MSc project:

On the division of labour in a faithful seabird

Long-lived species generally tend to prioritise self-maintenance over investment in reproduction, but in order to gain reproductive success, some investment in the production and care of offspring is of course required. Long-lived species also generally have a system of bi-parental care and there is evidence that not only the current pairbond, but also the history of pairbond duration is important for reproductive success. So how do individuals of long-lived species distribute tasks connected to offspring production within pairs? In this project we would like to investigate their division of labour.

We study common terns at a long-term study population located in the Banter See at Wilhelmshaven on the German North Sea coast. In 1992, 101 adult birds were caught and marked with transponders, and since 1992 all locally hatched birds have similarly been marked with a transponder shortly prior to fledging. We use antennae at resting places and around nests to identify both breeding and non-breeding individuals. Combined with 3-times-weekly checks of nests to record reproductive parameters and to mark offspring, our methods enable the systematic and remote documentation of individual presence and reproductive performance at the colony. Once birds have established themselves as Banter See breeders, their re-sighting probability is almost 100% and their return rate is 90%, such that we can collect data over long individual life cycles.

In the proposed project, we would like to study pairs of common terns and measure their division of labour during the chick provisioning period. We would like to assess how the division relates to age or previous breeding experience of the individuals within the pair, as well as pairbond duration. In addition, we would like to know how the division of labour relates to foraging conditions, i.e. to prey type and availability, partner prey choice and foraging strategy. To this end, we will mark individuals within pairs and observe pairs throughout the breeding season. Since the project was initiated in 2016, comparisons cannot only be made within the season, but across years as well.



We are searching for a dedicated MSc student who can start at the latest in May 2019 and who is happy to work in a large international team of people and to share fieldwork with other students and across projects. Because the common terns in the breeding colony are habituated to research, fieldwork will involve a lot of close interaction with the birds, but no prior experience with birds or fieldwork is required.

For more information contact **dr. Sandra Bouwhuis, Institute of Avian Research, Wilhelmshaven, Germany**
sandra.bouwhuis@ifv-vogelwarte.de