Abstract

The pattern of wing venation in dragonflies (Odonata) bears a set of characters commonly used in systematics. The aim of this thesis is to identify the wing venation variability of dragonflies by various methods of geometric morphometric. The wing venation variability was examined on the level of suborder, family, species and also in respect to dimorphism through the principal component analysis (PCA), redundancy analysis (RDA) and centroid size. Data set consisting of images of 46 dragonfly species, belonging to 43 genera and 24 families was obtained from institutional entomological collections. The research carried out that Zygoptera have a large variety of wing contours. The wing venation variability of Epiprocta is shown primarily in the costa and node area. Between sexes there is no noticeable difference in shape or structure of the wing. The ratio between wing length and width and the pterostigma shape is dependent on dragonfly body size.

Key words: Odonatoptera, Odonata, Epiprocta, Zygoptera, wing venation, variability, geometric morphometrics