

Oxydromus Grube, 1855 reinstated over *Ophiodromus* Sars, 1862 (Polychaeta, Hesionidae)

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Abstract

The hesionid polychaete genera *Oxydromus* Grube, 1855 and *Ophiodromus* Sars, 1862 have been regarded as synonyms with the former considered as invalid since it was thought to be a junior homonym of *Oxydromus* Schlegel, 1854. However, Schlegel's name is an incorrect subsequent spelling for *Oxydromus* Wagler, 1830 (Aves, Gruiformes, Rallidae) and is not an available name. Consequently, *Oxydromus* Grube, 1855 must be reinstated for this hesionid polychaete genus. A check-list of valid species of *Oxydromus* including 30 new combinations is provided.

Keywords

Nomenclature, taxonomy, hesionid, Phyllodocida, Annelida

Introduction

Grube (1855) proposed *Oxydromus* within the polychaete family Phyllodocidae for *O. fasciatus* Grube, 1855, a new species capable of rapid movement from two Mediterranean Sea localities: Trieste (Italy) and Villa Franca (probably Villefranche-sur-Mer, France). Later, Sars (1862) established the genus *Ophiodromus* for a Norwegian species, *O. vittatus* Sars, 1862. He also transferred *Oxydromus* to the family Hesionidae and distinguished it from *Ophiodromus* by the presence of articulated palps and biramous parapodia. Both features were present in *O. fasciatus* but misinterpreted by Grube when he defined them as simple palps and uniramous parapodia (von Marenzeller 1874, Pleijel 2011 pers. comm.).

Pleijel (1998) examined syntypes of *Oxydromus fasciatus* (ZMB 3825), the type species of the genus, and specimens of *Nereis flexuosa* delle Chiaje, 1825 (currently *Ophiodromus flexuosus* fide Pleijel 1998) from near the type locality (type material of this species does not exist). He agreed with McIntosh (1908:116) that the former is a junior synonym of the latter although he didn't go into detail. Nevertheless, regarding the defining generic characters, *Ophiodromus* and *Oxydromus* are synonymous. *Ophiodromus flexuosus* is possibly a senior synonym of the type species *O. vittatus* (fide von Marenzeller 1874, McIntosh 1908, Pleijel 1998, Fauchald 2011). An examination of specimens from the type localities, Gulf of Naples and Norway respectively, is required to resolve their status.

Pleijel (1998) pointed out that *Oxydromus* has seniority over *Ophiodromus* but, as first stated by Hartman (1965), concluded that the former genus name was preoccupied in the class Aves, *Oxydromus* Schlegel, 1854, and for which reason *Ophiodromus* must be used. However, Viéitez et al. (2004) argued that *Oxydromus* is an available genus name and must be considered as valid. Then, following their suggestion, we proposed to reinstate *Oxydromus* over *Ophiodromus* to standardize the worldwide use of both generic names.

Results

Viéitez et al. (2004:521) realized that *Oxydromus* Schlegel is an incorrect subsequent spelling of *Ocydromus* Wagler, 1830 (Aves, Gruiformes, Rallidae) (itself a junior homonym of the beetle genus *Ocydromus* Clairville, 1806 [Insecta, Carabidae], and replaced by *Gallirallus* Lafresnaye, 1841). Although Schlegel's name was used in later publications (e. g. Reischek 1886, Röse 1890), as an incorrect subsequent spelling it remains unavailable according to Article 33.3 of the International Code of Zoological Nomenclature. This states "Any subsequent spelling of a name different from the correct original spelling, other than a mandatory change or an emendation, is an 'incorrect subsequent spelling'; it is not an available name and, like an incorrect original spelling [Article 32.4], it does not enter in homonymy and cannot be used as a substitute name...". Viéitez et al. erroneously stated that Sars proposed *Ophiodromus* to replace *Oxydromus* Grube due to his mistaken belief that Grube's genus name is a junior homonym of *Oxydromus* Schlegel. Sars actually didn't mention the homonymy; instead he discussed the morphological discrepancy between both genera.

Preservation of the genus-group name *Ophiodromus* as the senior synonym would require a reversal of precedence according to Article 23.9 (ICZN 1999). This states that in order to maintain the prevailing usage the following conditions must be met: 1) the senior synonym (in this case *Oxydromus* Grube, 1855) has not been used as a valid name after 1899 (Article 23.9.1.1), and 2) the junior synonym (namely *Ophiodromus* Sars, 1862) has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years (Article 23.9.1.2). The first condition

is not applicable which negates the need for a reversal of precedence. *Oxydromus* has also been listed as a valid name after 1900 in many publications (e.g. Gravier 1900, McIntosh 1908, Chamberlin 1919, Fauvel 1923, Augener 1927, Uschakov 1955, Hartmann-Schröder 1959, 1965, Hartman 1961, Day 1963, Averincev 1972).

In accordance with Article 23.9.3 (ICZN 1999), we consider that the *Oxydromus/Ophiodromus* situation does not threaten the stability of nomenclature or the universality of a widespread use, thus no referral to the Commission for a ruling should be required. We propose to reinstate *Oxydromus* over *Ophiodromus* based on the Principle of Priority (Article 23, ICZN 1999).

Systematics

Family HESIONIDAE Grube, 1850

Subfamily OPHIODROMINAE Pleijel, 1998

Tribe OPHIODROMINI Pleijel, 1998

Oxydromus Grube, 1855, reinstated

Oxydromus Grube, 1855: 98.

Ophiodromus Sars, 1862: 87; Pleijel, 1998: 137–143, figs. 31–33 (synonymy).

Type species. *Oxydromus fasciatus* Grube, 1855, by monotypy.

Oxydromus adorsosetosus (Hartmann-Schröder, 1985), comb. n. (basionym of *Ophiodromus adorsosetosus* Hartmann-Schröder, 1985)

Type locality: Port Lincoln, South Australia.

Oxydromus adpersus (Grube, 1874), comb. n. (basionym of *Ophiodromus adpersus* Grube, 1874)

Type locality: Dalmatia, Croatia.

Oxydromus agilis (Ehlers, 1864), comb. n. (basionym of *Ophiodromus agilis* Ehlers, 1864)

Type locality: Adriatic Sea.

Oxydromus angolaensis (Hartmann-Schröder, 1974), comb. n. (basionym of *Podarke angolaensis* Hartmann-Schröder, 1974)

Type locality: Lobito, Angola.

Oxydromus angustifrons (Grube, 1878), comb. n. (basionym of *Irma angustifrons* Grube, 1878)

Type locality: Philippines.

Oxydromus berrisfordi (Day, 1967), comb. n. (basionym of *Ophiodromus berrisfordi* Day, 1967)

Type locality: Walvis Bay, Namibia.

Oxydromus brevipodius (Uchida, 2004), comb. n. (basionym of *Ophiodromus brevipodius* Uchida, 2004)

Type locality: Wakayama, Japan.

Oxydromus bunbuku (Uchida, 2004), comb. n. (basionym of *Ophiodromus bunbuku* Uchida, 2004)

Type locality: Shikoku, Japan.

Oxydromus constrictus (Uchida, 2004), comb. n. (basionym of *Ophiodromus constrictus* Uchida, 2004)

Type locality: Wakayama, Japan.

Oxydromus didymocerus (Schmarda, 1861), comb. n. (basionym of *Cirrotyllis didymocerus* Schmarda, 1861)

Type locality: New South Wales, Australia.

Oxydromus fasciatus Grube, 1855 (possible junior synonym of *O. flexuosus* (delle Chiaje, 1825))

Type locality: Adriatic Sea (Trieste) and Western Mediterranean Sea (Villefranche-sur-Mer, France).

Oxydromus fauveli (Uchida, 2004), comb. n. (basionym of *Ophiodromus fauveli* Uchida, 2004)

Type locality: Wakayama, Japan.

Oxydromus flexuosus (delle Chiaje, 1825) (basionym of *Nereis flexuosa* delle Chiaje, 1825)

Type locality: Gulf of Naples.

Oxydromus furcatus (Hartmann-Schroder, 1962), comb. n. (basionym of *Podarke furcatus* Hartmann-Schroder, 1962)

Type locality: Peru.

Oxydromus guanicus (Hoagland, 1919), comb. n. (basionym of *Podarke guanica* Hoagland, 1919)

Type locality: Guanica, Puerto Rico.

Oxydromus latifrons (Grube, 1878), comb. n. (basionym of *Irma latifrons* Grube, 1878)

Type locality: Philippines.

Oxydromus limicolus (Willey, 1905), comb. n. (basionym of *Irma limicola* Willey, 1905)

Type locality: Sri Lanka.

Oxydromus longifundus (Uchida, 2004), comb. n. (basionym of *Ophiodromus longifundus* Uchida, 2004)

Type locality: Okinawa, Japan.

Oxydromus longicirratus (Knox and Cameron, 1971), comb. n. (basionym of *Nereimyra longicirratus* Knox and Cameron, 1971; not a senior homonym to *O. longicirratus* (Tenerelli, 1973) as Pleijel (1998) suggested, but this name is considered as nomen dubium)

Type locality: Melbourne, Australia.

Oxydromus microantennatus (Hutchings and Murray, 1984), comb. n. (basyonymy of *Podarke microantennata* Hutchings and Murray, 1984)

Type locality: New South Wales, Australia.

Oxydromus minutus (Hartmann-Schröder, 1959), comb. n. (basyonymy of *Podarke minuta* Hartmann-Schröder, 1959)

Type locality: San Juan, El Salvador.

Oxydromus mutilatus (Treadwell, 1901), comb. n. (basyonymy of *Castalia mutilata* Treadwell, 1901)

Type locality: Puerto Rico.

Oxydromus notospinosus (Rosito, 1983), comb. n. (basionym of *Ophiodromus notospinosus* Rosito, 1983)

Type locality: Philippines.

Oxydromus obscurus (Verrill, 1873), comb. n. (basyonymy of *Podarke obscura* Verrill, 1873)

Type locality: Massachusetts, United States.

Oxydromus okudai (Uchida, 2004), comb. n. (basionym of *Ophiodromus okudai* Uchida, 2004)

Type locality: Nagasaki, Japan.

Oxydromus pallidus Claparède, 1864

Type locality: Golfe du Lion, France.

Oxydromus parapallidus (Uchida, 2004), comb. n. (basionym of *Ophiodromus parapallidus* Uchida, 2004)

Type locality: Wakayama, Japan.

Oxydromus pelagicus (Rioja, 1923), comb. n. (basionym of *Ophiiodromus pelagicus* Rioja, 1923)

Type locality: Pontavedra, Spain.

Oxydromus pugettensis (Johnson, 1901), comb. n. (basyonymy of *Podarke pugettensis* Johnson, 1901) (Figure 1)

Type locality: Washington, United States.

Oxydromus spinapandens (Storch and Niggemann, 1967), comb. n. (basyonymy of *Podarke pugettensis spinapandens* Storch and Niggemann, 1967)

Type locality: Red Sea.

Oxydromus spinosus (Ehlers, 1908), comb. n. (basyonymy of *Orthodromus spinosus* Ehlers, 1908)

Type locality: Angola.

Oxydromus viridescens (Ehlers, 1864), comb. n. (basyonymy of *Podarke viridescens* Ehlers, 1864)

Type locality: Adriatic Sea.

Oxydromus vittatus (Sars, 1862), comb. n. (basionym of *Ophiiodromus vittatus* Sars, 1862)

Type locality: Norway.

Remarks and discussion

Pleijel (1998) revised the phylogeny and classification of the family Hesionidae based on available type and non-type material. He provided descriptions and diagnoses for all supraspecific taxa and world-wide species lists, including 24 nominal taxa in *Ophiiodromus*. He newly synonymized *Orseis* Ehlers, 1864 and *Schmardiella* Czerniavsky, 1882, and continued the prior synonymy of *Oxydromus* Grube, 1855, *Podarke* Ehlers, 1864, *Mania* de Quatrefages, 1866 and *Irma* Grube, 1878 with *Ophiiodromus* Sars, 1862, whose type species is *O. vittatus* Sars, 1862 (possibly *O. flexuosus* fide Pleijel 1998). However, *Oxydromus* is herein reinstated due to the priority of *Oxydromus* over *Ophiiodromus* Sars, with *O. fasciatus* as the type species.

Oxydromus (from the Greek *oxys*= fast, quick; *dromus*= runner) (Figure 1) is currently represented by 32 species and is distinguished from other genera by the presence of six pairs of enlarged anterior cirri, prostomium bearing three antennae with the median one sited anteriorly, and biarticulated palps (see Salazar-Vallejo and Orensanz 2006). Uchida (2004) suggested that the species of this genus are among the most difficult groups to identify in the family and considered that the form of parapodia is a more useful character for identification of the species than prostomium and anterior



Figure 1. A representative living specimen of *Oxydromus* collected in California. Species: *Oxydromus pugettensis* (Johnson, 1901) (photo: Leslie Harris).

part structures. A detailed revision of the genus *Oxydromus* is required to redefine species, especially those considered to be widely distributed.

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