

FISHING CAPACITY AND FISHING ACTIVITY OF FOUR "RAPIDO" TRAWL FLEETS ALONG THE ITALIAN COASTS

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Abstract

Fishing capacity and activity of four fleets using "rapido" trawl along the Italian coasts were investigated. Consistent fleets exist only in the Adriatic, while this gear is scarcely employed along the western Italian coasts. Boat length, GRT, engine power, fishing activity and total landings of the Adriatic fleets were considerably higher than those of the western basin vessels. These differences were reduced when landings per unit of effort are considered.

Key-words: rapido trawl, landings, fishing effort, Mediterranean Sea

Introduction

"Rapido" trawl is used in Italy to exploit sole and scallops. It resembles a beam trawl and consists of an iron frame provided with 3-5 skids and a toothed bar on its lower side. Nowadays it is largely used along the northern Adriatic coast, whereas few vessels operate with this gear in other Italian waters. To gather information for managing this fishery, a study on the characteristics of few Italian fleets using "rapido" was performed funded by EU (1), paying particular attention on fishing capacity and fishing activity.

Materials and methods

Four fleets were considered: Ancona and Rimini (northern Adriatic Sea), Viareggio (eastern Ligurian Sea) and Fiumicino (central Tyrrhenian Sea). Information on the main characteristics of vessels using "rapido" (GRT, boat length, engine power) and on fishing activity was collected at each harbour. From July 2000 to March 2002, data on monthly fishing days and total landings were recorded for each boat, through logbooks, interviews with fishermen and/or collection of auction documents.

Results and discussion

The "true" rapido fishing fleets exist only in the northern Adriatic Sea (Table 1), while along the western Italian coast its use, although more important in the past (2), is negligible at present, due to the reduced presence of suitable seabeds and to legislative restrictions issued in 1995 and still in force. The vessels of the two Adriatic fleets were considerably larger, in terms of length, GRT and engine power, than those operating in the western basin, allowing more gears of larger size to be towed.

Table 1. Main characteristics of the boats, the gears and the fishng activity of the "rapido" trawl fleets investigated. S.E. = standard error.

Harbour	Num. vessels	Gross Registered Tonnage		Length (m)		Engine power (kW)		Crew
		Mean	±S.E.	Mean	±S.E.	Mean	±S.E.	
Ancona	11	120.3	6.0	27.5	0.4	453.9	71.7	5-6
Rimini	9	87.3	9.4	24.3	0.9	382.9	20.7	5-6
Viareggio	2	25.0	-	20.0	-	134.0	-	2
Fiumicino	1	38.0	-	22.7	-	316.0	-	3

Harbour	"Rapido" trawl gears			Fishing activity			
	Num.	Width (m)	Speed (knots)	Days week	Hours day	Hauls day	Fishing ban
Ancona	4	4	7	3	24	15-18	30-45 days
Rimini	4	4	7	4	24	15-18	30-45 days
Viareggio	2	3	4.5-5	5	16	7-8	No
Fiumicino	2	3	4.5-5	5	16	7-8	No

In the northern Adriatic Sea "rapido" is used day and night, all year round and for 3-4 days a week, while in the eastern Ligurian and central Tyrrhenian Seas it is employed mostly during day and more unsteadily over the year, being alternated with otter trawl (Table 1).

These aspects explain differences in fishing activity (Fig. 1), which ranged from 218 to 429 and from 215 and 446 fishing days at Ancona and Rimini respectively, with the lowest values recorded in summer, when trawling is banned for about 45 days. On the other hand, it ranged between 47 and 85 days at Viareggio and between 5 and 41 at Fiumicino. Seasonal total landings were higher at Ancona (62-164 t) and Rimini (65-132 t) than at Viareggio (4-10 t) and Fiumicino (1-7 t). These differences decreased when landings per unit of effort were considered (Fig. 2): only the values of Rimini were significantly higher (one-way ANOVA, $p < 0.05$) than those of the other ports.

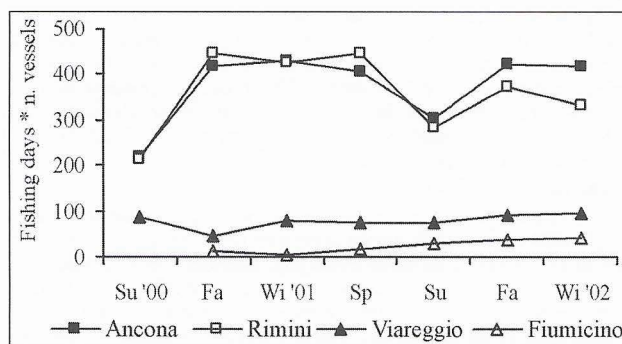


Fig. 1. Fishing activity performed by each "rapido" trawl fleet.

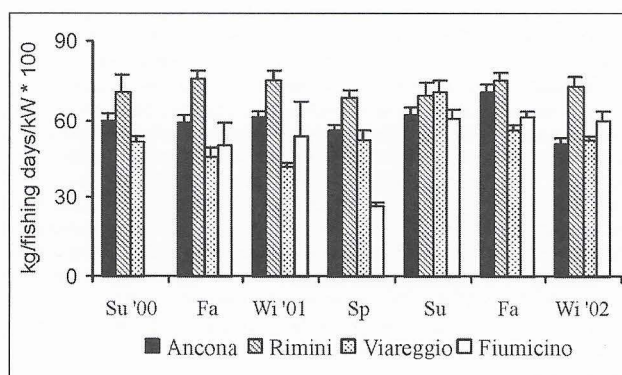


Fig. 2. Landings per unit of effort of each "rapido" trawl fleet.

References

- 1 - Fabi G., and Sartor P., 2002. Study on the mixed-species catches of the "rapido" trawl fishery along the Italian coasts. EU Study Contract N. 99/051, Final Report. 124 p.
- 2 - Recasens L., and Sartor P., 1995. Analyse comparative des captures des différents engins de pêche de fonds dans la zone littorale (<80 m de profondeur). *Rapp. Comm. int. Mer Médit.*, 34: 254.