



**Prof. Dr. Franz Bairlein**  
(Institute of Avian Research)

His major interest is the understanding of the control of bird migration with a focus on the interplay between genetic, physiological and environmental factors.

Current integrative studies range from field work at migratory stopover sites to energetic and endocrine studies in captive birds. Employed methods include various field techniques such as capture-recapture and remote tracking, genetic, nutritional and physiological techniques in the laboratory as well as cross-breeding of migratory birds in captivity.

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**Prof. Dr. Peter H. Becker**  
(Institute of Avian Research)

His main area of research is population ecology and life history of long-lived colonial seabirds. Innovative field methods allow individual-based insight into seabird life styles. De-

mography, foraging ecology, behaviour, reproductive ecology and success, but also hormones and experience are in the focus, in order to understand the role of inter-individual differences and lifelong individual changes in microevolution. Model organism is the Common Tern, studied at a favourable colony site in Wilhelmshaven for years. Basic research is supplemented by applied projects monitoring impacts and changes in the marine environment with seabirds.

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## Institute of Avian Research "Vogelwarte Helgoland"

The Institute of Avian Research „Vogelwarte Helgoland“ (IfV) was founded in 1910. Since 1947 it is situated in Wilhelmshaven and attached to the Niedersächsisches Ministerium für Wissenschaft und Kultur. The IfV is one of the oldest and largest ornithological research institutions in the world.

The Institute of Avian Research and the University of Oldenburg collaborate in joint projects on the control of orientation in migratory songbirds and on the endogenous spatial control of migratory fattening as well as on behavioural physiology of migratory arctic geese.

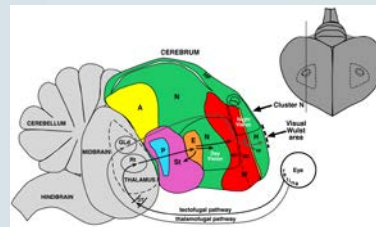
(<http://www.vogelwarte-helgoland.de>)



**Prof. Dr. Henrik Mouritsen**  
(IBU, University of Oldenburg)

Our research interests focus on all aspects of animal navigation from migration strategies of populations to the behavioural, physiological and molecular mechanisms enabling animals to sense the cues needed to navigate over thousands of kilometers. Our group works very multidisciplinary, combining behavioural biology, molecular biology, neurobiology, physics, computer simulations, and analyses of field data. We primarily work on two model systems, namely night-migratory songbirds and monarch butterflies. In recent years, our main focus has been on understanding the mechanisms enabling migratory songbirds to sense magnetic compass information.

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**Prof. Dr. Georg M. Klump**  
(Dept. of Neuroscience, University of Oldenburg)

His main areas of research lie in the fields of bioacoustics and in the field of sensory physiology of the auditory system of birds and other vertebrates. Studies mainly employ methods of operant conditioning, behavioural physiology and neurophysiology. In addition, acoustic measurement and analysis methods are used. The goal of the research is to understand the mechanisms of auditory perception and their function in the acoustic communication of birds. Applied aspects of the research relate to the evaluation of the impact of noise on bird life.

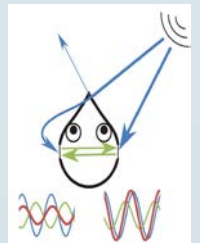
georg.klump@uni-oldenburg.de



**Prof. Dr. Christine Köppl**  
(Dept. of Neuroscience, University of Oldenburg)

Our research focusses on the sensory world of birds, specifically their hearing. We are fascinated by the sensory elements of the inner ear, their development, and the first stages of brain processing of auditory stimuli. Most of our research uses the chicken. In addition, we work with the barn owl, a raptor that listens passively and homes in on any noises made by prey. The extreme dependence on sound localisation for successful hunting has led to many specialisations in its auditory system and makes the barn owl a very instructive species to study the brain mechanisms of sound localisation.

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Birds play a significant role in both basic science and conservation. Birds are among the best studied animals and studies of birds provide key contributions to, for example, animal physiology, behavioural ecology and sociobiology, animal migration and navigation, and population biology. Furthermore, birds are important monitors for environmental impacts and changes. Therefore, the **Institute for Biology and Environmental Sciences (IBU) at Oldenburg University** offers a specialized study program focussing on birds as model organisms in a certified M.Sc. program "Biology". This study program with a focus on ornithology is the only of its kind in Germany. It is possible by a close cooperation of the departments for Animal Physiology & Behaviour and Neurosensory Science (Animal Navigation) and the **Institute of Avian Research (Institut für Vogelforschung "Vogelwarte Wilhelmshaven")**.

In addition to special modules in the field of ornithology, courses are offered, e.g., in the fields of evolution, ecology, animal behaviour, neurobiology, and physiology. The methods introduced in the teaching program range from molecular genetics and the study of gene expression to ecological and ethological field studies in various parts of the world. Teaching in the field of ornithology is generally in English. Other master modules from the fields of neurobiology, biochemistry, cell biology, ecology or evolutionary biology as well as from applied research areas such as landscape ecology can be combined for obtaining the M.Sc. degree. PhD programs "Environmental Sciences" and "Neurosensory Science and Systems" offer a path for further careers.

By enrolling in the program at Oldenburg University students can participate in the front line of research in a wide range of ornithological sub-disciplines and choose from an exciting range of master thesis themes. We are looking forward to **YOUR** Application that is both possible in the summer and winter term!

## Start, Duration and Degree

**Start of Programme:** Winter-/Summersemester  
**Duration of Programme:** 4 Semester  
**Degree:** Master of Science  
**Tuition Fee:** 500 Euro per Semester

## Conditions of Entry and Times of Admittance

### Conditions of entry:

- (1) Certification of university entrance qualification
- (2) Certification of a qualified Bachelors degree in biology or an equivalent program
- (3) Certification of academic and personal qualification
- (4) Letter of motivation

### Application deadline:

see: [www.uni-oldenburg.de/studium/bewerben](http://www.uni-oldenburg.de/studium/bewerben)

### Application through

German applicants: Oldenburg University: enrolment Office

EU- and international applicants: uni-assist e.V.

## Information and Student support

### Admission Office

Campus Haarentor (Mensafoyer), M 1-174 to 1-181  
26129 Oldenburg

Phone: +49(0)441-798-2728

Internet: [www.uni-oldenburg.de/studium/i-amt](http://www.uni-oldenburg.de/studium/i-amt)

### International Student Office

Campus Haarentor (Mensafoyer), A5 1-147  
26129 Oldenburg

Phone: +49(0)441-798-2478

Internet: [www.uni-oldenburg.de/studium/iso](http://www.uni-oldenburg.de/studium/iso)

### Contact:

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## MASTER IN BIOLOGY WITH A FOCUS ON

## ORNITHOLOGY

