

WILDLIFE

management guide



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Black Bear

Black bears occur in manageable numbers in the southern Appalachian Mountains and the coastal bays and swamps of South Carolina.

A managed forest dominated by hardwoods containing a variety of mast-producing tree and shrub species intermixed with early successional vegetation such as blackberries, pokeberries, etc. provides the best habitat. Bears typically require extensive, rugged country with dense thickets, swamps, bays, or rock outcrops and enough area to travel having little contact with man. Limited road systems reduce man/bear interaction. Bears occasionally feed on apple trees and apiaries. They also feed upon the cambium layer of some species of trees.

HABITAT REQUIREMENTS

▲ Cover

Bears have a keen sense of smell and hearing, but their vision is less acute. Near areas of human activity, they often bed down in dense thickets in daytime and do much of their moving at sunrise and sunset. Small bears sometimes use trees for resting places. Bears go into winter dormancy about December through March in the southern Appalachians.

Escape cover consists of:

1. rugged terrain such as steep, rocky, mountainous slopes;
2. mountainsides laced with laurel, rhododendron, grapes, greenbrier or other thickets;
3. extensive areas with minimal human disturbance;
4. large swamps with dense briars and canes, stream channels and standing water; or
5. Carolina bays and pocosins

The most important element of escape cover is protection from people, dogs, and off-road vehicles.



▲ *Food*

Bears are omnivorous. The bulk of their diet is hard and soft mast, insects, animal matter and succulent plants. Timber operations and cultural treatments will largely determine food production and bear distributions.

The amount and types of food eaten by bears vary according to seasonal activities.

Pre-denning (Aug-Nov)

hard mast
 blackgum
 corn
 holly berries
 black cherry
 dogwood berries
 sassafras
 Carolina buckthorn
 persimmon
 pokeberry
 greenbrier
 grapes
 animals
 insects

Denning (Dec-Mar)*

hard mast
 greenbrier
 gallberry

** Some coastal bears
 may continue to
 move during winter
 denning.*

Post-denning (Apr & May)

arrow arum
 greenbrier
 grasses
 pokeberry
 squaw root
 tree cambium
 insects
 animals

Breeding (Jun & Jul)

blackberry
 huckleberry
 blueberry
 serviceberry
 viburnum
 insects
 animals

▲ *Water*

Bears require water daily and two or more sources of permanent open water (*per square mile of range*) should be available. Water holes are necessary if permanent water is not available.

▲ *Home Range*

Typical black bear densities range from one bear per square mile to one bear per seven square miles.

The home range of bears in the Southeast range from 6 to 19 square miles for females and 18 to 160 square miles for males. Home ranges must include den sites, food, water and cover for adults and young. Home ranges and bear densities may vary considerably depending on available food sources. Mast shortages may result in considerable wandering, so other important fall and winter foods should be maintained at high levels to deter movement into areas where bears are more vulnerable or troublesome.



STANDARD MANAGEMENT PRACTICES

Black bears require very large expanses of forest. Soil disturbances create early succession which provide food and escape cover. During poor mast producing years, bears need early successional areas. A minimum of 5,000 acres of this habitat is required before bear management practices may be of any benefit. Areas smaller than this may still be managed if they are close, adjacent, or connected to known, occupied bear range.

▲ *Rotation*

In hardwood types, 110 year old rotations are adequate when den capability is retained. Stands selected for harvesting should be small (*25 acres*) and widely dispersed.

Retain at least 5 to 10 percent old growth in protective zones and use inclusions.

On the coast, on wet sites where bedding and drainage are applied, retain large, dense titi bays, pocosins, bottomland hardwoods, and swamps (*up to one-third of the unit area*) for escape and foraging cover. Retain gum-cypress swamps.

Retain trees with large cavities (*openings 5 inches in diameter or more*) whenever they occur with some sheltering stems around.

All streamside zones should be protected; 100 feet in the mountains and 300 feet on the coast.

▲ *Regeneration*

No more than 10 percent of a management unit should be regenerated in a 10 year period. Manage timber for a combination of 65-70 percent oak-hardwood mast producing age and 20-30 percent early successional growth (*many bears have been trapped near clearcuts in South Carolina*). These methods provide abundant soft mast and herbaceous foods at early stages of stand development.

Avoid conversion of:

- bottomland hardwoods to pine.
- longleaf pine/scrub oak to pure pine stands
- stands already containing 15 percent pine to pure pine



▲ *Intermediate Treatments*

Thinnings encourage seed production by stimulating the development of full, vigorous crowns and by maintaining suitable understories. The possible improvements that thinnings may make in bear habitat must be balanced against the detrimental effects of disturbance and road creation.

In areas of thin understory development, thin early and as frequently as silviculturally practical. Avoid use of herbicides and retain important mast-producing understory species.

Do not develop pure stands through intermediate cuts.

▲ *Prescribed Burning*

Burning improves palatability and nutrition of understory plants and stimulates some types of fruit production. Burning cycles of 3 to 5 years in appropriate habitats reduce large sprouts to new growth and remove much of the “rough” that suppresses desirable herbaceous growth.

DIRECT IMPROVEMENTS TO HABITAT

With an appropriate distribution of harvested stands, developed openings are not necessary. Openings may be used to produce fruiting shrubs such as blackberries or planted to supplement winter food supplies (*corn, wheat, or clover*) where extensive immature pine or hardwood stands prevail.

Release, prune, fertilize or establish fruit or nut trees (*such as mulberry, apple, persimmon, and pecan*).

In stands selected for harvesting, retain and release some groups of large diameter trees with the potential to develop elevated cavities in remote areas. One of the main purposes of bear management is to maintain the availability of suitable winter dens.

Access to areas managed for bear, as well as surrounding areas, should be limited. There should be a maximum of one mile of road per five square miles of habitat. Roads can be closed using gates, tank traps, or large rocks. Logging roads should be closed and reseeded following harvests.

OTHER SPECIES THAT BENEFIT FROM BLACK BEAR MANAGEMENT

Numerous other game and nongame species with habitat requirements similar to bears benefit from bear management. Rather than focusing solely on bears, management plans should emphasize the communities of which bears are a part.

The following are some of the species that can benefit from black bear management practices:

gray squirrel	raccoon
white-tailed deer	wood duck
great-horned owl	American redstart
pileated woodpecker	ruffed grouse

