

Florida Black Bear
Ursus americanus floridanus

This profile is a short summary of information to introduce the species and does not summarize all available information on the species.

Listing status: USFWS = Not listed
FWC = Threatened

Trend: Historically more abundant/widespread than currently, however the recent trend is stable to increasing in most of Florida. Occurs widely but discontinuously throughout FL. The long-term future of black bears in Florida is uncertain because of their large spatial requirements, the fragmented nature of remaining populations, the small size of some populations, and increasing human development and activity leading to negative interactions with people.

Threats: Habitat loss and fragmentation have greatly impacted bears in Florida. Human development has increased through time and currently presents one of the greatest threats to bears. Other potentially important threats include human-caused mortality (e.g. bear/vehicle collisions, illegal kill, etc.) and incompatible habitat management. Additionally, disease and parasites have been documented in bears, but none are known to pose a significant threat to Florida's bear population.

Notes: In 2005, after conducting genetic hair sampling and population modeling for six core bear populations, FWC produced a scientifically based population estimate of 2,625 bears statewide that also identified genetically different populations. The FWC is in the process of developing a statewide management plan for the species.

Prioritization information:

PLCP PVA proportion of pops modeled to persist on public lands = 1.00

PLCP PVA probability of a 50% decline on public lands = **0.05**

Millsap biological score = **32.7**

Millsap supplemental score = 13.0

Legacy population trend = Stable

Legacy population status = Medium

Summary: This species triggers 2 of the 6 parameters. Since this species is capable of significant dispersal, the emphasis should be placed on protecting/maintaining as much habitat as possible. The PVA sensitivity to changes in survival suggests that management and field surveys target these parameters.

Life History: The Black Bear (*Ursus americanus*) ranges throughout the United States, northern Mexico and Canada. The Florida Black Bear subspecies (*Ursus americanus floridanus*) is found only in Florida and southern Georgia and Alabama (Figure 1). This subspecies requires a variety of forested areas, and

maintains large home ranges. There are currently 2500 to 3000 bears estimated in Florida.

The average female bear in Florida becomes sexually mature at 3 to 4 years of age. Breeding occurs from June through August. Reproductive females enter winter dens in mid to late December and emerge in early to mid-April after a denning period of 100 to 113 days. Actual gestation is 60 days, and cubs are born in late January to mid-February. Most studies in Florida found an average litter size of around two cubs, but one to three are not uncommon. Cubs stay with their mothers and may den with her the following year. Family dissolution usually occurs in May to July when cubs are 15 to 17 months old. Young females generally form a home range overlapping their natal range while young males disperse to new areas.

In fall, bears wander widely and forage extensively in order to accumulate enough energy in the form of fat to survive the winter. Adult bears may increase their body weight by 25-40% in fall. In winter the consumption of food by bears is greatly reduced and reproductive females may spend many weeks in the natal den with little or no additional nutrition. Bears are opportunistic foragers; taking advantage of seasonally abundant/available fruits, mast, insects, and increasingly, anthropogenic (produced by humans) foods. Approximately 70% of the natural bear foods in Florida are plant material with colonial insects and beetles representing the largest portion of the animal material consumed. Although food items vary by season and location, the fruits and fiber of saw palmetto are important throughout the state and throughout the year.

The Florida black bear thrives in habitats that provide an annual supply of seasonally available foods, secluded areas for denning, and some degree of protection from humans. Optimal bear habitat in Florida has been described as “a mixture of flatwoods, swamps, scrub oak ridges, bayheads, and hammock habitats, thoroughly interspersed.” Self-sustaining and secure populations of bears in Florida are found within large contiguous forested tracts that contain understories of mast or berry-producing shrubs or trees; characteristics more commonly found on publicly-owned lands and commercial forests.

Variation in home range size and shape is influenced by the abundance of nutritional resources, population density, reproductive status, and anthropogenic influences such as habitat fragmentation and human produced foods which act as an attractant. Female black bears select a home range based on availability of resources with smaller home ranges found in more optimal habitat. Male black bears establish a home range in relation to the presence of females and are usually three to eight times larger than those of females. Bears in Florida exhibit a breadth of home range sizes indicative of the variety of habitats and habitat quality found in the state. Female bears with cubs have smaller summer home ranges than females without cubs but much larger fall home ranges than females without cubs. The larger fall home range is a response to the nutritional needs of rapidly growing cubs. Black bears may move great distances, occasionally dispersing > 87 mi (140 km). However, < 30% of the dispersal events recorded for black bears are > 37 mi (60 km) and fewer than 2% are > 62 mi (100 km).

Preferred Habitat Parameters:

- N/A, though the species needs a mosaic of micro habitats to provide the variety of foods needed throughout the year, including some areas of dense underbrush for use as den sites.

Minimum Habitat Requirement:

From PVA: N/A

From Literature: Forest patches > 24, 710 ac (10,000 ha)

Best Management Practices: Preserve large unbroken tracts of habitat, and restore connectivity when habitat has been fragmented. Successful management prescriptions must consider highly variable food habits as well as the effects of fire, timber management, and expanding development. Reduce bear/vehicle collisions through construction of over/underpasses if necessary. Managers should consider extending the time between prescribed fires in occupied bear range. Short fire rotations (2–3 years) in upland sites may be insufficient to allow important mast-producing species to recover peak fruiting performance (flowering does not equal fruiting). However, burns that leave a mosaic of conditions would likely benefit this species. Do not take measures to burn patches that originally went unburned. When possible in occupied bear habitat, fire should be excluded from dense (denning) vegetation during January to April. Consider prohibiting palmetto fruit harvesting. See Bear Management Plan, FWC 2008 when complete, also Maehr et al. 2001.

Monitoring Protocol: Bait station surveys have been shown to be effective at determining the presence of bears. A bait of corn and doughnuts placed on the ground within a 2 stranded barbed wire (approximately 1 ft [30.5 cm] and 2 ft [61 cm] from ground) enclosure approximately 10 ft (3.05 m) by 10 ft (3.05 m) with a scent lure (bacon grease, fruit extract) hung overhead or suspended from a limb is an effective method of determining bear presence through the presence of hair left on barbs. Established bait stations spaced 0.5 mi (0.8 km) apart can be examined weekly for sign of bear presence; alternatively, trail cameras can be used to document presence. Surveys should be conducted in July when resident bear populations are stable and bear movement is at a peak due to breeding activity. For additional monitoring information see the Bear Management Plan, FWC 2008 when complete.

PVA Summary: The Wildlife Habitat Conservation Needs in Florida project created a PVA (http://research.myfwc.com/features/view_article.asp?id=29815) for black bears as 1 statewide population with initial abundance of females set at 375, and carrying capacity set at 500 as a conservative measure of abundance. This is contrary to the 2005 FWC estimate of 2,625 bears statewide. Additionally, the model's finding of 1 statewide population is counter to recent DNA analysis that identified 6 genetically distinct populations. With the exception of this underestimated initial abundance and carrying capacity, other parameters used in

the model came from studies conducted on black bears in Florida, thus they likely are accurate representations of these parameters.

When the PVA model included all potential habitat, the probability of extinction in the next 100 years was zero and the probability of a decline was low (e.g., 2% probability of a 20% decline). When only managed habitat was considered the abundance was smaller than when all potential habitat was considered, although the risks were quite similar with no chance of extinction in the next 100 years and a small risk of a decline (e.g., 11% probability of a 20% decline). The analyses indicated that survival of the oldest individuals (3+ stage), was the most influential parameter on population growth. A 10% reduction in adult survival increased the risk of extinction to 63% and the risk of a decline (e.g., 100% probability of a 20% decline in abundance). A similar reduction in adult fecundity has less of an effect, resulting in a zero risk of extinction but a high risk of a large decline (e.g., 36% probability of a 20% decline in abundance).

2003 Landcover used for model:

Coastal Strand	Bay Swamp
Xeric Oak Scrub	Cypress Swamp
Sand Pine Scrub	Cypress/Pine/Cabbage Palm
Sandhill	Mixed Wetland Forest
Dry Prairie	Hardwood Swamp
Mixed Pine-Hardwood Forest	Hydric Hammock
Hardwood Hammocks and Forest	Bottomland Hardwood Forest
Pinelands	Mangrove Swamp
Cabbage Palm-Live Oak	Shrub and Brushland
Hammock	Exotic Plants
Tropical Hardwood Hammock	Australian Pine
Freshwater Marsh and Wet	Melaleuca
Prairie	Brazilian Pepper
Shrub Swamp	

FNAI Natural Communities used:

Baygall	Ruderal
Dome swamp	Scrubby flatwoods
Floodplain swamp	Strand swamp
Hydric hammock	Upland hardwood forest
Mesic flatwoods	Wet flatwoods
Mesic hammock	Wet prairie
Pine plantation	

FNAI field guide description of habitat: A wide variety of forested communities is needed to support the varied seasonal diet of black bears. Forested wetlands are particularly important for diurnal cover. Baygalls (bayheads) are important for cover and dens.

Note: bears use a wide variety of natural communities. To create the list above, an attempt was made to identify those most important to the species.

Important Links:

FNAI Field Guide

http://www.fnai.org/FieldGuide/pdf/Ursus_americanus_floridanus.PDF

FWC Official Black Bear Page

<http://myfwc.com/bear/>

USFWS species profile, with links to Federal Register Notices

<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A08E>

Pertinent Documents/Literature:

- Dobey, S., D. V. Masters, B. K. Scheick, J. D. Clark, M. R. Pelton, and M. E. Sunquist. 2005. Ecology of Florida black bears in the Okefenokee-Osceola ecosystem. *Wildlife Monographs* 158:1-41.
- Maehr, D. S., T. S. Hoctor, L. J. Quinn, and J. S. Smith. 2001. Black Bear habitat management guidelines for Florida. Technical Report No. 17. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida, USA.
- Garrison, E. P., J. W. McCown, and M. K. Oli. 2007. Reproductive ecology and cub survival of Florida black bears. *Journal of Wildlife Management* 71:720-727.
- Simek, S. L., P. S. Kubilis, S. A. Jonker, and T. H. Eason. 2005. Non-Invasive Assessment of Black Bear Movements and Abundance Relative to U.S.98 Within the Aucilla Wildlife Management Area. Final Report Contract BD-568, completed for the Florida Department of Transportation and Florida Fish and Wildlife Conservation Commission.

Figure 1. Primary and secondary range of black bears within Florida.

Black Bear Populations in Florida (2004)

