

## Using wild birds as model predators to study predator-prey coevolution

**Liisa Hämäläinen**

*University of Jyväskylä, Finland*

Predators and prey are one of the best examples to study species coevolution. Prey have evolved many different defense strategies against predators, including chemical defenses and conspicuous warning coloration to advertise their toxicity. To understand the selection pressures from predators on prey defenses, we need to investigate predators' foraging behaviour and their decisions to attack different prey types. This requires controlled behavioural experiments with ecologically relevant wild predators. Wild blue tits (*Cyanistes caeruleus*) and great tits (*Parus major*) provide ideal model species for these types of studies as they are generalist predators of many insect species and easy to capture and keep in temporary captivity. In my talk, I will describe behavioural experiments that I have conducted with wild-caught blue tits and great tits. These include studies that investigated social learning of prey choices from other individuals using video playback and artificial prey, and a recent experiment that explored a link between the birds' gut microbiome and their foraging behaviour. Throughout my talk, I will discuss the regulations on the use of wild birds in research and the importance of considering bird welfare in behavioural studies, covering the capture, housing, and the release of birds after the experiments.