

ABSTRAKT

Strepsiptera, as obligate parasites, have to face the constant selective pressure from their hosts. For this reason, high host specificity and many peculiar autapomorphies have developed in this group.

Only a little attention has been paid to the study of phylogeny within particular families of Strepsiptera. Without knowledge of a species concept, it is difficult to estimate different evolutionary scenarios of host-parasite relationships, especially when the species concept is used inconsistently. This situation is made even more difficult by the potential presence of cryptic species or species incorrectly synonymized. Therefore, we focused to the most diversified family of Strepsiptera – family Stylopidae which parasitizing bees (Anthophila: Andrenidae, Colletidae, Halictidae, Melittidae). As a model genus for our phylogenetic studies, we choose the genus *Stylops* Kirby, 1802 with holarctic distribution, whose representatives are parasites on bees of the genus *Andrena* Fabricius, 1755.

Using the methods of molecular phylogeny, we created the first phylogenetic study of the genus *Stylops*. Following the results, we could outline the approximate boundary for species delimitation and thereby critically resolve the confusing situation in the species diversity of this genus. Then we mapped the host subgenera into the phylogenetic tree and obtained information about parasitic strategy of genus *Stylops*. We have found that the individual crown groups, which should represent species lineages, are almost always specialized according to the host subgenus. This information can help to set up guidelines for further taxonomic studies. The only previously recognized European species so far, *Stylops mellitae* Kirby, 1802, was divided into 30 other species.

For this reason, the nomenclatural-taxonomic study followed, in which we have prepared a preliminary list of all the world's *Stylops* species. 67 valid species names were provided in total. We utilized the newly achieved results also for the taxonomic reinterpretation of the rediscovered species of *Stylops*. For redescription, we used integrative taxonomic approach with DNA barcoding, morphological descriptions, and a differential diagnosis. The dissertation thesis is complemented by a taxonomic article in which three new species are described, including a new genus of the family Stylopidae.

This partial information can add another missing piece to the jigsaw of our ideas about the coevolution of Strepsiptera and their hosts.