

## **Dolichopodid species number in the North and South of West Palearctic (Diptera): Explanation of differences and forecast**

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West Palearctic as a whole is one of the best studied regions, but being investigated rather spotty regarding dolichopodids. The author has generalized their fauna for North Europe (NE) and East Mediterranean (EM) in form of species lists and keys (Grichanov, 2006, 2007). About 400 species are registered in NE and 520 in EM with many more EM species waiting descriptions.

Ten countries or territories with the biggest species lists (between 60 and 330) have been selected in each part of the Palearctic. The species number has been compared with the total area and ecological features of countries.

Sweden has the longest species list (330) in NE (followed by Finland, Leningrad Region and Norway), while Romania (263) in EM (followed by Krasnodar Territory and Ukraine). Taking into consideration country areas, we see other countries at top. Denmark, Estonia and Latvia have the highest index (12.20 to 5.77 species per 1000 sq.km) in NE, while Israel and Caucasian republics Karachai-Cherkessia and Kabardino-Balkaria are the most diverse EM territories (10.85 to 4.64).

There are subjective and objective reasons for this difference. Number of expeditions and enthusiastic dipterists in a country is the main subjective reason. A gradual decrease of biodiversity per unit area northward and eastward is an objective trend in NE. In EM the greatest biodiversity is observed in montane regions, such as the Caucasus, that is supported by data on Dolichopodidae. If a country has large area of flat lands in addition to mountains, then the species index is low.