March 1972

Contents, Committees, and Frontmatter
PROCEEDINGS
FIFTH VERTEBRATE PEST CONFERENCE
Del Webb's Townhouse
Fresno, California March 7, 8 and 9, 1972

Editor
Rex E. Marsh

1972
Sponsored by the California Vertebrate Pest Committee

I
CON笑声ENCE CHAIRMAN – Rex E. Marsh
Associate Specialist, Department of Animal Physiology, University of California, Davis, California

VICE-CHAIRMAN – Warren V. Johnson
Specialist, California Department of Water Resources, Sacramento, California

PROGRAM CHAIRMAN – Maynard W. Cummings
Wildlife Specialist, Department of Animal Physiology, University of California, Davis, California

PUBLICITY CHAIRMAN – Richard H. Dana
State Weed and Vertebrate Biologist, California Department of Agriculture, Sacramento, California

ARRANGEMENTS CHAIRMAN – Conrad Schilling
Deputy Agricultural Commissioner, Fresno County Department of Agriculture, Fresno, California

REGISTRATION CHAIRMAN – Thomas K. Palmer
Biologist, S. and J. Ranch, Fresno, California

SESSION CHAIRMEN

James W. Koehler
Chief, Control and Eradication, Division of Plant Industry, California Department of Agriculture, Sacramento, California

Peter C. Passof
Farm Advisor and Acting Extension Forester, University of California, Ukiah, California

Weidon B. Robinson
Chief, Division of Behavioral Research, U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife, Denver, Colorado

Thomas E. Corn
Agricultural Commissioner, Fresno County Department of Agriculture, Fresno, California

Richard H. Dana
State Weed and Vertebrate Biologist, Division of Plant Industry, California Department of Agriculture, Sacramento, California
CONTENTS

OPENING REMARKS -- FIFTH VERTEBRATE PEST CONFERENCE
Rex E. Marsh .......................................................... 1

KEYNOTE ADDRESS — VERTEBRATES: A RESOURCE NEEDING MANAGEMENT
Donald A. Spencer .................................................. 2

THE EXTENDING OF COTTON RAT RANGE IN CALIFORNIA - THEIR LIFE HISTORY AND CONTROL
Dell O. Clark .......................................................... 7

STATUS AND CONTROL OF NUTRIA IN CALIFORNIA
Frank Schitoskey, Jr., James Evans, and G. Keith LaVoie ......................... 15

MUSKRATS IN CENTRAL EUROPE AND THEIR CONTROL
Kurt Becker ............................................................ 18

THE NEED OF SURFACE SPRAYS FOR THE CONTROL OF MICROTINE RODENTS
Mogens Lund .......................................................... 22

PROTECTING CONIFEROUS SEEDS FROM RODENTS
Andrew Radvanyi .................................................... 29

METHODOLOGY FOR MEASURING TASTE AND ODOR PREFERENCE OF RODENTS
R. D. Thompson, S. A. Shumake, and R. W. Bullard .................................. 36

THE STRATEGY FOR CONTROLLING RODENT DAMAGE TO PINES IN THE CANADIAN MID-WEST
C. H. Buckner ......................................................... 43

BARRIER FENCING IN WILDLIFE MANAGEMENT
William D. Fitzwater ............................................... 49

A PREFERENCE-TESTING SYSTEM FOR EVALUATING REPELLENTS FOR BLACK-TAILED DEER
Dan L. Campbell and Roger W. Bullard ....................................... 56

GOOD PRACTICE STATEMENTS — DEVELOPING GUIDELINES FOR THE SAFE AND EFFICIENT USE OF
PESTICIDES
Harold S. Stein ...................................................... 64

RELATED LAWS ON EXOTIC AND NATIVE WILD ANIMALS
Donald F. Stork ...................................................... 73

THE OREGON GROUND SQUIRREL IN NORTHEASTERN CALIFORNIA; ITS ADAPTATION TO A CHANGING
AGRICULTURAL ENVIRONMENT
Loring White .......................................................... 82

ANTICOAGULANTS FOR JACK RABBIT CONTROL
Thomas K. Palmer .................................................... 93

(Paper Not Available)

ZINC PHOSPHIDE—A NEW LOOK AT AN OLD RODENTICIDE FOR FIELD RODENTS
Glenn A. Hood ....................................................... 85

EXPERIMENTAL POPULATION SUPPRESSION OF RICHARDSON’S GROUND SQUIRRELS
(Spermophilus richardsonii) IN ALBERTA
Dale E. Alsager ....................................................... 93

STATUS OF PREDATOR RESEARCH
Donald S. Balsar ...................................................... 93

(Paper Not Included)*

*The speaker was kind enough to present a paper on short notice, which did not permit time for
the preparation of a formal manuscript.
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERTEBRATE PESTS IN NEW ZEALAND; RESEARCH AND CONTROL</td>
<td>Andrew Peters</td>
<td>101</td>
</tr>
<tr>
<td>THE EXTENSION TRAPPER SYSTEM IN KANSAS</td>
<td>F. Robert Henderson</td>
<td>102</td>
</tr>
<tr>
<td>METHIOCARB, A CHEMICAL BIRD REPELLENT: A REVIEW OF ITS EFFECTIVENESS ON CROPS</td>
<td>Joseph L. Guarino</td>
<td>108</td>
</tr>
<tr>
<td>SOME APPROACHES TO CONTROLLING DEPREDATIONS BY CROWS AND JAYS IN TULARE COUNTY</td>
<td>George Simpson</td>
<td>112</td>
</tr>
<tr>
<td>BIRD DAMAGE TO PEANUTS AND METHODS FOR ALLEVIATING THE PROBLEM</td>
<td>Donald F. Mott, Jerome F. Besser, Richard R. West, and John W. DeGrazio</td>
<td>118</td>
</tr>
<tr>
<td>FACTORS RELATING TO ALARM STIMULI IN BIRD CONTROL</td>
<td>Gordon W. Boudreau</td>
<td>121</td>
</tr>
<tr>
<td>STARLING CONTROL IN SONOMA COUNTY</td>
<td>Harry F. McCracken</td>
<td>124</td>
</tr>
<tr>
<td>AVIAN THERMOREGULATION AND ITS SIGNIFICANCE IN STARLING CONTROL</td>
<td>Robert G. Schwab and Vincent S. Schafer</td>
<td>127</td>
</tr>
<tr>
<td>HISTORY AND PUBLIC HEALTH PROBLEMS OF PIGEONS</td>
<td>Donald L. Rohe (Paper Not Included)*</td>
<td></td>
</tr>
<tr>
<td>EFFICACY TESTING OF VERTEBRATE PEST CONTROL AGENTS</td>
<td>Paul Ochs</td>
<td>138</td>
</tr>
<tr>
<td>THE PROBLEM OF ANTICOAGULANT RODENTICIDE RESISTANCE IN THE UNITED STATES</td>
<td>William B. Jackson and Dale E. Kaukeinen</td>
<td>142</td>
</tr>
<tr>
<td>HOUSE MOUSE BEHAVIOR AND ITS SIGNIFICANCE TO CONTROL</td>
<td>W. D. Klimstra</td>
<td>149</td>
</tr>
<tr>
<td>THE INFLUENCE OF ATTRACTANTS AND REPELLENTS ON THE FEEDING BEHAVIOUR OF Rattus norvegicus</td>
<td>J. O. Bull</td>
<td>154</td>
</tr>
<tr>
<td>AN INNOVATION IN ROOF RAT CONTROL</td>
<td>Donald R. Brothers</td>
<td>161</td>
</tr>
<tr>
<td>RAT REDUCTION WITH INDIGENOUS METHODS</td>
<td>P. J. Deoras</td>
<td>168</td>
</tr>
<tr>
<td>TOLERANCE SHOWN BY Rattus rattus TO AN ANTICOAGULANT RODENTICIDE**</td>
<td>P. J. Deoras, G. C. Chaturvedi, N. E. Vad and D. M. Renapurkar</td>
<td>178</td>
</tr>
<tr>
<td>COMMENSAL RODENT CONTROL**</td>
<td>D. R. Maddock and H. F. Schoof</td>
<td>189</td>
</tr>
<tr>
<td>WHAT'S AHEAD IN PREDATOR MANAGEMENT**</td>
<td>Maynard Cummings</td>
<td>192</td>
</tr>
<tr>
<td>CLOSING REMARKS — FIFTH VERTEBRATE PEST CONFERENCE</td>
<td>Warren V. Johnson</td>
<td>195</td>
</tr>
<tr>
<td>REGISTERED ATTENDANCE</td>
<td></td>
<td>196</td>
</tr>
</tbody>
</table>

* The speaker was kind enough to present a paper on short notice, which did not permit time for the preparation of a formal manuscript.

** Paper included in the Proceedings by permission of the author, although it was not presented at this Conference.