

University of Nebraska - Lincoln

## DigitalCommons@University of Nebraska - Lincoln

---

National Wildlife Research Center Repellents  
Conference 1995

USDA National Wildlife Research Center  
Symposia

---

August 1995

### Table of Contents

Follow this and additional works at: <https://digitalcommons.unl.edu/nwrcrepellants>



Part of the [Natural Resources Management and Policy Commons](#)

---

"Table of Contents" (1995). *National Wildlife Research Center Repellents Conference 1995*. 36.  
<https://digitalcommons.unl.edu/nwrcrepellants/36>

This Article is brought to you for free and open access by the USDA National Wildlife Research Center Symposia at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in National Wildlife Research Center Repellents Conference 1995 by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

# Repellents in Wildlife Management Symposium

## Table of Contents

### Overview

<b>Chemical Signals and Repellency: Problems and Prognosis</b> Gary K. Beauchamp	1
---	---

### General

<b>Repellents: Integrating Sensory Modalities</b> Michael L. Avery	13
<b>Peripheral Trigeminal Neural Processes Involved in Repellency</b> Bruce P. Bryant	19
<b>Behavioral Principles Governing Conditioned Food Aversions Based on Deception</b> Michael R. Conover	29
<b>Cinnamamide: A Nonlethal Chemical Repellent for Birds and Mammals</b> Elaine L. Gill, Richard W. Watkins, Joanne E. Gurney, Julie D. Bishop, Chris J. Feare, Clare B. Scanlon, and David P. Cowan	43
<b>Dilution and Detoxication Costs: Relevance to Avian Herbivore Food Selection</b> Walter J. Jakubas, Christopher G. Guglielmo, and William H. Karasov	53
<b>The Role of Analytical Chemistry in Repellent Research</b> Bruce A. Kimball, Dale L. Nolte, Kevin L. Kelly, and John J. Johnston	71
<b>Origins of Food Preference in Herbivores</b> Frederick D. Provenza	81
<b>The Chemistry of Plant/Animal Interactions</b> Paul B. Reichardt	91
<b>Recent Studies on Flavor Aversion Learning in Wildlife Damage Management</b> Russell F. Reidinger, Jr.	101

## Reptiles

- Experiments on Chemical Control of Behavior in Brown Tree Snakes**  
David Chiszar, Gordon H. Rodda, and Hobart M. Smith 121
- Responsiveness of Brown Tree Snakes to Odors**  
Larry Clark 129

## Mammals

- Repellency of Plant, Natural Products, and Predator Odors to Woodchucks**  
N. Jay Bean, Wyatt L. Korff, and J. Russell Mason 139
- Comparative Analysis of Deer Repellents**  
Abderrahim El Hani, and Michael R. Conover 147
- Behavioral Responses to Pine-Needle Oil in the Northern Pocket Gopher**  
Gisela Epple, Dale L. Nolte, J. Russell Mason, Eugeny Aronov, and Shirley Wager-Pagé 157
- Effectiveness of Capsaicin as a Repellent to Birdseed Consumption by Gray Squirrels**  
Christopher S. Fitzgerald, Paul D. Curtis, Milo E. Richmond, and Joseph A. Dunn 169
- Norway Rats' Communication About Foods and Feeding Sites**  
Bennett G. Galef, Jr. 185
- In-Water Electroshock Techniques to Repel Aquatic Mammals and Birds**  
A. Lawrence Kolz, and Richard E. Johnson 203
- Review of Synthetic Predator Odor Semiochemicals as Repellents for Wildlife Management in the Pacific Northwest Pontus**  
M. F. Lindgren, Thomas P. Sullivan, and Douglas R. Crump 217
- Reducing Deer Damage to Woody and Herbaceous Plants**  
James A. Lutz, and Bert T. Swanson 231
- Predator Odors as Repellents to Brushtail Possums and Rabbits**  
David R. Morgan, and Anthony D. Woolhouse 241

<b>Electronic Rodent Repellent Devices: A Review of Efficacy Test Protocols and Regulatory Actions</b> Stephen A. Shumake	253
<b>Repellency of Predator Urine to Woodchucks and Meadow Voles</b> Robert K. Swihart, Mary Jane I. Mattina, and Joseph J. Pignatello	271
<b>Repellency of Mongoose Feces and Urine to Rats (<i>Rattus</i> spp.)</b> Mark E. Tobin, Ann E. Koehler, Robert T. Sugihara, and Michael E. Burwash	285
<b>The Role of Sensory Cues and Feeding Context in the Mediation of Pine-Needle Oil's Repellency in Prairie Voles</b> Shirley A. Wager-Pagé, J. Russell Mason, Eugeny Aronov, and Gisela Epple	301
<b>Effectiveness of Varpel Rope on Norway Rats and House Mice in Laboratory and Field Conditions</b> J. D. Wilhide, and M. D. Fletcher	313
<b>Repellent Trials to Reduce Reforestation Damage by Pocket Gophers, Deer, and Elk</b> Gary W. Witmer, Rodney D. Sayler, and Michael J. Pipas	321
<b>Birds</b>	
<b>Grit-Use Behavior in Birds: A Review of Research to Develop Safer Granular Pesticides</b> Louis B. Best	333
<b>A Review of the Bird Repellent Effects of 117 Carbocyclic Compounds</b> Larry Clark	343
<b>Sucrose as a Feeding Deterrent for Fruit-Eating Birds</b> Carlos Martínez del Río, Michael L. Avery, and Kristin E. Brugger	353
<b>Avian Repellents: Options, Modes of Action, and Economic Considerations</b> J. Russell Mason, and Larry Clark	371
<b>A Preliminary Evaluation of Three Food Flavoring Compounds as Bird Repellents</b> Richard E. R. Porter	393

**Bird Deterrent Research and Development: Marine Oil Spills**  
Timothy J. Reilly 401

**An Integrated Strategy to Decrease Eared Dove Damage in Sunflower Crops**  
Ethel N. Rodriguez, Richard L. Bruggers, Roger W. Bullard, and Robert Cook 409

**Regulatory Issues, Product Development, Public Support**

**Review of Regulatory-Imposed Marketing Constraints to Repellent  
Development**  
Judith M. Hushon 423

**The Public is Attracted by the Use of Repellents**  
Cathy A. Liss 429