Suggestions for bachelor and honor thesis projects in conservation and behavioral ecology

Many species associated with the agricultural landscape has declined since the mid 70s when the farming revolution began. Farming techniques and methods has changed a lot and with that the shape and use of the landscape. One main theory behind the declines is loss of landscape heterogeneity, due to the specialization and intensification of the agricultural development. This could lead to an increased spatial and temporal resource separation for many organisms, included birds.

Following are three suggested candidate or master projects that investigate the occurrence, behavior, and performance in relation to landscape heterogeneity and production.

All three projects are stationed to the agricultural landscape of Scania. We are mainly working in three landscape types differing in heterogeneity and production; the open plains (areas around Lund), complex farmland (Löberöd), and the forest farmland (near Hörby). You will need a driver's license and preferably a car (this could maybe be arranged if you don't have access to a car yourself).

Occurrence, abundance and performance of starlings in landscapes differing in heterogeneity (e.g. structure and production)

Follow breeding pairs in these different landscape types to investigate if there are any differences in number of breeding pairs and reproductive success (number of fledged chicks) between the areas.

1. **Habitat quality studies in starlings using Giving up Densities (GUD)**
   Investigate habitat quality in different landscape types and if time given investigate preferred foraging habitats by radio tracking. Using GUD you supplement the birds with a fixed amount of food and after a set time you measure the amount food left. This gives an indication of food resource availability within the birds foraging area. The more food that is left the better quality of the habitat.

2. **Foraging behavior and land use preferences of house sparrows in landscapes differing in complexity and production**
   By performing an inventory in the house sparrows surrounding habitat monitor where the birds are foraging, the distances they travel to find food and how much time they spend in each foraging patch. These inventories will be performed at several farms in the three different landscapes to be able to detect any differences in relation to landscape structure and production. This can also later be related to more detailed information on the farmstead level.

If you have any suggestions on your own, connected to landscape ecology or agriculture and birds, you are very welcome to contact us for further discussions.

Contact: Maria von Post
maria_von.post@zooekol.lu.se
Ola Olsson
ola.olsson@zooekol.lu.se