

THE FEEDING OF JUVENILE STRIPED SEABREAM, *LITHOGNATHUS*  
*MORMYRUS* (L., 1758), (PISCES, SPARIDAE)

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**Abstract:** Composition of food of juvenile striped seabream of total body length of 29-62 mm was analysed. Fish were caught in the Kaštela Bay in the vicinity of Split (eastern Adriatic coast). It was found that food mainly included different developmental stages of copepods.

**Résumé:** On a analysé la composition de la nourriture des marbrés juvéniles dont la longueur totale du corps était de 29 à 62 mm, capturés dans la Baie de Kaštela près de Split (côte adriatique orientale). On a constaté que leur nourriture est presque exclusivement composée de différents stades évolutifs des crustacés copépodes.

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Ecology of striped seabream, particularly their earlier developmental stages, is rather poorly known. It is known that the preadult and adult stages may be mainly found at sandy and muddy bottoms down to the maximum 50 m depth, but predominantly between 10 and 30 m. On the contrary, fish after metamorphosing stage and earlier juvenile stages up to the one year old fish, are recorded in coves in quite shallow sea. With respect to feeding striped seabream belong to carnivorous fish (Suau, 1970; Quignard, 1973; Tortonese, 1975; Froggia, 1977).

Earlier juvenile stages of striped seabream for the food analysis were caught during the month of April. They were taken from 0.50 to 0.70 m depth along the coast of the Kaštela Bay near Split (eastern Adriatic coast). Gut contents of a total of 79 specimens were examined. Frequency of total body lengths of analysed specimens was as follows:

LT mm:	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Total:	2	4	1	2	2	1	2	4	-	3	3	1	2	4	3	1	7
LT mm:	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
Total:	5	4	6	4	-	2	4	1	2	4	2	1	-	-	-	-	1

Standard body length of analysed specimens ranged from 25 to 50 mm.

With respect to the time of this species spawning, which occurs in summer, and length ranges it appears that the examined material only included the specimens of 0<sup>+</sup> age class.

Food composition of analysed juvenile striped seabream showed no great variety. Copepodites were almost exclusively detected in the guts.

The I and II copepodite stages were the most numerous. Some older copepodite stages of harpacticoid species *Euterpina acutifrons* and calanoid *Acartia clausi* were also found whereas adults of these two species were very rare.

*Acartia clausi* is generally widely distributed copepod species in the Adriatic. It is best represented particularly in the coastal area, predominantly during winter-spring period. It is one of numerically dominant copepod species in the area of the Kaštela Bay (about one-fifth of the copepod number). Apart from this species the species *Euterpina acutifrons*, although more frequent and numerous in the coastal area, was recorded as rather rare as rather rare and not numerous in the same area and accordingly quantitatively insignificant (Regner, D., 1979). This is not, however, applicable to its presence in the food of juvenile striped seabream.

In addition to copepods a number of unidentifiable eggs was recorded from the guts of a large number of specimens. Juvenile stages of some insects were also detected from the guts of 6 specimens. They were probably taken to the coastal sea by the wind.

It was also observed that the guts of smaller individuals contained much less food, but none was found quite empty.

Feeding of juvenile striped seabream in the Adriatic (western central Adriatic), however of those exceeding 5 cm in length, has been described only by Froglija (1977). After this author their food mainly included postlarval and juvenile stages of polychaeta (*Nephtys* sp.), harpacticoid crustacean *Euterpina* sp. and gammarid amphipoda, but these latter, although present in more than 50% of examined guts, have never been the principal food. Tanaidacea (*Apseudes* sp.), Cumacea (*Iphione* sp. and *Pseudocuma* sp.) and young Tallinacea were also present in the gut, mainly in the bigger specimens of 0<sup>+</sup> age class.

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#### REFERENCES

- Froglija, C., 1977. Feeding of *Lithognathus mormyrus* (L.) in Central Adriatic Sea (Pisces, Sparidae). *Rapp. Comm. int. Mer Medit.*, 24 (5): 95-97.
- Quignard, J.-P., 1973. Sparidae. In: FAO species identification sheets for fishery purposes - Mediterranean and Black Sea (fishing area 37). Fisher, W. (Ed.), Rome, FAO, pag. var.
- Regner, D., 1979. Sezonska i višegodišnja dinamika populacija kopepoda srednjeg Jadrana. Disertacija, PMF Sveučilišta u Zagrebu, 187 p.
- Suau, P., 1970. Contribución al estudio de la biología de *Lithognathus* (= *Pagellus*) *mormyrus* L. (Peces aspáridos). *Inv. Pesq.*, 34 (2): 237-265.
- Tortonese, E., 1975. Osteichthyes (Pesci ossei), II. *Fauna d'Italia*, 11. Ed. Calderini, Bologna, 636 p.