A wide variety of insect species (~70%) harbour microbial organisms (i.e. endosymbionts) known to affect their host life-history traits, including dispersal and egg-laying behaviour. However, research has mostly focused on single insect species or laboratory model systems, and has been neglecting endosymbionts within natural insect communities and/or across the landscape. We are therefore missing a complete understanding of how ecological traits, taxonomy and food web structure may affect the distribution of endosymbionts within insect metacommunities.

Symbionts within Food Webs

We are looking for a highly motivated student (Master project) to collect insect samples in the Finnish Archipelago (Wattkast Island, close to Korpo) and conduct molecular experiments (DNA extractions, PCRs, ...) to test for the presence of endosymbionts, such as Wolbachia sp., in the different species of the insect food web on the oak tree Quercus robur.

The project will be co-supervised by Ayco Tack and Anne Duplouy from the University of Stockholm, Sweden, and the Metapopulation Research Group (MRG), University of Helsinki, Finland.

**Project involves**
- A weekend/week on the Island of Wattkast to sample insects on oak trees
- Molecular work at Viikki campus (MRG)
- Analyzing the data
- Writing report (English)

**Outcomes**
- Large field collection of insects
- Learn about basic molecular experiments (DNA extraction, PCR, gel electrophoresis)
- Learn about host-symbiont systems and insect food webs
- Thesis report (MSc)
- Publication in a scientific journal

*Be part of an extremely active research group
Send your CV and a letter of motivation (or any questions!) to: ayco.tack@su.se and anne.duplouy@helsinki.fi*