Case 3309

Rosacea Quoy & Gaimard, 1827: proposed conservation of usage (Cnidaria, Siphonophora); *Desmophyes annectens* Haeckel, 1888 and *Rosacea plicata* Bigelow, 1911: proposed conservation

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Abstract. The purpose of this application is to conserve the names *Desmophyes annectens* Haeckel, 1888, under Article 23.9.3 of the Code, and *Rosacea plicata* Bigelow, 1911, under Article 23.9.5, for two widely distributed (but rare in the former case) species of calycophoran prayid siphonophores. *D. annectens* is a junior synonym of *Rosacea plicata* Quoy & Gaimard, 1827. Bigelow used the name *R. plicata* for a different taxon. The name *R. plicata* is in prevailing use for the species described by Bigelow and introduction of a new name for this species would cause nomenclatural confusion, as would use of the name *R. plicata* Quoy & Gaimard, 1827 for the species currently known as *D. annectens*. Conservation of the names *D. annectens* Haeckel, 1888 and *R. plicata* Bigelow, 1911 and of the usage of the generic name *Rosacea* Quoy & Gaimard, 1827 by the designation of *R. plicata* Bigelow, 1911 as the type species of *Rosacea* Quoy & Gaimard, 1827 is proposed.

Keywords. Nomenclature; taxonomy; Cnidaria; Siphonophora; PRAYIDAE; *Desmophyes*; *Rosacea*; *Desmophyes annectens*; *Rosacea plicata*.

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1. Quoy & Gaimard (1827, pp. 176–177, pl. 4B, figs. 2–4) introduced the generic name *Rosacea* for two new species of prayid siphonophores, *R. ceutensis* (p. 176) and *R. plicata* (p. 177), from the Strait of Gibraltar, which they briefly figured and described. *R. ceutensis* has not been positively identified since. The specific name *R. plicata* was used again as valid only by Schneider (1896, p. 632; 1898, p. 78; 1899, p. 22, figs. 18–23), by Kawamura in two taxonomic reviews of Japanese siphonophores (1915, p. 319, pl. 7, figs. 6–8; 1954, p. 102), and by Margulis (1994) in a recent revision of the genus *Rosacea*. A number of synonyms of *R. plicata* Quoy & Gaimard, 1827 have been recognised. These nominal species include *Diphyes brajae* Vogt, 1851 (p. 140, figs. 130–131), (invalid under Article 23.9.1, not used as valid since 1899 = nomen oblitum), *Praya diphyes* Kölliker, 1853 (p. 33, pl. 9), (non Blainville, 1834), *P. diphyes* Vogt, 1854 (p. 99, pls. 16, figs. 1–2, pl. 17), (non Blainville, 1834), and *P. filiformis* Keferstein & Ehlers, 1860 (p. 260), 1861 (p. 20, pl. 5, figs. 8–11), (invalid =

Rhizophysa filiformis Chiaje, 1829, a junior primary homonym of *R. filiformis* Forskål, 1775). The name *P. diphyes* auct. (non Blainville, 1834) has also been used for other prayid species.

2. Haeckel (1888a, p. 36) established the name *Desmophyes* for a genus with up to six swimming bells and included two nominal species without descriptions. Later the same year he established the species *D. annectens* with an extensive description and figures (Haeckel, 1888b, p. 170, pl. 30). Schneider (1896, p. 630) assigned Haeckel's species to the genus *Praya*. Chun (1897, p. 68, fig. 9) used the name *D. annectens* in a general review of siphonophore body plans, and reproduced Haeckel's figure (Haeckel, 1888b, pl. 30, fig. 1). *D. annectens* is a rare species and was not considered in detail again until Totton (1965, p. 128, pl. 22, figs. 4–6; pl. 24, figs. 1–9) included it in his monograph on siphonophores. He indirectly recognised that *D. annectens* was the same taxon as *Rosacea plicata* Quoy & Gaimard, 1827 by including the name as '*R. plicata*: Kawamura, 1915' in his synonymy and reproducing Kawamura's figures (Kawamura, 1915, pl. 7, figs. 6–8) of *R. plicata* Quoy & Gaimard (Totton, 1965, pl. 22, figs. 4–6). However, the name *D. annectens* has been used consistently for this species since 1965 (see Pugh, 1974, p. 39; Kirkpatrick & Pugh, 1984, p. 62; Margulis, 1987, p. 25; Pugh & Harbison, 1987, p. 86; Dallot et al., 1988, p. 197; Gibbons & Thibault-Botha, 2002, p. 803; and 17 additional references held by the Commission Secretariat).

3. Bigelow (1911a, pp. 341–343) identified material he collected in the Bay of Biscay as *Rosacea plicata* Quoy & Gaimard, 1827 and in the same year published an extensive description of similar material together with three excellent figures of specimens from the tropical east Pacific (Bigelow, 1911b, pp. 201–203, pl. 2, figs. 7–9). These figures have been used by many workers to identify this species. Bigelow's species is different from that of Quoy & Gaimard because the somatocyst is arranged differently, as pointed out by Totton (1965, p. 115) and Pugh & Harbison (1987, p. 86), and it is a common and well known prayid species (see Bigelow & Sears, 1937, p. 11; Totton, 1954, p. 88; 1965, p. 116; Stepanjants, 1967, p. 145; Daniel, 1974, p. 84; Xu & Zhang, 1978, p. 36; Alvariño, 1981, p. 401; Kirkpatrick & Pugh, 1984, p. 54; Pagès & Gili, 1992, p. 76; Pugh, 1999, p. 486; Gao et al., 2002, p. 86). To avoid future confusion, Totton (1965, p. 116) referred to Bigelow's species as '*R. plicata* sensu Bigelow, 1911' and treated it as a new species. However, the name is invalid, under Article 57.2 of the Code, as a junior primary homonym of *R. plicata* Quoy & Gaimard, 1827.

4. Pugh & Harbison (1987) reviewed all genera and species in the prayid subfamily PRAYINAE, noting (p. 86) that the original specimen (holotype) of *Rosacea plicata* Quoy & Gaimard, 1827 was no longer in existence, and therefore designated as the neotype a pair of nectophores from material described by Bigelow (1911a) from the Bay of Biscay. However, the specimens from which Pugh & Harbison (1987) designated their neotype are here recognised as syntypes and the neotype should now be identified as the lectotype of a then new nominal species *Rosacea plicata* Bigelow, 1911 (non Quoy & Gaimard, 1827). The lectotype is a pair of nectophores described by Bigelow (1911a) and held in the collections of The Natural History Museum, London, as BMNH Reg. No. 1939.6.10.1. The syntypes were collected by *H.M.S. Research* on 25-vii-1900 at 47°03'N, 7°55'W, from 300–0 fm (see Pugh & Harbison, 1987, p. 87).

5. Margulis (1994) revised the genus *Rosacea* basing her revision on specimens from her own South Pacific collections and from North Atlantic specimens loaned to her by P.R. Pugh. Contrary to prevailing usage Margulis synonymised *Desmophyes annectens* with *Rosacea plicata* Quoy & Gaimard, 1827 and moved *D. villafrancae* (Carré, 1969) and *D. haematogaster* Pugh, 1992 into the genus *Rosacea*. She created a new genus, *Neorosacea*, for *Rosacea plicata* 'sensu Bigelow 1911', and renamed the latter species *N. bigelowi*. This necessitated the transfer of four species from the genus *Rosacea* into the genus *Neorosacea* including *R. cymbiformis* (Chiaje, 1830), *R. flaccida* Biggs, Pugh & Carré, 1978, *R. limbata* Pugh & Youngbluth, 1988 and *R. repanda* Pugh & Youngbluth, 1988. Pugh (1999) rejected this revision in his review of South Atlantic siphonophores, and later added a new species *R. arabiana* to the genus *Rosacea* (Pugh, 2002, p. 171).

6. The names *Rosacea plicata* Bigelow, 1911 and *Desmophyes annectens* Haeckel, 1888 for the two species are well established in the literature (see paras. 2 and 3 above). Stability would not be maintained by adopting the changes introduced by Margulis (1994). Therefore, in the interests of nomenclatural stability we propose that *Rosacea plicata* Quoy & Gaimard, 1827 is suppressed for both the Principle of Priority and the Principle of Homonymy and that *Rosacea plicata* Bigelow, 1911 is designated as the type species of *Rosacea* Quoy & Gaimard, 1827.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power:
   (a) to suppress the name *plicata* Quoy & Gaimard, 1827, as published in the binomen *Rosacea plicata*, for the purposes of both the Principle of Priority and the Principle of Homonymy;
   (b) to set aside all previous fixations of type species for the nominal genus *Rosacea* Quoy & Gaimard, 1827 and to designate *Rosacea plicata* Bigelow, 1911 as the type species;

(2) to place on the Official List of Generic Names in Zoology the following names:
   (a) *Desmophyes* Haeckel, 1888 (gender: feminine), type species by monotypy *Desmophyes annectens* Haeckel, 1888;
   (b) *Rosacea* Quoy & Gaimard, 1827 (gender: feminine), type species by designation in (1)(b) above *Rosacea plicata* Bigelow, 1911;

(3) to place on the Official List of Specific Names in Zoology the following names:
   (a) *annectens*, Haeckel, 1888, as published in the binomen *Desmophyes annectens* (specific name of the type species of *Desmophyes* Haeckel, 1888);
   (b) *plicata*, Bigelow, 1911, as published in the binomen *Rosacea plicata* and defined by the lectotype cited in para. 4 above (specific name of the type species of *Rosacea* Quoy & Gaimard, 1827);

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *plicata* Quoy & Gaimard, 1827 as published in the binomen *Rosacea plicata* and as suppressed in (1)(a) above.

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