



## Designation of *Synalpheus pectiniger* Coutiere, 1907 as a *nomen protectum* and its senior synonym *Alpheus praecox* Herrick, 1888 as a *nomen oblitum* (Crustacea, Decapoda, Alpheidae)

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### Abstract

*Alpheus praecox* Herrick, 1888, previously regarded as *nomen nudum*, *nomen dubium* or a possible senior synonym of *Synalpheus brevicarpus* (Herrick, 1891), is shown to be a senior synonym of *Synalpheus pectiniger* Coutière, 1909. However, because *A. praecox* has not been used as a valid name since 1899, whereas *S. pectiniger* on the other hand appeared as valid *species* in at least 29 publications signed by numerous authors, *A. praecox* is herewith designated *nomen oblitum*, with *S. pectiniger* becoming *nomen protectum*.

**Key words:** Alpheidae, *Synalpheus*, nomenclature, taxonomy

An early contribution to the embryonic development of various Decapoda and Stomatopoda is the memoir by Brooks & Herrick (1891). This comprises four chapters variously authored by two individuals: Brooks (1891a) on the life history of *Stenopus hispidus* (Olivier, 1811); Brooks (1891b) on the habits and metamorphosis of *Gonodactylus chiragra* (Fabricius, 1781); Brooks & Herrick (1891) on the metamorphosis of *Alpheus* and Herrick (1891) on the development of *Alpheus*. As part of his sole author contribution, Herrick (1891) introduced two names for Alpheidae: *Alpheus saulcyi* var. *brevicarpus* Herrick, 1891 and *Alpheus saulcyi* var. *longicarpus* Herrick, 1891, currently considered as valid taxa within the genus *Synalpheus* Bate, 1888. Both names have a complicated history as it is clear that Herrick (1891) confused several taxa and drew conclusions on the basis of several species living in the same sponge (for discussion see Coutière 1909; Verrill 1922; Chace 1972; Dardeau 1984; Ríos & Duffy 2007).

Coutière (1909: 2) indicated that *Alpheus saulcyi* Guérin, 1856 is perhaps a senior synonym for *Synalpheus brevicarpus* (Herrick, 1891), but in the same paper proceeded to name *Synalpheus brevicarpus guerini* as a new variety, indicating that it "...perhaps corresponds to *Alpheus saulcyi* of Guérin" (Coutière 1909: 52). In contrast, Verrill (1922) considered its identity likely to be a senior synonym of *Alpheus minus* Say, 1818, currently *Synalpheus minus* (Say, 1818). A taxonomic discussion of this name is beyond the scope of the present contribution and for the time being *Alpheus saulcyi* is considered a *nomen dubium*.

*Synalpheus longicarpus* (Herrick, 1891) is currently a reasonably well-defined species, widely distributed in the western Atlantic from North Carolina to Brazil (Ríos & Duffy 2007), living "commensally" in the loggerhead sponge, *Spherospongia vesparium* (Lamarck, 1815). The exact distribution of this species remains unclear, especially in the Caribbean, because of several very closely related taxa in the region, such as *S. dardeaui* (Ríos & Duffy, 2007), *S. pandionis* Coutière, 1909, *S. ul* (Ríos & Duffy, 2007) and *S. yano* (Ríos & Duffy, 2007), although only one of them (*S. dardeaui*) is also known to occur in loggerhead sponges (Ríos & Duffy 2007).

On the other hand, *Synalpheus brevicarpus* (Herrick, 1891) appears to be part of a larger species complex, the *S. brevicarpus* – *S. minus* – *S. digueti* complex, that includes at least six species in the western Atlantic as well as several species in the eastern Pacific (Anker *et al.* in prep.), and is not at all related to *S. longicarpus*.