# **BIOGRAPHICAL INFORMATION**

# Raoul Boughton, PhD

Rangeland Scientist | Assistant Professor
University of Florida | Institute of Food and Agricultural Sciences
Range Cattle Research and Education Center
3401 Experiment Station
Ona, Florida 33865
USA
863 735 1314 ext 216
rboughton@ufl.edu

Dr Raoul Boughton is a wildlife ecologist and physiologist, with interests in population regulation and identifying individual physiological phenotypes and life history tradeoffs in the field of ecological immunology, as well as the interaction of wildlife with domestic cattle and subsequent disease risk. Raoul completed his PhD at the University of Memphis in 2007, and was then awarded two postdoctoral fellowships, one funded from NSF to investigate a high mortality event in the endangered Florida Scrub-Jay and the occurrence of Eastern Equine Encephalitis, the second from the Morris Animal Foundation to understand the influence of habitat and fragmentation on the prevalence of EEE, WNV and SLV, in 40 populations of jays. After which he continued investigations into avian malaria and filarial nematode and their influences on reproduction and population regulation as the Assistant Research Biologist and Director of the Disease Ecology Program, at the Archbold Biological Station. During this time Raoul became interested in the ecology of several domestic cattle diseases observed at the MacArthur Agro-Ecology Research Center, and has for example lead projects on understanding the persistence of the veneral parasite Tritrichomonas feotus, and the relationship of E.coli strains from wildlife, cattle and the environment. During this time the impact of feral swine in subtropical brood cow operations was obvious and in a collaborative project with University of Florida, USDA NWRC and Archbold Biological Station, basic biology (home range, daily activity patterns) and point source contact rates were investigated and continue today. In 2014 Raoul moved to the University of Florida as the Rangeland Scientist at the IFAS Range Cattle Research and Education Center. Here he continues to study the interactions of wildlife and domestic cattle including, disease, habitat management, conflict species and conservation of endangered species; and through extension activities imparts his findings to the ranching community.

- Population densities, dispersal and vital rates
- Contact rates and subsequent disease risk to cattle
- Points of high risk of pathogen transmission (e.g., food and water sources)
- Sub-lethal health and condition of cattle exposed to feral swine
- The community of diseases and parasites feral swine could vector

## Ryan Brook, PhD

Assistant Professor University of Saskatchewan 51 Campus Drive, Saskatoon, Saskatchewan S7J 3X8 Canada 306 966 4120 ryan.brook@usask.ca

Dr. Brook is a wildlife ecologist at the University of Saskatchewan in central Canada. His research is primarily at the interface of wildlife and livestock and includes bovine tuberculosis risk management, wildlife crop damage mitigation, chronic wasting disease, and wildlife health issues in Sri Lanka. Over the past three years, Ryan's work has expanded to include feral swine in Canada and his research group is the only team in Canada studying feral swine and their impacts.

## **Relevant Interests/Activities**

- Movement patterns using GPS satellite collaring.
- Interactions of feral swine and domestic livestock and associated disease transmission risk.
- Interactions of feral swine with TB infected elk and white-tailed deer.
- National and Continental scale mapping of feral swine using mixed methods.
- Trail camera monitoring of feral swine occurrences and behaviours.
- On-farm risk assessments.

# Shaun Case, BS, MPH

Modeling and Simulation Research Consultant UN-FAO and CSU 2303 N. Estrella Ave. Loveland, CO. 80538 USA (970) 481-1309 shaun.case@colostate.edu

Mr. Case comes to us with nearly 30 years of experience in software engineering encompassing diverse applications of the science to real world public health, public safety, education, and national security domains, and over 8 years of experience in modeling and simulation of infectious animal disease spread.

In 2002 Mr. Case cross-trained into the field of law enforcement and worked for a multinational security firm for strategic and tactical protection of corporate personnel, data, and assets. Desiring to return to more complex software systems and work in the public health sector, Mr. Case returned to the University to earn a degree in information systems, and subsequently a graduate degree in public health specializing in infectious disease. During this work Mr. Case became an integral component of the infectious disease modeling team for the Animal Population Health Institute at Colorado State University where he was one of the principal developers of infectious disease modeling and simulation

software. Mr. Case also contributed to the development of and the teaching of infectious disease modeling and simulation concepts to multinational teams of specialists in the field, as well as university graduate students. He also has traveled to foreign countries to work with foreign governments in assistance with infectious disease mitigation and control efforts utilizing intelligent information systems.

In the last few years, Mr. Case has been working as a modeling and simulation expert consultant for the United Nations Food and Agriculture Organization. With the FAO he has developed online learning systems teaching epidemiology and modeling concepts for use by UN member countries, and has traveled with the FAO to present workshops on the topics of modeling and simulation of infectious animal diseases in order to assist in the development of prevention, mitigation and control strategic planning

### **Relevant Interests/Activities**

- Modeling of feral swine population movements and interactions.
- Modeling of the spread of infectious disease originating or traveling through feral swine populations.
- Modeling of the mutation of viruses within the feral swine populations.
- Modeling the effects of disease prevention or mitigation strategies on feral swine populations and their contacts.
- Modeling the effects of various population control strategies on feral swine populations.

# Joseph Corn, MS, PhD

Senior Wildlife Disease Biologist
Southeastern Cooperative Wildlife Disease Study
College of Veterinary Medicine
University of Georgia
Athens, Georgia 30602
USA
706-542-1741
jcorn@uga.edu

Dr. Joseph L. Corn is a faculty member of the Southeastern Cooperative Wildlife Disease Study, College of Veterinary Medicine, University of Georgia, Athens, Georgia. He received his PhD from the University of Georgia and has been with the Southeastern Cooperative Wildlife Disease Study since 1984. He specializes in the epidemiology and control of diseases and disease vectors in wildlife. His research and service are focused on diseases in feral swine, ticks and other disease vectors of veterinary importance, livestock and poultry diseases in wildlife, foreign animal diseases, and emergency animal disease preparedness. Current programs include surveys for ticks in South Texas and the Caribbean region, assessments of the role of wildlife in the maintenance of tick populations, providing emergency preparedness training for state and federal wildlife and agriculture agency personnel, and maintenance of the National Feral Swine Mapping System, an internet-based system for monitoring the distribution of feral swine. Dr. Corn has served on numerous committees including the Invasive Species Advisory

Committee, National Invasive Species Council, and is Chair of the United States Animal Health Association's Feral Swine Subcommittee on Brucellosis and Pseudorabies.

### **Relevant Interests/Activities**

- Investigations of selected disease agents in feral swine
- Feral swine distribution and spread including development and maintenance of the National Feral Swine Mapping System.

# Brendan Cowled, BVSc(hons), PhD,

Senior Consutant AusVet Animal Health Services KIlfeacle 280 Cedar Hills Road MIlton, NSW, 2538 Australia +61 (2) 420 851 350 brendan@ausvet.com.au

Brendan is a consultant veterinary epidemiologist. He works on a variety of epidemiological issues in Australia and around the world.

He graduated as a veterinary surgeon in 1997, and worked in clinical practice for several years. He then completed a PhD and worked as an epidemiologist at the Australian Government Department of Agriculture. After two years as a post doctoral research fellow he moved to AusVet Animal Health Services as an epidemiological consultant.

Brendan is a board certified specialist in veterinary epidemiology.

He is an immediate past president of the Australian and New Zealand College of Veterinary Scientists epidemiology chapter and is a fellow by examination of the college.

- Brendan completed a PhD in the applied ecology of feral pigs in 2006. This focused on enhancing
  control techniques (discovered a new toxin-sodium nitrite and helped develop a new feral pig bait)
  and molecular ecology.
- He worked on simulation modelling of disease in feral pigs with Graeme Garner at the Australian government for seveal years.
- He then spent several years as a research fellow at the University of Sydney doing field observational studies and statistical modelling of disease transmision within feral pig populations and between feral pigs and cattle.

# Fred Cunningham, MS DVM PHd

Supervisory Research Biologist
Wildlife Services-National Wildlife Research Center
Fred L. Cunningham
PO Box 6099
Mississippi State, MS 39762
USA
662-325-8612
Fred.L.Cunningham@aphis.usda.gov

I am located at the Starkville, Mississippi field station of the Wildlife Services (WS), National Wildlife Research Center (NWRC), an organizational unit of the U.S. Department of Agriculture, Animal and Plant Inspection Service charged with the responsibility of conducting research aimed at resolving conflicts among wildlife, domestic animals, and people. I am the Project Leader for the National Wildlife Research Center's projects entitled "Defining economic impacts and developing strategies for reducing avian predation in aquaculture", and "Defining the economic impacts and developing control strategies for reducing feral swine damage" and the administration of the NWRC Mississippi field station. I am responsible for defining, leading, planning, coordinating, conducting, and reporting on investigations with wild and captive fish eating birds and feral swine.

#### Relevant Interests/Activities

• Feral swine research, toxicant development, species specific delivery systems, epidemiology, removal effort efficiency and cost, damage assessments, disease modeling, potential effects on livestock and public health.

# Doug Eckery, PhD

Project Leader
USDA APHIS WS NWRC
4101 LaPorte Avenue
Fort Collins, CO 80521
USA
970-266-6164
douglas.c.eckery@aphis.usda.qov

Dr. Doug Eckery is a Project Leader for the Contraceptive Technologies for Use in Wildlife Population and Disease Management project at USDA APHIS Wildlife Services, National Wildlife Research Center. His research is aimed towards the development of new methods of fertility control that can be integrated into wildlife management strategies. Dr. Eckery spent 17 years in New Zealand researching the reproductive biology of the brushtail possum and investigating methods of fertility control for this species; and he played a key role in establishing the National Research Centre for Possum Biocontrol. His current research is focused on the oral/mucosal delivery of vaccines and bioactives, gaining a better understanding of the mechanisms involved in the growth and survival of ovarian follicles, and determining the best use of contraceptive vaccines (e.g. GonaCon<sup>TM</sup>) for managing wildlife populations.

He is an adjunct faculty of the School of Biological Sciences at Victoria University of Wellington (NZ) and the Department of Biomedical Sciences at Colorado State University where he is also an affiliate faculty of the Animal Reproduction and Biotechnology Laboratory.

#### Relevant Interests/Activities

• Wildlife management, fertility control, reproductive biology, pheromones

# Fernando Ferreira, DVM, MS, PhD

Full Professor
Universidade de São Paulo
Faculdade de Medicina Veterinária e Zootecnia - USP
Av. Prof. Orlando M. de Paiva, 87
São Paulo - SP
05508-270
Brasil
+551130917653
fernando@vps.fmvz.usp.br

Dr. Ferreira is a full professor of epidemiology at Faculdade de Medicina Veterinaria e Zootecnia in São Paulo, SP, Brazil where he leads the ministry of agriculture collaborating center for epidemiology. He received his MS and PhD from Universidade de São Paulo and he's involved in research on mathematical modeling of infectious diseases, risk analysis and surveillance systems

### **Relevant Interests/Activities**

- Risk Analysis
- Dynamics of infectious diseases
- Surveillance

# Graeme Garner, BVSc PhD

Director, Epidemiology and One Health Program
Department of Agriculture
Animal Health Policy Branch
Department of Agriculture
GPO Box 858
Canberra ACT 2601
Australia
61 2 62725369
graeme.garner@agriculture.gov.au

Dr Graeme Garner is a Senior Principal Research Scientist and Director the Epidemiology and One Health Program in the Animal Health Policy Branch of the Australian Department of Agriculture. The Epidemiology and One Health Program provides technical support to national disease surveillance and reporting programs, veterinary public health, wildlife disease issues, undertakes studies on endemic and foreign animal diseases, and provides technical advice to address regional, national and

international animal health issues. Dr Garner also holds an academic appointment as Adjunct Professor, School of Science and Technology at the University of New England.

Dr Garner graduated in veterinary science from the University of Sydney in 1979. He has a PhD from the University of Sydney (1986) and Certificate in Systems Simulation in Animal Health and Production, University of Reading, UK (1991). Dr Garner joined the Australian government (then the Department of Primary Industry) in late 1986. During his career, Dr Garner has worked on a wide range of animal health projects both in Australia and overseas. He has extensive experience in animal health policy development, program management and animal health research. His research interests include simulation modelling of infectious diseases (with particular focus on emergency animal diseases), analysis of disease information, and use of computer mapping and geographical information systems in epidemiological studies. Dr Garner has an extensive list of publications and presentations. In 2012 he was made a Member of the Order of Australia for his service to veterinary science, particularly in the field of epidemiology and for the development and promotion of Australia's animal health.

## **Relevant Interests/Activities**

- Epidemiology of infectious diseases in feral swine including early detection
- Emergency animal disease management
- Modelling disease transmission at the livestock-feral swine interface

# Christian Gortázar, Prof. Dr.

Head, Health and Biotechnology Research Group (SaBio)
IREC Wildlife Research Institute, Universidad de Castilla – La Mancha
Ronda de Toledo s.n. 13005 Ciudad Real, Spain
0034 926295450 fax 451
<a href="mailto:christian.gortazar@uclm.es">christian.gortazar@uclm.es</a>

Prof. Gortazar got a Degree in Veterinary Sciences at Universidad de Zaragoza, in 1990, and a PhD at the same University in 1997. Since 1999, he joined IREC, a multidisciplinary research institute, where he leads the Health and Biotechnology Research Group (<a href="www.SaBio-IREC.com">www.SaBio-IREC.com</a>). His lecturing on wildlife diseases is part of IRECs MSc and PhD programs, where he has mentored over 12 successful international PhD students. He has acted as principal researcher in numerous grants and contracts on wildlife epidemiology and disease control and on emerging diseases. Research interests include viral, bacterial and parasitic diseases of wildlife, with emphasis on the epidemiology and control of relevant diseases shared with livestock and humans, such as tuberculosis. <a href="http://www.researcherid.com/rid/E-7918-2012">http://www.researcherid.com/rid/E-7918-2012</a>

- Wild boar TB control through oral vaccination
- Wild boar population monitoring and disease surveillance

# Daniel Grear, PhD

Ecologist
USDA-APHIS-VS
Building B
2150 Centre Avenue
Fort Collins, CO 80526
USA
1.970.494.7293
daniel.a.grear@aphis.usda.gov

I am an ecologist working for USDA, Veterinary Services in the Center for Epidemiology and Animal Health. I received a B.S. and M.S. in Wildlife Ecology from the University of Wisconsin-Madison and a Ph.D. in ecology from Penn State University. My work has included studying the transmission of chronic wasting disease in white-tailed deer, the interaction of wildlife behavior on infection and transmission risk, and the role that domestic livestock trade has as a disease dispersal pathway.

### Relevant Interests/Activities

• I incorporate field studies with theoretical modeling of disease systems to identify key mechanisms that drive transmission dynamics at the wildlife-livestock host-parasite systems. I am interested in the mechanisms that cause heterogeneities in parasite transmission in wild animal disease systems and at the interface of wildlife, domestic animal, and human health. These heterogeneities appear to result in key hosts that harbor a majority of parasites and account for a majority of transmission and are key targets for management actions.

## Marta Guerra, DVM, MPH, PhD

Senior Staff Epidemiologist Centers for Disease Control and Prevention 1600 Clifton Rd. MS A-30, Atlanta, GA 30333 USA 404-639-2951 hzg4@cdc.gov

I received a veterinary degree from the University of Florida College of Veterinary Medicine, a MPH from the University of South Florida and a PhD from the University of Illinois College of Veterinary Medicine. In 2000, I was an EIS officer in the Viral and Rickettsial Zoonoses Branch at CDC. I have also worked in the Division of Global Migration and Quarantine. I am a Diplomate of the American College of Veterinary Preventive Medicine.

### Relevant Interests/Activities

• I am currently the subject matter expert for brucellosis and leptospirosis at CDC. My main interests are zoonotic diseases and GIS spatial analysis. Internationally, I am involved projects in Armenia, Uganda, Kenya, and Mexico. Domestically, CDC performs surveillance for brucellosis and leptospirosis, conducts projects to assess incidence and risk factors of these diseases in order to target public health education materials for high-risk groups, such as hunters of feral swine

# Claire Guinat, DVM, MSc

PhD student
The Royal Veterinary College / The Pirbright Institue
VEEPH Group
Hawkshead Lane
Hatfield
Hertfordshire
AL97TA
United Kingdom
cquinat@rvc.ac.uk

Claire Guinat is a veterinarian and an epidemiologist in infectious diseases for the Veterinary Epidemiology, Economics and Public Health group (VEEPH) at the Royal Veterinary College (RVC) in the UK. She received her DVM from the Veterinary Faculty in Toulouse (ENVT, France) and her MSc from the Animal Health and Epidemiology in Tropical Countries (CIRAD, France). Since 2013, she has been located at the Pirbright Institute and the RVC in the UK where she is involved in research on African swine fever virus particularly focussing on individual course of infection, transmission routes, virus survival and spread modelling.

# **Relevant Interests/Activities**

- Study of ASFV shedding and excretion among infected swine.
- Estimation of transmission parameters for ASFV between domestic and wild swine.
- Study of pig farmers' attitudes towards ASF reporting.
- Modelling ASFV spread within and between-farms to improve early detection of the disease.

### Hongxuan He, PhD

Executive Deputy Director

National Research Center for Wildlife Born Disease, Institute of Zoology (IOZ), Chinese Academy of Sciences (CAS)

No 1-5, Beichen Road, Chaoyang District, 100101

Beijing, PR China

86-10-6480-7118

hehx@ioz.ac.cn

Dr. He, Professor and principal investigator of Institute of Zoology, Chinese Academy of Sciences; Executive Deputy Director of National Research Center for Wildlife Borne Diseases; Coordinator of Asia Pacific Network of wildlife Borne diseases. He obtained his Doctor of Preventive Veterinary Medicine degree from the College of Veterinary, Changchun Agriculture and Animal Science University, in Jilin, China in 2002, followed by a postdoctoral training at Tsinghua University and Cornell University.

Prof. He has been engaged in the immunology and molecular biology of zoonosis born from wildlife. His main research interests were (1) Molecular ecology of pathogens; (2) Pathogenic diversity and coevolutionary relationship between pathogen and host; (3) Viral infections and trace elements: A

complex interaction. In the past five years, Prof. He had held and participated in nine projects including "The National Basic Research Program of China (973 program)", "Hi-Tech Research and development program of China (863 program)", "The science & technology support project of the eleventh-five-year plan of China", "Nature Sciences Foundation of China", "CAS Innovation Key Program". Meantime, he organized and presided nature reservoir investigation of bird flu in Qinghai-Tibet plateau. The academic achievements of Prof. He are mainly as follows: In China, he developed the DNA vaccine against Avian Influenza, Cryptosporidiosis and SARS; he explored the research of the protozoan virology; he developed the first and only special lab for wildlife born diseases and established rapid diagnostic methods in the field. Until now, Prof. He had published more than 100 peer scientific papers in domestic and foreign Journals and edited 9 books as the editor in chief, the associate editor or member of editorial board. He awarded 9 S&T awards including the second prize of Science and Technology, Trade Ministry of State of China; and the second prize of Science and Technology, Henan Province, China.

### Relevant Interests/Activities

- Surveillance and early warning of feral swine in China.
- Development of fast diagnostic methods against the diseases of feral swine in China.

# Ellen Kasari, MS, DVM

Veterinary Medical Officer; Swine health specialist for surveillance USDA APHIS VS 2150 Centre Avenue, Bldg B, MS 2E6 Fort Collins, CO 80526 USA 970-494-7153 ellen.kasari@aphis.usda.gov

Ellen Kasari is a veterinarian with APHIS Veterinary Services, Surveillance, Preparedness, & Response Services as a Swine commodity specialist. She received her MS and DVM from Texas A&M University. Prior to her work with swine programs she spent four years in the National Surveillance Unit in the Centers for Epidemiology and Animal Health, specializing in swine disease reporting, four years with the USDA Food Safety and Inspection Service as a trainer; and 16 years at Texas A&M University in Comparative Medicine. Ellen's work now centers on the development, implementation, and management of swine health programs especially relative to swine disease surveillance.

- Feral swine/ domestic swine interface and transmission of disease
- Potential role of feral swine in foreign animal disease spread

# Roni King, DVM, MSc (Env. Biol)

Authority Veterinarian
Science Division,
Israel Nature and Parks Authority (INPA)
3 Am Ve'Olamo St., Jerusalem, 95463
Israel
+972 (0) 53 7762229
king@npa.org.il

Dr. King is the Authority Veterinarian that covers all aspects of veterinary concerns within the agency's duties. This includes coordinating the field campaigns of the rabies ORV, sampling many animals during different projects (wnv, CSF, FMD...), field immobilization for translocation of herbivores for reintroduction etc... As a byproduct of my work I established a wildlife sera bank, that is being used from time to time. Recently, I've began to launch a national program for surveillance of wildlife related pathogens.

### Relevant Interests/Activities

- Investigating the role of wild boar in disease cycle of different pathogens (eg. FMD, CSF, Brucella etc...)
- Looking for methods to control the over abundant wild boar population

# Megan Kirchgessner, DVM, PhD

State Wildlife Veterinarian
Virginia Department of Game and Inland Fisheries
2206 South Main Street, Suite C
Blacksburg, VA 24060
United States
804-837-5666
Megan.Kirchgessner@dgif.virginia.gov

Dr. Kirchgessner is the State Wildlife Veterinarian for the Virginia Department of Game and Inland Fisheries. She obtained her Doctorate of Veterinary Medicine at the Cornell College of Veterinary Medicine in 2005 and has practiced as a wildlife rehabilitation, small animal emergency, and exotic animal veterinarian. Dr. Kirchgessner obtained her PhD at the State University of New York College of Environmental Science and Forestry in 2012, where her research focused on the transmission of bovine viral diarrhea virus and Coxeilla burnetii between white-tailed deer and domestic livestock. As the Virginia State Wildlife Veterinarian, Megan has worked on a wide variety of wildlife health-related issues, including chronic wasting disease surveillance, fish health management at state trout hatcheries, elk restoration, feral cat management, and development of humane wildlife handling and euthanasia protocols.

## **Relevant Interests/Activities**

• Pathogen surveillance in feral swine

# Charles Masembe, BVM, MSc., PhD

Senior Lecturer
Makerere University
College of Natural Sciences
School of BioSciences
Department of Biological Sciences
Box 7062, KAMPALA, Uganda
2.5671245599e+011
cmasembe@gmail.com

Dr. Charles Masembe is a veterinarian and molecular geneticist with hands-on experience in molecular population genetics, evolution, phylogenetics, molecular epidemiology and Next-generation sequencing. His research in these fields together with his research group has generated scientific information that is useful in natural resources utilization, and disease control, for improved livelihoods. This expertise has grown to an international level that is now genetically characterizing major animal epidemics with particular emphasis on foot-and-mouth disease (FMD) and African swine fever (ASF) in the East African region, and is aimed at unraveling livestock-wildlife disease interactions to design efficient disease control strategies to ensure food security.

He is a senior lecturer at Makerere University, a three-times visiting scientist at the BecA Hub, ILRI, and a visiting lecturer at the Swedish University of Agricultural Sciences (SLU) - and the National Veterinary Institute (SVA). He has coordinated his research group and trained several graduate students, and contributed to several peer reviewed scientific publications in international journals. He is interested in using recent developments in molecular genetics for animal disease detection, control, conservation, and improving production.

## Relevant Interests/Activities

 Molecular epidemiology, Population genetics, landscape genetics, disease dynamics between domestic and wild pigs

## Barbara McCarthy, PhD

Retired Associate Director
Animal Population Health Institute; Colorado State University 5349 Wheaton Drive
Fort Collins, CO 80525
United States
970-214-6410
barbara.mccarthy@colostate.edu

Dr. Barbara McCarthy joined the staff of the Animal Population Health Institute (APHI) in July 2003 as the Outreach and Education Coordinator after serving as an academic faculty member for the previous ten years at both Colorado State University and the University of Wisconsin—Eau Claire. In her role as Outreach Coordinator, Dr. McCarthy undertook several projects including development and

maintenance of the Institute website, writing Institute reports (e.g., CIOSU reviews), and implementation of other Institute-sponsored training programs/courses, such as the Cochran Fellowship Program on Animal Disease Surveillance, the Workshop for Regional Animal Health Officers of the National Food Agency from the Republic of Georgia, the Foreign Animal Disease Training Course, International Veterinary Epidemiology Training Course, and a series of Avian Influenza Epidemiology Training Courses. Dr. McCarthy was appointed APHI Associate Director in June 2010 by Institute Director, Dr. MD Salman and retired from the University in 2014.

# Ryan S. Miller, MSc

Ecologist / Senior Analyst
USDA APHIS VS Center for Epidemiology and Animal Health (CEAH)
USA
970-494-7327
ryan.s.miller@aphis.usda.gov

Mr. Ryan Miller is an ecologist and senior analyst with United States Department of Agriculture Centers for Epidemiology and Animal Health. He received a Bachelor of Science in Forest Ecology and a minor in spatial information systems from Colorado State University. Working as a collaborating scientist with the United States Forest Service Rocky Mountain Research Center he completed a Master of Science. His Master of Science studies focused on landscape scale forest dynamics and related population dynamics of the northern goshawk. Following his graduate work he spent 5 years as a collaborating scientist with the National Cancer Institute where he participated in the development of landscape scale indices estimating pesticide exposure in human epidemiologic investigations of cancer. He is currently a PhD student with Dr. Colleen Webb studying the linkage between quantitative tools (statistical and mathematical models) and policy processes.

Mr. Miller serves on several National committees, most notably the APHIS National Feral Swine Damage Management Steering Committee which is currently guiding the startup of a new National program to address feral swine damage. He also serves on the National Bovine Tuberculosis and Brucellosis Regulatory Working Group which addresses policy and regulatory issues related to management of these diseases in the United States.

Mr. Miller has participated in a broad range of ecological projects addressing the epidemiology of viruses, bacteria, and ectoparasites. Some of these projects include: assessing the risk of introduction and establishment of exotic tick species such as the tropical bont and cattle fever ticks; ecology and transmission dynamics of arboviruses such as Everglades virus; targeted surveillance for deer hair loss syndrome in the Pacific Northwest; and spatially targeted surveillance for scrapie.

His current research is focused on understanding direct and indirect contact rates between wildlife and livestock, particularly feral swine, to better understand potential transmission and spread of livestock and zoonotic pathogens. He is a collaborating scientist with projects at the APHIS National Wildlife Research Center and the USGS National Wildlife Health Center.

## Maria Palamar, DVM, PhD.

Wildlife Veterinarian
North Carolina Wildlife Resources Commission
1701 Mail Service Center, Raleigh, NC 27699-1701
USA
(919)7070056
maria.palamar@ncwildlife.org

Maria Baron Palamar was born on June 25, 1980 in Bariloche, Argentina. Maria lived in Argentina, Spain and the United States before going back to Argentina to finish her high school studies and earn a Doctorate in Veterinary Medicine from the Universidad Nacional de Rio Cuarto. Since she can remember, Maria wanted to be a veterinarian, but after participating in a couple of wildlife related projects conducted by The Wildlife Conservation Society, she realized that she wanted to be a wildlife disease biologist as well. In 2006 she moved to the US after meeting her husband, John, in 2007 she started a PhD in the Fisheries and Wildlife Conservation Biology program at North Carolina State University. Maria finished a PHD researching raccoon rabies in urban environments, a project where she explored the epidemiology of rabies, the public health implications, public awareness of wildlife, rabies and pet vaccination and the effect of ethnicity on rabies risk. Maria understands the importance of people and their interactions with wildlife and takes a holistic approach, to conservation, disease and wildlife management. Maria is now the Wildlife Veterinarian for the North Carolina Wildlife Resources Commission, amongst other things she is the principal contact for feral pig issues and the agency liaison with many other agencies that work towards feral pig management and eradication. Maria has a passion for wildlife and education that she plans to continue to explore for the rest of her life.

#### Relevant Interests/Activities

- Wildlife human conflict.
- Antibiotic resistance.
- Bioaccumulation of chemicals and toxins.
- Wildlife disease.
- Zoonotic diseases.
- Human dimensions of zoonosis disease risk.

# Kim Pepin, PhD

Research Biologist
USDA-APHIS-WS
4101 Laporte Ave.
Fort Collins, CO
80521
USA
kim.m.pepin@aphis.usda.gov

I am a Research Biologist at the National Wildlife Research Center, Wildlife Services, USDA-APHIS. I am a population and disease modeler currently focused on developing quantitative tools to support

decision making for the APHIS Feral Swine Damage Management Program. I am trained in field ecology, viral evolutionary dynamics, and statistical and mathematical epidemiological modeling.

### **Relevant Interests/Activities**

- Quantitative methods for disease surveillance and response planning
- Identifying drivers of disease transmission
- Estimation of disease transmission parameters
- Quantifying demographic (e.g., population size) and ecological parameters (e.g., contact rates and structure)
- Population dynamic models for adaptive management

# Antoinette Piaggio, MS, PHD

Research Scientist
USDA/APHIS/WS/ National Wildlife Research Center
4101 LaPorte Ave Fort Collins, CO 80521
USA
970-266-6142
toni.j.piaggio@aphis.usda.gov

Dr. Piaggio is a Research Scientist at NWRC whose research focuses on the application of genetic approaches to investigate wildlife populations including invasive species, threatened and endangered species, and wildlife disease. Many of her research questions involve the development of specialized methods to obtain DNA including non-invasive and environmental DNA collection. Dr. Piaggio has worked at NWRC for 10 years and loves the unique challenges of working in an applied management context.

- obtaining feral swine DNA from environmental samples
- examining feral swine diet through the use of next generation sequencing
- optimizing non-invasive DNA (fecal) mark-recapture methods for population estimation of feral swine
- Using a phylogenetic approach and multiple markers classes to assign feral swine to region of origin in the US
- Using a metabarcoding approach to detect difference in pathogen load in water bodies frequented by feral swine after control efforts.

## Dietrich Rassow, Dr vet med

Advisor
World Organisation for Animal Health (OIE)
12 rue de Prony 75017 Paris
France
+33 1 44 15 18 88
d.rassow@oie.int

Dr Rassow is a veterinary officer who is currently seconded from Germany to the World Organisation for Animal Health (OIE).

Dietrich graduated at Berlin University and after working in large animal practice he joined the State Veterinary Services of Lower Saxony. For 15 years he worked at the regional level in various areas including animal welfare, control of veterinary products and animal disease control. His work in animal diseases involved in particular the eradication of classical swine fever. In 2004 he changed to the Federal Ministry for Food and Agriculture where he was in charge of the department dealing with animal disease crisis management and from 2008 responsible for international trade. In 2012 Dietrich was seconded to the OIE where he is working as advisor in the Scientific and Technical Department with a focus on swine diseases.

#### Relevant Interests/Activities

- Role of wild boar in the prevention, control and eradication of African and classical swine fever
- Cooperation between Veterinary Services and hunters and other wildlife management bodies on isues at the wildlife-livestock-human interface

### Jack Rhyan, DVM, MS

Wildlife Pathologist
USDA APHIS Wildlife Services, National Wildlife Research Center
4101 LaPorte Avenue
Fort Collins, CO 80521
970 266-6140
jack.c.rhyan@aphis.usda.qov

Dr. Rhyan is a veterinarian and wildlife disease investigator and pathologist for APHIS, Veterinary Services and is located at the National Wildlife Research Center (NWRC) in Fort Collins, CO, where he leads the Wildlife/Livestock Disease Investigations Team. He received his DVM and MS from Auburn University and has maintained an interest in wildlife diseases during four years of mixed veterinary practice, nine years as a pathologist in state diagnostic laboratories and seven years at the National Veterinary Services Laboratories in Ames, IA. Since 1997, Jack has been located at the National Wildlife Research Center in Fort Collins, CO, where he's involved in research on brucellosis in wildlife, vaccine development for wildlife applications, disease detection using volatile organic compounds, contraception as a tool for wildlife disease management, marine mammal brucellosis, and foot and mouth disease in wildlife.

### Relevant Interests/Activities

- Remote disease detection strategies using infrared imaging and volatile organic compounds in breath and feces of feral swine.
- Development of oral or spray-dried vaccines against TB and brucellosis for use in feral swine.
- Development of temporary bait sites as a means of disease detection, prophylaxis, and management in the USA.

## Jane Rooney, DVM

Assistant Director, One Health Coordination Center USDA, APHIS, Veterinary Services 2150 Centre Ave., Building B, MS3E13 Fort Collins, Colorado 80526 USA 9704947397 Jane.A.Rooney@aphis.usda.gov

Dr. Jane Rooney is the Assistant Director of the One Health Coordination Center (OHCC) at UDSA, Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS). She serves as a Scientific and Technical Advisor for USDA on veterinary public health, animal health, and the application of joint strategies at the human-animal-ecosystem interface. Jane was a Senior Staff Veterinarian with the VS, National Center for Animal Health Emergency Management from 2006 - 12. During this period she did a 2.5 year secondment with MAF Biosecurity New Zealand. Her responsibilities included developing animal disease preparedness and response policy, liaison with associated government agencies and industries and providing technical advice to a wide range of stakeholders.

Prior to joining USDA Dr. Rooney worked as State Public Health Veterinarian in West Virginia 2001 - 05. She was a CDC Epidemic Intelligence Officer at the Virginia Department of Health 1999 - 2001. Jane also worked for Heska Corporation conducting Bartonella henselae vaccine research at the Centers for Disease Control and Prevention, Viral and Rickettsial Zoonoses Branch 1995 - 99. She was the Director of the Ivor Regional Laboratory for the Virginia Department of Agriculture from 1993 - 94.

Dr. Rooney received her BS in Medical Technology from the Medical College of VA in 1984 and her Doctor of Veterinary Medicine degree from VMRCVM (VA Tech) in 1993.

#### Relevant Interests/Activities

• Disease prevention and control at the human-animal-environmental interface

# Sophie Rossi, DVM, MS, PHD

Wildlife Disease Investigator - epidemiologist National Wildlife and hunting Agency (ONCFS) – wildlife diseases unit (USF) ONCFS - USF Micropolis 05000 GAP, France

tel: +33 (0)4 92 51 34 44 fax: +33 (0)4 92 51 49 72 mob: +33 (0)6 23 80 00 46 Sophie.Rossi@oncfs.gouv.fr

S. Rossi (DMV, PHD) is epidemiologist at the French hunting and wildlife agency (Gap, France). She has been involved in studies combining analytic epidemiology, population dynamics and the evaluation of management measures. She has been particularly involved in national surveillance programs and the analysis of the spatiotemporal trends of diseases in wild boar and wild ruminants (red deer, roe deer and mountain ungulates). She has also led national and European research programs aiming at developing and evaluating oral mass vaccination tools in free-ranging wild boar.

### Relevant Interests/Activities

- National research programs evaluating the efficacy of oral vaccination of wild boar (2005-2014)
- Task leader of a European research program (FP7)(CSF-GODIVA) classical swine fever control in Europe (2009-2013).
- National inquiry arboviroses in wild ruminants (bluetonque and Schmallenberg virus) (2008-2014)
- National surveillance of classical swine fever, trichinellosis, brucellosis and pseudorabies in wildlife (2005-2010)

### Mo Salman, DVM, PhD, DACVPM

Professor of Veterinary Epidemiology
Animal Population Health Institute of Colorado State University
Campus Stop 1644
Animal Population Health Institute
College of Veterinary Medicine and Biomedical Sciences
Colorado State University
Fort Collins, CO 80523-1644
USA
970.297.0353
m.d.salman@colostate.edu

Dr. Salman's research interests focus on surveillance and survey methodologies for animal diseases with emphasis on infectious diseases. He is editor of a 2003 book entitled "Animal Disease Surveillance and Survey Systems: Methods and Applications". Dr. Salman is the author of over 370 refereed papers in scientific journals and has participated in numerous conferences, and national and international meetings in over 30 years as a faculty member at Colorado State University. He is the Editor in Chief of Elsevier journal Preventive Veterinary Medicine. He also has served on the board of American Journal of

Veterinary Research and is the section editor for the epidemiology section of Animal Health Review. He is a past president of the Conference of Research Workers on Animal Disease and serves on several national and international professional and scientific committees in the animal health sectors. He is a past chairman of the International Committee of the International Society of Veterinary Epidemiology and Economics (ISVEE) and past chairman of the US Animal Health Committee on Foreign and Emerging Diseases and is engaged in research and outreach projects in more than 20 countries around the world. Many of these projects are engaged in stabilization and reconstructions of national animal health programs in countries such as Bosnia, Afghanistan, Iraq, Middle East, East Africa, Georgia, and Armenia, among others. Dr. Salman had a position on the peer review of the European Union and the International Animal Health Organization (OIE) scientific review for the geographical assessment for Bovine Spongiform Encephalopathy. He has served for six years on the European Food Safety Agency's Panel for Animal Health and Welfare. He is the president of the American College of Preventive Veterinary Medicine. He has just completed a year with US Department of State as a Jefferson Science Fellow.

#### Relevant Interests/Activities

- Ecology of infections diseases in both free ranging and domestic animals;
- Modelling for infectious diseases;
- Surveillance for free ranging and domestic animal diseases;
- The application of scientific approaches for policy in animal and public health.

# Marcello Schiavo Nardi, DVM, MS

Veterinarian
Divisão Técnica de Medicina Veterinária e Manejo da Fauna Silvestre
Avenida Quarto Centenário, Portão 7A, Parque do Ibirapuera, São Paulo -SP, CEP CEP 04030-090
Brazil
55 11 999376454
marcellosn@gmail.com

Dr. Nardi is a wildlife veterinarian with experience in conservation and wildlife management, veterinary epidemiology, and public health. He graduated from Methodist University of São Paulo, Brazil in 2004 (BSc) and the Experimental Epidemiology and Zoonosis Program of the College of Veterinary Medicine and Animal Health of the University of São Paulo, Brazil in 2010 (MSc). From 2005 to 2008 he worked at Institute of Ecological Research (IPE) investigating leptospirosis and brucellosis in white-lipped peccaries, domestic pigs and other domestic animals. He currently works in preventive veterinary medicine at the Wildlife Department of the Sao Paulo where his research specifically focuses on influenza, west nile virus, NewCastle virus, Rocky Montain Fever, leptospirosis, toxoplasmosis and rabies in local wildlife populations. Recently, he has been involved in a large project investigating changes in the health status and genetic and population structure of endangered native white-lipped peccary populations affected by invasive wild boars in the state of São Paulo.

### Relevant Interests/Activities

- Development of protocols for monitoring white-lipped peccaries through routine health surveillance, capture-recapture, telemetry, and involvement of local human communities.
- Use of molecular and sorological tools to understand the role of habitat transformation on endangered peccary populations, to better implement conservation strategies for white-lipped peccary populations.

## Brandon Schmit, MS

Wildlife Disease Biologist
USDA, APHIS, WS, NWRC, National Wildlife Disease Program
4101 LaPorte Avenue
Fort Collins, CO 80521
United States of America
970-266-6079
Brandon.S.Schmit@aphis.usda.gov

Brandon is a wildlife disease biologist with USDA/APHIS/WS/NWRC's National Wildlife Disease Program in Fort Collins, Colorado. He has been at the NWRC for 13 years. Brandon's work has included improving oral rabies vaccination strategies and bait development targeting mesocarnivores such as raccoons and skunks. After joining the NWDP, he has worked on several nationwide surveillance projects including influenza viruses in wild birds, plague and tularemia in wildlife, and feral swine and their associated endemic and foreign animal diseases.

### **Relevant Interests/Activities**

- Feral swine disease ecology.
- Feral swine population biology.
- Life history trait evolution feral swine management implications
- Feral swine genetics demographics and disease susceptibility
- Feral swine disease surveillance (CSF, FMD, ASF, PRV, SB, SIV)

# Stephanie Shwiff, PhD

Research Economist/Project Leader National Wildlife Research Center 4101 LaPorte Avenue Fort Collins, CO. 80521 USA 970-266-6150 stephanie.a.shwiff@aphis.usda.gov

Dr. Stephanie Shwiff is a Research Economist and Project Leader at the USDA/AHPIS/WS National Wildlife Research Center. She is affiliate faculty at Colorado State University in the Economics Department as well as affiliate faculty at Texas A&M – Commerce in the Department of Economics and Finance. She currently leads the Economic Research of Human-Wildlife Conflicts project which focuses

on the economics of wildlife damage management. The project research includes a broad breadth of topics including benefit-cost analysis, cost-effectiveness analysis, econometric analysis, bioeconomic impact analysis and input-output analysis. She conducts applied and complex research, leads various research teams, and collaborates with other experts to study many broad and complex aspects of wildlife economics, with an emphasis on the use of benefit-cost analysis, regional economic analysis and econometrics. Her research is aimed at better understanding the economic impact of diseases and damage, and developing, assessing, and improving management techniques. This includes a variety of wildlife species, management implications, disease impacts, invasive species and other wildlife damage issues (e.g., damage to crops).

# **Relevant Interests/Activities**

- Estimation of the regional economic impact of free-range swine damage to select crops
- Estimation of the benefits and costs of managing free-range swine damage to select crops
- Determining cost effective management strategies to mitigate disease transfer from free-ranging swine at the wildlife-livestock interface

# William Sparklin, MS

Invasive Species Biologist U.S. Fish and Wildlife Service 922 Bootlegger Trail Great Falls, MT 59405 USA 406 727 7400 William\_Sparklin@fws.gov

Bill Sparklin is an invasive species biologist for the U.S. Fish and Wildlife Service in Great Falls, Montana. Besides supervising two invasive species strike teams, he is involved with risk assessments and habitat suitability modelling. He received his M.S. from University of Montana studying home range behavior and habitat selection of feral pigs on Fort Benning, Georgia. Prior to his position with the USFWS, he worked with feral swine as a wildlife disease biologist for the Arizona Wildlife Services program, and also as a habitat management biologist for the Research Corporation of the University of Hawaii.

- Eradication strategies for natural areas
- How feral swine territoriality and social behavior influences disease ecology

## Christoph Staubach, DVM

Senior Scientist
Friedrich-Loeffler-Institut
Federal Research Institute for Animal Health
Institute of Epidemiology
Südufer 10
17493 Greifswald - Island Riems
Germany
+49 38351 7 1862
christoph.staubach@fli.bund.de

Dr. Staubach graduated from the Munich Veterinary School and worked since 1995 as epidemiologist at the Friedrich-Loeffler-Institut (FLI). He conducted studies on the spatial epidemiology of infectious animal diseases using GIS and Remote Sensing. He has sound experience in animal health control and the development of computer models of husbandry and wildlife diseases. Dr. Staubach coordinated and developed web-based multifunctional surveillance database with extensive GIS components regarding Avian Influenza in wild birds and CSF in wild boar. He has participated in several EU research and twinning projects as well as TAIEX missions regarding CSF in wild boar.

### Relevant Interests/Activities

- Investigation and control of animal disease outbreaks in wildlife animals
- Establishment of multinational wildlife surveillance databases regarding ASF and CSF
- Assessment and optimization of surveillance strategies regarding wildlife diseases using spatiotemporal models
- Modelling the spatial and temporal structure of wildlife diseases

# Steven Sweeney, MS, DVM

Veterinary Medical Officer - Wildlife/Livestock Health
USDA APHIS Veterinary Services, Center for Epidemiology & Animal Health
Steven J. Sweeney, MS, DVM
Center for Epidemiology & Animal Health
USDA APHIS Veterinary Services
2150 Centre Ave, Building B
Fort Collins, CO 80526
USA
406-581-8860
Steven.j.sweeney@aphis.usda.gov

Dr. Sweeney is a wildlife veterinarian and senior analyst with USDA APHIS Veterinary Services, Center for Epidemiology and Animal Health, in Fort Collins, CO. His work focuses on diseases at the wildlife-livestock-human interface with an emphasis on brucellosis and other diseases of bison. Previously, Steve worked in the Greater Yellowstone Area as a consulting wildlife veterinarian for Yellowstone National Park and as a field team supervisor for wildlife brucellosis research with the U.S. Geological Survey's Northern Rocky Mountain Science Center. Before moving to Montana, Steve was a clinical

instructor and research associate at Washington State University, and previously, a terrestrial ecology supervisor and wildlife biologist in the Seattle area. Steve grew up in the Pacific Northwest, where he earned a Bachelor's degree in Zoology, a Master's degree in Wildlife & Forest Resources, and a Doctor of Veterinary Medicine degree.

### Relevant Interests/Activities

Project management, survey and field study design - APHIS Feral Swine Program

# Hans-Hermann Thulke, PhD

Epidemiologist
Helmholtz Centre for Environmental Research - UFZ
Hans-Hermann Thulke, PhD
Epidemiologist
Helmholtz Centre for Environmental Research - UFZ,
Department of Ecological Modelling
Permoserstr. 15
D - 04318 Leipzig, Germany
+49-341-2351712
hans.thulke@ufz.de

Dr Thulke is an epidemiologist and disease modeller at the UFZ, the environmental research institute of the German Helmholtz Association. He is located in Leipzig, where he leads the ecological epidemiology team. He received his Diploma and PhD from the Mathematical Faculty of the University of Leipzig. He maintained an interest in veterinary epidemiology during two years in the Federal Research Institute for Animal Health. Since 1997 Hans-Hermann is located at the UFZ in Leipzig affiliated to one of the largest European units of researchers applying models to all kind of environmental problems. His team supports national and international authorities regarding disease management, contingency planning and surveillance. Since 10 years the group does research on disease mitigation in European wild boar, in particular pseudorabies, CSF, FMD, and ASF.

- Ecological modelling of wild boar populations on large scales.
- Testing of control alternatives and spatial vaccination design.
- Establishment of population application of DIVA vaccine in wild boar.
- Inform emergency response to re-emerging infections in wild boar

# Kurt VerCauteren, PhD

Supervisory Research Wildlife Biologist
USDA/APHIS/WS/National Wildlife Research Center
4101 Laporte Ave
Fort Collins, CO 80521
USA
970 266 6093
kurt.c.vercauteren@aphis.usda.gov

Kurt leads the "Management of Ungulate Disease and Damage" and "Rabies Management" projects at the National Wildlife Research Center of the United States Department of Agriculture/Animal Plant and Health Inspection Service/Wildlife Services (NWRC). He obtained his BS from the University of Wisconsin-Stevens Point and MS and PhD from the University of Nebraska – Lincoln, all in Wildlife. While in Lincoln he started up a wildlife damage management branch of a pest control business. After completing his PhD he eagerly accepted a position with NWRC, where he has been for past 15 years. His research focusses on human-wildlife conflict relative to wildlife damage management and diseases of wildlife that impact humans and livestock. Specifically, his current efforts focus on rabies in terrestrial wildlife, diseases associated with deer and elk, and methods to reduce the multitude of damage caused by overabundant deer, elk, and feral swine. He is the past Chair the Wildlife Damage Management Working Group of TWS and past President of the Nebraska Chapter of TWS.

#### Relevant Interests/Activities

 Development of toxicants, pharmaceutical delivery systems, ecology, movements, monitoring, trapping, development of lethal and non-lethal management tools

# Joaquin Vicente, PhD

Professor
National Institute on Wildlife Research (IREC)
IREC
Ronda de Toledo s/n
13071
Ciudad Real
Spain
+0034 926295450
joaquin.vicente@uclm.es

Dr. Vicente received a PhD in Veterinary science from the University of Murcia in 2005. Since 20006 he has been a Professor at Castilla-La Mancha University and senior researcher for the National institute on Wildlife Research (IREC).

- Epidemiology and ecology of wild boar diseases
- Interaction between wild ungulates and livestock
- Development of mitigation programs of the interaction
- Bovine tuberculosis

# Daniel Walsh, PhD

Quantitative Ecologist
USGS National Wildlife Health Center
US Department of the Interior
US Geological Survey
National Wildlife Health Center
6006 Schroeder Road
Madison, WI 53711
United States
608-270-2481
dwalsh@usgs.gov

Dr. Walsh is a quantitative ecologist at the USGS National Wildlife Health Center. He received a PhD in Fisheries and Wildlife and a M.S. in Statistics from Michigan State University; a M.S. in Fisheries and Wildlife Biology from Colorado State University; and a B.S in Fisheries and Wildlife Biology also from Michigan State University. Dr. Walsh's research focuses on utilizing mathematical and statistical tools to address applied wildlife disease research questions. His current research focuses on several diseases including: bighorn sheep respiratory disease, chronic wasting disease, Newcastle disease, and plague. He also is currently investigating several statistical questions including how to properly account for spatial autocorrelation in data when there is underlying spatial structure in covariates of interest; expanding the use of event time analyses in the face of uncertain failure times; integrated population modeling; and the use of regularization in wildlife applications.

## Relevant Interests/Activities

- Population demographics
- Surveillance techniques and analysis
- Analyzing spatially explicit data
- Statistical/Mathematical modeling
- Experimental design

#### Margaret Wild, DVM, PhD

Chief Wildlife Veterinarian
U.S. National Park Service
Biological Resource Management Division
1201 Oakridge Dr., Suite 200
Fort Collins, CO 80525
USA
970-225-3593
margaret\_wild@nps.qov

Margaret Wild is the chief wildlife veterinarian, and leads the Wildlife Health Branch, for the National Park Service. She and her team provide technical assistance and consultation to parks on wildlife health issues, and develop recommendations for national NPS policy on wildlife health and welfare. Additionally, she works closely with the NPS Office of Public Health in the development and promotion of One Health within the NPS. Prior to joining the National Park Service in 2000, she was a researcher

with the Colorado Division of Wildlife for 9 years where she focused on disease and physiology research questions, primarily with ungulates and small carnivores. She received her B.S. in wildlife biology (1980), DVM (1990), and PhD in zoology (2002), all from Colorado State University. She maintains an affiliate faculty position in the Department of Microbiology, Immunology, and Pathology at CSU.

# **Relevant Interests/Activities**

• Protection of native species from disease threats posed by feral swine

## Hagai Yadin, DVM

Former head of Virology & FMD division Kimron Veterinary Institute 129 Halivnest. Shefer, 2012000. Israel +972-506241382 yadinhagai@gmail.com

Dr. Yadin was born in Israel 1942 and graduated as a Veterinary Surgeon in Utrecht Holland 1971. He received his training in FMD diagnosis and vaccine production at the FMD institute in Lelystad, Holland and AHL Pirbright UK. Dr. Yadin was the head of the virology division of the Kimron Veterinary Institute, leading the FMD laboratory in Israel since 1985. He was responsible for the routine daily diagnosis of FMD, for setting up a facility for emergency scale FMD vaccine production and for the construction of 1000 sqm BL<sub>3</sub> GLP laboratory building for FMD and other Emerging Diseases. Dr. Yadin, until his retirement in 2010, was the consultant to the Israeli Chief Veterinary Officer on FMD control policy, vaccine composition and management. He was a member of the FMD Research Group of the FAO and EU Commission for the control of FMD 1994-2010. He was involved in international and regional FMD research groups. Since retirement in 2010, Dr. Yadin operates as consultant for FMD and other transboundary and emerging diseases control as CSF, SIV, BT, EHV, BEF, Sheep pox and PPR.

- Sample collecting methods avoiding hunting.
- Diagnostic methods and techniques relevant and suitable for wildlife.