SPARUS AXILARIS PEREZ 1820, A SENIOR SYNONYM OF THE AXILLARY SEA BREAM
PAGELLUS ACARNE (RISSO 1827) INVALIDATED BY ‘REVERSAL OF PRECEDENCE’

by

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RESUMÉ. - Sparus axilaris Perez 1820, un synonyme plus ancien du pageot blanc Pagellus acarne (Risso 1827), invalidé par inversion de préséance.

Au cours d’une recherche bibliographique ichthyologique nous avons découvert que Sparus axilaris Perez, 1820, une espèce nominale oubliée après sa description, représente un synonyme plus ancien du pageot blanc Pagellus acarne (Risso, 1827). Toutefois, les conditions existent pour maintenir l’usage prédominant de ce dernier, comme le signale l’article 23.9.1 du Code international de Nomenclature zoologique (1999) : Pagellus acarne doit être considéré nomen protectum tandis que Sparus axilaris devient nomen oblitum.

Key words. - Sparidae - Pagellus acarne - Taxonomy - Nomen protectum - Nomen oblitum.

Many species of fishes (as well as other categories of creatures) have been named and described more than once. This is especially true for widely distributed species, commercially important species, or those that change markedly through ontogeny or differ between male and female. There are some 55,760 nominal species of fishes, but there are only about 28,000 valid species (Eschmeyer, 2003). In the last decades several long-forgotten names have been rediscovered by many authors (Whitehead, 1964, 1985; Daget, 1968; Weber, 1992; Gill and Randall, 1998; Randall and Parenti, 1999; Gill and Hutchins, 2002; Parenti, 2002a, 2002b; Böhle and Smith, 2002; Parenti and Pietsch, 2003; Campos-da-Paz, 2003). These names cause widely-used names to become junior synonyms, and, as a consequence, they introduce instability in zoological nomenclature. However, article 23.9.1 of the International Code of Zoological Nomenclature (1999) allows for the continuation of prevailing usage of a younger synonym by reversal of precedence in accordance with the purpose of the principle of priority. This implies that the older synonym, albeit invalid, is still available for use as valid name if further studies will show that, for example, the younger synonym is a species complex within which younger and senior are actually not conspecific. Here we show that the nominal species Sparus axilaris Perez, 1820 represents an older name for Pagellus acarne (Risso, 1827), a well known Mediterranean and Eastern Atlantic sea bream species. We propose that S. axilaris be invalidated by reversal of precedence, on the ground that decision to continue to use P. acarne is justified in the Code.

RESULTS AND DISCUSSION

The axillary seabream Pagellus acarne (Risso, 1827) is one of the 27 species of Sparidae currently recorded from the Mediterranean, including two immigrants from the Red Sea [Crenidens crenidens (Forsskål, 1775), Rhabdosargus haffara (Forsskål, 1775)] and two from tropical Atlantic [Diplodus bellottii (Steindachner, 1882) and Pagellus bellottii Steindachner, 1882] (Whitehead et al., 1986; Golani et al., 2002). It is an important commercial fish distributed also in the Eastern Atlantic (Fisher et al., 1987): common from Bay of Biscay to Senegal, the Azores, Madeira, the Canaries and the Cape Verde Island, it is rarely caught around the British Isles but has been recorded off Denmark.

In the Mediterranean basin it is less common in Adriatic and Eastern Mediterranean and absent in Black Sea. It is a demersal species, found in inshore waters on various bottoms, mainly sand, muddy-sand, the juveniles preferring Posidonia beds, down to 500 m, but more common between 40 and 100 m. Benthic invertebrates and fish larvae represent its main source of food.

The axillary seabream can be diagnosed as follows: body fusiform; upper profile of head depressed above eyes; inter-oral space flat; eye diameter shorter than snout length. Occipital scales extending forward to between the posterior margin and the middle of eye. D XII-XIII, 10-12; A III, 9-10; the last dorsal and anal ray stronger than the others. Gill rakers 13-16 lower, 9-12 upper. Lateral line scales 65-72 to caudal base. Body colour pinkish-grey; head darker, especially inter- orbital space; a dark-red spot at the upper pectoral axil overlapping the upper base; fins more or less light pinkish; sometimes paired fins with a darker margin; inside of mouth orange-red. It can reach 36 cm SL, usually 20-25 cm. Pagellus acarne is readily distinguished from its congeners by colour and, in particular, the presence of the axillary spot and absence of other stripes or spots.

The axillary seabream was recognized as distinct from other pagrids since Ronderel (1554: 151), who described it under the name acarne, taken from Plinius. Unfortunately, neither Artedi nor Linnaeus followed Ronderel in this decision, failing to mention this fish. As Mediterranean species it was included by Risso in his Ichthyologie de Nice (1810), but he misidentified the species as Sparus berda Forsskål 1775, an Indo-Pacific species. In the second edition of his natural history of Northern Mediterranean fishes, Risso (1827) realized his error and recognized the axillary seabream as distinct species, naming it Pagrus acarne. Cuvier (1830:193) first placed Pagrus acarne in the genus Pagellus, in which the species is currently classified (Reinboth 1961; Wheeler, 1969; Tortone, 1973). The distinctive color pattern of the species contributed to reduce the number of redescriptions and misidentification. Thus, Pagellus owenii Günther, 1859 represents the sole junior synonym.

During a survey of early nineteenth century ichthyological lit-
erate we discovered that the axillary seabream was actually described and illustrated five years before Risso by a Spanish medical doctor and surgeon, Leonardo Perez, who, noticing the distinctive axillary spot, named it Sparus axilaris (Perez 1820: 97, pl.). The article was published in a Spanish journal, Periódico de la Sociedad Médico-Quirúrgica de Cadiz, with the text in Spanish and the formal description of the new species in Latin. A complete translation is here reported. Sparus axilaris sp. n. [in a footnote the author explained that with these terms he indicates that the species was new to science], commonly known as Besugo [in a second footnote the author remembered that this is the name used in Andalusia]. Sparus axilaris: a black spot at the base of pectoral fin: body completely pale: caudal fin forked. P. 19 V. 1/5 A. 310 D. 11/12 C. 22 Br. 5. Head moderately large: eye black, iris silvery; two nostrils: opercle three-foiled, scaled; incisive teeth conical, molars teeth strong, in several rows; tongue free and naked. Body compressed, as pale as palm; all fins pale except the pectoral, bearing a black spot; lateral line close to the dorsal profile; vent median. Off Andalusia, abundant mainly off Cadiz: gregarious with other species of sea breams; feed on algae; tasty, white and wholly covered by well attached scales: for this reason has been captured by at least 10 authors during the past 50 years, and encompassing a wide geographic range, from the Mediterranean to the Atlantic. As evidence that the conditions of article 23.9.1.2 have been met, the following list of publications is included: Wheeler, 1969; Tortone, 1973; Nijsen and de Groot, 1974; Sola and Cautadella, 1978; Cano et al., 1981; Domanevskaya, 1982; Andaloro, 1983; Domanevskaya and Patokina, 1984; Kerrar, 1984; Kotlyar, 1984; Maigret and Ly, 1986; Bauchot and Hureau, 1990; Buxton and Garratt, 1990; Swaby and Potts, 1990; Robins et al., 1991; Tsimenides et al., 1991; Alegre et al., 1992; Pipitone and Andaloro, 1995; Arruda, 1997; Goncalves et al., 1997; Merella et al., 1997; Fricke, 1999; Demestre et al., 2000; Barreiros et al., 2002; Renones et al., 2002.

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REFERENCES


Figure 1. - Reproduction of the original illustration of Sparus axilaris Perez, 1820.


Sparus axilaris, an invalidated senior synonym of Pagellus acarne

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