

Preliminary Program
(Program, including times and order of sessions are subject to change)

29th VERTEBRATE PEST CONFERENCE

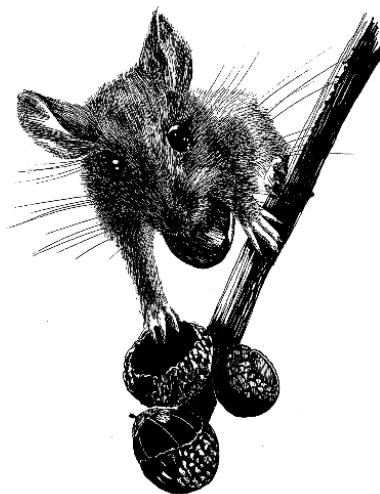
March 2-5, 2020
Santa Barbara, California

29th VERTEBRATE PEST CONFERENCE

March 2-5, 2020
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Includes special symposia:

- **Island Invaders**
- **Predator Management**



Sponsored by:
The Vertebrate Pest Council

The 29th Vertebrate Pest Conference will be held Monday, March 2-5, 2020 at the Hilton Santa Barbara Beachfront Resort. Santa Barbara is located on the central California coast, with the Santa Ynez Mountains as a dramatic backdrop. Downtown, Mediterranean-style white stucco buildings with red-tile roofs reflect the city's Spanish colonial heritage. The Conference will feature an optional full-day field trip (Monday, March, 2) and three days of presentations (Tuesday, March 3-5) covering many aspects of vertebrate pest control.

Who Should Attend

The Conference significantly contributes to understanding and resolving undesirable wildlife-human interactions and wildlife damage problems, promoting better management methodology, and minimizing adverse environmental and ecological effects. Vertebrate pest management is applied ecology with improved agriculture, public health, and conservation of natural and human-made resources as the primary goals. The Conference is a forum for exchanging knowledge, information and experiences among researchers, administrators, regulators, extension personnel, practitioners, and students. Participants have various professional backgrounds, but all have one common interest – managing human-wildlife conflicts. The following represents previous attendee affiliations:

- Wildlife control and animal control officials and personnel
- Wildlife managers employed by federal, state, and regional agencies
- Health department officials and employees
- Pest control advisors (PCAs) and others involved in pesticide use and pesticide regulation
- Agricultural producers, both using conventional and organic methods
- Consultants in vertebrate pest problems
- Manufacturers and suppliers of vertebrate pest materials
- Extension Specialists, Advisors, and Agents
- Foresters
- Administrators and staff of federal and state agriculture departments, environmental protection agencies, and other regulatory agencies
- Sanitarians
- Food processing and warehouse managers
- Educators teaching integrated pest management and agricultural topics
- Researchers (public agencies and private sector)
- Natural resource managers (conservationists) in public agencies and NGOs

CONTINUING EDUCATION CREDITS

California Continuing Education (CE) credits for pest control professionals (PCA, QAC, etc.) and Vector Control personnel will be available. Past Conferences have provided 18 to 22 California DPR credit hours, plus CE credits from the CA Department of Public Health; credits are based on final program content. For updates, see www.vpconference.org.

CONFERENCE REGISTRATION

Pre-registration is highly recommended and can be accomplished online via the Internet, using a credit card (Visa, MasterCard, American Express, or Discover), by going to <http://www.vpconference.org/>. To obtain the discounted pre-registration rate, be sure to complete your registration **by February 10, 2020**. Registration after February 2 or at the Conference will include an additional \$50 surcharge.

Pre-registration fees will be refunded minus a 20% administrative fee if the request for refund is made to Conference Registration Coordinator Jennifer Gonzalez (phone: 562-802-2238 ext 51218) by **February 17, 2020**. No refunds will be granted after this date. Pre-registration fees can be transferred to another individual, to permit their attendance in your place, if the request is made by February 17.

Discounted Pre-Registration

Complete Conference (Mar 3-5)	\$395.00
Per-Day Conference Registration	\$175.00
Retiree, Complete Conference (Mar 3-5)	\$200.00

Student Pre-Registration

Complete Conference – Student (Mar 3-5)	\$85.00
Per-Day Conference Registration	\$30.00

Commercial Exhibitor

Complete Conference – Exhibitor (includes 1 person registration with 1 exhibit table)	\$1000.00
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Optional Events

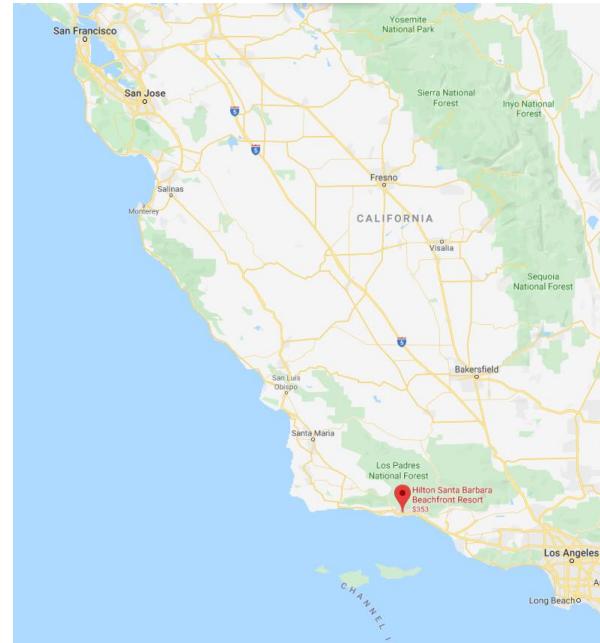
Field Trip (full day Mar 2, includes lunch)	\$90.00
Field Trip – Guest (full day Mar 2, includes lunch)	\$90.00

CONFERENCE PROCEEDINGS

The conference *Proceedings* will be available with open access as individual papers in pdf format at the University of California's eScholarship portal once publication is completed. A printed version of the 29th *Proceedings* will also be available for purchase via print-on-demand.

CONFERENCE LOCATION

Hilton Santa Barbara Beachfront Resort
633 E Cabrillo Blvd, Santa Barbara, CA 93103



HOTEL RESERVATIONS

To make your hotel reservation at the Hilton Santa Barbara Beachfront Resort, direct your web browser to <https://book.passkey.com/event/49895504/owner/3105901/home>. There are a limited number of rooms available at the conference rate so it is important you make your room reservations early.

TRANSPORTATION

Airports: Santa Barbara Municipal Airport (SBA) is 11 miles from the Hilton. This airport has regional service offered by Alaska, Contour, Delta, United, and American Airlines and offers a complimentary shuttle. The Los Angeles International Airport (LAX) is the closest major airport to the hotel, located 93 miles south. The Hollywood Burbank Airport/Bob Hope Airport (BUR) is located 88 miles from the Hilton.

Ground Transportation: There is a complimentary shuttle service to the Amtrack station, located just 1 miles from the Hilton. The Surfliner serves San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange and San Diego Counties. Rental cars are available at all of the airports.

Parking: Self-parking is available at the hotel for \$25.00 per day.

DRIVING DIRECTIONS

From Santa Barbara Airport: 101 South to Milpas Exit, turn rt. Rt on Calle Puerto Vallarta, entrance is on right.

From LAX Airport: North to 101 north. Upon entering Santa Barbara, take left exit 94C: Cabrillo Boulevard exit. At the bottom of the exit ramp, make a left onto Cabrillo Boulevard. Make a right onto Calle Puerto Vallarta. Make a left into entrance.

COMMERCIAL DISPLAYS

The Conference will have commercial exhibit displays. Space is available for exhibiting commercial products and services. The exhibition fee is \$945, which includes one full conference registration. Complimentary hors d'oeuvres and a no-host bar will be available Wednesday evening in conjunction with the displays, poster exhibits, and a vendors' forum. For further information, contact Aaron Shiels: aaron.b.shiels@usda.gov .

FIELD TRIP (Monday March 2, 2020)

The Conference begins with an optional full-day field trip on Monday, March 2. The field trip departs from the Hilton Santa Barbara Beachfront Resort at approximately 8:00 AM. This area is known for its abundant vineyards and offshore islands. Many human-wildlife conflicts exist in this area given an abundant human population reliant on agriculture and natural resources. This field trip will highlight some of these conflict situations, and will provide insight into some of the tools and strategies used to mitigate these conflicts. A tour guide will accompany each bus to provide local insights on human-wildlife interactions and vertebrate pest control. A lunch will be provided (included in cost). Buses will return to the hotel by approximately 5:00 PM.

CONFERENCE PROGRAM (Tuesday – Thursday, March 3-5)

Conference presentations will begin at 9:00 AM on Tuesday, March 3, with a single plenary session, led off by a keynote address and a presentation of the Walter E. ‘Howdy’ Howard Lifetime Achievement Award for Excellence in Vertebrate Pest Management. Concurrent sessions will occur from Tuesday afternoon through Thursday afternoon, offering participants a choice of topical sessions and special symposia. Morning and afternoon refreshment breaks, as well as evening social activities on Tuesday and Wednesday, will permit ample time for meeting speakers and conference participants to engage in informal discussions.

The final program, containing exact times and assignments of concurrent sessions and individual presentations, will be provided at the time of the Conference.

Updates on program details will be posted on the Conference's web site (<http://www.vpconference.org>) when they become available.

POSTER SESSION

A special Poster Session will be available for informal viewing from Tuesday afternoon (March 3) through Thursday morning (March 5). Posters are still being accepted for the Conference and can present either practical or technical aspects of managing human-wildlife conflicts, or summarize research related to wildlife damage management or work currently in progress. Easels and poster boards will be provided to display posters, so posters should not be larger than 36 inches × 36 inches. For further details, see the Conference's web site or contact Roger Baldwin by email at rabaldwin@ucanr.edu .



Conference At-A-Glance: Tentative Schedule

Monday, March 2 Optional Field Trip, 8:00 AM - 5 PM

Tuesday, March 3

Opening Plenary Session 9:00 – 12:00 PM	
Lunch (<i>on your own</i>)	
Posters and Commercial Exhibits open – 1:15	
<i>Vertebrate Pesticides & Repellents:</i> 1:20 – 5:00 PM	<i>Bird Management:</i> 1:20 – 5:00 PM
5:30 No-Host Welcoming Social	

Wednesday, March 4

<i>Island Invaders:</i> 8:10 AM – 11:50 AM	<i>Predator Management:</i> 8:10 AM – 11:50 AM
Lunch (<i>on your own</i>)	

<i>General Pest Management:</i> 1:20 – 5:00 PM	<i>Predator Management:</i> 1:20 – 5:00 PM
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6:30 PM: Hors d'oeuvres, Poster Session, and Vendors' Forum

Thursday, March 5

<i>Island Invaders:</i> 8:10 AM – 11:50 AM	<i>Rodent Management and Disease:</i> 8:10 AM – 11:50 AM
Lunch (<i>on your own</i>)	

Posters and Commercial Exhibits conclude

<i>Island Invaders:</i> 1:20 – 5:00 PM	<i>Rodent Management and Disease:</i> 1:20 – 5:00 PM
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Keynote Address: Gregg Howard with Island Conservation

Plenary Session:

- Vector Control in Oakland's Homeless Encampments
- A retrospective look at mountain lion populations in California (1906-2018)
- Predator-free New Zealand 2050 – fantasy or reality?
- Applying UAV Systems in Wildlife Management

Symposium: Island Invaders

- Trappability of low density invasive rats
- Large-scale aerial baiting to suppress invasive rats in Hawaii: efficacy of diphacinone and associated risks
- Effectiveness of Automatic Traps for Landscape Level Rodent Control
- Behavior of invasive ship rats, *Rattus rattus*, on Goat Island around self-resetting traps
- Field efficacy following re-development of the rat specific toxin norbormide
- Towards a Predator Free New Zealand
- Automated aerial baiting for invasive Brown Treesnake control: system overview and program status
- The Lord Howe Island rodent eradication: lessons learnt from an inhabited island rodent eradication
- Island Eradications of the future: RNAi as a selective tool
- Proposed House Mouse Eradication from the South Farallon Islands, California USA
- If at first you don't eradicate: Remediating rat eradication failure on Wake Atoll
- Do the remains remain? The fate of rat and bird carcasses in a Hawaiian rainforest that is managed for rodents and ungulates
- Using AI to improve efficacy and reduce by-catch of A24 traps in Hawaii
- The effectiveness of long term adaptive predator control programs for the protection of endangered seabirds on Kauai'i
- Development, decision-making and policy engagement of gene-edited mice for increasing scale, scope and pace of extinction prevention on islands
- Factors leading to successful island rodent eradications following initial failure
- Modeling the management of non-native game mammals to reduce future conflicts with native plant conservation in Hawaii
- Tropical island rat eradication failures – hope for the future.
- Flavor preference of oral rabies vaccine baits by small Indian mongooses (*Herpestes auropunctatus*) in southwestern Puerto Rico
- Drones and automated technology for predator control
- Evaluating the airsoft electric gun for control of invasive reptiles: ballistic tests and impact on brown treesnakes

Symposium: Predator Management

- Ten years of successful management of the Invasive Raccoon Dog (*Nyctereutes procyonoides*) and the evolution of a national task force for invasive alien species, the Swedish Raccoon Dog project
- Exploiting olfactory habituation with unrewarding prey cues to reduce unwanted predation
- Measuring density and activity of feral cats on San Clemente Island using camera traps.
- Behavioral changes in the European Wolf Population
- Do coyotes eat mesocarnivores in southern California? A molecular genetic analysis
- Are TNR practices increasing conflicts between urban coyotes and free-roaming cats in southern California?
- Genetics and movement; How relatedness and home ranges of feral cats on Kaua'i inform management strategies
- Developing alternatives to protect domestic sheep from predation in South Africa
- Paying for prevention: evaluating Arizona rancher spending to avoid or reduce conflicts with the Mexican wolf
- The need, challenges, and responsibility to track human-coyote conflicts in California
- Pest control by generalist predators depends on prey density and predator effectiveness
- M-44 use by non-USDA-Wildlife Services applicators between 2006-2019 in Montana
- Wolves and Coyotes
- The secret lives of livestock guardian dogs: current knowledge and future research
- At the interface between livestock and predators: reducing depredation through livestock husbandry
- Does aversive conditioning change Lake Tahoe (CA) black bear behavior?

Concurrent Session: Bird Management

- Rose-ringed parakeets in California: established populations and serious agricultural threats
- The effectiveness of visual scaring techniques against grey herons, *Ardea cinerea*
- Urban/Sub-urban resident goose management: insights from Colorado

- Utilizing wireless endoscopes to capture visual nesting data: an affordable time efficient solution
- Understanding and preventing bird damage on dairies
- Wild Turkey Use of Agricultural Fields In Southern Utah

Concurrent Session: Rodent Management and Disease

- Sustained release long-life lures and bait consumption motivators for rats
- Bait station placement as a method to reduce wildlife exposure to rodenticides
- Live-trapping Norway rats in homeless camps in Oakland, California, and the Implications for Public Health
- Assessing beaver occupancy and dam building potential: a case study in the Umpqua Watershed of Southwestern Oregon
- Estimating the number rodents killed by barn owls nesting in boxes on winegrape vineyards
- Prevalence of *Rickettsia felis* and *Rickettsia typhi* in Urban Wildlife in Orange County, California, 2016-2019
- No clear path toward prevention: lessons learned from fifteen years of investigating flea-borne rickettsioses in Orange County, California
- Use of self-resetting traps for California ground squirrel (*Otospermophilus beecheyi*) control
- Potential secondary toxicity risk associated with differing application strategies of diphacinone-treated grain for California ground squirrel control
- Proposed methods for detecting nutria (*Myocastor coypus*) in California using environmental DNA
- Homeless encampments location critical in vector-borne disease potential
- Evaluating habitat manipulation as a strategy for rodent control in agricultural ecosystems of Pothwar Region, Pakistan
- Carbon monoxide (CO) to control gophers and ground squirrels: an alternative to anticoagulant rodenticides

Concurrent Session: General Pest Management

- An evaluation of aggressive white-tailed deer behavior on a college campus
- Success of anuran traps improved by manipulating acoustic characteristics of lures
- Female cane toads prefer low frequency, high pulse-rate calls globally
- Temperature and humidity variation between cage and plastic-walled traps: Implications for animal welfare which used cage and box traps.
- Feral horse use and competition on native rangelands in northeastern California
- The Pocatello Supply Depot: An update

- Imperfect data: offering the best available objective data for NEPA compliance
- Pilot studies keep me flying high

Concurrent Session: Vertebrate Pesticides and Repellents

- Development of a rodent bait with slug-repellent properties
- Captive Canada geese acceptability and toxicity trials with two formulations of 0.005% diphacinone rodenticide baits
- A field evaluation of candidate repellents to reduce black bear damage to western larch trees
- Evaluating the efficacy of carbachol at reducing corvid predation on artificial nests
- Zinc Phosphide analysis in vole : revisiting an old technique
- ContraPest, a rodent fertility control product, that does not bioaccumulate
- Preliminary field efficacy of anthraquinone repellent to reduce drip irrigation line damage by cottontail rabbits

Poster Session

- Using camera traps to assess the effects of predator urine on potential nuisance wildlife
- The effects of feral cat feeding on urban wildlife and their human neighbors in Alameda County
- Skunk exclusion at County of Santa Clara Vector Control District: A demonstration project
- Keeping an eye on human wildlife conflict and vertebrate pests in southern California: The Wildlife Watch Program
- Novel methods for barn owl hunting within the Hawaiian Islands
- Consumption of rat carcasses as a pathway of rodenticide exposure of wildlife in southern California
- Efficacy of snap traps and automatic traps for rodent removal in montane rainforests on Kaua'i
- Exclusive residential exclusion
- Common roof rat (*Rattus rattus*) plant associations observed in Alameda County California
- Benefits of sewer baiting to decrease Norway rat population
- Urban/Sub-urban resident goose management: insights from Colorado
- Age distribution of urban coyotes in southern California: a comparison of tooth wear and cementum annuli methods

- A case study of the eviction of a female bobcat and her 4 kittens from a suburban backyard in Fremont, California.

29th VERTEBRATE PEST CONFERENCE

CONFERENCE CHAIR:

Stella McMillin, California Department of Fish and Wildlife
(916) 358-2954; Email: stella.mcmillin@wildlife.ca.gov

PROGRAM CHAIR:

Niamh Quinn, University of California Cooperative Extension
(949) 301-9182; Email: nmquinn@ucanr.edu

REGISTRATION:

Jennifer Gonzalez and **Lillian Mignella**, Target Specialty Products.
(831) 562-802; Email: jennifer.gonzalez@target-specialty.com,
lillian.mignella@target-specialty.com

LOCAL ARRANGEMENTS:

Greg Hacker, California Department of Public Health
(916) 686-8083; Email: Greg.Hacker@cdph.ca.gov

FIELD TRIP:

Mike Taber, Wildlife Control Technology
Email: miket@wildlife-control.com

COMMERCIAL DISPLAYS:

Aaron Shiels, USDA National Wildlife Research Center
(916) 445-4239; Email: aaron.b.shiels@usda.gov

John Eisemann, USDA National Wildlife Research Center
(970) 266-6158; Email: john.d.eisemann@aphis.usda.gov

POSTER AND STUDENT AWARD COORDINATOR:

Roger A. Baldwin, University of California, Davis
(530) 752-4551; Email: rabaldwin@ucdavis.edu

CONTINUING EDUCATION

Edmund Duarte, Alameda County Agricultural Commissioner's Office
(926) 245-0853; Email: ed.duarte@acgov.org

PUBLICITY:

Dirk VanVuren, University of California, Davis
(530) 752-4181; Email: dhvanvuren@ucdavis.edu