

Running head: Old bigeye thresher specimens from the Aegean Sea

On two old specimens of *Alopias superciliosus* (Lowe, 1839) (Chondrichthyes: Alopiidae)

from the Aegean waters

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Abstract

*Two preserved specimens of *Alopias superciliosus* are conserved in the small collection of the Hydrobiological Station of Rhodes. Being caught in the Dodecanese waters (south-eastern Aegean Sea, eastern Mediterranean) during the fifties, they probably represent the oldest samples of the bigeye thresher shark captured in the Mediterranean waters.*

Keywords: *Alopias superciliosus*, eastern Mediterranean, Aegean Sea.

INTRODUCTION

The bigeye thresher *Alopias superciliosus* (Lowe, 1839) is a pelagic subtropical species with a circumtropical distribution (Froese & Pauly, 2008), listed among the Mediterranean ichthyofauna (Quignard & Tomasini, 2000). Its occurrence in the Mediterranean was unknown until the beginning of the eighties (Hureau & Monod, 1973; Quéro, 1984), while successively it has been reported from the western part of this basin (Compagno, 1984, 2002; Bauchot, 1987; Notarbartolo di Sciara & Bianchi, 1998; Serena, 2005). More recently it has been listed also among the fishes of the eastern Mediterranean

(Golani *et al.*, 2006), where it has been recorded for the first time from the Israel waters (Golani, 1996, 2004). The first occurrence of the bigeye thresher in the Aegean waters has been mentioned by Megalofonou *et al.* (2005), after surveys carried out along 1998-2001. Successively, the species has been recorded from Gökova Bay (southeastern Aegean Sea) and northern Sea of Marmara (Kabasakal & Karhan, 2007).

Since the fifties, two specimens of *Alopias superciliosus* captured in the Dodecanese waters (southeastern Aegean Sea, eastern Mediterranean) are deposited at the collection of the Hydrobiological Station of Rhodes (HSR) of the Hellenic Center for Marine Research and one is still exhibited to the public. More information on these interesting old samples, already listed in Corsini-Foka (2008), is here reported, because they probably represent, on the base of available data, the first record of the species for the whole Mediterranean Sea.

REMARKS

The two embalmed specimens of *Alopias superciliosus* are males of total length of 450 cm (specimen A) and 310 cm (specimen B) approximately (Table 1). The characteristic deep horizontal groove on each side of nape, the eyes very large with orbit expanded onto dorsal surface of head and the position of the first dorsal fin base, closer to pelvic bases than pectoral bases are easily distinguishable on the preserved specimens (Fig. 1, 2), according to species identification keys of Compagno (1984), Quéro (1984) and Bauchot (1987) (see also Tortonese, 1937-38). In specimen A, 16 rows of teeth in the upper jaw and 19 in the lower are visible, while in specimen B they are 24 and 22 respectively. After examination of the HSR documentation, the only captures of *Alopias* specimens reported in the archive result to go back to the fifties: one specimen was caught in the area of Leros Island on 6 August 1952 and other three in the area of Archangelos, eastern coast of Rhodes Island, on 7 July 1954. In the past, the two sharks were erroneously identified as *Alopias vulpinus* (*Alopias vulpes*), commonly

named “alòpekes” (αλώπεκες) and exhibited as “sharks” (καρχαρίες). No data on method, depth of capture and also description of fresh specimens are available, but the two specimens were exhibited in the small HSR museum, during the fifties (Fig. 3 a, b). Consequently, the specimens conserved until today are two of the above mentioned samples, captured more than fifty years ago in the Dodecanese waters.

CONCLUSIONS

According to the updated records listed in Clo' *et al.* (2008), the first occurrence of *Alopias superciliosus* for the Mediterranean was reported by Gruber & Compagno (1981) from the Ionian Sea. As mentioned above, the two old embalmed specimens of the bigeye thresher described here from the Dodecanese waters were misidentified with *Alopias vulpinus* for a long time. The related old archive and photographic documentation testify that *A. superciliosus* occurred in the SE Aegean Sea since the 1950' decade, taking back of about thirty years the first record on its occurrence in the whole Mediterranean Sea, on the base of actual knowledge.

The species *Alopias superciliosus* has been listed among the non-indigenous questionable fishes in the Mediterranean (Zenetos *et al.*, 2005), due to insufficient data and uncertain origin (Saad *et al.*, 2005) and a probable introduction via the Gibraltar Strait requires verification (Zenetos *et al.*, 2008).

Last reviews of available data and recent captures in the central and eastern Mediterranean Sea (Kabasakal & Karhan, 2007; Clo' *et al.*, 2008), combined with the present note, may add further support to the statement that the bigeye thresher shark is a probably uncommon or rarely captured and reported inhabitant of the Mediterranean, as assessed by Cavanagh & Gibson (2007).

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Table 1. Approximate morphometric measurements (cm) of the two embalmed *Alopias superciliosus* male specimens from the SE Aegean Sea.

	A	B
Total length	450	310
First dorsal fin length	38	27
First dorsal fin base length	31	21
Pectoral fin length	78	62
Pectoral fin base length	28	21
Ventral fin length	37	26
Ventral fin base length	27	21
Distance between dorsal fin origin and ventral fin origin	35	23
Distance between pectoral fin origin and ventral fin origin	104	77
Predorsal length	125	94
Preventral length	160	118
Prepectoral length	50	45
Tail length	210	143



Fig. 1. Two preserved males of *Alopias superciliosus* (specimen A above, specimen B below) at the Hydrobiological Station of Rhodes collection. (Photo: HSR archive, 1992)



Fig. 2. The largest *Alopias superciliosus* (specimen A) in the today collection of the Hydrobiological Station of Rhodes. (Photo: A. Sioulas)



a



b

Fig. 3 a, b. *Alopias superciliosus* at the Hydrobiological Station of Rhodes collection during the fifties (specimen A: above, specimen B: below) (Photos: A. Pachos)