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In the period September 1989-September 1990, a research was carried out to individualize the meteorological factors influence on fish fry migration in the Lesina Lagoon. A particular fishing net was used, a modified hand lift-net, previously experimented in a similar research at Lake Fusaro (IANNIBELLI *et al.*, 1988, 1989).

The chemical-physical parameters of water were detected with the following instruments: currentmeter Hontsch Instruments and portable oxygen-meter Leeds & Nordrup, both with magnetic recording, thermometer with reading of the first decimal figure, salinometer Atago and portable ph-meter Electromate Beckman with direct reading. All the instruments and capture equipment were positioned at about 200 meters from the seamount of the lagoon connecting channel.

The captured specimens were taxonomically identified using the analytical keys of PERLMUTTER *et al.* (1957) and FARRUGIO (1977).

For *L. ramada* it is evidenced that the above species in the migration schooling tends to avoid minimum and maximum temperatures and prefers for its displacements an intermediate temperature range (12-13°C) with salinity about 26-27 ppt. Concerning the dissolved oxygen the most numerous groups of specimens are always found when the oxygen value is far beyond the saturation, up to 13.7 mg/l. For the current, *Liza ramada* avoids extreme values in the cases of greater aggregation, preferring the intermediate ones, between 19 and 25 cm/s, while the favourite flow-direction is the outgoing one.

For *Liza aurata*, in the Lesina Lagoon this species tends to aggregate with rather low temperature values (11°C and 7°C). The highest temperature values (over 20°C) keep this species far from the channel mouth and also the lowest values represent a barrier to the displacements: in fact great quantities of *L. aurata* and also *L. ramada* fry were captured only in the sea-tract in front of the mouth, in a whole sampling day (20/1/90). On the contrary, saline preferences in the schooling in migration of *L. aurata* were not evidenced. Both for dissolved oxygen and current velocity *L. aurata* seems to prefer intermediate conditions, between 7.9 and 11.7 mg/l for the oxygen and between 15 and 25 cm/s for the flow velocity, while the favourite direction was above all the outgoing one.

Regarding *Liza saliens* it is present in a range of temperature between 57 and 23.5°C and tends to avoid low winter temperatures. It does not seem instead to have any saline preferences, while the data of dissolved oxygen are too scarce to give any useful information. On the contrary, for the ph it is interesting to evidence a clear obstacle to the migration in presence of high values of this parameter (8.6-8.7). Groups of a certain number of specimens of *L. saliens* are captured being present values of current velocity between 16 and 19 cm/s.

Concerning *M. cephalus*, finally, the most numerous groups were captured with water temperatures of 15.7°C and 22.7°C, thus evidencing a certain tendency of this species to avoid aggregation in case of higher temperatures. Regarding the salinity *M. cephalus* seems to move and aggregate without particular preferences, in a range between 28 and 37 ppt. The oxygen data are too scarce to be considered. The ph does not show any particular correlations with the displacements of *M. cephalus* except in only one case recorded, where the high value (8.6) may have created an obstacle to a certain aggregation of animals that were certainly present in the waters in front of Lesina Lagoon. In fact, at the outside of the seamount quite large quantities of fish fry of this species were captured by means of a circular scoop net fitted with a handle. Regarding the velocity and direction of the current, a clear preference in schooling is to be evidenced in the cases of current velocity of 16-19 cm/s and outgoing flow.

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