Chapter 8

American Black Bear Conservation Action Plan

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IUCN Category: Lower Risk, least concern CITES Listing: Appendix II Scientific Name: Ursus americanus Common Names: American black bear, oso negro americano, ours noir americain

Introduction

Physical description: Black bears are plantigrade, pentadactyl, and have short (2–3cm), curved, nonretractable claws. Average weights range from 40 to 70kg for adult females and from 60 to 140kg for adult males; an occasional adult male will exceed 250–300kg. Full skeletal growth is reached at four to five years for females and six to seven years for males, although weights for both sexes may continue to increase for an additional two to three years. Fur is normally uniform in color except for a brown muzzle and an occasional white blaze on the chest. A black color phase predominates in the eastern portion of the range and brown, cinnamon, or blond phases tend to be more prevalent in the western portion of the range. Unique white-bluish phases occur on the Pacific coast in northwestern North

America. The dental formula is 3/3, 1/1, 4/4, 2/3 = 42. The first three premolars of each jaw are usually rudimentary. Dentition is bunodont not flattened. Black bears have a relatively straight facial profile. Ears are small, rounded, and erect. Eyes of young are blue but turn rich brown with maturation. The tail is short and inconspicuous.

Reproduction: Black bears breed in summer. Females have been detected in estrus as early as mid-May and as late as mid-August. Black bears are promiscuous breeders, and males often have brief fights over a receptive female. Females are induced ovulators and exhibit delayed implantation. The gestation period is seven to eight months; the blastocyst implants in late November to early December with a six to eight week period of fetal development before birth from mid-January to mid-February. Females have



Marked American black bear (*Ursus americanus*) in Banff National Park, Alberta, Canada. six functional mammae. The normal litter size is two, but litters of three or four young are not uncommon. Young stay with their mother 16 to 17 months before dispersing, thus females typically breed every other year. Age at sexual maturity, breeding interval, and litter size are all related to food quality. Poor nutrition causes a delay in sexual maturity from three years to six or seven years of age, and decreased litter sizes from 3-4 to 1-2 cubs, and in some instances, a total lack of reproduction.

Social behavior: Black bears are normally solitary animals except for female groups (female and young), breeding pairs in summer, and congregations at feeding sites. Adult females establish territories during summer. Temporal spacing is exhibited by individuals at other times of the year and is likely maintained through a dominance hierarchy system. Larger bears dominate smaller bears with threatening gestures (huffing sounds, chopping jaws, stamping feet, or charging). Actual fights are uncommon except among males competing for females and a female protecting her young. Family groups communicate using a variety of sounds such as the "purring" of young when nursing, squalling of young when threatened or uncomfortable, and a low grunting sound by the female to assemble her young. Tree marking is another form of communication that peaks during the summer. The ritualistic nature of this biting, clawing, and rubbing behavior, its intensity, and its defined location suggest that it is associated with some important aspect of the social structure of a black bear population. Why black bears mark objects is still open to question. Black bears are normally crepuscular but breeding and feeding activities may alter this pattern seasonally.

Habitat preferences: Prime black bear habitat is characterized by relatively inaccessible terrain, thick understory vegetation, and abundant sources of food in the form of shrub or tree-borne soft or hard mast. Black bears are very adaptable and have maintained populations surprisingly well in the presence of humans where their numbers are not overharvested. If quality habitats consisting of some form of refuge are not available, local populations succumb to the intolerance of humans. In the southwestern portion of the range, characteristic habitats consist of chaparral and pinyon-juniper woodland sites. In the southeastern portion of the range, habitat is characterized by oak-hickory and mixed-mesophytic forests in mountainous areas and on low, coastal sites with a mixture of flatwoods, bays, and swampy hardwoods. In the northeastern portion of the range, black bears inhabit beech-birch-coniferous forests and swampy areas of white cedar. The spruce-fir forest dominates much of the habitats of this species in the Rocky Mountains. Along the Pacific coast, redwood, sitka spruce, and hemlock predominate as overstory cover. Throughout the range of this species in North America, preferred habitats consistently have thick, sometimes almost impenetrable, understory vegetation encompassing part of their habitat. This understory ranges from impenetrable pocosin or Ti-Ti swamps, to thick laurel "hells", to white cedar bogs, to steep, dry chaparral ridges, to young or stunted spruce-fir "thickets". As the pressures of human activities increase, the importance of these sites in providing both refuge cover and food also increases.

Historic range, current distribution and status

The American black bear historically occupied most forested regions of North America (Hall 1981) (Figure 8.1). The present distribution of the species is primarily restricted to less settled, forested regions (Pelton 1982) (Figure 8.1). Based on 1993 survey responses from each province in Canada, black bears inhabit much of their original range, however they are absent from the southern farmlands of Alberta, Saskatchewan, and Manitoba. The black bear was extirpated from Prince Edward Island in 1937, and consequently, will not be considered in this report. Based on 1993 survey responses from seven provinces, the total black bear population is 327,200 to 341,200 (Table 8.1). This estimate does not include bear populations in New Brunswick, Northwest Territories, Nova Scotia, and Saskatchewan whose population sizes are unknown. All provinces indicated stable populations of black bears over the last decade.

In the eastern United States, the current range of the black bear is continuous throughout most of New England, but exhibits increasing levels of fragmentation southward through the middle Atlantic and southeastern states. Nevertheless, this distribution seems to have expanded during the last decade (Maehr 1984). Based on the 1993

survey responses.								
Province Popula	tion estimate	Trend						
Alberta	39,600	Stable						
British Columbia	121,600	Stable						
Manitoba	25,000	Stable						
New Brunswick	Unknown	Stable/declining ^a						
Newfoundland	6,000–10,000	Stable						
Northwest Territories	Unknown	Stable						

Unknown

Unknown

60,000

10 000

65,000-75,000

Stable

Stable

Stable

Stable

Stable to increasing

Table 8.1. Population estimates and trends of

American	black bears in Canad	a, based on '	ľ
survey res	ponses.		
Drovince	Deputation actimate	Trand	

γ	′ukon	10,000	Stable
T	otal	327,200-341,200	
a	East and Northeas	t – stable; West and Cer	ıtral – declining.

Nova Scotia

Saskatchewan

Ontario

Québec



Figure 8.1. Historic and present distribution of black bears (Ursus americanus) in North America.

survey responses from 35 states, black bear populations are stable or increasing with the exception of Idaho and New Mexico. The total population estimate of black bears in the United States is between 186,881 and 206,751. This estimate does not include data from Alaska, Idaho, South Dakota, Texas, and Wyoming, whose population sizes are unknown.

Leopold (1959; Figure 8.1) believed that the range of the black bear in Mexico included the mountainous regions of the northern states of Sonora, Chihuahua, Coahuila, Tamaulipas, Nuevo Leon, and Durango, extending as far south as Zacatecas. He noted that the range may have previously extended further south, but may have been reduced due to hunting and habitat loss. Baker and Greer (1962) mentioned the possibility of a population in northern Nayarit, and Hall (1981) also included the additional southern states of San Luis Potosi and Aguascalientes. No recent attempt has been made to qualify the present distribution of the black bear in Mexico. As of 1993, known populations of black bears in Mexico exist in four areas. Distributions of other populations, as previously marked on Leopold's map (1959), have not been updated. Some isolated populations are increasing due to protection by private landowners. In general, however, the black bear is threatened due to an increasing human population, poaching, and extensive habitat loss.

Status and management of the black bear in Canada

Surveys were sent to bear biologists in all 12 Canadian provinces to request information on distribution and population status, legal status, population and habitat threats, population and habitat management, humanbear interactions, educational programs, and management recommendations. All provinces responsed.

Legal status

The black bear is considered both a big game and furbearer species in all provinces except New Brunswick and Northwest Territories, where they are designated as a big game species only. Black bears are regarded as a pest species in agricultural areas of Manitoba.

Population and habitat threats

There are no major threats to black bears in Canada. The general remoteness and lack of human settlement in much of Canada leaves vast expanses of undisturbed habitat for black bears. Some provinces, nevertheless, reported limited threats to the species on a local scale. Forest clearing for agriculture along the St. Lawrence river between Montreal and Québec City has caused loss of black bear habitat in Québec. Similarly, in New Brunswick, forest clearing and human development is responsible for some loss of black bear habitat. Saskatchewan and Yukon Territories also reported limited threats to black bears due to poaching and depredation kills. All other provinces reported minimal or no threat to black bear populations.

Population management

Hunting levels: All provinces hold both spring and fall hunting seasons, with a bear hunting license required. The estimated annual number of hunters varies greatly by province, and totals 80,822 across all of Canada (Table 8.2).

Harvest limitations: In all provinces, both sexes may be legally harvested using several methods (Table 8.3). However, there are some constraints regarding cubs-ofthe-year (COY) and females with young. With the exception of Saskatchewan, COY are not legal for harvest. Females with COY are not legal for harvest except in Nova Scotia

Table 8.2. Bag limits, number of hunters, and annual harvest of American black bears in Canada, based on											
1993 survey response Hunting, trapping, and mortality	°s	British Columbia	Manitoba	New Brunswick	Newfoundland	Northwest Territories	Nova Scotia	Ontario	Québec	Saskatchewan	Yukon
Annual bag limit	1, 2, 6°	1, 2 ^d	1 e	2	2	1	1	1	2	1	?
Hunters (No.) ^b Resident Non-resident Total Country total = 80,822	11,286 1,445 12,731	17,544 2,265 19,809	2,000 950 2,950	1,184 2,406 3,590	? ? -	? ? -	245 14 259	7,673 10,347 18,020	18,977 4,486 23,463	? ? -	? ? -
Harvest (no. killed) ^b Resident hunters Non-resident hunters Shot by trappers	1,458 925 79	3,270 795 * 2	600 700 200–400 ⁱ	195 768 ?	100 50 ?	30 ^f ?	88ª ?	1,565 5,198 14 ⁱ	2,424 ⁹ 656 ⁱ	1,300 ^g 250 ⁱ	87 ^h ?
Trapped Damage and nuisance Illegal/unreported Highway mortality	280 >1,000 ?	- 409 2 * ?	200–400 *	- 20–25 51 21	? >25 ? ?	- 10 *	58 ? 16 *	? ? ?	24 9 ?	<100 ? ?	? 14 ? 4
Total Country total = 23,198	3,742	4,474	1,900	1,060	175	40	162	6777	3,113	1,650	105

^a Based on most recent data available.

^b ? = unknown; - = not applicable; * = "insignificant".

° Bag limit of 1 or 2 depends on management unit; trappers on registered traplines may harvest 6 bears.

^d Bag limit of 1 or 2 depends on management unit.

^e On registered traplines annual harvest limit varies from >1 to unlimited.

^f Sport harvest figure includes resident and non-resident harvest. Native harvest termed "small".

⁹ Sport harvest figure includes resident and non-resident harvest.

^h Total harvest including resident hunters, non-resident hunters, and trappers.
 ⁱ Trapper harvest figure includes those shot and trapped by licensed trappers.



American black bears (Ursus americanus) eating at a garbage dump, British Columbia, Canada.

Table 8.3. Legal harvest methods of American black bears in Canada, based on 1993 survey responses.											
Hunting method	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland	Northwest Territories	Nova Scotia	Ontario	Québec	Saskatchewan	Yukon
Firearms	Xª	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Archery	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Bait	Xb		Х	Х	Х		Xc	Х	Х	Х	
Dogs		Х						Х	Х	Х	Х
Traps			Х		Х		Xď	Х	Х	Х	Х
 ^a X = Legal harvest method. ^b Designated management units only. ^c Hunting permitted only over registered bait sites. 											

^d Separate snaring license required.

and Saskatchewan. In Alberta, females with COY are protected on public lands, whereas in New Brunswick and Ontario they are protected only during the spring hunt. In Northwest Territories, females with yearlings are also protected. British Columbia and Yukon Territory protect bears less than two years of age and bears accompanied by bears less than two years. All other provinces allow harvest of females with yearlings.

Annual mortality: Annual black bear mortality in Canada exceeds 23,189 bears. Causes of mortality include hunting, trapping, road kills, and depredation kills.

Habitat management

Alberta is the only province currently managing habitat for black bears. Their management program consists of habitat inventory, protection, retention (integration of bear management goals with those of other resources), and enhancement (increase forest diversity through habitat manipulation).

Human-bear interactions

Encounters with black bears are inevitable where humans and black bears share the same territory. There have been 16 recorded nonfatal assaults by black bears and 14 human fatalities in Canada over the past few decades (Table 8.4).

Black bear damage and nuisance complaints commonly involve crop and livestock depredation, apiary damage, and garbage nuisance. Five provinces reported some level of damage and nuisance bear translocation. Alberta, British Columbia, and Saskatchewan reported fewer than 100

Table 8.4. Non-fatal and fatal attacks by American black bears on humans in Canada, based on 1993 survey responses.

Province	No. non-fa	ital attacks	No. fatal attacks
Alberta		12ª	5ª
British Colur	nbia	0ь	3 ^b
Manitoba		Unknown	Unknown
New Brunsw	/ick	0	0
Newfoundla	nd	2°	0°
Northwest T	erritories	"Rare"	0
Nova Scotia		0	0
Ontario		2 ^d	6
Québec		Unknown	Unknown
Saskatchewa	an "Excee	dingly rare"	0
Yukon		Unknown	Unknown
^a Data collecte	d since 1974.		

^b Data collected from 1980–1986.

^c Data collected since 1922.

^d No data on black bear attacks collected by province personnel.

translocations annually. New Brunswick estimated translocation of 50–60 bears annually whereas Nova Scotia estimated fewer than 15. Only Alberta allows for financial compensation to the landowner affected by damage and nuisance bears.

Educational programs and needs

Most black bear education programs in Canada center on camper safety. Five provinces publish brochures and other information to help reduce the risk of bear encounters in the backcountry. Additionally, Newfoundland is currently implementing a bear safety program for backcountry users. Educational videos and television programs about bears are available from Northwest Territories.

Provincial agencies want to expand existing educational programs about black bears. School and public presentations by wildlife officers are desired in New Brunswick, Newfoundland, Northwest Territories, and Saskatchewan. Also, the promotion of non-consumptive uses is desired in British Columbia, and strategies to help minimize black bear crop depredation are needed in New Brunswick. Finally, all provinces need readily available bear fact sheets and camper safety guidelines.

Management recommendations

Recommended management activities for the Canadian black bear vary widely based on the priorities of individual provinces (Table 8.5). The handling of nuisance bears and increase of nonconsumptive uses seem to be the most needed management actions.

Table 8.5. Future management activities recommended for American black bears in Canada, based on 1993											
survey responses. Recommended management	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland	Northwest Territories	Nova Scotia	Ontario	Québec	Saskatchewan	Yukon
Develop accurate, inexpensive censusing techniques	Xa			Х	Х		х			Х	Х
Management of nuisance bears	Х	Х	х	Х		х			Х		
Research impacts of consumptive and nonconsumptive use	х	х						х	х	х	
Research habitat selection on landscape basis	х			Х			Х			Х	
Research population dynamics			Х				Х			Х	Х
Continue/expand public education	Х	Х			х	х					
Eliminate trade of bear parts		Х									Х
Improve human waste management	Х	Х									
Collect better baseline data			Х				Х				
Protect den sites									Х		
^a X = Need indicated by province per-	sonnel.										

Table 8.6. American black bear harvest seasons and regulations in the United States of America (1992), based on 1993 survey results.

State	Season(s)	Notes
Alaska	1 Sept30 June OPEN 1 Sept25 May	Units 1, 2, 3, 5, 6 Units 7, 9, 11–13, 15–26 Unit 14A Dogs and baits require permits, harvesting females with cubs is prohibited, Bears may be killed in defense of life or property, bag limit for non-residents is 1 bear, residents 2 bears, only 1 of which can be glacier bear color phase
Arizona	1 Sept.–7 Sept. 1 Sept.–1 Dec. 1 April–16 April	Management units with small populations; hunting with baits prohibited Management units with large populations; hunting with baits prohibited 3 management units; hunting with baits or dogs prohibited
California	15 August–6 Sept. 10 Oct.–27 Dec.	Archery only; no dogs or bait Archery, rifle, pistol, and dogs allowed; no baiting Harvesting bears \leq 50 pounds and females with cubs prohibited
Colorado	2 Sept.–30 Sept. ≈ 10 Oct.–10 Nov.	Still hunting with weapon of choice Concurrent with deer and elk season
Florida	30 Nov.–11 Dec. 27 Nov.–24 Jan.	Apalachicola National Forest Baker and Columbia Counties
Georgia	14 Nov.–6 Dec. Last weekend Sept. and 1st 2 weekends Oct. 15 Dec. 19 Sept.–23 Oct.	 9 counties N. Georgia; hunting with dogs or baits prohibited 5 counties S. Georgia; Dogs allowed; hunting with baits prohibited Ocmulgee Wildlife Management Area; hunting with dogs or baits prohibited Archery hunting allowed on 9 wildlife management areas; additional bear hunting allowed with firearms on 9 N. Georgia wildlife management areas during 2, 4-day deer hunts
Idaho	15 April ≈ 15 May 15 April ≈ 7 June 15 Sept.–30 Sept. 15 Oct.–31 Oct. 15 Sept. ≈ 15 Oct.	Hounds, baiting, stalking, and still hunting allowed in all seasons
Maine	30 August–25 Sept. 13 Sept.–29 Oct. 30 Oct.–22 Nov.	Baiting, stalking, and still hunting allowed Hunting with dogs allowed Still hunting and stalking allowed
Massachusetts	2nd week Sept. (6 days) 3rd week Nov. (6 days)	Still hunting; dogs allowed Still hunting only
Michigan	10 Sept21 Oct.	Firearms, archery, dogs, and baiting allowed
Minnesota	1 Sept17 Oct.	Hunting with dogs prohibited; baiting can begin 2 weeks prior to the season
Montana	15 April–31 May 7 Sept.–1 Dec.	No hounds or baiting allowed in either season; archery and firearms allowed with no limitations on caliber
New Hampshire	1 Sept9 Nov. 1 Sept19 Sept. 20 Sept9 Nov. 16 Nov5 Dec.	Still hunting and stalking allowed Hunting with bait allowed Hunting with dogs allowed Still hunting and stalking allowed
New Mexico	1 Sept.–30 Oct.	No baiting or trapping
New York	18 Sept15 Oct. 23 Oct5 Dec. 27 Sept22 Oct. 16 Oct22 Oct. 27 Nov14 Dec. 15 Oct21 Nov. 15 Dec19 Dec.	Northern New York; all legal hunting implements Northern New York; archery season Northern New York; all legal hunting implements Northern New York; muzzleloading season Southern New York; all legal hunting implements Southern New York; archery season Southern New York; archery season Southern New York; archery season Still hunting, stalking, and driving allowed; hunting with dogs or bait prohibited in all seasons
North Carolina	9 Nov.–1 Jan.	5 seasons in different parts of the state that range in length from 6 days to the entire interval; firearms (including handguns), archery, dogs, and still hunting allowed; Dogs prohibited

State	Season(s)	Notes
Oregon	1 Sept.–30 Nov. 15 May–30 June OR	Firearms, archery, dogs, and baiting allowed Controlled spring seasons; firearms, archery, dogs, and baiting allowed 1 April–15 May
South Carolina	3rd week Oct. (6 days) 4th week Oct. (6 days)	Still hunting Dogs allowed
Tennessee	12 Oct.–16 Oct. 2 Dec.–15 Dec.	Dogs allowed Dogs allowed
Utah	28 August–12 Oct. 6 Nov.–30 Nov.	Bait, dogs, and stalking allowed Bait, dogs, and stalking allowed
Vermont	1 Sept. ≈ 17 Nov.	Season closes 5th day of regular deer season; baiting and trapping are not allowed
Virginia	9 Oct.–6 Nov. 29 Nov.–1 Jan. 22 Nov.–1 Jan. 29 Nov.–1 Jan.	Archery Archery Gun season without dogs Gun season with dogs
Washington	1 August–31 Oct. 1 Sept.–25 Oct. 1 August–31 August	Western Washington; any legal big game weapon, bait, and hounds allowed Eastern Washington; any legal big game weapon, bait, and hounds allowed Northeast Washington; pursuit only, no harvest
West Virginia	6 Oct.–20 Nov. 6 Dec.–31 Dec.	Bow hunting (no dogs) Gun hunting (dogs permitted in 11 counties, but prohibited in 5 others)
Wisconsin	11 Sept.–8 Oct. 11 Sept.–1 Oct. 18 Sept.–8 Oct.	Zone C (baiting allowed, but no dogs) Zones A and B, dogs allowed Zones A and B, bait/other The opportunity to hunt first in zones A and B flip-flops annually between dog hunters and bait/other hunters
Wyoming	1 Sept.–15 Nov. 1 May–1 June 1 May–7 June 1 May–15 June 1 May–30 June	Hunt Areas 3–27, 29–31 Hunt Areas 3, 5, 6 Hunt Areas 4, 7–12, 14–22, 24, 30, 31 Hunt Areas 13, 23, 29 Hunt Areas 25–27 Harvesting cubs and females with cubs is prohibited; baiting is allowed

Table 8.6 ... continued. American black bear harvest seasons and regulations in the United States of America (1992), based on 1993 survey results.

Status and management of the black bear in the United States

Surveys were sent to bear biologists in 40 states. We requested information on distribution and population status, legal status, population and habitat threats, population and habitat management, human-bear interactions, educational programs, and management recommendations. We received responses from 39 states.

Legal status

Black bears are classified as a game species in 33 states, although five of these states have no open hunting season (Alabama, Maryland, Nevada, New Jersey, and Oklahoma). Bears in Louisiana, eastern Texas, and southern Mississippi (*Ursus a. luteolus*) are federally listed as a threatened subspecies under the Endangered Species Act of 1973. Seven states classify black bears as rare, threatened, or endangered. Florida has a dual designation, with two northern populations classified as game and all other populations classified as threatened.

Population and habitat threats

A majority of states regarded habitat loss (n = 35) and fragmentation (n = 32) as threats to the species. Thirteen states considered political constraints on proper management of black bears a threat. Relatively few states considered poaching (n = 11), depredation kills (n = 8), roadkills (n = 6), or overharvest (n = 4) as threats to black bear populations. Kentucky, Missouri, and North Carolina reported limited public knowledge of bear biology and management as a potential threat to black bears. Montana considered the shortage of finances to adequately address species needs a potential threat.

Population management

Hunting levels: Twenty-eight states have black bear hunting seasons. Nineteen states have a bear hunting license, with some also requiring a big game license. In eight states, only a big game license is required to hunt black bears. Nationally, more than 481,500 licenses which allow black bears to be hunted are sold annually.

Harvest limitations: Hunting methods and seasons vary considerably among states and may be complex (Table 8.6). Bear hunting seasons include fall only, spring and fall, or year-round. Spring and year-round seasons are primarily held in western states, where black bear populations are relatively large.

Annual mortality: From 1988–1992, harvests averaged 18,845 bears per year for the entire USA (Table 8.7). Mean

Table 8.7. Population and mortality statistics of American black bears in the United States of America, based on 1993 survey responses.

State	Estimated	Population	Status	No. of	No. of big	A	Annual black bear harves		r harvest	1	988–1992	Mean
	population size	trena		licenses	licenses	1988	1989	1990	1991	1992	mean	kills/year
Alabama	<50	=	Game	-	-	-	-	-	-	-	-	1
Alaska	Unknown	=	Game	1,300	84,000	1,705	1,516	1,724	1,751	N/A	1,674	?
Arizona	2,500	=	Game	4,500	0	159	293	165	104	124	169	10
Arkansas	2,200	>	Game	0	4000	14	30	19	102	44	42	1
California	20,000	>	Game	12,000	0	1,359		1,211	1,493	1,266	1,332	?
Colorado	8,000–12,000	Unknown	Game	3,750	0	673	592	401	430	475	514	<10
Connecticut	15–30	>>	Unclass.	-	-	-	-	-	-	-	-	<1
Florida	1,000–2,000	=	Threat./Game	e 200	700	41	60	39	60	22	44	35
Georgia	1,700	>	Game	0	12,500	103	97	116	100	101	103	-
Idaho	Unknown	<	Game	0	20,000	1,139	1,415	1,567	1,475	N/A	1,399	<5
Kentucky	<200	>>	Protected	-	-	-	-	-	-	-	-	1
Louisiana	200–400	>	Threatened	-	-	-	-	-	-	-	-	<6
Maine	19,500–20,500	=	Game	10,133	0	2,673	2,690	2,088	1,665	2,042	2,232	25
Maryland	175–200	>	Game	-	-	-	-	-	-	-	-	4
Massachusette	es 700–750	>	Game	1,345	0	37	29	29	25	68	38	6
Michigan	7,000–10,000	>	Game	5,000	0	1,700	1,200	740	1,100	1,200	1,188	15
Minnesota	15,000	>>	Game	8,300	0	1,509	1,930	2,381	2,143	3,175	2,228	70
Mississippi	<50	>	Endangered	-	-	-	-	-	-	-	-	1
Missouri	50–130	>>	Rare	-	-	-	-	-	-	-	-	1
Montana	15,000-20,000	=	Game	0	13,564	1,241	1,664	1,350	1,153	N/A	1,352	18
Nevada	300	>>	Game	-	-	-	-	-	-	-	-	2
New Hampshir	e 3,500	>>	Game	9,786	0	198	241	291	123	230	217	17
New Jersey	275–325	>>	Game	-	-	-	-	-	-	-	-	10
New Mexico	3,000	<<	Game	2,430	0	258	230	297	292	228	261	<3
New York	4,000–5,000	>	Game	0	200,000	755	880	660	763	827	777	36
North Carolina	6,100	>>	Game	0	12,000	536	575	764	714	1,059	730	64
Oklahoma	116	>>	Game	-	-	-	-	-	-	-	-	0
Oregon	25,000	>>	Game	20,000	16,000	926	779	1,053	1,363	960	1,016	5
Pennsylvania	7,500	=	Game	?	?	?	?	?	?	?	1,560	?
South Carolina	200	>	Game	0	225	4	10	2	5	9	6	1
South Dakota	Unknown	Unknown	Threatened	-	-	-	-	-	-	-	-	-
Tennessee	750-1,500	>>	Game	0	3,500	76	78	124	66	78	84	5
Texas	Unknown	>>	Threatened	-	-	-	-	-	-	-	-	0
Utah	800-1,000	>	Game	162	0	69	97	22	35	32	51	1
Vermont	2,300	=	Game	0	?	368	311	163	237	337	283	8
Virginia	3,000-3,500	>	Game	0	?	?	?	?	?	?	480	30
Washington	27,000-30,000	>>	Game	13,000	0	864	1,426	?	1,379	1,400	1,267	?
West Virginia	3,500	>>	Game	8,000	9,000	400	510	235	426	455	405	26
Wisconsin	6,200	>	Game	2,110	0	1,123	985	1,247	1,219	1,469	1,209	12
Wyoming	Unknown	=	Game	4,094	0	226	216	222	238	220	224	<10
Total				106,110	375,489	18,156	17,854	16,910	18,461	15,821		

Decreasing: <<; slightly decreasing: <; stable: =; slightly increasing: >; increasing: >>. Data taken from Servheen (1990); mean annual harvest data from 1983–1987. annual harvests ranged from six bears in South Carolina to 2,232 in Maine over this same five year period. Annual reported mortality due to vehicle collisions ranged from zero (Oklahoma and Texas) to approximately 70 (Minnesota) per state, averaging over 400 bears for the entire USA (Table 8.7).

Habitat management

Ten states conduct habitat management specifically for black bears (Table 8.8). Activities range in scale from protection of den trees (Georgia) to land acquisition (Florida and Louisiana) and involve state and federal agencies and private organizations.

Human-bear interactions

Many states reported black bear damage and nuisance problems related to garbage (n = 27), apiaries (n = 27), and property (n = 21). Additionally, bear damage involving animal depredation and commercial interests (i.e., agricultural crops and timber resources) were reported by several states (n = 14 and n = 12, respectively). Nuisance complaints related to human injury were least common (n = 5).

Educational programs and needs

Twenty-one states provide educational programs related to black bears (Table 8.9). The primary focus of many of these programs involves general life history and management of bears, hunter safety and techniques, prevention of human-bear interactions, bear depredation, and habitat protection. These education programs utilize brochures, slide shows, exhibits, and seminars. Several states indicate needs for public education topics that include black bear biology and co-existing with bears. Additionally, many states considered educating the non-hunting public about black bear management important.

Management recommendations

To better address management of black bears in the future, many states considered population dynamics (n = 18), management of nuisance bear (n = 16), management of fragmented population (n = 14), and habitat management (n = 13) important issues. Several states also reported integrated regional management (n = 8), reliable mortality data (n = 10), and the general lack of data (n = 5) as important issues. Relatively few states reported timber harvest (n = 7) and the role of dispersal (n = 6) as

of America, ba	sed on 1993 survey responses.	
State	Habitat management action	Responsible agencies
Florida	Land Purchase	Florida Dept. of Natural Resources, US Fish and Wildlife Service, US Forest Service, Florida Water Management Districts
Georgia	Den Tree Preservation and Habitat Protection	US Forest Service
Louisiana	Land Acquisition Reforestation and Beneficial Forestry Practices	Louisiana Dept. of Wildlife and Fisheries, US Fish and Wildlife Service Louisiana Dept. of Wildlife and Fisheries, Soil Conservation Service, US Army Corps of Engineers, US Fish and Wildlife Service, Black Bear Conservation Committee
Maine	Management of Beech Stands	Maine Dept. of Inland Fisheries and Wildlife – Cooperative agreements with private landowners
Montana	Protection of Riparian Habitat and Travel Corridors	Montana Dept. of Fish, Wildlife, and Parks
New Hampshire	Forestry Practice Modification	US Forest Service
North Carolina	Timber Management Food Plots, Fruit Trees and Shrubs Permit Review	US Forest Service, North Carolina Wildlife Resources Commission North Carolina Wildlife Resources Commission North Carolina Wildlife Resources Commission
Tennessee	Timber Harvest Prescriptions	US Forest Service, Tennessee Wildlife Resources Agency
Vermont	Protection of Beech Stands	US Forest Service, Vermont Dept. of Fish and Wildlife, Vermont Dept. of Forests, Parks, and Recreation, Timber Companies
Virginia	Land Management Plan	US Forest Service

 Table 8.8. Habitat management actions conducted specifically for American black bears in the United States of America, based on 1993 survey responses.

Table 8.9. Black	k bear education programs in the United States, based on 1993	survey responses.
State	Education focus	Method of delivery
Colorado	Human safety in bear habitat.	
Connecticut	Population increases, nuisance activities, and management problems.	
Florida	Project Wild.	
Idaho	Differentiating between grizzly and black bears.	
Kentucky	Black bear habits and warning not to feed.	Brochure
Louisiana	Hunter awareness of protected status. Landowner awareness of habitat needs.	
Maine	Population monitoring and harvest management. Ecology, research, and management.	Video Slide programs
Maryland	Habits, biology, and management.	
Massachusetts	Alleviating depredations on farms. Alleviating depredations and nuisance activities. Project Wild. Allow educators to participate in den work.	Brochure Posters for campgrounds
Michigan	Education strategy is being developed, will focus on coexisting with bears and bear management.	
Minnesota	Hunting techniques. Avoiding bear-human conflicts.	Brochure
Mississippi	Explanation of endangered species status.	Museum of natural science
Missouri	Bear habits, foods. Minimizing nuisance/damage.	In developmental stages
Montana	Bear biology and habitat needs. Living with bears.	
Nevada	Prevention of nuisance complaints.	
New Hampshire	Natural history and management.	Slide presentations
New Jersey	Behavior and nuisance prevention techniques.	
New York	Natural history and management.	
North Carolina	Natural history and management.	
Oklahoma	Minimizing bear-human interactions. Natural history and information on immigration.	
Tennessee	Avoiding bear-human conflicts. Bear restoration in Big South Fork National River and Recreation Area.	
Utah	Project Wild. Public education.	
Vermont	Habitat maps. Management, critical habitat protection, fragmentation, and habitat loss.	Seminars and articles
Wisconsin	Management and coexisting with bears.	Slide presentations (no organized program)
Wyoming	Avoiding bear-human conflicts. Identification and size estimation. Public attitude surveys.	

important management issues. Sixteen states report other management needs such as education, mapping and protection of critical bear habitats, and management of human growth.

Status and management of the black bear in Mexico

Legal status

The legal status of the Mexican black bear is "endangered," as considered by the Mexican wildlife agencies, Secretaria de Desarrollo Social, and Secretaria de Agricultura y Recursos Hidraulicos.

Population and habitat threats

An increasing human population and a poor economy are contributing to extensive habitat loss and poaching of unprotected populations of black bears. A weak economy and demands upon government agencies to attend to social problems place wildlife management low on the list of priorities. Enforcement of wildlife laws remains essentially non-existent.

Public lands do not offer protection for wildlife; therefore, most healthy wildlife populations exist on private, isolated ranches. Ranchers are now beginning to manage wildlife for hunting and tourism to supplement decreasing income from cattle ranching.

Habitat is being lost due to overgrazing, land-clearing, and woodcutting. Most of these activities are conducted by "campesinos" (country dwellers or peasants) who have moved from the cities where unemployment is high. Previous governmental policies contributed to land erosion with the expropriation of large land holdings, subdivision, and distribution of these lands to campesinos for food production. Sound land management training, however, was not provided. Campesinos ran cattle or planted crops, and when the land was no longer productive, turned the land back over to the government and petitioned for new lands. A recent ruling by the Mexican president, however, amended the Constitution, giving title to the campesinos, and prohibiting the expropriation of new lands for this purpose.

Management

Black bear hunting seasons have been closed since 1985. Due to minimal law enforcement, however, poaching is uncontrolled and no data are available to indicate the level of poaching. The Mexican government became a signatory to CITES in 1990. No governmental efforts have been made to manage habitat for black bear conservation. Many ranchers, however, establish watering areas for bears, and sometimes feed bears (syrup and oats) at remote locations during times of low bear food production. Ranchers state that they experience less cattle predation when bears are fed. There is no evidence of habituated bears, as feeding locations are remote and the area is essentially unpopulated by humans. In the Serranias del Burro, there is no indication of poaching by ranchers.

Human-bear interactions

Popular literature has reported cases of human-bear encounters, with most relating to cattle predation. Most problem bears are reported to governmental agencies (n=3; 1993; for the Mexican states of Coahuila and Nuevo Leon) or are tolerated.

Educational programs and needs

Programs need to be developed to educate the public about black bears. Emphasis should be given to the education of children, ranchers, and wildlife managers.

Management recommendations

Managers are not adequately trained for handling bearrelated problems, such as cattle predation or habituated bears. Workshops to educate managers can be taught in one to two days, and various agencies could participate. Managers would learn problem-solving for humanbear conflicts, capture techniques with culvert traps, and basic bear biology and ecology. The cost is estimated at US\$700 per workshop (travel and lodging for instructor).

Many ranchers are interested in bear conservation, but are unaware of how to co-exist with the species. A guide for ranchers on how to co-exist with the black bear is important. Such a guide would include sections on bear biology, food habits, and ecology, to familiarize the rancher with bears. Problem-solving sections would include how to determine bear predation sign from other species, how to avoid human-bear conflicts, and what to do in the event of human-bear interactions. Water catchment designs will be included to help ranchers avoid cub drownings, and to protect equipment from being destroyed by bears. Suggestions for maintaining healthy bear habitat will also be provided. The guide would include color photographs, stories, and cartoons to motivate readership. The cost of this program is estimated at US\$20,800 (includes salary for eight months and printing costs).

Little information is known regarding the present status of the black bear in Mexico, but such information is essential for the establishment of management plans. An updated version of Leopold's (1959) distribution map of the black bear in Mexico could be constructed through information gathered from agency biologists, game wardens, researchers, and ranchers. Although the information would be subjective, assumptions could be made regarding the general health of black bear populations in areas previously observed by Leopold. Such a study should take about four months with an estimated cost of US\$15,000.

Acknowledgments

We gratefully acknowledge all biologists who responded to our surveys: K. Guyse (AL), H. Reynolds (AL), B. Markham (Alta.), A. Lecount (AZ), M. Pledger (AK), R. Forbes (B.C.), T. Burton (CA), T. Beck (CO), P. Rego (CT), D. Maehr (FL), J. Wooding (FL), D. Carlock (GA), J. Beecham (ID), T. Edwards (KY), H. Bateman (LA), D. Pastuck (Manit.), J. Cardoza (MA), E. Golden (MD), C. McLaughlin (ME), T. Reis (Mich.), D. Garshelis (MN), C. Shropshire (MS), D. Hamilton (MO), G. Olson (MO), K. Craig (N.B.), G. Warburton (N.C.), S. Stiever (NB), T. Joyce (Newf.), E. Orff (NH), P. McConnell (NJ), J. Gonzales (NM), T. Nette (N.S.), P. Latour (N.W.T.), L. Berchielli (NY), J. Hoagland (OK), M. de Almeida (Ont.), W. van Dyke (OR), T. Lash (P.E.I.), H. Jolicoeur (Qué.), R. Seguin (Sask.), S. Stokes (SC), Ron Fowler (SD), G. Wathen (TN), N. Garner (TX), J. Pederson (UT), D. Martin (VA), C. Willey (VT), J. Rieck (WA), M. Gappa (WI), J. Rieffenberger (WV), C. Gillin (WY), and C. Smits (Yukon). We thank D. Brandenburg, B. Maddrey, and M. Studer for help with the survey.