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Very little is known about the vertical distribution of the unihorn octopus *Scaergus unicolor* Orbigny 1840, within the Mediterranean Sea (MANGOLD-WIRZ, 1963 ; SANCHEZ, 1986 ; MANGOLD & BOLETZKY, 1987), and information is particularly poor as regards the Sicilian Channel (JEREB & RAGONESE, 1990).

Although trophic and/or reproductive related vertical migrations are generally reported for octopuses, they have only been hypothesized for this species (Verany, in MANGOLD-WIRZ, 1963; ROPER *et al.*, 1984), as no direct evidence was available.

An attempt to indirectly validate this assumption of vertical migrations was made, using data collected during two years (May 1985 to February 1987) of seasonal, randomly stratified trawl surveys carried out within the Sicilian Channel (daily hauls of 1 hour duration ; cod-end mesh size- 20 mm/side ; see LEVI, 1990 for further details).

The analysis if the yield maps in numbers showed some seasonal variation in the distribution pattern of the unihorn octopus (dig.). Due to the geographical and seasonal constraints however, a correlation of this variation with a migratory habit was not clear.

The seasonal changes in the mean values of the catches in number (C), of the individual body weight (BW) as well as those of the mantle length (DML) and of the gonadosomatic indices (GW/BW) have been analyzed for different bathymetric strata (each stratum = 50 m.), for both sexes taken separately. A great variability was noticed and no cyclic pattern was identified, while only a slight correlation existed between the variables considered, which was almost never significant (at 95%) considering both the linear (Pearson coefficient : P) and the rank (Spearman coefficient : S) statistical approach utilized (see SOKAL & ROHLF, 1981, for statistical terminology). The gonadosomatic index in females and the numerical value of the catches in males appeared to be significantly correlated with depth ($S = -0.428$ and $S = -0.445$ respectively) only when both years were considered as a whole (i.e., combining seasonal data).

Basically, the abundance as well as the size variation and the maturity stages seem to be quite independent from bathymetry as well as from seasonal cycles.

Information on the physical-chemical characteristics of the water in the three main "sub-areas" explored (eastern, central and western, respectively) were also analyzed in relation to the species distribution. Although remarkably "adaptable" to different relatively "cold" (13-14 C_a) and "salty" ($S > 38\%$) waters definitely below the upper limit of the thermocline, which is situated around 50 m depth. In fact only one specimen was caught above this limit, at 46 m depth. These results tend to support a relative sedentary life-style for this species as well as a great adaptability, as already observed in other areas (PERES & PICARD, 1964), confirming also MANGOLD's opinion (MANGOLD-WIRZ, 1963) that *S. unicolor* is unlikely to undergo substantial migrations.

The observed distributional variations in the present case are more likely to be related to the sampling "noise" and to the multispecific aims of the research program.

Taking into consideration the observed difficulties in the sampling procedures and the problems related to the "interpretation" only mark and recapture experiments would give a satisfactory answer about the existence of a migratory behavior for *Scaergus unicolor*.

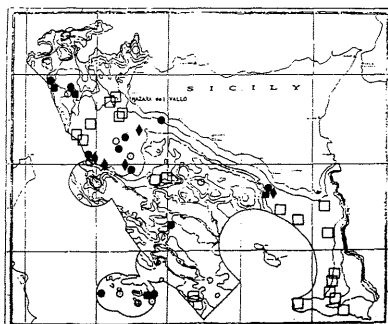


Fig. - Occurrence of *S. unicolor* in the different seasons.

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