ALASK

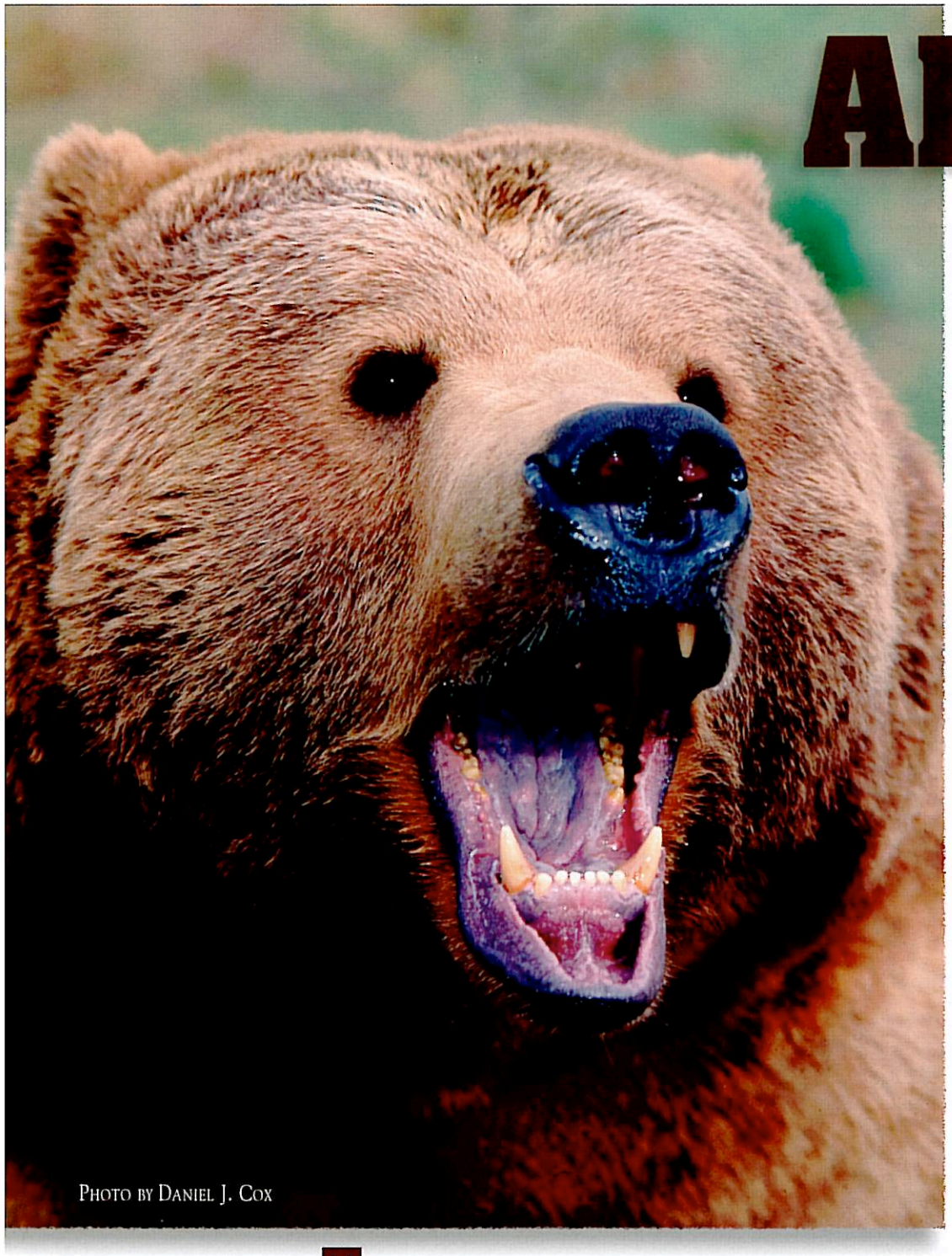

PHOTO BY DANIEL J. COX

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The bears classified by the Boone and Crockett Club as Alaska brown bear consist of two populations separated by some 30 miles of ocean across which the bears do not swim; the Kodiak bears which live on that island and on adjoining Afognak and Strawberry Islands and those living on the mainland from southeastern Alaska all the way to the far western end of the Alaska Peninsula and the easternmost Aleutian Island, Unimak. These bears, the largest of the living carnivores, weighing well over 1,000 pounds as adult males, were originally placed into several different species, but are now regarded as belonging in the same species as the more widespread grizzly bear, *Ursus arctos*. Furthermore the brown bears of Europe and Asia are also regarded as belonging in the same one very widespread species, called the brown bear. The original Kodiak bear was named *Ursus arctos middendorfi* 100 years ago for the famous Russian mammalogist who worked extensively on the mammals of Siberia during the last century. Modern taxonomists differ on what name or names should be applied to the coastal bears, but the one most favored is *Ursos arctos gyas*, the last name meaning "giant". Kodiak bears differ from coastal bears not in overall size, as both are gigantic, but their skulls are shorter, wider, and higher than those on the peninsula. As we move southeasterly, brown bears occur all the way to the large A, B, C islands of the panhandle, Admiralty, Baranoff, and Chicagoff. These bears from southeastern Alaska are eligible for entry into the program, but they are smaller and thus very few are listed in our records. Kodiak Island has a longer growing season and milder winters than the peninsula does and this island has the greatest density of bears compared with any other.

During the Pleistocene Epoch, Glacial period, there were four major advances of the great northern glaciers which covered most of Canada. These resulted in lowering the level of the oceans and accompanying that periodic land bridges connected eastern Asia and western Alaska. The bears and all other mammals of the area moved periodically freely back and forth across this area. The giant bears of Alaska are duplicated on the Asian side, but are now isolated by ocean waters after the glaciers melted.

It is generally believed that these bears evolved great body size by living perpetually in an environment with spawning salmon and an almost unlimited food supply for several months each year. As we move farther inland from the coast the bears become smaller in size and are called grizzly bears. The Club has had a problem with separation on the trophy listing since the start of its program. Initially, the boundary was laid out to confine the Alaska brown bears into an area 75 miles from coast.

By the early 1960's it was apparent that it needed to be more precisely stated. In the 1964 Records of North American Big Game, 5th edition, the Records Committee chaired by Robert Waters described a precise boundary which is the one still in use and the map can be found in the Records of North American Big Game, 10th edition. It was at that time and still is for that matter an arbitrary line. The Committee based its decision primarily on recommendation of Robert L. Rausch, highly competent Alaskan mammalogist, who had earlier studied bear classification and reduced the many species names previously available to a single one, *Ursus arctos*. Later Records Committees have looked at suggested changes in this

A BROWN BEAR

boundary, but have not seen fit to change it.

The largest bears in our records are about equally divided among those from Kodiak Island and those from the Peninsula. If we scrutinize the figures showing length and width of the skulls as published in our books, the difference in the measurements from these two populations is fairly obvious with the peninsula bears having longer and narrower skulls.

The biology of the huge bears is similar, the most unique aspect of it being the winter sleep or hibernation. After gorging themselves with food and laying down large layers of fat in summer and early fall they go into a winter sleep in November and remain in the winter dens until mid-April. The physiology of bear hibernation is known from detailed studies made on black bears. A remarkable quality by which the nitrogenous wastes of metabolism are recombined to reform amino acids rather than discharge in the urine as urea. This allows the bears to remain in the den throughout the winter without emerging to urinate.

The pregnant female has her young in the hibernating den usually in February and she, too, does not leave the den during the entire winter. There are commonly two or three cubs which are tiny compared to the size of the mother and weigh about one pound at birth. The mothers are strongly attached to the young and defend them vigorously. They grow rapidly during the first summer and enter the den with the mother and nurse for a second summer.

The breeding season is in May or June, and no permanent pair bond develops between the parents. In fact, the estrous female may mate with more than one adult male during the several days she is in heat. The embryos develop only partially in the uterus and undergo a period of arrested development until about the time the female enters the den when they resume embryonic development during the early part of the winter. The cubs which are two years old after the third winter in the den leave the mother before she is bred.

Typically then there is a three year interval between the litters. This pattern results in a very slow rate of population growth since the female may be four or more years old before she breeds for the first time. Since the cubs are totally dependent on the care from the mother during the first summer and largely so in the second summer, it is essential for management that females with cubs or yearlings be totally protected.

The use of tranquilizers to allow the handling of live bears was developed by the Craighead brothers, John and Frank, in their pioneering studies of grizzlies in Yellowstone Park in the late 1950's and 1960's. Now bears and all other kinds of wildlife species are routinely tranquilized for handling or transplanting. Much of the detailed knowledge available now about bears, and many other wildlife species for that matter, would not have been possible without the refinement of this technique. Placement of radio transmitters and color markers, have further shown that bears are capable of traveling many miles as part of their normal routine. They are not highly territorial as can be seen by observing concentrations of many individuals on the salmon streams.

The teeth of bears although very heavy and powerful are best used as crushers rather than cutters as members of the dog and cat families possess. Bears eat all kinds of vegetable and animal food when salmon are not available. They are able to kill any species of big game in the habitat they share. The adult bears have no other enemy than man and their own species. Humans lose their lives every year with encounters in the field often by females with cubs. The loss of human life to brown bears is much higher in Asia than North America.

The fact that the teeth develop annuli around the roots has been discussed in earlier issues of this magazine. This technique has shown that bears are the longest lived big game animals we hunt and particularly the very large brown bear may live to be 30 or more years old. The average age of our trophy brown bears as entered is about 15 years. The Alaska Game Department has routinely for many years required the submission of a tooth from each bear harvested and thus has a very precise knowledge of the harvested population. Because of the advanced age of many bears in a wild population, it is extremely difficult for biologists to determine what a proper rate of harvest should be. Acting conservatively, then, they restrict the kill by issuing permits for hunting on Kodiak Island and by alternating opened and closed seasons on the Peninsula. Alaska brown bears are hunted both in spring and fall. Early spring taken bears generally have primer coats than fall taken ones. Game regulations require the use of guides for non-resident hunters and prohibit the killing of females accompanied by cubs and yearlings. They believe that experienced guides are able to reduce the accidental killing of female bears.

MINIMUM SCORE

Awards Book
26 points

All-Time Book
28 points

TOP FIVE ALASKA BROWN BEARS

30-12/16
Los Angeles Co. Museum
Kodiak Island, Alaska
1952

30-11/16
Erling Hansen
Kodiak Island, Alaska
1961

30-9/16
Los Angeles Co. Museum
Kodiak Island, Alaska
1938

30-8/16
University of Calif. Museum
Bear River, Alaska
1908

30-8/16
W.S. Brophy III
Kodiak Island, Alaska
1966

PHOTO BY V. VANBALLENBERGHE