

# Comparison of saproxylic beetle assemblages on four different broad-leaved tree species in south-eastern Sweden

Master thesis by Helena Johansson 2011  
Supervisor: Nicklas Jansson

**Background & aim:** Saproxylic (wood-dwelling) beetles are threatened due to the decrease of old trees. One important substrate for these organisms is trunk hollows in old trees. Old oaks have been in focus in many studies but other broad-leaved trees might also be important to consider as supporting habitats. This study investigated if different saproxylic beetles prefer hollow trees of different tree species. To extent are they tree genus specialists?



**Methods:** The saproxylic beetle fauna was compared between hollow trees of oak (*Quercus robur*), ash (*Fraxinus excelsior*), norway maple (*Acer platanoides*) and small-leaved lime (*Tilia cordata*) around Linköping. Beetles were collected with pitfall traps and window traps (pictures shown).

## Results:

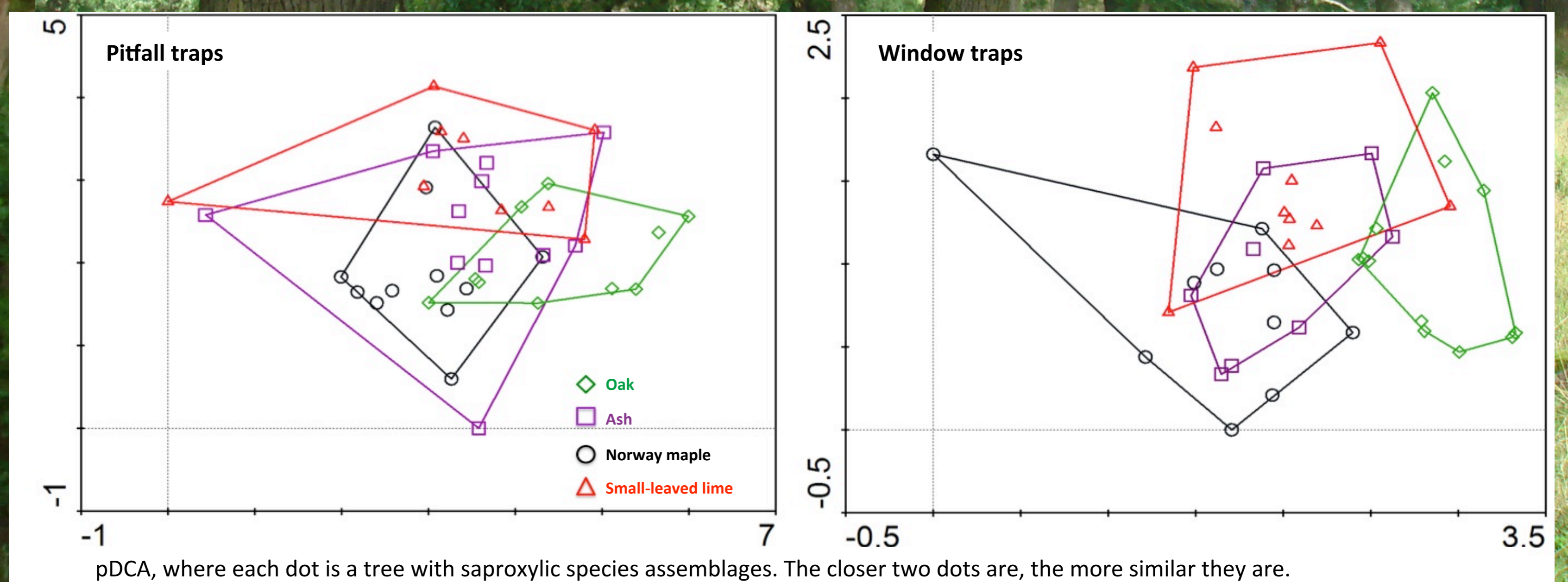
- Significantly different species composition between the different tree species.
- The saproxylic species found in oak overlapped to about 2/3 with the other tree species.
- More overlap in pitfall traps compared to window traps (graphs shown).



The **pitfall trap** placed in the wood mould inside the trunk hollow.



The **window trap** placed outside the trunk hollow.



**Discussion & conservation implications:** The wood seem to become more similar between the tree species when they get older. Other broad-leaved tree species are important to consider as supporting habitats to oaks but they also have some unique species themselves. To be able to save the whole fauna, trees of all different species are needed.