

BOOK REVIEW

Pape T.: CATALOGUE OF THE SARCOPHAGIDAE OF THE WORLD (INSECTA: DIPTERA). Associated Publishers, Gainesville, 1996, 558 pp. ISBN 1-56665-063-1. Price not stated.

The family Sarcophagidae (flesh-flies) comprises over 2,500 species, largely monotonous as to habitus. Roughly a century ago, specialists already recognized that this uniformity of appearance is in stark contrast with the exceptionally diversified morphology of the male genitalia. This discovery caused a great increase in the description of new taxa; the number of described species will apparently exceed 3,000 in near future.

Formal division of the family into subfamilies is still rather unstable but the subfamilies Macronychiinae and Paramacronychiinae (sometimes amalgamated to form a single subfamily) are sister-groups related to the most strongly diversified subfamily Sarcophaginae, being the richest in species, whereas the subfamily Miltogramminae stands apart somewhat, even with regard to its bionomics. Also the genera in these subfamilies have become stabilized in many respects. It is true that the above contrast resulted in a hypertrophy of supraspecific taxa, particularly in those cases where the particular authors worked in biogeographically limited territories. Nevertheless, a rationally sound picture of the taxonomic division of the family became apparent gradually (for example within the Palaearctic Region), also approaching its "natural" system. This is reflected by the comparatively recent treatment of the family in the *Catalogue of Palaearctic Diptera* by Verves (1986). Therefore, a similar treatment of the family on a worldwide scale was anticipated confidently.

Pape (page 9) formulates his concept thus: "The 'quality' or 'success' of the overall approach thus ultimately depends on whether or not the generic concepts are taken up by the user community, which can only be evaluated retrospectively." Elsewhere on that page he points out that the phylogeny of the family is still insufficiently clear as it has not been subjected to the principles of "modern cladistics". Further, the author states (relating to the subfamily Sarcophaginae and especially the classical genus *Sarcophaga* Meigen) on page 49: "Whether

one prefers to treat this huge taxon at the family-group level (e.g., as a tribe) or at the generic level is entirely subjective." One would thus expect that he would try to reflect the present status as much as possible, considering also practical points of view and minimum nomenclatural changes. Such proclamations can be perceived as declaring the author's restraint which, in the case of a catalogue, is agreeable. Yet the author adds: "The broad concept may, however, be more easy to handle for non-expert users and will definitely promote nomenclatural stability..." etc.

Without wishing to anticipate future development, I very much doubt if the cladistic approach will prove to be the only solution, considering the notorious difficulties with cladistic analysis at low taxonomic levels. Particularly at the specific level, misunderstandings and subjective decisions about polarity of characters have led to absurdities which often resemble caricatures of Hennig's ideas. Personally, I consider the application of cladistics to be generally unsuitable at the specific level and most problematical at the generic level. After all, this is also shown by concrete attempts made in certain subgroups of flesh-flies, mentioned by Pape himself. At any rate, the author's statement about "non-expert users" conflicts with his postulate for a "scenario of modern cladistic theory" (page 9).

Beyond doubt, Pape is right in having removed, in places, the hypertrophy of supraspecific taxa mentioned above, and it is obvious that even some of the new combinations will prove to be substantiated. Less readily acceptable is his statement that "... many monotypic genera (or subgenera) may ... be strongly apomorphic members of other ... genera, and new species that consistently defer being fitted within any of the current genera are continuously being discovered". Regardless of the well-known fact that there are apomorphic or plesiomorphic characters, not taxa, it is the very autapomorphies that substantiate the existence of monobasic genera. The absurdity of Pape's reasoning becomes obvious when one considers the consequences of "cancelling" tens of such genera, e.g., in the family Noctuidae (order Lepidoptera), according to his thesis that a "broad concept (meaning 'at the generic level') may be more easy to handle for non-

expert users”, etc. One would then have to contend with only one genus, *Noctua* L., 1758. It is beyond the scope of this review to analyse all the consequences resulting in the end from Pape’s vague philosophy. Therefore, I shall limit myself to the most extensive and most important subfamily, the Sarcophaginae.

Pape’s very interpretation of the nominate genus *Sarcophaga* is highly questionable, keeping in mind the work of Rohdendorf [1937, Sarcophagidae, in *Fauna SSSR 19(1)*, Acad. Sci. USSR, Moscow-Leningrad, 500 pp.] as well as of other authors including the recent revision of the genus (Povolný & Verves, 1987, *Acta Entomol. Mus. Natn. Pragae* 42: 89–147). As a matter of fact, *Sarcophaga* in narrow sense comprises some 20 mostly western Palaearctic species, tending to pronounced endemism, particularly in European and adjacent mountain ranges. In such a clean-cut, probably monophyletic group, however, Pape has included tens of other, unrevised species which evidently have nothing to do with the genus. This is the consequence of his decision, though very ambivalent, to downgrade even such genera (defined morphologically, bionomically, geographically, etc.) as, e.g., *Heteronychia* Brauer & Bergenstamm or *Pierretia* Robineau-Desvoidy or, of those more recently established, *Liosarcophaga* Enderlein, to say nothing of other genera constituted by such a classical expert in this family as B.B. Rohdendorf. Even in this notoriously uniform family, most of the genera can be recognized by their habitus. The author was well aware of that fact: “The present concept of subgenera in *Sarcophaga* s. lat. largely corresponds to the genera of Sarcophagini applied by Verves (1986)” (page 10). With the declared attempts at simplification etc. (see above), the author’s approach is absolutely incomprehensible, so more so that the difference between such taxa as genus and

subgenus is clearly subjective. The nomenclatural consequences of this approach are literally fatal for the stability of nomenclature and utility of the Catalogue declared by Pape: in this way, he has created an utterly inconceivable labyrinth of homonyms, forcing him to “invent” tens of, evidently uncalled-for, “new names” for species occurring in the literature for whole decades and being generally accepted. His approach is unsubstantiated not only formally but also ethically. In this way, the author has purloined the results of scientific work of many authors, even in cases of taxa evidently unknown to him. This is an unheard-of precedent which deserves our condemnation not only because it is absurd but, above all, because an author at Pape’s level would have been aware of such consequences from the very beginning.

In summary, one cannot overlook the author’s meticulous effort to compile an elaborate list of world-wide taxa of the family Sarcophagidae, which, in this sense, is a useful systematic database. The value of Pape’s work is impaired by the fact that its author has presented no theorem that would rationally substantiate the changes outlined. After all, it is questionable whether this is the true purpose of the Catalogue. Pape’s extensive modifications are largely formal and do not contribute to our knowledge of the family. Pape himself admits that phylogeny of the family is unclear. Under such conditions I regard his alterations, particularly those resulting in the necessity of new names for well-known species, as highly unfortunate and, in a way, unethical. Moreover, it is quite in place to warn against purely formalistic approaches to compendia of this kind.

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