ICES: Div. VIIde

RAIMOUEST

INTRODUCTION

Context

Undulate ray landings have been banned since 2009 while this species appears to be very abundant in the Normand-Breton Gulf (ICES Division VIIe). The lack of information resulting in poorly stock knowledge is mainly due to poor landings data (recording as miscellaneous rays; no landings since 2009) and lack of scientific survey in VIIe. The landings ban has induced discards and stocks diagnostic issues.

The partnership

Partners: Regional fishery committee of Basse-Normandie CRPMEM BN, Ifremer, APECS (NGO), SMEL (technical organization) and fishermen

Financial backers: FEP, Regional council of Basse-Normandie, Departmental council of Manche, France Filière Pêche and National fishery committee of French

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The project

Area of study:
Normand-Breton Gulf (NBG) in the Southeast of the western English Channel (VIIe) with an extension to the North Coast of the Cotentin peninsula in the eastern English Channel (VIId)

Schedule: April 2012 - April 2014

State of progress: Achieved, submitted to the ICES WGEF in June 2014 (1)

Previous data on undulate ray: No

Goals:
1) To improve fisheries data on the main ray species caught in the NBG (focus on the undulate ray)
   - to describe the fisheries for rays
   - to provide informations on spatial distribution and stocks status indicators
   - partnership with the RECOAM project focusing on biological data

2) To propose appropriate management measures for sustainable exploitation of undulate ray

METHODOLOGY

Description of the ray fisheries in the NBG, 2012

Rays fisheries fleet was identified and characterized using the fishing committee fleet database. Rays fishing strategies were described by métiers using face-to-face interviews (n=68).

The proportions of each ray species in the total catch of rays were estimated from inquiries, samplings at sea, and sales of rays by species at Cherbourg auction.

Indicative level of undulate ray catches

- Before the ban: the decrease step in the total ray landings between 2007-08 and 2009-10 can be analyzed as the loss of undulate ray and give an indicative level of the landings of this species.
- After the ban: discards of undulate ray based on French on-board observations (both the standard DCF and RAIMOUEST samplings) was estimated by raising observed discards to the total French fishing fleet.

Spatial distribution

The spatial distribution was mapped by species at the NBG level from the ray catch composition specified by fishermen inquired on their fishing area and at the English Channel level from the location of the catches by ray species in the samplings at sea (standard DCF and RAIMOUEST samplings: 7396 fishing operations).
Description of the ray fisheries in the NBG, 2012

- 63 % of the fleet operating in the NBG was involved in ray fishing (catching or having caught rays before the undulate ray landings ban).
  ➔ 289 vessels, about half of coastal trawlers/dredgers and half of small size netters and longliners (average length = 9m).
- Bottom trawling and longlining: rays caught as bycatch. Netting for rays: occasional activity (small tidal coefficient, algae constraints...).
- Undulate ray is the main ray species caught in the NBG.
- Fishermen indicate a spectacular jump of undulate ray abundance.

Undulate ray spatial distribution

- Undulate ray seems to form a discrete stock in the English Channel (VIIde).
- NBG represent the main area of abundance (undulate ray is highly dominant on coastal waters).
- Connection to areas of lesser density in other parts of the English Channel.

Indicative level of undulate ray catches

- Before the ban, the annual French landings were estimated at least as 300 tons in the Western English Channel (VIIe) and as 160 tons in the NBG.
- After the ban, annual discards by French bottom otter trawl fleet in VIIe were estimated to 750 tons in 2011-2013. These analysis could not be performed so accurately for gillnet nevertheless the total discards of undulate ray of marketable size (>50cm) by all métiers of the French fleet in VIIde in 2013 was estimated to 1500 tons during ICES WGEF 2014(2), ➔ high potential of landings

Other results: abundance and biomass indices of undulate ray from CGFS survey (VIIId)(2)

- 2012-2013 / 2007-2011 abundance indices shows an increase of 320 % (French CGFS surveys in VIIId)

For more: