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Revised systematics of *Fabricia oregonica* Banse, 1956 (Polychaeta: Sabellidae: Fabriciinae): an example of the need for a uninomial nomenclatural system

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Abstract

Previous descriptions of members of *Fabricia oregonica* Banse, 1956, have distinguished it by the presence of only narrowly hooded inferior thoracic notochaetae, in contrast to the presence of pseudospatulate chaetae in median chaetigers of the type species, *F. stellaris* (Müller, 1774). In other respects, past descriptions of specimens to which *F. oregonica* refers have lacked the necessary detail to clearly determine generic placement, and the type material is in poor condition. Recently collected specimens matching earlier descriptions are used to redescribe members of the species. An exclusive sister-group relationship does not exist between *F. stellaris* and *F. oregonica*, precluding the latter species being assigned to *Fabricia*. *Fabricia oregonica* is therefore placed in a new genus, *Bansella*. Under the view that all taxa, whether phylogenetic or specific, are explanatory hypotheses, it is pointed out that the monotypic *Bansella* cannot be defined as such a hypothesis. While the *International Code of Zoological Nomenclature* requires that names be defined by way of 'differentiating characters,' this approach is at odds with the scientific endeavor of biological systematics to infer explanatory hypotheses, colloquially known as taxa. In addition to only having narrowly hooded inferior notochaetae, members of *B. oregonica* differ from *F. stellaris* specimens in having abdominal uncini with a much shorter manubrium. The ventral, lobe-like collar in *B. oregonica* specimens is also distinctly rectangular as opposed to triangular. Members of the two species are similar in that females have pigmented spermathecae in the bases of branchial lobes and spermiogenesis occurs in males in chaetigers 3–8.

Key words: explanatory hypotheses, ICZN, new genus, phylogenetics, taxa

Introduction

History of the problem. The last major revision of the fan worm genus *Fabricia* Blainville, 1828, was conducted by Fitzhugh (1990a). Of species previously assigned to *Fabricia*, Fitzhugh was able to show that only the type species could definitely be placed in the genus, *F. stellars* (Müller, 1774) [commonly, though incorrectly, referred to as *F. sabella* (Ehrenberg, 1836), see Hartmann-Schröder 1996], with three subspecies, *F. stellaris stellaris* (Müller, 1774), *F. stellaris adriatica* (Banse, 1956), and *F. stellaris caspica* (Zenkevitsch, 1922), all occurring in European waters (*F. stellaris stellaris* has also been reported from Iceland, Greenland, and northeast North America, see Fitzhugh 1990a). In addition, two species were regarded by Fitzhugh (1990a) as *incertae sedis* because of inadequate descriptions and material being either lost or unavailable: *F. nigra* Langerhans, 1880, from Madeira; and *F. siaukhu* (Annenkova, 1938; as *Manayunkia* Leidy, 1858), from the North Japan Sea. Three additional species were considered *incertae sedis* because the type specimens are either poorly preserved or incomplete: *F. acuseta* Banse, 1959, from the Red Sea; *F. brunnea* Hartman, 1969, from California; and *F. oregonica* Banse, 1956, from Oregon. Brief descriptions of each were, however, provided by Fitzhugh (1990a). Subsequent to this revision, Fitzhugh (1993) redescribed *F. brunnea* based on new material and showed that members of the species belong in the genus *Novafabricia* Fitzhugh, 1990, and Bick (2004) reassigned *F. nigra* to the genus *Pseudoaugeneriella* Fitzhugh, 1998, based on specimens from the type locality.

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