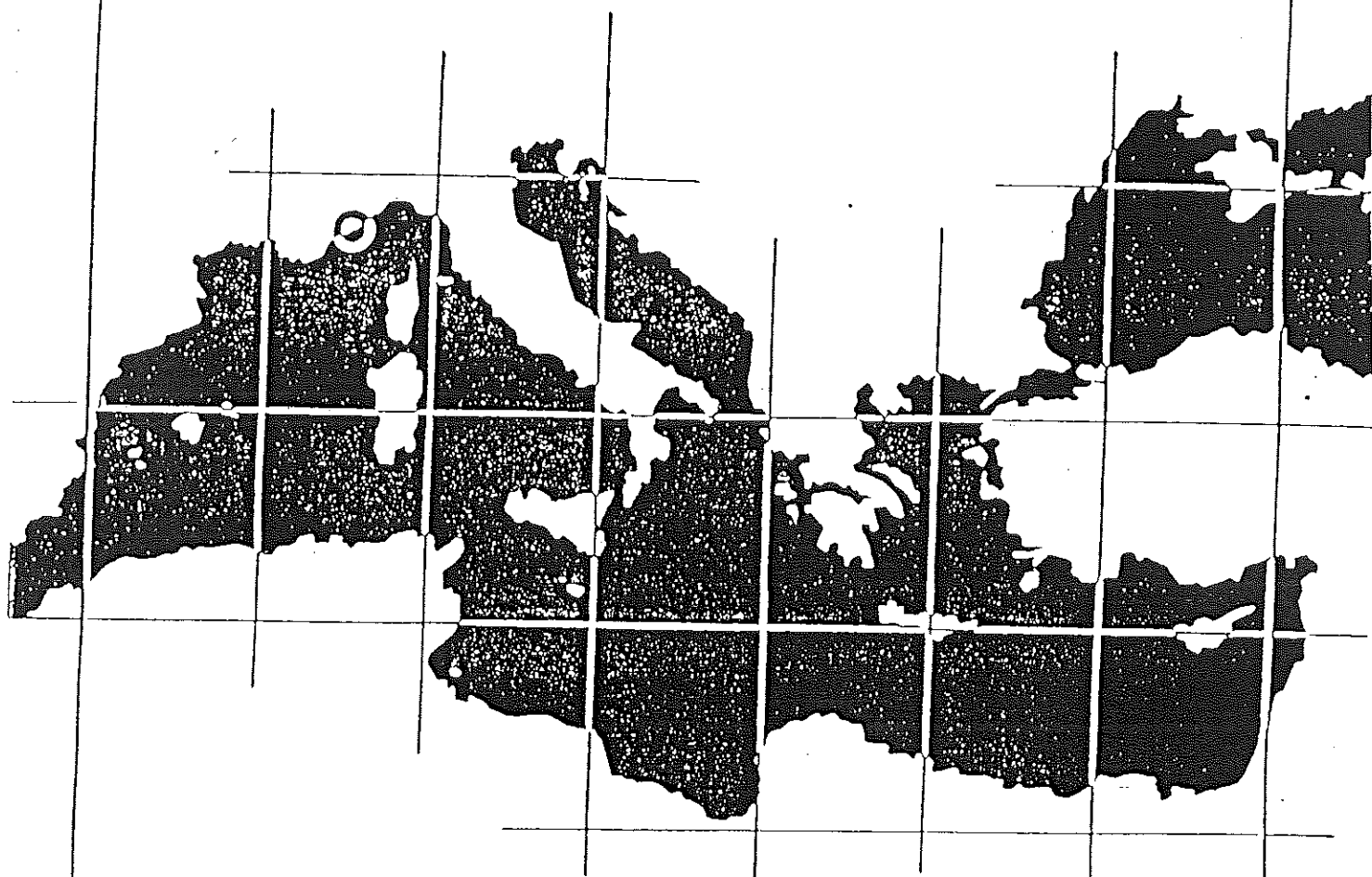


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# RAPPORTS ET PROCÈS - VERBAUX DES RÉUNIONS

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CONDENSÉS DES TRAVAUX PRÉSENTÉS LORS  
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Mortality of Marine Turtles  
(Caretta caretta L. and Dermochelys coriacea L.)  
consequent to accidental capture in the Gulf of Taranto

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A large number of marine turtles, prevalently of the Caretta caretta species with few specimens of Dermochelys coriacea, are present in the Gulf of Taranto and its immediate vicinity in the summer and autumn months. Trophic and reproduction factors are probably the cause of this. Although the phenomenon concerns the whole area it appears more evident off the Calabrian coast, probably due to the vast areas of sandy beach where the animals go to reproduce, even if this has yet to be demonstrated. Unfortunately the presence of the Cheloni in the area coincides with the fishing period for Big Pelagic (swordfish and albacore) which is carried out with long-line and travelling net and consequently causes the catch of high numbers of turtles which, although accidental, determines the death of many specimens for two main reasons. Firstly the flesh of Caretta caretta is considered a delicacy in some areas (Ionic coast of Apulia) for which consumers are willing to pay high prices so inducing fishermen to break the law (M.D. 21/5/1980 - U.G. n° 156 9/6/1980 forbidding the catch and sale of turtles) and land the captured animals. Secondly, the specimens caught with long-line generally swallow the hook which sticks in their oesophagus or stomach even after they have been freed, with obvious consequences (bleeding, starvation). It is difficult to say how many animals, freed in these conditions, manage to survive after the trauma. The travelling net, widely used by fishermen on the Ionic coast of Calabria, where fortunately the Cheloni are not eaten, causes death by suffocation of a certain percentage of captured animals. From our observations carried out directly on board vessels with this equipment, mortality resulted at 30%, mainly in the case of small to middling-sized specimens. Of the 31 specimens of caretta taken from the net in our presence, 9 were already dead. We believe that data and observations collected during our investigation on Big Scombroidei fishery in the Gulf of Taranto (DE METRIO et al., 1986;1987) may give an idea of the entity of catch and consequently of mortality of Caretta. Big Scombroidei fishery is carried out seasonally here by 88 vessels from Apulian and Calabrian harbours as well as by an unknown number of boats from Sicilian harbours. Of these 88 vessels, 59 are equipped with long-line while 29 have travelling nets. For the long-line fishery, data were collected on landing in the harbour of Porto Cesareo on the Ionic coast of Apulia and those relative to the four-year period 1978-1981 have already been reported (DE METRIO et al., 1983). We reproduce here the number of individuals caught for each single year for a comparison with the figures for the following five-year period:

year	no vessels	no <u>C. caretta</u>	no <u>D. coriacea</u>
1978	36	226	0
1979	27	964	4
1980	32	286	1
1981	23	341	1
1982	31	139	1
1983	27	0	0
1984	29	110	0
1985	36	29	0
1986	34	6	0

A reduction of catch in the last five years appears evident by we are not convinced that the data for these years are completely accurate. The fact that no specimen was caught in 1983 is totally impossible. Actually with the coming in force of the above-mentioned law and the resulting control by the authorities together with active propaganda campaigns by protection bodies induce fishermen to keep the real entity of catch from even researchers and we believe the catch to be much greater than that reported. Fortunately the phenomenon is not generalized to all the ports in Apulia in fact at S. Maria di Leuca, a harbour a few miles from P. Cesareo, the fishermen collaborate enthusiastically with Prof. ARGANO in the marking and freeing of the turtles caught. Bigger catches are obtained with travelling nets but they are difficult to assess as all the animals caught in the nets are freed by the fishermen, indiscriminately, when they are brought in and are not found in the landed catch. However, from personal observations directly on board and from what trustworthy, expert fishermen say we have calculated that the 29 vessels studied, working with nets along the Ionic coast of Calabria, catch (and re-catch?) 16000 specimens totally for each season. One vessel with 12000 metres of net, catches from 3 to 50 specimens on an average in one trip. Calculating that for every fishing season a vessel totals 60 working days it is evident that our figures are lower than might be calculated. Calculating only a 10% mortality and therefore 2/3 inferior to that observed, the result is still alarming. We believe that this phenomenon is not to be overlooked when studying the numerous cases of stranded turtles which the media have only just started to report, superficially attributing the cause to hypothetical problems of pollution. The high mortality due to accidental catch together with other causes of death which we will report in an in extenso work, and with the increasing anthropization of even the remotest beaches constitute a difficult problem for the survival and protection of the species in question. On the other hand the great importance of Big Scombroidei fishery for the economy of southern Italy cannot be ignored.

#### REFERENCES

- DE METRIO G., PETROSINO G., MATARRESE A., TURSI A., MONTANARO C.; 1983. Importance of the fishery activities with drift lines on the populations of Caretta caretta L. and Phrynobolus coriacea L. (Reptilia, Testudines), in the Gulf of Taranto. Oebalia vol. 12, n.s.
- DE METRIO G., FILANTI F., MEGALOFONOU P., PETROSINO G.; 1986. Valutazione sull'entità, la composizione strutturale e la dinamica biologica degli Stock dei Grandi Scombroidei (Thunnus thynnus L., Thunnus alalunga (Bonn.), Xiphias gladius L.) nel Golfo di Taranto. Relazione preliminare C.N.R., Roma 10/11 novembre 1986.
- DE METRIO G., MEGALOFONOU P.; 1987 (In press.). Catch, size distribution, growth and sex ration of swordfish (Xiphias gladius L.) in the Gulf of Taranto. Tech. Consul. Adriatic Sea, FAO - C.G. P.M., Bari 17 pag.