ARGULUS PURPUREUS (RISSO, 1827), A JUNIOR SYNONYM OF ARGULUS VITTATUS (RAFINESQUE-SCHMALTZ, 1814)
(BRANCHIURA, ARGULOIDEA)

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ABSTRACT

The binomen Argulus purpureus (Risso, 1827) is a junior synonym of Argulus vittatus (Rafinesque-Schmaltz, 1814), and the generic name Diprosia is a junior synonym of Argulus Müller, respectively, as first pointed out by Lipke B. Holthuis in 1954. Continued usage of Argulus purpureus indicates that Argulus vittatus has been ignored. In addition, Argulus purpureus should be followed by “(Risso, 1827)” rather than “Risso, 1816” or “Risso, 1827” because the species was originally described under the generic names, Binoculus Geoffroy St.-Hilaire, 1762 (that was later suppressed) and Agenor Risso, 1827.

INTRODUCTION

During an investigation of the carcinological works of Constantine Samuel Rafinesque, Holthuis (1954) discovered that Rafinesque-Schmaltz (1814) had described a species of Argulus under the name Diprosia vittata (gen. n., sp. n.). Holthuis felt there was no doubt concerning the identity of the taxon as Argulus purpureus (Risso, 1827) and corrected the name as Argulus vittatus (Rafinesque-Schmaltz, 1814), but no authors since then have mentioned Argulus vittatus and continue to use Argulus purpureus. The nomenclatural history of the species will be examined herein.
DISCUSSION

Rafinesque-Schmaltz’s (1814: 25) original description is as follows:

XIV. G. DIPROSIA. Manteau déprimé oblong fendu sans articulations postérieurement, queue inférieure plus longue et échancrée, deux yeux lisses en dessus, bouche inférieure, corps étroit articulé en dessous, 6 paires de jambes à 3 articles, 2 suçoirs antérieurement en dessous. — Observ. Ce genre est très-singulier, le caractère des suçoirs est peut-être unique parmi les Crustacés; il appartient à l’Ordre Pseudopia, et famille Bopyria.


The mention of 6 pairs of legs by Rafinesque-Schmaltz is incorrect, but considering that the species described by both him and Risso had two suction cups for the first maxillae, had the same characteristic purple coloration (as longitudinal stripes), occurred in the same geographic area, and had the same oblong shape, it seems Holthuis (1954) was correct in his decision. Therefore, we should recognize Argulus vittatus (Rafinesque-Schmaltz, 1814) as a senior synonym of Argulus purpureus (Risso, 1827). Risso (1816) originally described “purpureus” in the genus Binocularis Geoffroy St.-Hilaire, 1762 (as B. bicornsus) and later transferred it to Agenor Risso, 1827, giving it a new specific epithet, “purpureus”, which was transferred to Argulus by Thorell (1864, 1866); therefore, “(Risso, 1827)” should be used rather than “(Risso, 1816)”. Binocularis Geoffroy St.-Hilaire is not an available generic name because it was published in a work rejected by the ICZN (1954, Opinion 228, Name No. 1104). Forest (1958) provided corrections for the dates of publications by Risso (1827) and Lucas (1846); the former was dated 1826 on the title page but was issued in 1827, and the latter, usually cited as 1849, was actually published in 1846. Thorell (1864) thought Argulus purpureus may be generically distinct and if so, should be placed in the genus Agenor Risso. Thorell (1865) considered his newly-described Argulus dactylopteri to be closely related to A. purpureus and applied Agenor as the subgeneric designation. If Argulus vittatus is transferred to another genus in the future, the genus Diprosia Rafinesque-Schmaltz, 1814, would be the senior available name, rather than Agenor Risso, 1827.

Rushton-Mellor (1994a) discussed another nomenclatural issue related to Argulus purpureus and Argulus giganteus. Argulus giganteus Ramakrishna, 1952 needs a new name because it is a junior homonym of Argulus giganteus Lucas, 1846, and Argulus giganteus Lucas, 1846 was considered to likely be a synonym of Argulus purpureus (Risso, 1827) by Thorell (1864, 1866) and Wilson (1902). Assuming the latter statement is indeed true, the correct synonymy would be (host fish nomenclature was updated using Eschmeyer et al. (1998), Smith-Vaniz & Randall (1994), and ICZN (1996)):