**Position Title:** Specialist in One Health

**Position description:** The proposed new position, Specialist in One Health (1.0 FTE CE Specialist) will work with California livestock producers and communities to mitigate threats and conduct targeted outreach and research on wildlife diseases important to livestock and public health. The Specialist will be a veterinarian with demonstrated knowledge and experience in diseases of wildlife and with advanced training in related disciplines (e.g. pathology, microbiology, epidemiology).

**Justification:** A significant proportion of infectious diseases in people are of animal origin (zoonotic), and the majority of recent emerging infectious diseases impacting human and animal health around the world are of wildlife origin. With diseases at the wildlife-livestock interface, such as bovine tuberculosis, brucellosis and chronic wasting disease, as the focus of control efforts in other states, and high-profile outbreaks of wildlife zoonoses, such as avian influenza and SARS, impacting other parts of the world, California is not immune to similar challenges. Anaplasmosis, blue tongue, and Johne’s disease affect California livestock that commingle with wildlife, and endemic wildlife zoonoses such as rabies, plague, tularemia, and Lyme disease cause morbidity and mortality in Californians. As the state’s animal and human populations encroach upon and convert natural areas, livestock and people – especially those living in rural communities – are having closer and more frequent contact with wildlife, increasing the potential for impact from both known and novel wildlife pathogens. The inextricable linkages among wildlife, livestock and human health require a cross-disciplinary or ‘One Health’ approach to problem solving. This specialist will fill a critical need for the state, interacting with other Specialists and Advisors, producers and public trust agencies to help protect and inform the animal agriculture industry and communities. The specialist will contribute to several ANR strategic initiatives: 1) Focusing on known and novel diseases of native and introduced wildlife to contribute to objectives surrounding Endemic and Invasive Pests and Diseases; 2) Helping producers, large and small, better protect livestock from wildlife pathogen spillover will help create more Sustainable Food Systems; and 3) Improving knowledge and processes for better managing wildlife in balance with livestock and public health will promote Sustainable Natural Ecosystems practices, especially with regard to land use and biodiversity, especially in the face of climate change.

**Extension**: The specialist will work statewide as a bridge between the expertise in wildlife health and One Health at the UC Davis School of Veterinary Medicine and the state’s livestock producers and health agencies. The Specialist will serve within the ANR Cooperative Extension network as a translational scientist, filling gaps in information about disease at the wildlife-livestock-human-environment interface. Through a particular focus on areas where rural communities and/or rapidly burgeoning suburban communities are abutting natural areas, the specialist will help develop strategies for mitigating the potential threat posed by wildlife pathogens. The Specialist will work with diverse stakeholders to document wildlife disease threats, explore and develop measures to mitigate those threats, and engage in a high level of information sharing, including (but not limited to): livestock producers (in particular ranchers with grazing allotments, and small to mid-sized producers who will benefit from one-on-one advising), wildlife managers, wardens, County public health officers, park superintendents, and state Food and Agriculture officers.

**Research:** The specialist will consult with industry and public trust agencies to prioritize applied research on diseases of California wildlife that pose an immediate threat to the health of livestock and people. Areas of inquiry may focus on pathogen-host dynamics, modes of transmission and drivers of spillover, epidemiology of wildlife pathogens, climate change adaption strategies, and disease control measures and outcomes. The specialist will have the opportunity to utilize Research and Extension Centers (REC) as “living laboratories” for research and development (e.g., Hopland and Sierra Foothill RECs, which serve as sites for research on vector-borne diseases of livestock and human-health consequence). Research findings will be published in peer-reviewed veterinary, public health, and agriculture scientific journals, as well as more publically-accessible outlets such as *California Agriculture*.

**ANR Network**: While several ANR advisors and AES faculty work in the areas of livestock production and health, currently there is no CE specialist dedicated specifically to disease risk and mitigation at the interface of wildlife, livestock and human health, or One Health. It is expected that this specialist will join and contribute to the network of advisors, specialists, and ANR faculty and AES researchers working in the areas of beef, dairy, sheep and goat herd health, range science, food safety, wildlife-human conflict, vector-control, and feral wildlife. The Specialist will support Cooperative Extension’s Agricultural Issues Center with information on wildlife pathogens and mechanisms for spillover.

**Network External to ANR**: The specialist will conduct extension and research activities in response to expressed needs for information and problem-solving coming from country farm bureaus, Department of Fish and Wildlife, regional and county parks, and producer organizations (e.g. California Beef Council, California Woolgrowers’ Association, California Poultry Federation) and county health officers. As well, the specialist will draw upon the expertise of I&R faculty and staff at the UC Davis School of Veterinary Medicine, including the Western Institute for Food Safety, and CDFA’s California Animal Health and Food Safety diagnostic laboratory, co-located at the School of Veterinary Medicine.

**Support:** This position will be based in the Department of Pathology, Microbiology and Immunology at UC Davis’ School of Veterinary Medicine, with the Karen C. Drayer Wildlife Health Center (KCDWHC) at the School’s One Health Institute (OHI) providing laboratory and office space, telecommunications and computing, and administrative support for grants and contracts.

**Other support:** The Specialist will be expected to apply for intra- and extra-mural funds to support extension and research activities. Potential sources of funds will include grant opportunities issued by the School’s Center for Food Animal Health, as well as by organizations and agencies such as the California Wildlife Conservation Board, Cal EPA, and the National Fish and Wildlife Foundation.

**Location:** This position will bebased UC Davis, where the specialist will join an existing team of Veterinary Extension specialists, and where the KCDWHC and OHI will provide a cohort of colleagues with expertise and existing collaborations in wildlife health and One Health. Davis will be an appropriate hub from which to work statewide, and will allow for efficient and timely interactions with state agencies in Sacramento.

**Developed and proposed by**: This position was drafted by Karen C. Drayer Wildlife Health Center in consultation with the One Health Institute leadership team and the department chair of Pathology, Microbiology and Immunology. The following stakeholders were consulted and expressed support for the position: CA Dept. of Fish and Wildlife, CA Dept of Public Health, USDA-California, CA Department of Food and Agriculture, National Park Service, CA Dept of Conservation, UC CE County Director/Advisors (Inyo, Mono, Lake and Mendocino Counties) and CE Specialists at UC Davis.