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Spratelloides atrofasciatus Schultz, 1943, a valid species of round herring (Clupeiformes: Clupeidae)

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Abstract

The western Pacific marine clupeoid fish, *Spratelloides atrofasciatus* Schultz, 1943, previously regarded as a synonym of *S. gracilis* (Temminck and Schlegel, 1846), is redescribed here as a valid species on the basis of the holotype and 115 non-type specimens collected from the Ryukyu Islands. Both *S. atrofasciatus* and *S. gracilis* are similar chiefly in having a midlateral band that does not fade anteriorly. *S. atrofasciatus* differs from *Spratelloides gracilis* in having fewer anal fin rays, pectoral fin rays, vertebrae and gillrakers. *Spratelloides atrofasciatus* also has a shorter head length, a shorter upper jaw length, a shorter snout length, a wider lateral band equal to the eye diameter; numerous black pigment spots on the inner side of the gill opening that are visible from the outside in preserved specimens (vs not visible in *S. gracilis*). The two species are sympatrically distributed in the Ryukyu Islands. *Spratelloides atrofasciatus* matures from 32 mm SL and grows to a known maximum size of 45mm SL, while *S. gracilis* matures from about 50 mm SL and grows to over 100 mm SL.

Key words: sympatric distribution, Ryukyu Islands, redescription, *Spratelloides gracilis*, *S. atrofasciatus*

Introduction

The clupeid fishes of the genus *Spratelloides* are coastal marine fishes found in tropical and temperate waters of the Indo-West Pacific and are important as food and bait (Whitehead, 1985; Munroe *et al.*, 1999). As one of the most important baitfish in pole-and-line fisheries for skipjack and other tunas in this region, many ecological and fishery resource studies on the genus have been made (Dalzell, 1985, 1987; Dalzell & Lewis, 1989; Milton *et al.*, 1990, 1991, 1993). At present, the importance of management and assessment of alternatives to bait fishing are recognized (Gillett, 2010). However, it is still difficult work for even specialists to identify this genus to specific level because of taxonomic uncertainties. Moreover, some field workers are still using the older literature and identify them as *Spratelloides japonicus* (Houttuyn 1782) (= *Atherina japonica* Houttuyn 1782), a name which was long-ago suppressed by the ICZN (1965).

Taxonomic reviews of the genus worldwide reveals four species are recognized as valid in the genus *Spratelloides* Bleeker, 1851: *Spratelloides delicatulus* (Bennett 1831), *Spratelloides gracilis* (Temminck & Schlegel 1846), *Spratelloides lewisi* Wongratana 1983, and *Spratelloides robustus* Ogilby, 1897 (Whitehead 1985). Meanwhile, the taxonomic status of *Spratelloides atrofasciatus* Schultz 1943 has been confused. It has been considered as a junior synonym of *S. gracilis* (Whitehead 1985; Munroe *et al.* 1999; Eschmeyer & Fricke 2011). But some Japanese authors have treated *S. atrofasciatus* as a valid species (Nishijimamoto 1964; Uyeno & Sato 1984; Aonuma 2002).

While investigating round herring specimens collected from the Ryukyu Islands, the authors found a species of *Spratelloides* different from *S. gracilis* but identical to *Spratelloides atrofasciatus* in morphological characters. After comparisons with congeners, the authors herein redescribe *S. atrofasciatus* Schultz, 1943 as valid.