

(43) BODY COMPOSITION OF FREE-RANGING WOLVES IN THE NELCHINA BASIN, ALASKA

Hilderbrand, Grant and Howard Golden. Alaska Department of Fish and Game, 333 Raspberry Road, Anchorage, AK 99518; grant_hilderbrand@fishgame.state.ak.us (GH, HG).

Abstract: We used deuterium water dilution to determine body composition of free-ranging wolves (*Canis lupus*) in the Nelchina Basin, Alaska. Body mass differed between sexes throughout the year. However, within sex, body composition was largely constant across seasons. Thus, nutritional resources must be regularly attained as relatively long periods of fasting cannot be supported due to the lack of energetic reserves stored by wolves. Body mass and lean mass were positively related to animal age in males. There was no relationship between body fat content and animal age in either sex. Thus growth in males beyond age two consists primarily of lean mass. Deuterium should be allowed to circulate in a wolf for at least 120 minutes to ensure complete equilibration regardless of season, sex, age, or reproductive status.

JOINT CONFERENCE and ANNUAL MEETING
NORTHWEST SECTION AND ALASKA CHAPTER
OF THE WILDLIFE SOCIETY

GIRDWOOD, ALASKA

PROGRAM AND ABSTRACTS OF PAPERS PRESENTED
MAY 1-3, 2004

Held at:
ALYESKA PRINCE RESORT HOTEL

Special Thanks to:

HERMAN GRIESE AND DR. R. TERRY BOWYER

THE WILDLIFE SOCIETY, STUDENT CHAPTER
UNIVERSITY OF ALASKA FAIRBANKS

KATHRYN STONE

AND

ALYESKA PRINCE RESORT HOTEL STAFF

JACKIE KEPHART AND LAURA MCCARTHY
(REGISTRATION AND BOOKLET SUPPORT)