Biology and fishing of *Aphia minuta* (Risso, 1810) in the S.E. of Iberian Peninsula

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Among the small-scale fisheries on the coast of the Region of Murcia, we must point out the one aimed to catch transparent goby - - Aphie minuta (Risso, 1810). This small goby usually comes up together - with other species, such as Pseudaphia ferreri (O. de Buen & Fage, 1908) Crystallogobius linearis (von Düber, 1845) and young individuals of - - Atherina sp and Pagellus sp. In waters of the Spanish South-east both - Aphia minuta and Pseudaphia and Crystallogobius form shoals which are - detected by the echo-sounder of the fishing boats in very definite areas: the capture fluctuates between 6-30 mts in depth,in clear waters among - prairie of Posidonia oceanica, sheltered places and also in particular - bays usually those of soft substratum.

The study includes the months in which the fishery takes place (December, January and - - February) corresponding to two fishing periods: - - 1988-89 and 1898-90. Weekly biologic samplings have/ been carried out on the whole of the capture, noting down the following parameters:

- Total length (LT). From the beginning of the head to the end of the caudal fin, with the accuracy of 1 mm.

- Wet weight (P). Accuracy of 0,001 gr.

In the same way we made the sex differentation and gonad - development with the help of a magnifying glass based on external morpho logical characters and the presence of eggs in female gonads.

The obtained results for the period 1988-89, show that the evolution of the average total length and weights fluctuate between the/ ranks of 28-33 mm. and 0,114-0,193 gr. respectively, noticing that these parameters keep practically steady during December and January, arising/ a strong increase in both of them from February, in which they start the prelaying period.

In relation to the gonad development, an increase of egged-females is noticed, at the end of January, when it reaches a maximum - - (57%) to low down until the first half of February (37%). A strong increa se arises later, reaching 73% of the whole egged-females. Between 7-11%/ of these are about to spawn.

During 1989-90, both the size and the weight experimented/ a gradual increase from the beginning of the fishery (December) to half/ of January, to low down suddenly. The founded values are: in December - 40,4%, in January 49,8% and in February 42,4%. We can notice that the - maximum correspond to January in contrast to the previous period when - February was the month with a higher percentage of egged-females and - - females near to egglaying. This last fact has not been noticed in the - last period.

REFERENCES.

CAMIÑAS, J.A.; BARO, J.; REINA, J.A., 1987. Pesquerías artesanales del - Mar de Alboran. Informe final del proyecto Estudio de las pesquerías artesanales de la región surmediterránea española comprendida entre Punta - Europa y Cabo de Gata. (Primer año). Proyecto cooperativo IEO/CEE XIV-B-I-86/XII/3857.

DE BUEN, F., 1931. Notas a la familia Gobiidae. Observaciones sobre algunos géneros y sinopsis de las especies Ibéricas. Not. Resm. Ins. Esp. - - Oceanograf.; Serie II (54, 76 pp.).

IGLESIAS, M. Y MARTORELL, J.M., 1987. La pesquería litoral de las Islas - Baleares. Proyecto cooperativo IEO/CAIB/CEE XIV-B-1/87/8/2840.

Informe de la mesa de trabajo sobre la problemática de la explotación pes quera de góbidos y afines en el litoral mediterráneo español. Palma de - Mallorca, 7-8 de junio de 1.988. No publicado.

LOZANO y REY, L., 1960. Peces Fisoclistos, 3ª parte. Subserie Torácicos/ (Ordenes Esqueneiformes y Gobiformes), Pediculados y Asimétricos. M. R. - Acad. Cienc. Exact. Fis. Nat. Madrid; Ser.:Cienc. Nat.; 14: 613 p.

TORTONESE, E., 1965. Fauna d'Italia. Ostheichthyes. Pesci ossei. Edizioni Calderini. Bologna, XI: 290-340.