

Postdoctoral Research Associate - Wildlife Trade and Amphibian Diseases

The Brunner Lab (<https://labs.wsu.edu/brunner/>) in the School of Biological Sciences at Washington State University is seeking a postdoctoral research associate to contribute to a multidisciplinary, multi-institutional NSF EEID-funded project, “Socioeconomic and Epidemiological Drivers of Pathogen Dynamics in Wildlife Trade Networks.”

The overarching goal of this project is to identify how socioeconomic decisions made by businesses and consumers amplify or minimize the spread of pathogens in trade networks, using the U.S. amphibian pet trade as a model system. This research will shed light on how values, perceptions, and incentives can shape a disease network and vice versa. It will lead to the first available estimates of: (1) trade volume, flow, and market value of nodes in the U.S. amphibian trade network; (2) industry interest in and willingness to pay for clean trade activities; (3) consumer willingness-to-pay for pathogen-free certified amphibians; and (4) pathogen prevalence in illegal and legal imports and among industry nodes; as well as (5) a better understanding of the host and environmental characteristics that affect infection prevalence and pathogen load, and thus risk of spread and spillover. See <https://www.healthyamphibiantrade.org/> for more information on the project.

The postdoc will lead efforts in the Brunner lab to estimate the prevalence of three OIE-notifiable amphibian pathogens—*Batrachochytrium dendrobatidis* (*Bd*), *B. salamandrivorans* (*Bsal*), and *Ranavirus* spp. (*Rv*)—among anonymous participating pet trade facilities. They will also have ample opportunity to collaborate with other groups in the project, including social scientists, mathematical modelers, and other disease ecologists, and to initiate related research projects. Opportunities for student mentoring and outreach are available. The postdoc would be based in Pullman, Washington, but would be encouraged to also work with co-PI Piovvia-Scott (<https://labs.wsu.edu/piovvia-scott/>) on the WSU campus in Vancouver, WA.

Candidates should have a PhD in biological sciences with prior experience working with living amphibians, infectious disease surveillance, or related topics. The ideal candidate will have experience working with amphibians, microbes, molecular detection of pathogens (e.g., with qPCR), and statistical analyses. The specific nature of the project can be flexible depending on the candidate’s interests and prior experience. Ideal candidates will be independent, with strong organizational skills, and interested in joining a larger team of researchers focused on learning about pathogen spread in trade networks.

Interested candidates should submit a cover letter summarizing experience and professional interests, and a CV with at least three references. Review of applications will begin on 20 February 2023, and continue until a suitable candidate is identified. The initial appointment is for one year with extension to a second year pending performance review. The candidate would ideally begin in the late spring or summer of 2023. Questions about the position can be directed to Dr. Jesse Brunner (jesse.brunner@wsu.edu).