

## Occurrence of the Thresher *Alopias vulpinus* (Bonnaterre, 1788) from the Northeastern Mediterranean coast of Turkey

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**Abstract.** A single male thresher, *Alopias vulpinus* (Bonnaterre, 1788), measuring 392 cm length and about weighing 180 kg was accidentally captured by purse seine in Iskenderun Bay (Cevlik coast) on 29 April 2014 at a depth of 33 m. To date *A. vulpinus* is not reported from the Iskenderun Bay (NE Mediterranean, Turkey). The present paper reports the first occurrence of *A. vulpinus* from the northeastern Mediterranean coast of Turkey.

**Key words:** Alopiidae, *Alopias vulpinus*, Iskenderun Bay, Northeastern Mediterranean, Turkey.

The family Alopiidae is represented by three species and known as “Thresher sharks” in the world. Thresher sharks are easily recognized by their enormously long caudal fins, comprising half of the total body length. There are three thresher sharks species in the world, namely as; thresher, *Alopias vulpinus* (Bonnaterre, 1788), bigeye thresher, *Alopias superciliosus* (Lowe, 1840), and pelagic thresher, *Alopias pelagicus* Nakamura, 1935, (Fisher et al. 1987).

Thresher sharks are distributed circumglobally in the Atlantic, Pacific, Mediterranean and Indian Oceans (Last & Stevens 1994). *A. vulpinus* is one of two sharks in the family Alopiidae in the Turkish waters. *A. vulpinus* can be distinguished from other species of *A. superciliosus* by its broad head, but without deep grooves extending along each side of head and no horizontal groove and eyes, relatively small (Compagno 2002).

Thresher sharks are particularly vulnerable to population declined due to fishing pressure in the Mediterranean (Goldman et al. 2007). Although, thresher sharks are known to be incidentally captured by coastal nets from different localities (Marmara Sea, Aegean Sea, west Mediterranean) in the Turkish coastal waters (Kabasakal & Kabasakal 2004, Kabasakal 2007). Up to date *A. vulpinus* is not reported from the Iskenderun Bay (NE Mediterranean, Turkey). The present study reports first observation of *A. vulpinus*, captured from the northeastern Mediterranean coast of Turkey.

On 29 April 2014, a 395 cm TL and about 180 kg total weight male specimen of *A. vulpinus* was accidentally caught in the daytime by commercial fishermen with a purse seine boat from 33 m depth off the Cevlik coast of Iskenderun Bay (36°07'42.67" N, 35°52'39.13" E). The specimen was identified as *A. vulpinus* (Fig. 1 and 2). Morphometric measurements and photographs were taken in the fish market. All measurements, diagnostic characteristics and colour pattern agree with the descriptions of Compagno (1984) and Compagno (2002).

**Description of *Alopias vulpinus*.** Body moderately stout and cylindrical. Snout short and pointed with no grooves on nape on each side above gill slits. Eyes rather small, orbits not expanded onto dorsal surface of head. Mouth rather small with teeth in about 32 to 52 rows in upper and 25 to 51 lower jaws. Tips of first dorsal fin, pectoral fin and pelvic fin pointed. Pectoral fins long and sickle shaped. Long curving dorsal lobe of caudal fin about as long as rest of shark. Terminal caudal lobe of caudal fin rather large. Body almost



**Figure 1.** *Alopias vulpinus* (Bonnaterre, 1788) photographed in the fish market [Photo: Deniz Erguden]



**Figure 2.** Head of *Alopias vulpinus* photographed in the fish market [Photo: Deniz Erguden]

uniformly silvery to bluish grey or dark grey with abdomen slightly whitish. The detailed morphometric measurements was given in Table 1.

*A. vulpinus* occurs in all temperate and tropical seas, from the coast to the open ocean (Last & Stevens 2009). It is a pelagic species, inhabiting mainly oceanic waters but they wander close to the coast in search of food. They feed on pelagic fishes, pelagic crustaceans and rarely sea birds (Compagno, 1984). Although they are usually found at surface, but they have been taken down to nearly 400 m deep. The young specimens may be found in shallow waters, whereas adults are generally common over the continental shelf (Compagno et al. 1989).

**Table 1.** Morphometric measurements (in cm) of *Alopias vulpinus* captured from northeastern mediterranean coast of Turkey

Morphometric	Measurement
Total length	395
Fork length	203
Caudal fin length	195
Snout length	17
Head length	46.1
Mouth width	14
Eye diameter	6
Pre orbital length	10.8
Pre first dorsal length	90.4
Pre second dorsal length	163.1
Pre pectoral length	53.7
Pre anal length	168.5
Clasper length	8.1

*A. vulpinus* is normally found to be approximately 450 m in length, although large ones can grow to 760 cm TL male and 549 cm TL female (Cervigon et al. 1992, Hart 1973). Average weight for these fish is close to 112, 5 kg with the maximum weighing in at 348 kg (IGFA 2001). *A. vulpinus* is presumed to live at least 25 years or more (Smith et al. 2008).

According to De Metrio et al. (2000) and Orsi Relini et al. (1999), *A. vulpinus* is an important economic species in many areas, it has been taken in large numbers as a targeted species, that makes part of the commercial fraction of the bycatch in the Mediterranean. Fishing mortality in commercial target and bycatch fisheries is the main cause of the decline of thresher sharks. This is especially emphasized with the species' life history traits of slow growing and low productivity (Walker 1998, Dulvy et al. 2008). Therefore, they are currently being exploited by the commercial and sport fishing industry and have been classified as "Vulnerable" by the International Union for Conservation of Nature (IUCN) since 2007 (IUCN 2014).

Cartamil et al. (2010) suggests that *A. vulpinus* is primarily a daytime predator, which prefers deep offshore water and avoids shallower waters over the continental shelf. However, numerous factors may be influence shark's distribution and migration, e.g. distribution of food organism, depth, water, temperature rise, salinity, limited nutrient availability, altered current flows and bottom topography (Campana & Joyce 2004, Sims et al. 2005, Hulbert et al. 2006, Garla et al. 2006, Cao et al. 2011).

According to Kabasakal (1998) *A. vulpinus* one of the most common incidentally captured sharks in pelagic fishery operated in Turkish coastal waters. *A. vulpinus* is commonly feed on pelagic fishes (mackerels, bluefish, clupeids etc) and squid. Therefore the occurrence of *A. vulpinus* in the Mediterranean waters is most probably for feeding.

Consequently, *A. vulpinus*, was incidentally captured by local fishermen from Iskenderun coast that is first report on the occurrence and the effect of coastal fishery on sharks should be regularly monitored.

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