

TABLE OF CONTENTS

EFFECTS OF NONHUNTING DISTURBANCE

| | |
|---|----|
| Winter Recreation and Human Disturbance on Mountain Goats: A Review Nathan Varley..... | 7 |
| A Review of the Potential Effects of Winter Recreation on Bighorn Sheep Kristin L.Legg | 14 |

HABITAT AND HABITAT ENHANCEMENT

| | |
|--|----|
| Wildlife Reclamation Planning Beth MacCallum(abstract)..... | 21 |
| Habitat Use and Movements of Mountain Goats as Determined by Prototype GPS Collars, Robson Valley , British Columbia Kim G. Poole, Douglas C. Heard..... | 22 |
| Evaluation of Bighorn Sheep and Mule Deer Habitat Enhancements Along Kooacanusa Reservoir Bret Stansberry (abstract)..... | 36 |
| Fire's Place and Use in Habitat and Management within the Sun River Area of West Central Montana Brad McBratney, Dave Shittekiend, Quentin Kujala..... | 37 |

DISEASE

| | |
|---|----|
| Field Treatment of Bighorns During Pneumonia Die-offs Victor L. Coggins, Patrick E. Matthews..... | 41 |
| A Comparison of Population and Health Histories Among Seven Montana Bighorn Sheep Populations Keith Aune, Neil Anderson, David Worley, Larry Stackhouse, James Henderson, Jen'e Daniel..... | 46 |
| Predicting Summer Lamb Mortality in Free Ranging Bighorn Sheep Holly Akenson..... | 70 |
| Evaluation of Ewe Vaccination as a Tool for Increasing Bighorn (<i>Ovis Canadensis</i>) Lamb Survival Following Pasteurellosis Epidemics E. Frances Cassirer, Karen Rudolph, Pat Fowler, Victor L. Coggins David L. Hunter, Michale W. Miller..... | 77 |

NONNATIVES/PREDATION

| | |
|---|----|
| Phenotype Evaluation of Free-Ranging European Mouflon (<i>Ovis Orientalis Mustimon</i>) On Kahuku Ranch, South Point Hawaii Michael R. Frisina, R. Margaret Frisina (abstract)..... | 79 |
| Argali and Blue Sheep on the Tibetan Plateau: Status Update Richard B. Harris, Daniel H. Pletscher..... | 80 |
| Comparing Methods to Determine Distribution and Movement Patterns Of Forest-Dwelling Mountain Goats Georgie (Donna) Harrison..... | 81 |
| High Predator Densities in Yellowstone National Park may Limit Recovery of Bighorn Sheep Populations from the 1981 Chlamidial Caused Die Off Kayhan Ostovar, Lynn R. Irby..... | 96 |

DENSITY EFFECTS ON POPULATIONS

| | |
|---|-----|
| Mating in Bighorn Sheep: Frequent Mal Reproduction via a High Risk Unconventional "Tactic" John T. Hogg, Stephen H. Forbes (abstract)..... | 105 |
| Population Dynamics of Bighorn Sheep on the Beartooth Wildlife Management Area, Montana Terry Enk, Dr. Harold Picton, Jim Williams..... | 106 |
| Bighorn Sheep Population Dynamics on the Beartooth Wildlife Management Area, Montana Terry Enk, (abstract)..... | 125 |
| Lessons Learned from Rates of Increase in Bighorn Herds William Wishart, Beth MacCallum, Jon Jorgenson..... | 126 |

POPULATION OVERVIEWS

| | |
|---|-----|
| Status, Harvest and Co-Management of Dall's Sheep in the MacKenzie Mountains, Northwest Territories Alasdair Veitch, Ellen Simmons, Jan Adamczewski, Richard Popko..... | 134 |
| History and Current Status of Bighorn Sheep in Northeast Montana Mark G. Sullivan, Al Rosgaard, Thomas S. Stivers..... | 154 |
| To be Limited or Not, That is the Question Kurt L. Alt (abstract)..... | 160 |

AGAINST THE GRAIN

| | |
|---|-----|
| Consideration of a Biological Approach to Management of Subsistence Sheep Hunting Through Adjustment of Bag Limit Wayne Heimer..... | 162 |
| Appendix: Details and Fallout from Dall Sheep Subsistence Management in the Western Brooks Range, August 1998: "Reaping What's Been Sown" Wayne Heimer..... | 178 |
| Compensatory Reproduction and Dispersal in an Introduced Mountain Goat Population in Central Montana James S. Williams (abstract)..... | 194 |
| What We Learned About Harvest Management of Alaskan Dall Sheep (1971-1997) Wayne E. Heimer..... | 195 |

POPULATION MONITORING

| | |
|--|-----|
| Average Age of Harvest: What is it Really Telling US? Jean Carey, Michael Dehn..... | 207 |
| Comparison of Bighorn Ram Horn Growth Between Original Sun River Population and Three Transplanted Populations: Heredity or Environment Dan Hook..... | 216 |
| Experimental Treatment of Lungworm in Wild Bighorn Sheep Using Fenbendazole Available At Free-Choice Treatment Stations Keith Aune, David Worley, Mike Frisina, Bill Semmens, Todd Becker..... | 220 |
| Phenotype Evaluation of Free-Ranging European Mouflon (<i>Ovis orientalis musimon</i>) on Kahuku Ranch, South Point Hawaii Michael R. Frisina, R. Margaret Frisina..... | 229 |
| Evaluation of a Multivalent <i>Pasturella Maemolytica</i> Toxoid Bacterin in Protecting Bighorn Sheep From Pneumonia After Exposure to Domestic Sheep Bill Foreyt..... | 235 |