

# CONTENTS

---

## NORTH AMERICAN WILD SHEEP DISEASE

- Evaluation of the cytotoxicity of various isolates of *Pasteurella haemolytica* from bighorn sheep and other ungulate populations.  
R.M. Silflow, W.J. Foreyt, and J.E. Lagerquist ..... 1
- Effects of controlled contact exposure between healthy bighorn sheep and llamas, domestic goats, mountain goats, cattle, domestic sheep, or mouflon sheep.  
W.J. Foreyt ..... 7
- Residual effects of pneumonia on the bighorn sheep of Whiskey Mountain, Wyoming.  
T.J. Ryder, E.S. Williams, and S.L. Anderson ..... 15
- A health protocol for domestic sheep used on forest grazing allotments in Alberta and British Columbia.  
M.J. Pybus, R.A. Fenton, and H. Lange ..... 20
- Evaluation of lungworms, nutrition, and predation as factors limiting recovery of the Stillwater bighorn sheep herd, Montana.  
L.C. Jones and D.E. Worley ..... 25

## SHEEP AND GOAT INVENTORY

- Analysis of 1992 Dall sheep and mountain goat survey data, Kenai National Wildlife Refuge.  
D. Strickland, L.L. McDonald, J. Kern, T. Spraker, and A. Loranger..... 35
- Aerial survey and Dall sheep population size: comparative usefulness of external and internal population dynamics for management purposes.  
W.E. Heimer ..... 43
- Utility of summer fixed-wing aerial surveys in predicting lamb:ewe ratios observed on winter range.  
L.R. Irby ..... 51
- A method used for estimating mountain goat numbers in the Babine Mountains Recreation Area, British Columbia.  
D. Cichowski, D. Haas, and G. Schultze ..... 56

A standardized technique for helicopter surveys of bighorn sheep. W.L. Bodie and L.E. Oldenburg .....	65
<b>HISTORICAL GOAT DISTRIBUTION</b>	
Status and history of mountain goats in Oregon. P.E. Matthews and V.L. Coggins .....	69
Review of the historical literature regarding the distribution of the Rocky Mountain goat ( <i>Oreamnos americanus</i> ). M.L. Irby and A.F. Chappell .....	75
<b>SHEEP AND GOAT MANAGEMENT</b>	
Effects of horn size and hunter success on satisfaction with Brooks Range sheep hunts. K.R. Whitten .....	81
The success of mountain goat management on the Kenai Peninsula in Alaska. G.G. Del Frate and T.H. Spraker .....	92
Horn growth in Montana bighorn rams. H.D. Picton .....	99
Summer activity patterns of bighorn ewes in the northern Great Plains. R.W. Sayre and R.W. Seabloom .....	104
Evaluation of bighorn sheep in the Ten Lakes Scenic Area of Montana. S.H. Johnsen .....	110
Effects of age of primiparity upon horn growth in bighorn ewes. M. Festa-Bianchet and J.T. Jorgenson .....	116
<b>GOAT PRODUCTIVITY AND POPULATION DYNAMICS</b>	
Social status and nanny-kid separation for Rocky Mountain goats. M.L. Irby and J.P. Fitzgerald .....	121
Summer-fall habitat use and fall diets of mountain goats and bighorn sheep in the Absaroka Range, Montana. N.C. Varley .....	131
Mountain goats on Mount Evans, Colorado - conflicts and the importance of accurate population estimates. D.F. Reed and K.A. Green .....	139

## **SHEEP AND GOAT HABITAT**

The effects of physical geography on Dall sheep habitat quality and home range size. W.E. Heimer, F.J. Mauer, and S.W. Keller .....	144
Consequences of habitat fragmentation on wild sheep metapopulation management within USA. D.J. Armentrout and R.J. Boyd .....	149
Evaluation of a multivariate model of mountain goat winter habitat selection. C.A. Smith .....	159
Spatial segregation of bighorn sheep, mule deer, and feral horses. R.E. Kissell, L.R. Irby, and R.J. Mackie .....	166
<b>Foreward to Workshop Reports .....</b>	<b>174</b>
1994 NWS&GC Management Workshop Questionnaire Response - FNAWS .....	175
1994 NWS&GC Management Workshop Questionnaire Response - ALASKA.....	176
1994 NWS&GC Management Workshop Questionnaire Response - ALBERTA.....	180
1994 NWS&GC Management Workshop Questionnaire Response - BRITISH COLUMBIA.....	184
1994 NWS&GC Management Workshop Questionnaire Response - CALIFORNIA .....	186
1994 NWS&GC Management Workshop Questionnaire Response - IDAHO .....	192
1994 NWS&GC Management Workshop Questionnaire Response - MONTANA .....	194
1994 NWS&GC Management Workshop Questionnaire Response - NORTH DAKOTA.....	196
1994 NWS&GC Management Workshop Questionnaire Response - OREGON .....	201
1994 NWS&GC Management Workshop Questionnaire Response - WASHINGTON .....	204
1994 NWS&GC Management Workshop Questionnaire Response - WYOMING .....	206
1994 NWS&GC Management Workshop Questionnaire Response - YUKON .....	211