

OBSERVATIONS OF DRIFTNETTING OFF THE ISLAND OF ISCHIA, ITALY, WITH INDIRECT EVIDENCE OF DOLPHIN BYCATCH

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Abstract:

Driftnets are sadly known for their high bycatch rates affecting cetaceans and other marine species. Between 2000-01, data on driftnet fisheries operating around the island of Ischia, Italy, were collected through direct observations. In the May-August fishing season, boats carrying driftnets were monitored in the harbour at a distance by means of binoculars and video cameras, totalling 145 observation days. Forty different boats (mean length 14 m, range 10-20 m) operating driftnets remained consistently in the area to fish in the waters off Ischia. According to their registration plates, 26 boats were from Calabria and 12 from Sicily, while 2 exhibited no registration code. Based on the volume of visible coils on the deck - a measuring means routinely used by fishermen and authorities - all boats carried driftnets exceeding by at least a factor of four the EU limit of 2.5 km/boat, and in some cases perhaps up to one order of magnitude greater. Over seven observations, a total of 282 swordfish weighing between 20-120 kg were landed, totalling 17,880 kg. The catch also included tuna and moonfish. Between 28-29 July 2001, three striped dolphins (*Stenella coeruleoalba*) were found stranded or adrift around Ischia with body mutilations and lesions indicative of bycatch in driftnets. A specimen had had its flukes and dorsal fin cut off, and had been tied with a rope around its pectoral fins and head. These observations suggest that cetacean bycatch in driftnets is still an issue in southern Italy, and that illegal driftnetting may still occur, irrespective of current driftnet length limits. The waters around Ischia represent an important feeding and breeding ground for several cetacean species, including the endangered short-beaked common dolphin. Urgent management measures are clearly needed to monitor illegal fisheries and protect cetaceans as well as other species from bycatch.

INTRODUCTION: Driftnets are known for their high bycatch rates affecting cetaceans and other marine species (Di Natale and Notarbartolo di Sciara, 1994; IWC, 1994; Silvani *et al.*, 1999). This peculiar fishing technique represents a great danger to the pelagic fauna of our sea, with an immediate and devastating impact. Its list of victims includes especially small Odontocetes and large whales such as sperm whale, as well as other marine animals from moon fish, mantas, sharks, sea turtles over to some species of seabird.

During the fishing season, from the island of Ponza to the island of Ischia (about 120 km), fishermen set two distinct barrages (exactly along the 1000 m and 700 m depth lines. Drift nets are set at 20:30 and retrieved at 03:00, placed one after another to create an unbreakable wall (Mussi *et al.*, 1998). Boats are co-ordinated by an efficient radio system that prevents any possible collision between them and assures best results.

METHODS: between 2000 and 2001 data on driftnet fisheries operating around the island of Ischia, Italy, were collected through direct observations. In the May-August fishing season, boats carrying driftnets were monitored in the harbour at distance by means of binoculars and video cameras, totalling 145 observation days.

RESULTS: forty different boats (mean length 14 m, range 10-20 m) operating driftnets remained consistently in the area to fish in the waters off Ischia. According to their registration plates, 26 boats were from Calabria and 12 from Sicily, while 2 exhibited no registration code.

Based on the volume of visible coils on the deck - a measuring means routinely used by fishermen and authorities - all boats carried driftnets exceeding by at least a factor of four the EU limit of 2.5 km/boat, and in some cases perhaps up to one order of magnitude greater.

Over seven observations a total of 282 swordfish (*Xiphias gladius*) weighing between 20-120 kg were landed, totalling 17,880 kg. The catch also included tuna (*Thunnus thynnus*, *Thunnus alalunga*) and moonfish (*Mola mola*).

Between 28 - 29 July 2001, three striped dolphins (*Stenella coeruleoalba*) were found stranded or adrift around Ischia with body mutilations and lesions indicative of bycatch in driftnets. One specimen had had its flukes and dorsal fin cut off, and had been tied with a rope around its pectoral fins and head.

DISCUSSION: these observations suggest that cetacean bycatch in driftnets is still an issue in southern Italy, and that illegal driftnetting may still occur, irrespective of current driftnet length limits. The waters around Ischia represent an important feeding and breeding ground for several cetacean species, including the endangered short-beaked common dolphin (*Delphinus delphis*; Mussi *et al.* 2001).

Urgent management measures are clearly needed to monitor illegal fisheries and protect cetaceans as well as other species from bycatch.

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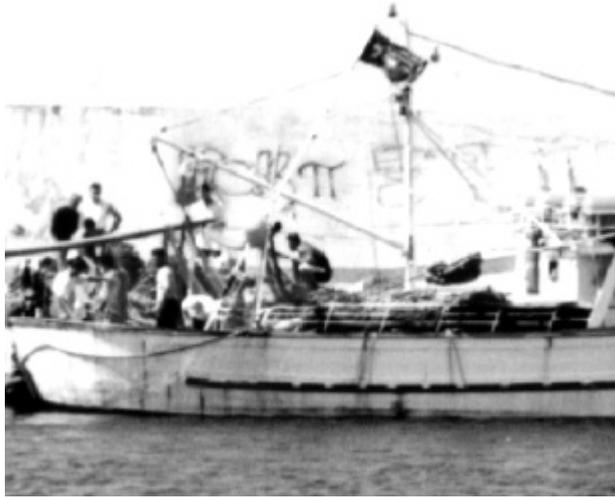


Fig. 1 A fishing boat carrying driftnets exceeding the EU limit



Fig. 2 Fishermen working on the net in the harbour



Fig. 4. A specimen of striped dolphin tied with a rope around its pectoral fins and head.



Fig. 5 Mutilation of the dorsal fin



Fig. 6 . A tail cut off