

APPENDIX N

Specific Management Recommendations for Black Bears



Historically, the black bear (*Ursus americanus*) was found in most ecological regions in the state of Texas. During the 1920's and 1930's, bears were fairly common in the pine-oak woodlands of western Texas. Unregulated hunting, loss of habitat, and extensive predator control programs sanctioned by the government were all factors that contributed to the black bear's decline in Texas. By the 1940's, bear sightings were few with most reports coming from the rugged canyons and mountains of the lower Big Bend Region. This area was the last stronghold of the black bear in Texas, but by the 1950's the black bear was essentially extirpated. An occasional bear sighting was still reported from the lower Big Bend area, which tended to be associated with wildfires in the adjacent Mexican mountains. According to Baker (1956), bear numbers had drastically declined in Mexico with only remnant populations in the mountains of northern Coahuila. In 1986 Mexico placed the black bear on their endangered species list and closed the hunting season indefinitely. Texas followed suit in 1987, placing the bear on the state endangered list. At this point, it appeared that the black bear was gone from Texas with no plans for reintroduction.

Recovery

Natural recovery by a wildlife species into former historical range rarely occurs without the intervention of man. Yet, an amazing reestablishment of black bears into portions of their former range in Texas is occurring. During the 1980's bear sightings became more frequent, especially in Big Bend National Park (BBNP) and on the adjacent Black Gap Wildlife Management Area (BGWMA). In 1988 a tourist in BBNP photographed a sow with three cubs, and in 1994 a hunter on the BGWMA also photographed a sow with three cubs. Observations of bears and their sign are increasing, and people on private lands as well as the federal and state lands in western Texas now find themselves living in "bear country." To the south in the state of Coahuila, Mexico the bear population has recovered and is increasing. It is likely that the black bear will continue to disperse into western Texas from viable populations in northern Mexico.

Biology

Black bears are typically thought of as forest creatures. However, they will use other habitats where food is available. In the Chihuahuan Desert of western Texas, black bears are found in the pine-oak woodlands of the mountains and in the lower desert

elevations.

Black bears are stocky with powerful legs and short tails, and they walk slightly pigeon-toed. Despite the name “black bear,” their pelage may be various shades of brown. Some bears have tan muzzles, and may or may not have a white blaze on their chest. Adult males can weigh almost 400 pounds. Females (sows) are smaller, weighing from 100 to 200 pounds. Typically, adult bears measure about 36 inches at the shoulder and are 4 to 6 feet tall when standing upright.

Black bears are solitary creatures except during the breeding season in summer, or when a sow is with her cubs. Sows normally breed when they are 3 to 4 years old. They usually breed every other year and will have 1 to 4 cubs, with 2 or 3 cubs being most common. The cubs are born in late winter/early spring and remain with the sow through 2 spring seasons.

In west Texas bears do not enter a true state of hibernation during the winter. Instead, they enter brief periods of denning. They may choose a den site in a rock pile, brush pile, cliff overhang, or cave. During the denning period, bears may awaken and move about short distances to water and feed. When the cubs are born, the sow will remain with them in the den, emerging only after the cubs are large enough to travel with her.

Home ranges vary, depending on habitat, availability of food, and geographical location. Home ranges of males are typically much larger than females. Bears may travel great distances in search of food, mates, and suitable habitat.

Food Habits

Black bears spend a large portion of their time seeking food. In the pine-oak habitat at higher elevations, important bear foods include madrone, juniper and algerita berries; acorns; Mexican squawroot; pinyon nuts; and a variety of grasses, insects, and carrion. In the lower desert elevations important bear foods are acorns, prickly pear fruits, Texas persimmons, Spanish dagger, sotol and yucca hearts, mesquite beans, and grasses.

During the winter and early spring, bears are somewhat lethargic and their appetite diminishes. In the lower elevations of west Texas, acorns, remnant persimmons, insects, and the hearts of Spanish dagger, sotol, and yucca comprise a major portion or the winter/early spring diet. In pine-oak habitat at higher elevations, predominant food items are acorns, pinyon nuts, juniper berries, madrone berries, and insects.

During summer bear diets will reflect the availability of fruiting plants in their home range. Bears feed heavily on mesquite beans, which contain 11-13% crude protein and are extremely high in energy. The fruits of prickly pear, Texas persimmon (late summer), and algerita are also important components of the summer diet. The summer diet is supplemented with the hearts of Spanish dagger, sotol and yucca.

The greatest foraging season for bears is fall when they need to build up a fat supply to

last them through the winter. Weight gain is considerable prior to the winter months. Acorns are the single most important food item in the diet during the fall. Although acorns are relatively low in crude protein (4-6%), they are one of the best energy foods available. Acorns are followed in importance by madrone berries at the higher elevations and remnant persimmons in the lower elevations. During low acorn-production years in the higher elevations, madrone and juniper berries tend to be the major food items in the fall diet.

Research on bear diets in the pine-oak habitats of west Texas and northern Mexico (Doan-Crider 1995) has shown a relatively low percentage of animal matter in the diet (7-8%). Mammals represented a very small portion of the diet (1-2%). The remains of 5 mammals were identified as deer, javelina, coyote, skunk, and a rodent. It is unknown whether these animals were taken through predation or fed upon as carrion. Several scats contained bear hair but were suspected to have occurred as the result of grooming activity. In the lower desert elevation, over 400 black bear scats (dried feces) were analyzed. One scat contained mule deer hair, and one scat contained black-tailed jackrabbit hair (McKinney and Pittman 1999).

Foods that may attract bears are dog food, cat food, livestock feed, hummingbird feeders, garbage, and lard. Occasionally, a bear will kill and feed on livestock. Predation by bears tends to occur more often during drought when vegetation and other natural foods are limited. Predation on calves and young horses is extremely rare, while black bear predation on goats or sheep is more common. Because bears will feed on carrion, they are often blamed for livestock deaths that they did not cause.

Incidents of bears preying on their own species have been documented numerous times, with cubs being the primary target of this intraspecies predation. This phenomenon tends to be more of a problem in areas where bear numbers are relatively high. In such situations, cubs as well as adult females are sometimes killed by rogue males and may or may not be fed upon.

Water

Water use and its importance to bears in west Texas has not been documented. Based upon observations and preliminary research, it is likely that water is critical for establishing black bear populations. When forage conditions are good and succulent herbaceous vegetation and fruits are abundant, bears can probably survive for some time without standing water. Ripe fruits and green grasses and forbs contain from 70-90% water, and during certain seasons bears can probably obtain adequate water from these forages. However, most of the time the Trans-Pecos is hot and dry, and forages are less than succulent. Bears will seek standing water not only to replenish daily water loss but also to cool off, especially in the summer months.

Habitat Management Recommendations

Bears prefer shady, cool places (canyons and mountain slopes with trees), but will live

anywhere there is adequate food and water. Canyons tend to be good bear habitat not only because of their cooler temperatures but because they tend to support a variety of plants for both food and cover. Whether for protection of cubs or because of the availability of food, sows with small cubs will often “hole up” in isolated canyons. These timbered canyons are key habitats that may require protection during certain management activities such as aerial herbicide, mechanical brush removal, etc. These areas may also require periodic rest from livestock grazing. Promoting the growth of native, mast-producing shrubs and trees in these canyons and other key habitat sites may help to improve the quality of bear habitat on your property.

Riparian areas support an abundance of herbaceous vegetation and woody cover, and usually support some of the best mast-producing trees and shrubs. These are key habitat sites that are used by bears (and most other wildlife species) for foraging and as travel corridors. Protection of riparian areas will help to maintain the quality of food and cover for a variety of wildlife species currently residing on your property, as well as for a gradually recovering bear population. Fencing along riparian areas can be extremely valuable in controlling the intensity and duration of livestock grazing.

The distribution and survival of bears is highly dependent on food availability, and any management practice that maintains or improves the diversity and availability of food will increase the potential for bears to successfully reside on the property. Grazing management strategies that incorporate periodic rest for pastures while maintaining light to moderate stocking rates can improve the quantity and quality of foods for bears and other wildlife. Infrequent prescribed burning can stimulate the germination and/or growth of a variety of plants, including key mast producers. Bear habitat can be improved by removing invasive woody species such as creosote, tarbush, and dense mesquite while maintaining mature mesquites, oaks, Texas persimmons, juniper, Spanish dagger, sotol, and yucca species. Water conservation and erosion control practices can also make subtle, long-term improvements (or prevent degradation) in the availability of food and cover.

Availability of water can be an important component of bear habitat. Water in catchments, guzzlers, troughs and tanks should be maintained to ensure availability of water for bears and other wildlife. Bears love to play in water; therefore, large or deep catchments and storage tanks should have a means of escape. This can be done by placing a ladder or escape log in storage tanks. One end of the escape log (at least 4-5” in diameter) should be wired to the edge of the tank while the other end is allowed to float with the water level. If water storage tanks with lids are used, the lids should be secured with a latch to ensure that bears can not pry the lids open and climb into the tank. Bears will damage float valves in livestock troughs and bite holes in above-ground plastic pipe. Burying plastic pipe and welding a metal cage over float valves can prevent these problems. When rotating livestock herds or temporarily destocking, water facilities in vacant pastures should be in operation and maintained for the benefit of bears and other wildlife. Establishing permanent water sources in remote locations can reduce the potential for bear/livestock conflicts.

Coexisting With The Black Bear

Many states in the United States have black bear populations, and people coexist with them on a daily basis. In the southwestern United States and northern Mexico, black bears are found on many ranches and farms, as well as in parks and on state and federal lands. In western Texas black bears are gradually increasing in number, and few bear/livestock or bear/human conflicts have occurred. Several successful black bear relocations have been conducted recently by TPWD.

Bears are very intelligent and curious. Sometimes their natural curiosity and opportunistic feeding habits cause them to lose their natural fear of human activities. The result is a nuisance bear that is a potential threat to humans. Occasionally, bears can be relocated successfully many miles from the area where they were creating problems. But often, these nuisance bears must be destroyed. Supplemental feeding of bears is not recommended. Bears that are fed can lose their desire to forage on natural foods and can quickly become nuisance bears. A bear may not be considered a nuisance by the individual who was feeding it, but it will inevitably become a nuisance (and possibly a danger) to someone. Ultimately, a nuisance bear will have to be relocated, if not destroyed.

If you have black bears on your property, there are some specific actions and management techniques that can be used to prevent bear damage and conflicts, and allow the black bear to continue its natural recovery in western Texas.

1. Do not feed bears. They learn quickly and will begin to expect free handouts. This can quickly create a problem bear. This type of bear can become a threat to humans and may have to be destroyed.
2. Keep a safe distance; do not approach or harass a bear. Black bears are wild animals and are fast, powerful, and unpredictable.
3. Maintain clean, garbage-free grounds. Keep garbage in containers with locking lids and dispose of garbage by burning or burying it.
4. Keep pet and livestock foods in buildings with closed and latched doors.
5. Burn livestock carcasses, and during the hunting season burn game hides and viscera to prevent bears from feeding on them.

The black bear is currently listed as a “state threatened species.” TPWD is responsible for the protection and conservation of black bears in the state. TPWD is currently monitoring the distribution and status of bears throughout the state and is actively conducting research on reestablishing populations. TPWD is also committed to assisting landowners with bear problems and will help to resolve any bear-related conflicts that may occur. If you have a nuisance bear on your property, do not attempt to trap or shoot the bear. If you see a bear on your property or experience a problem with a bear, please notify:

Texas Parks and Wildlife Department
1-800-792-1112

TPWD, San Angelo Regional Office
(915) 651-4748

Black Gap Wildlife Management Area
(915) 376-2216 or 376-2273

TPWD Alpine District Office
915) 837-2051

Elephant Mountain Wildlife Management Area
(915) 364-2228

Or call your local TPWD game warden or wildlife biologist.

Literature Cited

Baker, R. H. 1956. Mammals of Coahuila, Mexico. Univ. Kansas Publ., Mus. Nat. Hist., 9(7): 125-335.

Doan-Crider, D. L. 1995. Food habits of the Mexican black bear in Big Bend National Park, Texas and the Serranias del Burro, Coahuila, Mexico, 1991-94. Spec. Report Big Bend Nat. Park, TX. 40 pp.

McKinney, B. R., and M. T. Pittman. 1999. Habitat use, diet, home range, and movement of resident, and relocated black bears in a lower Chihuahuan Desert habitat. Wildlife Diversity Group, Project WER39 STATE. Texas Parks and Wildlife Department, Austin, Texas. 42 pp.

Additional References

Anderson, Tom. 1992. Black Bear: Seasons in the Wild. Voyageur Press, Inc. Stillwater, Minnesota. 120 pages.

Brown, Gary. 1993. The Great Bear Almanac. Lyons and Burford. New York, N.Y. 325 pages.

Cox, Daniel J. 1990. Black Bear. Chronicle Books. San Francisco, California. 96 pages.

Fair, Jeff. 1990. The Great American Bear. Northwood Press, Inc. Minocqua, Wisconsin. 192 pages.

Hererro, Stephen. 1985. Bear attacks: their causes and avoidance. Lyons and Burford. New York, N.Y. 287 pages.

*Prepared by Bonnie McKinney
Revised by Calvin Richardson*