

BOCAGIANA

Museu Municipal do Funchal (História Natural)

Madeira

31.XII.2006

No. 218

**FIRST RECORD OF SERGEANT MAJOR *ABUDEFDUF SAXATILIS*
(LINNAEUS, 1758) (PISCES: POMACENTRIDAE),
FROM THE ISLAND OF MADEIRA (NE ATLANTIC OCEAN) ***

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With 2 figures and 1 table

ABSTRACT. *Abudefduf saxatilis* (Linnaeus, 1758) (Pisces: Pomacentridae), a tropical species is recorded for the first time from the island of Madeira (NE Atlantic Ocean). Data on the biometry and meristics are given. The occurrence of this species in Madeira Island not only extends the area of distribution of this species, but also represents the northernmost presence ever reported to the Eastern Atlantic Ocean.

KEY WORDS: Pomacentridae, *Abudefduf saxatilis*, NE Atlantic, first record.

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RESUMO. Descreve-se pela primeira vez a ocorrência de uma espécie típica de mares tropicais, a castanheta *Abudefduf saxatilis* (Linnaeus, 1758) para a Ilha da Madeira. São fornecidos dados merísticos e biométricos. Este registo aumenta a área de distribuição desta espécie, constituindo o assinalamento mais a Norte no Oceano Atlântico oriental.

INTRODUCTION

The genus *Abudefduf* Forsskäl, 1775 has 18 species (NELSON, 1994), but only 4 have been recorded from the Eastern Atlantic Ocean: *Abudefduf taurus* (Müller & Troschel, 1848), *Abudefduf hoefleri* (Steindachner, 1881), *Abudefduf luridus* (Cuvier, 1830) and *Abudefduf saxatilis* (Linnaeus, 1758) (EDWARDS, *in prep.*). In the island of Madeira, only *Abudefduf luridus* (Cuvier, 1830) was known until now.

In June 2004, a specimen of *Abudefduf saxatilis* (Linnaeus, 1758) was caught and deposited in the collections of the Museu Municipal do Funchal (História Natural) (MMF). This species is considered a warm water species distributed through tropical and subtropical areas of the world (ALLEN, 1975, 1991). Distribution in Atlantic Ocean: Bermuda, Rhode Island to Uruguay including the Gulf of Mexico, Bahamas, Antilles and abundant on Caribbean reefs (western Atlantic) (ALLEN, 1975, 1991); also occurs around islands of the mid-Atlantic, Cape Verde Islands and along the tropical coast of western Africa south to Angola (ALLEN, 1991; SMITH-VANIZ *et al.*, 1999). Recently it has been recorded from the Canary Islands (BRITO, 1991) where it seems very rare, with only two specimens caught (BRITO *et al.*, 2002).

Abudefduf saxatilis is a littoral species, living in shallow water over a wide variety of habitats (sandy and rocky bottoms, coral reefs, tide pools, etc.) (LLORIS & RUCABADO, 1990). It is a species that usually inhabits the upper edge of reef slopes in one to about 12 meters depth (ALLEN, 1975). Most commonly is silver grey below, bright yellow above, with five dark brown to black bars nearly across body and attains a maximum size to about 150 mm SL (ALLEN, 1991).

MATERIAL AND METHODS

The present specimen of *A. saxatilis* (Fig. 1A) was caught on 16 June 2004 in front of the Marine Biology Station of Funchal, in the south coast of Madeira Island (Fig. 1B) at about 5 m depth.

Finray counts were made on an x-ray of specimen. Measurements were made to 0.1 mm. The specimen was preserved in formalin and was registered with no. MMF 35667 and deposited in the collections of the Museu Municipal do Funchal (História Natural).

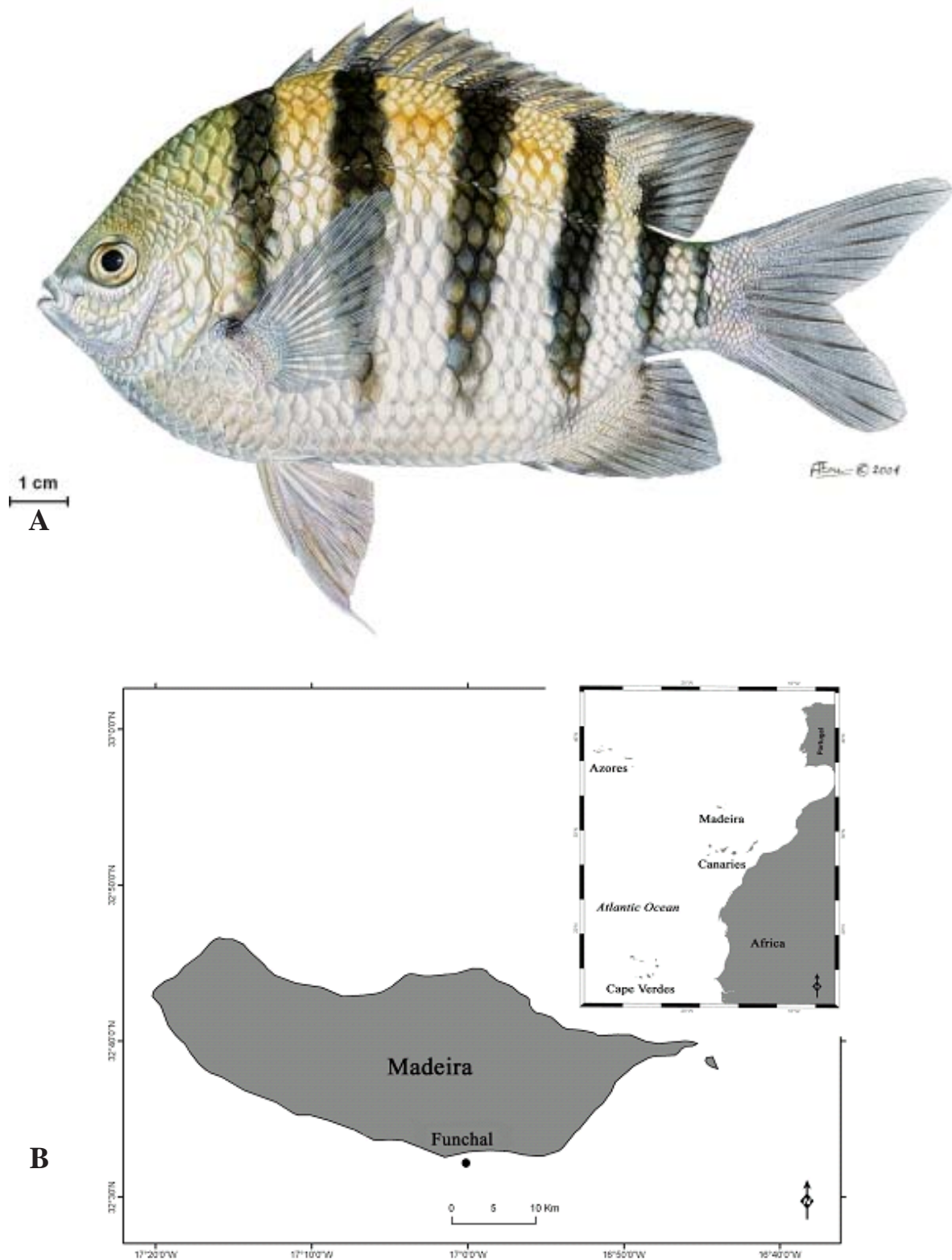


Fig. 1 - (A) *Abudedefduf saxatilis* (MMF 35667); (B) Location where the specimen was caught.

TABLE 1 - Counts and measurements (mm) and body proportions of *Abudefduf saxatilis* (MMF 35667).

Total length (mm)	162
Standard length (mm)	124
Head length (% SL)	29,5
Snout length (% HL)	68,3
Eye diameter (% HL)	53,0
Distance between eyes (% HL)	52,5
Predorsal distance (% SL)	41,0
Preanal distance (% SL)	75,0
Dorsal fin length (% SL)	59,9
Pectoral fin length (% SL)	10,1
Length of second anal spine (% SL)	14,1
Dorsal fin rays	XIII+13
Anal fin rays	II+12
Pectoral fin rays	19
Vertebrae	13+14

RESULTS AND DISCUSSION

Morphometric and meristic data are given in Table 1 of the specimen from Madeira. Counts agree with ALLEN (1975, 1991), SMITH-VANIZ *et al.* (1999) and EDWARDS (*in prep.*).

Over the last ten years several tropical fishes were reported for the first time for this area: *Dentex gibbosus* (Rafinesque, 1810) (WIRTZ, 1994), *Sphyraena barracuda* (Walbaum, 1792) and *Vanneaugobius canariensis* Van Tassell, Miller & Brito, 1988 (WIRTZ, 1998), *Canthidermis sufflamen* (Mitchill, 1815) and *Scartella cristata* (Linnaeus, 1758) (FALCÓN *et al.*, 2001), *Gnatholepis thompsoni* Jordan, 1904 (ARAÚJO & FREITAS, 2002) and *Aluterus scriptus* (Osbeck, 1765) (FREITAS & BISCOITO, 2002). All these records not only enlarged the distribution area known for these species, but also represent their northernmost presence in the Eastern Atlantic Ocean. Probably the cause of these new records from to Madeira Island could be the global phenomenon of seawater warming, as referred by several authors (BIANCHI *et al.*, 1998; WIRTZ, 1998). The arrival of a tropical species like *Abudefduf saxatilis* in Madeira, can contribute as an additional indicator of climatic change.

ACKNOWLEDGEMENTS

The authors thank to Gilberto Sousa for collecting the specimens and to Prof. Armando Almeida in helping with bibliography and radiography. The authors are particularly indebted to Helena Encarnação for the drawing of *Abudefduf saxatilis* and to Manuel Biscoito for revising the English and comments during the preparation of this paper.

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