### University of Nebraska - Lincoln DigitalCommons@University of Nebraska - Lincoln

Great Plains Wildlife Damage Control Workshop Wildlife Damage Management, Internet Center Proceedings for

April 1987

## Eighth Great Plains Wildlife Damage Control Workshop Proceedings: Frontmatter & Contents

Follow this and additional works at: https://digitalcommons.unl.edu/gpwdcwp

Part of the Environmental Health and Protection Commons

"Eighth Great Plains Wildlife Damage Control Workshop Proceedings: Frontmatter & Contents" (1987). Great Plains Wildlife Damage Control Workshop Proceedings. 46. https://digitalcommons.unl.edu/gpwdcwp/46

This Article is brought to you for free and open access by the Wildlife Damage Management, Internet Center for at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Great Plains Wildlife Damage Control Workshop Proceedings by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



United States Department of Agriculture

Forest Service

Rocky Mountain Forest and Range Experiment Station

Fort Collins, Colorado 80526

General Technical Report RM-154



# Eighth Great Plains Wildlife Damage Control Workshop Proceedings







April 28-30, 1987 Rapid City, South Dakota

1	
     	Uresk, Daniel W.; Schenbeck, Greg L.; Cefkin, Rose, technical coordinators. 1988. Eighth Great Plains wildlife damage control workshop proceedings. General Technical Report RM-154. Fort Collins, CO: U.S. Department of Agriculture,
1	Forest Service, Rocky Mountain Forest and Range Experiment
, 1	Station; 231 p. [Listed also as Publication No. 121, Lincoln, NE: Great Plains Agricultural Council.]
1	bincoin, ME: Great Flains Agricultural council.]
I	
I	Abstract
1	
1	These proceedings consist of more than 40 presented papers
1	on damage caused by many different animals. Panel presentations
1	that followed two special sessionsone on prairie dogs and related small mammals and another on ways to enhance waterfowl
	productionare also included. In addition to information on
1	mechanical and chemical control methods, the ecosystem processes
1	involved are considered.
1	
1	Keywords: Prairie dogs, waterfowl, coyotes, rodents, bird
1	repellents, predacides, rodenticides
I.	
· 	

| | |-

#### **Pesticide Precautionary Statement**

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate state and/or federal agencies before they can be recommended. **CAUTION:** Pesticides can be injurious to

**CAUTION:** Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.



NOTE: Mention of a trade name or proprietary product does not constitute a guarantee or warranty of the product by the U.S. Department of Agriculture and does not imply its approval to the exclusion of other products that may also be available.

## Eighth Great Plains Wildlife Damage Control Workshop Proceedings

April 28-30, 1987 Rapid City, South Dakota

**Technical Coordinators:** 

Daniel W. Uresk, Rocky Mountain Forest and Range Experiment Station Greg L. Schenbeck, Nebraska National Forest Rose Cefkin, Rocky Mountain Forest and Range Experiment Station

Sponsor:

Great Plains Agricultural Council, Wildlife Resources Committee

in cooperation with:

USDA Forest Service, Rocky Mountain Forest and Range Experiment Station USDA Forest Service, Nebraska National Forest USDA, Animal and Plant Health Inspection Service, Animal Damage Control South Dakota Cooperative Fish & Wildlife Research Unit South Dakota Department of Game, Fish & Parks South Dakota Department of Agriculture National Park Service

More than 200 people attended the Eighth Great Plains Wildlife Damage Control Workshop in Rapid City, South Dakota. The workshop brought together field technicians, managers, administrators, researchers, educators, students, legislators, and extension and industry representatives to further technology and information transfer. In addition to a general session on damage caused by many different animals, two special sessions were held: (1) prairie dog management and control, and (2) predator management and control to enhance waterfowl production. Both of these topics are currently high-interest issues on the northern Great Plains, the site of this workshop. Each of these sessions consisted of individual presentations followed by panel/audience discussions. A well-attended field trip to review black-tailed prairie dog management on the Buffalo Gap National Grassland and Badlands National Park brought the workshop to a close. These proceedings document this workshop.

Rapid publication of these proceedings was facilitated largely by the excellent efforts of the authors (and the typists!) in preparing the manuscripts, most of which we received camera-ready. Since papers are, essentially, being printed as received, each contributor is responsible for the accuracy of his or her paper; opinions expressed by the authors may not necessarily reflect the policy of the U.S. Department of Agriculture. We extend our thanks to Steve Denison, Robert Hodorff, and Lisa Nold for technical and operations assistance during symposium sessions. Shary Kennedy and Susan Scott graciously typed final drafts of many manuscripts. We appreciate the time and effort spent by personnel of various sponsoring agencies in making this workshop a success.

Finally, we would like to express appreciation to the Rocky Mountain Forest and Range Experiment Station, Rapid City, SD; the Rapid City Chamber of Commerce; and to the Nebraska National Forest, for being excellent workshop hosts.

We believe the proceedings of this workshop will serve as a valuable vehicle for continued improvement in the effectiveness, soundness, and professionalism of the field of wildlife damage control and management. It is our hope that the success of this workshop will provide further incentive for the Great Plains Agricultural Council to continue its promotion of similar workshops in the future.

> Daniel W. Uresk, Chairman Greg Schenbeck, Co-Chairman

#### Contents

	Page	
Preface: Daniel W. Uresk and Greg L. Schenbeck	ii	
OVERVIEW		
Welcome from the Great Plains Agricultural Council	1	
South DakotaIts History, Land, and Wildlife Chuck Post	3	
An Overview of the South Dakota Animal Damage Control Program	8	
ADC in the U.S. Department of Agriculture Gerald J. Fichtner	12	
Current and Future Status of Rodenticides and Predacides	16	
PRAIRIE DOGS AND RELATED SMALL MAMMALS		_
Demography and Population Dynamics of Prairie Dogs John J. Hoogland, Diane K. Angell, James G. Daley, and Matthew C. Radcliffe	18	)
Control of Ecosystem Processes by Prairie Dogs and Other Grassland Herbivores James K. Detling and April D. Whicker	23	
A Statistical Model of Expansion in a Colony of Black-Tailed Prairie Dogs R. P. Cincotta, D. W. Uresk, and R. M. Hansen	Ø	)
White-Tailed Prairie Dog Ecology in Wyoming George E. Menkens, Jr., Brian J. Miller, and Stanley H. Anderson	Ð	
Prairie Dog Overpopulation: Value Judgement or Ecological Reality?	Ì	)
Efficacy of Deferred Grazing in Reducing Prairie Dog Reinfestation Rates	46	
Management of Prairie Dog Populations in Wind Cave National Park	50	
An Evaluation of Shooting and Habitat Alteration for Control of Black-Tailed Prairie Dogs Craig J. Knowles	53	
Rodenticidal Effects of Zinc Phosphide and Strychnine on Nontarget Species Daniel W. Uresk, Rudy M. King, Anthony D. Apa, Michele S. Deisch, and Raymond L. Linder	57	
Efficacy of Aluminum Phosphide for Black-Tailed Prairie Dog and Yellow-Faced Pocket Gopher Control P. Rodger Moline and Stephen Demarais	64	
Laboratory Trial of Chlorophacinone As a Prairie Dog Toxicant Daryl D. Fisher and Robert M. Timm	67	
Relevant Characteristics of Zinc Phosphide As a Rodenticide Rex E. Marsh	70	
Comparative Toxicity of Strychnine to Eight Species of Ground Squirrels George H. Matschke, Carolyn L. Fordham, Susan C. Hurlbut, and Richard M. Engeman	75	
Arthropod Consumption by Small Mammals on Prairie Dog Colonies and Adjacent Ungrazed Mixed Grass Prairie in Western South Dakota	81	
Small Mammals: Pests or Vital Components of the Ecosystem?	88	
Historical and Present Status of the Black-Footed Ferret Dean E. Biggins and Max H. Schroeder	93	
A Field Habitat Model for Black-Footed Ferrets Brian J. Miller, George E. Menkens, and Stanley H. Anderson	98	
A Novel Strategy for Pocket Gopher Control Michael E. R. Godfrey	103	
Rodent Damage to Various Annual and Perennial Crops of India and Its Management	108	

PANEL: PRAIRIE DOG MANAGEMENT AND CONTROL Greg L. Schenbeck, Moderator	
Involving the Public in Prairie Dog Management on the Nebraska National Forest 113 George Probasco	
Legislative Review of Prairie Dog Statutes 115 Lyndell Peterson	
Politics, Prairie Dogs, and the Sportsman 117 Jon Sharps	
Prairie Dog ControlA Regulatory Viewpoint 119 Dennis C. Clarke	
A Chronology of Prairie Dog Control Operations and Related Developments in South Dakota 121 Rew Hanson	
Endangered Species Considerations in Prairie Dog Management 123 Max Schroeder	
WATERFOWL	
Duck Nest Success and Predators in North Dakota, South Dakota, and Montana: The Central Flyway Study 125 Michael A. Johnson, Thomas C. Hinz, and Thomas L. Kuck	_
Predator Management To Increase Duck Nest Success 134 Harold A. Doty and Anthony J. Rondeau	C
Duck Nest Success on South Dakota Game Production Areas 140 S. Gay Simpson	
Increasing Waterfowl Production on Points and Islands by Reducing Mammalian Predation 146 John T. Lokemoen, Richard W. Schnaderbeck, and Robert O. Woodward	Ø
Bullsnake Predation on Waterfowl Nests on Valentine National Wildlife Refuge, Nebraska 149 Scott S. Glup and Leonard L. McDaniel	J
Overwater Nesting by Ducks: A Review and Management Implications 153 Stephen H. Bouffard, David E. Sharp, and Carol C. Evans	Ð.
Distribution and Impact of Canada Goose Crop Damage in East-Central Wisconsin 159 James W. Heinrich and Scott R. Craven	
Should Ducks Be Frightened?	
The Lure Crop Alternative	
PANEL: PREDATOR MANAGEMENT AND CONTROL TO ENHANCE WATERFOWL PRODUCTION Jim Salyer, Moderator	
Control of One Native Animal Species To Benefit Another Native Species 169 John T. Lokemoen	Ú)
Policy and Goals of the State of South Dakota 172 Gay Simpson	
Policy and Goals on National Wildlife Refuges 173 Len McDaniels	ż
Policy and Goals of the U.S. Fish and Wildlife Service 174 Harold Doty	
Policy and Goals in the Private Sector	
OTHER WILDLIFE	
Decoying Coyotes with Dogs	
Field StudySteel Versus Lead in Aerial Hunting	
Aerial Hunting Takes Sheep-Killing Coyotes in Western Montana 184 Guy Connolly and Bart W. O'Gara	

Importance of Attractant Qualities for Improving a New Coyote Delivery System	189
Field Evaluation of Olefactory Attractants and Strategies Used To Capture Depredating Coyotes George E. Graves and Major L. Boddicker	195
Cougar Predation on Livestock in New Mexico, January 1983 Through June 1984 Gary A. Littauer and Ronald J. White	205
Snaring as a Beaver Control Technique in South Dakota	212
Consider Using Electric Powered Fences for Controlling Animal Damage	215
Fencing Methods To Control Big Game Damage to Stored Crops in Wyoming	217 🗭
Kansas Wildlife Damage Reporting System Bart L. Hettenback	-
Results of a Bird Damage Survey of Kansas Feedlots	225 🖉
Control Methods for Objectional Roosts of Purple Martins	228
WILDLIFE DAMAGE CONTROL WORKSHOP	230
Workshop Committee Panel Chairpersons Poster Session Exhibitors	