DNR Indiana Department of Natural Resources



About the Job:

As the One Health Ecologist for the State of Indiana, you will be at the forefront of understanding the interactions between wildlife, infectious diseases, and their environments. Your expertise will be instrumental in studying the dynamics of disease transmission among wildlife populations, identifying potential threats to wildlife, domestic animal, and human health, and devising strategies for disease prevention and conservation. You will conduct field research, collect/analyze data, and collaborate with interdisciplinary and cross-agency teams to address wildlife health challenges and to contribute to the broader understanding of wildlife diseases and their implications in Indiana. Further, the successful candidate will engage in administrative rule making related to how Indiana addresses wildlife health concerns.

The successful candidate will serve as Indiana's wildlife disease expert and will play a crucial role in safeguarding the health of wildlife populations and understanding the links between wildlife diseases and human health. Your work will contribute to the conservation of biodiversity and the sustainable coexistence of wildlife and human communities within their environments.

Salary: $59,800, commensurate with experience

A Day in the Life:

Wildlife Health Research and Conservation:

- Conduct statewide field surveys and research to study the prevalence, distribution, and impact of infectious diseases in wildlife populations.
- Monitor and track disease outbreaks among wildlife species to identify trends and potential risk factors.
- Collaborate with wildlife biologists and veterinarians to gather relevant data on wildlife health.
- Investigate the transmission pathways of wildlife diseases, including zoonotic diseases that can affect human populations.
- Study the ecology of pathogens in wildlife, including reservoir species and vectors.

- Prepare documents to obtain state and federal grant funds for projects that contribute to fish & wildlife health in Indiana.

Data Collection and Analysis:

- Utilize various techniques, such as diverse methods of biological tissue sampling, molecular analyses, and diagnostic tests, to collect and analyze wildlife disease data.
- Implement statistical and modeling approaches to understand disease dynamics and assess the impact on wildlife populations.
- GIS data analyses (ArcPro or qGIS), proficient with python and R, ecological modelling (e.g., Lotka–Volterra, island biogeography), technical writing skills

Environmental and Ecological Assessments:

- Investigate the influence of environmental and ecological factors on disease prevalence and transmission in wildlife populations.
- Study how habitat degradation, climate change, and human-wildlife interactions may affect disease dynamics.

Policy and Rule Development

- Identifies ways to integrate, summarize, and communicate the state of wildlife health to pinpoint emerging policy needs.
- Prepare recommendations to introduce or modify Indiana Administrative Code, agency policies, or other legal statutes on all matters pertaining to the management of wildlife diseases in the state.
- Preparation of reports delivered to public organizations or government agencies related to wildlife health and one health goals.
- Draft correspondence on issues requiring the signature of the Governor, DNR Director, Division Director, Assistant Director of Science and Research, or Wildlife Science Supervisor.

One Health Collaboration:

- Collaborate with wildlife managers, conservation organizations, public health agencies, and other experts to develop comprehensive disease management and prevention plans.
- Communicate research findings and provide recommendations to stakeholders and policymakers.

Education and Outreach:

- Engage in public outreach and education to raise awareness of wildlife diseases and their potential impacts on human health and ecosystems.
- Contribute to educational programs and materials related to wildlife health and disease prevention.

Publication and Presentation:

- Prepare scientific papers for publication in peer-reviewed journals and present research findings at conferences and workshops.

- Review technical journals and attend professional meetings regarding current issues related to fish and wildlife health in conservation and management.

What We're Looking For:

- A Ph.D. in Ecology, Wildlife Biology, Veterinary Science, or a related field with a focus on wildlife disease ecology (preferred) **OR** master's degree (with four years of demonstrated experience with disease ecology)

What You'll Need for Success:

- Strong background in wildlife disease research, data analysis, and statistical modeling.
- Knowledge of disease and health issues affecting Indiana fish & wildlife.
- Knowledge of wildlife ecology, population dynamics, and conservation biology.
- Experience in fieldwork and data collection in various wildlife habitats.
- Familiarity with molecular techniques and diagnostic tools for wildlife disease analysis.
- Excellent communication skills to collaborate with interdisciplinary teams and engage with diverse stakeholders.
- Ability to present complex scientific information to both technical and non-technical audiences.
- Demonstrated passion for wildlife conservation and public health.
- Strong written/verbal communication skills.
- Time management, flexibility (can adapt priorities as needed to achieve agency goals).
- Ability to work well in an independent and team setting.
- Analytical thinking (can quickly assess conditions and develop the best solutions).
- Ability to maintain written records for research and maintenance of assets and inventories.
- Willingness to engage with and support strategic plans and goals for both the Department and the Division.
- Working knowledge of basic first aid techniques.

Supervisory Responsibilities/Direct Reports:

This role may provide supervision and direction for seasonal interns, volunteers, and fulltime staff.

How to Apply:

To learn more about this exciting opportunity, email the Indiana Fish & Wildlife Health Program Supervisor: Michelle Benavidez Westrich, MBenavidezWestrich@dnr.IN.gov

To apply visit: http://bit.ly/3Z6N2nt