Abstract

Chalcid wasps (Chalciodiodea) is superfamily within parasitic group of the order Hymenoptera. These insects attack other arthropods. My thesis is focused on phylogeny of selected species groups of the genus *Torymus* Dalman 1820, whose range of hosts includes mainly gall-forming insect as gall wasps (Hymenoptera: Cynipidae) and gall midges (Diptera: Cecidomyiidae). Using genes 28D2 rDNA, COI and CytB, I constructed phylogenetic trees, which helped with discussing current view on classification of the genus and with inferring new findings about co-evolution with host organisms.

Previously established morphological – ecological species groups were not supported by my analyses in many cases. Morphological traits seem to be convergent for many species. They often do not support observed monophyla as apomorphies. On the other hand, ecology and natural habitat of species was common for many branches in my cladograms. It was found out, that recent hosts are not probably original hosts of the group. Adaptive radiation in different habitats is likely to be the phenomenon that stands behind present-day host range of *Torymus* species. This process could have occurred after swapping to gall midges and gall wasps.

Key words: Chalcidoidea, *Torymus*, phylogeny, parasitoid, host specifity, co-evolution