GILL NET FISHERY TARGETING *SOLEA VULGARIS* QUENSEL, 1806 IN THE EASTERN LIGURIAN SEA

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Abstract

Information on the gill net fishery targeting *Solea vulgaris* was collected in Livorno, Eastern Ligurian Sea, from January to December 2000. During the study, sixty-eight species were caught; *S. vulgaris*, *Raja asterias, Squilla mantis* and *Trigla lucerna* contributed to the total biomass caught for about 65%. Discard accounted for an important fraction of the catches; the reject of *S. vulgaris* was due to damaged specimens and it varied from 0.3% to 5.2% of the total catch in spring and autumn, respectively. The size composition of *S. vulgaris* catches was characterised by large specimens (>20 cm TL).

Keywords : Ligurian Sea, coastal management, demersal, fisheries

mantis (4.8%) and *Trigla lucerna* (4.5%). Therefore, the above mentioned four species accounted for over 64% of the total biomass caught, confirming the high selectivity of this fishery. Other 64 species were collected (42 fishes, 10 crustaceans, 10 molluscs and 2 echinoderms), but the majority of them resulted occasional in the catches.

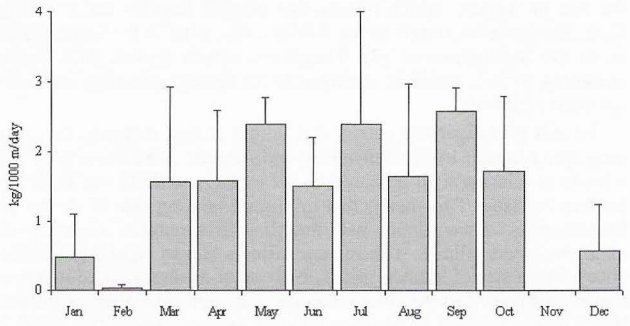

Fig. 1 – Landings per Unit of Effort (kg/1000 m /day + s.d.) of *S. vulgaris* during the studied period.

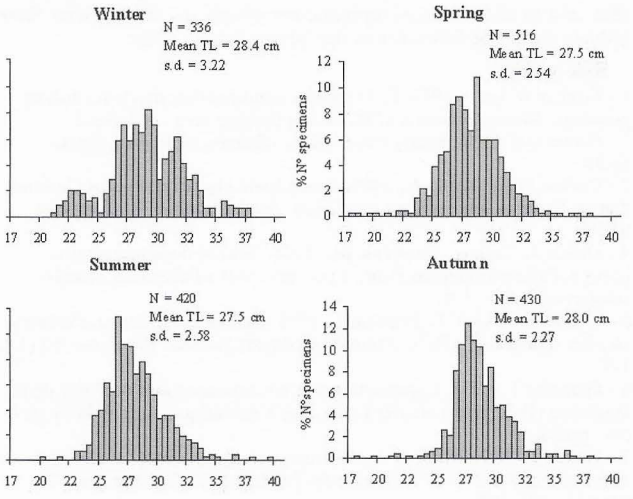

Fig. 2 – Demographic structure of the landing of *S. vulgaris* during the studied period.

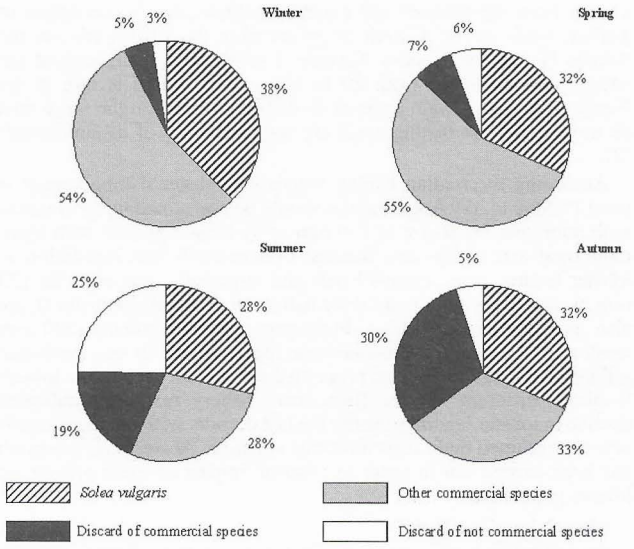

Fig. 3 – Composition of the gill net catches during the observations on board.

The total discarded biomass constituted an important fraction of the total catch, ranging from 8% in winter to 44% in summer. Not commercial species (crustaceans, molluscs and echinoderms) and damaged specimens of commercial species represented a high percentage of the discard of this fishery. A high reject in biomass of not commercial species (25%) was observed in summer, mostly due to the crustacean *Dardanus arrosor* (21.1% of the total catch). The discard of commercial species showed a clear increase during the year, with important values in summer (19%) and in autumn (30%). The discarded biomass of *S. vulgaris*, exclusively represented by damaged specimens, ranged from 0.3% of the total catch in spring to 5.2% in autumn.

References

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Tab. 1 – Technical characteristics of the gill net used in Livorno.

PANEL							FLOATS				HEADLINE			LEADLINE	
Height (m)	Length (m)	N. mesh width	Material	Stretched mesh size (mm)	Diameter of the filament (mm)	Hanging ratio	Total number	Diameter (mm) max	Diameter (mm) internal	Length (mm)	Length (m)	Diameter (mm)	Material	(gr x m)	Length (m)
3	135	200 0	monofilament nylon	82	0.18	0.33	33	30	12	60	45	25	cotton	120	45