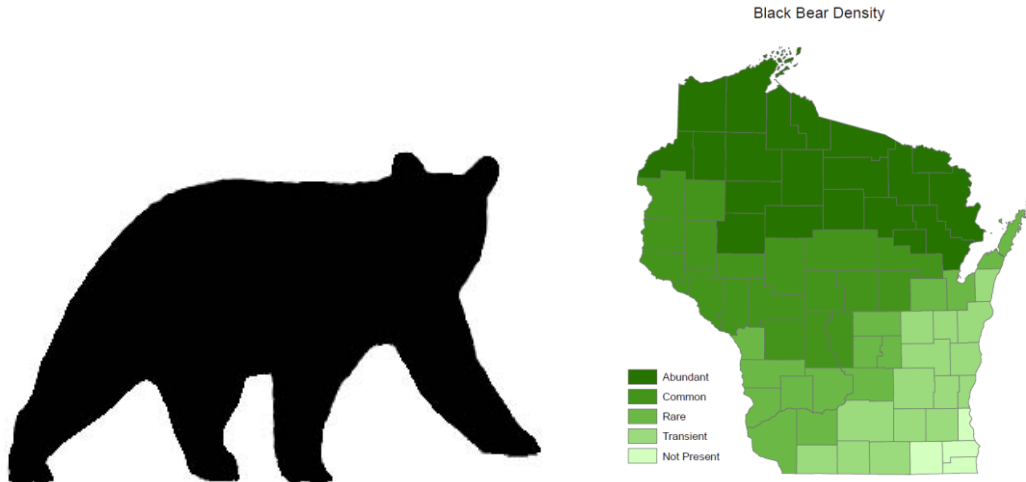


Wisconsin Wildlife - *Fast Facts*

(Compiled from various sources by C.W. Cold WDNR Ladysmith)

There are few American big-game animals that have aroused more mixed emotion (admiration to contempt) in people, than the black bear. Regardless of your “philosophical position” on bears and society, one can not help but admire an animal which has managed to adapt (and thrive) on Wisconsin’s changing landscape.



Black Bear *Ursus americanus* (bear) (of America)

Synonyms:

American black bear, bear, bruin, mu-ko (Potawatomi), muk-wa (Chippewa). Male: boar, female: sow, young: cub.

Description:

Wisconsin’s largest carnivore. About the size of a huge hog, but rangy.

A bulky, thick-set, massive mammal with moderate-sized head, small eyes, a straight, tapered facial profile and prominent, rounded ears. Tail is short (3-4”) and stubby.

Feet are broad, plantigrade (like ours) with relatively short, curved, black claws.

Fur is thick & coarse, in shades from black to cinnamon brown. Rarely white.

Adult males weigh 250-500lbs, but may exceed 800 pounds (880 lb. record).

Adult females weigh 225-450 lbs.

Range:

Approximately 800,000 individuals inhabit most of the forested portions of North America (Atlantic to Pacific). Alaska - south to portions of Mexico.

41 of the 50 states

All of the Canadian provinces, except Prince Edward island.

Habitat and home range:

Heavily forested areas, esp. w/deciduous component.

Dense brushland w/ scattered water sources.

Size of territory is primarily resource (food & shelter) and gender-dependent.

Female range (diameter) averages 2-6 miles. Males average 8-15 miles.

Female may defend territory against other females, however yearling females are often allowed to claim part of their mother's territory as their own.

Young males (>yearling) voluntarily disperse after repeated "encouragement" (abuse) from mom & range to 100 miles in search of new, suitable habitat (w/o or "tolerant" older males).

Wisconsin Status:

Common in northern 1/3 of state, present south through central forests and farm/forest fringe areas locally.

Statewide population estimate as of 2007 approx. 12,300 animals, however estimate is subject to significant adjustment pending evaluation of new data derived from recently-completed tetracycline/bait survey.

Preliminary findings suggest a conservative estimate of 24,000 bears (2006) in Wisconsin. Once finalized, the new figures may call for a change (increase) in the Wisconsin bear population goal (from the present 11,300) for management purposes.

2008 bear population density:

WI primary zones = .9 – 1.3 bears/square mile.

MN primary zones = .6 - .76 bears/square mile.

MI primary zones = .5 - .7 bears/square mile.

In 2011 statewide population estimate was about 30,000 animals.

Tetracycline study reinitiated in Spring 2011 (now discontinued).

2023 population estimate 24,000-26,000 animals.

Origin:

Bear line emerged as distinct approx 25,000,000 years ago (end of Oligocene). Earlier "evolutionary experiments" produced robust bear-like dogs, which arose from miacid precursors. Polar bears recently emerged as a separate line (from brown bear ancestors) approx. 250,000 years ago.

Fossil record suggests black bear lineage is much older, with divergence (from more-distant brown bear ancestors) occurring 2 ½ – 3 million years ago (late Pliocene/early Pleistocene).

Approx. 1.8 MYA continental ice sheets separated black bears into two distinct populations (clades) - one on the Pacific coastal forests and the other in the more-expansive forests of the southeast. As the glaciers retreated (and the forests regained their tenure) the two populations expanded towards each other and finally began to converge around 8-10,000 years ago. The two (genetically distinct) clades continue to “remix” to this day where they combine in the Rocky Mountains of Alberta.

Ecological signature:

A bear cycles the seeds of favorite fruits through its entrails & sows them throughout its domain via scat. (This method is the most conservative & cost-effective agricultural “technique” ever invented.) The entire ecology of a black bear (distribution, social organization..... virtually everything!) is primarily a function of the distribution & abundance of tiny fruits & nuts.

Diet:

Plants, esp. softer, early or succulent grasses & forbs.

Aspen & willow catkins are important in early spring....also new grass.

Carbohydrate-rich berries (soft mast) - esp. wild sarsaparilla & chokecherries.

Seeds (hard mast) – esp. acorns & hazelnuts. Hard mast is considered to be the most concentrated & digestible energy source in a black bear’s diet.

Insects- when & where available in abundance (esp. carpenter ants).

Meat of any kind – when & where it is reasonably-fresh & accessible.

Fawn mortality to bears may exceed 20% in some instances during a brief, seasonal window.

Hibernation:

More a lethargy or torpor than true hibernation.

Period of dormancy spans late November to late-April (north).

Males typically “den” where they fall (minimal shelter) – esp. near base of large trees or brush clumps. Females tend to excavate or improve more-sheltered sites.

Body temp (88° F.) & pulse reduced (from 40-50 b.p.m) to 8-10 b.p.m.

Foot pad sloughs-off (sheds) during winter.

Bears do not urinate or defecate during this period (rectal plug).

Liver & kidneys reconstitute urea nitrogen back to protein for muscle-maintenance.

Although a bear may drop in weight by as much as 30%, the loss is primarily from body fat (perhaps 100 pounds) and it may actually end up with slightly more lean body tissue (muscle) than it had in the fall! The smell of ammonia (urea) near a den site is probable an indication of *ketosis* - a bear in the final throes of starvation.

Reproduction:

Litters of 4 are reported & 6 are possible (Pennsylvania).

Full maturity (& size) is achieved by 6th year, however, sows 2 ½ yrs old can have cubs in premium habitat. (Their age of fertility is probably a function of their nutritional state.)

Bears breed late May through early July.

Fertilized eggs develop to blastocyst stage, then stop and float freely in the uterus until October or November.

When she enters her den, the blastocyst proceeds to implant and resume development.

She awakes in late January/early February* to birth two or three 5 to 8 ounce cubs.

Cubs size of loaf of bread by mid-April.

* The Chippewa refer to February as *Makoonsi-giizis* (the bear cub moon). It is said that there will be a day in this month when the fog will settle everywhere; this is when she will give birth to her cubs.

Life span:

A 20 year old bear is old, but some females are still reproductive.

Black bears may reach 30 years in captivity.

Intelligence and behavior:

Relatively large brain with excellent long-term memory.

Navigation ability superior to humans.

Can generalize to the simple concept level.

Solitary animal with a calm disposition.

Not particularly a “friendly animal” - even with own kind.

Tends to dislike interference from other animals, however, occasionally seems to actually play with members of other species.

Nocturnal- but does not wait for full darkness before beginning its rounds.

Sometimes ventures out during day (especially when overcast).

Bears give no “flash signals”, have no odor posts and post no sentries.

Adaptations:

Runs (gallops) to 35 mph.

Good climber.

Good swimmer, who appears to enjoy water.

Sight is fair to poor.

Hearing is only “moderately-acute”.

Smell (*olfactory sensitivity) is legendary:

- A “typical” dog’s nose is approx. 100X more sensitive than a human nose.
- A bloodhound’s nose is approx. 19X more sensitive than a typical dog nose.
- A bear’s nose is approx. 7X more sensitive than a bloodhound nose.

*This acute olfactory sensitivity is attributed to a mass of turbinate bones in the nasal cavity, which offers extensive surface area for abundant olfactory nerve receptors.

Risks to humans & human interests:

Unprovoked attacks on humans are rare, but predatory in nature.

Recent evidence attributes most of these attacks to male bears.

A black bear normally flees from a human before the person is aware of its presence.

Sows with cubs are good parents and may be defensive of young.

Problem bears situations are primarily attributed to exposure with human food, or feed placed outdoors for pets and other wildlife (esp. birds).

Remove the food and the bear usually loses interest and leaves.

A bad experience (negative reinforcement) for a persistent bear usually rectifies the situation (perhaps leave this tactic to trained professionals – see damage below).

Agricultural damage primarily occurs on commercial bee hives and corn fields (when corn is in the milk stage), and less-often with direct predation on livestock. A cooperative, multi-agency wildlife damage program (APHIS) addresses and rectifies bear nuisance & damage problems in Wisconsin.

Management:

Wisconsin manages its bear population through a regulated harvest with an established season framework (September and early October) and specific harvest quotas in designated management zones. As the number of applicants continues to exceed available harvest permits, hunters are selected (via drawing) using a cumulative preference point system, which increases their eligibility for a kill permit (class A) each year that they are unsuccessful in obtaining one. Wisconsin population management goal in primary zones is .5 bears per square mile.

Importance to society:

Tangibles - (utility):

Bear meat is rich and sweet - but tends to be tough with older individuals. Cook it thoroughly (until the juices run clear) to avoid any parasitic worm risks.

Recent medical research on the metabolic pathways that black bears use to survive long period of torpor is providing new insight into medical treatments for kidney failure, gallstones, burn injuries, and other illnesses.

Intangibles – (emotional & spiritual):

Encountering a bear is a powerful emotional experience. Knowing that bears are “*out there*” lends a flavor of adventure to any outdoor experience and reminds us that we are not alone.