

Brief Note on Catch and Biology of Blue Whiting *Micromesistius poutassou*, Risso (Pisces, Gadidae) in the Northern Tyrrhenian Sea

B. REALE and P. RIGHINI
C.R.I.P., Livorno (Italia)

Introduction

The blue whiting is a demersal fish commonly found along the slope of the continental shelf. In the local market, it has not relevant commercial value because of its not very appreciated taste. The species is normally caught as a by-catch in the hake fishery. Generally, the blue whiting is rejected but sometimes, if the amount of the catch of the other species is scarce, it is possible that small quantities are kept and landed.

Material and methods

The data arise from surveys that took place in the Northern Tyrrhenian Sea in September and December 1987, February and June 1988. These surveys were part of a wider 3 years Marine Marchant Ministry Research Program (Demersal Resources Stock Assessment).

The fishing vessel utilized was a traditional trawler operating off Livorno whose main characteristics are 81 GRT and 420 HP, with a bottom trawl net with a 40 mm stretched mesh size at the codend, and about 10 m horizontal opening. The tows were performed with a speed of 3 knots for a regular time of one hour.

The surveyed area has been selected previously because the presence in the ground of very important commercial species: red mullet, hake, Norwegian lobster, was known. These species usually represent the target of the survey, but conspicuous quantities of blue whiting have been caught, specially in the subareas called: Corsica, Capraia, Pollice and Elba (Fig. 1)

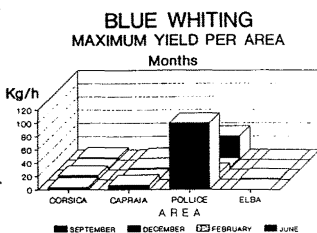
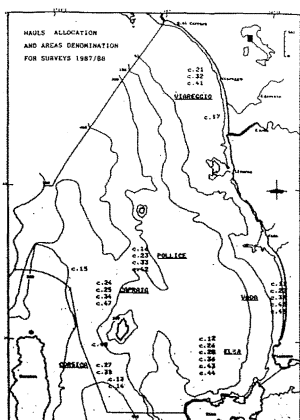


Fig. 2

Fig. 1

In fig. 2 are reported the yields by fishing area in kg/hour. The area with the highest catch is locally called "Pollice" but this is only regarding Summer (June and September). During the whole survey there were caught 11317 individuals for a total weight of 350 kg. A sample of 1200 individuals was selected for biological measurements (total length, sex and sexual maturity).

Results

The species is caught in a depth range from 150 to 430 m and the best yields within the 250-400 depth interval.

The smallest individuals (juveniles) of TL = 8 cm have been caught in June at a depth of 270 m. This is in agreement with the findings of Froglija and Gramitto, 1981 and Lucena et Crespo, 1981. Probably, these juveniles were born during the spawning period in winter in January and February (Lucena et Crespo, 1981). During the other sampling periods, the minimum length caught was of 13 cm in September, 15.5 in December and 17.5 in February. The biggest length found was of 36 cm for a female caught at a depth of 420 m in December.

In February there were observed mature individuals. The minimum length found for mature males was 21 cm and 21.5 cm for the females. These observations are in agreement with those reported by Froglija and Gramitto, 1981.

The totality of the mature individuals were caught at depths from 250 to 400 m particularly in the area called "Pollice".

Considering 21 cm as a first maturity length, being the individuals bigger than 21 cm only the 14 % of the total, in consequence, the 86 % of the blue whiting catch during the survey was constituted by juveniles which have not reached the first maturity length.

Other than the blue whiting, during the surveys, there were caught several other species. The most important species in the catch ordered by importance in number were *Gadiculus argenteus*, *Merluccius merluccius*, *Chlorophthalmus agassizii*, *Capros aper*, *Argentina sphyraena*, *Scylliorhinus canicula*, *Trisopterus minutus capelanus* and *Sepietta oweniana*.

Bibliography

- FROGLIA C. and GRAMITTO M.E. (1981) - Observations on growth of *Micromesistius poutassou* (Risso) (Pisces, Gadidae) in the Central Adriatic Sea. Rapp. Comm. int. Mer Médit. 27,5.
FROGLIA C. and GRAMITTO M.E. (1981) - Summary of biological parameters on *Micromesistius poutassou* (Risso) in the Adriatic. F.A.O. - Fisheries Report n. 253.
LUCENA J. et CRESPO J. (1981) - Quelques données sur la biologie du Merlan Blue "*Micromesistius poutassou*" de la Méditerranée Occidentale. Rapp. Comm. int. Mer Médit. 25,5.