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W. Micherdziński: Eine taxonomische Analyse der Familie Macronyssidae Oudemans, 1936. I. Subfamilie Ornithonyssinae Lange, 1958 (Acarina, Mesostigmata).
Państw. Wyd. Naukowe, Warszawa—Krakow 1980, 264 pp., 132 Figs. Price 64. — Zl

After the monographic treatment of mites of the family Parasitidae published in 1969, the author started to compile a similar monograph on mites of the family Macronyssidae of the world fauna. In the first volume of his work he deals with the subfamily Ornithonyssinae, which badly needed taxonomic classification due to the complexity of the whole group, the discrepancy of the authors' opinions on the taxonomy of the subfamily and due to its considerable medical importance.

In the introduction the author evaluates the existing taxonomic criteria from the viewpoint of individual, specific and generic variability. Briefly he mentions the specificity to the host, mainly the topic specificity, the geographic distribution and the medical importance of some species.

As most important characteristics the author considers functional adaptations to the parasitic way of life, particularly the change in the life cycle leading to gradual elimination of the

larva and deutonymph stages, and the arrangement of mouth organs, particularly of chelicerae. He uses the shape of chelae as a basic taxonomic criterion for the classification of subfamilies. For the characterization of genera he employs other features such as the shape and chaetotaxy of body shields, chaetotaxy of legs and the length of chelicerae. For the characterization of species he adds other criteria such as the index of chelicerae (ratio between the length of the second chelicera segment and the length of chelae), formulas of palpal chaetotaxy (Evans's scheme) and the relative length of legs (in relation to the body length).

According to the author's taxonomic concept the family Macronyssidae is composed of two subfamilies, Ornithonyssinae (with smooth chelicerae) and Macronyssinae (chelae with spine- or hook-like processes). His concept of subfamilies, however, is somewhat different from the concepts accepted by other authors. In the subfamily Ornithonyssinae he includes 8 genera (*Ornithonyssus*, *Steatonyssus*, *Pellonyssus*, *Ophionyssus*, *Acanthonyssus*, *Chiroptonyssus*, *Parichoronyssus* and *Lepidodorsum*), which altogether correspond to the "*Ornithonyssus*-scheme" with smooth chelae. To the genus *Ornithonyssus* the author adds the genera *Lepronyssoides*, *Cryptonyssus*, *Parasteatonyssus*, *Macronyssoides* and *Megistonyssus* as synonyms. The use of a single criterion — the shape of chelae — for the reorganization of subfamilies of the family Macronyssidae is remarkable and certainly justified as well, so far as this criterion is an evidence of the real phylogenetic affinity of genera and so far as there is no convergence in the development of this character. However, it is undoubtedly a more stable character than the majority of other criteria used to date. It remains to be seen, if the author has not overestimated the value of this only criterion to the detriment of other generic criteria which indicate other affinities among genera. This is the case e.g. in the genus *Parichoronyssus* manifesting (beside the shape of chelae) markedly more distinct relations with the subfamily Macronyssinae, or the genus *Megistonyssus*, which is morphologically more closely related to the genus *Macronyssus* than *Ornithonyssus*, with which it is synonymized. In such cases taxonomic opinions based on morphological characters should be supported by studies of phylogenetic convergencies, by studies of the specificity to the host as the result of the parallel host-parasite evolution etc.

In the special section of the monograph, which covers 236 pages of the text, the author gives detailed characteristics of particular genera, brief descriptions of all species, their geographic distribution and a survey of the material studied. With more important species he discusses the intraspecific variability, bionomy and epidemiological importance. The descriptions are partly based on the studies of concrete material, but unfortunately in many species only on the data published in original descriptions and redescriptions. The descriptions are accompanied by numerous illustrations of high quality, partly original, partly adapted from other authors. Detailed keys to males, females and protonymphs of all known species suitably complement this section of the book. These keys are based mainly on chaetotaxy of dorsal shields. A list of literature is very elaborate and actually constitutes an almost complete bibliography of the family Macronyssidae, or the subfamily Ornithonyssinae. The whole publication closes up with a systematic index and a table of contents.

W. Micherdziński's book is a comprehensive work critically reviewing the present store of knowledge on the subfamily Ornithonyssinae, with an original taxonomic solution. It will surely become indispensable aid and source of valuable information to all workers engaged in the studies on the family Macronyssidae. Therefore, the second volume of this monograph may be eagerly anticipated.

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