in the United States, Canada, and Mexico. The objective of this project was to compile and analyze available governmental information on the management, harvest, and trade of American black bears in order to document and better understand their

commercialization, with emphasis on the illegal aspects of trade. TRAFFIC believes that this report represents an important first step toward developing a comprehensive picture of the impact of trade--both legal and illegal--on American black bear populations.

In September 1994, while the final draft of this report was being prepared, TRAFFIC USA, with the Woodland Park Zoo and the IUCN/SSC Bear Specialist Group, cosponsored the International Symposium on the Trade of Bear Parts for Medicinal Use, held at the University of Washington in Seattle, Washington. The symposium, the first of its kind, was organized to provide a forum for wildlife managers, law enforcement personnel, policymakers, researchers, and conservationists to discuss levels and trends of . trade of bear parts, the management and conservation implications of this trade, and opportunities for improving information, regulation, and law enforcement. Representatives from the U.S. Fish and Wildlife Service and Canadian Wildlife Service; agencies in 11 states and 6 Canadian provinces; Russia, Korea, China, Taiwan, Japan, and Hong Kong; and conservation organizations in several countries attended the symposium. This report was summarized in two separate presentations and circulated in draft form to symposium participants in order for their comments to be incorporated. The proceedings and findings of the symposium will be published by TRAFFIC USA in early 1995 and made available to all federal, state, provincial, and territorial wildlife agencies in the United States and Canada. In some cases, symposium presentations and findings were incorporated in the final version of this report.

This report is divided into three major sections. The first provides background information on the medicinal use of bear parts, available information from trade statistics and law enforcement cases, and outstanding issues that may need to be resolved in order to better understand the trade and its impact on North American bears. The second section discusses and analyzes the results of a 1992 TRAFFIC survey of state, provincial, and territorial wildlife agency personnel in which respondents were asked to provide qualitative and quantitative information on black bear population status and trends, legal status and hunting regulations, annual harvest results, the significance and trends of black bear trade, and effectiveness or perceived effectiveness of law enforcement. The third and final section summarizes the report's findings and conclusions and provides recommendations for future action by federal, state, provincial, and territorial wildlife agencies.

#### II. THE AMERICAN BLACK BEAR IN TRADE

#### The Use of Bears for Food and Medicine

Bear gallbladders and paws are in particularly high demand in international trade. Chinese folklore holds that bear meat, especially that of the paw, is a good "tonifying" food for general health. Bear paws are a culinary delicacy among Chinese throughout Asia (Liu 1991, Milliken 1985). Korean tourists visiting Thailand seek bear parts to enhance health and stamina and eat them in special restaurants (Mills 1991).

While bear paw is thought to be beneficial to overall health as a preventive medicine, bear gallbladders and bile salts are also used in traditional Asian medicinal practices to relieve "hot" disorders such as fevers, delirium from burns, and stomach and liver ailments (see Appendix A, from Bensky and Gamble 1986). The desirable ingredient in gallbladders is ursodeoxycholic acid (UDCA), which has proven medicinal properties. Bile salts from gallbladders "are often seen in dried, crystalline form....(and) look like crushed brown glass....Bile salts are taken in chunks, melted on the tongue or downed with water, dissolved in liquor, mixed with other traditional ingredients...stuffed in capsules, molded into manufactured tablets, and blended into ointments and creams" (Mills and Servheen 1991). In North America, bear gallbladders are sometimes sectioned into small disks and used as a quasi-seasoning or are inserted in the cheek (similar to a tobacco plug) for recreational use (Cook 1994).

Dwindling bear populations have led to increased interest in developing substitutes for gallbladders and bile from wild bears, although it is not yet clear how successful these substitutes will penetrate the medicinal market. Synthesized UDCA, made from cow bile, is manufactured and prescribed in the United States to dissolve gallstones and in Japan to sell to consumers in Japan, China, Taiwan, South Korea, and the United States. Synthesized bile is popular in South Korea and Japan as a liver tonic and hangover remedy. Herbal alternatives are also available and sometimes prescribed by medical practitioners (Mills 1994, IFAW 1994). More common is the usage of gallbladders from other animals such as domestic cows, pigs, sheep, goats, and poultry (Huang 1994, Mills 1994). Bile may also be extracted from live bears by means of a catheter inserted into the gallbladder. Bear farms have been established throughout Asia, with more than 10,000 bears in captivity in China alone (Yinfeng 1994, Mills and Servheen 1991). However, many traditional medical practitioners view each of these substitutes as inferior to the real thing, and their limited usage apparently has not relieved pressure on wild bears (Mills and Servheen 1991).

The availability of some of these substitutes has increased the difficulty of tracking the numbers of genuine bear galls in trade and the impact of trade on populations in the wild. Bear gallbladders are visually similar to those from other comparably sized animals, such as pigs, and bear gallbladders are often labeled as pig gallbladders to avoid detection or substituted with pig gallbladders to take advantage of high market prices for bear parts.

Laboratory analysis conducted on samples of 81 gallbladders offered for sale as bear galls in Hong Kong revealed that only 28 were genuine bear samples, while at least some of the remainder were likely to come from pigs. Of the genuine bear samples, some were believed to originate from Chinese bear farms (Lau et al. 1994). Analysis by the U.S. Fish and Wildlife Service Forensics Laboratory of "bear" gallbladders seized in North America revealed that of the 489 items submitted by Canada, 74 percent were from wild bears, while of the 871 samples seized in the United States, 49 percent were from wild bears and 51 percent were from pigs (Espinoza et al. 1994). Analysis by the California Department of Fish and Game Forensics Laboratory has revealed that approximately 90 percent of the gallbladders confiscated by law enforcement personnel are those of domestic livestock, mostly pigs (California Department of Fish and Game 1992).

#### Commercialization and Trade of American Black Bear Parts

To date, little information has been compiled on the importance of American black bear in the Asian medicinal trade or the significance of commercialization of bear parts within North America. The bulk of the legal trade in American black bear parts consists of U.S.-Canada trade in sport-hunted trophies (considered noncommercial trade by CITES) and skins and claws. From 1985 to 1989, U.S. Fish and Wildlife Service (USFWS) data (likely to be incomplete) recorded U.S. exports of American black bears and their products totaled only 20 live black bears, 10 rugs, 5 skins, 5 skulls, 45 trophies, 30 partial skins, 40 claws, 1 carcass, and 54 unspecified products. During this period, U.S. imports from Canada consisted of 643 rugs, 1,831 skins, 50 skulls, 573 trophies, 7 garments, 23 partial skins, 18,025 claws, 4 pieces of jewelry, 4,192 feet, 4 carcasses, 35 meat items, and 108 medicinal products (CITES 1992). From 1990 through 1993, the United States exported 148 skulls, 650 teeth, 23 feet, 4,221 claws, 60 items of jewelry, 53 live bears, 388 trophies, 142 kilos of meat, 83 rugs, and 1,238 skins (unedited data from USFWS).

Official statistics on the global trade of bear parts are more difficult to obtain. According to Japanese customs data, Japan imported 2 kilos of bear gallbladders (species unspecified) from the United States in 1979 (Milliken 1985), 4 kilos of American black bear gallbladders from Canada in 1989, and 6 kilos in 1990 (CITES 1992). South Korean customs data show imports of 4,136 kilos of bear bile from 22 suppliers from 1970 through 1993, representing the gallbladders of an estimated average of 2,867 bears annually. The United States was South Korea's second largest supplier, after Japan, with 1,249 kilos (Mills 1994). It is impossible to ascertain, however, the species composition of these imports or whether they consist entirely or even mostly of genuine bear gallbladders. An analysis of Taiwanese customs statistics from 1975 to 1985 found that of the reported imports of 8,250 kilos "bear" gallbladder, at least 6,586 kilos actually consisted of gallbladders of pig and water buffalo (Chang et al. 1994).

In theory, the 1992 CITES Appendix II listing of the American black bear should contribute to improved data collection on legal and illegal trade in black bear parts since all

CITES parties are required to issue export permits for black bears and to maintain and report all records of declared trade in listed species. Unfortunately, the improved trade documentation anticipated as a result of CITES Appendix II listing of the American black bear has not yet been realized. Customs inspection is more stringent for imports than exports, but CITES 1992 annual reports from Asian importing countries were submitted late and were not available for review at the time this report was written. Much of the trade is never reported to CITES, suggesting an illicit trade. For example, a comparison of South Korean customs records to CITES reports found that of the more than 4,000 kilos of bear gallbladders reported as imported from 1970 through 1993, CITES records existed only for 18 kilos entering South Korea from Russia in 1991 (Mills 1994).

Recent permit data are available from the USFWS, but only three CITES permits have been issued for bear part exports, and one permit application denied, since the 1992 listing. One permit was issued for gallbladders and paws being reexported to Canada, one for a single gallbladder from a bear taken legally in Maine, and one for gallbladder tissue for forensics analysis (Lieberman 1994). From 1990 to 1993, 3,869 bear medicinal products, most likely packaged medicines from Asia that list bear bile among their ingredients, were reportedly seized coming into the United States, while 503 such products were cleared for entry in 1990-1991, but no U.S. exports or attempted exports of black bear medicinal products were recorded (unedited data from USFWS). Similarly, 104 bear feet (37 of which were seized) were recorded as entering the United States during this period, but it is unclear whether these were destined for human consumption or for use as fur or mounted specimens. No U.S. exports of bear feet were recorded during this period. Significantly, the United States cannot report any trade in bear gallbladders in its 1992 or 1993 annual reports because it has not assigned a four letter computer code for bear gallbladders (Albert 1994).

Canada's population of the American black bear was listed on Appendix III of CITES by that country in September 1991. Canada does report the trade of galibladders in its annual report, so that the Canadian CITES report for 1991 contains trade records for September through December 1991. In that year, 189 black bear galibladders were reported as exports: 172 commercially exported to Japan, 14 to the United States, and 2 to China, while one galibladder was reported as a trophy export to the United States. In addition, a single shipment of 10 black bear feet was recorded as a trophy export to the United States (Environment Canada 1993). No Canadian CITES reports are available after 1991. Independent analysis of 1992 Canadian CITES permits found a total of 5,742, or 55 percent of all CITES export permits issued by Canada in 1992, were for black bears (Outspan Group 1993). Most permits were issued for trophy items exported by nonresident hunters, or for pelts and rugs. Only 12.5 percent of 1992 export permits were issued for other black bear parts such as teeth, claws, bones, galibladders, penis bones, skeletons, livers, carcasses, or unspecified products, so that fewer than 717 galibladders or other parts could have been destined for medicinal use (Outspan Group 1993).

In Canada, the authority to issue CITES export permits for black bears and their parts is delegated to provincial and territorial wildlife agencies, some of which were able to provide more recent trade data to TRAFFIC USA. Nova Scotia issued CITES export permits for 32 black bear gallbladders in 1991 and 38 in 1992; in these two years, the province also issued permits for 975 claws, 15 skins, and 7 taxidermy exports (Sabean 1994). Exports of black bear gallbladders from the Northwest Territories totaled 7 in 1989-1990, 2 in 1990-1991, and 3 in 1992-1993; also exported from the Northwest Territories during the period 1988 to 1994 were 271 hides, 2 skulls, 2 jaws, 1 set of paws, and 29 claws (Watt 1994). Ontario did not export any black bear gallbladders in 1993; one CITES permit was issued for the export of a bear gallbladder in the period January to September 1994 (Brisbane 1994). British Columbia and Quebec were unable to provide recent data on exports of black bear parts.

Twelve states and four provinces and territories allow the sale of black bear gallbladders legally acquired within the state, province, or territory, although four of these states either do not have black bear populations or do not permit legal harvest of bears. The combined 1991 legal harvests of these states, provinces, and territories was 11,265 black bear gallbladders that could potentially have entered the market legally. However, of those states and provinces that allow the commercialization of bear gallbladders, only three were able to provide data on actual sales to TRAFFIC. Idaho records show that 510 bear gallbladders were sold between November 1983 and December 1989, and 110 pounds of unskinned bear paws were shipped to "an Oriental individual" in Anchorage, Alaska, in June 1989 (CITES 1992). Idaho's legal sales of bear gallbladders totaled 261 in 1990, 306 in 1991, 223 in 1992, and 151 in 1993 (Lyon 1994). Gallbladder sales in Maine total approximately 500 annually (Sargeant 1994b). Saskatchewan's legal sales of black bear gallbladders numbered 29 in 1988, 7 in 1989, 275 in 1990, 802 in 1991, 596 in 1992, and 345 in 1993, with 155 recorded by June 1994 (Harvey 1994). Together, reported domestic and international trade of American black bear gallbladders totals 3,625 from 1988 through 1994.

#### Evidence from Law Enforcement Investigations

Given the lack of reliable trade data for American black bear parts, much of the available evidence of trade for medicinal use has been obtained through undercover investigations conducted within the last decade. In 1981, an anonymous tip to the California Department of Fish and Game (CDFG) led to a seven-month multiagency investigation into illegal commercialization of bear parts (Reisner 1987, Gavitt 1989). Although California has some of the strongest regulations in North America for commercial trade in wildlife and prohibits the sale of bear parts, nearly all of the 100 hunting guides contacted covertly during the investigation were involved in illegal commercialization of bear parts (Gavitt 1989). Major buyers of bear parts were found in Los Angeles, San Francisco, and the state of Washington (Klein 1982, cited in Gavitt 1989).

A second investigation of illegal hunting and sale of black bears and their parts was launched in California in 1986 (California Department of Fish and Game 1988). Concluded three years later, Operation Ursus resulted in 75 arrests for illegal commercialization of bear parts. San Francisco was identified as an important market for bear parts as well as the main port of export for bear gallbladders shipped to South Korea, Taiwan, Hong Kong, and Singapore (Nobbe 1990).

Just a few years later, a new investigation by the CDFG, Operation Asian Ursus, was concluded in 1994 with charges brought against an American citizen of Korean descent for felonious counts of sale of bear parts, offering to sell bear parts, and conspiracy to commit illegal hunting guide activities. The suspect was accused of soliciting hunters from South Korea, arranging illegal hunts with guides in northern California, and selling gallbladders and other parts to Asian communities in Los Angeles and South Korea. Authorities confirmed the illegal harvest of at least 30 to 35 bears from November 1993 to January 1994, and believed that at the time of his arrest, the suspect was on the verge of organizing bear hunts in Washington, Oregon, British Columbia, and Alaska. According to Greg Laret, Deputy Chief of CDFG's Wildlife Protection Division in Sacramento, "The reason this case is so significant is that it is the first time we have solid evidence that people are being solicited from outside the country to come to California and kill bears illegally. We suspected it in the past, and now we have evidence" (California Department of Fish and Game 1994).

In Operation Berkshire, launched in the northeastern United States in 1986, undercover wildlife agents from Massachusetts and New York purchased parts from roughly 400 black bears that were sold illegally, although most of the bears were taken in Maine, New Hampshire, and Canada, where the sale of bear parts is legal (New York Times 1989, Gavitt 1989). By January 1990, the investigation had resulted in nearly 30 arrests with total fines over US\$25,000 (C\$34,250) and charges filed or pending in Maine, New Hampshire, Massachusetts, Connecticut, New York, Florida, Ontario, and Quebec (Nobbe 1990).

Other undercover multiagency investigations by the USFWS, the National Park Service (USNPS), the Forest Service (USFS), and state agencies such as the Virginia Department of Game and Inland Fisheries, have focused on the southeastern United States, where bear populations are small and isolated. Fragmentation puts these populations at a higher risk from habitat loss and illegal hunting (Miller 1990; Mugavero 1991). Operation Smoky, carried out by federal and state wildlife agents from Tennessee, North Carolina, and Georgia, centered on the Great Smoky Mountains National Park in North Carolina and Tennessee. The investigation ended in 1988 and resulted in 52 convictions and total fines of over US\$100,000 (C\$137,000) (Nobbe 1990). During the course of the three-year investigation, 368 illegal black bear kills were documented (Cook 1994). Another unnamed investigation spanning four years and involving a number of federal and state agencies revealed the illegal killing of 100 black bears in the southern Appalachians, including the Shenandoah National Park in Virginia. The parts of poached bears were often sold

commercially, with gallbladders selling for as much as US\$300 (C\$411) (U.S. Department of the Interior 1988).

Evidence from undercover operations in the eastern United States suggests that bear parts from national parks or wildlife refuges, particularly gallbladders, may command higher prices because buyers prefer to buy parts from bears that are less likely to have been exposed to pesticides (Cook 1994). Since 1989, however, very little undercover investigation work has been undertaken in the national park areas (Cook 1994). A recent article in the Denver Post documenting widespread problems of poaching in U.S. national parks reported that "black bears are being poached from at least 26 (national) parks, nine of which report the animal's numbers are diminishing...Black bears could vanish from Dinosaur National Monument in Colorado and Shenandoah National Park in Virginia" (Pankratz 1993). The reasons for the apparent increase in bear poaching in national parks are not clear. Rising poaching pressure may be a response to increased demand and prices for bear parts, the concentration of black bears in protected areas, or both. It may also reflect decreasing law enforcement presence. During the period 1980-1993 the national park system in the United States grew in size from 29.6 million acres to 80 million acres, while the number of permanent park rangers only rose from 3,200 to 3,300 and the number of seasonal rangers fell from 5,000 to 4,000 (Pankratz 1993).

Undercover investigations have suggested the existence of extensive and sophisticated networks of hunters, middlemen, retailers, and buyers of parts from the American black bear (Cook 1994, Gavitt 1989, Klein 1982). Legal as well as illegal commercialization of black bear parts is facilitated by established networks linking hunters and guides with the taxidermists and fur and hide dealers who often purchase gallbladders and paws as well as skins and mounts. Bear gallbladders and other parts are also purchased by ginseng dealers who have established similar networks with rural resource users (Dickinson 1986, Rieffenberger 1994). Many bear parts are sold within the United States in urban areas with large Asian populations, such as San Francisco, Seattle, Portland, New York, and Chicago. Most of these cities are also major sea ports and the primary ports for international shipments of bear parts (Cook 1994). Investigations have also revealed that some private zoos and game farms in the United States have shipped American black bears overseas to Asia; these live bears may be captive-bred as well as illegally trapped (Gavitt 1989). In either case, their export is most likely to be recorded as part of the zoo trade, adding to the difficulty of assessing the size of trade of American black bears for medicinal use.

Evidence of illegal trade of bear parts in Canada is also growing. In December 1992, wildlife law enforcement officers from Alberta and officers from the Royal Canadian Mounted Police intercepted a Korean citizen who was attempting to smuggle seven black bear gallbladders and four foot pads back to Korea. The gallbladders had been dipped in chocolate to disguise them from authorities (Lalonde 1993). From late 1992 through 1994, Alberta law enforcement officers achieved 11 convinctions for illegal possession and trade of bear parts, involving a total of 36 gallbladders and 34 paws (Chatel 1994).

A number of isolated cases suggest widespread illegal trade in bear parts between the United States and Canada. For example, in October 1989, a resident of Alaska was arrested in Yukon Territory and charged with three counts of attempting to purchase bear gallbladders. He was charged with illegal possession of bear parts for export, and 50 gallbladders allegedly purchased in British Columbia were seized. In April 1990, as a result of investigations by agencies from five states, three provinces, and the U.S. and Canadian federal governments, an outfitter who guided sportsmen on bear hunts in Canada was convicted of selling 37 gallbladders for US\$3,000 (C\$4,110) to undercover investigators in the state of Florida, where their sale is prohibited (Florida Game and Fresh Water Fish Commission 1990). In 1991, a joint state/federal team completed an investigation in which two Koreans smuggled 168 American black bear gallbladders into the United States from Canada, destined for resale in Alaska and Japan. The gallbladders, with an estimated street value of US\$175,000 (C\$239,750), were purchased in the province of Quebec (where the sale of bear gallbladders is legal) for US\$35,000 (C\$47,950) and were smuggled into the United States without CITES permits through Chicago's O'Hare Airport.

# Implications of Trade for Black Bear Management and Conservation

Despite the number of law enforcement cases undertaken in recent years, the scale of legal and illegal trade of black bear gallbladders and other parts for medicinal use and the impact of trade on the black bear remain unclear. There are a number of reasons for this, the most important of which are the difficulty of distinguishing legally taken bears from poached bears, the difficulty of determining the destination of bear parts in trade, and the weakness of mechanisms to collect and exchange information on the sale and trade of bear parts.

A common perception is that illegal trade necessarily involves illegally harvested bears. In fact, many of the cases described above involve legally harvested bears whose parts have been sold domestically or internationally without the required permits. There are a number of reasons why sale and export permit requirements might be evaded. For example, although eight U.S. states allow the sale of bear parts from bears harvested within the state and 28 states allow the sale of parts legally acquired elsewhere, and although CITES Appendix II listing does not mandate a prohibition of exports, the USFWS has publicly stated that it would be unlikely to approve any application for a CITES export permit for bear gallbladders. During congressional hearings, a representative of USFWS stated that

The Service has already notified the States and other interested organizations that the standards for issuance of a permit to export gall bladders could only be issued if a finding can be made that the specimen was legally acquired (in accordance with all relevant State and Federal laws) and that export would not be detrimental to the survival of the species as a result of trade. It is anticipated that it would be virtually

impossible for any permit applicant to obtain a permit (U.S. Congress House Committee on Appropriations 1993).

If this is indeed federal policy, then the virtual nonoccurrance of U.S. permit applications for such exports is understandable. Only three states and one province allow the export of black bear parts. Ontario requires a separate CITES permit for each gallbladder exported, which may encourage traders to avoid the CITES process altogether. Furthermore, although many states and provinces allow the sale of black bear parts legally acquired in other jurisdictions, few states or provinces have in place any system to mark or register such parts that would allow traders to easily demonstrate their legal origin or that would allow their origin to be verified with other wildlife agencies.

It is also difficult to determine how many of the black bear gallbladders in legal North American trade are destined for export markets, and how many are destined for sale in Asian communities within North America. Field investigations in consuming Asian nations have discovered little evidence that American black bear parts are sold abroad. Furthermore, only limited numbers of gallbladders are reported in Canadian CITES export data, while there is no CITES-reported evidence of gallbladders leaving the United States. Law enforcement investigations are seldom able to shed much light on the number or intended destination of gallbladders in trade, as they typically trace the movement of gallbladders from hunters or outfitters to primary or secondary middlemen within North America, or alternately, locate middlemen by offering confiscated gallbladders for sale. Very few investigations have turned up conclusive evidence of the movement of gallbladders out of the United States or Canada. This information gap makes it difficult to estimate the size of actual or potential demand for American black bear gallbladders and to develop effective strategies to control the commercialization of bear parts.

The impact of the trade on the status of bear populations is even less clear in light of the annual legal harvest of 40,000 black bears in the United States and Canada and the more than 11,000 gallbladders that could potentially have legally entered the domestic trade in 1991 alone. The USFWS emphasized the availability of this legal supply in its 1992 "first level" internal report on the trade in American black bear parts in the United States, based on information provided by undercover operations and data submitted by states and provinces. The report concluded that most of the American black bear gallbladders in illegal trade were actually a by-product from legal hunting kills, so that illegal activity generally occurred at the point of sale rather than harvest. The report also suggested, however, that the trade was not well understood and probably varied widely depending on the region, and that the lack of centralized data on trade or investigations made understanding the issue on a broad scale difficult.

The same weaknesses in monitoring and enforcement that make it difficult to demonstrate that poaching does pose a problem for black bear management and conservation also make it difficult to rule out the possibility that poaching for the bear parts trade may have a significant impact on black bear status. State, provincial, and territorial

laws regarding the sale, purchase, and transportation of wildlife and wildlife products vary widely. The fact that many states and provinces permit the sale of legally obtained black bear parts but encounter difficulty in determining their origin raises the possibility that bear parts may be laundered through states with weak wildlife legislation, inadequate law enforcement infrastructure, or insignificant penalties for illegal activity.

The wildlife codes of most U.S. states prohibit the sale or purchase of wildlife except as explicitly authorized by the state's laws, but "varying exceptions between states can create opportunities for commercial poachers to launder parts illegally taken in one state through other states. Consistency of buying and selling laws would be particularly helpful in stemming illegal wildlife trade" (Musgrave and Stein 1993). Restrictions on interstate transportation of wildlife are also critical enforcement tools but suffer from similar discrepancies. Most states have some restrictions on transporting wildlife, but many do not expressly prohibit export of protected wildlife, and many allow the importation of game lawfully taken in other states but lack the means to determine that wildlife is lawfully taken (Musgrave and Stein 1993). This patchwork of state laws and regulations greatly hinders efforts to understand and control the trade in bear parts.

The difficulties created by inconsistent state laws controlling wildlife commercialization and transit are illustrated by a recent case involving the shipment of black bear paws and gallbladders from Idaho to Alaska. Alaska wildlife agents were alerted to a shipment of 385 pounds of bear feet coming into Alaska from Washington, for resale and possible transshipment to Asia. Agents intercepted the shipment upon arrival and discovered that it also included 40 "wet" bear gallbladders. Efforts to prosecute the case were thwarted by an Alaskan court ruling that because the actual sale of the gallbladders took place in Idaho, where such sale is lawful, the shipment did not involve a violation of state wildlife laws, even though the sale of bear gallbladders is prohibited in both Washington and Alaska (Campbell 1994).

Law enforcement loopholes are particularly important because the severity of threat to bear populations from illegal harvest and commercialization is likely to vary across different regions, states, provinces, and territories, depending not only on the size of local and regional markets for bear parts, but also on the status of bear populations. The American black bear, once found throughout forested habitat in the United States, Canada, and northern Mexico, is not currently considered a threatened species, except in Louisiana. However, this species is not evenly distributed throughout its now-reduced range, nor is its habitat in North America contiguous. Smaller fragmented populations of bears, such as those located in the southeastern United States, are at greater risk from all factors, including trade in bear parts. Furthermore, bears, like many large carnivores and omnivores, "have...low reproductive rates...delayed reproductive maturity...[and] variable survivorship of young..." (Miller 1990). To the extent that the scale of illegal harvest and trade is unknown, it is also difficult to predict the species' ability to withstand this as well as other sources of mortality, such as predator control programs, habitat loss and degradation, and

road kills, in addition to natural mortality. Some populations, already under pressure from loss of habitat and further depleted by illegal hunting, may take years to recover.

The difficulty of analyzing and generalizing about the trade of black bear gallbladders and other parts for medicinal use is compounded by a lack of regular communication, exchange of information, and cooperation among wildlife managers and among federal, state, provincial, and territorial jurisdictions (Gregorich 1992, Cook 1991). With no reliable data on which to develop an overall view of the North American trade and its impacts regionwide, perspectives on the bear parts trade are developed on the basis of highly individual experience and thus can vary widely in their assessments of the scale and importance of the trade. For example, a game warden facing high rates of poaching of a small, localized black bear population may view the trade as critical to bear management, while a manager within the same agency tracking steady growth in bear populations statewide may assign the issue low priority. The resources available to jurisdictions for collecting information on the trade may also vary widely, contributing to differences of opinion and inconsistent responses to illegal harvest and commercialization. The remainder of this report attempts to contribute to a more comprehensive understanding of the trade in American black bear parts--and to the development of effective responses--by compiling and analyzing the responses to the 1992 TRAFFIC USA survey of state, provincial, and territorial wildlife managers charged with black bear management and law enforcement.

#### III. THE TRAFFIC USA SURVEY

#### Study Methods

The primary method used to gather information for this report was a 13-page questionnaire (Appendix B) sent to state, provincial, and territorial wildlife management agencies in the United States and Canada in July 1992. The respondents, selected within the agencies themselves, were asked to provide qualitative and quantitative information on population status and trends, legal status and hunting regulations, annual harvests, the significance and trends of black bear trade, and effectiveness or perceived effectiveness of law enforcement. If a state or province did not have a resident black bear population, they were asked to complete the sections of the questionnaire that were pertinent to the issue of commercialization of the American black bear, such as information on laws related to sale of bear parts in their state or province. A written reminder was sent and follow-up telephone calls made to each agency to encourage return of the questionnaires.

Sixty-two of 63 states, provinces, and territories responded to the questionnaires between August 1992 and April 1993 (see Appendix C for a list of respondents). Only one province, New Brunswick, declined to complete the questionnaire. Many states, provinces, and territories also provided information in addition to the completed questionnaire, such as management plans for black bear, copies of hunting regulations, and reports from research projects conducted on black bear populations. In an effort to collect some information on the situation in Mexico, the questionnaire was sent to a researcher conducting black bear research in northern Mexico. This was the sole nongovernmental respondent to the inquiry.

Unless otherwise noted, information contained in this section of the report was derived solely from the questionnaires. In many cases, telephone calls were made to respondents to clarify answers or to request additional information. In January 1994, an initial draft of this report, including all responses and brief summaries of the questionnaires, was sent to all those who had responded. Any changes or additions received by TRAFFIC USA from this review process are included in the results discussed below. Questionnaire results were compared to results obtained in the 1989 TRAFFIC USA survey (Sheeline 1990) and in other published reports on bear status and trade (e.g., Servheen 1990).

#### Population Status and Trends

Forty-two states and 11 provinces and territories (or 53 "range states") have American black bear populations, although 14, or 26 percent, of them (Alabama, Connecticut, Louisiana, Maryland, Mississippi, Missouri, Nevada, New Jersey, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, Texas) have an estimated population of less than 500 bears (Figures 2, 3). The total estimated population of black

Unknown/No information 25,001-100,000 10,001-25,000 5001-10,000 1001-5000 100,000+ 1-1,000 ÿ. Atlantic Ocean Labrador Soa Hiidson Bay Arelle Ocean Beaufort Sea Pacific Ocean

Figure 2. Estimates of Size of Black Bear Populations in Canada

Unknown/No information 25,001-100,000 10,001-25,000 5001-10,000 Atlantic 1001-5000 100,000+ 1-1,000 **X** Pacific Ocean Pacific 19

Figure 3. Estimates of Size of Black Bear Populations in the United States

bears in the United States and Canada is 566,095 to 804,000--290,000 to 417,000 in the United States and 277,000 to 387,000 in Canada (not including New Brunswick, Kentucky, or Wyoming, which were unable to provide estimates). Little research has been completed on Mexico's black bears, and no population estimates were available (Martinez 1992). Estimates of American black bear population sizes in the United States and Canada, as reported in Sheeline (1990) and the 1992 TRAFFIC survey, and the basis for the populations estimates reported in 1992 are shown in Table 1. The black bear currently occupies 63 percent of its historic range in the United States and Canada (Seton 1929 and Pelton 1982, cited in Kolenosky and Strathearn 1987).

Of the 53 range states, 48 (91 percent), including 38 states and 10 Canadian provinces and territories) reported that their populations are stable, stable to increasing, or increasing (Figures 4, 5). Only Idaho and New Mexico reported that their populations were stable to decreasing or decreasing. Wyoming did not provide a population trend estimate, and New Brunswick did not respond to the questionnaire. Estimates of trends in American black bear populations in the United States and Canada and the basis for the population trend estimates are shown in Table 2. The population trend estimates provided by the states, provinces and territories were similar in most cases to the information reported by Servheen (1990).

A variety of methods with varying degrees of reliability are used by the states, provinces, and territories to estimate the size and trends of American black bear populations (Miller 1990). These include professional estimates or best assessment, density estimates, radio telemetry studies, harvest data or trends, mark-recapture studies, age/sex ratios from research projects or legal harvest, study area data, bait station surveys, and information on the number of complaints or sightings related to black bears. Many of the states, provinces, or territories listed more than one of the above methods as the basis for their estimates. It is important to note that many of the above methods are indicators of relative abundance, density, and distribution of bears and not measures of population size (Cook 1994).

#### Legal Status

Black bears are classified as game animals in 46 (87 percent) of the 53 range states, including 36 states and 10 Canadian provinces and territories. Eight (15 percent) of those states (Alabama, Maryland, Missouri, Nevada, New Jersey, North Dakota, Ohio, Oklahoma) indicated that there is no open hunting season at this time for black bear. Eight (15 percent) of the 53 range states states (Connecticut, Florida, Louisiana, Mississippi, Missouri, Rhode Island, South Dakota, Texas) reported the legal status for black bears as protected, threatened, endangered, or rare. One state (Kentucky) reported the species' status as nongame, and three states (Illinois, Iowa, Nebraska) had no legal designation for the species. The species is also classified as a furbearer in three range states (British Columbia, Quebec, Saskatchewan) and as a pest in one (Saskatchewan). In Mexico, the black bear is a protected species and hunting is prohibited (Martinez 1992). Information provided by

the states, provinces, and territories on the legal status or classification of the American black bear is shown in Table 3 and is compared to the information provided by Servheen (1990).

Two range states, Missouri and Florida, indicated two classifications for their black bear populations. In Missouri, black bears are classified as game animals but are also considered rare and have not been subject to legal hunting since 1936. Florida reported its black bear populations as both threatened and game animal, depending on the geographic location of the population. However, the Florida black bear has been designated by the USFWS as a candidate for listing as threatened under the ESA, and as of July 1, 1994, the subspecies became protected by state law. On that date, all populations were designated as threatened and hunting prohibited.

The Louisiana black bear (<u>Ursus americanus luteolus</u>) was listed in 1992 as threatened under the ESA. At that time, the USFWS also "designated all other free-living bears of the species <u>Ursus americanus</u> within the Louisiana black bear's historic range [which includes Mississippi and Texas as well as Louisiana] as threatened due to similarity of appearance" (Davidson and Pashley 1992).

### Harvest Regulations and Harvest Results

Harvest Regulations. The hunting of American black bears is legal in 28, or 53 percent of the range states (Figures 6, 7). In four of the range states (Michigan, South Carolina, Washington, Newfoundland), it is legal to kill black bear only as a big game species. In 24 states and nine provinces and territories, it is legal to kill black bear as a big game species or if the bear is a nuisance animal causing damage to beehives, crops, or other property. In 16 (30 percent) of the range states (Alabama, Connecticut, Florida, Kentucky, Louisiana, Maryland, Mississipi, Missouri, Nevada, New Jersey, North Dakota, Ohio, Oklahoma, Rhode Island, South Dakota, Texas), it is currently illegal to kill black bear under any circumstances. Current harvest regulations for American black bear in the United States and Canada are shown in Table 4. Information is also provided in Table 4 on the year in which black bear was first classified as a game animal in each state, province, and territory.

Licensing Costs and Requirements. Licensing costs and requirements for legal American black bear sport hunting vary widely in the United States and Canada. Twenty states and all 10 Canadian provinces and territories (71 percent of range states) that allow black bear hunting require a special license or tag for black bear in addition to a required general hunting license. The cost for nonresidents of states, provinces, and territories to purchase general hunting licenses and special licenses or tags for black bear are usually higher than the cost for residents to purchase the same licenses. For example, the cost of a nonresident license for black bear hunting in the fall 1991 season ranged from US\$26 to

Stable - Decreasing Stable - Increasing ☐ Increasing Decreasing Unknown NA/NR Stable Ш <u>K</u> Attantic Ocean Figure 4. Estimates of Trend in Black Bear Populations in Canada Beaufort Sea Pacific Ocean 22

Stable - Decreasing Stable - Increasing Atlantic Decreasing III Increasing Unknown □ NA/NR Stable **SS** Pacific Ocean Pacific Ocean

Figure 5. Estimates of Trend in Black Bear Populations in the United States

[] Illegal E Legal The section of the se Attantic Ocean Labrador Sea Hudson Arctic Ocean Beaufort Soa Pacific Ocean

Figure 6. Harvest of Black Bear in Canada

Alfantio 🖸 Illegal Eegal Pacific

Figure 7. Harvest of Black Bear in the United States

US\$330 (C\$36 TO C\$452) in the United States and from C\$25 to C\$123 (US\$18 to US\$89) in Canada; a resident license for the same season ranged from US\$10 to US\$120 (C\$14 to C\$164) in the United States and from C\$8 to C\$28 (US\$6 to US\$20) in Canada

License and Tag Revenues. Revenue estimates for 1989-1992 totaled US\$9.04 million (C\$12.9 million) in 1989 (Table 5), US\$11.8 million (C\$16.2 million) in 1990 (Table 6), and US\$10.24 million (C\$14 million) in 1991 (Table 7), with an average of US\$10.4 million (C\$14.3 million) in revenue over the three-year period. In the 1990 report, The Status and Conservation of the Bears of the World, Servheen noted that the black bear is "the most important game species of any of the world's bears" with an estimated US\$10 million (C\$13.7 million) in annual license revenue (Servheen 1990). The revenue estimates derived from the 1992 TRAFFIC survey are very close to Servheen's US\$10 million annual figure.

The yearly estimate of total revenues derived from black bear hunting license and tag sales in the United States and Canada should be considered a minimum estimate. The 1992 TRAFFIC USA questionnaire requested information on the cost of resident and nonresident licenses and tags as well as the number of licenses and tags sold for black be hunting for the years 1989-1991. The figures shown in Tables 5-7 represent the total which would have to be paid to legally hunt black bear in that state, province, or territory. For example, a nonresident wishing to hunt black bear in Alaska in the spring 1991 season would pay US\$225 (C\$308) for a big game hunting license and US\$85 (C\$117) for a black bear tag; therefore, the total cost of US\$310 (C\$317) is reflected in the tables and revenue calculations. For jurisdictions not requiring a special license or tag for black bear hunting respondents were asked to estimate the number of resident and nonresident bear hunters for their state. Some jurisdictions could not provide information on the number or type of licenses sold, so information on license cost may be shown but no total annual estimate of revenue is calculated for that state, province, or territory.

Current Legal Harvest Methods. As previously mentioned, 28 states and 10 provinces or territories responding allow sport hunting of black bear. There is wide variation in sex and age restrictions and hunting methods across the states, provinces and territories. Trapping is legal in one state (Maine) and seven provinces (Alberta, Manitoba, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan). Baiting is legal in 11 states ((Alaska, Idaho, Maine, Michigan, Minnesota, New Hampshire, Oregon, Utah, Washington Wisconsin, Wyoming) and 8 provinces and territories (Alberta, Manitoba, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan). Hunting with hounds is legal in 21 states and 3 provinces and territories, and dog training seasons—in which hunters may pursue but not kill bears—are legal in 13 states and 1 province. Information received from the states, provinces, and territories on current legal harvest methods for American black bear is shown in Table 8.

Respondents were also asked to provide information on the legal status and number of "game farms," or facilities where bears are maintained in captivity. Ten states

(Colorado, Massachusetts, Michigan, Minnesota, Montana, North Dakota, Oklahoma, Pennsylvania, West Virginia, Wisconsin) and three provinces or territories (British Columbia, Manitoba, Northwest Territories) reported that game farms for bears are legal. Six states (Colorado, Massachusetts, Michigan, Oklahoma, Pennsylvania, West Virginia) and two provinces (British Columbia, Manitoba) reported the presence of game farms with bears. However, the definition of the term "game farm" was not made clear on the questionnaire and definitions from respondents varied widely, from licensed commercial wildlife parks and breeders to individuals with a black bear as a pet. It is therefore not clear if any of these "game farms" maintain black bears for consumptive use.

Hunting and Trapping Seasons and Bag Limits. Nine (32 percent) of the 28 states (Alaska, Arizona, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Wyoming) and nine (90 percent) of the 10 provinces or territories (Alberta, British Columbia, Manitoba, Newfoundland, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon Territory) that allow legal sport hunting of black bear have both spring and fall hunting seasons. Season dates for hunting and trapping vary by county or by wildlife management zones, units, or areas. Harvest or "bag" limits range from one animal per season or per year to three animals per season. Aboriginal hunters in the Northwest Territories are not limited in their annual take of black bear. Hunting and trapping seasons and bag limits for black bear in the United States and Canada for the years 1989-1991 are described in Tables 9-12.

Harvest Reporting. All 28 states, except Oregon, and seven out of 10 provinces or territories that allow legal sport hunting of black bear require some type of mandatory harvest verification or reporting, although reporting methods vary, and often more than one method is used (Table 13). Two states (7 percent) and one province (10 percent) use written notices from the hunter to the wildlife management agency; three states (11 percent) use phone calls from the hunter to the agency; 20 states (71 percent) and one province (10 percent) have mandatory registration or tagging of harvest at a check station; two states (7 percent) have voluntary registration or tagging of harvest at a check station; 11 states (39 percent) and three provinces (30 percent) require or request the return of a tooth to the wildlife management agency, primarily to compile information on age of harvested bears; four states (14 percent) and two provinces or territories (20 percent) request return of the skull to the wildlife management agency; and six states (21 percent) and seven provinces or territories (70 percent) collect harvest information with other methods (mail surveys, export documents, etc.).

Harvest Results. Figures on mortalities from hunter and other kills of American black bear for the years 1984-1988 (Sheeline 1990) are shown in Table 14. The 1992 survey provided a more detailed breakdown of reported legal kill, poaching, and other mortality of black bear populations in the United States and Canada for the years 1989-1991, as shown in Tables 15-17.

Based on survey responses, roughly 40,000 bears are harvested legally each year in North America by hunters and trappers. The U.S. harvest totaled 20,929 in 1989, 19,574 in

1990, and 19,559 in 1991, while the Canadian harvest totaled 18,845 in 1989, 20,997 in 1990, and 16,235 in 1991 (excluding New Brunswick, which did not respond). A legal harvest rate of from 3 to 8 percent (or a total mortality rate of 20 percent of a population, including death from natural causes), is often cited as the rate above which a black bear population's long-term stability is likely to be negatively impacted (Kolenosky and Strathearn 1987, California Department of Fish and Game 1992). Based on overall survey results, the 1991 U.S. harvest accounted for 3.1 percent of the minimum estimated U.S. population of black bears, while the 1990 Canadian harvest accounted for 5.9 percent of the minimum Canadian estimated population.

The significance of legal harvest as a source of black bear mortality varies widely by state, province, and territory. In 1989, legal harvest was below 3 percent in two states (Alaska, Arkansas) and one province (Newfoundland); from 3 to 8 percent in 10 states (Colorado, Florida, Georgia, Idaho, Massachusetts, New Hampshire, Oregon, South Carolina, Tennessee, Washington) and six provinces (Alberta, British Columbia, Manitoba, Nova Scotia, Quebec, Saskatchewan); 8.1 to 10 percent in one province (Ontario); from 10.1 to 20 percent in 11 states (Arizona, Maine, Michigan, Minnesota, Montana, New Mexico, North Carolina, Utah, Vermont, West Virginia, Wisconsin) and one territory (Northwest Territories); and more than 20 percent in three states (New York, Pennsylvania, Virginia).

In 1990, legal harvest as a percentage of minimum estimated population was below 3 percent in four states (Alaska, Arkansas, South Carolina, Utah) and two provinces or territories (Newfoundland, Yukon Territory); from 3 to 8 percent in 11 states and six provinces and territories (Arizona, California, Colorado, Florida, Georgia, Idaho, Massachusetts, Oregon, Vermont, Washington, West Virginia, Alberta, British Columbia, Manitoba, Nova Scotia, Quebec, Saskatchewan); from 8.1 to 10 percent in one province (Ontario); from 10.1 to 20 percent in 10 states and two provinces and territories (Maine, Michigan, Montana, New Mexico, New York, North Carolina, Pennsylvania, Utah, Tennessee, Virginia, Northwest Territories, Ontario); and more than 20 percent in two states (Minnesota and Wisconsin).

In 1991, legal harvest as a percentage of the minimum estimated population was below 3 percent in two states (Alaska, South Carolina) and two provinces or territories (Newfoundland, Yukon Territory); from 3 to 8 percent in 12 states (Arizona, Arkansas, Colorado, Florida, Georgia, Idaho, Massachusetts, New Hampshire, Oregon, Tennessee, Utah, Washington) and five provinces (Alberta, Manitoba, Nova Scotia, Quebec, Saskatchewan); from 8.1 to 10 percent in three states and one province (California, Maine, New Mexico, Ontario); from 10.1 to 20 percent in five states (Michigan, New York, North Carolina, Vermont, West Virginia) and one territory (Northwest Territories); and above 20 percent in four states (Minnesota, Pennsylvania, Virginia, Wisconsin).

Nineteen of 42 states and four of 10 provinces or territories provided information on reported kills by poaching for 1989 and 1990, while only seven states and three provinces

provided estimates of unreported kills by poaching. For 1991, 16 states and four provinces provided information on reported poaching kills, while only nine states and three provinces or territories provided estimates of unreported kills by poaching.

According to the survey, reported and estimated mortality from poaching is lower than mortality from other causes, including legal harvest, control of problem animals, and road kills. Reported poaching kills for North America totaled 335 in 1989, 291 in 1990, and 237 in 1991. Estimated poaching kills totaled 968 in 1989, 672 in 1990, and 669 in 1991. Few states report more than 10 confirmed poaching kills per year, and many states do not include any estimates of poaching kills in reported mortality data. It should be noted, however, that poaching kills are seldom reported, particularly if the carcass is removed. Poaching estimates are therefore difficult to confirm or estimate without a significant investment of resources in law enforcement, and a zero estimate of unreported poaching kills may signify the unavailability of an estimate rather than the absence of poaching mortality. In California, where considerable resources are available for enforcement and population monitoring and modeling, it was estimated that poaching kills prior to 1985 were approximately equal to legal hunting kills, or some 800 black bears per year. After that year, changes in hunting regulations and law enforcement reduced that proportion to between 0 and 25 percent, or roughly 300 bears per year (California Department of Fish and Game 1992).

There is currently a widespread concensus among wildlife law enforcement personnel that poaching of black bears is increasing and is in large part a result of growing demand for bear gallbladders, paws, and other parts. Poaching levels, trends, and impacts are, however, difficult to assess due to the absence of data or even meaningful estimates of illegal kills. It is becoming increasingly important to develop such data bases and formal estimates in order to evaluate the combined impacts of legal and illegal harvest on wild populations.

In the eastern United States particularly, road kills are also a significant cause of black bear mortality. More recent estimates place this mortality as high as 100 to 200 animals per year in Pennsylvania, 100 per year in Wisconsin, 69 in North Carolina, and 66 in Minnesota (Wooding and Maddrey 1994), figures that are consistent with the results of the 1992 survey. In the western United States, the Animal Damage Control Program (ADC) of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service was responsible for 278 black bear kills in 1988: 129 in Oregon, 36 in Montana, 35 in California, 32 in Idaho, 25 in Utah, 13 in Colorado, 6 in Arizona, 1 in New Mexico, and 1 in Wyoming. The number of black bears killed by the ADC totaled 240 in 1989, 247 in 1990, and 224 in 1991 (USDA 1994). In comparing these kills to the state reports, some states appear to have reported these kills as "nuisance and management kills," but there may be some underreporting of kills by the states if such take was by federal agencies or on federal lands. Again, however, nuisance and "management" kills appear to be a less significant cause of mortality compared to legal hunting and trapping.

Figure 8. Legal Commercialization of Parts from Bears Harvested within Jurisdiction - Canada

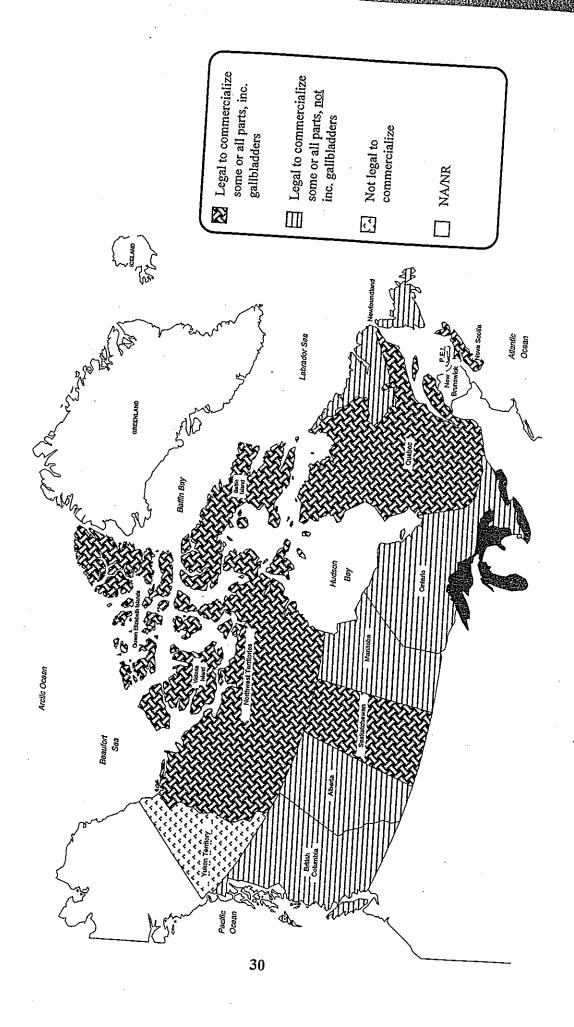


Figure 9. Legal Commercialization of Parts from Bears Harvested within Jurisdiction - United States

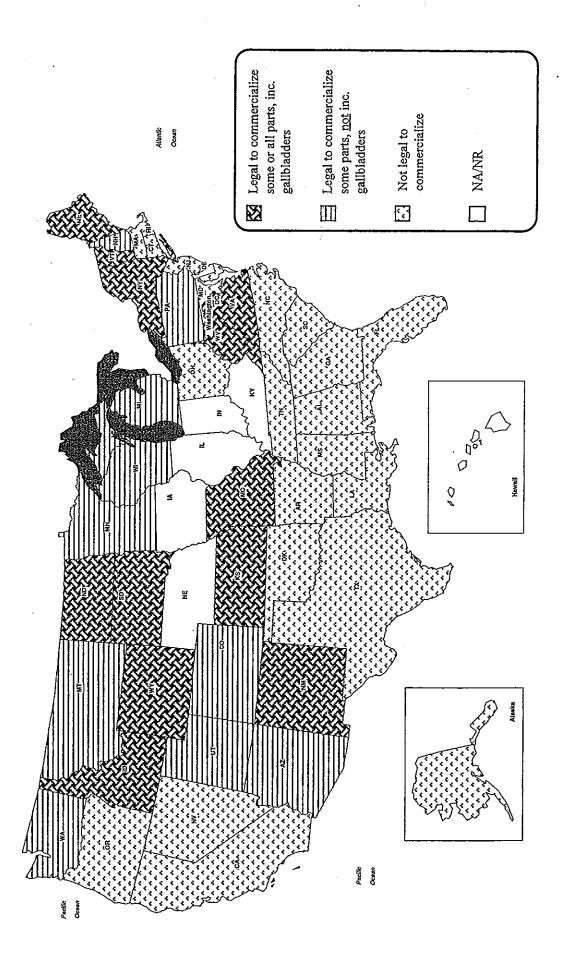


Figure 10. Legal Commercialization of Parts from Bears Harvested outside Jurisdiction - Canada Arctic Ocean

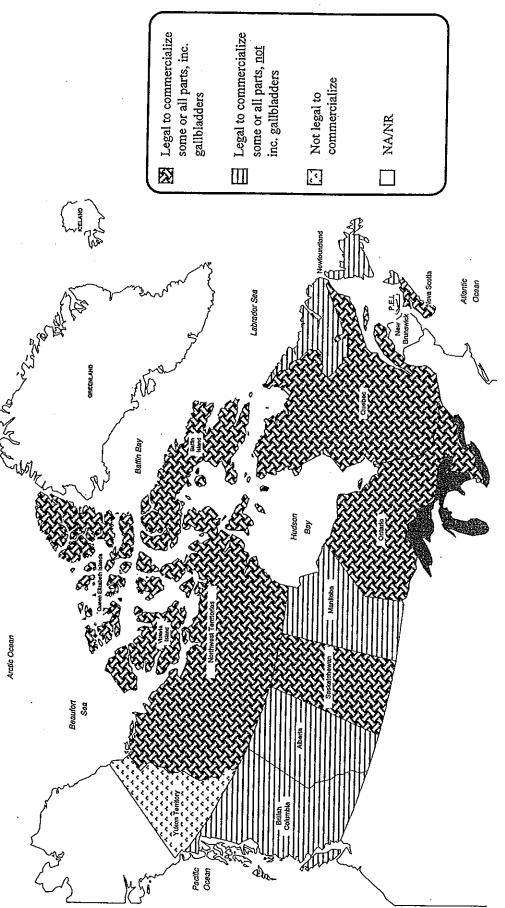
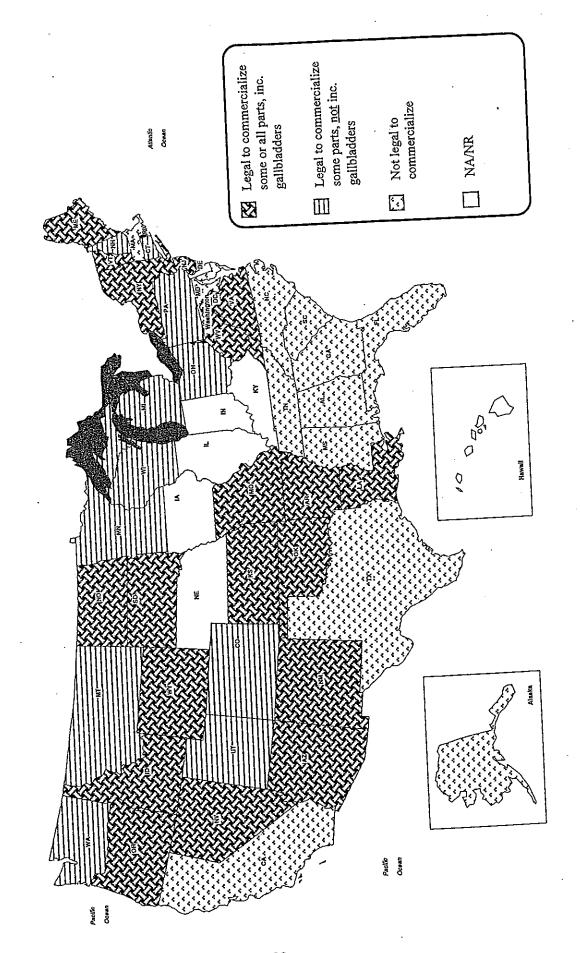


Figure 11. Legal Commercialization of Parts from Bears Harvested outside Jurisdiction - United States



### Trade of Bears and Bear Parts

Legality of Trade. Respondents were asked to indicate if sale of legally acquired bear specimens (e.g., live bears, gallbladders, skulls, etc.) was legal in that state, province, or territory; illegal in that state, province, or territory; or if there were no regulations on such sales. This information was requested both for items acquired within that state, province, or territory and for items acquired outside that state, province, or territory. Information on the legality of sale of American black bears and black bear parts is provided in Table 18 and summarized in Figures 8-11.

Twelve (24 percent) of the states (Idaho, Kansas, Maine, Missouri, New Mexico, New York, North Dakota, South Dakota, Vermont, Virginia, West Virginia, Wyoming) and Guebec, Saskatchewan) that responded to the survey allow the sale of black bear gallbladders if legally acquired in that state, province, or territory (in Virginia, legislation has been proposed to prohibit the commercialization of black bear parts (Martin 1994)). It black bear population and two states (North Dakota, Missouri) do not permit the legal potentially have entered the market legally totaled 5,723 in the United States and 5,542 in Canada, or a North American total of 11,265 black bear gallbladders.

Twenty (40 percent) states (Arizona, Arkansas, Idaho, Kansas, Louisiana, Maine, Missouri, Nevada, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, Wyoming) and five (45 percent) provinces or territories (Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan) allow--or do not explicitly prohibit--the sale of gallbladders if legally acquired outside of that state, province or territory.

Fourteen (28 percent) states (Idaho, Kansas, Maine, Michigan, Missouri, Montana, New Mexico, New York, North Dakota, South Dakota, Vermont, Virginia, West Virginia, Wyoming) and four (36 percent) provinces or territories (Northwest Territories, Nova Scotia, Quebec, Saskatchewan) allow the sale of black bear paws if legally acquired in that territories allow the sale of paws if acquired outside of that state, province, or territory.

Of those states and provinces that allow the sale of bear gallbladders, some have mandatory reporting requirements for sale. Idaho requires that a written statement signed by the hunter, showing the hunter's name, address, license and tag numbers, and date and location of kill, be provided to the buyer of any black bear head, hide, or parts. A copy of Game within fifteen days after the sale. Idaho records show that 510 bear gallbladders were sold between November 1983 and December 1989, and in June 1989, 110 pounds of unskinned bear paws were shipped to "an Oriental individual" in Anchorage, Alaska

(CITES 1992). Legal sales of bear gallbladders in Idaho totaled 261 in 1990, 306 in 1991, 223 in 1992, and 151 in 1993 (Lyon 1994).

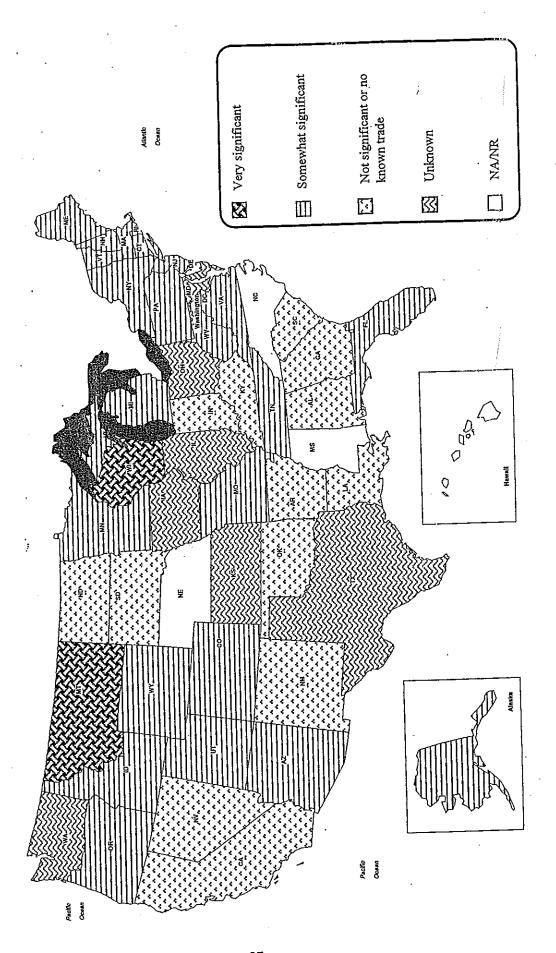
Maine permits the purchase of bear gallbladders by licensed hide dealers and requires dealers to record the license and sealing tag numbers of the hunter from whom they obtain the gallbladder. Data on gallbladder sales are maintained but not routinely compiled and analyzed; annual legal sales were last totaled in 1989 or 1990 and equaled approximately 400 gallbladders (Sargeant 1994a). It is estimated that roughly 500 gallbladders are sold legally in Maine each year (Sargeant 1994b). Saskatchewan requires a permit for the sale of any wildlife part and records both the seller and the buyer of the part. Permitted sales numbered 29 in 1988, 7 in 1989, 275 in 1990, 802 in 1991, 596 in 1992, and 345 in 1993, with 155 recorded by June 1994 (Harvey 1994).

From a law enforcement perspective, the patchwork of state, provincial, and territorial legislation governing commercialization of wildlife creates tremendous difficulties. Because many states lack a system to mark or register legally obtained bear parts, it may be impossible to prove the legal (or illegal) origin of gallbladders offered for sale. This situation is complicated further by the fact that seven states (Arizona, Arkansas, Louisiana, Nevada, New Jersey, Oklahoma, and Oregon) prohibit the sale of parts from bears harvested within the state, but allow the sale of bear parts from other states, provinces, and territories. As evident from Figures 8-11, several states, provinces, and territories in which the sale of black bear parts is prohibited are bounded by jurisdictions in which such sale is permitted, which may facilitate laundering of bear parts from jurisdictions where bears are protected or their sale prohibited.

Trade Activity and Trends. In order to obtain an official, albeit qualitative, assessment of legal and illegal trade, respondents to the 1992 questionnaire were asked to indicate the level of trade in bear parts in their state or province (Figures 12-13). This question was answered by all but 2 of 61 respondents. Trade activity was considered "very significant" by two (4 percent) states (Montana, Wisconsin) and two (18 percent) provinces (Alberta, Saskatchewan) and "somewhat significant" by 18 (36 percent) states (Alaska, Arizona, Colorado, Florida, Idaho, Maine, Michigan, Minnesota, Missouri, New Jersey, New York, Oregon, Pennsylvania, Tennessee, Utah, Virginia, West Virginia, Wyoming) and four (36 percent) provinces (British Columbia, Newfoundland, Nova Scotia, Ontario). Trade activity was considered "not significant" by 14 (28 percent) states (Alabama, Arkansas, California, Connecticut, Delaware, Georgia, Indiana, Massachusetts, New Hampshire, New Mexico, Rhode Island, South Carolina, South Dakota, Vermont) and three (27 percent) provinces or territories (Manitoba, Northwest Territories, Quebec). "No known trade" was reported by five (10 percent) states (Kentucky, Louisiana, Nevada, North Dakota, Oklahoma) and one (9 percent) province (Prince Edward Island). The answer "do not know" was reported by nine (18 percent) states (Illinois, Iowa, Kansas, Maryland, Mississippi, North Carolina, Ohio, Texas, Washington) and one (9 percent) territory (Yukon Territory), while two respondents did not respond to the question. Table 19 summarizes

Somewhat significant Not significant or no known trade Very significant Unknown ☐ NA/NR 3 Atlantic Ocsan Labrador Sea Figure 12. Significance of Trade in Bear Parts - Canada Arctic Ocean Beaufort Soa Pacific Ocean

Figure 13. Significance of Trade in Bear Parts - United States



information on activity and trends in trade in black bears from Sheeline (1990) and the 1992 TRAFFIC survey.

Respondents were also asked to assess the current trend in trade activity in their state, province, or territory. This question was answered by 59 of 61 respondents, and two respondents provided different answers or comments. The answer "increasing" was reported by 15 (31 percent) states (Alaska, Arkansas, California, Colorado, Florida, Idaho, Massachusetts, Michigan, Montana, New Jersey, New Mexico, Ohio, Pennsylvania, Utah, Wyoming) and six (55 percent) provinces/territories (Alberta, British Columbia, Newfoundland, Northwest Territories, Quebec, Saskatchewan), while the answer "stable" was reported by 12 (25 percent) states (Arizona, Indiana, Minnesota, Nevada, New Hampshire, North Dakota, Oklahoma, Rhode Island, South Dakota, Virginia, West Virginia Wisconsin) and two (18 percent) provinces (Manitoba, Ontario). The answer "decreasing" was reported by two (4 percent) states (Georgia, North Carolina) and one (9 percent) province (Nova Scotia). The answer "do not know" was reported by 18 (38 percent) states (Alabama, Connecticut, Delaware, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Mississippi, Missouri, Oregon, South Carolina, Tennessee, Texas, Vermont, Washington) and one (9 percent) territory (Yukon Territory). The respondent from New York stated that the trade "fluctuates widely," and the respondent from Prince Edward Island indicated that the question was not applicable.

Most respondents based their estimates of trade levels and trends on personal assessment and law enforcement experience rather than sales or trade records, with many respondents indicating more than one source for their estimates. Thirty-four of 59 states, provinces, or territories (58 percent) indicated that their responses were based on the percent) indicated that their responses to the previous question were based on information received as a result of undercover investigations; 22 states, provinces, or territories (37 logical that their responses were based on time spent on enforcement activities; reports received from legal hunters; and 14 states, provinces, or territories (24 percent) questions, including public inquiries, reports from outfitters and information received from the previous of the agencies.

## Markets, Users, and Prices

While markets for live bears and bear parts outside of North America were documented by Mills and Servheen (1991), there is little published information available on markets within North America. Although much public attention has focused on the Asian trade in bear parts, the results of the 1992 survey indicate that there are significant markets for bear parts within North America (Table 20). Several different types of local users of black bear parts were reported, including hunters, tourists, taxidermists, jewelry makers,

folk and Oriental medicine practitioners and American Indians (Table 21). Hunters often retain bear hides, skulls, teeth, and claws as curios, or these may be sold to tourists. Hides are also in great demand by taxidermists. Teeth and claws as well as hides are widely used by American Indians in the making of crafts for personal use or sale to tourists. Bear gallbladders are used by traditional folk medicine practitioners as well by Asian communities.

In-state use for bears and bear parts (Figures 14, 15; Tables 20-21) was indicated for 33 (66 percent) of the states and ten (91 percent) of the provinces or territories. Eleven (22 percent) states (Arizona, California, Colorado, Maine, Minnesota, New Jersey, New Mexico, New York, Pennsylvania, Texas, Utah) and five (50 percent) provinces or territories (Alberta, British Columbia, Manitoba, Quebec, Saskatchewan) reported the use of black bear gallbladders within their jurisdiction.

In addition to soliciting information from questionnaire respondents on in-state, in-province, or in-territory use of live bears and bear parts, both the 1990 and 1992 surveys requested information on out-of-state, out-of-province, and out-of-territory markets for black bear parts (Figures 16-17, Tables 20, 22-23). Twenty-seven (54 percent) states and all 11 provinces and territories reported the presence of external markets for black bear products. Sixteen states (Arizona, California, Colorado, Idaho, Maine, Michigan, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Utah, Virginia, Wisconsin) and eight provinces (Manitoba, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory) reported the existence of out-of-state or out-of-province markets for black bear gallbladders, with 11 states (Arizona, California, Idaho, Maine, Minnesota, New York, North Carolina, Pennsylvania, Utah, Virginia, Wisconsin) and eight provinces and territories (Alberta, British Columbia, Manitoba, Newfoundland, Ontario, Quebec, Saskatchewan, Yukon Territory) indicating Asian demand for black bear gallbladders harvested within their jurisdiction.

Based on questionnaire responses on in-state and out-of-state use of gallbladders and other bear parts and on follow-up conversations with survey respondents, it would appear that markets for gallbladders and other medicinal products are quite limited in most jurisdictions. Only 16 (30 percent) jurisdictions reported in-state or in-province use of black bear gallbladders, compared to 24 (47 percent) respondents indicating external use and 17 (33 percent) respondents indicating the presence of Asian markets for gallbladders. As seen in Figures 16 and 17, Asian demand for black bear gallbladders appears to affect primarily the Canadian provinces and territories and the northeastern and western United States.

As reported by Mills and Servheen (1991), retail prices for live bears and bear parts in Asian markets tend to be very high. In wildlife trade, particularly illegal trade, final retail prices are usually many times higher than the amount received by the original collector of a live animal or of animals parts, with prices increasing at each step in the process from harvest/collection to final retail sale. As part of the survey, respondents were

No use indicated within jurisdiction Use indicated within jurisdiction, inc. gallbladders Use indicated within jurisdiction, not inc. gallbladders NA/NR Atlantic Ocean Labrador Sea Boaufort Sea Pacific Ocean 40

Figure 14. Use of Bears within Jurisdiction - Canada

No use indicated within jurisdiction Use indicated within jurisdiction, not inc. gallbladders Use indicated within jurisdiction, inc. Aslantho ☐ NA/NR [4 0 Figure 15. Use of Bears within Jurisdiction - United States Pacific Pacifio Ocean

Use indicated outside jurisdiction, not inc. Asia VS Use indicated outside jurisdiction, inc. Asia No outside use indicated NAMR ٤, Attantic Ocean Labrador Sea Arctic Ocean Beaufort Sea Pacilic Ocean

Figure 16. Use of Bears outside Jurisdiction - Canada

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Use indicated outside jurisdiction, not inc. Use indicated outside jurisdiction, inc. Asia No outside use indicated Atlantio ☐ NA/NR (1) ð Ą 0 Pacific Pacific Ocean

Figure 17. Use of Bears outside Jurisdiction - United States

asked to provide information on the prices of bears and bear parts acquired (legally or otherwise) in their state, province, or territory. The information obtained is reported in Table 24. Retail prices for gallbladders reported by respondents in the United States range from US\$75 to US\$600 (C\$103 to C\$822) or US\$80 (C\$110) per gram (with most dried bear gallbladders weighing between 50 and 150 grams), while prices paid to hunters ranged from US\$0 to US\$120 (C\$164) [prices based on exchange rates of C\$1.37 = US\$1 and US\$1 = C\$0.72]. In Canada, reported prices ranged from C\$500 to C\$1,000 (US\$360 to US\$720) or C\$210 (US\$151) per gram retail, and from C\$0 to C\$200 (US\$144) or C\$7 (US\$5) per gram to the hunter. Cook (1994) reported that parts, especially gallbladders, are also "graded" based on weight, appearance and source, and one respondent indicated that prices may vary according to quality.

In 1994, participants of the International Symposium on Trade of Bear Parts for Medicinal Use were asked to provide current prices for bear parts within their jurisdiction. Information was received for seven states and three provinces, with most prices falling within the ranges reported above for 1992. However, Arizona reported hunter prices of up to US\$250 (C\$343) per gallbladder, and British Columbia reported hunter prices of up to C\$250 (US\$180) per gallbladder, extending the range of prices to hunters for gallbladders by US\$50 (C\$69) in the United States and C\$36 (US\$26) in Canada.

Neither retail nor hunter prices for gallbladders appear remarkable when compared to prices for other bear parts. Retail prices for a carcass or hide range from US\$200 to US\$1,500 (C\$274 to C\$2,055) for a carcass or hide. Paws fetch US\$25 to US\$60 (C\$34 to C\$82) or C\$100 (US\$72) each, skulls US\$50 to US\$500 (C\$69 to C\$690), teeth US\$4 to US\$100 (C\$6 to C\$137) each, and claws US\$8 to US\$50 (C\$11 to C\$69) or C\$100 (US\$72). Furthermore, gallbladders and paws are often collected and sold by hunting outfitters and guides who may receive thousands of dollars to arrange and guide a hunt. Based on current bear hunting costs and bear part prices within North America, it would seem unlikely that large-scale harvest of black bears would be prompted by demand for gallbladders alone, but rather that sale of gallbladders and paws would represent an additional by-product of bear harvests. This assumes, however, a lengthy market chain that ensures that hunter prices are far below retail prices. If more direct market links exist, or if changing market conditions increase hunter prices significantly, harvest of black bears could increase sharply. Further market research is required to assess the likelihood that this now occurs or is likely to occur in the future.

### Poaching and Enforcement Activities

Illegal Hunting of Black Bear. In both Sheeline (1990) and the 1992 TRAFFIC USA survey, respondents were asked to consider the impacts of illegal taking or killing (poaching) on black bear populations in their state, province, or territory by assessing whether illegal hunting competed with legal sport hunting as a use of the species. The answers to these questions are summarized in Table 25. In the 1992 TRAFFIC USA

survey, nine (21 percent) of the 51 states, provinces, and territories responding (Arkansas, Colorado, Minnesota, Montana, North Carolina, Tennessee, Utah, Virginia, and Wisconsin) indicated that they felt that illegal hunting reduced the numbers of black bear available for legal sport hunting. This reflects a slight increase from the 1990 survey, in which only five states (Arizona, Arkansas, Idaho, Tennessee, Wisconsin) and one province (Manitoba) indicated that illegal hunting competed with legal sport hunting.

Poaching Reporting Systems. Fifty-seven (93 percent) of all states, provinces, and territories have some system for the reporting of poaching and other hunting violations. Most jurisdictions use a combination of different systems for reporting hunting violations. Fifty-four (89 percent) states, provinces, and territories have a toll-free number or "hotline" that citizens can use to report hunting violations. Forty-seven (77 percent) states, provinces, and territories receive information through regular telephone calls to the appropriate agency to report violations, 38 (62 percent) receive letters to the appropriate agency, and 51 (82 percent) receive information through personal contact with law enforcement officers. Four (7 percent) states and provinces reported using other means to report violations, including informants and undercover investigators (Montana), other law enforcement agencies (Ohio), public "watchdog" groups (British Columbia), and intelligence data (Ontario).

Penalties for Hunting Violations/Poaching. Penalties for hunting violations vary widely among jurisdictions and can vary within a single state, province, or territory depending on sentencing guidelines and the prosecutors involved in a case. There is tremendous variability with sentencing of wildlife violators, just as there is variability in the types of illegal take or commercialization. Most states, provinces, and territories authorize a jail sentence, a monetary fine, or some combination of the two.

Maximum jail sentences under state, provincial, or territorial law are summarized in Table 26. They range from no jail sentence (New Hampshire, New Jersey, Pennsylvania) to up to five years (Florida, Utah). Of the 50 states, provinces, and territories responding, 14 (27 percent) provide maximum sentences of three months or less (Connecticut, Michigan, New Hampshire, New Jersey, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, West Virginia, Manitoba, Nova Scotia, Ontario, Saskatchewan). Twelve (24 percent) have maximum sentences of three to six months (Florida, Idaho, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Montana, New Mexico, Wisconsin, Alberta, Newfoundland). Six (12 percent) states (Arizona, Arkansas, Maine, Oregon, Tennessee, Virginia) provide for jail sentences of six to twelve months. Eighteen (33 percent) states, provinces, and territories (Alaska, California, Colorado, Georgia, Minnesota, Mississippi, Missouri, Nevada, New York, North Carolina, South Carolina, Texas, Utah, Washington, Wyoming, Northwest Territories, Quebec, Yukon Territory) mandate jail sentences of one year or more.

Monetary fines authorized under state, provincial, or territorial law are summarized in Table 27. They range from US\$1-249 (C\$1-341) (Connecticut and South Dakota) to a maximum of US\$100,000 (C\$137,000) (Alberta). Of the 51 states, provinces, and

territories responding, 12 (24 percent) authorize fines of up to US\$1,000 (C\$1,370) (Arizona, Connecticut, Florida, Kansas, Missouri, New Jersey, New Mexico, Ohio, Rhode Island, South Dakota, British Columbia, Newfoundland). Thirty-nine (76 percent) set maximum fines at US\$1,000 (C\$1,370) or more.

Arrests, Convictions, and Sentences. During the period 1984-1991, arrests for illegal taking or killing of black bear were reported in 26 (62 percent) states and six (50 percent) provinces or territories. From 1989 to 1991, cases in seven of these states, provinces, and territories (Minnesota, Missouri, Montana, New Jersey, Pennsylvania, Saskatchewan, Yukon Territory) involved bear gallbladders, paws, or other parts. Information on the number of arrests, convictions, and average fine and jail sentences from Sheeline 1990 and the 1992 York, West Virginia, and Ontario are particularly noteworthy for the high number of arrests also noteworthy that average fines in most jurisdictions are far below the retail price of a black bear carcass or gallbladder.

## Awareness and Perceived Impact of CITES Listing

The CITES Appendix II listing of <u>Ursus americanus</u> became effective in June 1992, shortly before the questionnaires were mailed to state, provincial, and territorial wildlife management agencies, and two questions were included to determine the level of awareness of the listing and how the respondent perceived the effect of such a listing on the management of the species. The first question was, "Prior to receiving this questionnaire, were you aware of the recent listing of <u>Ursus americanus</u> on Appendix II of the Convention on International Trade in Endangered Species (CITES) under provisions which allow the listing of "lookalike" species?" Only a positive or a negative response was requested. Awareness of the Appendix II listing was very high, with 53 of a possible 61 (87 percent) respondents answering "Yes." Respondents from six (12 percent) states indicated that they were not aware of the Appendix II listing prior to receiving the questionnaire. These respondents were from Arkansas, Kentucky, and Wyoming, which have native bear populations, and Hawaii, Illinois, and South Dakota, which do not. No answer was provided by the respondents from Indiana or Iowa, where no black bears are currently found.

The next question asked respondents to "Please indicate how you think the CITES Appendix II listing will affect the management activities related to <u>Ursus americanus</u> in your state/province." There were four possible answers to this question (positive effect, no effect, negative effect, do not know). In some cases, another answer was provided or the question was left blank. Six (10 percent) respondents (Idaho, Texas, Utah, Wyoming, Newfoundland Quebec) felt that the Appendix II listing would have a positive effect on black bear management in their state or province. Six (10 percent) respondents (Arkansas,

California, Missouri, Montana, Oregon, Ontario) felt that the listing would have a negative effect on black bear management activities.

The largest number of respondents, 34 (56 percent), felt that the Appendix II listing would have no effect on management activities related to black bear in their state, province or territory: Alabama, Connecticut, Delaware, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Virginia, Washington, Wisconsin, British Columbia, Manitoba, Nova Scotia, Prince Edward Island, Saskatchewan, Yukon Territory. Respondents from 12 (20 percent) states, provinces, or territories did not know how the Appendix II listing would affect the management of black bear in their state or province: Alaska, Arizona, Colorado, Hawaii, Maine, Maryland, Minnesota, Ohio, Vermont, West Virginia, Alberta, Northwest Territories. The respondent from Massachusetts was unable to predict the impact of listing within his own state, but felt the listing would be positive for the United States as a whole. The question was not answered by officials from Indiana or Iowa.

Following the question on the estimate of the impact of the Appendix II listing, additional space was provided if a respondent wanted to expand on their answer or provide additional information on what they saw as the potential impacts of the listing. Twenty-four comments were received, and a representative group of these comments is reproduced below.

Resp	pondents' Comments on the Potential Impact of an Appendix II Listing
Arizona	"I am unable to ascertain export procedures and requirements despite contacting permit office of U.S. Fish and Wildlife Service. It would appear that Arizona will make international criminals of the occasional Mexican citizens who have the misfortune to legally kill a bear in Arizona."
California	"Increased regulatory requirements for international transport of bears may reduce the number of hunters in California who would normally export their legally taken bear to another country."
Georgia	"Georgia has the regulatory authority to protect and manage resident species and the technical staff to properly monitor the population. Listing on Appendix II will only cause administrative paperwork beyond that which now occurs and will accomplish nothing toward managing Black Bears in Georgia."
Kentucky	"If and when our bear population increases enough to allow regulated hunting it should have a positive effect."
Maine	"Since Maine allows the sale of parts from legally registered bears, in an attempt to keep the parts trade "above ground," we will need to tag all associated parts in some manner to be able to track back to a legal bear. We would much rather do this than prohibit sale of parts and have the trade go on underground with no way to assess its magnitude."
Maryland	"At the present time we are not aware of a commercial use of Maryland Black Bears, due to #1 we have no legal season and #2 the illegal kills are more incidental shooting rather than for a definite purpose, i.e. selling parts."
Montana	"The listing will not change how we regulate the take of bears or the availability of bear parts. It will require us to process more documents and cost our agency more time and money. Another federal regulation with no funding support to implement."
New Hampshire	"We already have a mandatory check of all bear by state personnel and sealing of same within 24 hours."
New Mexico	"This state has been aware of its bear population and situation, and has moved on its own toward more conservative management. The listing of bears by CITES does not affect that management or philosophy on bears."

Respondents' Comments on the Potential Impact of an Appendix II Listing							
Oregon	"Those opposed to bear hunting will misinterpret/mis-use the rationale behind the listing and use it to confuse people who are undecided on the bear hunting issue. This will result in more pressure for management agencies to stop bear hunting and disrupt management programs and increase bear damage to private property, livestock and crops and increase bear-human confrontations."						
Texas	"Texas borders Mexico where there are currently healthy populations of bears. They are not legally allowed to be hunted in Texas or Mexico, so anyone caught on either side of the Rio Grande can be prosecuted."						
Washington	"Commercial dealing in the bear parts listed under CITES has been illegal in Washington for several years."						
Manitoba	"Regulation of the harvest and export of black bears is handled under provincial Acts and regulated through hunting licenses (tags) and provincial export permits. The CITES permit is an add on permit. The Permit has international implications regarding trade of bladders etc. in other countries. It should be noted the gallbladders may not be imported, exported or <u>possessed</u> in Manitoba."						
Northwest Territories	"Appendix II listing will result in significant increase in administrative aspects associated with issuing permits. e.g. In 1989/90, 48 black bears hides and 7 galls were legally exported from the NWT. A CITES II listing would require 55 permits vs. 7 permits required if listed on Appendix III. Significant increase in management effort will be required to show that trade is not detrimental to the population, if Appendix II listing."						
Quebec	"CITES listing has short-term negative effects on management activities because we have more permits to fill for non-resident hunters but I think that it will have a positive effect on our way to manage black bear in Quebec. CITES listing will give us a tool to document trends of that trade but it will have limited effect on illegal sales and exports."						
Saskatchewan	"We have, over the last number of years, greatly increased our management efforts directed at bears. This listing will primarily add to our "paper war" and lead to some degree of discontent amongst some outfitters and non-resident hunters. It will provincially improve, perhaps, the accuracy of the mandatory reporting of non-resident take. To the "look alike" species and the enforcement efforts it will obviously be beneficial."						

# A Matrix of Management Considerations for States, Provinces, and Territories

The issue of black bear harvest and commercialization is indeed complex, with different implications for different states, provinces, and territories. In order to assess the impacts and management needs most relevant to different states, provinces, and territories, a matrix of management considerations has been developed using 10 indicators from the 1991 commercialization of the American black bear at the state, provincial, and territorial levels; and territories with the greatest needs for additional research, investigations, and both intraagency and interagency coordination.

The matrix is comprised of ten indicators: population; population trend; legal harvest as a percentage of minimum estimated population; level of trade; trend in trade; arrests for illegal killing of black bear (during 1989-1991); the presence of markets for black bear parts within the state, province, or territory; the precence of external markets for black bear parts outside the state, province, or territory; legal sale of gallbladders acquired within the jurisdiction.

An explanation of each indicator and the criteria used to determine if an indicator was relevant to a particular state, province, or territory is provided below, followed by the completed matrix. It should be noted that the matrix reflects only the information provided by respondents to the 1992 TRAFFIC USA questionnaire. The matrix of management considerations is intended as a tool to condense the information collected in the 1992 TRAFFIC USA questionnaire process into a useful format. It is not a "scorecard" of the management strategies for the American black bear in the states, provinces, and territories.

The first indicator used in the matrix is the estimated size of the black bear population. States, provinces, or territories with bear populations are boldfaced. This indicator is marked if the population size estimate for the black bear population in the state, province, or territory is 1,000 or less, or if the state, province, or territory was unable to provide a population size estimate for its black bear population. As discussed above, small, fragmented bear populations are more vulnerable to all impacts, including the effects of commercialization.

Population trend is the second indicator used in the matrix. This indicator is marked if the population trend of the black bear population in the state, province, or territory was described as stable to decreasing or decreasing, or if the state, province, or territory was unable to provide a population trend description for the black bear population.

A literature review indicated that a legal harvest rate of between 3 percent and 8 percent is the rate above which a black bear population's long-term stability is likely to be negatively impacted (California Department of Fish and Game 1992, Kolenosky and

Strathearn 1987). Therefore, legal harvest as a percentage of minimum estimated black bear population was included as the third indicator in the matrix. If the reported legal harvest of black bear in the state, province, or territory is greater than 10 percent of the minimum estimated population for at least two of the three years 1989-1991, this indicator is marked.

The fourth indicator is the level of trade in black bears and black bear parts. This indicator is marked if the level of trade in the state, province, or territory was reported as somewhat significant or very significant, or if the state, province, or territory was unable to provide information on the level of trade in black bears and black bear parts. The trend in trade of black bears and black bear parts is the fifth indicator in the matrix. This indicator is marked if the trend in trade in the state, province, or territory was reported as increasing, or if the state, province, or territory was unable to provide information on the trend in trade of black bears and black bear parts.

Respondents to the 1992 TRAFFIC USA questionnaire were asked to provide information on arrests for illegal taking or killing of black bear for the period 1989-1991. Although a number of respondents were able to provide at least partial information on this topic, in several states, provinces, and territories this type of information is not centrally collected or summarized. However, this important information is included in the matrix as the sixth indicator. This indicator is marked if a state, province, or territory reported any arrests for illegal taking or illegal killing of black bear in the period 1989-1991. Detailed information on whether or not these arrests involved trade in black bear parts is not available, although parts were seized in a number of the reported cases. The indicator is marked with an asterisk if gallbladders were seized during the investigation.

The seventh indicator used in the matrix is the reported use of black bear parts within the jurisdiction of a state, province, or territory. This indicator is marked if a state, province, or territory reported the use of black bear parts, including gallbladders, within their jurisdiction. The eighth indicator is the reported use of black bear parts outside the jurisdiction of the state, province, or territory. This indicator is marked if a state, province, or territory reported the external use of black bear parts taken within their jurisdiction, including Asia. These use indicators were included to highlight the existence of active markets for black bear parts in North America and abroad.

The ninth and tenth indicators used in the matrix relate to the regulations on sale of gallbladders in a state, province, or territory. As discussed above, the regulatory framework for trade in black bear parts is inconsistent across the range of the species. The ninth indicator is marked if the sale of gallbladders lawfully obtained within the state, province, or territory is permitted. The tenth indicator is marked if the sale of black bear gallbladders lawfully obtained in other states, provinces, or territories is permitted.

## Matrix of Management Considerations for States, Provinces, and Territories

States, provinces, or territories with American black bear populations are boldfaced.

<u>Indicators.</u> The indicator column is checked if the response provided on the 1992 TRAFFIC USA questionnaire corresponds to that indicated in parentheses in the indicator description below.

Indicator	Description & Response
Pop.	- Population (estimate of 1,000 or less or do not know)
Pop. Trend	- Population trend (stable to decreasing, decreasing, or do not know)
Harv.	- Legal harvest as percentage of minimum estimated population
	(greater than 10 percent for two or more years)
Trade	- Level of trade (very significant, somewhat significant, or do not know)
Trade Trend	- Trade trend (increasing or do not know)
Law Enf.	- Arrests for illegal killing of black bear 1989-1991? (yes, * indicates gallbladders seized)
Users In	- Use of parts within jurisdiction, including gallbladders? (yes)
Users Out	- Use of parts outside jurisdiction, including Asia? (yes)
Sale In	- Sale of gallbladders from inside jurisdiction legal? (yes)
Sale Out	- Sale of gallbladders from outside jurisdiction legal? (yes)

STATE/ PROVINCE	Pop.	Pop. Trend	Harv.	Trade	Trade Trend	Law Enf.	Users In	Users Out	Sale In	Sale Out
Alabama	1				1					
Alaska				1	1			1		
Arizona				1		1	1	1		1
Arkansas	·				<b>&gt;</b>	1				1
California				•	<b>&gt;</b>	1	1	1		
Colorado	,			/	/	/	1	1		
Connecticut	1									
Delaware					/					
Florida	1			1	<b>√</b>	>		<b>✓</b>		
Georgia						<b>\</b>		<b>V</b>		
Hawaii			,	✓	✓					
Idaho		1		1	1	1		1	1	1
Illinois					1			1	-	

STATE/ PROVINCE	Pop.	Pop. Trend	Harv.	Trade	Trade Trend	Law Enf.	Users In	Users Out	Sale In	Sale Out
Indiana	_			1	1					
Iowa				1	1					
Kansas				1	1				1	1
Kentucky	1				1				<u> </u>	
Louisiana	1				1	1				1
Maine			1	1	1	1		1	1	1
Maryland	1		,	1	1	1		1		
Massachusetts	1		,		1			1		
Michigan			1	1	1	1		1		
Minnesota			1	1.		<b>/</b> *	1	1		
Mississippi	1	1		1	1					
Missouri	1			1	1	<b>√</b> *		1	1	1
Montana			1	1	1	<b>/</b> *		1		
Nebraska	ļ			1	1					
Nevada	1								1	1
New Hampshire						1		1	1	1
New Jersey	1			1	1	<b>/</b> *	·	1		1
New Mexico		1	1	·	1		1	1	1	1
New York			1	1		1		1	1	1
North Carolina			1	1		1			ļ	_
North Dakota	1							/	1	1
Ohio	1			1	1	1		1		
Oklahoma	1							<b>✓</b>		1
Oregon				Í	1	1			·	1
Pennsylvania			1	1	1	<b>/</b> *	1	/		
Rhode Island	1			·		·				1

STATE/ PROVINCE	Pop.	Pop. Trend	Harv.	Trade	Trade Trend	Law Enf.	Users In	Users Out	Sale In	Sale Out
South Carolina	1				1	1		1		<u>                                     </u>
South Dakota									1	1
Tennessee	1			1	1	1		1	-	_
Texas	1			1	1		1	-		
Utah	1		-	1	1	1	1	1		<del> </del>
Vermont	·		1		1			1	1	1
Virginia			1	1				<u> </u>	1	1
Washington				/	1					<del>                                     </del>
West Virginia			1	1		1		1	1	1
Wisconsin			1	1		1		1		
Wyoming	1			1	1		-	1	/	1
Alberta				1	1	1		1		
British Columbia				1	1			1	<del>,</del>	
Manitoba							1	1		
New Brunswick	No inf	ormatio	n prov	ided fo	r 1992	TRAF	FIC US	,	ev	
Newfoundland				1	1	1		1		
Northwest Terr.	•		1		1			1	/	
Nova Scotia				/				1	/	_
Ontario				1.		1		1		
Prince Edward Is.										
Quebec					1	/			/	1
Saskatchewan			1	/	/	/*			/	<u>,</u>
Yukon Territory				/	/	/*		<del></del>	-	

#### IV. CONCLUSIONS

The trade of bear gallbladders, paws, and other parts has contributed significantly to the decline of many of the world's bear species, particularly Asian bears. Although the American black bear was listed on CITES Appendix II primarily to close a legal loophole threatening already endangered Asian species, information provided by federal, state, provincial, and territorial wildlife agencies in the United States and Canada indicates that there also exists a well-developed market for parts from the American black bear. This report highlights two important conclusions: trade in black bears and black bear parts is known to occur throughout most of this species' range in the United States and Canada, and most of the range states surveyed report that the trade is either stable or increasing. The relatively low prices reportedly received by hunters may have prevented the illegal trade from having a major impact on black bear populations in the past. However, high retail prices for gallbladders, paws, and other black bear parts, as well as evidence of well-developed networks of hunters, middlemen, and retailers, suggest that the trade is likely to continue and may well expand in the future. The continuing decline of Asian bear populations may provide a further stimulus to the trade. Although to date there has been no documented overall impact on American black bear populations, this market must increasingly be taken into account in black bear management and conservation decisions.

#### Information Needs

Unfortunately, much of the information needed to assess the current and potential impacts of trade on the American black bear and to develop appropriate responses is currently lacking or is not reliable. The types of information needed include the following: (1) the size and dynamics of black bear populations, in order to assess sustainable offtake levels; (2) the current rates of harvest and mortality from legal sport hunting and trapping, poaching kills, problem animal control, road kills, etc., in order to evaluate existing pressures on black bear populations and to quantify the supply of bear parts already available to meet current demand; (3) the scale of regional and worldwide trade of black bear parts and the numbers of bears involved in the parts trade (legal or illegal) relative to total harvest and mortality; (4) the knowledge of whether trade represents an additional source of mortality or involves primarily parts taken from bears harvested for other purposes (e.g., sport hunting), in order to evaluate incentives for and potential impacts of poaching; (5) the market values of galibladders and other parts relative to other economic values obtained through black bear harvest (e.g., outfitter or guide fees), in order to assess the likelihood of significant illegal harvest occurring at present or in the future, and (6) the effectiveness of current and alternative regulatory and enforcement mechanisms in controlling harvest and trade.

Although the availability and quality of estimates of bear population size and dynamics may vary considerably, these estimates are currently the most reliable information available for assessments of black bear harvest, management, and commercialization. Even when legal

kills are accurately reported, these figures may be meaningless if reasonable estimates of illegal hunting are not developed and considered in management decisions. As discussed previously, a one-to-one ratio of illegal to legal kills is often assumed or estimated for many North American species, including black bears. Such high rates of poaching may be particularly worrisome if they are not adequately considered when legal hunting quotas are established, especially if legal hunting already accounts for a large proportion of the total population.

The lack of reliable data and estimates of illegal hunting also hinders effective monitoring of and timely responses to the effects of commercialization. Because bear population studies are expensive and time-consuming, working estimates of population size and trends may be based on data collected several years earlier. This places the burden of monitoring poaching levels and impacts on law enforcement, the effectiveness of which in turn depends on the numbers of uniformed officers and investigative personnel available. Current cutbacks in funding for both research and law enforcement do not bode well for our ability to monitor the effects of trade.

Estimates of the number of black bears involved in the trade are also lacking. One problem is the lack of a centralized data base on law enforcement investigations and seizures that would allow information from various federal, state, and provincial agencies to be compiled and analyzed. Although time spent on enforcement and numbers of seizures may be indicators of law enforcement effort rather than illegal activity, the pooling of these data would allow a minimum estimate of illegal sales and trade to be developed. A great deal of information has been assembled by the U.S. Fish and Wildlife Service and analyzed in its 1992 internal review of the trade, but neither the report nor the case information on which it was based has been made available to FWS field offices or other state and federal agencies. The release of this information, while dated and compiled prior to the CITES listing, would be extremely useful in the development of coordinated and effective law enforcement investigations and operations.

Another weakness in the information base is the lack of records on <u>legal</u> sales of black bear parts. Many of the states and provinces that allow the legal sale of gallbladders and other parts fail to require that such sales be reported or to maintain records of the volume of legal sales. Even where requirements exist for the registration of bear parts in trade, there is no system in place to require that documents accompany the parts. This situation is particularly problematic when bear parts cross state boundaries, as determination of illegal origin becomes virtually impossible. It also creates enormous difficulties for assessing the impact of trade on black bear populations.

Many mechanisms are available for the regulation of legal commercialization of bear parts, involving mandatory dealer registration; recording of hunter information and hunting license information; reporting of parts offered for sale and their origin, prices, and buyers; and requirements for marking and tagging of parts offered for sale. Many of these mechanisms are already in place for some parts, such as hides or skulls, and could easily be implemented

for gallbladders, paws, and other parts. Each of these components represents a valuable tool for collecting market information, establishing minimum estimates of trade levels, identifying possible informants, and prosecuting cases. Valuable opportunities for information- and intelligence-gathering are missed when these mechanisms are not put in place.

While this report has highlighted conservation concerns and management needs at the state, provincial, and territorial level, it is also clear that a number of questions remain to be answered at the regional and global level. The 1992 CITES Appendix II listing of the American black bear has not yet contributed significantly to the availability of data on the importance of black bears in the worldwide bear parts trade. This failure is due in part to limitations in the capacity of international wildlife agencies to compile and disseminate trade data, but is also the result of widespread evasion of CITES trade controls. Improvements in enforcement, recording, and reporting of black bear trade are needed if wildlife managers are to be able to respond in a timely manner to changes in market demand and supply and to predict and address the impact of commercialization on resident bear populations. Greater understanding of trade flows and routes may also enable range nations to concentrate monitoring and enforcement on those areas or regions most important in supplying Asian demand for bear parts both at home and abroad.

### Regulatory Needs

Black bear populations in North America are managed for different goals, including nuisance animal control, conservation, and sustained yield, and the desired goal will determine the management strategies implemented for a particular black bear population (Miller 1990). In much of the United States and Canada, legal hunting and trapping of black bears provide a significant source of revenue to wildlife agencies. In many states and provinces, resident black bear populations are large and may be capable of sustaining high mortality from illegal as well as legal harvest and other sources of mortality. However, in many of the jurisdictions in which trade in black bear parts occurs, legally or otherwise, resident black bear populations are relatively small (1,000 or less), or no information is available for the development of a population estimate. In these states, provinces, or territories, improved monitoring and control of the effects of hunting and trade may be particularly important. In some jurisdictions, wildlife agencies do not have sufficient information with which to determine whether the commercialization of black bears contributes to or hinders the realization of these goals. It also appears likely that the patchwork of inconsistent laws and regulations, levels of enforcement effort, and severity of sanctions creates a number of areas in which the goals of different states, provinces, and territories may conflict.

At a minimum, any jurisdiction with a resident black bear population or in which commercialization and trade are known to occur has the responsibility of ensuring that adequate information is available on the trade to assess its relationship to bear management and conservation. Working estimates or indices of black bear populations are only the first of these information requirements, although some range states still lack such estimates. Overt

and covert investigations are also critical to assessing the scale and dynamics of the trade, and an effort should be made to ensure that adequate resources are available for these operations. Where the sale of bear gallbladders and other parts is permitted, mandatory reporting, recording, and marking systems are needed to establish the origin of bear parts in trade and prevent the laundering of illegally harvested and traded bear parts. Greater effort is needed in many areas to develop reasonable estimates of unreported poaching kills.

The precise regulatory frameworks implemented by states, provinces, and territories to collect information on and respond to the commercialization of bear parts vary considerably, in part because the characteristics and impacts of the bear parts trade differ from one region and jurisdiction to another. Where the trade appears to be small in scale, easily controlled and enforceable, and derived primarily from legal exploitation, a regulated legal trade may be chosen as the best means to meet management, information, and law enforcement needs and goals. Trade restrictions and marking and reporting requirements will be chosen to target those groups most involved in trade and to conform to existing regulatory approaches and frameworks. In areas where trade controls have proven difficult to enforce, there has been a general movement toward tightening of trade restrictions or completely prohibiting trade to

Regardless of the specific regulatory framework adopted, national or at least regional communication and coordination is needed to ensure that hunting and trade controls are universally understood and sufficiently consistent to be mutually enforceable. Many an investigation has ended with the case being dropped because a single jurisdiction in the market chain was unable to verify the origin or legality of a bear part in trade. To prevent this situation from hindering law enforcement efforts regionally or even nationally, those jurisdictions that allow the sale of bear parts must not only be able to provide information on bears harvested and sold within their jurisdiction, but must also anticipate the law enforcement needs of other jurisdictions that may serve as points of transit or destination for these bear parts. State and provincial regulations must address both the need to determine the legality of harvest and sale within the state of origin and the need to clarify interstate and interprovincial commerce laws so that state and provincial agencies are capable of preventing the illegal sale within their jurisdiction of bear parts taken and sold elsewhere. Furthermore, all jurisdictions should ensure that existing penalties, including both jail sentences and fines, are sufficient to determine the legal hunting and commercialization of bears and bear parts.

A number of mechanisms are available for improving the law enforcement capabilities of states, provinces, and territories. Reciprocal agreements among different jurisdictions to honor each others' wildlife laws, to facilitate communication among enforcement officers, or to cooperate in investigations and enforcement operations can enhance the effectiveness of available resources. For example, in 1989, the states of Arizona, California, Colorado, Idaho, Nevada, Utah, Washington, and Wyoming signed the Wildlife Violator Compact to regularly communicate with each other on wildlife violations, to provide information on changes in state laws, and to mutually recognize state hunting license suspensions. Agreements such as this can help to close loopholes in the wildlife codes of participating states because where

state laws conflict, the more stringent state laws will often apply to interstate enforcement (Musgrave and Stein 1993).

#### Law Enforcement Needs

Each of the above points highlights the important role played by law enforcement personnel in understanding, monitoring, and controlling the trade in bear parts and its impacts on bear populations. Specialized investigative techniques such as undercover investigations are particularly important in these efforts and can be credited with gathering most of the information currently available on North American markets for bear gallbladders and paws. They will continue to be critical to efforts to monitor market and price trends, trade routes, and regional impacts. Unfortunately, the ability of law enforcement personnel to gather and respond to this information is hindered by resource limitations, lack of coordination among agencies, and the vast land areas for which they are responsible.

Given the limitations facing law enforcement, communication and coordination between agencies is particularly important. Improved information sharing will be necessary to determine the origins of gallbladders and other parts in trade, to ensure that trade controls are adequate and widely enforced, and to successfully prosecute instances of poaching and illegal trade. In addition to improved communication and between agencies, it is important for wildlife management agencies to work with other researchers and organizations to develop mechanisms for ongoing communication and coordination between the state, provincial, and territorial wildlife management and law enforcement agencies, federal agencies, the CITES Secretariat, bear researchers, nongovernmental organizations, and other interested parties. The success of law enforcement efforts also depends heavily on the adequacy and consistency of state, provincial, and territorial wildlife laws and regulations.

#### Public Awareness Needs

In addition to activities focused on the "supply side," effort must also be directed at the "demand side" of markets for bears and bear parts, or illegal trade will surely continue. Additional definition of the markets in Asia and North America for bear parts is needed in order to understand the demand for and use of bear parts by practitioners of traditional Chinese medicine. Cooperation with medical practitioners to assess the usefulness and acceptability of alternatives and to develop educational programs designed to raise the level of awareness of the impacts of trade on black bear populations and the availability of substitutes for parts are critical next steps. Given increased public awareness of wildlife trade issues following the Ninth Conference of the Parties to CITES in Ft. Lauderdale, Florida in November 1994, now is an appropriate time for increased educational efforts about wildlife trade issues in general and the trade of bear parts in particular.

#### V. RECOMMENDATIONS

In order to better understand the trade of parts from the American black bear, prevent negative impacts on black bear populations, and raise the awareness of consumers about these potential impacts, TRAFFIC USA recommends the following:

- State, provincial, and territorial wildlife agencies should carefully monitor trends in black bear populations, attempt to collect more reliable data on poaching levels and trends, and employ formal modeling or other means to develop realistic estimates of illegal as well as legal black bear kills. Such estimates may be increasingly important in establishing legal hunting rates and other management plans and are needed to respond in a timely and effective manner to any negative impacts on black bear status from poaching associated with the parts trade.
- The patchwork of inconsistent state, provincial, and territorial laws and regulations governing the commercialization and transportation of bears and bear parts is a significant barrier to current efforts to monitor and control the trade. A thorough review of state and provincial wildlife laws and regulations should be undertaken by regulators, wildlife law experts, and others, with a view towards developing more consistent restrictions on and penalties for the sale and trade of bear gallbladders, paws, and other products at the subregional, regional, and possibly national levels.
- In those states, provinces, and territories in which the sale of gallbladders and other parts is permitted, mandatory marking, registration, and recording systems should be implemented in order to monitor levels and trends of legal trade, assist in the enforcement of trade controls, and improve the availability of market information. In those states, provinces, and territories that allow the sale of gallbladders legally acquired elsewhere, greater effort is needed to enforce the laws and regulations of other jurisdictions with regard to hunting, commercialization, and interstate commerce by requiring accompanying documentation. All jurisdictions should attempt to better coordinate their efforts to achieve greater consistency and mutual enforceability of laws and regulations controlling wildlife trade.
- Federal, state, provincial, and territorial governments should ensure that existing penalties are sufficient to pose a significant deterrant to illegal hunting and commercialization, and are sufficiently consistent with those of other states, provinces, and territories to prevent laundering of bear parts through jurisdictions with weak penalties. These penalties should include mandatory jail sentences and fines that are significantly higher than the value of illegally traded bear parts. Information on the gravity of these crimes should be provided to both the public and to the judiciary, both directly and through the mass media, in order to ensure that these penalties are consistently applied.

- Given the increasing importance of international markets for North American wildlife, federal, state, provincial, and territorial agencies within the United States and Canada should ensure that adequate resources are devoted to special investigations, that permanent or temporary staff are able to penetrate Asian wildlife markets in North America, and that law enforcement investigations have the ability to operate internationally when needed. These are currently the most effective means available for gathering information on the dynamics and impacts of wildlife trade.
- A centralized data base should be created by federal law enforcement agencies to record seizures by federal, state, provincial, and territorial agencies and maintain minimum estimates of illegal harvest and commercialization. There are a number of options available for the creation of such a data base on law enforcement investigations and seizures. One is for federal law enforcement agencies to compile and maintain records from completed investigations and to make these records available to federal and state agents upon request. A memorandum of understanding or other agreement can be developed to facilitate the exchange of this information among the U.S. Fish and Wildlife Service, the Canadian Wildlife Service, and perhaps other national agencies. Nongovernmental organizations such as TRAFFIC can assist this effort by creating and operating supplemental data bases, assisting the exchange of information by announcing completed cases in a bulletin or other media, and assisting in the compilation of data from North America and abroad.
- Wildlife managers and other interested parties should assist efforts to obtain and update detailed information on markets for black bear parts, both within North America and abroad, and to track trends in demand and prices. This information should be actively sought through ongoing investigations and provided to other interested agencies and organizations.
- Trading nations, especially Asian importers, should work to improve the enforcement of international trade controls and the accuracy and timeliness of data collection and reporting of trade of bear and other wildlife products. Greater official cooperation among governments is essential to improved law enforcement capabilities. National agencies should explore options for more effectively intercepting illegal bear parts at point of export as well as import, improving record-keeping for bears and bear parts intercepted at point of export and import, and reporting this information to other CITES parties in a timely manner.
- Greater effort should be made to heighten the awareness of consumers within North America and abroad about the impacts of trade on bear populations and the availability and relative efficacy of natural and medically acceptable substitutes for bear parts.

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Appendix A. Pharmacopia of Bear Gallbladder

## Pharmacopia of Bear Gallbladder (Bensky and Gamble 1986)



### 熊胆

Pharmaceutical name: Fel Ursi

Zoological name: Selenarctos thibetanus G. Cuvier

or Ursus arctos L. Mandarin: Xiong Dăn

Japanese: Yūtan Korean: Ungdam

English: Bear Gall Bladder

Properties: bitter, cold

Channels entered: Liver, Gall Bladder, Spleen, Stomach

Text in which first appeared: Materia Medica of Medicinal Properties

Functions and clinical use:

- · Clears Heat and alleviates spasms: used for Warm-febrile diseases with high fevers and convulsions. Also used for delirium from extensive burns.
- Clears Heat and detoxifies Fire Poison: used for Hot skin lesions. Topical application is especially effective in alleviating pain.
- Benefits the eyes in patterns of Liver Fire: used for severe cases of red, painful, and swollen eyes as well as superficial visual obstruction.
- Reduces swelling and pain: used in cases of trauma, sprains, fractures, or hemorrhoids. Major combinations:

- With Borneol (Bing Pian) for swelling, pain and inflammation of the conjunctiva and also
- With Herba Artemesiae Capillaris (Yin Chen Hao) for severe hepatitis or hepatic coma. Cautions and contraindications:

• In the Discussion of Medicinal Properties it is said that this substance should not be used with either Radix Rehmanniae Glutinosae (Sheng Di Huang) or Radix Stephaniae Tetrandae (Han Fang Ji).

Dosage: Only 2-8 fen in pills and powders internally, as it is prohibitively expensive; also used in similar amounts in ointments applied topically.

Major known ingredients: cholesterol, bile acids including (in Selenarctos thibetanus G. Cuvier) tauro-ursodesoxy cholic, taurine, ursodesoxy cholic acid, cholic acid, chenodesoxy cholic Appendix B. 1992 TRAFFIC USA Questionnaire

#### BLACK BEAR (Ursus americanus) QUESTIONNAIRE

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report by the end of October 1992.

SECTION I - POPULATION STATUS	
Name of person completing this section:	
State/Province:	
Гitle:	
Address:	
Telephone:	
*This information will only be used for follow-up	if needed)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, <u> </u>
. Please complete the chart on population status	of black bears in your state/province.
	The answers in this chart are provided for
CATEGORY	the following year/season: 19
7	
Estimated size of black bear	
population in state/province: (specific number or range)	
(specific humber of range)	
Basis of population size estimate:	·
•	
(e.g., radio telemetry study, best assessment,	
harvest numbers, etc.)	
Estimated age structure of population:	
,	
% cubs (less than 1 year)	
% subadult (1-3 years)	
% adult (greater than 3 years)	
76 addit (greater than 5 years)	
Basis of age structure estimate:	
(e.g., data from specific study area,	
teeth collected from harvest, best assessment,	
etc.)	
Population trend:	
(Increasing/Stable/Decreasing)	•
Davis of accordation transfer estimates	
Basis of population trend estimate:	
(e.g., decreasing average age of individuals in harvest, best assessment, etc.)	
maroo, oot abboomen, oo,	(Over)

2. How is the black bear classified in your state/province?  (check all that apply)  State/province endangered State/province threatened Candidate for state/province endangered Candidate for state/province threatened Pest or nuisance species
State/province threatened Candidate for state/province endangered Candidate for state/province threatened
Game animal No formal designation Other (specify)

If you would like to make additional comments, please do so below. Thank you.

#### BLACK BEAR (Ursus americanus) QUESTIONNAIRE

Your answers to the following questions will help TRAFFIC USA document the legal and illegal commercialization of the American black bear in North America. We appreciate your efforts to provide us with accurate information and will provide your agency with a copy of the final report by the end of October 1992.

SECTION II - HARVEST REGULATION AND HARVEST RESULTS
*Name of person completing this section:
State/Province:
Title:
Address:
Telephone:
(*This information will only be used for follow-up if needed.)
a 7 to 1 1 1 11 1.1 - 1 1 1 and in record state (province)
1. Is it legal to kill black bear in your state/province?
(check all that apply and indicate year if appropriate)
Yes, legal since as big game species and when damaging crops/beehives, etc.
Yes, legal since only as a big game species.
Yes, legal since only when a bear is damaging crops, beehives, etc.
Yes, legal since only when a ocal is damaging crops, occurred, occ
No, illegal to kill black bear since
No, it has always been illegal to kill black bear.
2. Are there regulations in your state/province related to the taking or killing of black bear on private lands that
are different from regulations related to public lands? (check one)
Yes - If Yes, go to question 2a.
No - If No, go to question 3.
20. Please describe the regulations below or attach a conv of the regulations to this page.

(Over)

## Section II - Harvest Regulation and Harvest Results/Page 2

3. Does black bear hu	ınting require	a specia	I license in y	our state/¡	province? (cl	neck one)		•
Yes, a big gar No, only a big	ne species lic	ense spec	ifically for t	black bear	is remired	ŕ		
4. Please complete the your state/province from and number of residen 1992.	HII 1989 (O 15	yı and, a	as known, fo	r 1992 - H	f annlicable :	niesce con	nnlata tha ah	
CATEGORY	198	39	19	90	19	91	19	92
CATEGORY	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Cost of license for non-resident	·							
# of non-resident licenses sold						-		
Cost of license for resident								
# of resident licenses sold		·	·	<u> </u>				
. Are other types of lifferent licenses for di	icenses for bl	ack bear	hunting sold	in your st	ate/province	? For exa	mple, are the	ere
Yes (specify of				· · ·		<b>-</b>		
Is there a mandator heck one)	y harvest veri	ification/r	eporting sys	tem in you	ır state/provi	nce?		
Yes - If Yes, go No - If No, go	o to question to question	ба. 7.						
i. How are harvests ro heck all that apply)	eported in you	ır state/pi	rovince?					
Written notice by Phone call by he Registration of Return of tooth Return of skull Other (specify)	unter to regul harvest by hu by hunter to	ating age nter at de regulating	ncy. signated che gagency				÷	

### Section II - Harvest Regulation and Harvest Results/Page 3

7. Please complete the chart on regulations related to black bear harvest in your state/province from 1989 to 1991.

Some of your answers may be based on professional judgement and experience, rather than quantitative data. In such cases, where your answer for a category should be considered as a "best assessment" please place an "X" in the box under the "\*".

*	CATTECODY	198	89	1990		1991	
	CATEGORY	Spring	Fall	Spring	Fall	Spring	Fall
	Dates of hunting season			·			
	Bag limit per hunter		<u> </u>				<u>.</u>
	Harvested bears required to be tagged at check station? (Yes or No)	·					<u> </u>
	Trapping legal? (Yes or No)						
	Dates of trapping season						·
	Baiting legal? (Yes or No)						
	Hounds legal? (Yes or No)					***	
	Dog training season? (Yes or No)		_				·
	# of licenses sold to houndsmen					j	
	Game farms for bears legal? (Yes or No)						
	# of game farms with bears						

(Over)

Section II - Harvest Regulation and Harvest Results/Page 4

8. Please complete the chart on results of black bear harvest in your state/province from 1989 to 1991.

Some of your answers may be based on professional judgement and experience, rather than quantitative data. In such cases, where your answer for a category should be considered as a "best assessment" please place an "X" in the box under the "\*".

		19	89	19	90	199	91
*	CATEGORY	Spring	Fall	Spring	Fall	Spring	Fall
	# of reported legal hunting kills						
	Sex ratio of legal hunting kills (%M:%F)		er.				
	# of reported legal trapping kills						The state of the s
	# of reported nuisance kills	÷					
	# of management removals (destroyed)						a de la companya de l
	# of other known kills except by poaching (vehicles, etc.)						de
	# of known kills by poaching						
	Estimated # of illegal kills by poaching		,				
	Estimated # of unreported human-related kills <u>except</u> by poaching (vehicles, etc.)						·

## Section II - Harvest Regulation and Harvest Results/Page 5 9. Does your state/province have a hunter education program? (check one) Yes - If Yes, go to question 9a. No - If No, go to question 10. 9a. Please provide the name and telephone number of the coordinator of the program: Telephone: \_\_ 10. Prior to receiving this questionnaire, were you aware of the recent listing of Ursus americanus on Appendix II of the Convention on International Trade in Endangered Species (CITES) under provisions which allow the listing of "lookalike" species? (check one) Yes 11. Please indicate how you think the CITES Appendix II listing will affect the management activities related to Ursus americanus in your state/province: (check one) Positive effect No effect Negative effect Do Not Know 12. Please use the space below to expand on your answer to question 11 if you desire.

If you would like to make additional comments, please do so on the back of this page. Thank you.

## BLACK BEAR (Ursus americanus) QUESTIONNAIRE

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

SECTION III - TRADE IN BEARS AND BEAR PARTS
*Name of person completing this section:
State/Province:
Title:
Address:
Telephone:
(*This information will only be used for follow-up if needed.)
Please note the following definitions for this section of the questionnaire:
Trade - the commercial sale and transport of goods  Parts - parts of the black bear other than meat and whole mounted trophies (e.g., hides, skulls, gallbladders, claws, paws, teeth etc.)
1. Please complete the chart on regulations regarding the sale of legally acquired bears and bear parts in your state/province.

Place an "L" in the box if the sale of that item is legal. Place an "X" in the box if the sale of that item is not legal.

Leave the space blank if there are no regulations.

		<del></del>		IT	EM			
CATEGORY	Live bear	Hide	Gallbladder	Paw,	Skull	Teeth	Claw	Other (specify)
Item acquired in state or province								(openy)
Item acquired in other states or provinces								

(Over)

Section III - Trade in Bears and Bear Parts/Page 2
2. Please indicate the level of trade in bear parts (legal or otherwise) in your state/province: (check one)
Very significant Somewhat significant Not significant
No known trade Do Not Know
3. Does the trade in bear parts in your state/province (legal or otherwise) appear to be: (check one)
Increasing Stable
Decreasing Do Not Know
4. If applicable, what is the basis for your answers to questions 2 and 3? (check all that apply)
Information received as a result of undercover investigations Reports from legal hunters
Time spent on enforcement activities Best assessment
Other - specify in space below:
5. In general, where do users of bears and bear parts harvested in your state/province (legal or otherwise) come from? (check one)
Out of state/province (including abroad) Within state/province
Both within and out of state/province (including abroad)

6. Please complete the chart on users of bears and bear parts located within your state/province and located or of your state/province (including users abroad). An example is provided for your information.

<u>Users</u> could be those in a particular profession or ethnic group.

<u>Initial destination</u> could be a specific state/province or region or country.

<u>Final destination</u> could be a specific state/province, region or country.

Some of your answers may be based on professional judgement and experience, rather than quantitative data. In such cases, where your answer for a category should be considered as a "best assessment" pleat place an "X" in the box under the "\*".

	Γ	STATE	ETS WITHIN EPROVINCE	MARKE STATE/	ETS OUT OF PROVINCE
*	ITEM	Check if used locally	Who are local users?	Initial desti- nation	Final desti- nation
	**EXAMPLE: Claws	х	Tourists Jewelry Makers	California or Western United States	South Korea
$-\parallel$	Live bears				
	Carcasses or hides			<del> </del>	
	Gallbladders				
	Paws				
	Skulls				
	Teeth				
	Claws				
	Other (specify)				

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

CATEGORY	MARKETS WITHIN STATE/PROVINCE	MARKETS OUT OF STATE/PROVINCE
Live bears		
Carcasses or hides		
Gallbladders		-,-
Paws		
Skulls		
Teeth		
Claws		
Other (specify)		

8. Please provide information on the prices of bears and bear parts acquired (legal or otherwise) in your state/province. If you do not know any of the requested information, please leave the space blank.

Some of your answers may be based on professional judgement and experience, rather than quantitative data. In such cases, where your answer for a category should be considered as a "best assessment" please place an "X" in the box under the "\*".

· - II		AMOUNT OF MONEY RECEIVED BY: (\$ Amount or \$ Range)						
*	CATEGORY	Hunter	Middleman	Retailer				
	Live bears							
	Carcasses or hides							
	Galibladders							
	Paws							
	Skulls	-						
	Teeth							
	Claws							
	Other (specify)							

9. Is illegal killing decreasing the opportunities for legal sport harvesting of black bear in your state/province? (check one)
Yes No Do Not Know
10. Does your state/province have a hunting violation/poaching reporting system? (check one)
Yes - if Yes, go to question 10a. No - if No, go to question 11.
10a. How are violations/poaching reported? (check all that apply)
Telephone calls to a toll-free number or "hotline."  Telephone calls to appropriate state/provincial agency.  Letters to appropriate state/provincial agency.  Personal contact with enforcement officers.  Other (specify)
1. What is the maximum jail sentence under your state/provincial law if convicted of illegal taking or killing of lack bear? (check one)
0 - 3 months 3 - 6 months 6 - 12 months 1 year or more (specify)
2. What is the maximum monetary fine under your state/provincial law if convicted of illegal taking or killing black bear? (check one)
\$1 - 249 \$250 - 499 \$500 - 999 \$1000 - 1499 \$1500 - 1999 \$2000+ (specify) \$

(Over)

13. Please complete the chart on total enforcement activities related to illegal taking or killing of black bears in your state/province from 1989 to 1991.

Some of your answers may be based on professional judgement and experience, rather than quantitative data. In such cases, where your answer for a category should be considered as a "best assessment" please place an "X" in the box under the "\*".

		YEAR/SEASON		
*	CATEGORY	1989	1990	1991
	# of arrests for illegal taking or killing			
	# of convictions for illegal taking or killing	-		
	# of fines for conviction			·
	Range of fines for conviction (\$)			
	# of jail sentences for conviction			
	Range of jail sentences for conviction (months)			·
	#/type of evidence seized			
	1 = live bear or bears			
	c = carcasses or hides			
	g = gallbladders			
	p = paws	•		
i	s = skulls			
	t = teeth			
	w = claws			
	o = other (specify)			

If you would like to make additional comments, please attach a separate page to the questionnaire. Thank you.

#### Appendix C. Respondents to the 1992 TRAFFIC USA Questionnaire

#### United States

Alabama Game and Fish Division (Keith Guyse)

Alaska Department of Fish and Game (Kathleen M. Meddleton)

Alaska State Trooper Joseph W. Campbell

Arizona Game and Fish Department (John S. Phelps and Jim Bidle)

Arkansas Game and Fish Commission (W. E. Howell)

California Department of Fish and Game (Robert W. Stafford and J.E. Watkins)

Colorado Division of Wildlife (Tom Lytle, R. Bruce Gill and David A. Croonquist) Connecticut Wildlife Division (Paul W. Rego)

Delaware Division of Fish and Wildlife (H. Lloyd Alexander, Jr.)

Florida Game and Fresh Water Fish Commission (Robert M. Brantly, John Wooding and Jerry

Georgia Game and Fish Division (David M. Carlock)

Hawaii office of the United States Fish and Wildlife Service (Carroll Cox)

Hawaii Department of Land and Natural Resources (Ronald L. Walker)

Idaho Department of Fish and Game (John J. Beecham and Ray Lyon)

Illinois Department of Conservation (Michael Gregonis)

Indiana Division of Fish and Wildlife (Glen Lange)

Iowa Fish and Wildlife Division (Allen L. Farris and Rick McGeough)

Kansas Department of Wildlife and Parks (Bill D. Hlavachick and R. Harrold)

Kentucky Department of Fish and Wildlife Resources (Larry D. Short)

Louisiana Department of Wildlife and Fisheries (Joe L. Herring, Gary Lester and Keith LaCaze) Maine Department of Inland Fisheries and Wildlife (Craig R. McLaughlin, Ken Elowe and Glen

Maryland Department of Natural Resources (Ed Golden)

Massachusetts Division of Fisheries and Wildlife (James E. Cardoza)

Michigan Department of Natural Resources (Tim F. Reis, John Wynalda and Mike McCarty)

Minnesota Department of Natural Resources (Dave Garshelis, Dave Schaud and Bill Spence)

Mississippi Museum of Natural Science (Cheri Jones)

Missouri Department of Conservation (David A. Hamilton and Glen D. McCloud)

Montana Department of Fish, Wildlife and Parks (Glenn Erickson and Gary E. Burke)

Nebraska Game and Parks Commission (Frank Andelt)

Nevada Department of Wildlife (San Stiver)

New Hampshire Fish and Game Department (Eric P. Orff)

New Jersey Division of Fish, Game and Wildlife (Patricia A. McConnell and Greg Huljackef)

New Mexico Game and Fish Department (Jim Gonjales)

New York State Department of Environmental Conservation (Louis Berchielli and Kenneth Wich)

North Carolina Wildlife Resources Commission (Carl W. Betsill)

North Dakota State Game and Fish Department (Lloyd A. Jones)

## Appendix C. Respondents to the 1992 TRAFFIC USA Questionnaire

Ohio Department of Natural Resources (Pat Ruble)

Oklahoma Department of Wildlife (Julianne Whitaker-Hoagland)

Oregon Department of Fish and Wildlife (Walt Van Dyke)

Pennsylvania Game Commission (Gary Alt and J.R. Beard)

Rhode Island Division of Fish and Wildlife (Lori Suprock)

Clemson University (Tim Fendley)

South Carolina Wildlife and Marine Resources Department (Sam W. Stokes)

South Dakota Department of Game, Fish and Parks (Eileen Dowd Stukel, Ron Fowler and Bob Schuurmans)

Tennessee Wildlife Resources Agency (Greg Wathen)

Texas Parks and Wildlife Department (Richard B. Taylor)

Utah Division of Wildlife Resources (Jordan C. Pederson and Craig Miya)

Vermont Department of Fish and Wildlife (Charles H. Willey)

Virginia Department of Game and Inland Fisheries (Dennis Martin)

Washington Department of Wildlife (Jim Rieck)

West Virginia Department of Natural Resources (Joseph C. Rieffenberger)

Wisconsin Bureau of Wildlife Management (Kevin Wallenfang, Thomas C. Solin)

Wyoming Game and Fish Department (Scott G. Smith and Russ Pollard)

#### <u>Canada</u>

Alberta Fish and Wildlife Services, Environmental Protection (John R. Gunson and J.A. Girvan)

British Columbia Ministry of Environment, Lands and Parks (Vivian Banci)

Manitoba Department of Natural Resources (Douglas Pastuck and Gord Graham)

Newfoundland Wildlife Division (Shane Mahoney and Andrea MacCharles)

Northwest Territories Department of Renewable Resources (Laurie Buckland)

Nova Scotia Department of Natural Resources (Tony Nette and Barry Sabean)

Ontario Ministry of Natural Resources (Maria DeAlmeida and Dale Gartley)

Prince Edward Island Department of the Environment (Arthur Smith)

Quebec Ministere l'Environnement et de la Faune (Helene Jolicoeur) Saskatchewan Department of Natural Resources (Randy Seguin and Ken Ness)

Yukon Territory Department of Renewable Resources (Kris Gustafson)

#### <u>Mexico</u>

The Mexican Black Bear Project, Caesar Kleberg Wildlife Research Institute, Texas A&I University (Diana Doan Martinez)

Appendix D. Tables

TABLE 1. ESTIMATES OF SIZE OF BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA

Stota@aastaaa@a			
State/Province/Territory	1984	1988	1991-1992
	(Sheeline 1990)	· (Sheeline 1990)	1991-1992
ALABAMA ALASKA	50	50	,
ARIZONA	200000	200000	100000-200000
ARKANSAS	2500	2500	2500-2700
CALIFORNIA	1700-2000	1700-2000	2300
COLORADO	15000	15000	15000-18000
CONNECTICUT	30	7000-15000	8000-12000
DELAWARE FLORIDA	o .	. 30 · 0	15-30
GEORGIA		1000	0 1000-1500
намап		1500	1700
IDAHO	19000 25000	0	0
ILLINOIS	18000-25000 0	18000-25000	20000-25000
INDIANA	ŏ	0 0	ō
IOWA KANSAS	· o	0	0
KENTUCKY	0	ő	0
LOUISIANA		100	Unknown
MAINE	100	100	300+
MARYLAND	· 21283 190	21192	19000
MASSACHUSETTS MICHIGAN	450-500	200 7,00-750	170 700-750
MINNESOTA		100-120	7000-10000
MISSISSIPPI	8000	9200	10500-14500
MISSOURI	25	25	25*
MONTANA	•	50-100	50-150
NEBRASKA	0	0	9000-10000
NEVADA	300	300	0 200-400
NEW HAMPSHIRE NEW JERSEY	2000	2500	3000
NEW MEXICO	100-125	175-225	275-325
NEW YORK	3300	3300	3000
NORTH CAROLINA	4100 3000-4000	4100 3000-4000	4000-5000
NORTH DAKOTA	0	300400	5500-6250
OHIO OKLAHOMA	0	. 0	50* 20*
OREGON		•	200
PENNSYLVANIA	20000-25000	20000-25000	25000
RHODE ISLAND	0	7500	7500
SOUTH CAROLINA	100	0 100	0-2
SOUTH DAKOTA TENNESSEE	0	0	300 0
TEXAS	1500-2000	1500-2000	1000-2000
UTAH			50
VERMONT	2000-2500	750	800-1000
VIRGINIA	2000-2300	2000-2500 2500	2100
WASHINGTON		19000	3000-3500 27000-30000
WEST VIRGINIA WISCONSIN	1200	2000	3000
WYOMING		5790	5800
			Unknown
UNITED STATES SUBTOTAL	304838-319213	353943 345314	******
	504050-515#15	352862-375312	289095-416662
ALBERTA			
BRITISH COLUMBIA	50000	48700	40000
MANITOBA	30000-35000	120000	100000-120000
NEW BRUNSWICK	3000-3000	30000	25000-30000
NEWFOUNDLAND		6000	6000-10000
NORTHWEST TERRITORIES NOVA SCOTIA			5000+
ONTARIO	2500	2500	3000
PRINCE EDWARD ISLAND	65000-75000 0	65000-75000	75000
QUEBEC	60000	0 60000	60000
SASKATCHEWAN	***************************************	30000	60000 24000
YUKON TERRITORY	10000	10000	14000-20000
CANADA SUBTOTAL			
	217500-232500	372200-382200	277000-387000
TOTAL	522338-551713	725062-757512	566095-803662
*Estimate of maximum +Estimate of minimum			

## TABLE 1. ESTIMATES OF SIZE OF BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA

#### State/Province/Territory

### Basis of estimate of size of black bear population

ALABAMA alaska

Professional estimate/best assessment

ARIZONA ARKANSAS

Professional estimate/best assessment, Density estimates Professional estimate/best assessment, Radio telemetry studies, Harvest data or trends, Mark-recap Mark-recapture studies

CALIFORNIA COLORADO

1990 estimate based on Age/sex ratios, Harvest data or trends Sex ratios of harvest, Harvest data or trends, Study area data

CONNECTICUT DELAWARE

Professional estimate/best assessment, Number of complaints/sightings

FLORIDA GEORGIA HAWAII IDAHO

Radio telemetry studies

Radio telemetry studies, Harvest data or trends, Bait station surveys

ILLINOIS INDIANA Study area data, Habitat quality/quantity extrapolated from research on six areas in state Black bears extirpated from state in 1800s

IOWA KANSAS

Not applicable Not applicable

KENTUCKY LOUISIANA

Not applicable Number of complaints/sightings

MAINE MARYLAND

1994 update based on Professional estimate/best assessment, Study area data Radio telemetry studies

MASSACHUSETTS MICHIGAN MINNESOTA MISSISSIPPI

Radio telemetry studies, Mark-recapture studies, Modeling 1988 estimate based on Radio telemetry studies, Study area data Age/sex ratios, Harvest data or trends, Mark-recapture studies Mark-recapture studies

Not indicated

MISSOURI MONTANA

Number of complaints/sightings, Bait station surveys

Harvest data or trends NEBRASKA NEVADA Not applicable

Radio telemetry studies NEW HAMPSHIRE NEW JERSEY

Radio telemetry studies, Harvest data or trends Radio telemetry studies, Mark-recapture studies, Number of complaints/sightings NEW MEXICO NEW YORK Professional estimate/best assessment

NORTH CAROLINA NORTH DAKOTA

Professional estimate/best assessment 1994 update based on Professional estimate/best assessment, Population reconstruction, Bait statio:

OHIO Professional estimate/best assessment OKLAHOMA Density estimates, Bait station surveys OREGON

Age/sex ratios, Sex ratios of harvest, Harvest data or trends, Habitat productivity PENNSYLVANIA Radio telemetry studies, Mark-recapture studies RHODE ISLAND

SOUTH CAROLINA

Professional estimate/best assessment Professional estimate/best assessment, Radio telemetry studies, Mark-recapture studies, Bait statio Not applicable

SOUTH DAKOTA TENNESSEE TEXAS

Professional estimate/best assessment, Harvest data or trends, Bait station surveys Professional estimate/best assessment

UTAH VERMONT VIRGINIA

Radio telemetry studies, Harvest data or trends, Study area data, Density estimates Professional estimate/best assessment, Population calculations, Age/sex ratios, Harvest data or tren Professional estimate/best assessment, Radio telemetry studies, Harvest data or trends

WASHINGTON WEST VIRGINIA WISCONSIN

1972 estimate based on Density estimates Radio telemetry studies, Age/sex ratios, Harvest data or trends

Mark-recapture studies, Bait station surveys WYOMING Not provided

ALBERTA

Mark-recapture studies, Study area data BRITISH COLUMBIA

MANITOBA NEWFOUNDLAND Professional estimate/best assessment, Harvest data or trends Professional estimate/best assessment

NORTHWEST TERRITORIES NOVA SCOTIA

Radio telemetry studies, Harvest data or trends, Mark-recapture studies Professional estimate/best assessment, Density estimates

ONTARIO

Harvest data or trends Mark-recapture studies, professional estimate/best assessment

PRINCE EDWARD ISLAND QUEBEC SASKATCHEWAN YUKON TERRITORY

Black bears extirpated; last bear shot 1927 Professional estimate/best assessment

Professional estimate/best assessment Professional estimate/best assessment, Radio telemetry studies

# TABLE 2. ESTIMATES OF TREND IN BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA

State/Province/Territory		
	1990	1991-1992
	(Servheen 1990)	1771-1772
ALABAMA		•
ALASKA		0.44
ARIZONA	Stable	Stable
ARKANSAS	Stable	Stable
CALIFORNIA		Stable
COLORADO	Static	Increasing
CONNECTICUT	Unknown	Increasing
DELAWARE	Increasing	Stable
FLORIDA	·	Increasing
GEORGIA	Stable to slight increase	Not applicable
HAWAII	Stable to increasing	Stable to increasing
IDAHO		Increasing
ILLINOIS	Stable	Not applicable
INDIANA		Stable to decreasing
IOWA		Not applicable
KANSAS	•	Not applicable
KENTUCKY		Not applicable
LOUISIANA	Increasing	Not applicable
MAINE	Stable	Increasing
MARYLAND	Stable	Stable to increasing
MASSACHUSETTS		Increasing
MICHIGAN	Stable	Increasing
MINNESOTA	Stable	Increasing
MISSISSIPPI	Increasing	Increasing
MISSOURI	-	Increasing
MONTANA	Unknown	Unknown
NEBRASKA	Stable	Increasing
NEVADA		Stable to increasing
NEW HAMPSHIRE	Stable	Not applicable
NEW JERSEY	Increased take	Stable to increasing
NEW MEXICO	Increasing	Stable to increasing
NEW YORK	Stable	Stable to increasing
NORTH CAROLINA	Stable	Decreasing
NORTH DAKOTA	Increasing	Stable
OHIO	<u>-</u>	Stable to increasing
OKLAHOMA		Stable
OREGON		Increasing
PENNSYLVANIA	Static to slowly increasing	Increasing
RHODE ISLAND	Stable	Stable to increasing
SOUTH CAROLINA		Stable
SOUTH DAKOTA	Stable	Not applicable
TENNESSEE	"Critically Rare"	Increasing
TEXAS		Not applicable
UTAH	Unknown	Stable
VERMONT	Stable to slow increase	Increasing
VIRGINIA	Stable	Stable to increasing
WASHINGTON	Increasing and stable	Increasing
WEST VIRGINIA	Stable	Increasing
WISCONSIN	Increasing	Stable to increasing
WYOMING	Increasing	Increasing
	Stable	Stable
		Stable

# TABLE 2. ESTIMATES OF TREND IN BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA (continued)

State/Province/Territory	1990 (Servheen 1990)	1991-1992
ALBERTA BRITISH COLUMBIA MANITOBA NEW BRUNSWICK NEWFOUNDLAND NORTHWEST TERRITORIES NOVA SCOTIA ONTARIO PRINCE EDWARD ISLAND QUEBEC SASKATCHEWAN YUKON TERRITORY	Stable Stable Stable to decreasing Stable Stable Stable Stable Stable Stable Stable Stable Stable	Stable Stable Stable Stable Stable Increasing Stable Not applicable Stable Stable Stable to increasing

#### TABLE 2. ESTIMATES OF TREND IN BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA (continued)

State/Province/Territory

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Basis of estimate of trend in black bear population

Professional estimate/best assessment ALABAMA alaska Professional estimate/best assessment

ARIZONA Professional estimate/best assessment, Modeling

ARKANSAS Modeling

Age/sex ratios, Harvest data or trends CALIFORNIA

Professional estimate/best assessment, Harvest data or trends COLORADO

CONNECTICUT Number of complaints/sightings

DELAWARE Not applicable

Harvest data or trends, Number of complaints/sightings, Road kill data FLORIDA GEORGIA Age/sex ratios, Number of complaints/sightings, Bait station surveys

HAWAII Not applicable Age/sex ratios, Harvest data or trends IDAHO

ILLINOIS Not applicable INDIANA Not applicable AWOI Not applicable KANSAS Not applicable

KENTUCKY Number of complaints/sightings

LOUISIANA Professional estimate/best assessment, Radio telemetry studies, Number of complaints/sightings.

MAINE Radio telemetry studies

MARYLAND Study area data MASSACHUSETTS Modeling, Density estimates, Increased distribution MICHIGAN Harvest data or trends, Number of complaints/sightings MINNESOTA Study area data, Number of complaints/sightings, Modeling

MISSISSIPPI Not indicated

MISSOURI Number of complaints/sightings

MONTANA Age/sex ratios, Sex ratios of harvest, Harvest data or trends, Number of complaints/sightings

NEBRASKA Not applicable

Number of complaints/sightings, Increased distribution NEVADA NEW HAMPSHIRE

Number of complaints/sightings **NEW JERSEY** Professional estimate/best assessment NEW MEXICO Age/sex ratios, Sex ratios of harvest NEW YORK Professional estimate/best assessment

NORTH CAROLINA Harvest data or trends, Number of complaints/sightings, Bait station surveys, Increased distributior

Professional estimate/best assessment NORTH DAKOTA оню Number of complaints/sightings

OKLAHOMA

Number of complaints/sightings, Density estimates, Bait station surveys Harvest data or trends, Number of complaints/sightings, Increased distribution/range OREGON

PENNSYLVANIA Mark-recapture studies

RHODE ISLAND SOUTH CAROLINA Not indicated

Mark-recapture studies, Number of complaints/sightings, Bait station surveys

SOUTH DAKOTA Not applicable Bait station surveys TENNESSEE

TEXAS UTAH Professional estimate/best assessment, Reoccupying former range Harvest data or trends, Study area data, Aging data VERMONT Professional estimate/best assessment, Harvest data or trends

VIRGINIA Professional estimate/best assessment, Age/sex ratios, Harvest data or trends WASHINGTON Professional estimate/best assessment, Age/sex ratios, Harvest data or trends WEST VIRGINIA Harvest data or trends, Study area data, Number of complaints/sightings

WISCONSIN Teeth collection

WYOMING Age/sex ratios, Harvest data or trends

ALBERTA Harvest data or trends, Number of complaints/sightings

BRITISH COLUMBIA Professional estimate/best assessment MANITOBA Age/sex ratios

Professional estimate/best asssesment, Mark-recapture studies

NEWFOUNDLAND NORTHWEST TERRITORIES NOVA SCOTIA Professional estimate/best assessment

Not provided

ONTARIO Professional estimate/best assessment, Age/sex ratios, Sex ratios of harvest PRINCE EDWARD ISLAND

Not applicable

**OUEBEC** Professional estimate/best assessment, Harvest data or trends

SASKATCHEWAN Age/sex ratios, Number of complaints/sightings

YUKON TERRITORY Harvest data or trends

## TABLE 3. LEGAL STATUS OF BLACK BEAR IN THE UNITED STATES AND CANADA

State/Province/Territory			
	1990 (Servheen 1990)	1992	Year black bear classified as game
			(Miller 1990)
ALABAMA			
ALASKA	Game	Game*	
ARIZONA	Game	Game	1939
ARKANSAS		Game	1927
CALIFORNIA	Game	Game	1927
COLORADO	Game	Game	1948
CONNECTICUT	Protected	Game	1941
DELAWARE	* lotected	Protected	
FLORIDA	Game/Threatened	NA	
GEORGIA	Game Game	Threatened/Game	
HAWAII	Owne	Game	•
IDAHO	Co	NA	
ILLINOIS	Game	Game	1943
INDIANA .		No formal designation	••••
AWOI	•	NA ·	
KANSAS	•	No formal designation	
KENTUCKY		·NA	
LOUISIANA	Threatened	Nongame	
MAINE	Game	Threatened	
MARYLAND	Game	Game	***
MASSACHUSETTS		Game*	1931
MICHIGAN	Game	Game	1949
MINNESOTA	Game	Game	1953
MISSISSIPPI	Game	Game	1925
MISSOURI		Endangered	1971
MONTANA	Unknown	Game/Rare*	
NEBRASKA	Game	Game	
			1923
NEVADA	Game	No formal designation Game*	
NEW HAMPSHIRE	Game	•	
NEW JERSEY	Game .	Game	1983
NEW MEXICO	Game	Game*	
NEW YORK	Game	Gzme	
NORTH CAROLINA	Game	Game	1903
NORTH DAKOTA		Game	
ОНЮ		Game*	
OKLAHOMA		Game*	
OREGON	Game	Game*	1951
PENNSYLVANIA	Game	Game	1925, 1970
RHODE ISLAND	001,0	Game	1905
SOUTH CAROLINA	Game	Protected	
SOUTH DAKOTA	Threatened	Gzme	1927
TENNESSEE	1 meaning	Threatened	
TEXAS.	T-4	Game	
UTAH	Endangered	Endangered	1925
VERMONT	Game	Game	1967
VIRGINIA	Game	Game	1941
WASHINGTON	Game	Game	•>41
WEST VIRGINIA	Game	Game	1023 1040
WISCONSIN	Game	Game	1933, 1969
WYOMING	Game	Game	1969
	Game	· Game	1930
ALBERTA			
BRITISH COLUMBIA	Game · .	Game	
MANITOBA	Game	Game/Furbearer	
NEW BRUNSWICK	Game	Game	1909
NEWFOUNDLAND	Game	Ozille ,	1942
NORTHWEST TEARING	Game	0	1961
NORTHWEST TERRITORIES	Game	Game	1962
NOVA SCOTIA	Game	Game	1966
ONTARIO	Game	Game	
PRINCE EDWARD ISLAND	Extinct since 1920s	Game	1961
QUEBEC	Game	NA	-
SASKATCHEWAN		Game/Furbearer	1926
YUKON TERRITORY	Game Game	Pest/Game/Furbearer	1963
	Amile	Game .	1928
		*Season closed	

### TABLE 3. LEGAL STATUS OF BLACK BEAR IN THE UNITED STATES AND CANADA

#### Comments/Additional information

ARIZONA ARKANSAS CALIFORNIA FLORIDA LOUISIANA MAINE MASSACHUSETTS NEBRASKA NEW HAMPSHIRE OREGON PENNSYLVANIA WASHINGTON WYOMNG

BRITISH COLUMBIA NEWFOUNDLAND QUEBEC

YUKON TERRITORY

1927 is date of first bag limit or season restriction (Miller 1990).

1927 is date of total season closure (Miller 1990).

Burton (1977) gives 1957 as date game status was assigned (Miller 1990). As of July 1, 1994, the season will be closed and hunting will be prohibited. Legal status for 1990 should have indicated game status, but with closed season. Bountied until 1957; game status recommended in 1977 (Miller 1990). 1953 is date of first bag limit or season restriction (Miller 1990).

No population; legal to take as unprotected game species if one entered state, \$20 bounty removed in 1955; first season in 1961 (Miller 1990).

First declared game in 1928 then redeclared in 1970 (Miller 1990). 1905 is date of first bag limit or season restriction (Miller 1990).

First season in 1933; status repealed in 1951 (some areas); reinstituted in 1969 (Miller 1990).

Black bear classified as game in limited areas in 1939, statewide in 1967.

1909 is date of first bag limit or season restriction (Miller 1990). Blegal to hunt from 1976-1978,

Vallee (1977) gives 1970 as date game status assigned (Miller 1990).

Per survey, classified only as furbearer until 1979, when reclassified as big game.

1928 is date of first bag limit or season restriction (Miller 1990).

TABLE 4. CURRENT HARVEST REGULATIONS FOR BLACK BEAR IN THE UNITED STATES AND CANADA

State/Province/Territory	Legal to harvest? (since what year?)	Legal to harvest as big game and when damaging crops, etc.? (since what year?)	Legal to harvest only as big game? (since what year?)
ALABAMA	No	No	No
ALASKA	Yes	Yes (1959)	No
ARIZONA	Yes	Yes (1970)	No
ARKANSAS CALIFORNIA	Yes	Yes (1980)	No
COLORADO	Yes	Yes (1850/1948)	No
CONNECTICUT	Yes	Yes	No
DELAWARE	No (early 1900s)	No	No
FLORIDA	Yes	No	No
GEORGIA	No (1971) Yes	No	Yes (Always)
HAWAII	Yes	Yes (1979)	No
IDAHO	Yes	No Var (1042)	No
ILLINOIS	Yes	Yes (1943)	No
INDIANA	Yes	No restrictions No	No restrictions
IOWA	Yes	No	No No
KANSAS	Yes	No	. No
KENTUCKY	No	No	No No
LOUISIANA	No (1988)	No	No No
MAINE	Yes	Yes (Always)	No No
MARYLAND	No (1954)	No No	No
MASSACHUSETTS	Yes	Yes (Always)	No
MICHIGAN	Yes	No	Yes (1925)
MINNESOTA	Yes	Yes (1971)	No (1923)
MISSISSIPPI	No (1932)	. No	No
MISSOURI	No (1936)	No	No
MONTANA	Yes	Yes (1943)	No
NEBRASKA	Yes	No	No
NEVADA	No	No	No
NEW HAMPSHIRE	Yes	Yes (Historically)	No
NEW JERSEY	No (1971)	No	No
NEW MEXICO NEW YORK	Yes	Yes (1927)	No
NORTH CAROLINA	Yes	Yes (1903)	No
NORTH DAKOTA	Yes	Yes (1936)	No
OHIO ·	No (1990)	No	No
OKLAHOMA	No (1958)	Мо	No
OREGON	No (1915)	No	No
PENNSYLVANIA	Yes	Yes (1970)	No
RHODE ISLAND	Yes	Yes (1905)	No
SOUTH CAROLINA	No (1986) Yes	No	No
SOUTH DAKOTA	No	No	Yes (1959)
TENNESSEE	Yes	No.	No
TEXAS	No (1983)	Yes No	No
UTAH	Yes		. No
VERMONT	Yes	Yes (1847) Yes (1941)	No No
VIRGINIA	Yes	Yes (1947)	No No
WASHINGTON	Yes	No	Yes
WEST VIRGINIA	Yes	Yes (1863)	No
WISCONSIN	Yes	Yes	No
WYOMING	Yes	Yes (1875)	No
ALBERTA	Yes	Yes (1800s)	No
BRITISH COLUMBIA	Yes	Yes (1894)	No
MANITOBA NEWFOLDINA AND	Yes	Yes (1980-big game)	No
NEWFOUNDLAND	Yes	No	Yes (1962)
NOVA SCOTIA	Yes	Yes (1966)	No
NORTHWEST TERRITORIES	Yes	Yes	No
ONTARIO PRINCE EDUIA PO 101 AND	Yes	Yes (1961)	No
PRINCE EDWARD ISLAND QUEBEC	Yes	No	No
SASKATCHEWAN	Yes	Yes (Always)	No
YUKON TERRITORY	Yes	Yes (1966)	No
	Yes	Yes (1900)	No
Comments/Additional Information		•	
FLORIDA	As of July 1, 1994, season wil	l be closed and hunting will be prohibite	d.

Until 1979, classified as a furbearer; since 1979, legal status is big game.

QUEBEC

TABLE 5. ESTIMATED REVENUE FROM HUNTING LICENSES/TAGS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1989

ALASKA ARIZONA ARKANSAS CALIFORNIA COLORADO FLORIDA GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes (NR only) Yes No Yes Yes No Yes	310 150/150 NA/75 100/210 NA/50 177 NA/78 NA/54 NA/150 NA/151 122	1,448 0/25 NA/337 415/282 NA/385 2,708 NA/5,000 NA/599 NA/218	12 11/11 NA/25 25/25 NA/11 14 NA/15 NA/18 NA/14	104/4,689 NA/17,500 1,658/2,430 NA/385 12,563 NA/7,500	448,880 56,473 462,775 0 202,920 23,485 0 655,198 502,500 7,050
ARKANSAS CALIFORNIA COLORADO FLORIDA GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	No Yes Yes No Yes	150/150 NA/75 100/210 NA/50 177 NA/78 NA/54 NA/150 NA/151 122	0/25 NA/337 415/282 NA/385 2,708 NA/5,000 NA/599	11/11 NA/25 25/25 NA/11 14 NA/15 NA/18	NA/17,500 1,658/2,430 NA/385 12,563 NA/7,500	56,473 462,775 0 202,920 23,485 0 655,198 502,500
CALIFORNIA COLORADO FLORIDA GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes No Yes	100/210 NA/50 177 NA/78 NA/54 NA/150 NA/151 122	NA/337 415/282 NA/385 2,708 NA/5,000 NA/599	NA/25 25/25 NA/11  14 NA/15 NA/18	NA/17,500 1,658/2,430 NA/385 12,563 NA/7,500	462,775 0 202,920 23,485 0 655,198 502,500
COLORADO FLORIDA GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes No Yes	100/210 NA/50 177 NA/78 NA/54 NA/150 NA/151 122	415/282 NA/385 2,708 NA/5,000 NA/599	25/25 NA/11 · · · · · · · · · · · · · · · · · ·	1,658/2,430 NA/385 12,563 NA/7,500	0 202,920 23,485 0 655,198 502,500
FLORIDA GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	No Yes	NA/50 177 NA/78 NA/54 NA/150 NA/151 122	NA/385 2,708 NA/5,000 NA/599	NA/11 14 NA/15 NA/18	NA/385 12,563 NA/7,500	202,920 23,485 0 655,198 502,500
GEORGIA IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes	177 NA/78 NA/54 NA/150 NA/151 122	NA/385 2,708 NA/5,000 NA/599	NA/11 14 NA/15 NA/18	NA/385 12,563 NA/7,500	23,485 0 655,198 502,500
IDAHO MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes Yes Yes Yes Yes Yes Yes Yes	NA/78 NA/54 NA/150 NA/151 122	NA/5,000 NA/599	14 NA/15 NA/18	12,563 NA/7,500	0 655,198 502,500
MAINE MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes Yes Yes Yes Yes	NA/78 NA/54 NA/150 NA/151 122	NA/5,000 NA/599	NA/15 NA/18	NA/7,500	655,198 502,500
MASSACHUSETTS MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes Yes Yes Yes	NA/54 NA/150 NA/151 122	NA/599	NA/15 NA/18	NA/7,500	502,500
MICHIGAN MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes Yes Yes	NA/150 NA/151 122	NA/599	NA/18	·	
MINNESOTA MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes Yes	NA/151 122				1,020
MONTANA NEW HAMPSHIRE NEW MEXICO	Yes Yes	122			NA/11,694	257,869
NEW HAMPSHIRE NEW MEXICO	Yes	122		NA/31	NA/5,566	205,464
NEW MEXICO			1,000	10	5,000	172,000
	Vec	NA/71	NA/0	NA/16	NA/0	172,000
APPRILITATION	4 3	76	554	11	3,860	82,634
NEW YORK	No	NA/81	NA/3280	NA/3-23.50	NA/**	1,656,061
	No	NA/330	NA/5,500	NA/30	NA/5,500	
OREGON	Yes	175/175	19/495	19/19	707/18,972	1,980,000 463,851
PENNSYLVANIA	Yes	NA/26	NA/2351	NA/11	NA/90,117	1,029,296
	No	NA/231	NA/10	. NA/44	NA/200	
	No	NA/70	NA/150	NA/IO	NA/2,850	11,110 39,000
UTAH	Yes	253	94	53	593	55,211
	No	NA/70	24	NA/10	J2J	0
	No	NA/120	NA/2,000	NA/120	NA/2000	480,000
	Yes	NA/300	NA/79	NA/30	NA/11,191	•
	Yes	NA/124	NA/232	NA/15	NA/7,571	359,430 142,333
	Yes	NA/100	110232	NA/25	11011,311	142,333
	Yes	50/50	155/782	10-Oct	604/2,152	74,410
U.S. TOTAL			•			US\$5,133,315
ALBERTA	Yes	15/75	923/631	10-Oct	4,557/8,082	369,330
	Yes	0/0	3,169/0	***	18,556/0	0.00,000
	Yes	123	849	NA/20	2,600/0	164,227
	Yes	50/50	24/96	5	826/2,204	51,450
	Yes	NA/90	25	18	146	5,170
	Yes	25	8	24/24	353	1,965
	Yes	80	12,505	28	13,129	1,230,158
	Yes	56,5/56,5	3,372/1,386	15/15	4709/13066	695,427
=	Yes	121	943		2,887	194,939
	Yes	90/90	0.0		0/0	194,939

TOTAL

US\$9,039,554

Comments/Additional information

ALASKA CALIFORNIA FLORIDA GEORGIA

Information for year, bear tag required for NR only. No estimate available for number of NR licenses. No hunting in 1989 due to court order.

Estimate from information on number of free black bear permits distributed for management areas,

Information not available, Information for year.

IDAHO MAINE

Estimate of number and type of black bear hunters in Maine.

Number of bear permits sold 1410@ \$5=\$7050 from permits only; additional revenue from licenses not calculated. MASSACHUSETTS

MONTANA Information for year, numbers estimated from graphs of number of hunters and licenses sold.

R - Resident NR - Non-resident

<sup>\*\*</sup>Several types of licenses.

# TABLE 5, ESTIMATED REVENUE FROM HUNTING LICENSES/TAGS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1989

### Comments/Additional information

SOUTH CAROLINA TENNESSEE UTAH VIRGINIA WISCONSIN

Number of licenses estimated,

Estimate of number and type of bear hunters in Tennessee. Information for year.

Estimate of number and type of bear hunters in Virginia. Total number of licenses sold=2020.

MANITOBA

Information for year,

NORTHWEST TERRITORIES

ONTARIO

Figures for NR are for non-residents of Canada. Number of NR licenses not available for Spring 1990.

SASKATCHEWAN

Information for year.

TABLE 6, ESTIMATED REVENUE FROM HUNTING LICENSES/TAGS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1990

State/Province/Territory	Special license or tag for black bear?	Cost NR license Spring/Fall (S)	No. NR licenses Spring/Fall	Cost R license Spring/Fall (S)	No. R licenses Spring/Fall	Estimate of total revenue (S)
ALASKA	Yes (NR only)	310	1201			
ARIZONA	Yes	150/150	1,391	12		431,210
ARKANSAS	No	NA/100	0/36 NA/328	11/11	154/3521	45,825
CALIFORNIA	Yes	NA/129		NA/25	NA/17500	470,300
COLORADO	Yes	100/210	NA/77	NA/19	NA/8534	172,098
FLORIDA	No	NA/150	409/351	25/25	1673/2125	209,560
GEORGIA	Yes	NA/150	NA/366	NA/11	NA/366	58,926
IDAHO	Yes	177	0.040	NA/16		0
MAINE	Yes	NA/88	2,849	14	13,487	693,091
MASSACHUSETTS	Yes	NA/59	NA/4614	NA/17	NA/7136	527,344
MICHIGAN	Yes	NA/150	NA/0	NA/23	NA/0	7,595
MINNESOTA	Yes	NA/151	NA/72	NA/14	NA/4119	69,933
MONTANA	Yes	122	NA/196	NA/31	NA/6885	243,031
NEW HAMPSHIRE	Yes	NA/73	1,000	10	6,000	182,000
NEW MEXICO	Yes	76	NA/860	NA/18	NA/3440	122,550
NEW YORK	No.	76 NA/81	554	11	4,144	85,616
NORTH CAROLINA	No	NA/330	NA/3280	NA/3-23.50	NA/**	1,656,061
OREGON	Yes	•	NA/5500	NA/30	NA/5500	1,980,000
PENNSYLVANIA	Yes	175/175	32/431	19/19	18972/19944	820,429
SOUTH CAROLINA	No.	NA/26	NA/2373	NA/II	NA/90975	1,039,086
TENNESSEE	No	NA/231	NA/10	NA/44	NA/200	11,110
UTAH	Yes	NA/155	NA/150	NA/15	NA/2850	66,000
VERMONT	No	253/253	9/4	53/53	89/40	10,126
VIRGINIA	No	NA/70		NA/10		0
WASHINGTON	Yes	NA/120	NA/2000	NA/120	NA/2000	480,000
WEST VIRGINIA	Yes		NA/300	NA/104	NA/30	3,120
WISCONSIN	Yes	NA/124	NA/149	NA/15	NA/7054	124,286
WYOMING		NA/100	NA/49	NA/25	NA/2776	74,300
	Yes	50/50	372/571	10/10	1074/1937	77,260
U.S. TOTAL,						US\$9,660,857
ALBERTA	Yes	75/75				
BRITISH COLUMBIA	Yes		908/512	10/10	4038/6055	308,360
MANITOBA	Yes	0/NA	2645/NA	8/NA	17352/NA	138,816
NEWFOUNDLAND	Yes	123	850	23	2,400	159,750
NOVA SCOTIA	Yes	50/50	8/89	15/15	700/2668	55,370
NORTHWEST TERRITORIES	Yes	NA/90	NA/13	NA/20	NA/254	6,070
ONTARIO		25		5	328	1,640
QUEBEC	Yes	100	11,501	19	11,380	1,369,165
SASKATCHEWAN	Yes	62/62	3320/1267	26/26	7089/11431	765,914
YUKON TERRITORY	Yes	121	807	28	2,552	169,103
- SHOW I EMMIURI	Yes	90/90	0/0	15/15	0/0	. 0
CANADA TOTAL					CANST 074	188 US\$2,141,415
TOTAL					CA1132,774,	100 U3\$2;141;415

TOTAL

US\$11,802,272

R - Resident NR - Non-resident

\*\*Several types of licenses.

Comments/Additional information

ALASKA FLORIDA IDAHO MASSACHUSETTS MONTANA NEW HAMPSHIRE NEW MEXICO NEW YORK

Information for year; bear tag required for non-residents only; no estimate available for number of resident licenses. Estimate from information on number of free black bear permits distributed for management areas.

Number of bear pennits sold 1519@55=\$7595 from permits only; additional revenue from licenses not calculated. Information for year; numbers estimated from graphs of number of hunters and licenses sold.

Numbers estimated from 1991 breakdown of proportion licenses sold to residents, non-residents.

Information for year.

Estimate of number and type of bear hunters in New York; based on figures for 1990-1991.

#### TABLE 6. ESTIMATED REVENUE FROM HUNTING LICENSES/TAGS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1990 (continued)

NORTH CAROLINA SOUTH CAROLINA TENNESSEE VIRGINIA

Estimate of number and type of bear hunters in North Carolina.

Number of licenses is an estimate.

Estimate of the number and type of bear hunters in Tennessee. Estimate of the number and type of bear hunters in Virginia.

MANITOBA

NORTHWEST TERRITORIES ONTARIO

Information for year.
Information for year; figures for NR are for non-residents of Canada.
Information for year; additional taxes not included.

SASKATCHEWAN

Information for year.

TABLE 7. ESTIMATED REVENUE FROM HUNTING LICENSES/TAGS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1991

State/Province/Territory	Special license or tag for black bear?	Cost NR license Spring/Fall (S)	No. NR licenses Spring/Fall	Cost R license Spring/Fall (\$)	No. R licenses Spring/Fall	Estimate of total revenue (S)
ALASKA	Yes (NR only)	310	1,360	11/11		421,600
ARIZONA	Yes	150/150	0/14		154/2,829	34,913
ARKANSAS	No	NA/150	0/338	NA/25	NA/17,500	488,200
CALIFORNIA	Yes	NA/132	0/80	NA/20	NA/11,388	240,618
COLORADO	Yes	150/250	278/381	30/30	1,717/2,425	261,210
FLORIDA	No	NA/150	NA/400	NA/11	NA/400	64,400
GEORGIA	Yes	NA/150	NA/O	NA/16	NA/0	0
IDAHO	Yes	212	2,068	14	20,851	730,330
MAINE	Yes	NA/88	NA/3,949	NA/17	NA/6,217	453,201
MASSACHUSETTS	Yes	NA/59	NA/0	NA/23	NA/0	6,725
MICHIGAN	Yes	NA/150	NA/90	NA/14	NA/5,429	91,438
MINNESOTA	Yes	NA/166	NA/302	NA/34	NA/7,388	301,324
MONTANA	Yes	NA/125	NA/0	NA/15	NA/0	0
NEW HAMPSHIRE	Yes	NA/73	NA/1,555	NA/I8	NA/6,232	221,798
NEW MEXICO	Yes	76	656	11	4,031	92,182
NEW YORK	No	NA/81	NA/3280	NA/3-23.50	NA/**	1,656,061
NORTH CAROLINA	No	NA/80	NA/5,500	NA/30	NA/5,500	605,000
OREGON	Yes	175/175	35/240	19/19	1,184/11,780	294,441
PENNSYLVANIA	Yes	NA/26	NA/2,275	NA/11	NA/87,193	995,906
SOUTH CAROLINA	No	NA/231	NA/10	NA/44	NA/200	11,110
TENNESSEE	No	NA/155	NA/150	NA/15	NA/2,850	66,000
UTAH	Yes	253/253	9/4	53/53	89/40	10,126
VERMONT	No	NA/75	214	NA/12	07/10	0,120
VIRGINIA	No	NA/120	NA/2000	NA/120	NA/2,000	480,000
WASHINGTON	Yes	NA/330	NA/66	NA/33	NA/12,737	442,101
WEST VIRGINIA	Yes	NA/124	NA/175	NA/15	NA/8,800	153,700
WISCONSIN	Yes	NA/120	NA/48	NA/30	NA/2,502	•
WYOMING	Yes	50/50	331/596	10/10	1,035/2,022	80,820 76,920
W Tomano	103	3430	3317390	10/10	1,033/2,022	70,920
U.S. TOTAL		•	•			US\$8,280,124
ALBERTA	Yes	76/76	680/291	11/11	3,626/5,044	169,166
BRITISH COLUMBIA	Yes	NA/100	NA/0	NA/8	NA/16,029	128,232
MANITOBA	Yes	123	852	23	2,400	159,996
NEWFOUNDLAND	Yes	117/117	28/128	27/27	740/2,895	115,488
NOVA SCOTIA	Yes	NA/96	NA/10	NA/21	NA/364	8,753
NORTHWEST TERRITORIES	Yes	25	*****	5	348	1,740
ONTARIO	Yes	105	10,493	20	11,675	1,338,184
QUEBEC	Yes	65/65	2,754	27/27	6,344/9,095	653,851
SASKATCHEWAN	Yes	121	782	28	1,743	143,426
YUKON TERRITORY	Yes	90/NA	ONA	15/NA	0/NA	. 0
CANADA TOTAL					CANS	2,718,836 US\$1,957,562
TOTAL						US\$10,237,686

TOTAL

US\$10,237,686

R - Resident NR - Non-resident

ONTARIO

\*\*Several types of licenses.

### Comments/Additional information

ALASKA Information for year, bear tag required for non-residents only; no estimate available for number of resident licenses. FLORIDA Estimate from information on number of free black bear permits distributed in management areas. IDAHO Information for year, MASSACHUSETTS Number of bear permits sold 1345 @ \$5=6725 from permits only; additional revenue from licenses not calculated. Information for year. NEW MEXICO NEW YORK Estimate of number and type of bear hunters in New York. NORTH CAROLINA Estimate of the type and number of bear hunters in North Carolina. SOUTH CAROLINA Numbers of licenses estimated. TENNESSEE Estimate of type and number of bear hunters in Tennessee.

WISCONSIN Sumber of year,

MANITOBA Estimate of type and number of bear hunters in Virginia.

WISCONSIN Number of non-resident licenses sold is estimate.

Information for year.

MANITOBA Information for NORTHWEST TERRITORIES Information for

ORIES Information for year, figures for NR are for non-residents of Canada; number of NR licenses not available for Spring 1991.

Information for year, additional taxes not included.
Only partial data available for 1991.

QUEBEC Only partial data available for SASKATCHEWAN Information for year.

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TABLE 8. HARVEST METHODS FOR BLACK BEAR IN THE UNITED STATES AND CANADA

				•	
State/Province/Territory					
	Hunting	Trapping	***		
	legal?	legal?	Baiting	Hounds	Dog training
			legal?	legal?	Season?
Alaska					
ARIZONA	Yes	No	•		
ARKANSAS	Yes	No	Yes	Yes	No
CALIFORNIA	Yes	No	No	Yes	No
COLORADO	Yes	No	No	No	No
FLORIDA	Yes	No	No	Yes	No
GEORGIA	Yes	· · · · · · · · · · · · · · · · · · ·	No	No	No
IDAHO	Yes	No	No	Yes	
MAINE	Yes	No	No	Yes	Yes
MASSACHUSETTS	Yes	No	Yes	Yes	Yes
MICHIGAN		Yes	Yes	Yes	Yes
	Yes	No	No	Yes	Yes
MINNESOTA	Yes	No	Yes	-	Yes
MONTANA	Yes	No	Yes	Yes	Yes
NEW HAMPSHIRE	Yes	No	No	No	No
NEW MEXICO	Yes	No	Yes	No	No
NEW YORK	Yes	No	No	Yes	Yes
NORTH CAROLINA	Yeş	No		Yes	No
NORTH DAKOTA	Yes	No	No	No	No
OKLAHOMA	No	No	No	Yes	Yes
OREGON	No	No	No	No	No
PENNSYLVANIA	Yes	No	No	No	No
SOUTH CAROLINA	Yes		Yes	Yes	No
TENNESSEE	Yes	No	No	No	
UTAH	Yes	No	No	Yes	No
VERMONT	Yes	No	No	Yes	No
VIRGINIA	Yes	No	Yes	Yes	No
WASHINGTON		No	No	Yes	Yes
West virginia	Yes	No	No	Yes	Yes
MEGOVAN	Yes	No	Yes		No
WISCONSIN	Yes	No	No	Yes	Yes
WYOMING .	Yes	No	Yes	Yes	Yes
	Yes	· No	Yes	Yes	Yes
			1 63	No .	No
LBERTA					
RITISH COLUMBIA	Yes	Yes	•		
ABOTINA	Yes	No	Yes	No	No
EWFOUNDLAND	Yes	Yes	No	Yes	No
ORTHWEST TERRITORIES	Yes	Yes	Yes	No	No
OVA SCOTIA	Yes	nes No	Yes	No	No
NTARIO	Yes	-	No	No	
JEBEC	Yes	Yes	Yes	No	No
SKATCHEWAN	Yes	Yes	Yes	Yes	No
JKON TERRITORY	Yes	Yes	Yes	Yes	No
TERRITORY	· · · · · · · · · · · · · · · · · · ·	Yes	Yes	nes No	Yes
	Yes	No	No	-	No
ditional Information				No	No

ARIZON <u>A</u>	
CALIFORNIA	
COLORADO	
FLORIDA	
GEORGIA	
IDAHO	
MASSACHUSETTS	

MICHIGAN NEW HAMPSHIRE NEW YORK

NORTH CAROLINA VERMONT VIRGINIA WEST VIRGINIA

WISCONSIN

Hounds legal only in Fall; houndsmen account for approximately 20% of annual harvest; 29 bears (1989), 30 bears (1990), 26 bears (1991). Number of successful hunters who used dogs was 1929 in 1990 and 987 in 1991.

Baiting/bounds prohibited 1993, formerly legal Spring only; 68 houndsmen licensed (1989), 54 (1990) and 51 (1991). As of July 1, 1994 the season on black bears in Florida will be closed and hunting will be prohibited.

Hounds legal only in southern part of state.

Dog training season is the Summer.

50-60 houndsmen registered. Dog training season second Monday in July to 12/31 for residents except for the gun deer season. Dog training season second Monday in September to 12/31 for non-residents except for six day November portion of bear season. Best assessment of number of licenses sold to houndsmen: 1980 in 1989, 1030 in 1990, 1040 in 1991.

Number of licenses sold to houndsmen: 163 in 1989, 198 in 1990, 223 in 1991.

Hounds legal in 1989; dog training season allowed in 1989 and 1990. Best assessment of number licenses sold to houndsmen: Dog training season only allowed in certain areas of the state and at certain times of the year.

Number of permits sold to houndsmen: 179 in 1989, 99 in 1990, 100 in 1991.

Hounds legal 11/29-1/6 in 1989, 12/3-1/5 in 1990, 12/2-1/4 in 1991. Fall bear training season began in 1992.

Dog training season: July 1 to one week prior to season opening.

### TABLE 8. HARVEST METHODS FOR BLACK BEAR IN THE UNITED STATES AND CANADA

### Additional Information

Alberta British Columbia Manitoba Northwest territories Ontario

Baiting is only legal in certain parts of the province.

Very few houndsmen in province.

No limit on size of bait for registered trap lines; 100kg limit on baits for hunting with restrictions on type of bait allowed.

Baiting legal with permit. Legislation exists for operation of game farms which requires permits/local approval.

Baiting not defined in regulations - awaiting amendments to Act. Use of hounds in Spring legal, but restricted.

TABLE 9. HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1989

State/Province/Territory	Hunting Season Dates Spring 1989	Hunting Season Dates Fall 1989	Bag limit
ALASKA	9/1-6/30	•	
ARIZONA	April	***	1-3
ARKANSAS	No Spring season	9/1-12/31	l/year
CALIFORNIA	No Spring season	10/28-10/31	1
COLORADO	4/1-5/31	No Fall season in 1989 due to court order	1
FLORIDA	No Spring season	9/26-10/9	1/year
GEORGIA	No Spring season	10/28-11/10, 11/11-1/7, 10/28-11/5	1
IDAHO	4/1-6/30	Vary by county and method of hunting.	1
MAINE	No Spring season	9/1-10/31	1/year
MASSACHUSETTS		8/29-11/30	1
MICHIGAN	No Spring season	9/11-9/16, 11/20-11/25	I/year
MINNESOTA	No Spring season	9/10-10/31, 11/15-11/30	1
MONTANA	No Spring season	9/1-10/15	I
NEW HAMPSHIRE	Vary by administrative region and district	Vary by administrative region and district	1/year
NEW MEXICO	No Spring season	9/1-11/7	1
NEW YORK	4/1-5/15	9/20-12/31	1
NORTH CAROLINA	No Spring season	9/16-12/17	1
	No Spring season	10/16-11/18, 12/11-1/1,11/13-1/1,	1
OREGON		12/11-1/1, 11/13-11/18, 11/13-11/15	-
PENNSYLVANIA	4/15-5/21, 4/8-5/21	8/26-11/30	· 1
SOUTH CAROLINA	No Spring season	11/20-11/22	i
TENNESSEE	No Spring season	10/16-10/21, 10/23-10/28	i
UTAH	No Spring season	10/18-10/22, 12/1-12/14	I/year
VERMONT	4/15-6/15	9/1-10/15	1
VIRGINIA	No Spring season	9/1-11/19	i
WASHINGTON	No Spring season	10/14-11/1, 11/22-1/6, 12/4-1/6	l
WEST VIRGINIA	No Spring season	Dates not provided	i
WISCONSIN	No Spring season	10-14-11/18, 12/4-12/30	1
WYOMING	No Spring season	9/9-10/6	1
WIONING	5/1-6/15, 5/1-6/30, 5/1-11/15	9/1-11/30	1/year
	•		iryear
NORTHWEST TERRITORIES	at the terms of th		
MONTH LOT TERRITORIES	7/1-6/30(GHL), 8/15-6/30(RES),	7/1-6/30(GHL), 8/15-6/30(RES),	GHL-No limit
NOVA CCOTTA	8/15-6/30 or 10/31 (NR, NRA)	8/15-6/30 or 10/31 (NR, NRA)	Ail others-1
NOVA SCOTIA	No Spring season	9/15-10/31	1
ONTARIO	4/15-6/30	9/1-11/30	1 1/license
QUEBEC	5/1-7/4	Vary by zone.	
SASKATCHEWAN	4/13-6/27 (maximum)	8/24-10/10 (maximum)	2/year
YUKON TERRITORY	4/15-6/15	8/1-10/31	1 2

### Comments/Additional information

ALASKA ARIZONA FLORIDA IDAHO NEW YORK NORTH CAROLINA WASHINGTON WYOMING	Certain units have no closed season. Bag limit varies by unit.  Seasons vary by management unit; April hunt limited entry quota system closed when 2 females killed.  Hunting season dates for Apalachicola National Forest, Baker and Columbia Counties and Osceola National Forest.  Some areas have shorter hunting seasons.  Dates shown are earliest and last dates for any zone. Many areas had no open season; season varies by zones.  Hunting season dates vary by county.  No hunting allowed in certain units at certain times of year.  Some areas have shorter hunting seasons.
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NORTHWEST TERRITORIES

GHL; general hunters (aboriginal), RES: resident hunters, NR: non-resident hunters, NRA: non-resident alien hunters.

Hunting season dates vary by wildlife management zone.

### TABLE 10. HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1990

State/Province/Territory		ED STATES AND CANADA 1990	
State Province Learntory	Hunting Season Dates	Hunting Season Dates	Bag limit
	Spring 1989	Fall 1989	
ALASKA	•	÷	
ARIZONA	9/1-6/30		1-3
ARKANSAS	April	9/1-12/31	I/year
CALIFORNIA	No Spring season	10/28-10/31	1
COLORADO	No Spring season	No Fall season in 1989 due to court order	i
	4/1-5/31	9/26-10/9	1/year
FLORIDA GEORGIA	No Spring season	10/28-11/10, 11/11-1/7, 10/28-11/5	1
	No Spring season	Vary by county and method of hunting.	1
IDAHO	4/1-6/30	9/1-10/31	i l/year
MAINE	No Spring season	8/29-11/30	1
MASSACHUSETTS	No Spring season	9/11-9/16, 11/20-11/25	1/year
MICHIGAN	. No Spring season	9/10-10/31, 11/15-11/30	i i jear
MINNESOTA	No Spring season	9/1-10/15	1
MONTANA	Vary by administrative region and district	Vary by administrative region and district	-
NEW HAMPSHIRE	No Spring season	9/1-11/7	I∕year t
NEW MEXICO	4/1-5/15	9/20-12/31	1
NEW YORK	No Spring season	9/16-12/17	1
NORTH CAROLINA	No Spring season	10/16-11/18, 12/11-1/1,11/13-1/1,	1
	,	12/11-1/1, 11/13-11/18, 11/13-11/15	
OREGON	4/15-5/21, 4/8-5/21	8/26-11/30	
PENNSYLVANIA	No Spring season	11/20-11/22	1
SOUTH CAROLINA	No Spring season	10/16-10/21, 10/23-10/28	1
TENNESSEE	No Spring season	10/18-10/22, 12/1-12/14	1
UTAH	4/15-6/15	9/1-10/15	1/year
VERMONT	No Spring season	9/1-11/19	1
VIRGINIA	No Spring season		1
WASHINGTON	No Spring season	10/14-11/1, 11/22-1/6, 12/4-1/6	1
WEST VIRGINIA	No Spring season	Dates not provided	1
WISCONSIN	No Spring season	10-14-11/18, 12/4-12/30	1
WYOMING .	5/1-6/15, 5/1-6/30, 5/1-11/15	9/9-10/6	I
		9/1-11/30	1/year
ALBERTA	4/1-5/13, 4/1-6/3, 4/1-6/15	0/6 13 mg	_
BRITISH COLUMBIA	Vary by management unit	9/5-11/25	2
MANITOBA	4/10-6/10, 4/10-6/24	Vary by management unit	2/year
NEWFOUNDLAND	5/27-6/24	8/28-10/28	1
NORTHWEST TERRITORIES	7/1-6/30(GHL), 8/15-6/30(RES),	9/9-11/30 ,8/26-9/8 (3 West Coast areas)	1
,	8/15-6/30 or 10/31 (NR, NRA)	7/1-6/30(GHL), 8/15-6/30(RES),	GHL-No limit
NOVA SCOTIA	No Spring season	8/15-6/30 or 10/31 (NR, NRA)	All others-1
ONTARIO	4/15-6/30	9/15-10/31	1/license
	טבאטיכנטי	9/1-11/30	i
QUEBEC	5/1-7/4	Vary by zone.	2/year
SASKATCHEWAN	4/13-6/27 (maximum)	8/24-10/10 (maximum)	1
YUKON TERRITORY	4/15-6/15	8/1-10/31	2
		•	~

### Comments/Additional information

ALASKA ARIZONA FLORIDA IDAHO NEW YORK NORTH CAROLINA	Certain units have no closed season. Bag limit varies by unit.  Seasons vary by management unit; April hunt limited entry quota system closed when 2 females killed.  Hunting season dates for Apalachicola National Forest, Baker and Columbia Counties and Osceola National Forest.  Some areas have shorter hunting seasons.  Dates shown are earliest and last dates for any zone. Many areas had no open season; season varies by zones.
WASHINGTON WYOMING	Hunting season dates vary by county.  No hunting allowed in certain units at certain times of year.  Some areas have shorter hunting seasons.
NORTHWEST TERRITORIES SASKATCHEWAN	GHL: general hunters (aboriginal), RES: resident hunters, NR:non-resident hunters, NRA: non-resident alien hunters. Hunting season dates vary by wildlife management zone.

GHL: general hunters (aboriginal), RES: resident hunters, NR:non-resident hunters, NRA: non-resident alien hunters. Hunting season dates vary by wildlife management zone.

TABLE 11. HUNTING SEASONS AND BAG LIMITS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1991

State/Province/Territory	Hunting Season Dates		
	Spring 1991	Hunting Season Dates	Bag limit
	- Frank 1991	Fall 1991	
ALASKA	9/1-6/30		
ARIZONA			1-3
ARKANSAS	April	9/1-12/31	
CALIFORNIA	No Spring season	10/12-10/17, 11/9-11/10	I/year
COLORADO	No Spring season	8/17-9/8, 10/12-12/29	1
FLORIDA	4/1-5/15	9/1-9/30	1
GEORGIA	No Spring season	12/2-12/13, 11/23-1/14, 1/6-1/14	1/year
IDAHO	No Spring season	Vary by county and method of hunting.	I .
MAINE	9/1-10/31	9/1-10/31	i
MASSACHUSETTS	No Spring season	9/2-11/30	l/year
MICHIGAN	No Spring season	9/9-9/14, 11/18-11/23	1
MINNESOTA	No Spring season	9/10-10/21	1/year
MONTANA	No Spring season	9/1-10/13	1.
NEW HAMPSHIRE	Vary by administrative region and district	*** <del>*</del>	1
NEW MEXICO	No Spring season	Vary by administrative region and district 9/1-10/31, 11/16-12/1	l/year
NEW YORK	4/1-4/30	9/1-12/31	1
NORTH CAROLINA	No Spring season	9/14-12/15	1
NORTH CARULINA	No Spring season		ī
OREGON		10/14-11/23, 12/16-1/1, 11/11-1/1,	1
	5/11-6/30, 4/27-5/26, 6/22-7/7, 4/6-5/19	12/9-1/1, 11/11-11/16	
PENNSYLVANIA	No Spring season	8/24-11/30	1
SOUTH CAROLINA	No Spring season	11/25-11/27	1
TENNESSEE	No Spring season	10/14-10/19, 10/21-10/26	1
UTAH	4/13-6/9	10/15-10/19, 12/2-12/15	1/year
VERMONT	No Spring season	8/31-10/15, 11/2-11/29	1
VIRGINIA .	No Spring season	9/1-11/20	1 .
WASHINGTON	No Spring season	10/14-11/1, 11/25-1/4, 12/4-1/6	1
WEST VIRGINIA	No Spring season	08/1-11/1	1
WISCONSIN	No Spring season	10/12-11/23, 12/9-12/31	ī
WYOMING	5/1-6/15, 5/1-6/30, 5/1-11/15	9/14-10/11	1
	212-012, 312-030, 3/1-11/13	9/1-11/15	1/year
ALBERTA	A/I 5/12 4/1 5/2 4/2		
BRITISH COLUMBIA	4/1-5/13, 4/1-6/3, 4/1-6/15	9/3-11/30, 9/9-11/30	2
MANITOBA	Vary by management unit	Vary by management unit	_
NEWFOUNDLAND	4/8-6/8, 4/8-6/25	8/26-10/26	2/year
NORTHWEST TERRITORIES	5/4-6/29	9/14-12/14, West Coast dates not specified	1
	7/1-6/30(GHL), 8/15-6/30(RES)	7/1-6/30(GHL), 8/15-6/30(RES),	2
NOVA SCOTIA	8/15-6/30 or 10/31 (NR, NRA)	8/15-6/30 of 10/31 (NR, NRA)	GHL-No limit
ONTARIO	No Spring season	9/15-10/31	All others-1
QUEBEC	4/15-6/30	9/1-11/30	1/license
SASKATCHEWAN	5/1-7/4	Vary by zone	1
YUKON TERRITORY	4/13-6/27 (maximum)	8/24-10/10 (maximum)	2/year
. O. O. TERRITORI	4/15-6/15	8/1-10/31	1
		w 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2

### Comments/Additional information

ALASKA ARIZONA FLORIDA IDAHO NEW YORK NORTH CAROLINA WASHINGTON WYOMING	Certain units have no closed season. Bag limit varies by unit.  Seasons vary by management unit, April hunt limited entry quota system closed when 2 females killed.  Hunting season dates for Apalachicola National Forest, Baker and Columbia Counties and Osceola National Forest,  Some areas have shorter hunting seasons.  Dates shown are earliest and last dates for any zone. Many areas had no open season; season varies by zones.  Hunting season dates vary by county.  No hunting allowed in certain units at certain times of year.  Some areas have shorter hunting seasons.
NORTHWEST TERRITORIES	GHL: general hunters (aboriginal), RES: resident hunters, NR: non-resident hunters, NRA: non-resident alien hunters.
SASKATCHEWAN	Hunting season dates vary by wildlife management zone.

### TABLE 12. TRAPPING SEASONS FOR BLACK BEAR IN THE UNITED STATES AND CANADA 1989-1991

### State/Province/Territory

Trapping season dates for 1989-1991

ALASKA	
ARIZONA	
ARKANSAS	
CALIFORNIA	
COLORADO	
FLORIDA	
GEORGIA	
IDAHO	
MAINE	

MASSACHUSETTS
MICHIGAN
MINNESOTA
MONTANA
NEW HAMPSHIRE
NEW MEXICO
NEW YORK
NORTH CAROLINA

OREGON
PENNSYLVANIA
SOUTH CAROLINA
TENNESSEE
UTAH
VERMONT
VIRGINIA
WASHINGTON
WEST VIRGINIA
WISCONSIN
WYOMING

ALBERTA
BRITISH COLUMBIA
MANITOBA
NEWFOUNDLAND
NORTHWEST TERRITORIES
NOVA SCOTIA
ONTARIO
QUEBEC
SASKATCHEWAN
YUKON TERRITORY

Not applicable 8/29-10/31(1989), 10/1-10/31(1990), 10/1-10/31(1991) Not applicable Not applicable

Not applicable

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

Trapping season dates are the same as hunting season d 10/15-5/31
9/1-5/31 (in registered trapline areas only)
5/27-6/24, 9/9-11/30 (1989), 5/1-6/30, 9/8-12/1 (1990),
Not applicable
10/16-10/31
Taken under a hunting license during open seasons.
5/1-7/4 and varies by zone for Fall
10/15-5/31
Not applicable

TABLE 13. METHODS OF REPORTING BLACK BEAR HARVEST IN THE UNITED STATES AND CANADA

State/Province/Territory	Mandatory verification/ reporting?	Written notice?	Phone call?	Check	Tooth return?	Skuli return?	Other?
ALASKA	Yes	No	No	No	No	No	Yes
ARIZONA	Yes	No	Yes	No	Yes	No	No No
ARKANSAS	Yes	No	No	Yes+	No	No	No
CALIFORNIA	Yes	No	No	No	No	Yes	Yes
COLORADO	Yes	No	No	Yes+	No	No	No.
FLORIDA	Yes	No	No	Yes+	No	No	No
GEORGIA	Yes	No	No	Yes+	No	No	No
IDAHO	Yes	No	No	Yes+	No	Yes	No
MAINE	Yes	No	No	Yes+	No	No	No
MASSACHUSETTS	Yes	No	No	Yest	Yes	No	No
MICHIGAN	Yes	No	No	Yes+	No	No	Yes
MINNESOTA	Yes	No	No	Yest	Yes	No	Yes
MONTANA	Yes	No	No	No	Yes	No	Yes
NEW HAMPSHIRE	Yes	No	No	Yes+	Yes	No	No
NEW MEXICO	Yes	No	No	Yes+	Yes	No	No
NEW YORK	Yes	Yes	Yes	Yes	Yes	No	Yes
NORTH CAROLINA	Yes	No	No	Yes+	No	No	No
OREGON	No	No	Yes	No	Yes	No	No
PENNSYLVANIA	Yes	No	No	Yes+	No	No	No
SOUTH CAROLINA	Yes	No	No	Yes+	No	No	No
TENNESSEE	Yes	No	No	Yes+	No	No	No
UTAH	Yes	No	No	Yes+	No	Yes	No
VERMONT	Yes	No	No	Yes	No	No	No
VIRGINIA	Yes	No	No	Yes+	Yes	No	No
WASHINGTON	Yes	Yes	No	No	Yes	No	No
WEST VIRGINIA	Yes	No	No	Yes+	Yes	No	No
WISCONSIN	Yes	No	No	Yest	No	No	No
WYOMING	Yes	No	No	Yes+	No	Yes	No
ALBERTA	Yes	No .	No	No	M.	**	
BRITISH COLUMBIA	No	No .	No	No No	No	No	Yes
MANITOBA	Yes	No	No No		No	No	Yes
NEWFOUNDLAND	Yes	Yes	No	No No	Yes	No	Yes
NOVA SCOTIA	Yes	No	No	No	No	Yes	No
NORTHWEST TERRITORIES	No	No	No No	No	No	No	Yes
ONTARIO	Yes	No	No	No	No	No	No
QUEBEC	Yes	No		No	Yes	No	Yes
SASKATCHEWAN		No	No No	Yes+	No	No	No
YUKON TERRITORY	· -	No No	No No	No No	Yes No	No Yes	Yes No

#### +Mandatory

### Comments/Additional information

ALASKA	Sealing required if bear taken in specified Game Management Units.
CALIFORNIA	Information collected from mail survey of 4% of all hunters

COLORADO Inspection and sealing by agency representative required within 48 hours of harvest.

MICHIGAN Information collected from mail survey. MINNESOTA Information collected from mail survey.

MONTANA Skull required to be presented for tooth removal. Information also collected from mail survey. NEW HAMPSHIRE

All harvests inspected and sealed by New Hampshire wildlife officer, tooth collection required since 1985, with 90%+ compliance. **NEW MEXICO** 

Tooth extraction by New Mexico wildlife officer. NEW YORK

Check station registration voluntary. Bears taken in southern part of state checked by staff biologists. UTAH

Registration of harvest required within 48 hours.

VERMONT Return of tooth to agency is voluntary.

VIRGINIA Tooth return required from every harvested bear checked or registered.

WISCONSIN Tooth sample taken at registration station.

WYOMING Return of hide and skull to agency for tooth collection and sexing.

ALBERTA Information collected on mandatory basis from outfitters for non-residents; on voluntary basis with phone survey for residents. BRITISH COLUMBIA Information collected from declarations for non-residents; from questionnaire for residents.

MANITOBA Non-residents submit declaration, tooth, reproductive tract through outfitter, residents submit tooth and reproductive tract voluntarily. NOVA SCOTIA Hunters are supposed to send in part of license for reporting, but there is little compliance or follow-up on this requirement.

NORTHWEST TERRITORIES Resident hunters mailed questionnaire for voluntary completion covering all game harvest; non-residents report through outfitters.

ONTARIO Export permit and hunting report required of non-residents; tooth return is voluntary for residents, but encouraged with crest initiative. QUEBEC

Tooth collection at registration station. SASKATCHEWAN

Tooth return and reporting through outfitters mandatory for non-residents. Residents may voluntarily return tooth, are sent mail survey.

TABLE 14. REPORTED HUNTER KILL AND OTHER ESTIMATED KILL OF BLACK BEAR IN THE UNITED STATES AND CANADA 1984-1988 (Sheeline 1990)

State/Province/Territory	1984-Hunter	1984-Other	1985-Hunter	1985-Other	1986-Hunter	1986-Other	1987-Hunter	1987-Other	1988-Hunter	1988-Other
ALABAMA		4		4		4				
ALASKA	1,465	45	1,646	43	1,583	31	<sup></sup> 1,632	4 29		4
ARIZONA	251	20	258	20	189	20	311	29	1,581	21
ARKANSAS	31	3	23	3	13	3	7		159	20
CALIFORNIA	770	520	1,138	177	1,035	213	1,448	3	14	3
COLORADO	579		.,	• • • • • • • • • • • • • • • • • • • •	1,000	213	1,440	236	1,359	229
FLORIDA	46	9	68	19	\$1	20	45	29		
IDAHO	1,033		1,150	••	1,242	20	[983]	29	41	35
LOUISIANA	0	1	1	I	0	0	0 [203]	•	[1174]	_
MAINE	1,601	350	1,544	350	1,955	350	2,394	0 350	0	2
MARYLAND .	0	0	0	0	0	4	2,394		2,672	350
MASSACHUSETTS	17	35	14	35	18	35	34	5 35	0	2
MINNESOTA	919	329	1,340	754	1,438	491	1,577	326		35
MISSISSIPPI		1		0	1,450	1	1,211		1,509	266
NEVADA		5		5		5		0		0
NEW HAMPSHIRE	217	13	92	19	126	22	260	5	•••	5
NEW JERSEY		3		10	120	8	200	33 7	198	28
NEW MEXICO	[258]		254		230	•	298	,	***	34
NEW YORK	663	150	422	150	747	150	626	150	282	
NORTH CAROLINA	482	54	325	41	421	43	561	21	755	150
OREGON	1,350	98	1,277	61	1,406	136	1,079	64	553	61
SOUTH CAROLINA	1		1	••	2	130	1,019	04	926	61
TENNESSEE	34	47	45	15	54	7	66	8	4	_
VERMONT	319	. 26	170	32	246	31	305	31	77	1
WEST VIRGINIA	110	60	113	68	132	73	251	77	368	32
WISCONSIN	1,130		0	**	503	,,	837	- 11	309	108
WYOMING	[203]	[1]	[198]	[5]	[238]	[8]	[192]	[3]	1,125	507
,				L-3	[200]	[~]	[172]	[5]	[226]	[8]
ALBERTA		1,022		1,021		1.017	2,800	1,043	2000	
BRITISH COLUMBIA	4,065	523	4,077	525	3,855	192	4,094	714	2,900	1,009
NEW BRUNSWICK	873	15	718	16	809	17	976	16		
NORTHWEST TERRITORIES	45		45		45	.,	45	10		
NOVA SCOTIA	852	40	576	49	712	52	718	10	45	
ONTARIO	6,266	•	7,814	.,	8,701	214	7,469	39 63	140	
QUEBEC	1,391	595	1,586	760	2,414	1,085	1,469	741	6,340	109
YUKON TERRITORY	121	74	95	31	83	41	1,732	141	2,257	463

<sup>\*</sup>Figures in brackets provided by 1992 survey respondents

### Comments/Additional information

COLORADO LOUISIANA NEW HAMPSHIRE WISCONSIN WYOMING

Average legal kill based on average estimate over past 41 year period. From 1984-1987, when hunting was legal, a total of one bear was taken.

Some figures revised based on information provided 1994. Hunting prohibited in 1985. Other kill is other known mortality.

TABLE 15. LEGAL KILL, POACHING AND OTHER MORTALITY OF BLACK BEAR IN THE UNITED STATES AND CANADA 1989

State/Province/Territory	Legal hunting	Legal trapping	Nuisance and management	Other reported	Estimate of	Reported	Estimate of	Total	Legal hunting &
	kilis	kills	kilis	kills except by poaching	unreported nuisance and other kills	kills by poaching	unreported kills by posching	mortality	trapping kills as % of min. est. population
ALABAMA	0								
ALASKA	1,696	0	0	0	2	0	2		
ARIZONA	260	0	13	0	0	ō	0	1 700	NA
ARKANSAS	30	0	22	5	3	Ŏ	3	1,709	1.70%
CALIFORNIA	0	0	3	0	15	2	10	293 60	10,40%
COLORADO	583	0	80	0	25	ō	300	405	1.30%
CONNECTICUT	وَوْدِ	0	37	58	0	13	0	403 691	NA
FLORIDA	60	-	0	1	0	0	ő	1	7.30%
GEORGIA	97	0	0	45	0	6	ő	111	NA
IDAHO	1,415	0	2	5	0	1	ō	105	6,00%
KENTUCKY	. 0	0	0	0	0	0	ō	1,415	5.70%
LOUISIANA	ő	0	0	1	0	0	0	1,717	7.00%
MAINE	2,635	55	0	0	. 0	0	ō	0	NA
MARYLAND	2,033	0	55	25	25	25	ō	2,820	NA
MASSACHUSETTS	29	0	0	3	0	4	ō	7	13.87%
MICHIGAN	1,237	0	1	8	16	4	ō	, 58	NA
MINNESOTA	1,930	0	0	0	0	0	Ö	1,237	4.10%
MISSISSIPPI	0	0	158	79	120	8	15	2,310	17.67%
MISSOURI	ŏ	0	0	0	0	0	0	2,510	18.38%
MONTANA	1,600	0	0	1	0	1	0	2	NA
NEVADA	0	0	30	0	0	0	Ó	1,630	NA 17 702
NEW HAMPSHIRE	241	0	2	1	0	0	o	3	17.78%
NEW JERSEY	0	. 0	9	33	0	3	0	286	NA a anna
NEW MEXICO	355	0	0	7	6	4	4	21	8.00%
NEW YORK	880	0	41	0	0	0	0	396	NA 11 0204
NORTH CAROLINA	566	0	21	35	66	10	12	1,024	11.83%
ОНЮ	0	0 .	2	64	0	11	0	643	22.00%
OKLAHOMA	ō	0	0	0	0	0	0	0	10.30%
OREGON	779	ŏ	0	. 0	0	1	2	3	NA NA
PENNSYLVANIA	2,220	Ŏ	0	191	0	0	0	970	3.00%
RHODE ISLAND	0	o o	2	150	100	100	100	2,672	29.60%
SOUTH CAROLINA	10	0	0	0	0	0	0	0	
TENNESSEE	78	ů	0	0	0	0	0	10	NA 3,30%
TEXAS	0	0	1	11	0	7	0	97	7,80%
UTAH	97	0	0 12	0	1	0	0	i	
VERMONT	311	0	3	2	0	3	0	114	NA 12.12%
VIRGINIA	625	Ŏ	1	9	0	0	0	323	14.80%
WASHINGTON	1.436	o	6	5	0	2	0	633	20,80%
WEST VIRGINIA	510	Ô	15	0	0	0	0	1,436	5.30%
WISCONSIN	978	0	0	29	0	14	0	568	18.93%
WYOMING	216	ŏ	3	11	0	0	0	989	17.05%
		•	3	0	0	0	0	219	NA
ALBERTA	1,581	59	320						IIA
BRITISH COLUMBIA	3,897	129	307	0	0	0	0	1,960	4.10%
MANITOBA	1,300	448	75	0 ,	0	0	0	4,333	4.00%
NEWFOUNDLAND	92	0	73 31	0	50	10	0	1,883	7.00%
NORTHWEST TERRITORIES	521	0 -	12	2	15	0	100	240	1.50%
NOVA SCOTIA	36	57	12 28	0	0	0	0	533	10.42%
ONTARIO	5,667	42		7	3	ī	20	152	3.10%
QUEBEC	2,690	636	NR Co	NR	NR	NR	NR	5,709	3.10% 8.80%
SASKATCHEWAN	1,406	179	98 160	52	0	15	0	3,491	5.50%
YUKON TERRITORY	105	0	150 26	12	12	90	400	2,249	5.50% 6.60%
		•	36	0	0	0	0	141	10,75%
								• • •	10.1376

### TABLE 15. LEGAL KILL, POACHING AND OTHER MORTALITY OF BLACK BEAR IN THE UNITED STATES AND CANADA 1989

### Comments/Additional information

ALASKA CALIFORNIA

GEORGIA MAINE

MASSACHUSETTS MISSOURI MONTANA OREGON

PENNSYLVANIA ALBERTA

NEWFOUNDLAND NORTHWEST TERRITORIES

NOVA SCOTIA ONTARIO SASKATCHEWAN Data only for game management units that require sealing of bears. No hunting season in 1989.

Estimate of poaching and other unreported kill estimated as "low." All estimates except for legal hunting figures are maximum estimates.

Mortality from all causes except sport hunting estimated to be approx, equal to that from sport hunting. Estimate of poaching and other unreported kill estimated as small number or close to none. Figures estimated from graph information provided by the state of Montana.

191 is the total combines nuisance, management kills and other kills for the year. All figures except for legal hunting kills are maximum estimates.

Does not include information on legal hunting kills by non-residents. No data provided for trapping kills; all figures except for legal hunting kills are maximum estimates. Total legal hunting kills per year includes estimated maximum harvest by GHLs of 500/year. Numbers for all licensed hunters/trappers calculated from number of reported harvests.

Data on nuisance, management and other kills not kept centrally after 1988.

Figures for nuisance, management, other and unreported kills are maximum estimates.

TABLE 16. LEGAL KILL, POACHING AND OTHER MORTALITY OF BLACK BEAR IN THE UNITED STATES AND CANADA 1990

State/Province/Territory	Legal hunting kills	Legal trapping kills	Nuisance and management kills	Other kills except by poaching	Estimate of unreported nuisance and other kills	Reported kills by poaching	Estimate of unreported kills by posching	Total mortality	Legal hunting & trapping kills as % of min. est. population
ALABAMA	0	0	0	0	2	0			
ALASKA	1,454	0	8	ŏ	2		2	4	NA
ARIZONA	148	Ö	16	5	3	10 0	0	1,472	1.50
ARKANSAS	19	Ö	2	ī	15	2	3	175	5.90
CALIFORNIA	1,187	0	13		25	0	10	49	0.80
COLORADO	402	0	26	39	0	19	300	1,525	7,90
CONNECTICUT	0	0	0	1	0	0	0	486	5.00
FLORIDA	39	0	ō	33	ő	2	0	I	NA
GEORGIA	116	0	Ī	5	ŏ	1	0	74	3.90
IDAHO	1,567	0	0	ō	ő	0	0	123	6.80
KENTUCKY	0	0	0	ō	ō	. 0	0	1,567	7.80
LOUISIANA	0	0	0	ò	0	Õ	0	0	NA
MAINE	2,038	50	30	25	25	25	ő		NA
MARYLAND	0	0	0	4	0	1	ŏ	2,193 5	11.00
MASSACHUSETTS	29	0	1	10	16	2	. 0	58	NA
MICHIGAN	739	0	0	0	0	٥	0	739	4.10
MINNESOTA	2,381	0	321	91	200	2	10	3,005	10,60
MISSISSIPPI	0	0	0	0	0	ō	ő	0,000	22.70
MISSOURI	0	0	1	0	0	o	ő	1	NA NA
MONTANA	1,300	0	20	0	0	ō	ō	1,320	14.40
NEVADA	0	0	0	1	0	ō	ō	1,520	14.40 NA
NEW HAMPSHIRE	291	0	2	35	0	3	ō	331	9.70
NEW JERSEY	0	0	0	4	8	2	5	19	NA
NEW MEXICO	381	0	32	0	0	0	ò	413	12.70
NEW YORK NORTH CAROLINA	660	0	11	26	52	14	20	783	16.50
OHIO	768	0	7	. 95	0	18	0	888	14.00
OKLAHOMA	0	0	0	0	0	0	0	٥	NA.
OREGON	0	0	0	0	0	1	2	3	NA.
PENNSYLVANIA	1,053	0	0	158	0	0	0	1,211	4.20
RHODE ISLAND	1,200	. 0	2	150	100	100	100	1,652	16.00
SOUTH CAROLINA	0 2	0	0	0	0	0	0	0	NA
TENNESSEE	123	0	0	0	0	0	0	2	0.70
TEXAS	123	0	0	8	0	15	0	146	12.30
UTAH	22	0	0	0	1	9	0	1	NA
VERMONT	163	0	17	8	0	1	0	48	2.80
VIRGINIA	328	0	2	6	0	0	0	171	7.80
WASHINGTON	I,410	0	1	0	0	0	0	329	10.90
WEST VIRGINIA	235	0	0 13	0	0	0	0	1,410	5.20
WISCONSIN	1,247	ō	15	33	0	14	0	295	7.80
WYOMING	222	0	2	29	0	0	0	1,277	21,50
		v	2	2	0	2	0	228	NA
ALBERTA	1,911	102	68	•		_			5.00
BRITISH COLUMBIA	3,788	70	206	0	0	0	0	2,081	3,90
MANITOBA	1,300	387	75	0	0	0	0	4,064	6.70
NEWFOUNDLAND	115	0	23		50 • 15	10	0	1,822	1.90
NORTHWEST TERRITORIES	535	Ö	1	1		I	100	255	19.70
NOVA SCOTIA	99	57	22	9	0	0	0	537	5.20
ONTARIO	7,442	27	NR.	NR.	3 ND	0	20	210	11.50
QUEBEC	2,771	711	76	46	NR 0	NR.	NR.	7,469	5.80
SASKATCHEWAN	1,421	160	150	12	12	16 30	0	3,620	6.60
YUKON TERRITORY	101	0	61	2	0	0	100	1,885	0.70
				_	v	v	0	164	

### Comments/Additional Information

OREGON

158 is the total combined nuisance, management and other kills for the year.

ALBERTA

Non-resident legal hunting kills added to Spring resident totals; no data available on landowner nuisance kills.

TABLE 17. LEGAL KILL, POACHING AND OTHER MORTALITY OF BLACK BEAR IN THE UNITED STATES AND CANADA 1991

State/Province/Territory	Legal hunting kills	Legal trapping kills	Nuisance and management kills	Other kills except by poaching	Estimate of nuisance and other kills	Reported kills by posching	Estimate of unreported kills by posching	Total kills	Legal hunting & trapping kills as % of min. est. population
ALABAMA	0	0	. 0	0				•	
ALASKA	1,670	ŏ	7		2	0	2	4	NA
ARIZONA	103	ŏ	8	0	0	0	0	1,677	1.67%
. ARKANSAS	102	0	ī	. 5	3	0	3	122	4.12%
CALIFORNIA	1,493	0		0	25	1	10	139	4.40%
COLORADO	429	0	78 28	. 0	33	0	300	1,904	9.50%
CONNECTICUT	0	ŏ		36	0	9	0	502	5,36%
FLORIDA	60	0	0	1	0	0	0	1	NA
GEORGIA	100	ŏ	0	43	0	2	0	105	6.00%
IDAHO	1,460	ō	-	5	0	1	0	106	5,88%
KENTUCKY	1,400	0	0	0	0	0	0	1,460	7.30%
LOUISIANA	ő	0	0	0	. 0	0	0	0	NA
MAINE	1,625	40	0	0	0	0	0	0	NA
MARYLAND	1,025	0	30	25	25	25	0	1,770	8,76%
MASSACHUSETTS	25	0	0	8	0	1	0	9	NA
MICHIGAN	1,084	_	1	8	16	0	0	50	3.60%
MINNESOTA	2,143	0	. 0	.0	0	0	0	1,084	15.49%
MISSISSIPPI	2,143 0	_	117	54	, 100	3	10	2,427	20.40%
MISSOURI		0	. 0	0	0	0	0	. 0	NA
MONTANA	0	0	1	0	0	0	0	1	NA
. NEVADA	-	0	0	0	0	0	0	0	NA
NEW HAMPSHIRE	0	0	1	- 1	0	0	0	2	NA
NEW JERSEY	123	0	3	23	0	3	0	152	4.10%
NEW MEXICO	0	0	0	10	6	4	3	23	NA
NEW YORK	271	0	80	0	0	0 `	٥	351	9.00%
	763	0	7	27	60	8	14	879	19.00%
NORTH CAROLINA OHIO	715	0	0	0	0	0	0	715	13,00%
	0	0	. 0	0	0	0	0	0	NA
OKLAHOMA	0	0	0	0	0	1	2	3	NA
OREGON	1,363	0	0	203	0	0	0	1,566	5.40%
PENNSYLVANIA	1,687	0	. 2	150	100	100	100	2,139	22,49%
RHODE ISLAND	0	0	0	0	0	0	0	0	NA.
SOUTH CAROLINA	5	0	0	0	0	0	0	5	1.67%
TENNESSEE	66	0	0	3	0	6	0	75	6,60%
TEXAS	0	0	0	0	1	0	. 0	1	NA.
UTAH	39	0	18	2	0	2	0	61	4.90%
VERMONT	237	0	2	12	0	0	0	251	11.29%
VIRGINIA	663	0	0	0	0	. 0	0	663	22,10%
WASHINGTON	1,410	.0	0	0	0	. 0	0	1,410	5.20%
WEST VIRGINIA	426	0	13	23	. 0	18	0	480	14,20%
WISCONSIN	1,219	0	1	39	0	0	0	1,259	2.10%
WYOMING	238	0	3	1	0	2	0	244	NA
ALBERTA	1,891	116	0	0	0	0	0	2,007	5,00%
BRITISH COLUMBIA	0	0	0 -	ō	ō	ō	ő	2,007	
MANITOBA	1,250	450	75	0	25	10	0	1,810	NA 500/
NEWFOUNDLAND	130	0	27	2	15	0	100	274	6,80% 2,20%
NORTHWEST TERRITORIES	542	. 0	0	0	0	0	0	542	
NOVA SCOTIA	178	59	35	15	4	2	25	342 318	10.80%
ONTARIO	6,763	24	NR	NR	NR.	NR.	NR.		7.90%
QUEBEC	2,445	855	59	41	0	9	0	6,787	9.00%
SASKATCHEWAN	1.224	239	150	12	12	30	100	3,409	5.50%
YUKON TERRITORY	85	0	17	. 0	0	0		1,767	6,10%
		-	.,	•	v	U	0	102	0.61%

### Comments/Additional Information

MONTANA OREGON

Figures not provided for 1991.

203 is the total combines nuisance, management and other kills for the year.

BRITISH COLUMBIA

Figures for 1991 not available at time of survey.

1991 harvest figures not available at time of survey - information collected by mail. ONTARIO

#### TABLE 18, LEGALITY OF SALE OF BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA WITHIN AND OUTSIDE JURISDICTION

State/Province/Territory	LIVE la*	Out	HIDE In	0.0	GALL	Out	PAW In	Out	SKULL In	Out	TEETH Io	Out	CLAW In	Out	OTHER	Out
	ID.	Out	IR.	Out	Î <b>a</b>	Out	,10	Out		OW	10	041	14	040		011
ALABAMA	No	No	No	No	No	No	No	No	No	No	No	No	No	No	NAMR	NAME
ALASKA	No	No ==	No.	No.	No.	2100 E	10	i joran	No.	No	_16 <i>i</i> -	ENGL:	No Yes	No Yes	NAATIR	NANR
ARIZONA ARKANSAS	No No	No Yer	Yes	Yes 5-Yes 52.94	No No	Yes DYes William	No Silvo	Yes Yes	Yes	Yes Aryan	Yes No.	Yes Yes	163 - Xo	Ya 🗠	NAME -	NAME .
CALIFORNIA	<u>varuos eves"a</u>	No	No No	No.	No	No.	No	No	}lo }lo	No No	No.	No	No	No	No	No
COLORADO	Yes	Ye 💮	Yes	Yei	เพื่อ	- No	100		Ye	= Yes - 7 =	rii w	Yes	Yes	AVAILE .	NAME	
CONNECTICUT	No	No	160	Yes	No	No	No	No	No.	Yes	No	Yes	No	Yes	No	NAMR
DELAWARE	ENA 🚉	NT.	NA.	NR	NA	NR	NA	NR.	NA	ink - ∴	NA 💮	NR .	NA	NR 🛫	NA .	NŘ 💮
FLORIDA	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
GEORGIA	No -	No -	E No Jak	e Na Sara	No see	No 7	到的基础	No -	Mo (	No 🔚	No	⊈ No.		No.	Çetto ⇔	No # 4
HAWAII	NA	NR	NA	NR	RA.	NR	ila 	NR	NA	NR Yer	NA	NR	NA Yes	NR	NA NAMR	NR ≐NANR
IDAHO	Yes NANR+	YO NAMR	Yes NAMR	YOU THE	Yes Namr	Yes Namr	Yes	Yes	Yes NAMR	NAMR	Yes	Yes Name	NANR	Yes NA/NR	NAMR	NAME
ILLINOIS INDIANA	NANR	NANR	NANR	NAMR NAMR	NANR-	NAME	NAMR NAMR	NANR	NANR :	NAME	NAME:	NACE.	NAME	NAME	NAME	NAME
<b>KOWA</b>	NAME	NAME	NATER	NAME	NAME	NAMR	NAME	HAMR	NA/NR	NANR	NAMR	NAMR	NAME	NAME	NAMR	NAME
RANSAS	Yes (V)	FAYE HE	Yes	Yes	Yes	Me in	STATES	mYe sign	e Yes	Yes 💎	Yes	Yes	Yes &	Yes	NANR	NAME
KENTUCKY	NAME	NAMR	NAMR	NAMR	NAME	NA/NR	NAME	NAMR	NANR	NAME	NAMR	NAME	NAME	NAME	NAMR	NAMR
LOUISIANA	No.	100 2515	_No'	Yes	-}&	Ves .	142	Yes	No 🔛	Yes	No	Yes	No	Yes	NAME	NAMR .
MAINE	No	_ No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NAMR	NAMR
MARYLAND	a No 🚐	No.	No.	-10-5 H	No 🚉	- to	AM912	No.	Nome	eloke.	x No	No	No	No	Ko≥	No
MASSACHUSEITS	No Z-Yet-	No.	No Yes	No.	No and reasons	No	No	No	No	No Yes	No No	No No	No No	No -No	No No	No No - 7
MICHGAN MINESOTA	<del>™TIES TOPR</del> Yes	Yes Yes	Yes	Yes I	No.	<u>- Mores :</u> No	Yes No	Ye. No	Yes	Yes	Yes	zv.ro.⊹ee≃ Yes	Yes	Yes	NA/NR	NAMR
MISSISSIPPI			No.	163	10	No -	No est	No.	No de		No .	100	- Mi	16 Z	NANR	
MISSOURI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MONTANA	Yes	Ya	Yes —	Yes	No .	ivo	Yes	Yo	Yes -	Yes -	Yes	Yes	Yet -	Yes	NATR-	NAATR
NEBRASKA	NAME	NANR	NAMR	NANR	NAME	NAMR	NANR	NAME	NAMR	NAMR	NAME	NAMR	NAMR	NA/NR	NAMR	NANR
NEVADA	No .	⊈5Yes ⇔	No	÷Yes ∷∹	No 1€	Yes	.Na∠. **	Ye 🚐	No 🔀	≓Yes==≎	No 🥒 💮	Yes 💛	62 <b>N</b> o 184 6	Yes	22.00	Yes His
NEW HAMPSHIRE	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
NEW JERSEY	No.	No	No.	Ye	160	Yes	No	Yes	No.	ીલ 🤃	No A	Yes .	No.	X	No.	SYCKE S
NEW MEXICO	No No	Yes Yes	Yes	Yes Yes	Yes	Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	NAMR No	NA/NR NA/NR
NEW YORK NORTH CAROLINA	No No	No.	Xes No	No No	No.	Yes No	No No	νο νο	No	No No	No	No	No	No	No	NAMR
NOÁTH DAKOTA	-Yer	Yes	A YES	Yes	Yes	AYE SE	i Ye	Yα ⊽π∠	Ya Ta	Ares est	# <b>Y4</b> 290	AYE W	Ye 35	Yes :	Yes along	NAME :
OHIO	No	Yes	No	Yes	No	No	No	No	No	No	No	Yes	No	Yes	No	NAMR
OKLAHOMA	No.	Yes	No.	Yes	No.	Yes	No S	Yes	No.	Yes .	No	Yes "	No.	Yes	NAME	NAME
OREGON	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	NAMR	NAMR
PERCETYLVANCA	Yes 👵	્રાલ 💮	Yes	Yes	No 💀	No	No.	-No	r.Yes	e es .	10	૪લ 👙	Yes	Yes		NAA'R
RHODE ISLAND	No.	Yes	160	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SOUTH CAROLINA	i No	No .	i io	No	No	No	No	7No 22	No	₽ <b>No</b> 2	· No	No e	No.	No	NAME	NAMR NAMR
SOUTH DAKOTA TEXNESSEE	Yes H No 100	Yes No	Yes No:	Yes No	Yes No	Yes No.	Yes Na	Yes No	Yes No	Yes No 202	Yes No	Yes	Yes No	Yes =No -	NAMR No	NANR
TEXAS	No	Yes	No	No	No	No	No	No	No No	No	No	No	No	No	No	NAMR
עדאו	No	110	Yes	Yes	No .	No S	and a	Ni de	No.	ino :	No		⊇Ño : :	No	NAME:	NAME :
YERMONT	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NAMR	NAMR
VIRGINIA	.∍No ∵	No	ા Yes ઃ	Yes	Yes	Yes	Yes	Yes	Yes ⇔	Yes	Yes	Yes	Yes	Yes 🥕	NA/NR □	NAME
WASHINGTON	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	NAMR	NAMR
WEST VIRGINIA	Yes	Yes	Yes	Ye.	Yes	(e	Yes	Yes	Yes	· Yo.	Yes	Yes	Yes	Ye.	NATE	NAME.
WISCONSIN	No Service	No	Yes	Yes	No	No	No	No.	No	No	No	No	No	No.	NA/NR	NAMR
WYOMBIG	No.	ANO STATE	Yes	Xe 🗀	i (es	<b>(</b>		-Y <b>o</b> .+	∍ Yes	·Ye		Yes .		YH	NAME	Yes
ALBERTA	Ya		Yes	- Andrews Williams	- 12 C				No .	No :	No 🗀	No .	Yes	Yes	N AND	NAME
BRITISH COLUMBIA	No	No No	Yes	Yes Yes	No No	No.	No.	No No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
MANTIORA	Yes	Yes	Yes -	Ϋ́E = ₹	No -		No.	No -	/ Yes	y i	Yes	vä 🗀	Yer a	Yes	NAME	NAZIR
NEWFOUNDLAND	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	NA/NR	NANR
MORTHWEST TERRITORIES		NANR	Yes	NAAR	Yes ==	NANK	Yes	NAME:	Yes -	NAME	Yes	NANR	Yes	NANR	NA/NR	NAJIR-
NOVA SCOTIA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA/NR	NAMR
XYTARJO	No	Yes	Yer	Yes	No	.Yes ∴	No	Yes.	, Ni	Yes :	No.	Yes 💨	No -	Y <b>c.</b>	No V	Yes
PRINCE EDWARD ISLAND	NA/NR	Arra	NAME		NAMR		NAME	······	NAMR		NAME		NAMR		NAMR	***************************************
QUELEC	No -	No.	Yes .	Yes -	Yes	Yes 🕒	: Yes	yes ;≕	Ye.	Xe 🔀	Yes	<u> Y</u> es =	Yes	Yes	NAMR:	
SASKATCHEWAN	No.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YUKON TERRITORY	No	ZIO E	2,20	No	No	No.	No.	No	# No in	and the sea	-No.	No.	- Ņa ;;;	ijo 📑 e	1. 100	No 💮

#### Comments/Additional Information

COLORADO	Live bear sales only allowed between ficensed commercial arimal parks.
IDAKO	Live bears allowed to be sold only from private game farm, not from the wild.
Kansas	Bears can only be sold if seller has a game breeder permit.

MICHIGAN MISSOURI MONTANA NEBRASKA likegal to sell bones: legal to sell flesh if raised moder authority of permit to bold withfile.

Blegal to sell becen legal to sell flesh if raised moter authority of permit to hold withfile.

All parts legal to sell.

All parts legal to sell.

All parts legal to sell.

Sale of live bears is allowed is beyer/selter are flerested game farmers; sale of bears from wild is illegal.

Very totle, if any rentrictions on sale.

Effective 1993, sale of all bear parts except head and tide probabiled.

Sale of flesh not allomed: the bear sales only allowed by permit.

Sale of live bear conflicted only by fleenaed commercial propagators.

Sale of live bears only from Encased propagators.

Sale of live bears by permit.

Bear must be legally acquired through animal sale to be possessed, with required documentation for private ownership.

Only tanced these are allowed of sale.

Sale of lindicated parts is only allowed dering buxing season.

Live bears may only be sold by licensed game farmet sale of green bides requires head and feet to be attached. NEBRASKA
NEW HAMPSHIRE
NEW YORK
OHIO
OREGON
PENNSYLVANIA
SOUTH DAKOTA
UTAH

VIRGINIA

WISCONSIN

ALBERTA
ALBERTA
ALBERTA
ALBERTA
ANTIOBA
Live bear sales only laguif anached so bids.
Live bear sales only allowed with restrictions.
NEWFOUNDLAND
Suc of parts has been bicarted although against regulations; policy now under review.
NORTHWEST TERRITORIES
Live bears may only be sold under game familicance; tonced bides or raw bides taken noder isodividual Biomese allowed to be sold; trade in raw bides or poks requires for dealer Biomese.
NOVA SCOTIA
ONTARIO
Hide must be sold with class a anached.
Sale of them greate legal.
Sale of them greate legal.
A Biccased trapper may sell 2 polith/car with a special permit; box ever, these permits are latirequeet.

<sup>\*</sup>IN-tiem legally acquired in state, province or territory,

\*\*OUT-kem legally acquired in other state, province or territory,

\*\*NANR-not applicable or no regulations

TABLE 19. ACTIVITY AND TREND IN TRADE IN BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA

State/Province/Territory		heeline 1990)	199				SSESSMENTS O	F TRADE	
	TO 161 01 1120	de Trend in trade	⊾evei oi Irâde	Trend in trade	Undercover investigations	Reports from legal hunters	Enforcement effort	Best assessment	Other
ALABAMA	Infrequent	None	Not significant	Do not know	No	No .	No	Yes	No
ALASKA	Infrequent	Stable	Somewhat significat	nt Increasing	Yes war a	Yes	Yes	No No	No -
ARIZONA	Active	Stable	Somewhat significat	nt Stable	Yes	No	No	No	No
ARKANSAS	Infrequent	None+	Not significant	Increasing	Yes	No	Yes	Yes	No
CALIFORNIA COLORADO	Very active	Decreasing	Not significant	Increasing	Yes	Yeş'	Yes	No -	No.
CONNECTICUT	Infrequent :		Somewhat significar	The state of the s	Yes	No	Yes	Yes	No
DELAWARE	micedoent-	<b>"学"中,大型</b> 医数学型	Not significant	Do not know	No	-No	No -	Yes	No
FLORIDA	infrequent_		Not significant	Do not know	No	No	No	Yes	No
GEORGIA	- initedocut		Somewhat significan Not significant		Yes	_No	Yes	Yes	No
HAWAII			NR Significant	Decreasing NR	No	No	No	No	Yes+
IDAHO	Very active	Growing	Somewhat significan		Yes				
ILLINOIS			Do not know	Do not know	No.	No	No	Yes	Yes+
INDIANA		man de la maranta de la marant	Not significant	Stable	Yes	No No	No <u> </u>	≤No -	No ÷ =
IOWA		<b>李兴达</b> 伊尔安	Do not know	Do not know.	No.	No	No.	Yes No	No
KANSAS			Do not know+	Do not know	Yes	No	No	No	No No
KENTUCKY		學制度的發展	No known trade	Do not know	No	No 1	No	Yes	No
LOUISIANA	Nonexistent	None	No known trade	Do not know	Yes	No	No	Yes	No
MAINE	Yery active	Growing	Somewhat significan	rt Do not know	Yes	Yes 💮 💮	No S	Yes	No a
MARYLAND	Nonexistent		Do not know	Do not know	No	No	No	Yes	No
MASSACHUSETTS	erkerkti		Not significant	Increasing	Yes	No	No	Yes	No 📑
MICHIGAN	Tribus district		Somewhat significan		Yes	No	No	Yes	No
MINNESOTA	infrequent	Increasing+	-Somewhat significan		Yes	Yes	Yes	Yes	No
MISSOURI	Nonexistent	None	Do not know+	Do not know	No	No	No	No	No
MONTANA	Nonexistent Active	None	Somewhat significan		No	Yes .	Yes	Yes	No
NEBRASKA	Active	Growing	Very significant	Increasing	Yes	No	No	No	Yes+
NEVADA	Nonexistent	None	NR No known trade	NR.	No management	No	No	No	No
NEW HAMPSHIRE	Active	Growing	No known trage	Stable Stable	No	No	No	Yes	No
NEW JERSEY	Infrequent	Growing+	Somewhat significant		No	Yes (Facility)	Yes -		No 🚞
NEW MEXICO	Infrequent	Stable	Not significant	Increasing	Yes Yes	No	Yes	No	Yes+
NEW YORK	Active	Stable	Somewhat significant		Yes	No Yes	Yes		No
NORTH CAROLINA	Active	Stable 1	Do not know	Decreasing	No Service	No.	Yes		Yes+
NORTH DAKOTA	. 4		No known trade	Stable	No	No	Yes No		No.
ОНЮ	Infrequent	Stable+	Do not know	Increasing	No	No -	No.		No Yest
OKLAHOMA	Nonexistent	None	No known trade	Stable	No	No	No		No
OREGON	Active	Growing	Somewhat significant	t Do not know	Yes	No	Yes		No :
PENNSYLVANIA			Somewhat significant	t Increasing	Yes	No			No.
RHODEISLAND	Nonexistent	None	Not significant	Stable	No ->	No	y	Total A V	Yest
SOUTH CAROLINA	Infrequent	None	Not significant	Do not know	No	No	No		No
SOUTH DAKOTA			Not significant	Stable	Yes —	No	Yes		No -
TENNESSEE		Decreasing	Somewhat significant		No	No	No		No
TEXAS UTAH	HAM VI	·version (in the	Do not know	Do not know	No			No	No 💮
VERMONT	Infrequent	Stable	Somewhat significant		Yes				No .
VIRGINIA	nereducer	- NIVING	Not significant	Do not know	No		No 💮 💮		No 🚐
WASHINGTON			Somewhat significant Do not know	The second country to the Market Country of the St.	No	A THE RESIDENCE OF THE PARTY OF	and the second s		Yes+
WEST VIRGINIA	Infrequent	Stable	Somewhat significant	Do not know  Stable	No.				No ===
WISCONSIN	Active	Stable growing		Stable	No Yes				No
WYOMING			Somewhat significant		No	No:			No
			-	•	110	10	Yes	No i	No
ALBERTA	Infrequent	Stable growing!	Very significant	- Increasing	Yes	Yes	Yes	No .	OEU-
BRITISH COLUMBIA	Active	Growing	Somewhat significant		Yes				Yes+== No
MANTFOBA	Active	anger the San San State of the san	Not significant		The second secon				Yest:
NEW BRUNSWICK	Active					A A TO SEE THE PERSON NAMED IN	Andrew Company of the State of	THE PARTY NOT THE PARTY.	
NEWFOUNDLAND			Somewhat significant	Increasing	No ·	No	No	No -	Yes+
	Active	None	Not significant	Increasing					Yes+
NOVA SCOTIA	infrequent ===		Somewhat significant		No .	rad harris and his No. 1864 and Orient and the	and the court of t		Yest
ONTARIO	Active		Somewhat significant	Stable	Yes		,		Yes+
PRINCE EDWARD ISLAND			No known trade		The state of the s		Province		No -
QUEBEC	I-C	Comica	Not significant	*******	NT-				
	Infrequent					No	No	Yes 1	No
SASKATCHEWAN			Very significant	Increasing	Yes		* <del></del>		No.
SASKATCHEWAN	Active			Increasing	Yes	Yes	Yes	Yes)	

<sup>+</sup>See comments/additional information.

### TABLE 19. ACTIVITY AND TREND IN TRADE IN BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA

### Comments/Additional Information

(1989) Though trade is infrequent at present (1989), it "could grow due to publicity on the issue." ARKANSAS

GEORGIA 1991 law change making parts sale illegal.

IDAHO Records on sales of parts.

Also answered that trade is not significant. Also answered that trade is stable. KANSAS

MAINE (1989) Probably increasing, "but still very small scale."

MINNESOTA MISSISSIPPI No known trade in Mississippi.

MISSOURI Trade is exotic, captive bears only. trade 1s exone, captive nears only.

Number of complaints and arrests for illegal traffic; also number of inquiries from Asian sector.

(1989) Growing, "but at a low level." (1992) Other basis not specified.

Trade fluctuates widely. Reports from legal buyers.

(1989) "Stable, but small." (1992) Public inquiries regarding legality of sales. MONTANA

NEW JERSEY

NEW YORK

OHIO

RHODE ISLAND Furbuyers.

Since Operation Smokey, Tennessee has had little information on trade in parts. TENNESSEE

VIRGINIA Contact with furbuyers.

(1989) "Slowly growing." (1992) Other jurisdictions or casual observations of general public. Consultation with enforcement staff. ALBERTA

MANITOBA NEWFOUNDLAND Reports from hunters and big game outfitters.

NORTHWEST TERRITORIES Export permit records.

Trade decrease is due to decline in harvest and more restrictive regulations. NOVA SCOTIA

Number of ongoing investigations and reports received from other agencies, reports from legal hunters. ONTARIO

TABLE 20. INDICATION OF MARKETS FOR BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA

State/Province/Territory	10	89 (Sheeline 1990)		1992			
•	In-state	Out-of-state	Instate				
·			In-state	Out-of-state			
AT ADAMA							
ALABAMA ALASKA			na/nr	NA/NR			
ARIZONA	Yes	No	Yes	Yes			
ARKANSAS	Yes	Yes	Yes	Yes			
CALIFORNIA	No	No	No	Yes			
COLORADO	Yeş	Yes	Yes	Yes			
CONNECTICUT			Yes	Yes			
DELAWARE	No	No	NA/NR	NAMR			
FLORIDA			No	Yes			
GEORGIA			Yes	Yes			
HAWAII			Do not know	Do not know			
			NA/NR	NA/NR .			
IDAHO H L DIOIS	Yes	Yes	Yes	Yes			
ILLINOIS			Do not know	Do not know			
INDIANA			NAMR	NA/NR			
IOWA			NAMR	NA/NR			
KANSAS			NA/NR	NA/NR			
KENTUCKY		•	NA/NR	NA/NR			
LOUISIANA	No	No . ^	NA/NR	· NA/NR			
MAINE	Yes	Yes	Yes	Yes			
MARYLAND			Yes	res Yes			
MASSACHUSETTS			Do not know				
MICHIGAN			Yes	Do not know Yes			
MINNESOTA		Yes	Yes	,			
Mississippi	No	No	NA/NR	Yes			
MISSOURI		*10	NAVNK Yes	NA/NR			
MONTANA	Yes	Yes	1 cs Yes	No			
NEBRASKA				Yes			
NEVADA	No	No	NA/NR	NA/NR			
NEW TIAL COOKING	No	Yes	No	No			
XICII TODODU	Yes	'No	Yes	No			
NEW MEXICO	Yes	110	Yes	Yes			
NEW YORK	Yes	Yes	Yes	No			
MODELLO LDOLDA	Yes	Yes	Yes	Yes			
NORTH DAKOTA	163	162	No	Yes			
OHIO	Yes		Yes	Yes			
OVI ATTOLES	No.	N	Yes	Yes			
OREGOV	Yes	No	Yes	No			
PENNSYLVANIA	163	Yes	No	Yes			
RHODE ISLAND			Yes	Yes			
SOUTH CAROLINA			NA/NR	NA/NR			
SOUTH DAKOTA			Do not know	Do not know			
TENDINGOPO	•		No	Yes			
TEXAS	Yes	Yes	Yes	No			
UTAH			NA/NR	NAMR			
VIED LOSER			Yes	Yes			
VIRGINIA	No	Yes	Yes	Yes			
WASHINGTON			No	Yes			
Ween the oper			No	Yes			
Macana and	Yes	Yes	Yes	Yes			
WISCONSIN	Yes	Yes	Yes	No			
WYOMING			Yes	Yes			
Al penna	•						
Tiperrate correspond	Yes	Yes	Yes	Yes			
	Yes	Yes	Yes	Yes			
MANITOBA	Yes	Yes	Yes	Yes			
NEW BRUNSWICK	Vο	Yes					
NEWFOUNDLAND			Yes	Yes			
NORTHWEST TERRITORIES	r'es	Yes	Yes	Yes			
NOVA SCOTIA	res	Yes	Yes	Yes			
ONTARIO	res	Yes	Yes	Yes			
PRINCE EDWARD ISLAND			NA/NR	NA/NR			
QUEBEC	l'es	Yes	No	Yes			
SASKATCHEWAN			No	Yes			
YUKON TERRITORY Y	es .	Yes	No	Yes			
			110	100			

#### TABLE 20. INDICATION OF MARKETS FOR BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA (continued)

### Comments/Additional Information

ALASKA

MASSACHUSETTS

MINNESOTA

NEW MEXICO NOVA SCOTIA (1989) Local use for hides and/or meat.

(1992) Little known or estimated trade. Most is suspected/known to be out-of-state parts.

Known in-state trade use primarily for personal use.
(1989) "Some Orientals have been inquiring about the availability of gall."

(1989) Most claws used in local markets imported from northwestern U.S. and Canada.

(1989) "Very limited" in-province trade.

### TABLE 21. IN-STATE, IN-PROVINCE, IN-TERRITORY USERS OF BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA

State/Province/Territory\*

Comments on in-state or in-province markets and users for black bears and black bear

ALASKA

1989-Local use for hides and/or meat.

1992-Local use indicated for carcasses/hides, paws, skulls, teeth, claws, penis/testicles, but no

users indicated.

ARIZONA

1989-Teeth, claws, hides used by taxidermists, artists, Asians.

1992-Hides used by tourists, taxidermists; paws used by Asians in general; skulls used by jewelers, tourists; teeth used by tourists, jewelers; claws used by tourists, jewelers; galls used by

Asians in general.

ARKANSAS

1992-Live bears used by illegal zoos/pet owners; claws used by curiosity seekers.

CALIFORNIA

1989-Claws, paws, skulls, teeth, meat, galls used by Asians.

1992-Hides used by interior decorators, taxidermists; paws used by Asian community as food; skulls used as artifacts by all; teeth used as artifacts by all; claws used as artifacts by all; galls

used by Asian community as medicine.

COLORADO

1992-Live bears used by commercial wildlife parks; hides by hunters, retail sales, taxidermists; paws by Asian market; skulls used by tourists, hunters; teeth used by tourists, jewelry; claws used by tourists, jewelry; galls used by Asian medicine.

CONNECTICUT

1992-Hides may possibly be used by taxidermists; teeth used for jewelry (minimal); claws used

for jewelry (minimal).

FLORIDA

1992-Claws used for jewelry;

IDAHO

1989-Claws, teeth, hides used by taxidermists, jewelers, black powder firearms enthusiasts 1992-Hides used by sportsmen, taxidermists, skulls used by sportsmen, taxidermists; teeth used by sportsmen, taxidermists; claws used by sportsmen, taxidermists, jewelry makers.

MAINE

1989-Claws, teeth, hides used by taxidermists, jewelers.

1992-Hides used by taxidermists; skulls used by tourists, taxidermists, jewelry manufacturers; teeth used by tourists, taxidermists, jewelry manufacturers; claws used by tourists, taxidermists,

jewelry manufacturers; minimal use of galls by resident Asians.

MICHIGAN

1992-Live bears used by animal enthusiasts; hides used by taxidermists, trophy; skulls used by

taxidermists, trophy; teeth used for jewelry; claws used for jewelry.

MINNESOTA

1992-Live bears used by game farms; hides used by taxidermists; paws by ethnic; skulls used in rendezvous; teeth used for jewelry, rendezvous; claws used for jewelry, rendezvous; galls used by ethnic.

MONTANA

1989-Claws, teeth, hides used by taxidermists, craft shops, tourist trade.

1992-Live bears used by game farmers; hides used by taxidermists; paws used by taxidermists;

skulls used by taxidermists; teeth used by taxidermists; claws used by taxidermists.

**NEW JERSEY** 

1989-Claws, teeth, hides "used by hunters who have taken them illegally."

1992-Paws used in folk medicine; teeth used by jewelry makers; galls used in folk medicine.

TABLE 21, IN-STATE, IN-PROVINCE, IN-TERRITORY USERS OF BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA

(continued)

State/Province/Territory\* Comments on in-state or in-province markets and users for black bears and black bear

parts+

NEW MEXICO 1989-Claws used by local craftsmen for jewelry, hides for rugs. Most claws used in local

markets are imported from northwestern U.S. and Canada.

1992-Hides used by guides, hunters; paws used by hunters; skulls used by hunters; teeth used

by hunters; claws used by hunters; galls used by guides.

NEW YORK 1989-Galls used by Asians; other parts by other segments of the population.

1992-Live bears used by zoos (mot legally taken from the wild); hides used by hunters, tourists, American Indians, buckskinners; skulls used by hunters, American Indians, buckskinners; galls

used by Orientals.

NORTH CAROLINA 1989-Claws, teeth used by western dress enthusiasts.

1992-Hides used by hunters.

OKLAHOMA 1992-Live bears used by commercial wildlife breeders.

OREGON 1989-Paws used by Asians; galls used by Asians.

PENNSYLVANIA 1992-Live bears used by menageries; carcasses used in traditional medicine, hides for fur trade;

paws used in traditional medicine; skulls used by mountain man; teeth used for jewelry; claws

used for jewelry; galls used for traditional medicine.

RHODE ISLAND 1992-Claws used for jewelry, by American Indians.

SOUTH CAROLINA 1992-Hides used by hunters (trophy); paws used by hunters (trophy); skulls used by hunters

(trophy); teeth used by hunters (trophy); claws used by hunters (trophy).

SOUTH DAKOTA 1992-Live bears used by Bear Country (private park).

TENNESSEE 1989-Claws, teeth used by jewelers; galls used by Asians.

TEXAS 1992-Galls used by Asians.

UTAH 1992-Live bears by houndsmen, as pets, by movie industry; hides by taxidermists, tourists,

hunters; paws used by Asians; skulls used by tourists, taxidermists, hunters; teeth used by mountain men, for jewelry, by tourists, hunters; claws used by mountain men, for jewelry, by

tourists, hunters; galls used by Asians.

VERMONT 1992-Hides used by taxidermists; paws used by taxidermists; skulls used by taxidermists; teeth

used by taxidermists; claws used by taxidermists;

VIRGINIA 1992-Hides used for trophies/rugs; paws used by primitive weapons advocates; skulls used by

primitive weapon advocates, trophy; teeth used by primitive weapon advocates, trophy; claws

used by primitive weapon advocates, for jewelry.

WEST VIRGINIA 1989-Claws, hides, skulls used by muzzleloader enthusiasts.

1992-Hides used by hunters; teeth used for jewelry; claws used for jewelry.

WISCONSIN 1989-Claws, teeth used by diverse groups, no specific cultural group; jewelers, buckskinners.

1992-Live bears used by game farms; hides used by taxidermists.

WYOMING 1992-Hides used by taxidermists, tourists; paws used by taxidermists, tourists; skulls used by

taxidermists, tourists; teeth used by taxidermists, tourists; claws used by taxidermists, tourists.

TABLE 21. IN-STATE, IN-PROVINCE, IN-TERRITORY USERS OF BLACK BEARS AND BLACK BEAR PARTS IN THE UNITED STATES AND CANADA (continued)

State/Province/Territory\*

Comments on in-state or in-province markets and users for black bears and black bear parts+

ALBERTA

1989-Claws used by natives, other craftsmen.

1992-Live bears used by zoos; hides used by hunters and for rug and fur trade; paws used by Asians; skulls used by hunters as parts of trophy; teeth must remain part of skull; claws must remain attached to hide as trophy; galls used by Asians.

BRITISH COLUMBIA

1989-Limited use by jewelers, taxidermists.

1992-Hides used by hunters, trappers, taxidermists; paws used by Asian population; skulls used by hunters (trophy); teeth used for jewelry by Natives; claws used for jewelry by Natives; galls used by Asian population.

MANITOBA

1989-Claws, paws, hides - minimal use, primarily by Asians.

1992-Hides used by fur dealers, tanners, taxidermists; paws used by Asian community; skulls used by fur dealers, taxidermists; teeth used by tourists, taxidermists; claws used by tourists, taxidermists,; gails used by Oriental community.

NEWFOUNDLAND

1992-Hides used by hunters; skulls used by hunters; meat used by hunters.

NORTHWEST TERRITORIES

1989-Claws, hides used by natives.

1992-Hides used by Native persons; teeth used by Native persons, claws used by Native

persons.

NOVA SCOTIA

1989-"Very limited" in province trade.

1992-Hides used by taxidermists; skulls used by hunters as trophies meat used by hunters,

trappers.

ONTARIO

1989-All parts used by Asian medicine stores, souvenir shops.

1992-Live bears used by private and municipal zoos; hides used by tourists, fur dealers,

taxidermists; paws used by selected restaurants (although this is not indicated within province); skulls used by tourists, fur dealers, taxidermists; teeth used by tourists, fur dealers, taxidermists;

claws used by tourists, fur dealers, taxidermists.

QUEBEC

1989-Claws, teeth used by natives.

1992-Hides used by tourists, residents; skulls used by tourists; teeth used by Native people;

galls used by Asian residents and tourists (small group).

SASKATCHEWAN

1992-Hides used by trappers, outfitters; paws used by Oriental people in province; skulls used by trophy hunters; teeth used by jewelry makers; claws used by tourists, jewelry makers, Indian people; grease used by traditional Indian people in ceremonies; galls used by Oriental people in

province.

YUKON TERRITORY

1989-Claws, teeth, hides used for tourist trade.

1992-Hides used by taxidermists.

+Information for 1989 from Sheeline (1990).

<sup>\*</sup>States/Provinces not listed did not provide any information in 1989 or 1992 on in-state, in-province or in-territory users/markets for live bears or bear parts.

 ${\tt TABLE~22.~OUT-OF-STATE,~OUT-OF~PROVINCE,~OUT-OF-TERRITORY~MARKETS~FOR~BLACK~BEAR~GALLBLADDERS~$}$ 

State/Province/Territory		Initial Destination	Final Destination
ARIZONA	1989 1992	California California	Korea South Korea
, CALIFORNIA	1989	1	0000111010 <u>4</u>
	1992	California	Japan, Korea China, Korea, Vietnam
COLORADO	1992	United States, foreign	United States, foreign
IDAHO	1989 1992	Alaska and other states, British Columbia West Coast United States	Japan Orient
MAINE	1989 1992	New York, Pennsylvania, Maryland, Canada New York, Canada	Korea California, Japan, Korea
MICHIGAN	1992		Various
MINNESOTA	1989 .	Canada	
	1992	Chicago	Asia
MONTANA			
NEW HAMPSHIRE	1989	California, Washington	Asia
TO THE STIRE	1989	Boston, New York City	Asia ·
NEW YORK	1989 1992	Idaho, Canada	Asia California, Taiwan, South Korea, Singapore
NORTH CAROLINA	1989 1992	New York, Chicago Michigan	Korea, other Asian markets South Korea
OREGON	1989 1992	Western United States	Korea, other Asian markets Unknown
PENNSYLVANIA	1992	New Jersey, New York	South Korea ?
TENNESSEE	1989	Chicago	Korea
UTAH	1992	California, Colorado	South Korea, Japan
VIRGINIA	1992		Asia
WEST VIRGINIA	1989 1992	New Jersey, New York Unknown	Asia
WISCONSIN	1989 1992	Canada, western United States, Asian communities in large cities Western states with cougar or bear hunting	Asia Asian markets
ALBERTA	1989	Other provinces	Asia
BRITISH COLUMBIA	1989	Local and Ontario fur houses	Some to Asia
MANITOBA	1989 1992	United States, British Columbia, Ontario Ontario, British Columbia	Hong Kong, other Asian markets Asian countries, e.g. Korea, China
NEW BRUNSWICK	1989	Ontario, Manitoba	
NEWFOUNDLAND .	1992	Mainland Canada, United States	Asia
NORTHWEST TERRITORIES	.1989 1992	Fur markets and auctions British Columbia, western United States	
nova scotia	1989 1992	Ontario, Hudson Bay Ontario, Hudson Bay	

### $\textbf{TABLE 22. OUT-OF-STATE, OUT-OF PROVINCE, OUT-OF-TERRITORY MARKETS FOR BLACK BEAR GALLBLADDERS * (continued) \\$

State/Province/Territory		Initial Destination	Final Destination
ONTARIO	1989 1992	United States United States, Europe	Korea, China, other Asian markets China, Korea
QUEBEC	1989 1992	Ontario . Seattle, western Canada	Asia Japan, Korea
SASKATCHEWAN	1992	Asians throughout Canada	China, South Korea
YUKON TERRITORY	1992	Alaska, British Columbia	Korea

<sup>\*</sup>States/provinces not listed did not provide any information on this topic in 1989 or 1992. Information for 1989 from Sheeline 1990.

TABLE 23. OUT-OF-STATE, OUT-OF-PROVINCE, OUT-OF-TERRITORY MARKETS FOR LIVE BLACK BEARS AND BLACK BEAR PARTS

State/Province/Territory	Item	Initial Destination(s)	Final Destination(s)
ARIZONA	Paws	CA	South Korea
CALIFORNIA	Paws	CA	
	Skulls	CA	
	Teeth	CA	
	Claws	CA	
COLORADO	Live bears	U.S., foreign	77.0 Carata
	Carcasses/hides	U.S., foreign	U.S., foreign
	Paws	U.S., foreign	U.S., foreign
	Skulls	U.S., foreign	U.S., foreign
	Teeth		U.S., foreign
	Claws	U.S., foreign	U.S., foreign
	012114	U.S., foreign	U.S., foreign
IDAHO	Paws	Western U.S., Alaska	Asia
MAINE	Carcasses/hides	U.S.	U.S.
	Skults	Various	Unknown
	Teeth	Various	Unknown
	Claws	Various	Unknown
MICHIGAN	Live bears		Various
	Carcasses/hides		Various Various
	Paws		Various
	Skulls		Various Various
	Teeth		Various Various
	Claws		Various
1 mm manns			YATIOUS
MINNESOTA	Live bears	Game farms	
	Carcasses/hides	Unknown	
	Paws		Asía
	Skulls	Unknown	
	Teeth	Unknown	
MONTANA	Live bears	Western states	
	Carcasses/hides	Western states	
	Teeth	Western states	
	Claws	Western states	
NEW HAMPSHIRE	Teeth	Western states	
	Claws	Western states	
	012.17	rrestern states	
NEW JERSEY	Teeth	NJ	NJ, NY, PA
NEW MEXICO	Carcasses/hides	NM, CA, TX	
	Paws	NM, CA, TX	
	Skulls	NM, CA, TX	
	Teeth	NM, CA, TX	
	Claws	· NM, CA, TX	
NEW YORK	Carcasses/hides	ID, OR, Canada	
	Skulis	TX, OK	
•	Teeth	ID, TX, OR, OK	
	Claws	ID, TX, OR, OK	
NORTH CAROLINA	Live bears	SC	SC
•	Paws	м	South Korea
	Claws	Western U.S.	Western U.S.
AVI MANA			
OKLAHOMA	Live bears	Adjacent states	Unknown
OREGON	Carcasses/hides	Western U.S.	Unknown
	. Paws	Western U.S.	Unknown
	Teeth	Western U.S.	Unknown
	Claws.	Western U.S.	Unknown
PENNSYLVANIA	Tiva ha	Nr Nr.	
· · <del>-</del> · <del>-</del> · · · ·	Live bears Paws	NJ, NY	South Korea ?
	E4M3	NJ, NY	South Korea ?

TABLE 23. OUT-OF-STATE, OUT-OF-PROVINCE, OUT-OF-TERRITORY MARKETS FOR LIVE BLACK BEARS AND BLACK BEAR PARTS (continued)

State/Province/Territory	Ītem	Initial Destination(s)	Final Destination(s)
RHODE ISLAND	Carcasses/hides		
	Claws	RI	•
•	Cianz	RI	
SOUTH DAKOTA	Live bears		
	Tree nears	Nationwide	
UTAH	Live bears	FT( 30 4 F)	
	Carcasses/hides	TX, NM, CA	South Korea
	Paws	CA, CO, ID	
	- Skults	CA, CO	South Korea
	Teeth	UT, CA, CO	
	14011	. UT, CA, CO, WY	
WISCONSIN	Live bears		
	Paws		Oriental markets
	- 4.773	Western states with	Oriental markets
	Teeth	cougar/bear hunting	
	Claws	Southwestern states	Artifacts shops
	CIEMS	Southwestern states	Artifacts shops
ALBERTA	Live bears	an.	
	Carcasses/hides	SD	
	Skulls	U.S. Germany	•
	Claws	U.S., Germany	
	472.14	U.S., Germany	
BRITISH COLUMBIA	Carcasses/hides	71.0 P	
	Skults	U.S., Europe	
		Non-resident hunters,	
		U.S., Europe	
MANITOBA	Carcasses/hides	Otherwise, via m	
	Paws	Other provinces, U.S., Europe	Other provinces, U.S., Europe
·	Skulls	Ontario, British Columbia	Asia (e.g., China, Korea)
	Teeth	Other provinces, U.S., Germany	Other provinces, U.S., Germany
	Claws	Other provinces, U.S., Europe	Other provinces, U.S., Europe
	•	Other provinces, U.S., Europe	Other provinces, U.S., Europe
NEWFOUNDLAND	Teeth	Maintand Courts at C	
	Claws	Mainland Canada, U.S.	
		Mainland Canada, U.S.	Asia
NORTHWEST TERRITORIES	Carcasses/hides	Yukon, B.C., Manitoba,	
	•	W. Germany, U.S.	
	Paws	British Columbia	
	. Skulls	· U.S. (jaws)	
	Teeth	Most provinces, U.S.	
*****	Claws	Most provinces, U.S.	
NOVA SCOTIA	Claws	Ontario	
O) Til no		J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
ONTARIO	Live bears	China, Korea	
	Carcasses/hides	U.S., Europe	au
	Paws	U.S., Europe	China, Korea
	Skults	U.S., Europe	China, Korea
	Teeth	U.S., Europe	China, Korea
	Claws	U.S., Europe	China, Korea
Olmpro.		010., 20topo	China, Korea
QUEBEC	Carcasses/hides		113.0
	Claws		U.S., Germany, Austria, England
SASVATOIMULA.			NM
SASKATCHEWAN	Carcasses/hides	Local taxidermists	11.6 /
	Paws	Asian people nationwide	U.S. (as processed rug)
	Skulls	U.S., Canada	China, South Korea
	Teeth	Nationwide	U.S., Canada
	Claws	Nationwide, U.S.	U.S., Canada
	Grease	Nationwide	U.S., Canada
YUKON TERRITORY			U.S., Canada
TONOR TERRITORY	Carcasses/hides	U.S., Europe	U.S., Europe
		•	O.O., Europe

### TABLE 24, INFORMATION ON PRICES OF BLACK BEARS AND BLACK BEAR PARTS

Item	Item State/Province/Territory AMO				
•		Hunter	Middleman	Retailer	
GALLBLADDERS		50-200	\$0-1000	50-1000+	
(each unless indicated)	ALASKA	\$40/oz (wet)	S40/g (vary by quality)		
	CALIFORNIA	\$75	\$150-200	\$350-600	
	IDAHO	\$25			
	MICHIGAN	\$40-75	\$75-200	\$250+	
	MINNESOTA	\$50-90	\$400-500	\$80/g	
	MONTANA	\$50	\$36/ez	\$50/oz	
	NEW JERSEY	<b>\$4</b> 5	** ***	\$75-100	
	NEW YORK	\$0-90	\$0-300	\$600	
	OREGON PENNSYLVANIA	\$40-50	\$100-250		
	UTAH	\$35-50	\$70-100		
	VIRGINIA	\$50	410-100		
	WEST VIRGINIA	\$20-100			
	WISCONSIN	520	\$50		
	WYOMING	· \$70-120			
•	ALBERTA	\$40-100	\$75-200	\$150-210/g	
	BRITISH COLUMBIA	\$60 (avc.)			
	NEWFOUNDLAND	\$150 (max.)	•		
	NOVA SCOTIA	\$10-200 \$100+	\$100-1000	\$1000+	
	ONTARIO		\$100-1000	310007	
	QUEBEC SASKATCHEWAN	\$2-7/g \$0-50	\$50-75	\$500	
	YUKON TERRITORY	\$100	. 330-73	3300	
	· DAON MAGIONI	3100			
CARCASS/HIDE (each)		\$0-600	\$100-700	\$200-1500	
	ALASKA	\$250-500 (hides)		\$500÷	
	ARIZONA	\$50-100	\$150	\$200+	
	CALIFORNIA	\$250-300	\$400	\$400-800	
	COLORADO	\$100-200	\$200-400		
	IDAHO	\$50			
	MICHIGAN	\$20-25			
	MINNESOTA	\$30	\$100	\$700	
	MONTANA	·\$100-600	e400 (L14)		
	NEW JERSEY NEW YORK	* ************************************	\$400 (hides)		
	OREGON	\$0-200 (hides) \$50			
•	PENNSYLVANIA	4,00	\$100-300 (carcass)		
	UTAH	\$100-250	\$200-700	\$500-1500	
	WEST VIRGINIA	\$30		***************************************	
	WISCONSIN	\$25	\$250 (tanned flat)	\$400	
	WYOMING	\$100-200	, ,		
	ALBERTA	\$70 (bide)	\$250	\$400-500	
	BRITISH COLUMBIA	\$100	,		
	MANITOBA	\$70	\$300	\$500 or \$125/ft	
	NORTHWEST TERRITORIES	\$100			
	ONTARIO	\$50-100	\$100-300	\$400+	
	QUEBEC	\$80			
	SASKATCHEWAN	\$100	2300	\$600	
	YUKON TERRITORY	\$100			
PAWS (each)		\$5-35	\$5-50	\$25-60	
	ALASKA	\$5-10		\$60	
	ARIZONA	210	\$20	\$30+	
	CALIFORNIA	\$20	\$25-30	\$50	
	MICHIGAN	\$10-15	*** **	*** **	
	MINNESOTA	\$5-10	\$25-50	\$50-60	
	MONTANA NEW JERSEY	\$5	28	<b>\$</b> 25-45	
	OREGON	\$5-8		343-43	
	PENNSYLVANIA	33.0	\$5-10		
	UTAH	\$25-35	** **		

TABLE 24. INFORMATION ON PRICES OF BLACK BEARS AND BLACK BEAR PARTS (continued)

Item	State/Province/Territory	À	MOUNT OF MONEY REC	EIVED BY:
		Hunter	Middleman	Retailer
PAWS (each)		\$5-35	. \$5-50	\$25-60
	ALBERTA	\$5-10		
	BRITISH COLUMBIA MANITOBA	\$5		
	ONTARIO	\$25		
	3.44.22	\$5+	\$10+	\$100+
SKULLS (each)		\$10-\$0	\$10-200	\$50-500
	ALASKA	\$10-25		\$75-100
	ARIZONA	\$40-50	\$50-60	\$60+
	CALIFORNIA IDAHO	\$20	\$25-30	\$50
	MINNESOTA	\$10		
	MONTANA	\$10	\$35	\$60
	NEW JERSEY	\$25-50		
	NEW YORK			\$75 \$50+
	PENNSYLVANIA		\$10-15	\$307
	UTAH	\$25-50	\$100-200	\$300-500
TEETH (each)		\$0-20	\$3-30	\$4-100
	ALASKA		20.24	3-100
	ARIZONA	\$5		\$25-50
	IDAHO	\$1-2	\$3-4	\$4+
	MAINE	\$1,50 \$3-6	hunter of an + 100/	
	MICHIGAN	\$5-20	hunter price + 10% \$20-30	\$50-100
	MINNESOTA	SI	\$5	\$10
	MONTANA NEW JERSEY	\$2/fang		•••
	NEW YORK			\$5
	OREGON	\$0-2		\$5
	PENNSYLVANIA	\$2-3	ec 10	
	UTAH	\$5-15	\$5-10 \$10-25	\$25-50
	VIRGINIA	\$1-5	0.0-25	\$23-30
	WEST VIRGINIA WISCONSIN	\$10		
		\$2	\$5	
	ONTARIO	\$5-10		
CLAWS (each)		\$0-125	\$2-100+	\$5-100+
	ALASKA	\$5		\$50
	ARIZONA	\$4-5	\$5-6	\$10+
	CALIFORNIA IDAHO	\$2-5		\$8-10
	MAINE	\$2		
	MICHIGAN	\$1.50-4 \$4	hunter price +10% \$5-8	\$10+
	MINNESOTA	\$1	23	\$12
	MONTANA	\$5-125		***
	NEW JERSEY NEW YORK			\$5-15
	NORTH CAROLINA	\$0-1		
	OREGON	\$2-3	\$10	\$20
	PENNSYLVANIA	42-4	\$5-10	
	UTAH	\$1-5	\$5-15	
	VIRGINIA WEST VIRGINIA	\$5		
	WISCONSIN	\$10		
	WYOMING	5 \$10	\$10	\$35-100/product
	ALBERTA	\$1-4	\$2-10	
	MANTTOBA	\$1-1.50	\$3	\$5-6
	NEWFOUNDLAND NOVA SCOTIA	\$5 (max.)	<del>*-</del>	45.5
	NOVA SCOTIA ONTARIO	\$1		
	QUEBEC	\$2.50 \$3.50	\$100+	\$100+
	SASKATCHEWAN	\$2.50 \$3-5	\$10	\$25 Gn !1>
		4	310	\$25 (in jewelry)

TABLE 24. INFORMATION ON PRICES OF BLACK BEARS AND BLACK BEAR PARTS (continued)

Îtem	State/Province/Territory	AMOUNT OF MONEY RECEIVED BY:				
	·	Hunter	Middleman	Retailer		
LIVE BEARS (each)		\$100-300	\$50-1000s	\$50-10000s		
	ARIZONA KANSAS MICHIGAN MINNESOTA MONTANA PENNSYLVANIA	\$100 \$150-300	\$400+ . \$500 \$200-1200	\$300-1000 \$400+ \$700 \$2,000		
	WISCONSIN	\$250	\$1,000	32,000		
	ALBERTA ONTARIO	\$100s	\$50 (orphans) \$1000s	\$50-75 (U.S. 200) \$10000s		

TABLE 25. SUBJECTIVE ASSESSMENT OF THE IMPACT OF POACHING ON BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA

State/Province/Territory	Diminishing no.			
	surplus bears?	Population	Decline below	Decreasing opportunity
!	(a)	diminishing?	rapid recovery?	for legal hunting?
	(4)	(b)	(c)	(g)
				-
ALABAMA		No		
ALASKA	No	No	No	No
ARIZONA	Yes		No	Do not know
ARKANSAS	Yes	Yes	No	Do not know
CALIFORNIA	No	No	No	Yes
COLORADO	110	No	No	No
CONNECTICUT				Yes
FLORIDA	No		No	No
GEORGIA	ING	No	No	No
IDAHO	**			, No
KENTUCKY	Yes		No	Do not know
LOUISIANA				NA/NR
MAINE	No	No	No	No
MARYLAND	No	· No	No	
MASSACHUSETTS	No	No	No	No
			110	Do not know
MICHIGAN		_		No
MINNESOTA	No	No	37-	No
MISSISSIM			No	Yes
MISSOURI				Do not know
MONTANA	No	37.		No
NEBRASKA		No	No	Yes
NEVADA	No			Do not know
NEW HAMPSHIRE	No	No	No	No
NEW JERSEY	140	No	No	No
NEW MEXICO	37-		No	No
NEW YORK	No	No	No	No
NORTH CAROLINA	No	No	No	No
NORTH DAKOTA		No	No	Yes
оню		•		No
OKLAHOMA				No
OREGON			No	
PENNSYLVANIA	No	No	No	No
RHODE ISLAND			210	No
				No
SOUTH CAROLINA	No	No	No	NAMR
TENNESSEE	Yes	No	No	No
TEXAS		•10	140	Yes
UTAH				No
VERMONT	No	No		Yes
VIRGINIA		NO	No	No
WASHINGTON				Yes
WEST VIRGINIA	No			Do not know
WISCONSIN	Yes	No	No	No
WYOMING	163	No		Yes
				No
ALBERTA				
BRITISH COLUMBIA	No	No	No	Do not know
MANITOBA		No	No	No No
NEWFOUNDLAND	Yes	No	No	No
NORTHWEST TERRITORIES	No	No	No	NA/NR
NOVA SCOTIA	No	No	No	No
ONTARIO	No	===	110	No
QUEBEC	No	No	37-	No
SASKATCHEWAN	·	110	No	No
YUKON TERRITORY	No	No	.,	No
	***	1/0	No	Do not know

### TABLE 25, SUBJECTIVE ASSESSMENT OF THE IMPACT OF POACHING ON BLACK BEAR POPULATIONS IN THE UNITED STATES AND CANADA

- (a) "In your estimation, is illegal hunting of black bear in your state diminishing the number of surplus bears available to sport hunters?" (TRAFFIC 1989)
- (b) "In your estimation, is illegal hunting of black bear in your state diminishing
- (b) In your estimation, is integal numming of olack dear in your state diminishing populations in heavily hunted areas to a point below rapid recovery?" (TRAFFIC 1989)

  (c) "In your estimation, is illegal hunting of black bears in your state causing serious statewide population declines?" (TRAFFIC 1989)

  (d) "Is illegal killing decreasing the opportunities for legal sport harvesting of black bear in your state/province?"

#### Comments/Additional information

CALIFORNIA IDAHO MAINE MINNESOTA

MONTANA

(1989) Evidence indicates that the population is increasing.
(1989) Level is not significant enough to cause a change in season structure.
(1989) Commercial values do appear to be causing pressure on populations beyond legal.
(1989) Population appears to be increasing.
(1989) Hunting seasons have been reduced and quotas established in some areas to reduce.

## TABLE 26. MAXIMUM JAIL SENTENCES UNDER STATE, PROVINCIAL, TERRITORIAL LAW IF CONVICTED OF ILLEGAL TAKING/KILLING OF BLACK BEAR

State/Province/Territory	Maximum jail sent 0-3 months	ence if convicted of iller	gal taking/killing of blac 6-12 months	k bear 1 year+	No auswer	No.
				1 year .	I to answer	Not applicable
ALABAMA					x	
ALASKA ARIZONA				X		
ARKANSAS			X X			
CALIFORNIA				X		
COLORADO CONNECTICUT	X			<b>X</b>		
DELAWARE	的多种种类型程序的					X
FLORIDA GEORGIA		X				were the second of the second
HAWAII				X		X
IDAHO)		<b>X</b> -3				
INDIANA						X
IOWA			A WALLEY MAN HANDER OF STREET THE		X	- X
KANSAS KENTUCKY		α <u>ΕΧ</u>				
LOUISIANA		X				
MAINE MARYLAND			X			
MASSACHUSETTS		X X				
MICHIGAN	<b>X</b>					
MINNESOTA MISSISSIPPI				X		
MISSOURI				X X		
MONTANA NEBRASKA		X				
NEVADA				<b></b>	X Certain	
NEW HAMPSHIRE	X			GENTAN SERVICES		
NEW JERSEY NEW MEXICO		X				
NEW YORK				<b>x</b> -1.		
NORTH CAROLINA NORTH DAKOTA				X		
OHIO	CONTRACTOR				X	
OKLAHOMA	- X - X					
OREGON PENNSYLVANIA	X	eliki ining pelangkani	X			**************************************
RHODE ISLAND	X					
SOUTH CAROLINA SOUTH DAKOTA	X			X		
TENNESSEE				iakara		
TEXAS UTAH				X		*****
VERMONT				X 🚊	X	
VIRGINIA			ja karantari karanta			
WASHINGTON WEST VIRGINIA	ver en			X		
WISCONSIN		X		20 10 - 10 10 10 10 10 10 10 10 10 10 10 10 10		
WYONING.				<b>X</b>		
		X				
	X				X	
NEWFOUNDLAND		X				
	TATAS TRANSPORTE			X		
ONTARIO						
PRINCE EDWARD ISLAND						X
SASKATCHEWAN	A TOTAL CONTRACTOR OF THE SECOND CONTRACTOR OF					
YUKON TERRITORY				es 1 <b>X</b> - 1.		
NORTHWEST TERRITORIES NOVA SCOTIA ONTARIO PRINCE EDWARD ISLAND QUEBECT SASKATCHEWAN	X X X	X		X	x	

### TABLE 26. MAXIMUM JAIL SENTENCES UNDER STATE, PROVINCIAL, TERRITORIAL LAW IF CONVICTED OF ILLEGAL TAKING/KILLING OF BLACK BEAR

### Comments/Additional Information

ALASKA Maximum sentence is one year. ARIZONA Selling bear/parts is a felony. CALIFORNIA Sentence can be jail and/or fine.

COLORADO Illegal sale/destruction is a felony; maximum sentence up to 4 years and/or \$1000-\$100000 fine.

FLORIDA Maximum sentence is five years and/or \$5000 fine where classified as threatened.

GEORGIA Maximum sentence is one year which can be increased if violation of high/aggravated nature.

KANSAS Maximum sentence is 0-6 months.

LOUISIANA Maximum fine would also include court costs.

MASSACHUSETTS Maximum sentence is 6 months and/or fine of \$100-1000 plus restitution fee of \$300 (at court's discretion).

MISSISSIPPI Maximum sentence is one year.

MISSOURI Possible felony violation with multi-year sentences.

NEW HAMPSHIRE No jail sentence provided in regulations. NEW JERSEY No jail sentence provided in regulations.

NORTH CAROLINA Maximum sentence not to exceed two years plus \$1035 replacement cost. PENNSYLVANIA No jail sentence provided in regulations.

SOUTH CAROLINA Maximum sentence is two years. SOUTH DAKOTA Maximum sentence of 30 days in jail. TEXAS Maximum sentence is two years.

UTAH Classed as third degree felony, sentences ranging from 0 to five years.

WISCONSIN Sentence for first offense is 3-6 months; sentence for second offense is 6-12 months.

WYOMING Maximum sentence is one year (first degree misdemeanor).

BRITISH COLUMBIA Mandatory court appearance; sentence at discretion of judge.

NEWFOUNDLAND First offense carries fine with jail term resulting if payment is defaulted.

NORTHWEST TERRITORIES Maximum sentence is one year.

# TABLE 28. ARRESTS, CONVICTIONS AND PENALTIES FOR ILLEGAL TAKING OR KILLING OF BLACK BEAR IN THE UNITED STATES AND CANADA 1984-1991

State/Province/Territory (name appears in bold if gallbladders have been seized in arrests)		1984		5 198 Sheeline		7 1988	1989	1990	1991
ARIZONA	Arrests/convictions Average fine (\$)	12/10 135					17/13 120-625	10/8 180-700	9/4 280-600
ARKANSAS	Arrests/convictions Average fine (S)				1/: 1000		2/2 500	3 <i>1</i> 2 500	3/3 500
CALIFORNIA .	Arrests/convictions Average fine (\$)	34/? 350	50/7 350				34/34 Unknown	33/33 Unknown	30/30 Unknown
COLORADO	Arrests/convictions Average fine (\$)						8/7 685	13/10 685	9/9 685
FLORIDA	Arrests/convictions Average fine (S) Average jail sentence						1/0 180	2/2 400-500 12 days and 40 days house arrest	2/i 180-550 30 days house arrest
GEORGIA	Arrests/convictions Average fine (S) Average jail sentence	÷					1/1 400 0		1/1 500 0*
IDAHO	Arrests/convictions Average fine (\$)		17/14 77	14/I1 81	9/6 154	11/8 106	10/10 100-472	18/18 25-500	6/6 100-300
LOUISIANA	Arrests/convictions Average fine (\$)		1/0			1/1 500	0/1 350	1/0	
MAINE	Arrests/convictions Average fine (S)	7/7 200	8/8 200	21/21 200					
MARYLAND	Arrests/convictions				1/1		1/1	1/I	
MICHIGAN	Arrests/convictions Average fine (\$)						4/7 ~300	6/? ~300	7/? ~300
MINNESOTA	Arrests/convictions Average fine (\$)						35/31 20-3000	51/47 10-3000	35/34 15-1000
MISSOURI	Arrests/convictions Average fine (\$)						1/I 430		
MONTANA	Arrests/convictions Average fine (\$) Average jail sentence	· 1/1 300	6/6 50	9/7 75	2/2 100	6/6 400	10/10 65-500	13/13 15-400 30-180 days	25/25 60-600 30-180 days
NEW HAMPSHIRE	Arrests/convictions Average fine (\$)		20/12 250			11/11 200			·
NEW JERSEY	Arrests/convictions Average fine (\$)			1/1 100					•
NEW YORK	Arrests/convictions Average fine (\$) Average jail sentence	6/6 1000	4/2 1000	6/3 1000	12/9 1000	5/4 1000	4/4 75-1000 10 days	8/8 250-1000	6/6 500-1000
NORTH CAROLINA .	Arrests/convictions Average fine (\$)	37/32 200	54/50 1 300	12/79 1 300	141/85 <b>3</b> 75	67/45 100	20/6 100-500	15/7 100-500	10/5 100-500
ОНЮ	Arrests/convictions Average fine (\$)							3/3 100-200	
OREGON	Arrests/convictions Average fine (\$) Average jail sentence					9/9 200	18/16 50-1205 1 month	8/7 247-750 2-10 days	10/4 150-200
PENNSYLVANIA	Average fine (\$)						800-1200	800-1200	800-1200

### table 28, arrests, convictions and penalties for illegal taking or killing of black bear in the united states and canada 1984-1991 $\,$ (continued)

State/Province/Territory		1984	1985		1987	1988	1989	1990	1991
(Sheeline 1990)									
SOUTH CAROLINA	Arrests/convictions Average fine (\$)							4/4 500	
TENNESSEE	Arrests/convictions						40/?	25/?	44/?
UTAH	Arrests/convictions Average fine (S) Average jail sentence	-					10/7 80-2500 0-5 days	9/8 38-1000 0-5 days	<i>7/</i> 3 54-70
WEST VIRGINIA	Arrests/convictions Average fine (\$) Average jail sentence						4/4 500-1000	9/9 500-1000 60 days	5/5 500-1000
WISCONSIN	Arrests/convictions Average fine (\$)	33/29 393	26/22 519	42/40 457	46/43 236	71/65 218	14/7 70-970	. 0	10/? 265-1560
ALBERTA	Arrests/convictions Average fine (\$)	1/I 150	3/3 120	5/4 113	4/3 67	4/4 288	2/1 100	12/5 150-500	25/19 25-1850
NEWFOUNDLAND	Arrests/convictions Average fine (\$)							· 1/1 200	
ONTARIO	Arrests/convictions Average fine (\$)						20+/18-20 500-1500	20+/18-20 500-1500	15+/15 500-1500
QUEBEC	Arrests/convictions	8/?	12/?	22/?	13/?				
SASKATCHEWAN	Arrests/convictions Average fine (\$)						0/4 1000-2000	0/4 530-1100	0/5 230-260
YUKON TERRITORY	Arrests/convictions Average fine (\$) Average jail sentence						3/3 100-500	3/3 100-5000 1 day	3/3 1000 10 days

#### Comments/Additional Information

FLORIDA Adjudication withheld in one case in 1989 and 1991.

GEORGIA One year probation in 1991.

MICHIGAN Fine does not include restitution of \$1500.

MINNESOTA Jail sentences not tracked in system but range from 0-30 days (misdemeanor) to one year (gross misdemeanor).

MISSOURI Sentence also included 24 months probation and 90 day suspension.

All sentences suspended.

MONTANA NEW YORK PENNSYLVANIA 1989 sentence for illegal sale also included \$6250 fine.

Prosecutions are standardized (killing game in closed season); difficult to determine the number of bear violations out of 10,000.

### TABLE 27. MAXIMUM MONETARY FINES UNDER STATE, PROVINCIAL, TERRITORIAL LAW IF CONVICTED OF ILLEGAL TAKING/KILLING OF BLACK BEAR

State/Province/Territory	Maximum mo \$1-249	netary fine if con \$250-499	victed of illegal taki \$500-999	ing/killing of black bear \$1000-2000	\$2000+	No answer	Not applicable
ALABAMA						<b>x</b>	
ALASKA					X		
ARIZONA			X		eriares e como en		
ARKANSAS CALIFORNIA				and the second	X		
COLORADO					X X		
CONNECTICUT	X						
DELAWARE		,					<u> X.i.s.</u>
FLORIDA GEORGIA		X x		il a la XIII de la Company			
HAWAII IDAHO			in Algoria	74. 30 <b>X</b> 2. 30			X
ILLINOIS INDIANA							X 
IOWA KANSAS						X	
KENTUCKY	<del></del>	on the section and the section of th	<u> </u>	X .	occidence obtigger		国立2000年2000年2000年2000日 日本1200年200日
LOUISIANA					$\mathbf{X} = \mathbf{X}$		
MAINE MARYLAND				X		la combination of the	
MASSACHUSETTS	<b>公共工业会区域</b>				X		
MICHIGAN				X			
MINNESOTA	uton in Pain Willia			and the second second second second	X		
MISSISSIPPI MISSOURI			X	×			
MONTANA NEBRASKA				X		X	
NEVADA NEW HAMPSHIRE				7 (1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			
NEW JERSEY NEW MEXICO		X X					
NEW YORK					X		
NORTH CAROLINA NORTH DAKOTA					X	XX	
OHIO OKLAHOMA		X		X	a (Paris)		
OREGON PENNSYLVANIA				$oldsymbol{x}^{(i)}$	X		
RHODE ISLAND SOUTH CAROLINA		X			'. <b>'. '.</b>		
SOUTH DAKOTA	X						
TENNESSEE TEXAS		SPECTAL STATES			X		
UTAH					X		
VERMONT						<b>X</b>	
VIRGINIA WASHINGTON			<b>多數與對於於數</b> 性	OPCHARACIONAL X			
WEST VIRGINIA WISCONSIN				A CONTRACTOR	x		
WYONGNG	loris (23 pagtaris) (An Agis (Caranis)		iden pri krazy bróm (1964) Lodia y deposits achoesa	Z. Z.		270-704-57-15-16 NASSESSESSESSESSESSESSESSESSESSESSESSESSE	
ALBERTA		referência vez ser			eir life in die kan den		záckáskánka przek podkaznaczne
ALBERTA BRITISH COLUMBIA			X				
MANITOBA					<b>X</b>		
NEWFOUNDLAND NORTHWEST TERRITORIES			X	- X			
NOVA SCOTIA	A CHANG				X Salaxa 4		
PRINCE EDWARD ISLAND					X		X
SASKATCHEWAN					x	u en	
YUKON TERRITORY	era Austr	POSSESSEE AND ADDRESSEES		PHOTOGRAPHICAL TOTAL	<b>X</b>		ing ita state praesan

#### TABLE 27. MAXIMUM MONETARY FINES UNDER STATE, PROVINCIAL, TERRITORIAL LAW IF CONVICTED OF ILLEGAL TAKING/KILLING OF BLACK BEAR (continued)

### Comments/Additional Information

ALASKA Maximum fine is \$5000.

CALIFORNIA Maximum fine is \$5000 and/or jail sentence. COLORADO Maximum fine is \$1000-100000 and/or jail sentence.

FLORIDA Maximum fine is \$5000 and/or jail sentence where classified as threatened.

KANSAS Maximum fine is \$0-1000.

LOUISIANA Maximum fine to also include court costs and additional civil restitution of \$5000.

Maximum fine is \$1000-5000 per bear and/or jail sentence plus restitution of \$300 (at court's discretion); MASSACHUSETTS

illegal commerce in bears/parts is punishable by a fine of \$1000-5000. MINNESOTA

Maximum fine plus restitution.

OHIO Maximum fine plus minimum \$50 restitution. OREGON

Maximum fine is \$2500. SOUTH CAROLINA Maximum fine is \$2500. TENNESSEE Maximum fine is \$2500. **TEXAS** Maximum fine is \$2000. UTAH

Maximum fine is \$5000 plus restitution. WISCONSIN

Maximum fine is \$3000 for first offense; \$5000 for second offense.

ALBERTA Maximum fine is \$100000.

BRITISH COLUMBIA Mandatory court appearance; \$500 is recommended fine determined at judge's discretion. Maximum fine is \$3000. MANITOBA

NEWFOUNDLAND Fine indicated is for first offense. ONTARIO Maximum fine \$25,000.00.

Maximum fine is \$5475 for first offense; \$5475-16400 for repeat offenses. OUEBEC SASKATCHEWAN

Maximum fine is \$5000. YUKON TERRITORY Maximum fine is \$10000.

### TABLE 28, ARRESTS, CONVICTIONS AND PENALTIES FOR ILLEGAL TAKING OR KILLING OF BLACK BEAR IN THE UNITED STATES AND CANADA 1984-1991

State/Province/Territory		1984	1985	1986	1987	1988	1989	1990	1991
(name appears in bold if			(S	heeline	1990)				
galibladders have been seized			•						
in arrests)							,		
							`	•	
ARIZONA	Arrests/convictions	12/10	9/8	8/5	15/6	8/4	17/13	10/8	9/4
	Average fine (\$)	135	169	170	205	1545	120-625	180-700	280-600
									200 000
arkansas	Arrests/convictions				1/1		2/2	3/2	3/3
	Average fine (\$)				1000		500	500	500
	•				.000		,00	500	300
CALIFORNIA	Arrests/convictions	34/7	50/7	53/2	62/?	78/?	34/34	33/33	2000
	Average fine (5)	350	350	350					30/30
	11.0.250 11.10 (0)	330	330	330	330	330	Unknown	Unknown	Unknown
COLORADO	Arrests/convictions			٠					
	Average fine (5)						8/7	13/10	9 <i>1</i> 9
	Average line (3)						685	685	685
FLORIDA	Arrests/convictions								
LEGICEM							1,60	2/2	2/1
	Average fine (\$)						180	400-500	180-550
	Average jail sentence							12 days and	30 days
								40 days house arrest	house arrest
GEORGIA									
GEORGIA	Arrests/convictions						<b>i/</b> 1		1/1
	Average fine (\$)						400		500
	Average jail sentence					•	0		0*
	•								
IDAHO	Arrests/convictions		17/14	14/11	9/6	11/8	10/10	18/18	6/6
	Average fine (\$)		77	81	154	106	100-472	25-500	100-300
		-							
LOUISIANA	Arrests/convictions		1/0			1/1	0/1	1/0	
	Average fine (5)					500	350		
MAINE	Arrests/convictions	7/7	8/8	21/21	16/16				
	Average fine (\$)	200	200	200					
•	,								
MARYLAND	Arrests/convictions				1/1		1/1	1/1	
					171		171	#11	•
MICHIGAN	Arrests/convictions						4/7	677	40
,	Average fine (S)								7/1
•	111 01480 1140 (0)						~300	~300	-300
MINNESOTA	Arrests/convictions						2/81		4.516.4
	Average fine (\$)						35/31	51/47	35/34
	Average mie (3)						20-3000	10-3000	15-1000
MISSOURI	1								
MISSORI	Arrests/convictions						1/1		
	Average fine (\$)						430		
MONTANA	A								
MONTANA	Arrests/convictions	- 1/1	6/6	9/7	2/2	6/6	10/10	13/13	25/25
	Average fine (\$)	300	50	75	100	400	65-500	15-400	60-600
	Average jail sentence						•	30-180 days	30-180 days
Manager Commen									
NEW HAMPSHIRE	Arrests/convictions		20/12			11/11			
	Average fine (\$)		250			200			
									•
NEW JERSEY	Arrests/convictions			1/1					
	Average fine (\$)			100					
NEW YORK	Arrests/convictions	6/6	4/2	6/3	12/9	5/4	4/4	8/8	6/6
	Average fine (5)	1000	1000	1000	1000	1000	75-1000	250-1000	500-1000
	Average jail sentence						10 days		
							•		
NORTH CAROLINA	Arrests/convictions	37/32	54/50	112/79	141/85	67/45	20/6	15/7	10/5
	Average fine (5)	200	300	300	375	100	100-500	100-500	100-500
оню	Arrests/convictions							3/3	
	Average fine (5)						•	100-200	
								•	
OREGON	Arrests/convictions					9/9	18/16	8/7	10/4
	Average fine (\$)					200	50-1205	247-750	150-200
	Average jail sentence						1 month	2-10 days	
								2	
PENNSYLVANIA	Average fine (\$)						800-1200	800-1200	800-1200

TABLE 28, ARRESTS, CONVICTIONS AND PENALTIES FOR ILLEGAL TAKING OR KILLING OF BLACK BEAR IN THE UNITED STATES AND CANADA 1984-1991 (continued)

State/Province/Territory		1984	1985	1986		1988	1989	1990	1991	
(Sheetine 1990)										
SOUTH CAROLINA	Arrests/convictions Average fine (\$)							4/4 500		
TENNESSEE	Arrests/convictions						40/?	25/?	44/7	
UTAH	Arrests/convictions Average fine (\$) Average jail sentence						10/7 80-2500 0-5 days	9/8 38-1000 0-5 days	7/3 54-70	
WEST VIRGINIA	Arrests/convictions Average fine (\$) Average jail sentence						4/4 500-1000	9/9 500-1000 60 days	5/5 500-1000	
WISCONSIN .	Arrests/convictions Average fine (\$)	33/29 393	26/22 519	42/40 457	46/43 236	71/65 · 218	14/7 70-970	3 <i>n</i> 0	10/7 265-1560	
ALBERTA	Arrests/convictions Average fine (\$)	1/I 150	3/3 120	5/4 113	4/3 67	4/4 288	2/I 100	12/5 150-500	25/19 25-1850	
NEWFOUNDLAND	Arrests/convictions Average fine (\$)							. 1/1 200		
ONTARIO	Arrests/convictions Average fine (\$)						20+/18-20 500-1500	20+/18-20 500-1500	15+/15 500-1500	
QUEBEC	Arrests/convictions	8/?	12/?	. 22/7	13/?					
SASKATCHEWAN	Arrests/convictions Average fine (\$)			-			0/4 1000-2000	0/4 530-1100	0/5 230-260	
YUKON TERRITORY	Arrests/convictions Average fine (\$) Average jail sentence						3/3 100-500	3/3 100-5000 1 day	3/3 1000 10 days	

### Comments/Additional Information

FLORIDA GEORGIA Adjudication withheld in one case in 1989 and 1991.

One year probation in 1991.

MICHIGAN Fine does not include restitution of \$1500.

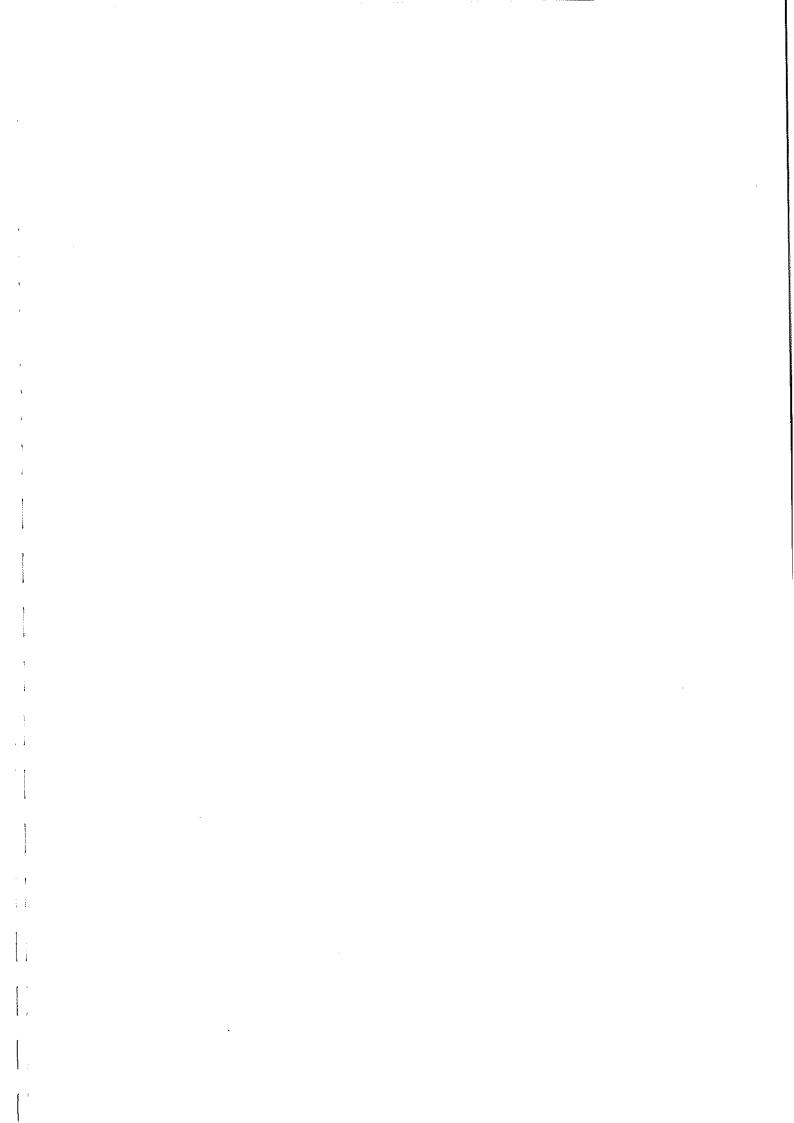
MINNESOTA

Jail sentences not tracked in system but range from 0-30 days (misdemeanor) to one year (gross misdemeanor).
Sentence also included 24 months probation and 90 day suspension. MISSOURI

MONTANA NEW YORK All sentences suspended.

1989 sentence for illegal sale also included \$6250 fine.

Prosecutions are standardized (killing game in closed season); difficult to determine the number of bear violations out of 10,000. PENNSYLVANIA



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