

THE STATUS OF THE BROWN BEAR IN ALASKA<sup>1</sup>

David R. Klein, Willard A. Troyer and Robert A. Rausch  
Bureau of Sport Fisheries and Wildlife, Juneau, Alaska

The brown bear in Alaska has been the subject of mounting public concern in recent years. On Kodiak Island, conflicts with cattle interests have threatened the welfare of the brown

- 
1. Information included in this paper was collected in part with Federal Aid to Wildlife Restoration funds under Alaska Pittman-Robertson Project Number W-3-R.

bear. Increased trophy hunting, intensive oil prospecting and construction of defense installations on the Alaska Peninsula have been coupled with recent reports of decreases in numbers of brown bears. In Southeast Alaska the advent of large scale pulp logging forecasts a changing environment for the brown bear.

Bear population studies have been underway in the Kodiak National Wildlife Refuge for several years. Elsewhere in Alaska, brown bear studies were initiated in 1958 by the Fish and Wildlife Service, both on the Alaska Peninsula and in Southeast Alaska. In Southeast Alaska the Forest Service is cooperating in the studies. Other general information is being collected from all available sources.

#### Kodiak-Afognak Islands:

The Kodiak-Afognak Island group sustains a fairly high population of brown bears despite continued heavy hunting pressure. Conflicts of bear and cattle interests on Kodiak Island have been resolved by manipulation of the Refuge area. The one mile beach strip previously set aside for agricultural and industrial development was incorporated into the Refuge and coincidentally other areas were released from the Refuge for cattle grazing.

Harvest statistics show stability of the Kodiak Island brown bear population. No significant change in trophy size or sex composition of the annual kill has been recorded over an eight year period during which the annual harvest has varied between 157 and 225 bears. Cub counts made in 1958 show average litter sizes of 2.30 for cubs of the year and 2.25 for yearling cubs.

#### The Alaska Peninsula:

On the Alaska Peninsula the legal brown bear kill is estimated at 50-75 animals annually. The illegal kill is believed to be extensive. Reported decreases of brown bears on the

Alaska Peninsula may be the result of wide dispersal of bears during the summer period when they are normally concentrated on the salmon streams. The absence of bear concentrations is apparently associated with poor salmon escapements and does not necessarily indicate decreased bear numbers.

Aerial surveys on the Alaska Peninsula during the summer of 1958 resulted in 779 bears counted. Aerial-ground comparisons showed that approximately 50 percent of the bears present were seen from the air. Complete aerial coverage of the Alaska Peninsula was not possible due to unfavorable weather conditions. Other variables such as intensity of the salmon runs, abundance of berries, and types of cover are difficult to evaluate and materially alter the effectiveness of the counts. The average litter size among 415 sows and cubs observed was 2.17 cubs of the year per sow and 2.05 yearling cubs per sow.

#### Southeast Alaska:

In Southeast Alaska, the brown bear is restricted to the mainland and Admiralty, Baranof and Chichagof Islands of the Alexander Archipelago. Greatest density occurs on the islands, while mainland abundance is localized around the larger river valleys of the Coast Range.

Annual harvest of brown bears in Southeast Alaska has increased only slightly since 1932 when the kill was 75 animals. Recently the harvest has fluctuated around 100 annually. In the 1930's the U. S. Biological Survey and the Forest Service conducted censuses of brown bears on Admiralty, Baranof and Chichagof Islands and 900, 445 and 940 bears were counted, respectively.

In the spring of 1958, the Fish and Wildlife Service and Forest Service initiated a study of brown bears in Southeast Alaska. Objectives of the study are to determine relative numbers and population trends of brown bears in Southeast Alaska as a basis for evaluation of the effects of logging on brown bear populations and for comparison with results of bear surveys made in the 1930's.

Duplication of the track count method used in the 1930's indicates that this census method is subject to many uncontrollable variables and is not effective except in limited areas.

Aerial and ground observations of bears were effective in obtaining age ratios, and yearling cub counts showed an average of 1.94 cubs per sow.

Additional studies are being initiated to evaluate the effects of logging on the bears' habitat and to develop means of reducing contacts between loggers and bears which may be reciprocally detrimental. These findings will be incorporated into forest-use plans to insure the welfare of the brown bear in a changing environment.

ALASKA DEPARTMENT OF FISH & GAME  
ANCHORAGE, ALASKA

# SCIENCE

## IN ALASKA

1958

Proceedings

Ninth Alaskan Science Conference

ALASKA DIVISION  
AMERICAN ASSOCIATION FOR THE ADVANCEMENT  
OF SCIENCE

COLLEGE, ALASKA  
~~ANCHORAGE, ALASKA~~  
September 2 to 5, 1958

ALASKA DEPARTMENT OF FISH & GAME  
ANCHORAGE, ALASKA