

Sylvatic Plague Vaccine

Expert Biographical Information



Tonie Roche, Research Epizootiologist

USGS National Wildlife Health Center

Tonie E. Roche, Ph.D., received training in Veterinary Science and Wildlife Ecology at the University of Wisconsin, Madison, and has been employed as a research microbiologist at the USGS National Wildlife Health Center since 1985.

Dr. Roche's current research is focused on the ecology and management of diseases in wild mammals (e.g. plague, monkeypox, rabies and white-nose syndrome) with the overarching goal of conservation of threatened and endangered species. She and other colleagues have developed an oral plague vaccine for use in wild rodents.

Dr. Roche lead a large-scale field trial in 7 western states of the U.S. to determine if oral vaccination through consumption of vaccine-laden baits prevents plague in wild prairie dogs, thus reducing the risk of disease for the endangered black-footed ferret, other animals, and possibly humans. Research is ongoing in Dr. Roche's laboratory and other collaborators to develop a similar oral recombinant vaccine for bat rabies and, potentially, white-nose syndrome.

For more information, visit: https://www.researchgate.net/profile/Tonie_Roche/publications ; <http://www.nwhc.usgs.gov/>



John Eisemann, Manager, Technology Transfer Program

USDA Wildlife Services, National Wildlife Research Center

John Eisemann has worked in the field of Wildlife Biology for nearly 30 years. He received a Bachelor of Science in Wildlife Biology from Colorado State University and a Master of Science in Environmental Science with an emphasis on wildlife toxicology from the University of Maryland.

After graduating, John worked for the U.S. Fish and Wildlife Service in an environmental contaminant laboratory, the U.S. Environmental Protection Agency, Office of Pesticide Programs as a wildlife biologist conducting ecological risk assessment and most recently for the USDA APHIS Wildlife Services as the product registration manager and technology transfer coordinator. Since coming to USDA, he has develop specialized experience in the registration of pesticides used for wildlife damage management, including the development of wildlife contraceptives. Most recently, John's responsibilities have focused on the development, protection and licensing of government intellectual property.



Daniel Tripp, Wildlife Disease Researcher

Colorado Parks and Wildlife

Dan has been a Wildlife Disease Researcher for the Wildlife Health Program since 2009. Dan has a Bachelor of Science in Biological Sciences and a Master of Science Degree in Zoology both from Colorado State University. Dan's research on the ecology of infectious diseases on the shortgrass and shrub steppe ecosystems of Colorado has focused on the transmission of plague (*Yersinia Pestis*) during epizootics among native wildlife. He has conducted research on the seasonality and diversity of flea species that vector the plague pathogen and the role of climate and predator mediated flea dispersal in the sylvatic plague cycle.

Dan is currently implementing research to address the management and ecology of plague in Colorado's shortgrass and shrub-steppe ecosystems and investigating the efficacy of Sylvatic Plague Vaccine (SPV) and insecticide treatments to mitigate the impacts of plague on Colorado's native wildlife.

Dan has authored/co-authored peer-reviewed research articles detailing flea borne plague transmission, the involvement of small mammals and predators in plague epizootics, and the evaluation of biomarker and baits to safely deliver oral plague vaccine to wildlife populations.

Dan served on the multi-agency Sylvatic Plague Vaccine (SPV) Science and Technology Transfer Work Groups, the Colorado Black-footed Ferret Work Group and Colorado Parks Wildlife's Animal Care and Use Committee.



Mike Yeary, Assistant Regional Director

USDA Wildlife Services

Mike began his career with Wildlife Services as the Dallas Urban Wildlife Control Specialist in May 1979, a few days after graduating from Texas A&M University with a Bachelor of Science in Wildlife and Fisheries Sciences.

In the summer of 1980, Mike transferred to a Rural Wildlife Specialist position in Amarillo, Texas. After spending approximately five years in that position, Mike became the Bird Biologist in Oklahoma City. Kansas was the next stop for Mike in

1986, serving the program in a Wildlife Biologist position until June 1991.

Mike then moved to Colorado and served as Assistant District Supervisor until 1995. Mike began his tenure as the Lakewood District Supervisor in 1995. In 2002, he became the State Director of the Colorado Wildlife Service Program where he served for thirteen years. In March of 2015, Mike became the Assistant Regional Director for the Western Regional Office in Fort Collins, CO.



Martin Lowney, State Director, Colorado

USDA Wildlife Services

Martin Lowney has worked for Wildlife Services for more than 30 years serving as a state director in Colorado, New York and Virginia. Some of the wildlife damage work conducted in the three states involved recovery of a number of migratory bird species, native fisheries and mollusks and elimination of invasive animals. Martin graduated from Mississippi State University with a Master of Science in Wildlife Management and from the University of Massachusetts with a Bachelor of Science in Natural Resource Management.

He currently serves in ad hoc positions as chair of Related Species Subcommittee for black-footed ferret recovery and representative to the Central Flyway Technical Section for migratory bird conservation. As a state director, he brings coalitions of state and federal agencies and non-governmental organizations together to solve complex wildlife management challenges across large geographic areas. He has brought together coalitions to stop a decline of sensitive shorebird and colonial waterbird species along the Atlantic coast, worked through the Atlantic Flyway Technical Section on develop management plans for emerging challenges managing and monitoring vultures, gulls and Canada geese. In Colorado, Wildlife Services has taken on partnerships for the re-introduction of native cutthroat trout and other fishes of the Colorado River ecosystem. As chair of the Related Species subcommittee he will lead an effort to restore ferrets to 500,000 acres of prairie dog colonies in 12 states.



Kristy Bly, Senior Wildlife Conservation Biologist, Northern Great Plains Program

World Wildlife Fund

Kristy Bly is a Senior Wildlife Conservation Biologist for WWF's Northern Great Plains (NGP) Program, conserving and restoring populations of and habitat for black-footed ferrets, black-tailed prairie dogs and swift foxes in the North American Great Plains. She develops and oversees programs and staff for these focal species and engages and maintains relationships with partners, stakeholders, policy makers and donors.

Kristy came to WWF in July 2007 from the Turner Endangered Species Fund, where she led the black-tailed prairie dog and black-footed ferret restoration program on the Bad River Ranches in central South Dakota. From 1994 to 2007, she contributed to grizzly bear, lynx and wolf research in the Northern Rockies and Yellowstone National Park and worked to restore condors, prairie dogs, black-footed ferrets and swift foxes to the desert southwest and the grasslands of South Dakota. Kristy holds a Bachelor of Science in Wildlife Biology and Management from the University of Rhode Island and a Master's degree in Ecology from Montana State University.

She advises several Master of Science students, is a recovery team member for black-footed ferrets and swift foxes, and serves on various state and federal working groups. She aspires to remove the black-footed ferret from the Federal List of Threatened and Endangered Wildlife and restore connectivity among swift fox populations in the NGP.



Randy Matchett, Supervisory Wildlife Biologist

U.S. Fish and Wildlife Service

Randy has worked on the 1.1 million acre Charles M. Russell National Wildlife Refuge (CMR) in northeastern Montana for 30+ years where he directs and conducts wildlife and habitat research and monitoring. Prior to working in the Missouri

River Breaks, he conducted research on moose in northwestern Montana, worked to prevent golden eagle depredation on domestic sheep in southwestern Montana, helped on a bull elk survival study in northern Idaho and built a GIS and custom software to support natural resource management on the Flathead Indian Reservation (before there were PCs!). CMR is an ideal outdoor laboratory for wildlife research and Randy has generated and overseen numerous projects, many with graduate students, studying sage and sharp-tailed grouse, grassland birds, mountain lions, several wildlife diseases, small mammals, black-footed ferrets, prairie dogs and remote sensing techniques for habitat monitoring.

Randy has spent more than 25 years contributing to recovery of endangered black-footed ferrets with innovations and an emphasis on research to better understand and manage sylvatic plague. Randy has a Bachelor and Master of Science in Wildlife Biology from the University of Montana.



Kurt Kreiger, Owner

Model Avionics

Kurt has always had a fascination with anything electronic or mechanical. For the past 17 years his focus has been on remote control helicopters and multirotors for hobby and commercial use. He has a 333 exemption as well as a remote pilot certification for small unmanned aircraft systems.

Kurt has developed fully autonomous systems (aka drones) for many customers and different branches of the government. He developed systems ranging from Search and Rescue drones, agriculture monitoring, mapping, livestock location and hand grenade blast area monitoring. His latest endeavor has been working with a team of biologists from the U.S. Fish and Wildlife Service and World Wildlife Fund to develop delivery systems for land and aerial based distribution of vaccine and flea control products to reduce the impacts of plague on prairie dogs in support of endangered black-footed ferret recovery.

Kurt believes Henry Ford's way of thinking was spot on. Always surround yourself with people smarter than you and take on jobs you know nothing about. It's a great way to learn. Kurt is self-taught in the use of software, machinery and programming for designing and manufacturing a wide variety of custom products and services.