

FEEDING OF *LITHOGNATHUS MORMYRUS* (L.)
IN CENTRAL ADRIATIC SEA (PISCES, SPARIDAE)

by

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Abstract

Analysis of food remain in digestive tract of Lithognathus mormyrus evidenced a feeding on benthic species living on/in the sediments. Harpacticoid Copepods, small Polychaeta and small Tellinids were found to be the main food of juveniles, whereas adults feed on other Crustacean groups, of bigger size, on Bivalves and on Echinoderms.

Résumé

L'étude des contenus stomacaux de Lithognathus mormyrus de l'Adriatique a permis d'établir que les jeunes se nourrissent surtout de Copépodes Harpacticoïdes, de petites Polychètes et de Tellinidés, tandis que les adultes préfèrent des Crustacés de plus grande taille (Amphipodes, Cumaçés et Décapodes), les Echinodermes (surtout Echinocardium sp.) et les Bivalves, surtout Alloides gibba.

Dans tous les cas, le régime alimentaire de ce poisson est composé par des organismes benthiques qui vivent sur ou dans le sédiment.

The Striped seabream (*Lithognathus mormyrus*) is quite common all along Adriatic sandy coast at depths between 5 and 20 m. Its biology was investigated only by SUAU (1954, 1970) off the Mediterranean coast of Spain and present note deals with its feeding in Central Adriatic Sea.

Fish samples were obtained in different months of year by means of a small meshed trawl: special attention was devoted to small specimens. 208 fishes, ranging in size between 5 and 33 cm. were analyzed, 20 had digestive tract completely empty. Due to the small size of stomach, food remain present in the whole alimentary tract had to be considered; for this reason, only a qualitative investigation could be carried on.

As a rule many different species were found together in one gut, especially in adult specimens.

The average size of preys and then the composition of food found in the gut, changes with the increase of predator length. Juveniles feed mainly on postlarval stages and juveniles of Polychaeta (*Nephtis* sp.) (49%), Harpacticoid Copepod (*Euterpina* sp.) (51%) and Gammaridean Amphipoda, but these latter, also if present in more than 50% of investigated guts, never represented the main part of ingested food,

Tanaidacea (*Apseudes* sp.) (26%), Cumacea (*Iphinoe* sp. and *Pseudocuma* sp.) (28%) together with young Tellinacea (29%) were quite common, mainly in the bigger specimens of 0⁺ age class. Harpacticoids practically disappear from the diet of olderspecimens, whereas the presence and abundance of Amphipods (both Gammaridea and Caprellidae) increase considerably (80%). Polychaeta are quite common also in adults' guts (50%) and the following genera were recognized: *Nephtys*, *Owenia*, *Stilaryoides*.

In diet of adult Striped breams Decapods are also represented and whereas specimens one or two years old feed mainly on Natantia (*Philocheras* sp. and *Processa* sp.) (20%) and Decapods larvae (Megalopa stage of Brachyura) (22%), older ones eat also crabs (*Macropipus* sp. etc.) (29%).

As already recorded by SUAU (1970), remain of Echinoderms (Ophiuroids and *Echinocardium* sp.) are quite common (30%) in the gut of adult specimens.

Fishes practically don't enter the diet of *Lithognathus mormyrus* and only twice, in specimens bigger than 30 cm. (T.L.), remain of Gobiids were found.

CONCLUSIONS

Striped seabream for its whole life feeds on strictly benthic organisms. The presence on the gut of burrowing species (*Upogebia*, *Echinocardium*, etc.) and the abundance of species that usually live within the sediments (*Cumacea*, *Tanaidacea*, *Tellinacea*, *Veneridae*, etc.) let us suppose the Striped bream is able to get these preys out of their burrows or the sediment where they live. This behaviour could also explain the not uncommon finding of sand grains in its digestive tract.

REFERENCES

- SUAU (P.), 1970.- Contribucion al estudio de la biologia de *Lithognathus (Pagellus) mormyrus* L. (Peces esparidos). *Invest. Pesq.*, 34, 2, pp. 237-265.

