On the occurrence of ichthyoplankton in the Saronikos Gulf, Aegean Sea
I. - Anchovy and Sardines in 1969, 1970 and 1971

by

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The ecology of the reproduction and of the first planktonic stages of three commercially important species has been studied in the Saronikos gulf, during several cruises in 1969, 1970 and 1971.

During their reproductive peaks, the species *Engraulis encrasicholus* L., *Sardinella aurita* Val. and *Sardina pilchardus* Walb., account for the 90 to 95 per cent of the total ichthyoplankton standing stock, especially at the Northern districts of the gulf where their main reproduction occurs.

Zooplankton seems more abundant in the Saronikos gulf than in other parts of the Aegean and has been estimated from 100 to 200 mgr/m^3 wet weight during such productive periods as spring.

The eutrophication in the gulf takes place because of the sea water turbulent movements, due to currents which enter the gulf. This water circulation is a result of the general current movements in the Aegean Sea. Turbulence is a continuous phenomenon and its influence on eutrophication is the result of its supplying the water masses with nutrients and detritus raised from the bottom. The procedure is more effective at the Northern regions because of their shallow waters.

Engraulis is the most abundant species with calculated maximum ichthyoplankton number 1099 per m^2 of surface, with egg density 536 and larval density 563. The maximum number for *Sardinella* is 232 per m^2 of surface with 204 eggs and 28 larvae. The maximum ichthyoplankton number for Sardina is 138 per m^2 of sea surface, with 132 eggs and 6 larvae.

These estimations lead to the conclusion that the Northern part of the Saronikos gulf can be compared to some extent with seas as rich and highly productive as the Azov Sea.

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