Institut für Vogelforschung

„Vogelwarte Helgoland“

Wilhelmshaven

Doctoral researcher (f/m/d) on the project “Where is home? Molecular dissection of higher navigation areas” in the Cluster of Excellence NaviSense – Institute of Avian Research (IAR), Wilhelmshaven

The IAR is a research institute in the portfolio of the Lower Saxonian Ministry of Science and Cultural Affairs and co-applicant for the Cluster of Excellence **NaviSense**. The IAR headquarters are located in Wilhelmshaven. The main research areas are bird migration and life history biology. A field station with one of the world’s oldest continuously operated trapping gardens is located on the island of Helgoland. In addition, the IAR houses the Bird Ringing Centre for Northwest Germany.

Paygrade
E13 TV-L

Working hours
65%

Institution
Institute of Avian Research, Cluster of Excellence NaviSense

Location
Wilhelmshaven

Application Deadline
24.09.2025

First day of work
01.01.2026

Limited
3 years

About us
The newly funded Cluster of Excellence **NaviSense** for the Sensory Basis, Mechanisms, and Impacts of Animal Navigation is a highly collaborative, interdisciplinary research project hosted at the University of Oldenburg and involving national and international partner institutions. As a diverse and international team of scientists from biology, physics, chemistry, computer sciences and social sciences we provide a thorough, interdisciplinary understanding of the senses and mechanisms used by animals to navigate, and how these mechanisms can inspire technology and impact society, ecology, and biodiversity.

NaviSense performs research in the areas of (1) animal navigation mechanisms and their underlying senses, (2) quantum effects at ambient temperature in model systems and biology, (3) ecological and conservation related consequences of animal navigation, and (4) links biological and technical systems through models, algorithms, and devices. The acquired knowledge can help to solve major societal questions related e.g. to the biodiversity crisis, GPS independent navigation, and quantum sensing at ambient temperature. For more information see https://navisense.org/.

The **migration group at the IAR** will work towards understanding how animals detect sensory cues and how they process and integrate these cues to navigate as part of research area (1), and how animals define home, how migratory animals navigate to this home and how their navigation is affected by anthropogenic disturbances as part of research area (3). In the advertised PhD position, we will do so by molecular dissection of sensory tissue and higher navigation areas using genetic and epigenetic approaches, as well as tackling questions on how animals determine home both experimentally and through tracking studies in the wild.

Your tasks

- analysing behavioural data collected under controlled lab conditions as well as ringing and tracking data from wild populations
- conduct molecular lab work
- statistical analysis and visualisation of data, presentation of results in talks and publications
- collaborate with other researchers on interdisciplinary research projects and publications
- participate in NaviSense events like retreats and seminars to present your research, strengthen scientific discussions and team building
- mandatory participation in our qualification program hosted in the *NavNextGen Academy* (see below)

Your profile

Required skills or qualifications:

- Master's degree or equivalent in biology
- experience with fieldwork and bird handling
- interest in detailed genomics analyses and the genetic architecture of behavioural traits
- interest in neuroanatomy of birds
- fluency in spoken and written German and English

Preferable/Desirable:

- certificate to do animal experiment
- experience with molecular lab techniques
- dedication for birds, nature conservation and outreach
- enthusiasm for engaging in interdisciplinary and international collaborations
- ability to work independently as well as in a team

We offer

- being part of a unique interdisciplinary, collaborative, international and diverse research team and scientific environment
- being part of our qualification program hosted in the *NavNextGen Academy*, which will allow you to participate in conferences, excursions, courses, and workshops with great networking opportunities, research training, and career and mentoring programs, to further promote your personal and professional development
- payment in accordance with the collective bargaining law (special annual payment, public service pension scheme, asset-related benefits), incl. 30 days of annual leave
- a supportive and family-friendly environment with flexible working hours

Apply now

Please send your application, including (i) a cover letter describing your motivation and relevant experience, and (ii) a detailed CV with copies of relevant certificates along with the names and addresses of at least two references who are familiar with your work in a joint pdf document to **Miriam Liedvogel (miriam.liedvogel@ifv-vogelwarte.de) until 24.09.2025**. You are welcome to let us

know which pronouns you use and how we may address you. Online interviews are planned to take place on 01.10.2025.

The IAR is an equal opportunity employer, committed to inclusion and diversity and welcomes applications from people from all groups and backgrounds. In addition, it is committed to (i) increase the proportion of women in successful scientific careers (§ 11 of the Niedersächsisches Gleichberechtigungsgesetz), (ii) promote the equality of (severely) disabled and non-disabled people, and (iii) provide opportunities for people with a migration background. As such, it especially welcomes applications from female scientists, (severely) disabled scientists and immigrated scientists. In case of equal suitability and qualifications, these applications will be given preference. Application costs unfortunately cannot be reimbursed. Application documents will be destroyed four weeks after the hiring process has been completed.

Further information on our data protection policy during the recruitment processes can be found at our website: https://ifv-vogelwarte.de/generische-navigation/datenschutz.