

Black Bears: Second Fiddle, But Just Bear-ly

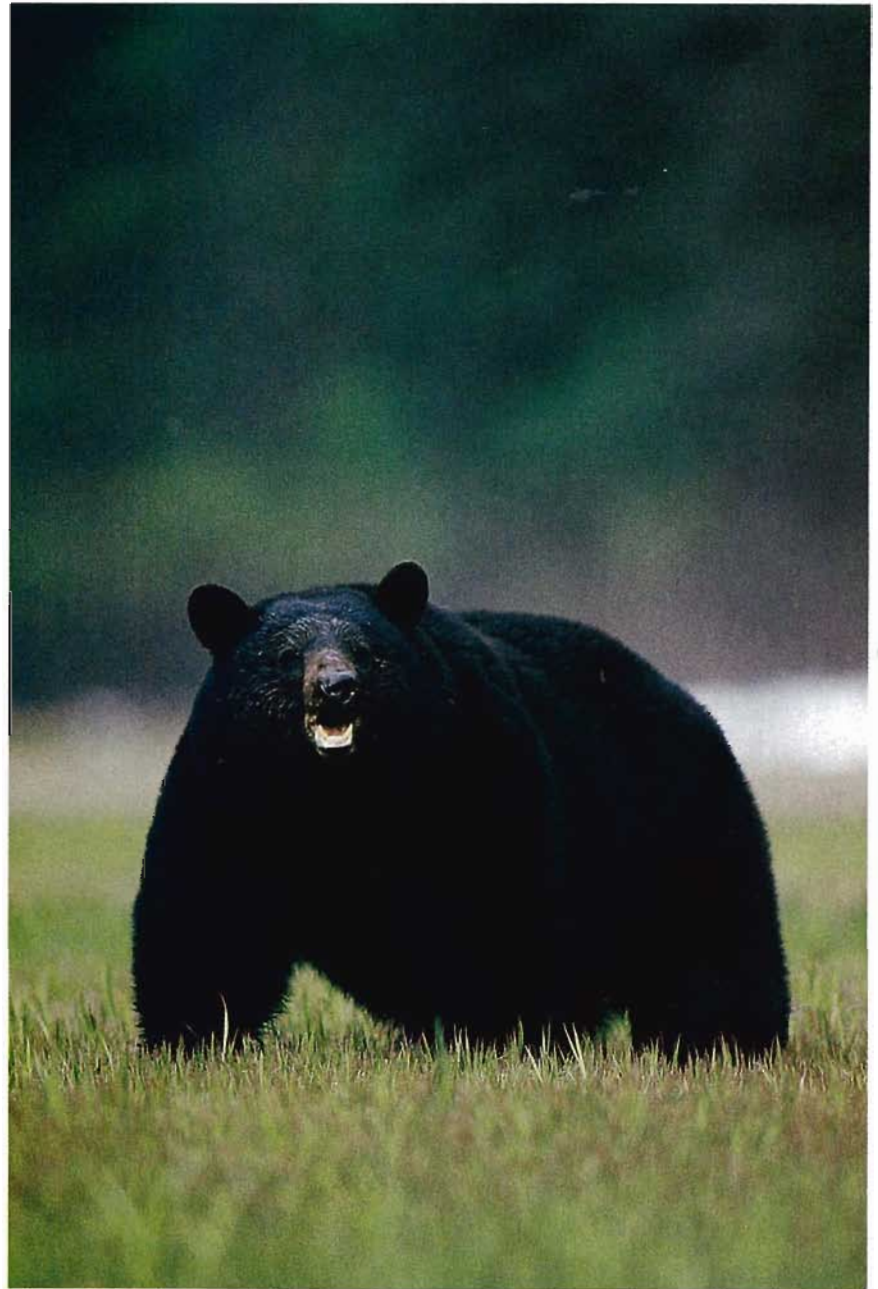
by Tom McCarthy
and LaVern Beier

Mention an Alaskan bear hunt and most people envision stalking a Kodiak or Admiralty brown, or perhaps an Interior grizzly. In recent years, however, an increasing number of hunters have taken notice of the brown's smaller relative, the black bear, as both a trophy and a meat animal. Indeed, the total harvest of black bears in the state, in excess of two thousand, is at least double that of brown bears, but because black bear kills need not be reported in some game management units (GMUs), exact figures are not available.

By far, the majority of the reported black bear harvest comes from the southern coastal regions. Southeast (GMUs 1,2,4, & 5), the Prince William Sound area (GMU 6) and the Kenai Peninsula (GMUs 7 & 15) account for more than half of the black bears that are presented for sealing each year. In GMUs 14 and 16 near population centers of Anchorage, Palmer, and Wasilla, and in GMU 20, which includes Fairbanks, bear harvests are moderately high but may be related as much to human density as to high bear numbers.

Black bear population or density estimates are hard to obtain. Because the black bear is a rather secretive forest dweller, aerial survey techniques that work well for species such as moose or caribou in open country cannot be used with accuracy to count black bears in the forest. However, through the use of radio-collared animals, and in some instances through educated guesses, rough density estimates are available for black bears in several areas. Harvest figures suggest that the highest bear densities occur along the coast. There, one might encounter between two and 15 black bears per square mile of good habitat. Hunters in the central or southcentral parts of the state, in contrast, may need to cover between two and six square miles to find even one bear.

Besides wanting to know where they can find the most bears, hunters are usually interested in knowing where to go kill a big bear. In the language of bear hunters there are two measures of



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size: the size of the skull and the size of the hide. Skull size, a combination of length and width, is recorded for all harvested bears brought in to be sealed. How big the bear "squared," or the average of the length and width of the hide, is left for the hunter to determine. This measurement should be made with the hide lying flat, while the hunter resists the urge to stretch the hide! While there is not a perfect relationship, a 19-inch skull should equate to a bear squaring at least seven feet.

Department of Fish and Game records indicate that, based on skull size, the largest black bears can be found on the islands of southeast Alaska. There, skull sizes of about 19 inches are common with nearly one out of every twenty bears qualifying for the Boone and Crockett record book (21 inches). With Pope and Young record book entries starting at 19 inches, bow hunters have more than a few "book" bears to look over before attempting to take one. In general, skull sizes tend to decrease as one moves

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north; they average just under 17 inches in much of the Interior, but record book bears have been taken from throughout the state.

Hide quality may be best in the spring, provided a bear is taken before he becomes "rubbed." Rubbing occurs when bears emerge from the den and scratch themselves on trees or rocks, breaking down the longer guard hairs and exposing the short underfur or skin. Fall bears may have more fat under the skin, and despite a more uniform fur, be susceptible to hair loss during processing.

Trophy hunters are often as interested in color as they are size, and black bears, contrary to the name, come in a wide range of pelt colors or "phases." The *cinnamon* phase is less common than the black and may range in hue from a chocolate brown to a light tan. Although it is possible to come across a cinnamon just about anywhere that you find blacks (except on some islands), they are prevalent in particular areas. An ADF&G wildlife biologist would be able to get a hunter looking for this color phase started in the right direction. A much rarer coloration is the *glacier* or *blue* phase. Found almost exclusively in Southeast, this silver to

blue-tinged bear is most commonly encountered in the Yakutat area. So rare is this color phase that only one or two are harvested statewide each year.

As hunting interest increases, some reassessment of black bear seasons or bag limits may be necessary to prevent excessive harvests. In Southeast, where nearly half of the harvest is taken by nonresidents, the bag limit for that group of hunters has already been reduced to one bear per year. However, the lack of a guide requirement for this species continues to make it attractive for hunters from outside the state.

Whether for subsistence or sport, trophy or meat, black bear hunting has come into its own. No longer considered a varment, or just the brown bear's smaller relative, the black bear has gained stature in the world of big game.

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With the advent of radio-collars individual bears can be located regularly from airplanes and their home ranges plotted. If most of the bears within a study area were fitted with radio collars, at least a number of bears could be estimated. Moreover, bears often travel long distances to feed seasonably on concentrated food resources, such as a salmon stream, a rich intertidal sedge meadow, or a particularly good berry patch. Thus deciding on where to put the boundary of a count area is crucial. A disadvantage of this technique is its high expense; also, it must be done over a prolonged time period.

Within the past five years an old technique originally used to estimate the number of fish in a lake has been modified for bears. This involves putting radio transmitters on a representative cross-section of the bear population and then intensively searching the area from small aircraft to see as many bears as possible. Each bear located is then checked to determine if it has a radio collar. Because the exact number of marked bears within the search area is verified each day by a radiotracking airplane, the total population can be estimated from a mathematical formula that calculates the ratio of marked to unmarked bears. After several days of replicate searches, the independent estimates can be averaged to provide a statistically valid population "census." For a census to be useful to managers, the results have to be extrapolated to a much larger area—such as an entire Game Management Subunit. A typical census area might be 300-500 square miles, whereas a management subunit is 10 to 20 times larger.

Brown/Grizzly Bear Abundance Varies Within Alaska

Given the huge size of Alaska and its diversity of habitats, it is not

surprising that bear numbers vary considerably from one end of the state to the other. Along coastal areas of southeastern and southwestern Alaska, the habitat is enriched with large salmon runs. The productivity of this coastal habitat is reflected both in larger body size of bears and in much higher bear densities (expressed as the number of bears inhabiting a specified area of land). Several censuses have been completed in coastal areas with densities ranging from 50-140 bears per 100 square miles. In contrast, bear densities in several areas of interior Alaska were measured at 1-8 bears per 100 square miles. Reproductive and survival rates (which have a great influence on what percentage of the population can be harvested) also vary from one part of the state to another, although not as dramatically as do the densities.

Management Objectives

All of the available biological data must be merged with management objectives to finally arrive at a desired harvest level. If providing for top quality trophy hunting is a primary objective, the harvest must be kept below the maximum sustainable level so that more bears will reach older age classes. This is where your input is so valuable. We need to hear what management objectives you want. Then we need your ideas on how we can achieve those objectives with the hunting regulations.

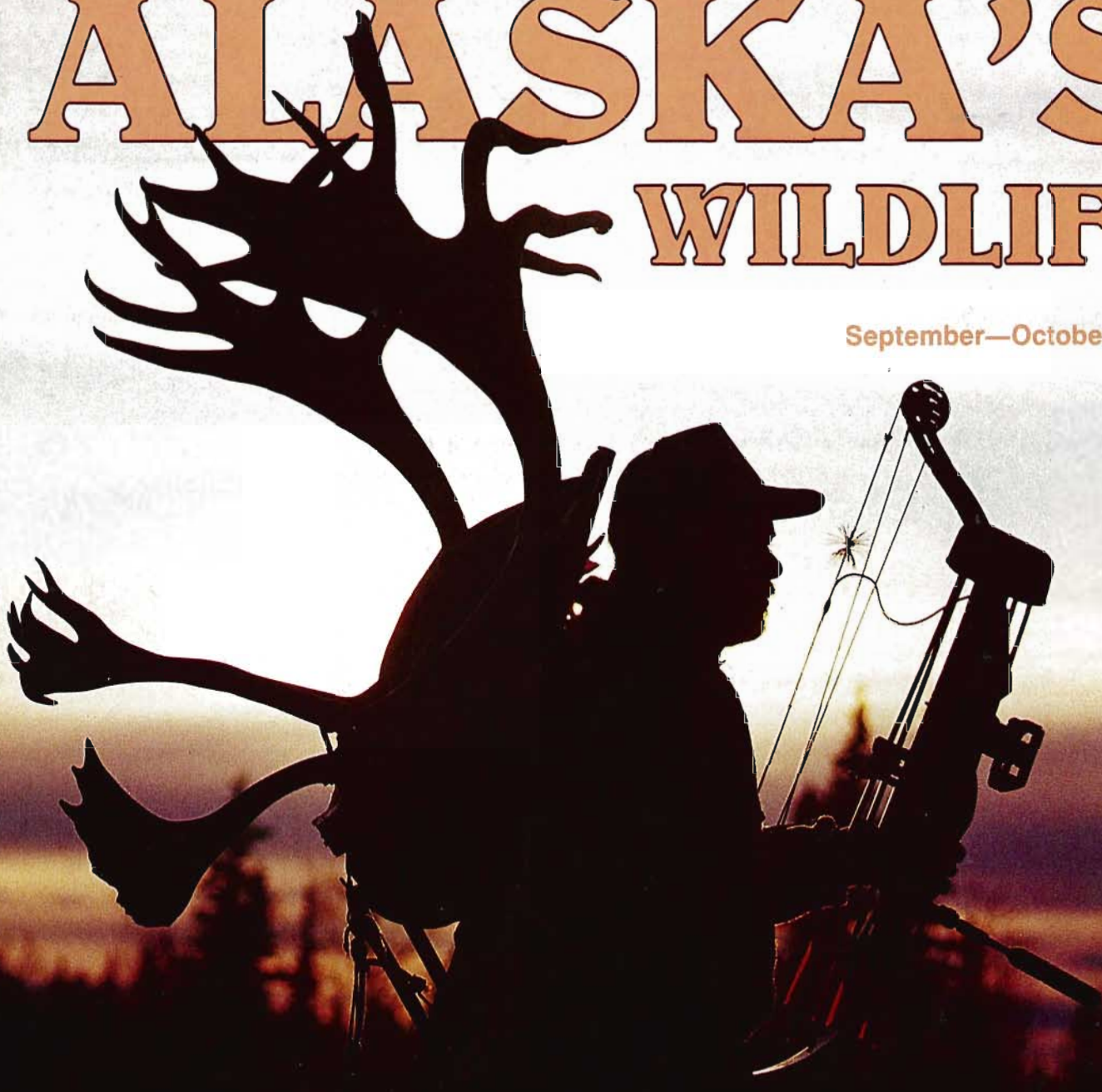
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