

Thresher Shark

(*Alopias vulpinus*)

in Irish Waters

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Threshers belong to a small family of sharks (Alopiidae) which is represented by a single genus (*Alopias*) and only three species. Although they are a wide-ranging family, occurring worldwide in tropical, subtropical, warm and cool temperate seas, only two species have been recorded from European seas: the moderately common Thintail Thresher Shark or Fox Shark (*Alopias vulpinus*) and the much rarer Bigeye Thresher Shark (*A. superciliosus*). The Pelagic Thresher (*A. pelagicus*) appears to be absent from the North and South Atlantic Oceans, but wide ranging throughout the Pacific and Indian Oceans.

Threshers are easily distinguishable from other sharks by their extremely long curving asymmetrical caudal (tail) fin which is nearly as long as the rest of the shark as well as their large eyes. They are large, active, strong-swimming predators, ranging from coastal to offshore waters, from the surface down to depths of at least 500m. Threshers appear to be specialised for feeding on small to moderately large schooling fishes and squids. They have been observed, sometimes in pairs, swimming in circles around a school of prey, narrowing the radius and bunching the school with their long, strap-like caudal fins which are then used like a whip to stun and kill prey.

Thintailed Thresher (*A. vulpinus*)

The Thintailed Thresher Shark is a widespread species found virtually circum-global in oceanic and coastal waters from the surface down to 366m from tropical to cold-temperate seas but commonest in temperate waters. In the eastern Atlantic it is found from Norway southwards via the British Isles to Madeira and the Azores, including the Mediterranean and Black Seas.

In UK waters, the species occurs frequently during the summer and autumn off the south Cornish coast, as far east as the Isle of Wight, and occasionally from the Pembroke coast, but less frequently from the

North Sea and only very rarely in Scottish waters. Considering the significant number of very small (91-152cm long) threshers caught by anglers during late summer in southern British waters, it is thought that following an inshore migration by sexually mature adults, the pups are born during this time.

Mature threshers (females measuring 315-400cm; and males measuring 314-420cm,) are ovoviviparous and produce litters of only 3-7 fully-formed pups (measuring 114-160cm) after a gestation period of 9 months in inshore waters in the eastern Atlantic; the developing embryos are apparently inter-uterine cannibals (oophagous). Threshers reach maturity at an age of 3-8 years and are estimated to live up to 45-50 years. Although the largest authenticated thintailed thresher recorded measured 5.73m, there are unconfirmed reports of specimens measuring up to 7.60m. The current UK rod & line caught record weighing 146.5kg (captured off Portsmouth in 1982) is small in comparison with the present IGFA World (Rod & Line) Record of 348kg (Bay of Islands, New Zealand, 1983). The Irish specimen (rod & line) qualifying weight is still unclaimed at 54.4kg.

Despite its apparent widespread distribution in the north eastern Atlantic, there are surprisingly few unequivocal records of *A. vulpinus* from Irish waters (Table 1). Apart from a few anecdotal references during the 1800s*, there are only a handful of authenticated records since 1905, primarily from the west and southwest coast.

Although William Thompson (*A Natural History of Ireland*, Vol. 4 posthumously published in 1856), acknowledged McSkimmin's and Templeton's records, he cautiously remarked that the thresher "*Can be announced only on circumstantial evidence as frequenting the Irish coast.*" He then went on to recount that "*Major Walker, of The Lodge, County Wexford, noticed this species in a letter written to me in July, 1846, from the statement of fishermen who had seen a large fish beating a grampus or small whale in the Sound, between the two Saltee Islands, and who reported that every blow sounded like the distant report of a canon.*"

At a meeting of the *Dublin Natural History Society* on the 9th February 1854, Mr William Andrews "*presented the tail-fin of a fox shark, or thresher (Carcharias vulpes), taken from a fish captured in Dingle Bay. Mr Stopford informed Mr Andrews that he and the crew of his yacht had noticed the thresher shark in Dingle Bay. Mr R. Callwell mentioned that in one of the tours of inspection in the Belfast Office steam vessel, he had visited Carlingford Lough in the month of August. Herrings at the time were plentiful in the Lough, and he had noticed a species of shark frequently springing several feet out of the water, which the crew pointed out to him as the thresher shark, from the peculiarity of the action of its tail-fin.*"

In his *Glances into the Ichthyology of the County of Dublin* (1866), Harry Blake-Knox remarked that the thresher "*Is often very common in this Bay*" and went on to state that "*last winter I saw one rise and kill a wounded diver with a slap of its tail, and then swallow it. When rising in the water the thresher is known from the porpoise by its long dorsal fin (sic). I have frequently given a thresher a charge of shot, and caused him to jump clean out of the water. When up for sport they make a great noise by striking the water with their tail. Have seen them of enormous sizes.*" Ogilby (1885) was sceptical of Blake-Knox's report and noted "*That no specimen has ever been captured there, and no competent ichthyologist ever recorded it from so thoroughly well-known a locality*". It is possible that Blake-Knox may have confused the thresher with the basking shark which may have been relatively common in the Irish Sea at this time. The latter species is frequently observed on the surface, has a large dorsal fin (the thresher's is relatively small) and grows to an enormous size.

Bigeye Thresher Shark (*A. superciliosus*)

The Bigeye Thresher Shark is a widespread but infrequently caught species typically inhabiting oceanic and coastal waters from the surface to depths of 500m. Its distribution is considered to be virtually circum-tropical with a preference for warm



Thintailed Thresher Shark (*Alopias vulpinus*): female weighing c350-400kg and measuring 4.23m T.L. captured by MFV "Northern Celt" out of Dunmore East, Co Waterford during July 2005 (Photo: courtesy of Sean Doran, Howth).

temperate to tropical waters. In the eastern Atlantic, it has been recorded, albeit rarely, southwards from the Bay of Biscay. Only one specimen has been recorded from Irish waters to date: during August 1995 a large female measuring 4.84m and weighing 318kg (gutted) was captured in a tuna drift-net set at a depth of 5m in waters more than 2000m deep in the Porcupine Sea Bight area (51°N, 13°W). This is the largest and most northerly authenticated specimen of this species to date.

It is possible that the Bigeye Thresher Shark occurs more frequently in offshore waters off the European coast than is currently known, particularly during warmer years. However, the subsequent EU ban on tuna drift-netting will probably preclude verification of this

hypothesis for the foreseeable future. Indeed, a number of other (primarily epipelagic) species, previously regarded as extremely rare in northern European waters, were captured in tuna drift-nets prior to the current ban on this politically and biologically controversial method of fishing. Since at least two species of Thresher Shark are currently known to occur in Irish waters it is clear that all specimens should be critically examined in order to verify them to species level.

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Date	Location	Method	T.L. (cm)	Wt. (kg)
early 1800's	off Copeland Islands Co Down			
1846	Saltee Islands Co Wexford			
c 1854	Dingle Bay Co Kerry			
August 1860 ?	Carlingford Lough Co Down			
winter 1865	Dublin Bay Co Dublin			
16.06.1876	Portrush Co Antrim	salmon net	1.425	
1890	SW coast of Ireland off Ballycotton, Co Cork			
end October. 1899	Bartragh Strand Kilala Bay Co Mayo	stranded	4.050	
c22.11.1899	Kilala Bay Co Mayo	stranded alive	c2.400	
1905	Sheephaven Bay Co Donegal	net	4.750	
summer 1905	Port na Blagh Sheep Haven Bay Co Donegal		5.425	
1970's	Tralee Bay, Co Kerry			
Jul-02	192km SSW Dingle Co Kerry	tuna drift-net	c2.400	c68.2
Jul-05	off S coast Co Waterford	trawl	4.230	350-400

*In his *History of Carrickfergus* (1829), McSkimmin (1829) remarked that the thresher is "*sometimes seen off the Copeland Isles; and heard after night making a noise with its tail against the water.*" Robert Templeton (*List of Irish Vertebrates 1836-37*) also mentioned that the species was "*occasionally seen about the Copeland Islands*" but concluded that it was "*rare on the (Irish) coast.*"