

Note:

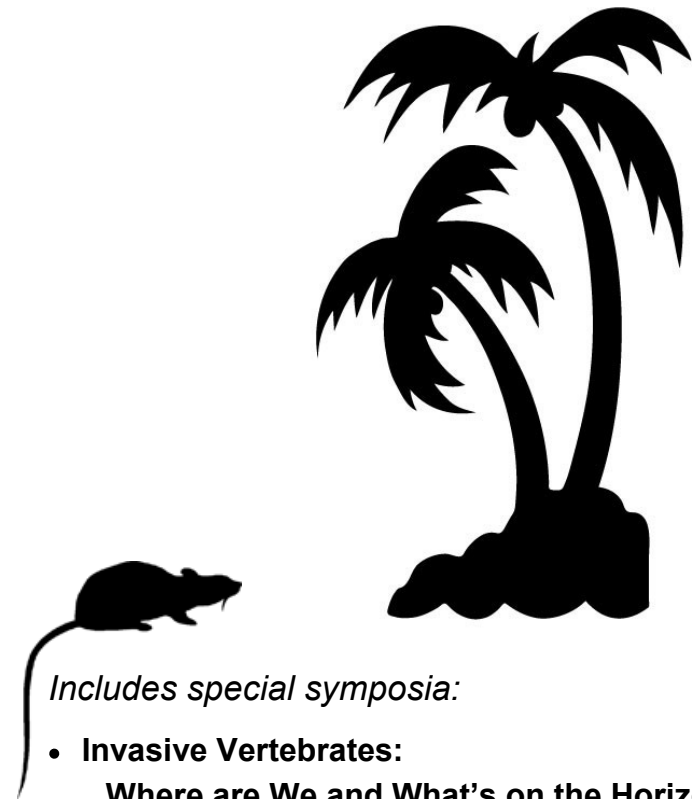
This version of the Final Program is subject to last-minute changes that may occur prior to the beginning of the Conference.

2/25/14

FINAL PROGRAM

26th VERTEBRATE PEST CONFERENCE

**March 3 - 6, 2014
Hilton Waikoloa Village
Waikoloa, Hawaii, USA**



Includes special symposia:

- **Invasive Vertebrates:**
Where are We and What's on the Horizon?
- **Invasive Rodents:**
Lingering Challenges and Potential Solutions
- **Feral Cat Management: What Works?**

Conference Chair: **John O'Brien**

Program Chair: **John Eisemann**

Sponsored by:
The Vertebrate Pest Council

CONFERENCE AT-A-GLANCE

Monday, March 3 – Optional Field Trip, 7:30 AM – 5:30 PM
Tuesday, March 4

Kohala 1 & 2 Plenary Session 9:00 AM – 12:00 noon
--

Lunch (*on your own*)

Kohala 1 & 2 Feral Swine Management 1:15 PM – 5:30 PM	Kohala 3 Contraceptives and Avian Issues 1:15 PM – 5:30 PM	Kohala 4 Issues of National and International Scope 1:15 PM – 5:30 PM
--	---	--

1:00 PM to 7:00 PM: Commercial Exhibits & Poster Session - Kohala Promenade
 5:30 PM to 7:00 PM: No-host Welcoming Social – Kohala Promenade

Wednesday, March 5

6:30 AM to 8:15 AM: Speakers breakfast - King's 1&2
 8:00 AM to 7:00 PM Commercial Exhibits and Poster Session – Kohala Promenade

Kohala 1&2 <i>Symposium:</i> Invasive Rodents 8:15 AM – 12:05 PM	Kohala 3 <i>Symposium:</i> Feral Cat Management 8:15 AM – 12:05 PM	Kohala 4 Wildlife Disease 8:15 AM – 12:05 PM
--	--	---

Lunch (*on your own*)

Kohala 1&2 <i>Symposium:</i> Invasive Rodents 1:15 PM – 5:30 PM	Kohala 3 <i>Symposium:</i> Feral Cat Management 1:15 PM – 5:30 PM	Kohala 4 Wildlife Management Techniques 1:15 PM – 5:30 PM
---	---	--

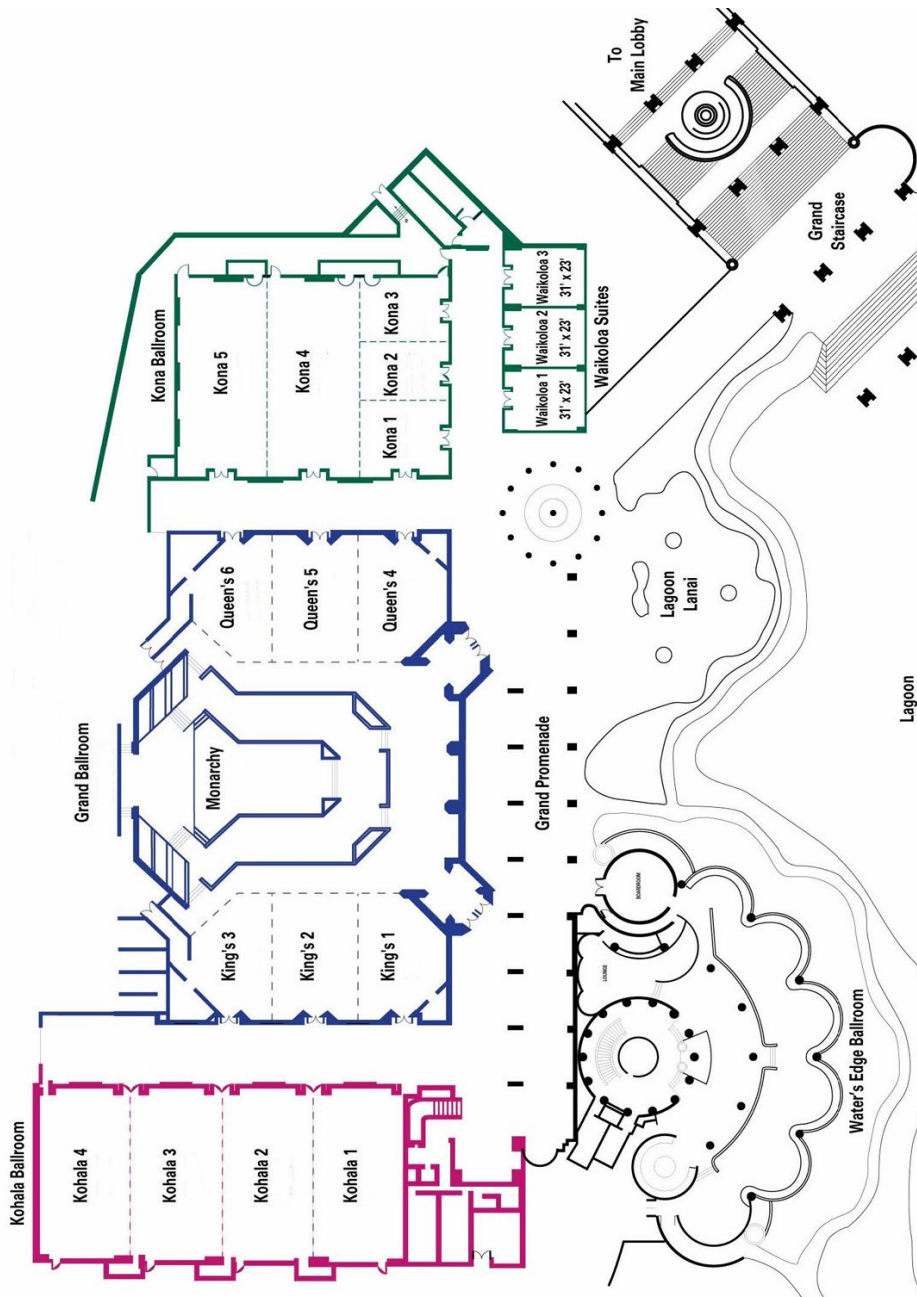
5:30 PM to 7:00 PM: Hors d'oeuvres and Vendors' Forum – Kohala Promenade

Thursday, March 6

Kohala 1&2 General Rodent Management 8:15 AM – 12:05 PM	Kohala 3 <i>Symposium:</i> Invasive Vertebrates 8:15 AM – 12:05 PM	Kohala 4 Other Topics 8:15 AM – 12:05 PM
--	--	---

Lunch (*on your own*)

Kohala 1&2 General Rodent Management 1:15 PM – 5:30 PM	Kohala 3 <i>Symposium:</i> Invasive Vertebrates 1:15 PM – 5:30 PM
---	---



Hilton Waikoloa Village – Conference Facilities

WELCOME

Welcome to the 26th Vertebrate Pest Conference. We hope you find the Conference to be educational, a fantastic networking opportunity, and enjoyable. This is only the second time the VPC has been held outside of California, and we are excited about the opportunities this venue provides in terms of luxury accommodations as well as a unique look at wildlife damage management in tropical environments.

The response we received from the Call for Papers was incredible. We received more than 110 abstracts for oral presentations and more than 20 poster presentations. This response has allowed us to host three full-day symposia (invasive vertebrates, invasive rodents, and feral cats) and ½-day sessions on wildlife diseases, feral swine management, innovative wildlife management techniques, US and international issues and initiatives, as well as a variety of other topics. In addition, the quality of the program is providing more continuing education credits than at past conferences. With the idyllic tropical location and outstanding program, the Conference has shaped up to be one to remember.

The world-class Hilton Waikoloa Village conference center offers a wide variety of recreational opportunities including, swimming, snorkeling, paddle boarding, kayaking, tennis, golf, and even swimming with dolphins. Only a short drive away are classic Big Island attractions like Akaka Falls, Hawaii Volcanoes National Park, Kailua-Kona beaches, Hilo Town, Mauna Kea Observatory, Hulihee Palace, Pu'uuhonua O Honaunau ("Place of Refuge") National Historical Park, and world renowned Kona coffee plantations, to name only a few! We hope you enjoy the venue and the Conference.

Conference Registration and Help Desk

For your convenience the Conference Registration and Help Desk is located in the Kohala Promenade outside the conference room *Kohala 1*.

*The Vertebrate Pest Council thanks
the following event sponsor:*

Critter Control

Wednesday, March 5 Afternoon Refreshment Break

FIELD TRIP Monday, March 3, 2014

Chair: **Kathleen Fagerstone**

USDA Wildlife Services, National Wildlife Research Center (*retired*)

7:30 AM: Buses depart from the Lower Lobby

8:15 AM – 9:45 AM: Mauna Kea State Park

Mouflon Sheep and Endangered Birds

Hans Sin, *Hawaii Dept. of Land and Natural Resources*

Mouflon/feral sheep forage on a native plant (mamane) that is critical to the survival of an endangered honeycreeper (palila). In 1982, the Endangered Species Act included critical habitat because of these issues on Mauna Kea. Despite consistent efforts to remove sheep, bird populations continue to decline. Thus, the management of sheep has continued to be controversial topic for more than 30 years. The effects of management are apparent as comparisons are made across fenced areas.

Rodents Effects on Rare Ecosystems

Christian Giardina, *USDA Forest Service*

Rodents have significant effects on native ecosystems and birds throughout the tropics. Rodents are ubiquitous on tropical islands and negatively affect birds, insects, and native plants. A large-scale research project on Mauna Kea will highlight the effects of rodents on native animals and plants in remnant forests. Participants will be able to observe various management tools and discuss issues with researchers, as well as observe pre- and post-management sites for comparisons.

10:15 – 12:00 noon; Kipuka 21

Avian Pox and Malaria and Endangered Birds

Carter Atkinson, *USGS*

Diseases continue to hamper population growth of Hawaiian endangered birds. The introduction of mosquitoes, avian pox, and avian malaria to the Hawaiian Islands has had a profound effect on the population number and geographic distribution of the Hawaiian honeycreepers. While the mosquito is most closely associated with human activity, in remote Hawaiian rain forests, feral pigs provide habitat that can increase mosquito populations and the transmission of the disease. During this part of the trip we will develop an understanding of the challenges that limit bird populations and the measures to reduce mosquito populations and habitat through feral pig management (Mauna Kea).

Feral Pig Management

John Faford, *USDI National Park Service*

Feral pig management is of great interest nationally. However, feral pig management is controversial in many areas because of the conflict between biological and social issues. In the Pacific basin, pigs damage ecosystems and harbor disease, but are considered valuable to many cultures. We will highlight the issues surrounding pig management in Hawaii and how social and biological issues are addressed.

12:15 – 12:45 PM: Lunch break at the kipuka or in Hilo

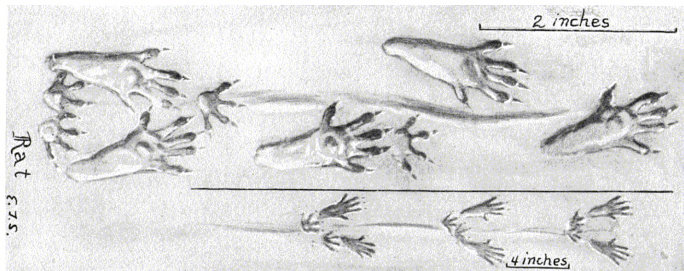
1:45 – 3:30 PM: Hawaii Volcanoes National Park

Endangered Bird Management

Kathleen Misajon, *USDI National Park Service*

The field trip will end with a tour of Volcano National Park's (VNP) habitats, invasive species issues, endangered birds, and volcanic activity. Hawaiian plants and animals evolved in almost complete isolation and over 90% of the native terrestrial flora and fauna in Hawai'i are found only in the Hawaiian Islands. Despite protection within the park, VNP species still face threats from invasive species. Participants will have any opportunity to observe a wide diversity of ecosystems and habitat for numerous native Hawaiian species, issues related to invasive species encroachment and the active volcano. Stops will also include the Jagger Museum and Thurston Lava Tube

3:00 – 5:30 PM: Drive back to Waikoloa via Waimea



Speakers' Breakfast

Speakers and poster presenters are invited to join the VP Council and Conference Organizing Committee for a buffet breakfast from 6:30 AM to 8:15 AM
Wednesday, March 5th in the *King's 1 & 2*.

Tuesday, March 4 (AM)

PLENARY

Kohala 1 & 2

Chair: **John O'Brien**

Nevada Department of Agriculture, Reno, NV (*retired*)

8:30 **Conference Welcome**

John O'Brien, Chairperson, Vertebrate Pest Council

8:45 **Conference Overview**

John Eisemann, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO

9:15 **Vertebrate Pest Management: What Has Changed and What Has Not over Forty Years**

Kathleen Fagerstone, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO (*retired*)

Dr. Kathleen Fagerstone, recently retired from the USDA APHIS Wildlife Services, National Wildlife Research Center (NWRC), spent her entire career furthering the science of wildlife damage management. As a student she worked to understand prairie dog colony dynamics to further black-footed ferret reintroduction efforts. Over her career, she worked on countless research projects evaluating a spectrum of vertebrate pest problems. She led the NWRC's product development efforts and spearheaded reregistration activities for rodenticides and other vertebrate pesticides and served on countless scientific advisory boards including the Vertebrate Pest Council, receiving multiple accolades from a variety of conservation organizations. A capstone on her career was her involvement in bringing contraception into the toolbox of wildlife managers.

10:00 **Break**

10:20 **Ecologically-based Rodent Management 15 Years On: A Pathway to Sustainable Agricultural Production**

Grant Singleton, International Rice Research Institute, Metro Manila, Philippines

10:45 **Invasive Rodents: Conservation Challenges and Successes**

Gary Witmer, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO

11:10 **Invasive Species and Challenges of Management**

William Pitt, USDA APHIS Wildlife Services, National Wildlife Research Center, Hilo, HI

11:35 **Hating Cats, Loving Birds: The Magic of the Message**

Robert Schmidt, Utah State University, Logan, UT

12:00 **Session Close**

Tuesday, March 4 (PM)

FERAL SWINE MANAGEMENT

Kohala 1 & 2

Chair: **Hans Sin**

Hawaii Department of Land and Natural Resources, Honolulu, HI

- 1:15 **Session Welcome**
- 1:20 **A Cooperative Approach to Feral Swine Eradication in New Mexico**
Alan May, USDA APHIS Wildlife Services, Albuquerque, NM
- 1:45 **Method Specific Costs of Feral Swine Removal in a Large Metapopulation: The Texas Experience**
Michael Bodenchuk, USDA APHIS Wildlife Services, San Antonio, TX
- 2:10 **Wild Pig Damage Abatement in Texas: An Integrated Strategy of Landowner Education and Direct Control**
Billy Higginbotham, Texas A&M AgriLife Extension Service, Overton, TX
- 2:35 **Management of Feral Pigs in Australia**
Andrew Bengsen, New South Wales Department of Primary Industries, Orange NSW, Australia
- 3:00 **Break**
- 3:20 **Optimization of Formulations of Sodium Nitrite for the Lethal Control of Feral Swine**
Justin Foster, Texas Parks and Wildlife, Kerr, TX
- 3:45 **A Bioeconomic Decision Model for Feral Pig Disease Mitigation at the Wildlife-Livestock Interface**
Stephanie Shwiff, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 4:10 **The Art and (Some) Science of Trapping Wild Pigs: From Traps to Gates to Triggers and More!**
Billy Higginbotham, Texas A&M AgriLife Extension Service, Overton, TX
- 4:35 **Feral Pig Control in Hawaii: The Evolution of Pig Control Methods**
Francis Quitazol, The Nature Conservancy of Hawaii, Makawao, HI
- 5:00 **Session Close**

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for a welcome social, cash bar, and poster session.

Please see the abstract booklet for a complete list of presentation authors

Tuesday, March 4 (PM)

CONTRACEPTION AND AVIAN ISSUES

Kohala 3

Chair: **Douglas Eckery**

USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO

- 1:15 **Session Welcome**
- 1:20 **Sprague Dawley Female Rat Consumption of a Liquid Bait Containing Vinylcyclohexene Diepoxide and Triptolide Leads to Subfertility**
Cheryl Dyer, SenesTech, Inc., Flagstaff, AZ
- 1:45 **Effects of Oral Uptake of the Chemosterilant 4-Vinylcyclohexene Diepoxide in Wild House Mice, *Mus domesticus***
Lyn Hinds, CSIRO Ecosystem Sciences, Canberra, ACT, Australia
- 2:10 **Liquid Fertility Management Bait Uptake by Urban Rats within New York City Subway Refuse Rooms**
Brandy Pyzyna, SenesTech, Inc, Flagstaff, AZ
- 2:35 **Effects of Vaccination Against GDF9 and BMP15 on Fertility and Ovarian Function in White-tailed Deer**
Doug Eckery, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 3:00 **Break**
- 3:20 **Long-Term Effects of GonaCon™ Vaccination in Two Australian Macropodid Marsupials**
Lyn Hinds, CSIRO Ecosystem Sciences, Canberra, Australia
- 3:45 **Outside the Fence II - MSN Airport: Follow-up Study on Goose/Aircraft Strike Risk 2010 vs 2012 Before Versus After Crop Habitat Modification**
Philip Whitford, Capital University, Columbus Ohio, Prof Emeritus, Cross Plains, WI
- 4:10 **Bird Repellents for Ripening Sunflower**
George Linz, USDA APHIS Wildlife Services, National Wildlife Research Center, Bismarck, ND
- 4:35 **Potential Use of Perennial Sunflower to Reduce Blackbird Damage to Sunflower**
George Linz, USDA APHIS Wildlife Services, National Wildlife Research Center, Bismarck, ND

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for a welcome social, cash bar, and poster session.

Please see the abstract booklet for a complete list of presentation authors

Tuesday, March 4 (PM)

ISSUES OF NATIONAL AND INTERNATIONAL SCOPE

Kohala 4

Chair: **Dirk Van Vuren**
University of California-Davis, Davis, CA

- 1:15 **Session Welcome**
- 1:20 **Investing in Wildlife Damage Management Research: Taking the Long View**
Olin Rhodes, Savannah River Ecology Lab, Aiken, SC
- 1:45 **Measuring Humaneness: Can It Be Done, and What Does It Mean If It Can?**
John Hadidian, The Humane Society of the United States, Washington, DC
- 2:10 **National Wildlife Control Training Program**
Scott Hygnstrom, University of Nebraska-Lincoln, Lincoln, NE
- 2:35 **Updated National Training Qualifications for Vertebrate Pest Managers in Australia**
Annette Brown, Invasive Animals Cooperative Research Centre, Orange NSW, Australia
- 3:00 **Break**
- 3:20 **Internationalizing the Prevention of Invasive Vertebrate Pests**
Simon Nemtsov, Israel Nature and Parks Authority, Jerusalem, Israel
- 3:45 **USDA APHIS Wildlife Services Efforts to Protect and Restore the Great Lakes Region of North America**
Scott Beckerman, USDA APHIS Wildlife Services, Springfield, IL
- 4:10 **Prevention and Control of Wildlife Damage, 5th Edition**
Scott Hygnstrom, University of Nebraska-Lincoln, Lincoln, NE
- 4:35 **Internet Center for Wildlife Damage Management, 2003-2013**
Stephen Vantassel, University of Nebraska-Lincoln, Lincoln, NE
- 5:00 **Session Close**

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for a welcome social, cash bar, and poster session.

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (AM)

INVASIVE RODENTS: LINGERING CHALLENGES, POTENTIAL SOLUTIONS

Kohala 1 & 2

Chairs: **Gary Witmer** and **William Pitt**
USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO

- 8:15 **Session Welcome**
- 8:20 **A Review of Invasive Rodent (*Rattus* spp. and *Mus musculus*) Impacts on Pacific Islands**
Aaron Shiels, USDA APHIS Wildlife Services, National Wildlife Research Center, Hilo, HI
- 8:45 **Invasive Roof Rat (*Rattus rattus*) Predation on a Diverse Array of Avian Species**
Gary Witmer, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 9:10 **Invasive Rodents on Tropical Islands: Ecology and Eradication Confirmation**
Araceli Samaniego, The University of Auckland, Auckland, New Zealand
- 9:35 **The Oahu Army Natural Resources Program Adaptive Rat Control Strategy – Protecting Endangered Hawaiian Species**
Katie Franklin, Oahu Army Natural Resources Program, Honolulu, HI
- 10:00 **Break**
- 10:20 **The Wake Island Rodent Eradication – Part Success, Part Failure, but Wholly Instructive**
Richard Griffiths, Island Conservation, Santa Cruz, CA
- 10:45 **The Power of Partnerships: Eradicating Invasive Mice from Allen Cay, The Bahamas**
Aurora Alifano, Island Conservation, Santa Cruz, CA
- 11:10 **Invasive Rodent Biological Data and Management Planning on Tropical Islands: a Case Study in the Iles Eparses**
David Ringler, University of Reunion Island, Sainte Clotilde, Reunion
- 11:35 **Review of a Large-scale Pacific Rat Eradication Attempt from an Uninhabited World Heritage Site – Project Approach, Lessons Learned and the Future**
Jonathan Hall, The Royal Society for the Protection of Birds, Bedfordshire, United Kingdom
- 12:00 **Lunch** (on your own)

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (AM)

FERAL CAT MANAGEMENT: WHAT WORKS?

Kohala 3

Chair: **Robert Schmidt**
Utah State University, Logan, UT

- 8:15 **Session Welcome**
- 8:20 **An Integrated Approach to Feral Cat Management: Modeling, Implementation and Monitoring**
John Boone, Great Basin Bird Observatory, Reno, NV
- 8:45 **Minimizing the Effects of Free-ranging Domestic Cats on Wildlife: A Framework that Integrates Social and Biological Information**
Ashley Gramza, Colorado State University, Fort Collins, CO
- 9:10 **A New Approach to Reducing Cat Over-Population in the Portland Metro Area**
Bob Sallinger, Audubon Society of Portland, Portland, OR
- 9:35 **The Ecology of Feral Cats in Mesic, Australian Ecosystems**
Frances Zewe, University of New England, Armidale, NSW, Australia
- 10:00 **Break**
- 10:20 **Strength of Evidence for the Effects of Feral Cats on Insular Wildlife: The Club Med Syndrome Part II**
Steve Hess, US Geological Survey Pacific Island Ecosystems Research Center, Kilauea Field Station, Hawaii National Park, HI
- 10:45 **Strategies to Manage Feral Cats on Islands for the Conservation of Threatened Species: One Size Doesn't Fit All**
Reese Brand Phillips, US Fish and Wildlife Service, Honolulu, HI
- 11:10 **The Ecology of the Feral Cats in a Marsupial Carnivore Guild with Decline of the Apex Predator, the Tasmanian Devil**
Vince Scleri, University of Tasmania, Sandy Bay, Tasmania
- 11:35 **Non-native Mammalian Predator Control to Benefit Endangered Hawaiian Waterbirds**
Jared Underwood, US Fish and Wildlife Service, Honolulu, HI
- 12:00 **Lunch** (on your own)

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (AM)

WILDLIFE DISEASE

Kohala 4

Chair: **Mike Taber**
Wildlife Control Technology, Inc., Fresno, CA

- 8:15 **Session Welcome**
- 8:20 **Regional Economic Modeling to Estimate the One Health Economic Impact of Wildlife Diseases**
Steven Shwiff, Texas A&M, Commerce, TX
- 8:45 **Potential Impacts from Predicted Climate Change Scenarios to the Management of Enzootic and Emerging Wildlife Diseases**
Timothy Algeo, USDA, APHIS, Wildlife Services National Rabies Management Program, Concord, NH
- 9:10 **Iophenoxic Acid and Rhodamine B as Biomarkers of bTB-Vaccine Bait Uptake by White-tailed Deer**
Gregory Phillips, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 9:35 **Zoonotic Enteric Pathogens of Wild Boar, Feral Swine, and Javelina (Order: Artiodactyla)**
Michele Jay-Russell, Western Center for Food Safety, University of California-Davis, Davis, CA
- 10:00 **Break**
- 10:20 **Economic Impact of the Potential Spread of Vampire Bats into South Texas**
Aaron Anderson, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 10:45 **The Conflicting Roles of Vector Control and Animal Control Agencies in Mitigating the Rise of Human Cases of Flea-borne Typhus in Orange County, California**
Robert Cummings, Orange County Vector Control District, Garden Grove, CA
- 11:10 **A Recent Epizootic of Skunk Rabies and Associated Spillover in Northern Colorado**
Amy Gilbert, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 11:35 **Wildlife Reservoirs of Livestock Disease: Measurements, Measures and Being Measured**
Alastair Ward, National Wildlife Management Centre, York, United Kingdom
- 12:00 **Lunch** (on your own)

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (PM)

**INVASIVE RODENTS:
LINGERING CHALLENGES, POTENTIAL SOLUTIONS**

Kohala 1 & 2

Chairs: **Gary Witmer** and **William Pitt**

USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO

- 1:15 **Session Welcome**
- 1:20 **Detecting Rodents in the Presence of Land Crabs: Indicator Blocks Outperform Standard Rodent Detection Devices at Palmyra Atoll**
Erik Oberg, Island Conservation, Santa Cruz, CA
- 1:45 **Rats to Palm Trees: Baiting the Canopy During the Palmyra Atoll Rat Eradication Project**
Alex Wegmann, Island Conservation, Honolulu, HI
- 2:10 **Development of Long-life Lures and Re-setting Toxin Delivery Devices for Rats**
Elaine Murphy, Lincoln University, Christchurch, New Zealand
- 2:35 **Rat Control in New-Caledonian “Mainland Island” Forests: Will the Game Be Worth the Candle?**
Quiterie Duron, Institut Méditerranéen de Biodiversité et d’Ecologie marine et continentale (IMBE), Aix-Marseille Université, Noumea, New Caledonia
- 3:00 **Break**
- 3:20 **Eradication Strategies for Nutria in the Chesapeake Bay**
Stephen Kendrot, USDA APHIS Wildlife Services, Cambridge, MD
- 3:45 **From Planning to Implementation: Streamlining the Compliance Process for Rodent Eradication in the US**
Gabrielle Feldman, Island Conservation, Santa Cruz, CA
- 4:10 **Black Rats in Mangroves: Successful and Intractable**
Grant Harper, Biodiversity Restoration Specialists Ltd, St Arnaud, New Zealand
- 4:35 **Anacapa Rat Eradication 10 Years Later**
Erv Gasser, National Park Service, San Francisco, CA
- 5:00 **Session Close**

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for the Vendors Forum, light Hors d’oeuvres, and cash bar.

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (PM)

FERAL CAT MANAGEMENT: WHAT WORKS?

Kohala 3

Chair: **Robert Schmidt**

Utah State University, Logan, UT

- 1:15 **Session Welcome**
- 1:20 **Conflicts and Obstacles of Seabird Management and Feral Cat Control in Maui-nui**
Fern Duval II, Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife, Wailuku, HI
- 1:45 **Pet Shelters and the Feral Cat: A Less than Purr-fect Combination**
Jocelyn Bouchard, Maui Humane Society, Puunene, HI
- 2:10 **Social and Economic Aspects of Cat Management in Hawaii**
Chris Lepczyk, University of Hawaii, Manoa, Honolulu, HI
- 2:35 **The Hawaii Coalition for the Protection of Cats and Wildlife: Working Together to Find Solutions for a Wicked Problem**
Inga Gibson, The Humane Society of the United States, Honolulu, HI
- 3:00 **Break**
- 3:20 **Domestic Cats: Management of a Charismatic Non-native Predator**
Grant Sizemore, American Bird Conservancy, Washington, D.C.
- 3:45 **PANEL DISCUSSION**
- 4:35 **Session Close**

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for the Vendors Forum, light Hors d’oeuvres, and cash bar

Please see the abstract booklet for a complete list of presentation authors

Wednesday, March 5 (PM)

WILDLIFE MANAGEMENT TECHNIQUES

Kohala 4

Chair: **Brian Finlayson**

California Department of Fish and Game, Camino, CA

- 1:15 **Session Welcome**
- 1:20 **A Review of the Toxicology and Ecotoxicology of Para-aminopropiophenone (PAPP) in Relation to Its Use as a New Predator Control Tool in New Zealand**
Charles Eason, Lincoln University, Lincoln, New Zealand
- 1:45 **Goodnature Automatic Traps for Vertebrate Pest Control—Field Trials Using New Kill Traps Targeting Animal Pests in New Zealand**
Daren Peters, Department of Conservation, Future of Predator Control, Wellington, New Zealand
- 2:10 **Evaluating Seadust Wildlife Controllant™ as a Repellent to Reduce Deer Browse on Douglas-fir Seedlings**
Jimmy Taylor, USDA APHIS Wildlife Services, National Wildlife Research Center, Corvallis, OR
- 2:35 **At Your Fingertips: Rapid Retrieval of Product and Pesticide Information from the National Pesticide Information Center**
Dave Stone, Oregon State University, Corvallis, OR
- 3:00 **Break**
- 3:20 **A Novel Proximity Logger System for Quantifying Animal Interactions**
Jamie MacKay, University of Auckland, Auckland, New Zealand
- 3:45 **Advances in the Modern Snare**
Pat Jackson, Utah State University, Logan, UT
- 4:10 **Use of Dogs in the Mediation of Conservation Conflicts**
Kurt VerCauteren, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 4:35 **Estimating the Total Economic Impact of Black Bear Peeling to Western Oregon Using GIS and REMI**
Jimmy Taylor, USDA APHIS Wildlife Services, National Wildlife Research Center, Corvallis, OR
- 5:00 **Session Close**

Please join us tonight from 5:30 PM to 7:00 PM in the Kohala Promenade for the Vendors Forum, light Hors d'oeuvres, and cash bar

Please see the abstract booklet for a complete list of presentation authors

Thursday, March 6 (AM)

GENERAL RODENT MANAGEMENT

Kohala 1 & 2

Chair: **Grant Singleton**

International Rice Research Institute, Los Banos, Philippines

- 8:15 **Session Welcome**
- 8:20 **Preventing Rodent Damage to Flood Control Facilities**
Pam Lindsey, Ventura County Watershed Protection District, Ventura, CA
- 8:45 **Efficacy of Rodent Baits Under Simulated Sewer Conditions**
Erik Schmolz, Federal Environment Agency Germany, Berlin, Germany
- 9:10 **Overcoming Trap Shyness in Norway Rat (*Rattus norvegicus*) Populations in New Orleans**
Timmy Madere, City of New Orleans Mosquito, Termite, and Rodent Control Board, New Orleans, LA
- 9:35 **An Integrated Approach to Commensal Rodent Management in New Orleans, Louisiana**
Claudia Riegel, City of New Orleans Mosquito, Termite, and Rodent Control Board, New Orleans, LA
- 10:00 **Break**
- 10:20 **Test Method for Humaneness and Efficacy of Rodent Traps**
Erik Schmolz, Federal Environment Agency Germany, Berlin, Germany
- 10:45 **Understanding Trapping as a Tool to Manage Pocket Gophers**
Roger Baldwin, University of California-Davis, Davis, CA
- 11:10 **Successful Results from Multi-species Synthetic Lures in Long-life Dispensing Systems**
Stu Barr, Goodnature Limited, Wellington, New Zealand
- 11:35 **Rat Control with a New Technique at Mangrove Keys in Southern Puerto Rico**
Hector Ruiz, HJR Reefscaping, Hormigueros, Puerto Rico
- 12:00 **Lunch** (on your own)

Please see the abstract booklet for a complete list of presentation authors

Thursday, March 6 (AM)

**INVASIVE VERTEBRATES:
WHERE ARE WE AND WHAT'S ON THE HORIZON**

Kohala 3

Chairs: **William Pitt** and **Gary Witmer**

USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO

- 8:15 **Session Welcome**
- 8:20 **Invasive Vertebrate Management on Tropical Islands: A Micronesian Overview**
Dan Vice, USDA APHIS Wildlife Services, Barrigada, Guam
- 8:45 **Long-term Vertebrate Pest Control Solutions in New Zealand**
Helen Blackie, Centre for Wildlife Management and Conservation, Christchurch, New Zealand
- 9:10 **Contributions of Invasive Species to Ecosystem Instability on the Big Island of Hawai'i: Excuse Me But Are You Going to Eat That Cane Toad?**
Erin Abernethy, University of Georgia, Savannah River Ecology Lab, Aiken, SC
- 9:35 **The Need and Future of Government/Private Partnerships in Rodent Eradication Projects in the United States**
Gregg Howald, Island Conservation, Vancouver, BC, Canada
- 10:00 **Break**
- 10:20 **Innovative Developments in Vertebrate Pest Monitoring and Targeted Control Tools**
Helen Blackie, Lincoln University, Christchurch, New Zealand
- 10:45 **Mitred Conure Control on Maui**
Adam Radford, Maui Invasive Species Committee, Makawao, HI
- 11:10 **Invasive Myna Control in American Samoa**
Michael Avery, USDA APHIS Wildlife Services, National Wildlife Research Center, Gainesville, FL
- 11:35 **Eradication Efforts of Hybrid Mouflon Sheep from Palila Critical Habitat on Mauna Kea**
Robert Stephens, Hawaii Division of Forestry and Wildlife, Hilo, HI

Please see the abstract booklet for a complete list of presentation authors

Thursday, March 6 (AM)

OTHER TOPICS IN WILDLIFE DAMAGE MANAGEMENT

Kohala 4

Chair: **Kathleen Fagerstone**

USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO (*retired*)

- 8:15 **Session Welcome**
- 8:20 **Utilizing Trained Members of the Public for Hazing and Aversive Conditioning of Alaskan Brown Bears (*Ursus arctos*) with Electronic Control Devices (ECDs) – A Pilot Study**
Larry Lewis, Alaska Department of Fish and Game, Soldotna, AK
- 8:45 **Managing Prairie Dogs by Managing Plague: A Vaccine for the Future?**
Terry Johnson, BFFRIT/WAFWA Sylvatic Plague Project, Glendale, AZ
- 9:10 **Protecting the Tuamotu Sandpiper (*Prosobonia cancellata*) One Island at a Time**
Madeleine Pott, Island Conservation, Santa Cruz, CA
- 9:35 **Perceptions of Mexican Wolves and Agency Staff as Pests in the American Southwest**
Terry Johnson, Endangered Species Advisement, LLC, Glendale, AZ
- 10:00 **Break**
- 10:20 **Development of Techniques to Eradicate Mongoose for Conservation of Biodiversity in the Amami and Ryukyu World Natural Heritage Candidate Site in Japan**
Takamichi Jogahara, Okayama University of Science, Okayama, Japan
- 10:45 **Capture Rates Using a Variety of Traps, Baits and Lures**
Steve Orwig, Haleakala National Park, Makawao, HI
- 11:10 **Rodent Cycles and Outbreaks in Asia: Biological Curios and Food Security**
Niamh Quinn, International Rice Research Institute, Laguna, Philippines
- 11:35 **Open**
- 12:00 **Lunch** (on your own)

Please see the abstract booklet for a complete list of presentation authors

Thursday, March 6 (PM)

GENERAL RODENT MANAGEMENT

Kohala 1 & 2

Chair: **Grant Singleton**

International Rice Research Institute, Los Banos, Philippines

- 1:15 **Session Welcome**
- 1:20 **Preliminary Results of Trials with New Rodenticides**
Gary Witmer, USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO
- 1:45 **Anticoagulant Rat Poison Exposure in Non-target Wildlife, Domestic Pets**
Kelle Kacmarcik, WildCare, San Rafael, CA
- 2:10 **Toxicity and Potential Risk of Chlorophacinone Assessed in Captive American Kestrels (*Falco sparverius*) as a Model Species for Raptors**
Barnett Rattner, US Geological Survey, Beltsville, MD
- 2:35 **Anticoagulant Rodenticides: Resistance and Residues in Norway Rats in France**
Philippe Berny, VetAgro-Sup, Marcy, France
- 3:00 **Break**
- 3:20 **Challenges Associated with Eradicating Black Rats from Forested Islands in British Columbia and Lessons Learned for Future Island Restoration Projects**
Chris Gill, Coastal Conservation, Tappan, BC, Canada
- 3:45 **Managing California Ground Squirrels on Levees**
Dirk Van Vuren, University of California-Davis, Davis, CA
- 4:10 **Rodent Management in Death Valley**
Erv Gasser, US National Park Service, San Francisco, CA
- 4:35 **Attack Intensity of Rice-field Rat (*Rattus argentiventer*) in Organic and Conventional Rice Planting**
Ichsan Nurul Bari, Universitas Padjadjaran, Bandung, Sumedang, Indonesia
- 5:00 **Closing Remarks**
Roger Baldwin, Vertebrate Pest Council Chair-elect

Please see the abstract booklet for a complete list of presentation authors

Thursday, March 6 (PM)

INVASIVE VERTEBRATES: WHERE ARE WE AND WHAT'S ON THE HORIZON?

Kohala 3

Chairs: **William Pitt** and **Gary Witmer**

USDA Wildlife Services, National Wildlife Research Center, Fort Collins, CO

- 1:15 **Session Welcome**
- 1:20 **Managing Feral Horses in Namadgi National Park, Australia — A Sensitive Operation**
Mike Braysher, University of Canberra, Narrabundah ACT, Australia
- 1:45 **Locking Horns with Hawai'i's Non-native Ungulate Issues**
Steve Hess, U.S. Geological Survey Pacific Island Ecosystems Research Center, Kilauea Field Station, Hawaii National Park, HI
- 2:10 **Methods for Population Control: A Case Study on the Axis Deer of Maui Island, HI**
Elena Rubino, University of Delaware, Newark, DE
- 2:35 **The Benefits to Native Prey Species of a Nine-Year Large Scale Management Press of an Invasive Predator**
Alan Robley, Arthur Rylah Research Institute, Melbourne, Australia
- 3:00 **Break**
- 3:20 **Mongoose Control in the Hawaiian Islands: History and Future Directions**
Robert Sugihara, USDA APHIS Wildlife Services, National Wildlife Research Center, Hilo, HI
- 3:45 **Brown Treesnake Control on Guam: Reality and Future Directions**
Dan Vice, USDA APHIS Wildlife Services, Barrigada, Guam
- 4:10 **Detection and Removal of Invasive Burmese Pythons — Methods Development Update**
Michael Avery, USDA APHIS Wildlife Services, National Wildlife Research Center, Gainesville, FL
- 4:35 **The Effect of Density-Dependence on Foraging Dominance Between Two Pest Species**
James Ross, Lincoln University, Lincoln University, New Zealand
- 5:00 **Closing Remarks**
Roger Baldwin, Vertebrate Pest Council Chair-elect

Please see the abstract booklet for a complete list of presentation authors

POSTERS

Kohala Promenade

Tuesday, 1-7 PM, Wednesday 8 AM - 7 PM

Thursday 8 AM - 1 PM

Chair: **Stella McMillin**

California Department of Fish and Wildlife, Rancho Cordova, CA

Mongoose Eradication Project of Invasive Alien Mongoose on Okinawa and Amami-Oshima Island in the Ryukyu Archipelago, Japan

Shintaro Abe, Ministry of the Environment, Naha, Okinawa, Japan

Economic Analysis of Indemnity Payments for Wolf Depredation on Cattle in a Wolf Reintroduction Area

Aaron Anderson, USDA APHIS Wildlife Services, National Wildlife Research Center, Fort Collins, CO

Diazacon for Reducing Invasive Monk Parakeet Populations

Michael Avery, USDA APHIS Wildlife Services, National Wildlife Research Center, Gainesville, MD

Unexpected Findings During a Rat Survey on Alcatraz Island

Bruce Badzik, U.S. National Park Service, San Francisco, CA

Monitoring and Control of Feral Cats on Kaho`olawe: One Step Towards Eradication

James Bruch, Kaho'olawe Island Reserve Commission, Wailuku, HI

Modeling the Benefits of Predator Control for Hawaiian Petrels in Hono O Na Pali Natural Area Reserve

Adam Griesemer, U.S. Fish and Wildlife Service, Honolulu, HI

A Novel Approach to Transforming an Old Rodenticide

Brian Hopkins, LandCare Research, Lincoln, New Zealand

Fencing to Protect Hawaiian Petrels from Feral Cats: A Progress Update

Darcy Hu, U.S. National Park Service, Hawaii National Park, HI

A review of foothold trap improvements and modifications

Pat Jackson, Utah State University, Wildland Resources Department, Logan UT

Feral Dog Depredations of Endangered Nēnē (Hawaiian Goose) at Haleakalā National Park

Raina Kaholoaa, U.S. National Park Service, Makawao, HI

Averting a Veiled Threat: Apparent Eradication of *Chamaeleo calyptratus* on the Island of Maui

Brooke Mahnken, Maui Invasive Species Committee, Makawao, HI

Please see the abstract booklet for a complete list of presentation authors

The Extent and Impact of Wild Pig Damage to Landowners in Southwest Georgia

Michael Mengak, University of Georgia, Athens, GA

Neighborhood Investigation & Prevention of Flea-borne Typhus Cases

Kiet Nguyen, Orange County Vector Control District, Garden Grove, CA

Feral Swine Management

Dale Nolte, USDA APHIS Wildlife Services, Fort Collins, CO

Arid Recovery – The Best Defense is a Good Fence

Kylie Piper, Arid Recovery, Roxby Downs, SA, Australia

Efficacy of Rodenticides for Roof Rat and Deer Mouse Control in Orchards

Niamh Quinn, University of California Cooperative Extension, Parlier, CA

An Approach to Examining the Wildlife and Livestock Interface with Leafy Green Produce in the Southwest Desert

Paula Rivadeneira, University of California, Davis, CA

Diet and Seed Dispersal of an Introduced Game Bird (Erckel's Francolin) in Hawai'i

Aaron Shiels, USDA Wildlife Services, National Wildlife Research Center, Hilo, HI

Feral Cat Impact on Endangered Endemic Mammals Revealed by Scat Analysis at Amami-Oshima Island of the Amami and Ryukyu World Natural Heritage Candidate Site in Japan

Kazumi Shionosaki, Koyoto University, Ibaraki, Japan

Coyote Attacks on Humans: Causes, Recent Trends, and Management Solutions

Robert Timm, University of California, Hopland Research & Extension Center, Hopland, CA

Rat Density on Diego Garcia: Implications for Eradication Feasibility

Scott Vogt, U.S. Navy, Naval Facilities Engineering, Yokosuka, Japan

Please see the abstract booklet for a complete list of presentation authors

CONTINUING EDUCATION

Chair: **Rex Baker**

California State Polytechnic University-Pomona, Pomona, CA (*retired*)

Continuing Education (CE) credits are available for the following states for those who sign in and out of each CE session at the Continuing Education registration table located in the Kohala Promenade outside King's Ballroom.

California	24.5 credit hours
Hawaii	15 credits
Nevada	15 credit hours

In addition to the classroom sessions, California Department of Pesticide Regulation is allowing 4.5 hours of continuing education credits for the field trip on Monday March 3, 2014.



Sessions Providing CE Units

Tuesday, March 4			Wednesday, March 5			Thursday, March 6		
Time	Kohala 1 & 2	State	Time	Kohala 1 & 2	State	Time	Kohala 1 & 2	State
PLENARY			INVASIVE RODENTS			GENERAL RODENTS		
8:30	Welcome		8:15	Welcome		8:15	Welcome	
8:45	Eisemann		8:20	Shiels	CA, HI, NV	8:20	Lindsey	CA, HI, NV
9:15	Fagerstone	CA, HI, NV	8:45	Witmer	CA, HI, NV	8:45	Schmolz	CA, HI, NV
10:00	Break		9:10	Samiego	CA, HI, NV	9:10	Madere	CA, HI, NV
10:20	Singleton	CA, HI, NV	9:35	Franklin	CA, HI, NV	9:35	Riegel	CA, HI, NV
10:45	Witmer	CA, HI, NV	10:00	Break		10:00	Break	
11:10	Pitt	CA, HI, NV	10:20	Griffiths	CA, HI, NV	10:20	Schmolz	CA, HI, NV
11:35	Schmidt		10:45	Alfiano	CA, HI, NV	10:45	Baldwin	CA, HI, NV
12:00	Lunch		11:10	Ringler	CA, HI, NV	11:10	Van Dam	CA, HI, NV
			11:30	Hall	CA, HI, NV	11:30	Ruiz	CA, HI, NV
			12:00	Lunch		12:00	Lunch	
Time	Kohala 3	State	Time	Kohala 1 & 2	State	Time	Kohala 1 & 2	State
CONTRACEPTION BIRDS			INVASIVE RODENTS			GENERAL RODENTS		
1:15	Welcome		1:15	Welcome		1:15	Welcome	
1:20	Dyer	CA, HI, NV	1:20	Oberg	CA, HI, NV	1:20	Witmer	CA, HI, NV
1:45	Hinds	CA, HI, NV	1:45	Wegmann	CA, HI, NV	1:45	Kamarcik	CA, HI, NV
2:10	Pyzyna	CA, HI, NV	2:10	Murphy	CA, HI, NV	2:10	Rattner	CA, HI, NV
2:35	Eckery		2:35	Duron	CA, HI, NV	2:35	Berny	CA, HI, NV
3:00	Break		3:00	Break		3:00	Break	
3:20	Hinds		3:20	Kendrot	CA, HI, NV	3:20	Gill	CA, HI, NV
3:45	Whitford		3:45	Feldman	CA, HI, NV	3:45	Van Vuren	CA, HI, NV
4:10	Linz	CA	4:10	Harper	CA, HI, NV	4:10	Gasser	CA, HI, NV
4:35	Linz	CA	4:35	Gasser	CA, HI, NV	4:35	Bari	CA, HI, NV

See you at the

27th Vertebrate Pest Conference
February 29 – March 3, 2016
Newport Beach, California

26th VERTEBRATE PEST CONFERENCE ORGANIZING COMMITTEE

CONFERENCE CHAIR:

John O'Brien, NV Department of Agriculture (*retired*)

Phone: 775-827-3221; Email: objohn1@sbcglobal.net

PROGRAM CHAIR:

John Eisemann, USDA APHIS Wildlife Services, National Wildlife Research Center

Phone: 970-266-6158; Email: john.d.eisemann@aphis.usda.gov

REGISTRATION COORDINATOR:

Amber Shrum, University of California, Agriculture and Natural Resources

Phone: 707-744-1424 x101; Email: anshrum@ucanr.edu

FIELD TRIP:

Kathy Fagerstone, USDA National Wildlife Research Center (*retired*)

Phone: 970-266-6161; Email: kathleen.a.fagerstone@aphis.usda.gov

COMMERCIAL DISPLAYS:

Roger Baldwin, Wildlife Fish & Conservation Biology, UC Davis

Phone: 530-752-4551; Email: rabaldwin@ucdavis.edu

CONTINUING EDUCATION:

Rex Baker, California State Polytechnic University-Pomona (*retired*)

Phone: 909-938-7223; Email: rbakervertipm@aol.com

PUBLICITY:

Dirk Van Vuren, Wildlife Fish & Conservation Biology, UC Davis

Phone: 530-752-4181; Email: dhvanvuren@ucdavis.edu

SPONSORSHIPS AND LOCAL ARRANGEMENTS:

Charles Crabb, College of Agriculture, Food, and Environmental Sciences, California Polytechnic State University-San Luis Obispo

Phone: 805-704-4513; Email: charlie.crabb@me.com

POSTERS AND STUDENT SCHOLARSHIPS:

Stella McMillin, California Department of Fish & Wildlife

Phone: 916-358-2954; Email: stella.mcmillin@wildlife.ca.gov

PROCEEDINGS EDITOR:

Robert Timm, University of California, Agriculture and Natural Resources

Phone: 707-744-1424 x103; Email: rmtimm@ucanr.edu

COMMERCIAL EXHIBITORS

Kohala Promenade

Tuesday, 1-7 PM

Wednesday 8 AM - 7 PM

Thursday 8 AM - 4 PM

Chair: **Roger Baldwin**

University of California-Davis, Davis, CA

Corvus Repellents

3301 Stonehurst Drive, El Dorado Hills, CA 95762

Website: corvusrepellent.com; E-mail: davesills@att.net

Phone: 1-916-837-6800

Critter Control

640 Starkweather, Plymouth, MI 48170

Website: www.crittercontrol.com; E-mail: info@crittercontrol.com

Phone: 1-800-274-8837

Goodnature

P.O. Box 14712, Kilbirnie, Wellington, 6241, New Zealand

Website: www.goodnature.co.nz; Email: stu@goodnature.co.nz

Phone: +64 4 387 3872

Messina Wildlife

55 Willow Street, Washington, NJ 07882

Website: www.messinawildlife.com; E-mail: James@Messinas.com

Phone: 1-908-320-7088

Motomco Ltd.

3699 Kinsman Blvd, Madison, WI 53704

Website: www.motomco.com; E-mail: kgutzmer@motomco.com

Phone: 1-800-418-9242

Tomahawk Live Trap Co.

P.O. Box 155, Hazelhurst, WI 54531

Website: www.livetraps.com; E-mail: trapem@livetraps.com

Phone: 1-715-356-4600

Van Beurden Insurance Services, Inc.

1600 Draper Street, Kingsburg, CA 93631

Website: www.vanbeurden.com; E-mail: jheinric@vanbeurden.com

Phone: 1-559-634-7113