

## Call for PhD Candidate – Doñana Biological Station (EBD-CSIC)

### FROM WETLANDS TO WARNING SYSTEMS: AN INTEGRATIVE STUDY OF AVIAN ZOONOSES IN WILD BIRDS

**4-year PhD position** | Start: Early 2026

**Funding:** PIX2025 Predoctoral Fellowship (Spanish Ministry of Science)

**Supervisors:** Dr. Martina Ferraguti & Dr. Josué Martínez de la Puente



#### About the Project

How do environmental changes shape the dynamics of emerging zoonoses in wild bird populations? This PhD project will integrate field ecology, virology, epidemiology, and modelling to investigate three avian viruses of major relevance for biodiversity conservation and public health:

- **Avian Influenza Virus (AIV)** – environmentally transmitted,
- **West Nile Virus (WNV)** – mosquito-borne,
- **Usutu Virus (USUV)** – mosquito-borne.

Working at the unique **Doñana wetlands** (southern Spain), a biodiversity hotspot and sentinel site for zoonotic pathogens, the candidate will contribute to a One Health approach bridging wildlife health, ecosystem dynamics, and disease risk assessment.



#### Main Objectives

- **Pathogen exposure:** Assess current and past exposure of aquatic birds (e.g. mallards, other waterfowl) to AIV, WNV, and USUV.
- **Eco-epidemiology:** Identify ecological and environmental drivers of pathogen circulation across species and time.
- **Host–microbiota interactions:** Explore associations between cloacal microbiota composition and viral infections in natural bird populations.
- **Predictive modelling:** Develop risk models linking ecological variables to pathogen circulation, generating tools for early-warning systems.



#### Candidate Profile

- Master's degree in **Biology, Ecology, Epidemiology, Bioinformatics**, or related disciplines.
- Strong interest in **wildlife disease ecology and One Health approaches**.
- Experience (basic to advanced) in laboratory techniques (e.g. ELISA, molecular tools), statistical modelling & data analysis, fieldwork with wildlife (desirable but not essential),
- Experience in working with birds, laboratory and English language skills is a plus.



#### How to Apply (Expression of Interest)

We are pre-screening candidates ahead of the official PIX2025 call (expected Sept–Oct 2025). The official call for proposals may specify additional requirements.

Please send by **30 September 2025** to [mferraguti@ebd.csic.es](mailto:mferraguti@ebd.csic.es) and [jmp@ebd.csic.es](mailto:jmp@ebd.csic.es):

- A **motivation letter** (max. 1 page),
- Your **CV**,
- Contact details of 1–2 academic referees (if any).