THE OCCURRENCE OF PELAGIA NOCTILUCA (CNIDARIA, SCYPHOMEDUSAE) (FORSKÅL), IN SARONIKOS GULF (GREECE), DURING 1983-1984 .

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Summary : The occurrence and distribution of the jelly-fish Pelagia noctiluca(Forskål) during 1983-84 is discussed in this communication. Special interest was given to any relation of this occurrence with environmental conditions.

Résume : La présence et la distribution de la scyphoméduse Pelagia noctiluca(Forskål) dans le golfe Saronique (Grèce) sont discutées en relation avec des facteurs de l' environnement.

During 1981-1982 blooms of the jelly-fish Pelagia noctiluca (Forskål), have occurred in Greek waters, which had an effect on human activities and developed serial of problems to the public. The present study describes the occurrence and distribution of P. noctiluca in Saronikos gulf during a period of one year, commencing May 1983.

Monthly oceanographic cruises have been organized and ten stations have been selected in Saronikos gulf(Fig. 1), in which physical and chemical parameters were taken. Phytoplankton and zooplankton samples were also collected by an NIO water sampler and a WP-2 plankton net (200μ) respectively. Medusae were sampled by double-oblique hauls using a 2.5m plankton net with 1m mouth opening and 1mm mesh size, equipped with an "Hydrobios" flowmeter. A type of a questionnaire form has also been distributed to Port Authorities in which daily observations on the jelly-fish appearance and environmental conditions were reported.

During 1983-84 specimens of P. noctiluca occurred in the gulf only from May to September in numbers varying from 2ind./1000m^3 to 13ind./1000m^3 (Table 1). These specimens have been collected mainly in station 7, although during June and September medusae have also been located in stations 10 and 5 respectively. However, P.noctiluca was never encountered in Elefsis Bay or near the sewagefall area and therefore is suggested that there is not any direct relation between the appearance of this

species in Saronikos, with pollution. Reports that came from Port Authorities support the data that have been collected during summer 1983, eventhough rare reports, during winter, on the appearance of P. noctiluca , have been sent.

Small medusae and ephyrae were never observed in zooplankton samples and it can be stated that the biological cycle of P. noctiluca is accomplished outside the Saronikos gulf.

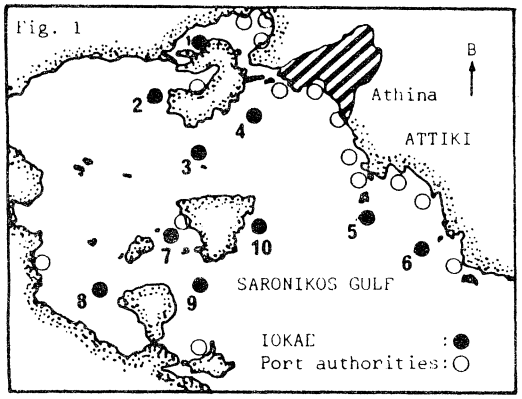

TABLE 1
Distribution of P. noctiluca (ind/1000m^3)

Months \ Stn.	7	5	10
May	10	-	-
June	2	-	1,50
July	5	-	very few
August	very few	-	-
September	very few	13	-

It is therefore suggested that the jelly-fish population, can be transported by favorable currents in the gulf. The existence of deep water population have also been reported by Vucetic (1982). These suggestions are supported by the relatively high number per 1000m^3 which was observed during September in station 5. During this month, 70% of the winds were on South/ Southwest direction. Taking into account the position of station 5 and that the jelly-fish appearance is closely related with the wind direction (Rottini-Sandrini and Stravissi, 1982), this relatively high number could well be explained.

An indirect indication of the fewer medusae which appeared in Greek waters during 1983, when compared with 1982, was confirmed by the Greek Tourist Organization.

References

Rottini-Sandrini L. and Stravissi F., 1982. The occurrence of Pelagia noctiluca in the gulf of Trieste and its correlation with the wind distribution. Acta Adriat., 23 : 103-104.

Vucetic, T., 1982. Influence of the water masses dynamic on distribution of the Pelagia noctiluca in the Adriatic. Acta Adriat., 23 : 105-115.