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MULLUS ARGENTINAE, THE SURMULLET OF
SOUTHERN SOUTH AMERICA

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THE discovery of the fish genus *Mullus* in Mar del Plata was announced by Berg in 1895. Previously the genus was known only from the North Atlantic, where it represents the large family Mullidae. Berg and also Ribeiro identified the South American *Mullus* with a European species, but Thompson doubted the identification. On studying the problem we found, as might have been expected, that the South American species was distinct and unnamed. Our preliminary note, because it gives identifying literature references, serves to fix the name *Mullus argentinæ* on this species, which in the meantime has been more formally described as *Mullus americanus* by Devincenzi. *Mullus argentinæ* has brief though clear priority over *americanus*, for the publication in which it appeared is dated October 30, 1933, while *americanus* dates from December of the same year; furthermore, Devincenzi in a note, probably inserted in proof, refers to *Mullus argentinæ*.

We express our appreciation to the authorities of the United States National Museum and the Museum of Comparative Zoology for the privilege of reporting on their material of *Mullus*.

Mullus argentinae Hubbs and Marini

Mullus barbatus Berg (1895: 59); Marini (1929: 453).

?*Mullus barbatus* Thompson (1916: 408).

Mullus surmuletus Ribeiro (1915: 5).

Mullus argentinae Hubbs and Marini (Oct. 30, 1933: 347).

Mullus americanus Devincenzi (Dec. 1933: 5, fig.).

Holotype, a specimen 77 mm. long to caudal, collected at Necochea, Argentina, by Tomás L. Marini, February 1930: Cat. No. 95474, Museum of Zoology, University of Michigan. A paratype, 108 mm. long, from Maldonado, Uruguay, collected long ago by T. G. Carey, was found in the Museum of Comparative Zoology. Two other paratypes, 47 and 65 mm. long, from Albatross Station 2765, just south of Rio de la Plata, at a depth of 10.5 fathoms, are in the National Museum (No. 77379); these are the specimens reported by Thompson.

Lacking comparable material when first studying the type specimen, we could then only suspect, as did Thompson, that the South American species is distinct from those of the North Atlantic. Dr. J. R. Norman of the British Museum, who was kind enough to examine the specimen for us, replied that after comparing it with the British Museum material he "felt certain that this represents a new species, related to the European *Mullus barbatus* (?=*surmuletus*), differing mainly in the form of the snout, larger scales, coloration, etc." Recently we have compared the Argentine species with series of *Mullus* "*surmuletus*" and *M.* "*barbatus*" in the Museum of Comparative Zoology. The South American species differs from the European, whether or not the European surmulletts belong to one or two or three species. The more declivous snout gives the fish a very different appearance. The difference in scale size apparently does not hold, for European specimens examined, including one of *Mullus surmuletus* from Crete, kindly given us by Dr. Norman, have only 33 to 35 scales in lateral line (to end of vertebrae), not more than 40 as given by Günther (1859: 401) and many other authors. The large black blotch near tip of first dorsal appears to be a valuable specific character of *argentinae*, and has been men-

tioned by authors who have recorded the species under the name of *barbatus* or *surmuletus*. The banded second dorsal and caudal also seem to distinguish *argentinae* from the European species.

Devincenzi's comparison of the South American and European species was as follows:

El *Barbo americano* se distingue especialmente de los europeos por tre caracteres principales:

1. ° - El tamaño mayor de las escamas, finamente ctenoides y con su borde adherente dotado de 6-7 espinas en las escamas centrolaterales (las de *M. surmuletus* 8-9). Por esta razón encontramos 33-34 escamas en la línea lateral, mientras que en los europeos se encuentran 40; y 2-I-8 en la serie transversa.

2. ° - La uniformidad de coloración en el flanco, desprovisto de estriás o líneas amarillentas del *surmuletus*.

3. ° - La presencia de bandas transversales, en número y dirección perfectamente definidos, sobre el fondo amarillento de las aletas dorsales, caudal y anal.

Mullus argentinae differs from *Mullus auratus* Jordan and Gilbert,¹ from the East coast of North America, in several characters:

	<i>M. auratus</i>	<i>M. argentinae</i>
Depth of body	3.55 - 4.0	3.3 - 3.5
Profile	evenly sloping	abruptly decurved
Pectoral fin (in head)	1.35 - 1.5	1.2
First dorsal near tip	dusky	jet black

In most of these respects *auratus* appears to agree with the European species. The scales are described as being in about 40 rows in *auratus*, but the type as well as better-preserved specimens from Woods Hole, Massachusetts, and Sandy Hook, New Jersey, show only 33 or 34 rows, as in the other species. The specimens from Woods Hole show two or three dusky

¹ *Mullus barbatus auratus* Jordan and Gilbert (1882: 280); *Mullus auratus* Jordan and Evermann (1896: 856; 1900, pl. 132, fig. 360); *Mullus auratus* Bean (1898: 49).

streaks or bands across first dorsal, three or four across the second dorsal, and about four across each caudal lobe.

DESCRIPTION.—The body is rather deep, almost twice as deep as wide; greatest depth 3.5 (3.4)² in standard length. The profile is gradually arched downward before dorsal fin, becoming abruptly declivous on the snout. Head 3.4 (3.3); bony interorbital width 3.7 (4.1); greatest width of preorbital 3.3 (3.2); orbit 3.4 (3.8); postorbital 2.3 (2.25); snout 2.5 (2.6). The upper jaw reaches to vertically below front of orbit (or below midpoint between front of orbit and front of pupil), and enters the head about 2.8 (2.8) times. The upper jaw is edentulous, while medium-sized, more or less deciduous, round-tipped teeth line the lower jaw in one series, with a few smaller teeth forming an incipient second row; on the palate is a pair of large patches of submolar teeth. This dentition does not correspond with the conventional description for *Mullus* ("villiform teeth on the lower jaw and palatines"), but agrees with that shown by the European and North American examples at hand. Gill rakers 7 + 14 (6 + 12) on first arch; longest 2.8 (2.7) in orbit.

Dorsal VII—I, 8; anal II, 6; pectoral 16. The first dorsal spine is slightly lower than the second, which enters the head 1.6 (1.6) times; height of second dorsal 1.7 (—); length of lower caudal lobe 1.15 (—); second anal spine 2.5 (2.55); first anal soft ray 1.9 (2.05); pectoral fin 1.2 (1.2); pelvic 1.35 (—).

Scales 3—34—7 (3—35—7). The lateral line tubes on the trunk scales give off about six short branches, which cover the median third (or half) of the height of the scale.

The color was reddish in life, as described by Berg. The first dorsal bears a large blotch or band of jet black near tip, margined at extreme edge of fin by white, also a median and a basal dusky band. The second dorsal shows three longitudinal bands and each caudal lobe three transverse dusky bands. The other fins are only slightly dusky, without bands.

² Measurements and counts of the paratype from Maldonado are given in parenthesis.

The species only occasionally appears in the catch of the Argentine fishermen, during the summer months (January and February).

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