

EFFECTS OF A TWO-MONTH CLOSURE ON TWO TRAWL FISHING GROUNDS IN THE NW MEDITERRANEAN

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Abstract

Changes in the commercial catches in two trawling grounds located in Sant Carles de la Ràpita (Catalan Coast, NW Mediterranean), were monitored in order to analyse the effects of a two-month seasonal closure. Catch data per unit effort (CPUE) of the three most representative commercial species in each of the two fishing grounds were selected for the study. Results conclude that in both trawling grounds the CPUE increases after the fishing closure.

Keywords : Fisheries, Demersal, Western Mediterranean.

Introduction

The trawling fleet of Sant Carles de la Ràpita (SCR) corresponds to 50% of the total fleet, and is the largest (16.81%) of the Catalan Coast (NW Mediterranean). The fishing fleet activity is developed from Monday to Friday on a daily basis, operating at the two selected trawling grounds: inshore (<70m) and offshore (>70m). The trawling fleet is regulated by a two months fishing closure every year: July and August (1).

Material and Methods

Daily landings by vessel, indicating the specific composition, were obtained from January 2002 to June 2004 from the SCR Fisherman's Association. The fishing effort in each fishing ground was estimated as hours per month and vessel (2).

The three most representative exploited species from each fishing ground were selected to analyse the effects of the seasonal closure. In the offshore fishing ground catches of *Merluccius merluccius*, *Lophius* spp and *Nephrops norvegicus* represent the 21% of the total demersal catches, whereas in the inshore fishing ground catches of *Squilla mantis*, *Mullus* spp and *Loligo vulgaris* represent 34% of the total demersal catches. The catch data was standardized to kg per fishing hour (CPUE)

The fishing activity at both fishing grounds has seasonal fishing effort variability. From March to June the inshore fishing ground shows a low fishing activity and from September to February shows a high level of effort. The fishing activity at the offshore fishing ground is developed in the opposite way.

Results and Discussion

To monitor trawl catches variability in both studied fishing grounds, both CPUE (Kg/h) and catches (Kg) of the three inshore and offshore species were compared before and after the seasonal closure (Fig.1 and Fig.2).

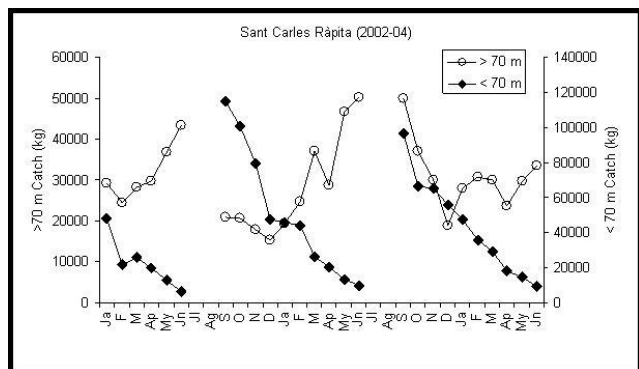


Fig. 1. Catches from the two trawling grounds from January 2002 to June 2004.

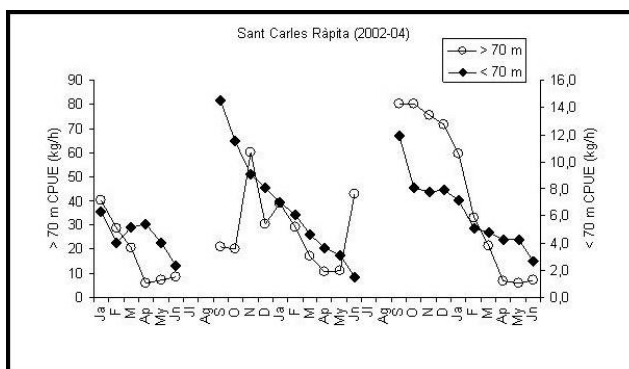


Fig. 2. CPUE from the two trawling grounds from January 2002 to June 2004.

Results showed different patterns when catches or CPUE were analysed. Regarding the catches, an evident decrease is observed in the offshore fishing ground after the closure in 2002. Nevertheless, in 2003 catches after the closure don't show clear changes. On the contrary, catches increased spectacularly in the inshore fishing ground after the closure. In relation to CPUE, an evident increase appears after the two months of closure in the two studied years at both fishing grounds.

The analysis of the effect of a two month cessation of trawl fishing activity in two fishing grounds highlighted an increase of CPUE in both trawling grounds after the fishing closure.

Acknowledgements - This study is part of EU Response Project, contract no: Q5RS-2002-00787. We thank all participants.

References

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