Dear reader,

Nowhere else in Europe will you see as many migrating bats as in Pape in Latvia. In the months of August and September, tens of thousands of these small mammals, as well as huge flocks of migratory birds, fly southwards along the Baltic coast at night. It's a truly unique spectacle. But scientists are still very much in the dark about where the animals come from, where they are headed and where they stop along the way. And even less is known about how climate change impacts migratory behaviour.

The gaps in our knowledge about bats extend to many other migratory species – which is one of the reasons why migratory animals are particularly endangered. According to a 2024 United Nations survey, almost half of all migratory populations are in decline and 22 percent are threatened with extinction. In addition to climate change, hunting, fishing, pesticides and habitat loss are all impacting their chances of survival.

This means that if we want to protect these species, we need to learn more about their migratory behaviour – how they prepare for the journey, which individuals survive and return, how migration routes change over time and, last but not least, how the animals navigate. All these topics are the subject of intense research at our university and also the focus of this year's issue of EINBLICKE. We look at a range of different species, taking you to the Latvian Baltic coast to watch the bats migrate, to Greece to observe the learning walks of desert ants, to Norderney, where young wheatears are preparing for their journey, and to Germany's most closely monitored common tern colony at Lake Bant near Wilhelmshaven.

Oldenburg's animal navigation researchers have set their sights beyond studies of sensory perception and animal behaviour, however. Biologist Henrik Mouritsen and ornithologist Miriam Liedvogel explain in an interview how studies on animal orientation and navigation not only help preserve migratory populations, but can also inspire technological innovation in a variety of fields, from quantum computers to autonomous vehicles.

In this issue, we also introduce you to three impressive researchers at our university who are pursuing new insights that could make a real difference in music, social sciences and economics: Mario Dunkel is investigating the social impact of music, Gundula Zoch is analysing vast amounts of data to glean new knowledge about social inequalities, and Johannes Lorenz is using mathematical models to explore ways to improve tax morale. We also look at how a new type of emergency care service could ease the burden on ambulance services, and introduce you to Germany's oldest photovoltaic system still in operation.

We wish you an inspiring read!

The EINBLICKE editorial team