

***Ursus arctos* Brown Bear**

Least Concern

Geographic Range Information

The brown bear is the most widely distributed ursid. It once ranged across a large portion of North America, including northern Mexico (plus, at one time, much of the eastern half of the continent), throughout Europe, Asia, the Middle East, and even across North Africa. It presently occupies approximately 5,000,000 km² of the northwestern portion of North America, 800,000 km² of Europe (excluding Russia), and much of northern Asia. The largest numbers exist in Russia, U.S. (Alaska), and Canada. Many populations in Europe, and the more southerly portions of Asia and North America are small and isolated (Servheen et al. 1999, Swenson et al. 2000). A history of prolonged over-exploitation in Europe stretching back centuries resulted in the elimination of brown bears from many countries. The date of their extirpation from North Africa is uncertain, but they may have existed as late as the 1500s in the Sinai of Egypt (Manlius 1998) and mid-1800s in Algeria and Morocco (Hamdine et al. 1998). During the 20th Century, brown bears (called grizzly bears in interior North America) were extirpated in Mexico and a large portion of southwestern U.S. (Brown 1985, Mattson and Merrill 2002), while in Asia and the Middle East they have apparently been eliminated from Syria, and possibly Bhutan. Very small numbers of brown bears still remain in Iraq and Nepal (Gurung 2004, Ridings 2006). Andorra was reoccupied in 2003 from bears reintroduced into the French Pyrenees. A few wandering individuals recently crossed into Switzerland from Italy and into Lithuania from Latvia and Belarus, but not enough as yet to be considered extant populations.

Range Countries

Afghanistan
Albania
Andorra (recently reoccupied)
Armenia
Austria
Azerbaijan
Belarus
Bhutan (possibly extinct)
Bosnia and Herzegovina
Bulgaria
Canada
China

Croatia
Czech Republic (possibly only vagrants)
Estonia
Finland
France
Georgia
Greece
India
Iran, Islamic Republic of
Iraq
Italy
Japan
Kazakhstan
Korea, Democratic People's Republic of
Kyrgyzstan
Latvia
Macedonia, the Former Yugoslav Republic of
Mongolia
Montenegro
Nepal
Norway
Pakistan
Poland
Romania
Russian Federation
Serbia
Slovakia
Slovenia
Spain
Sweden
Tajikistan
Turkey
Turkmenistan
Ukraine
United States
Uzbekistan

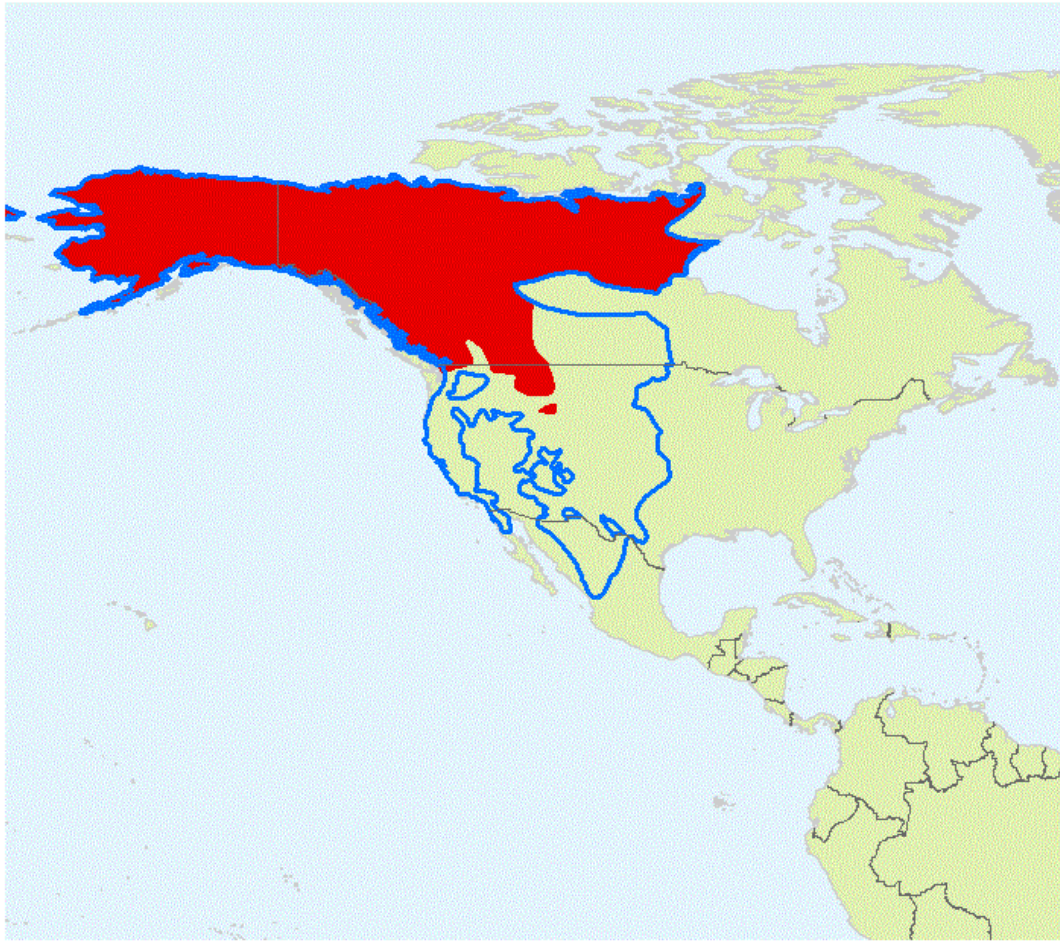
Extinct during past 500 years in:

Algeria
Egypt
Germany
Hungary
Israel
Lebanon
Liechtenstein
Lithuania

Mexico
Moldova
Morocco
Palestinian Territory, Occupied
Portugal
San Marino
Switzerland
Syrian Arab Republic
Tunisia

Extinctions due to human agency more than 500 years ago in:

Belgium
Denmark
Ireland
Jordan
Luxembourg
Monaco
Netherlands
Tunisia
United Kingdom
Vatican



Ursus arctos - Americas

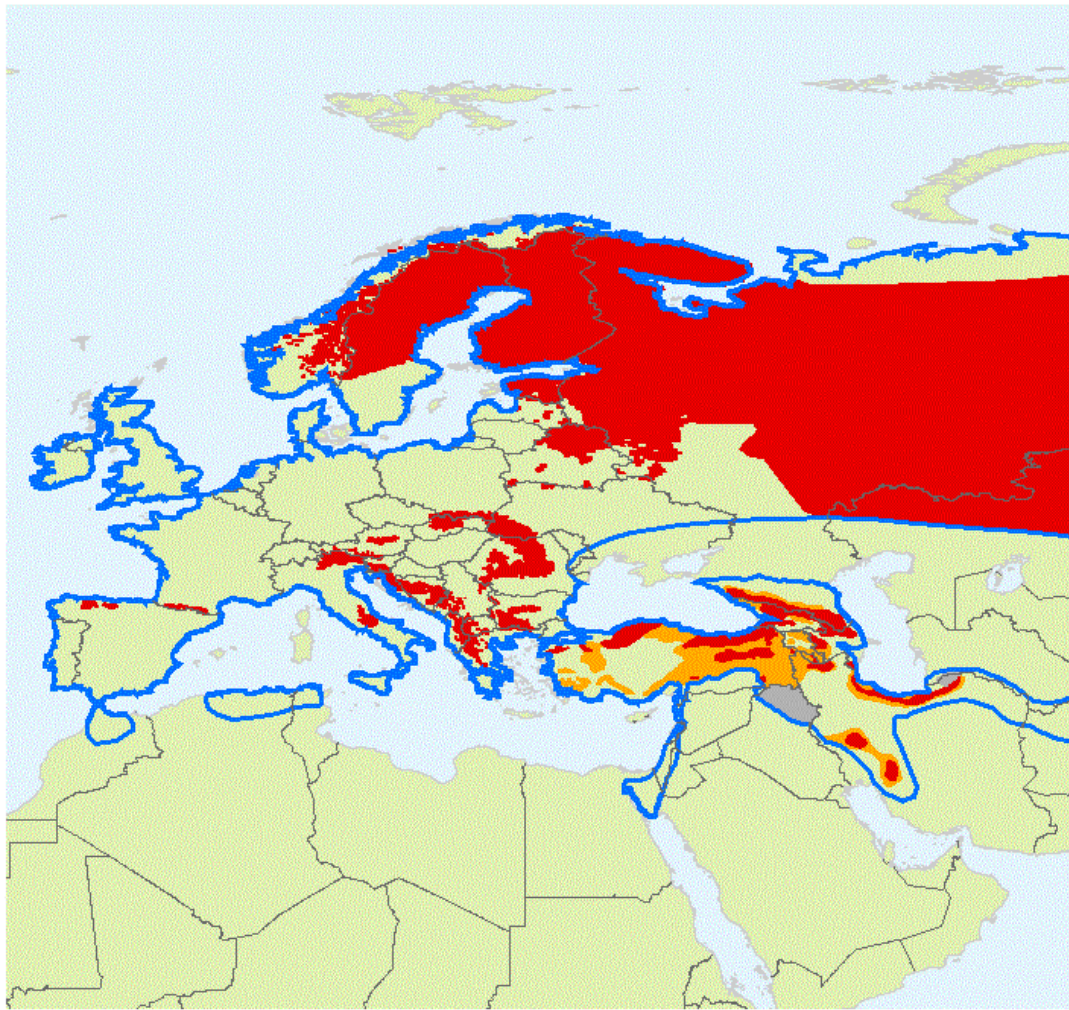
range type

- Native Extant
- Possibly Present
- Unknown
- Historical range limits



- national boundaries
 - subnational boundaries
 - lakes, rivers, canals
 - salt pans, intermittent rivers
- elevation meters
-
- 0 1,640 km
- Map created 10/31/2007





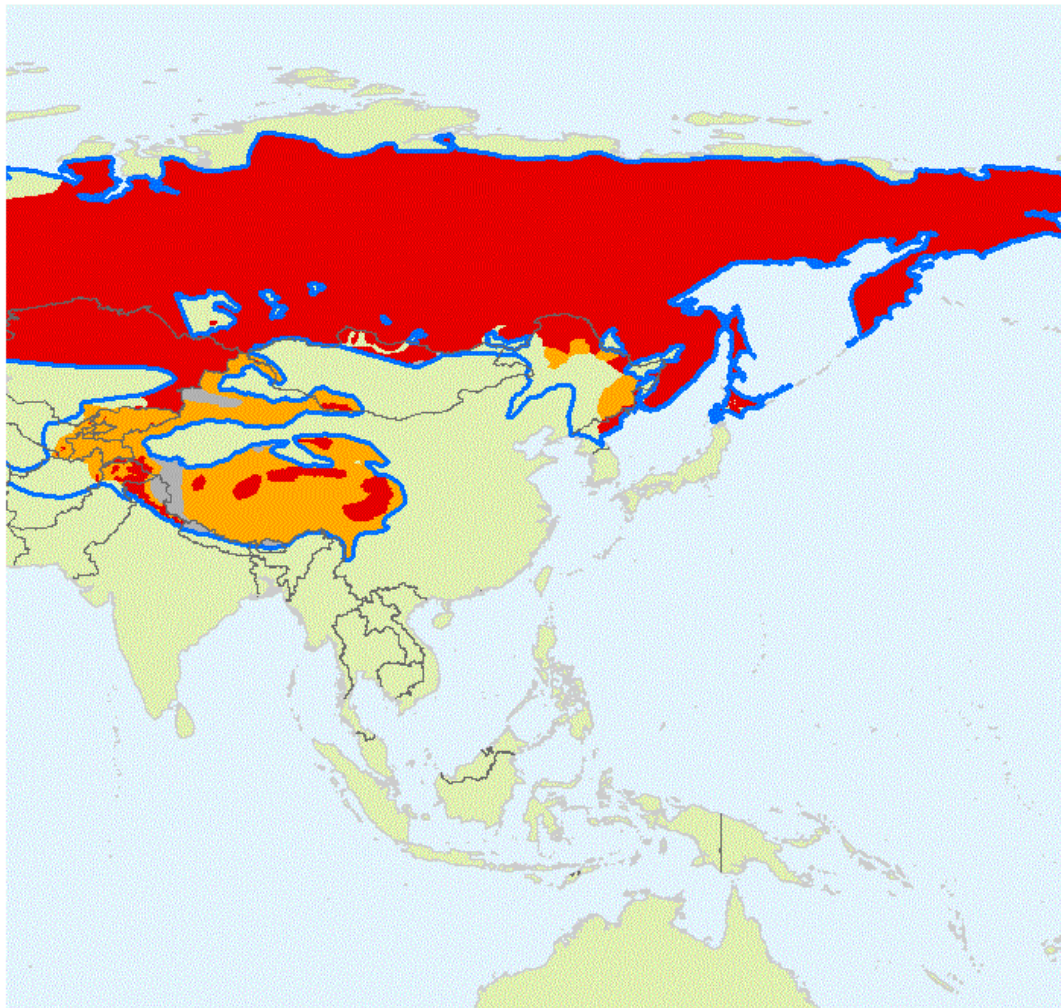
Ursus arctos - Europe, North Africa and Eurasia

- range type
- Native Extant
 - Possibly Present
 - Unknown
 - Historical range limits



- national boundaries
 - - - subnational boundaries
 - lakes, rivers, canals
 - salt pans, intermittent rivers
- elevation meters
-
- 0 1,160 km
- Map created 11/01/2007





Ursus arctos - Asia

range type

- Native Extant
- Possibly Present
- Unknown
- Historical range limits



- national boundaries
 - - - subnational boundaries
 - lakes, rivers, canals
 - salt pans, intermittent rivers
 - elevation meters
 - 5000
 - 4000
 - 3000
 - 2000
 - 1000
 - 0
- 0 1,200 km
- Map created 11/01/2007



Population Information

The total world population of brown bears is estimated to exceed 200,000. Reliable population estimates (derived mainly from mark-recapture or resight, and modifications thereof) exist for several areas in North America and Europe (Miller et al. 1997, Swenson et al 2000, Bellemain et al. 2005, Mowat et al. 2005), but few areas in Asia. Russia has

the largest number of brown bears, believed to exceed 100,000, while estimates in the U.S. are around 33,000, Canada 25,000, and Europe (excluding Russia) 14,000.

Whereas the species is relatively abundant in more northern parts of its distribution, the southern portions of the range are highly fragmented, with many small populations. In North America, the southern fringe has isolated populations ranging in size from over 500 in and around Yellowstone National Park (U.S. Fish and Wildlife Service 2005) to approximately 15 individuals in the Cabinet Mountains of Montana (Proctor et al. 2004).

In southern Europe there are several extremely small, isolated populations: two populations in the Pyrenees (France and Spain) each have <10 bears, two populations in the Cantabrian Mountains (Spain) contain 20-30 and 80-100 bears, a population in the Appenine Mountains (Italy) has 40-50 bears, and the Alps (Italy, Austria, and Slovenia) has 35-40 bears (Swenson et al. 2000; <http://www.largecarnivores.maverik.ch/bear-ois/index.htm>).

Small populations of brown bears are also scattered across many portions of Asia, but little is known of numbers or connectivity. In Pakistan there are an estimated 150–200 bears in seven separate populations in the Himalaya, Karakoram and Hindu Kush Ranges, only one of which has more than 20 individuals (Nawaz 2007). In India, brown bears exist in 23 protected areas in the northern states of Jammu and Kashmir, Himachal Pradesh, and Uttaranchal, but they are regarded as fairly common in only two of these; country-wide there are likely <1,000 individuals, and possibly half that (Sathyakumar 2006). In China, brown bears exist in sparse, poorly defined populations in the west and also in the northeast, with guesstimates of ~6,000 and ~1,000 in each of these regions, respectively (Gong and Harris 2006). A more dense population on Hokkaido, Japan may have 2,000+ brown bears, although even there, where significant information has been collected through research and sport harvest returns, reliable population estimates are not available (Mano 2006).

Habitat and Ecology Information

Brown bears occupy a great variety of habitats from dry Asian steppes to Arctic shrublands to temperate rain forests. Their range overlaps that of both the American and Asiatic black bear (*U. americanus*, *U. thibetanus*), and also slightly that of the polar bear (*U. maritimus*). Elevationally they range from sea level to 5,000 m (Sathyakumar 2006). They occupy a greater diversity of habitats than any other species of bear and also exploit a large variety of food items. In terms of diet, they fall between the mainly plant-dependent ursids and the carnivorous polar bear (Mattson 1998, Sacco and Van Valkenburgh 2004). In North America, brown (grizzly) bears are more carnivorous where ungulates (especially in Arctic areas) or spawning salmon (coastal areas) are abundant (Mowat and Heard 2006).

The productivity and density of brown bears varies enormously, corresponding with the productivity of their habitats. Coastal areas of North America and Eastern Russia, with concentrations of spawning salmon, have high densities (>10 bears per 100 km²) of

brown bears (Miller et al. 1997, Seryodkin 2006) with high reproductive rates (Hilderbrand et al. 1999). Deciduous and mixed forests of the Dinaric and Carpathian mountain ranges of Eastern Europe also host high bear densities with high reproductive rates (Kusak and Huber 1998, Frković et al 2001). More moderate densities of bears occur across the interior mountain ranges of North America (McLellan 1994, Schwartz et al 2003), Europe, and Asia where they forage on a great variety of grasses, herbs, roots, berries, nuts, as well as animal matter such as insects, mammals, and fish if available. Moderate densities of bears are also found across portions of the boreal forests of North American, Asia and Scandinavia (Bellemain et al. 2005). Lower densities are found in dry, desert-like areas, alpine and sub-alpine areas, as well as areas where habitat availability and numbers of bears have been reduced by high human and domestic livestock densities (Nawaz 2007); however, in most such areas (e.g., northern India, western China, Mongolia) density estimates are not available.

Breeding occurs during May to July but implantation of the blastocyst is delayed until late autumn. Cubs, usually in litters of 1 to 3 (rarely 4 or more), are born in January or early February when the mother is hibernating. In North America, female bears generally have their first litters at 5 to 8 years of age and have litters every 3 or 4 years thereafter (Schwartz et al. 2003). In some areas of Europe, however, females generally have their first litter at least one year earlier, and produce litters every two years (Swenson et al. 2000, Frković et al. 2001).

Threat Information

Although, as a whole, this species is secure, with relatively large numbers and an expansive range, several small, isolated populations are threatened due to their low numbers and frequent contact with humans. These small populations tend to be found in remnant wild areas surrounded by more extensive human development. As wide-ranging omnivores, brown bears are attracted to areas with available human-related foods; being large and somewhat aggressive, these bears may threaten life and property (often agricultural products) and may be killed as a consequence. Areas of high human use that attract bears may serve as significant mortality sinks (Nielsen et al. 2004, 2006). Additionally, bears living near humans may be killed inadvertently (e.g., vehicle or train collisions) or poached for parts or products: even small numbers of bears removed from small populations can have adverse effects on population growth (Wakkinen and Kasworm 2004); conversely, preventing just a few deaths may avert a population decline (Wiegand et al. 1998, Garshelis et al. 2005).

Even where brown bears exist in a large, contiguous population, they are sometimes hunted for sport or killed for control purposes at unsustainable rates. Estimates of sustainable exploitation rates are hampered by the difficulty and expense of obtaining reliable estimates of population size. Many countries do not have the resources to develop, implement, or enforce adequate monitoring programs and sustainable management plans for brown bears. Moreover, even with such plans in place, illegal take may equal or exceed the legal take. This is apparently occurring in the Russian Far East,

where brown bears are poached for the commercial trade in gall bladders and paws (Seryodkin 2006).

In addition to direct removal of brown bears, many human activities such as agriculture, plantation forestry, highways, hydroelectric developments, and human settlements eliminate, fragment, or erode the value of bear habitat (Proctor et al. 2005, Waller and Servheen 2005). Habitat fragmentation is a serious threat that isolates population units with deleterious demographic and genetic impacts (Proctor et al. 2004). With increasing human populations, the value of brown bear habitat is being degraded in many areas (e.g., Can and Togan 2004, Nawaz 2007).

Conservation Measures

Conservation actions for brown bears vary greatly among nations and regions within nations. Large populations of this species (in Russia, Japan, Canada, Alaska, and parts of eastern and northern Europe) are legally hunted, and thus managed as a game animal. Hunting regulations designed to ensure a sustainable harvest of bears vary among areas but often involve a lottery for a limited number of permits, a quota system, and restricted season length.

Most small populations are legally protected by national laws and international agreements, with varying degrees of enforcement. All international trade in brown bears is restricted by either CITES I (in parts of central Asia) or CITES II. In parts of the U.S., small populations of grizzly bears have successfully rebounded under protection of the Endangered Species Act (U.S. Fish and Wildlife Service 2005). Reintroductions and population augmentations also have helped to restore numbers and geographic range in several locations in the U.S. and Western Europe (Servheen et al. 1994, Clark et al 2002).

There are numerous protected areas around the world with brown bears, but few are large enough to support a viable population; therefore, brown bear conservation must be integrated with many other human land-uses (Herrero 1994, Nielsen et al. 2006). Some countries have rules or management guidelines designed to reduce human impacts on brown bears and their habitat, whereas in other countries bear management protocols and regulations are limited or nonexistent (Servheen et al. 1999, Zedrosser et al. 2001).

Red List Assessment

Category: Least Concern

Rationale:

The range of the brown bear has declined in North America, Europe, and Asia, and the species has been extirpated in North Africa. However, it remains widespread across three continents, and is still one of the world's most widely distributed terrestrial mammals. Globally the population remains large, and is not significantly declining. There are many

small, isolated populations that are in jeopardy of extirpation, but others, under more protection, are expanding.

Assessors: McLellan, B. N., Servheen, C. & Huber, D.

Assisted with range mapping: Badamjav, L, Batmunkh, M, Can, O.E., Esipov, A., Galbreath, G., Ghaemi, R., Gong, J., Gutleb, B., Han, S-H., Harris, R., Kubanichbek, J., Lortkipanidze, B., Lukarevskiy, V., Mano, T., Mattson, D., Nawaz, M.A., Paczkowski, J., Puchkovskiy, S., Reynolds, H., Sathyakumar, S., Sato, Y., Seryodkin, I., Tserenbataa, T., Tsuruga, H., Vaisfeld, M. & Xu, A.

Evaluators: Garshelis, D. & McLellan, B.

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Previous Red List Assessment Rationale

Category: Lower Risk/least concern
(Categories and Criteria version 2.3, 1994)

Year Assessed: 1996

Assessor/s: Bear Specialist Group