
Interactive keys, a useful approach to applied aspect of taxonomy

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Abstract

The construction of keys is one of the primary functional aspects of taxonomy. The most common identification keys are dichotomous or pictorial keys. With the development of modern computer systems and photographic techniques, keys made by human-computer interaction, known as interactive keys, are continuously and rapidly expanding. These keys have numerous advantages, e.g., flexibility in choosing taxonomic features (useful in partly damaged specimens), error tolerance, the ability to provide uniform descriptions in review articles, the ability to provide an unlimited number of photos or information in separate pages (html) of features or whole taxa, virtual training without a physical specimen, availability of free key making software on the net, the ability to load on smartphones, easy to build keys (without the need for programming knowledge). Here is an overview of interactive key histories, available software and comparison of different aspects of key maker software, the principles of key making, examples of keys made for insects (especially Diptera), and the benefits and problems of the software are discussed; and, at the end, the need to make keys for the genera of Syrphidae in the Palaearctic and the genera such as *Eumerus* is presented.

Keywords: Taxonomy, key, interactive key, Syrphidae

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