

## CHARACTERISTICS OF BLACK BEARS AND GRIZZLY BEARS IN YELLOWSTONE NATIONAL PARK

The Grizzly bear population within the Yellowstone ecosystem is estimated to be approximately 280-610 (Eberhardt and Knight 1996) bears. The park does not have a current estimate of the black bear population; black bears are considered to be common in the park.

### **BLACK BEAR (*Ursus americanus*)**

Color: Varies from pure black to brown, cinnamon, or blonde; in the Rocky Mountains, approximately 50% are black with a light brown muzzle.

Height: About 3 ft (0.9 m) at the shoulder.

Weight: **Male:** 210-315 lbs (95-143 kg); **Female:** 135-160 lbs (61-73 kg) (Barnes and Bray 1967).

Annual Home Range Size: **Males:** 194 km<sup>2</sup> (75 mi<sup>2</sup>); **Females:** 44 mi<sup>2</sup> (17 mi<sup>2</sup>) (M. Haroldson, IGBST, pers. Commun).

Life Expectancy: 15 - 20 years in the wild; 30+ years in captivity.

### **GRIZZLY BEAR (*Ursus arctos horribilis*)**

Color: Varies from black to blonde; frequently with white-tipped fur giving a grizzled, "silver-tipped" appearance. In the Yellowstone ecosystem, many grizzly bears have a light brown girth band.

Height: About 3-1/2 ft (1.0 m) at the shoulder.

Weight: **Male:** 216-717 lbs (98-325 kg); **Female:** 200-428 lbs (91-194 kg) (Blanchard 1987).

Home Range Size: **Males:** 874 km<sup>2</sup> (x km<sup>2</sup>); **Females:** 281 km<sup>2</sup> (mi<sup>2</sup>) (Schwartz et al. 2004).

Life Expectancy: 15 - 20 years in the wild; 30+ years in captivity.

### **PHYSICAL AND BEHAVIORAL CHARACTERISTICS**

The physical and behavioral differences between black bears and grizzly bears have been described in detail by Herrero (1978). Black bears are primarily adapted to use forested areas and their edges and clearings. Although grizzly bears make substantial use of forested areas, they also make much more use of large, non-forested meadows and valleys than do black bears. Black bears have short, curved claws better suited to climbing trees than digging. This enables black bears to forage for certain foods, such as mast, by climbing trees. In contrast, grizzly bears have longer, less curved claws and a larger shoulder muscle mass better suited to digging than climbing. This enables grizzly bears to efficiently forage for foods which must be dug from the soil such as roots, bulbs, corms, and tubers, as well as rodents and their caches. The primary difference between the food habits of black bears and grizzly bears in the Yellowstone ecosystem is the absence of roots in the diet of black bears (Knight et al. 1988).

Behaviorally, black bears are generally much less aggressive than grizzly bears and rely on their ability to climb trees to allow themselves and their cubs to escape predators such as wolves, grizzly bears, or other black bears. Grizzly bears are generally one and one-half to two times larger than black bears of the same sex and age class within the same geographic region. Grizzly bears are also more aggressive than black bears and more likely to rely on their size and aggressiveness to protect themselves and their cubs from predators or other perceived threats.

Another behavioral difference between black bears and grizzly bears is the length of time cubs are under their mother's care. Black bear cubs are born in the winter den, spend the summer following birth with their mother, den with her again in the fall, then separate from her early the next summer as yearlings. Grizzly bear cubs spend two and one-half and sometimes three and one-half years under their mother's care before separation.

### **LITERATURE CITED**

- Barnes, V.G., and O.E. Bray. 1967. Population characteristics and activities of black bears in Yellowstone National Park. Final rep., Colorado Wildl. Res. Unit, Colorado State Univ., Fort Collins. 199pp.
- Blanchard, B. M. 1987. Size and growth patterns of the Yellowstone grizzly bear. Int. Conf. Bear Res. and Manage. 7:99-107.
- \_\_\_\_\_, and R. R. Knight. 1991. Movements of Yellowstone grizzly bears. Biol. Conserv. 58:41-67.
- Eberhardt, L. L., and R. R. Knight. 1996. How many grizzlies in Yellowstone? J. Wildl. Manage. 60(2):416-421.
- Herrero, S. 1978. A comparison of some features of the evolution, ecology and behavior of black and grizzly/brown bears. Carnivore 1(1):7-17.
- Knight, R. R., D. J. Mattson, and B. M. Blanchard. 1984. Movements and habitat use of the Yellowstone grizzly bear. U.S. Dep. Inter., Natl. Park Serv., Interagency Grizzly Bear Study Team. Unpubl. rep. 177pp.
- \_\_\_\_\_, B. M. Blanchard, and D. J. Mattson. 1988. Yellowstone grizzly bear investigations: annual report of the Interagency Grizzly Bear Study Team, 1987. U.S. Dep. Inter., Natl. Park Serv. 80pp.