

FIRST RECORD OF THE GALAPAGOS SHARK
***CARCHARHINUS GALAPAGENSIS* (SNODGRASS & HELLER, 1905)**
(CARCHARINIDAE) ON THE AZORES

By JOÃO MANUEL MEDEIROS BRUM¹ & JOSÉ MANUEL N. AZEVEDO¹

With 1 figure and 1 table

ABSTRACT. The presence of *Carcharhinus galapagensis* (SNODGRASS & HELLER, 1905) in the Azores is documented, based on four juveniles caught near the Formigas islets. The meristics of those specimens are given and compared with bibliographic data. Notes on the behaviour and feeding of this species are also presented.

The Formigas islets are a stretch of rocks about 165 m long and 80 m wide and rising merely 11 m above mean low water, located between the islands of São Miguel and Santa Maria (37°15' N, 24°45' W). These rocks are prominences of the Formigas Bank, an 100 m depth platform topping a submarine mount which raises from the sea floor at 1500 m depth (Fig.1).

During a scientific expedition to the Formigas islets, in July 1991, four juvenile *Carcharhinus* were captured by means of spearfishing. A total of seven sharks were sighted nearshore on different occasions, swimming in the water column at depths between 5 and 30 m, isolated or in groups of two. Numerous dives were made during the expedition, but sightings occurred only when divers were collecting fish with the spear or with rotenone. Presumably, those actions attracted the sharks.

Due to the small size of the specimens captured, external characters did not allow a clear distinction between *Carcharhinus obscurus* and *C. galapagensis*. The surest determination of these two species is based on the number of vertebrae (GARRICK, 1982): 86-97 precaudal vertebrae in the former and 103-109 in the latter. Counts of precaudal vertebrae on our specimens, as seen in X-ray pictures, gave numbers between 103-107, indicating that they could surely be identified as *C. galapagensis*. Up to this date, two species of the shark family Carcharhinidae were recorded for the Azores: *Prionace glauca* (SAMPAIO, 1904; ROULE, 1919; FOWLER, 1936; FERREIRA, 1939) and *Carcharhinus longimanus*

¹ Departamento de Biologia, Universidade dos Açores. R. Mãe de Deus, 9502 Ponta Delgada codex, Açores, Portugal

(FERREIRA, 1939; AMARAL, 1981; HOUSBY, 1988). This is therefore the first record of *Carcharhinus galapagensis* for the area. Vertebrae counts and body proportions are given in Table 1.

The presence of this species at the Formigas Bank agrees with the reports made by several authors (see GARRICK, 1982 and references therein) that this species occurs mainly near oceanic islands. The fact that no adults were sighted also lends support to the observation by COMPAGNO (1984) that juveniles use shallow water (less than 25 m) as nursery grounds, while the adults range offshore.

Galapagos sharks are viviparous, with a yolk-sac placenta. Total length at birth is between 57 to 80 cm (GARRICK, 1982; COMPAGNO, 1984). All our specimens (total lengths between 86.5 and 99 cm) had a visible umbilical scar, indicating that they were very young. Color in life was similar to that described by KATO (1964). This species is reported to eat a variety of bottom-dwelling bony fishes, rays and molluscs (COMPAGNO, 1984). The stomach of two of our specimens contained unidentified remains of bony fishes.

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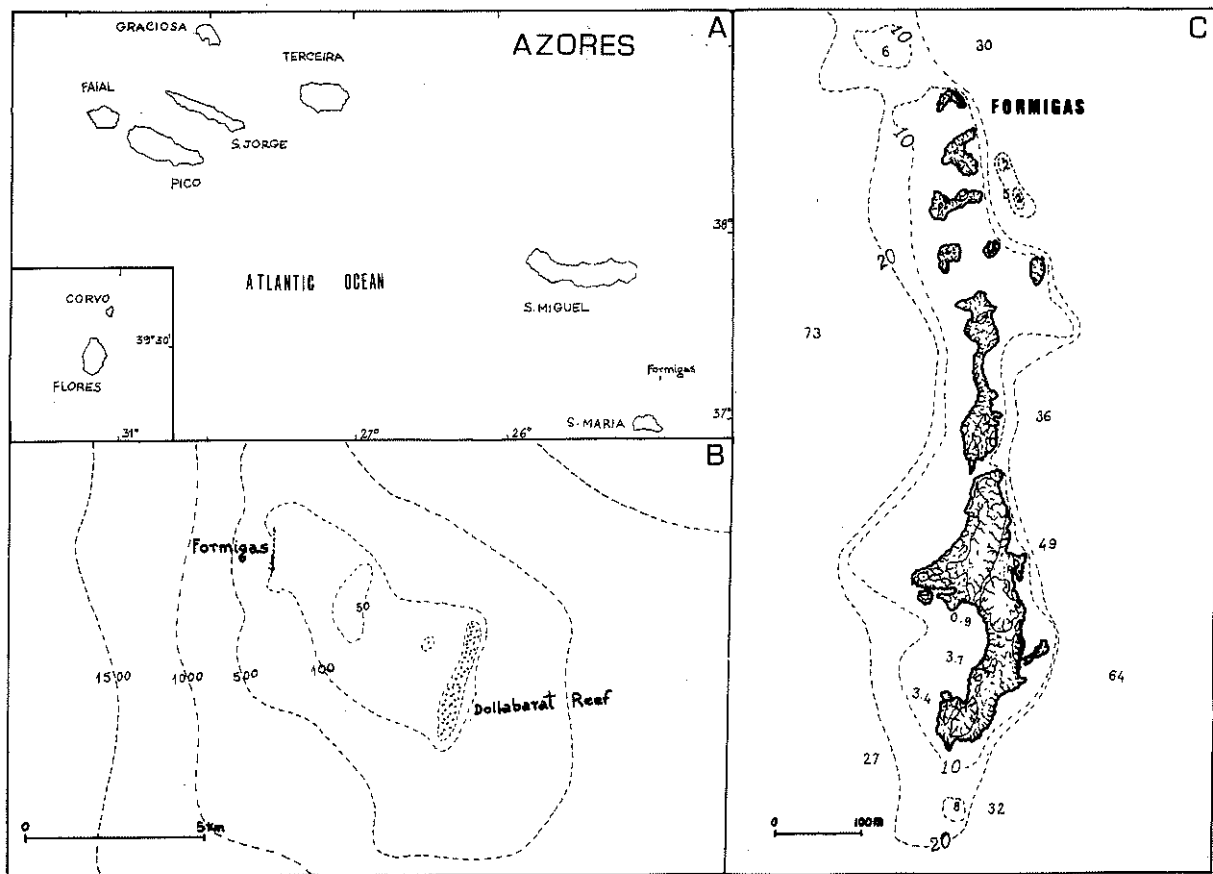


Figure 1 - Location of capture of *Carcharhinus galapagensis*: the Azores (A), the Formigas Bank (B) and the Formigas islets (C).

TABLE 1 - Meristics of *Carcharhinus galapagensis* from the Azores and elsewhere (from GARRICK, 1982). Proportional dimensions in percentage of total length.

	1	2	3	4	
Sex:	Female	Male	Female	Female	
Total length (cm):	89	99	86.5	97.5	
Weight (Kg):	6	5.2	4	5.8	
					Garrick (1982)
Precaudal length	80.3	72.2	72.8	72.3	71.8 - 74.9
Pre-second dorsal length	69.7	62.1	63.6	62.6	61.3 - 63.8
Pre-first dorsal length	36.0	31.3	31.8	31.8	29.7 - 32.3
Dorsal caudal margin	28.7	28.8	26.6	27.7	26.1 - 28.3
Preventral caudal margin	14.6	13.1	12.7	13.8	12.5 - 14.8
Preorbital length	8.4	8.1	6.9	6.9	5.7 - 8
Pectoral anterior margin	21.3	17.8	17.9	17.8	17.6 - 22.9
Pectoral posterior margin	18.0	15.2	14.5	15.4	
Pelvic anterior margin	6.7	7.6	5.8	7.2	5.2 - 6.4
Snout-vent length	57.9	49.0	53.8	45.1	48.4 - 50.4
Preanal length	73.0	61.6	64.7	60.0	60.4 - 63.6
Internareal space	7.3	8.4	6.4	6.5	6 - 6.7
Prenareal length	3.9	4.0	3.5	3.5	2.5 - 3.7
Preoral length	7.9	7.8	6.4	7.5	6 - 8.2
Mouth width	11.2	9.1	8.7	10.3	8.2 - 9.2
Mouth length	6.7	4.5	5.8	4.6	4 - 5.3
Eye length	2.0	2.0	2.0	1.6	1.3 - 2.4
First dorsal length	14.0	12.6	12.4	12.6	
First dorsal height	12.4	10.1	8.1	11.4	9.5 - 11.2
First dorsal base	10.1	8.8	9.2	8.4	8.9 - 10
First dorsal inner margin	3.9	3.7	3.1	3.6	3.5 - 4.3
Precaudal vertebrae	107	103	106	105	103 - 109