

# On the early stages of Fishes in the Central Adriatic in 1973

by

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## Summary

In 1973, qualitative and quantitative distribution of ichthyoplankton in the Central Adriatic was studied. It was observed that the species and specimens quantity increases towards the open sea, probably due to the improved ecological conditions.

## Résumé

On a étudié au cours de l'année 1973 la distribution qualitative et quantitative de l'ichthyoplankton en Adriatique Centrale. On a remarqué que la quantité d'espèces et de spécimens augmentait vers la haute mer, phénomène dû probablement aux conditions écologiques.

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Some data on qualitative and quantitative distribution of ichthyoplankton, collected in 1973 with " Helgoland " plankton net, at the 4 stations of the transversal profile in the Central Adriatic, will be presented in this paper.

3106 larvae and postlarvae were collected in total; 29 genera (37 species) and 6 genera without species determined, were found.

The quantity of species and specimens increases towards the open sea (Tab. 1), which coincides with data of KARLOVAC J. [1967].

**Table 1. The distribution of ichthyoplankton at the profile in 1973.**

| Station         | Kastel.zaljev<br>(coastal area) | Splitska vrata<br>(channel area) | Pelegrin<br>(channel area) | Stoncica<br>(open sea) |
|-----------------|---------------------------------|----------------------------------|----------------------------|------------------------|
| N° of species   | 13 + 3*                         | 26 + 4*                          | 23 + 5*                    | 25 + 4*                |
| N° of specimens | 290                             | 1084                             | 849                        | 883                    |

\* determined only up to the genus.

*Rapp. Comm. int. Mer Médit.*, 23, 8, pp. 63-65, 1 fig. (1976).

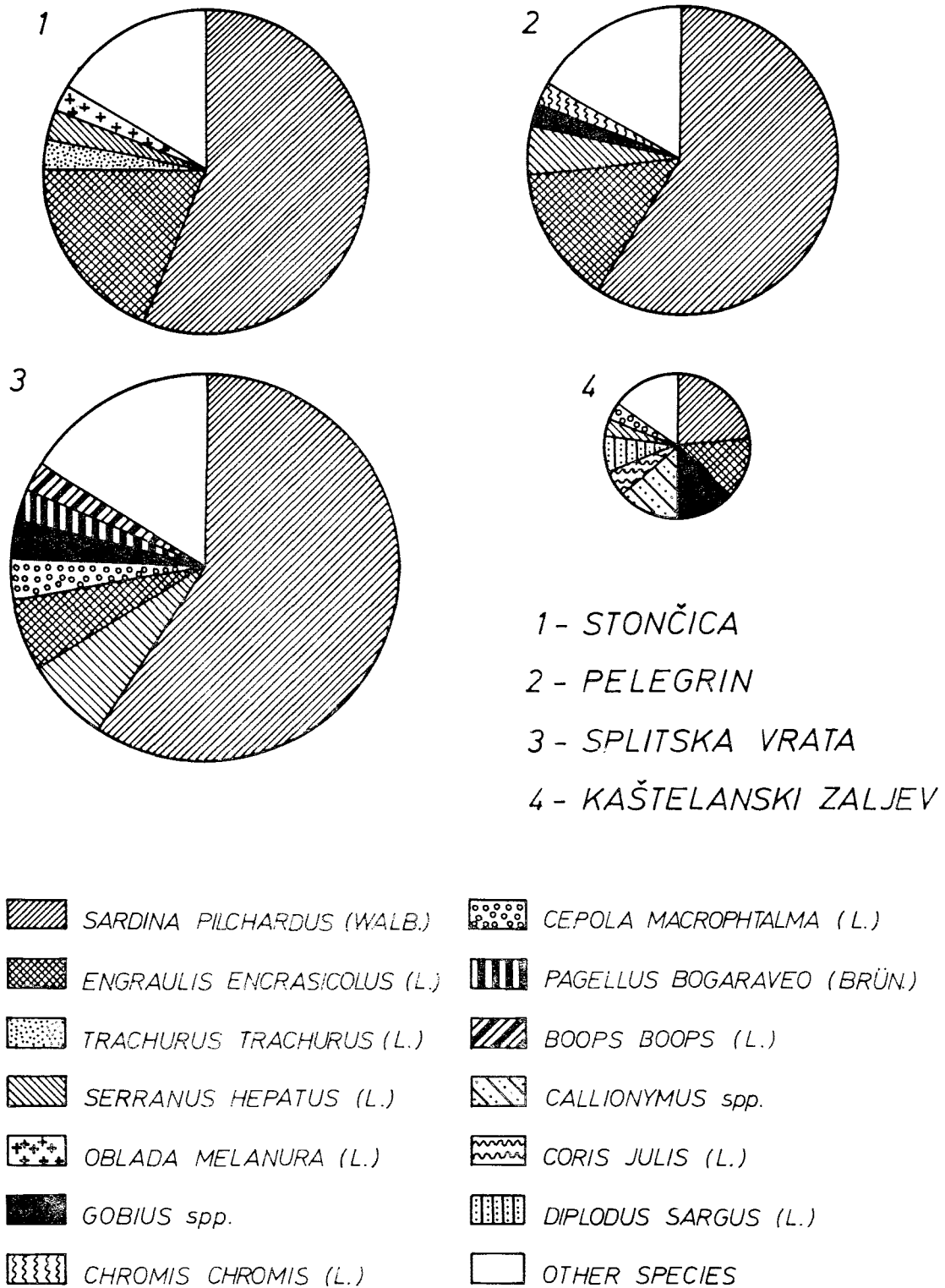


FIGURE 1. — The composition of species at the profile in 1973 (in percents).

This increasing could be explained by improved environmental conditions at the open sea, namely the lower salinity and temperature amplitudes. Maximal values at Splitska vrata (although near the coast) could be the consequence of currents, which probably concentrate ichthyoplankton from surrounding areas there.

In the species composition, as it could be expected from the earlier data [KARLOVAC J., 1967; REGNER S., 1972], sardine, *Sardina pilchardus* Walb., and anchovy, *Engraulis encrasicolus* (L.), were dominant at all the stations. Only at Splitska vrata *Serranus hepatus* (L.) slightly overleaped the anchovy (Fig. 1). The other species were mostly less numerous. The number of those, participating more than 2%, increased towards the coast. Between them, littoral and demersal species prevailed.

Small number of species and specimens at Kastelanski zaljev is supposed to be the consequence of relatively low salinity and high amplitudes of salinity and temperature, characteristic for the coastal areas [BULJAN & ZORE-ARMANDA, 1966]. It seems that euryhaline species prevail there, because 10 species of 13 and all 3 genera from this station, were found at the whole profile.

#### References

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