



A review of characters useful in delineating ampharetid genera (Polychaeta)

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Abstract

The polychaete family Ampharetidae currently contains many monotypic genera. The usefulness of various characters is assessed in order to provide a more coherent framework on which to base the classification of the family.

Key words: classification, history, cladistics

Introduction

The family Ampharetidae currently includes 73 genera with more than 200 valid species, and is remarkable among polychaete families as it contains 41 monotypic genera (Fauchald 1977, Reuscher *et al.* 2009). Day (1964) attempted to reduce the number of genera, although he regarded Meyer (1887, but see below) as the first critic of this situation because he had attempted the same 80 years earlier. Both suggested that the generic definitions were too narrow. This issue has been addressed by some workers after Day (1964), including Jirkov, who in two of his recent (2009, 2011) publications has made his data available to non-Russian speakers. Those publications were based in part on his extensive work on Arctic Ocean polychaetes (Jirkov 2001): four figures from the latter are included in the former (Jirkov 2009), and one table is translated for the latter (Jirkov 2011). While the basis on which ampharetid genera are defined certainly needs to be improved (Salazar-Vallejo 1996), some of the Jirkov's conclusions on the variability of ampharetid morphology may be unwarranted. This paper attempts to address these concerns and begins with a brief historical review of the family and subsequent developments including some of the synonymies proposed by Jirkov (2001, 2011). Finally some recommendations of the characters useful in delineating ampharetid genera are given.

Historical review

Generic delineation in polychaete families has been progressively refined as we obtain a better understanding of ontogeny and morphological variation within a group, and especially after the efforts made by previous taxonomists had been critically analyzed. Ideally this process might then lead to a phylogenetic study of the group, resulting in a detailed list of the characters that define each genus and an evaluation of whether terminal groups are monophyletic. This refinement should not be merely an academic exercise, especially since most publications include, at most, short listings of previous publications and fail to provide detailed information about important contributions, thus giving the wrong impression that previous studies are not relevant. This has occurred for most polychaete families, and the importance of previous studies must be incorporated and considered. Thus, in the following section on the Ampharetidae, the proposed taxonomic or generic features are shown in bold type to help in following the subsequent discussion. Whenever some additional comments are made, they are put in parenthesis. Further, the delineation of the traditional subfamily groups in the Ampharetidae has not been substantiated in recent separate or combined analysis (Rousset *et al.* 2003); consequently, and as far as possible, the generic features will be presented as referring to the family, and not separately for each subfamily.