

# B O C A G I A N A

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### PAROPHIDION VASSALI (RISSO, 1810) (PISCES : OPHIDIIFORMES) A SPECIES NEW TO THE ATLANTIC OCEAN (1)

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With 1 table

**ABSTRACT.** *Parophidion vassali* considered endemic to the Mediterranean is recorded for the first time from the Atlantic Ocean : three specimens from Madeira belong to this species.

**RESUMO.** *Parophidion vassali*, considerado endêmico do Mar Mediterrâneo, é assinalado pela primeira vez para o Oceano Atlântico. Três espécimes da Madeira pertencem a esta espécie.

During a period spent at the Museu Municipal do Funchal one of us (J. M.) had the opportunity to study three Ophidiids catalogued under *Ophidion barbatum* which, however, were found not to belong to that species. On examining them later in greater detail all three turned out to belong to *Parophidion vassali*, a species believed to be endemic to the Mediterranean (Tortonese, 1954 ; Nielsen, 1984 ; Fisher, *et al.*, 1987).

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The three specimens studied were derived from stomach contents of fishes caught in Madeiran waters to be sold in the Funchal fish-market : catalogued under MMF 3060 (from stomach of *Beryx* sp.) ; MMF 2020 (from stomach of *Polyprion americanus*) ; MMF 3563 (partly digested. Species of fish from stomach of which taken not known). Only specimen 3060 is in a condition good enough to obtain certain meristic and morphometric data (see table 1) ; in the other two this was not possible, but there is no doubt that they also belong to *P. vassali*.

	<i>P. vassali</i>	MMF 3060	<i>P. schmidt</i>
Dorsal rays	127-135	134	118-120
Anal rays	100-110	117	101-109
Pectoral rays	16-17	18	17-20
Gill rakers	2+4	2+4+1	2+4
SL / maximum height	7.2-9.6	9.6	8.3-10.6
SL / preanal length	2.6-2.8	2.6	2.5-3.1
SL / head length	6.3-6.8	6.4	5.5-6.2
HL / eye	3.8-5.0	4.2	4.0-4.5
HL / snout	6.6-7.5	7.5	4.1-5.2
HL / interorbital	5.7-7.5	7.5	5.2-7.6

Table 1. — Meristic and morphometric characters of *P. vassali*, *P. schmidt* and MMF 3060.

The fact that, as mentioned above, *P. vassali* had been taken for a species endemic to the Mediterranean and the fact that another species of the same genus, *S. schmidt*, exists in the tropical northwest Atlantic (Woods & Kanazawa, 1951 ; Robins & Böhlke, 1959 ; Böhlke & Robins, 1959 ; Cohen & Nielsen, 1978) made us assume that the Madeiran specimens could belong to this latter species. However, reading through descriptions of both species with great care confirmed that the present specimens belong to *P. vassali*, the only disagreeing character being the existence of a supplementary rudimentary gill raker in the lower part of the first gill arch of specimen 3060 but absent in the other two specimens. Fundamentally *P. vassali* differs from *P. schmidt* by the distinct configuration of the upper lip, the upper nostril and the subnasal folds as well as by the larger size of the vomerine teeth in *P. vassali*. Meristic and morphometric characters (Table 1) are very similar in both species as is the case in other congeneric Ophidiids. The differences in our case are based

on the smaller number of dorsal rays in *P. schmidt* and, regarding the head, in the snout being proportionally smaller in *P. vassali*.

The habitat of both species is also distinct, *P. schmidt* being taken in less than 5.5 m depth in waters between temperatures of 73° and 88° F (22.7- 31.1° C) (Böhlke & Robins, 1959) whereas *P. vassali* inhabits the deeper parts of the shelf of the Mediterranean (Tortonese, 1954) where the temperature is about 13° C (Nielsen, 1912). One of the Madeiran specimens was taken from the stomach of a *Beryx* sp. and, according to Maul (1984), the two species of the genus *Beryx* in Madeira, *B. splendens* and *B. decadactylus* are taken in 400-600m depth. The other specimen examined came from the stomach of a specimen of *Polyprion americanus*, a species which according to Tortonese (1984) lives mainly in depths of 100-200 m. In Madeiran waters down to 400 m (Biscoito, pers. comm.). If we further take into account the fact that Furnestin (1959) mentions a temperature of 15-16° C in 100-400 m depth for the Atlantic Moroccan coast, we can conclude that the meristic, morphometric and anatomical characters mentioned above, as well as those of the locality of capture of the Madeiran specimens are in complete agreement with those known of *P. vassali*.

The presence of *P. vassali* had never been recorded from the Atlantic Ocean. However, the sketch of a fish attributed to *Ophidion barbatum* by Cadenat (1950) in which the maxillaries and the pelvic fins seem to be those of a *Parophidion* sp. is puzzling. It is true that *P. vassali* appears in a listing of species of the Saharan coasts carried out by Spanish fisheries biologists (Bas *et al.*, 1976) but as no reference collection exists and as we are dealing with a species of no commercial importance this citation has to be taken with a certain amount of reserve.

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**ADDENDUM.** During a reorganisation of the fish collection of the Museu Municipal do Funchal, 4 specimens of *P. vassali* were found : 3 from Madeira (MMF 1509, Funchal fish market 5.11.90 ; MMF 24584 (2), Discovery St. 4741, 19.9.61 ; MMF 24585, Discovery St. 4743, 20.9.61) and 1 from the Canary Islands (MMF 24586, St. 4758, 30.9.61) (Biscoito, *in litt.*). It is very likely that *P. vassali* occurs off the West African coast, north of 10°N.

Location of the Discovery Stations :

St. 4741, 19.9.61, 32° 22' N, 16° 57.5' W to 32° 31.5' N, 16° 47.5' W.

St. 4743, 20.9.61, 32° 34.5' N, 16° 45' W to 32° 28' N, 16° 54' W.

St. 4758, 30.9.61, 28° 01' N, 16° 46' W to 28° 12' N, 16° 56' W.