

Abstract

The presented thesis deals with the intraspecific variability of flower beetles species complex *Potosia cuprea* (Fabricius, 1795), which is a complex of taxa at the species and subspecies level. Flower beetles from species complex *Potosia cuprea* are among the most variable Palaearctic Cetoniinae at all. Taxa included in the complex produces chromatic range varieties which were, and still are, perceived differently by different authors.

Taxa included in the analyses come primarily from western Palaearctic region, with the main emphasis on European species and subspecies.

The aim of this work is the use of molecular genetics methods to verify the justification of their species or subspecies level.

At all, there were obtained sequences for two mitochondrial genes (cytochrome b and cytochrome oxidase I) from 14 taxa species complex *Potosia cuprea* and three related species *P. angustata* (Germar, 1817), *P. fieberi* (Kraatz, 1931) and *P. marginicollis* (Ballion, 1870).

Molecular analyzes based on COI dataset and concatenate of CytB and COI revealed the existence of a "European" clade *P. cuprea*, which includes subspecies: *Potosia cuprea bourgini* (Ruter, 1967), *P. c. brancoi* (Barraud, 1992), *P. c. cuprea* (Fabricius, 1775), *P. c. metallica* (Herbst, 1790) a *P. c. obscura* (Mikšić, 1954), to which also fit two Siberian representatives of ssp. *metallica* and *daurica* and one specimen of *P. cuprina* from Bulgaria. Exception is the specie *P. incerta*, which doesn't fit in the „European“ clade according to our results and forms a well-differentiated branch with divergence 7.5%. The results support the classification of *P. incerta* as separate specie.

Asian species *P. cuprina*, *P. c. ignicollis* and *P. hieroglyphica* appeared to be polyphyletic taxa on the basis of our dataset; however a detailed judgement about the species is impossible without a further enrichment of the dataset.

Key words: Phylogeography, intraspecific relationship, *Potosia cuprea* species komplex, mtDNA.