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Des études sur l'évaluation du stock et la biologie de la Sériole couronnée ont été effectuées en 1989, 1990 et 1991 dans le Canal de Sicile. L'étude de l'âge et de la croissance de l'espèce fait partie des objectifs de cette recherche. La corrélation taille-poids obtenue est la suivante : $W = 0.000049 SL^{2.723}$. L'évaluation de l'âge, effectuée par la lecture des écailles a permis de séparer 8 classes d'âge ; on n'a pas considéré nécessaire de séparer les deux sexes pour ce qui concerne la croissance. Les paramètres de von Bertalanffy sont les suivants: L_{∞} (cm) = 167; $t_0 = -0.770$; $K = 0.1850$.

In a research programme on the biology and the stock assessment of Greater Amberjack, the growth of this species has been studied. This species is interesting for Italian fishery because it is an important underexploited resource. It is very important for mariculture because it is possible to obtain high growth value in a short time. Greater Amberjack is a cosmopolitan fish with a large distribution in the world. This species is caught by fishermen using trammel net and purse seine but the sportive capture carried out mainly on the juvenile by trolling is not trascurable.

The investigation area was the South Tirthenian Sea and the Sicilian Channel but the data used in the present work are coming only from south Lampedusa island fishing zone (fig. 1) because in relation with preliminary data it is possible to suppose that we have not one unit stock in the whole area.

According to LAZZARI (1988), this zone resulted the main spawning area in the Sicilian Channel.

In the three year investigations (1989, 90, 91) 4800 length and weight data were collected in landings and 1140 specimens ranging between 35 cm and 167 cm of standard length, were sampled, by rent professional fishing vessel using purse seine.

Standard length were preferred to total length because working on bif fishes in commercial catches the first one is more precise and easy to mesure, the tail beeing broken in many specimens.

The size frequency histograms are showed in fig. 2. In each sample, biometrical and weighth measurement have been recorded, sex and gonadic maturity determined and scales collected. In some specimens otoliths and vertebra have been collected too for comparative readings, the scales resulted more clear and easy to read.

The length-weight relationship has been calculated : $W=0.000049 SL^{2.723}$.

Thus, we can identify 8 age-groups up to 142 cm because the bigger specimens were too rare to be employed for a correct age determination.

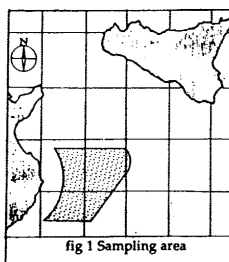


fig 1 Sampling area

The parameters of von Bertalanffy's growth equation have been calculated : $L_{\infty} = 167$; $T_0 = -0.770$; $K = 0.1850$.

Growth curves were calculated separately for the two sexes but there are not significative differences between males and females so, just one growth curve is proposed (fig. 4).

Since samplings have been always carried out during the spawning period, each ageing correspond to a real fish year life.

In litterature there are not references for wild Greather Amberjack age determination but only for growth obtained in mariculture or for the other species of the genus.

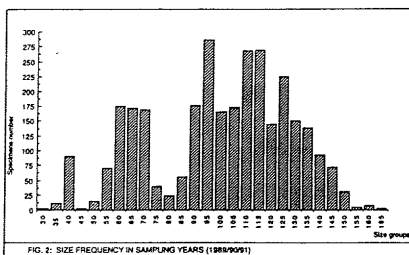


FIG. 2: SIZE FREQUENCY IN SAMPLING YEARS (1989/1991)

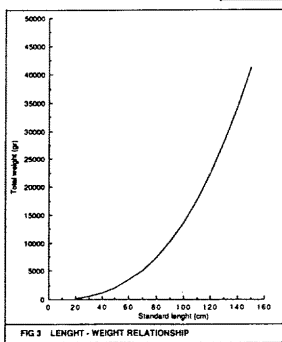


FIG 3 LENGHT - WEIGHT RELATIONSHIP

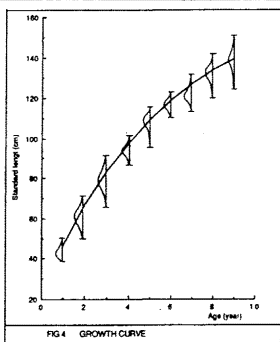


FIG 4 GROWTH CURVE

REFERENCES

- LAZZARI A. and BARBERA G., 1988. - First data on the fishing of Yelooftail (*Seriola dumerilii*) spawners in the Mediterranean Basin. *Journal of Aquatic products* 2,1 (1988):133.142.