Stock Annex: Spotted ray (*Raja montagui*) in Subarea 8 (Bay of Biscay)

Stock specific documentation of standard assessment procedures used by ICES.

Stock: Spotted ray

Working Group: Working Group on Elasmobranch Fishes (WGEF)

Created:

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A. General

A.1. Stock definition

WGEF decided to consider a stock unit in the Bay of Biscay. Discontinuity in the species distribution between the Celtic Sea and the Bay of Biscay supports this stock definition (Johnston G. *et al.*, 2014).

A.2. Fishery

The Bay of Biscay landings are mainly French (90 % in 2002-13) and from division 8a. The main French gear is the fixed net in recent years.

A.3. Ecosystem aspects

The spotted ray occurs on the continental shelf, in areas with seabed composed of mud, fine sand or gravel. It is most common at depth less than 120 m. Juveniles are found in inshore areas.

B. Data

B.1. Commercial catch

An international landing series is available from 1999 onwards. The landings have been comprised between 35 t and 75 t from 1999 to 2009 with no trend. Since 2010, increasing trends are observed in both French and Spanish landings. Total international landing raised 109 t in 2012 and 172 t in 2013. However, this increase may be partly because the better species identification in the auction halls.

Furthermore, there may be issues of misidentification of this species with blonde ray (*Raja Bachyura*).

B.2. Biological

Length distributions are not provided to ICES.

Maturity length and growth parameter (Von Bertalanffy) are been estimated for the Portuguese spotted ray population (Pina-Rodrigues M.T., 2012)

B.3. Surveys

The spotted ray is sporadically present in the EVHOE catches (Figures 1 and 2). The occurrence of this ray in the EVHOE catches does not suggest any recent change in abundance.

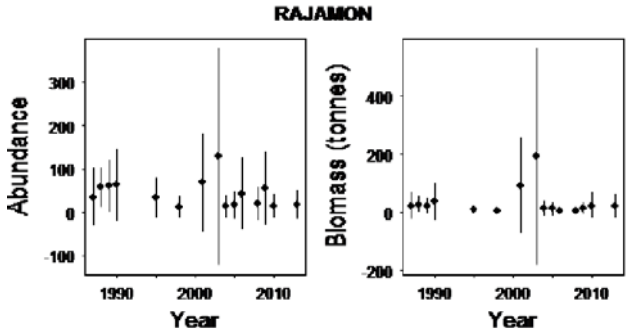

Figure 1: EVHOE survey indices 1987-2013 of the spotted ray in the Bay of Biscay (8.a,b,c). Abundance and biomass are raised to the total area surveyed (swept area method) but should be considered relative and in way absolute estimates.

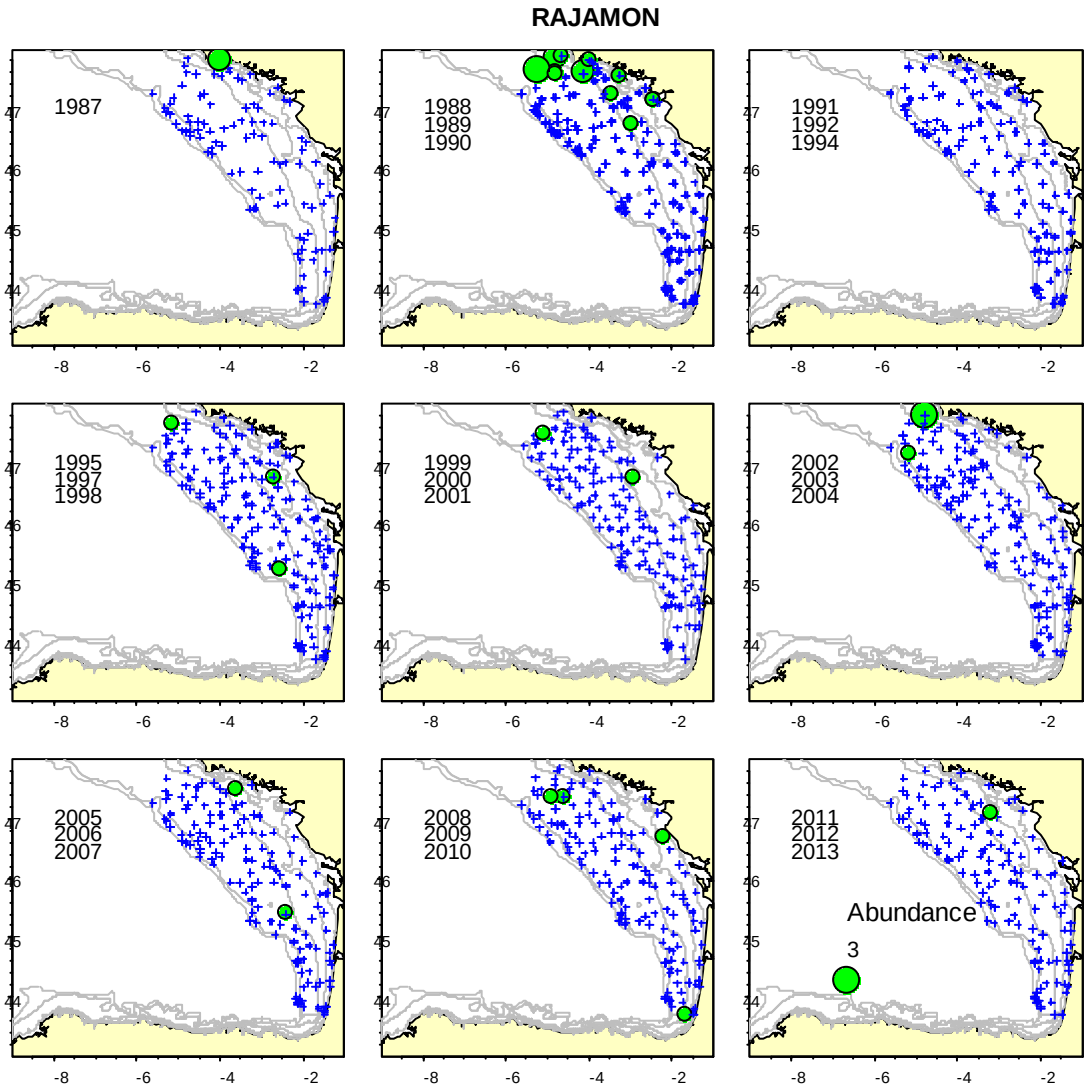

Figure 2: Spatial distribution of catches of spotted ray in the Bay of Biscay from EVHOE survey 1987-2013 by 3 years (except 1987).

B.4. Commercial CPUE

No available commercial CPUE.

B.5. Other relevant data

C. Assessment: data and method

D. Short-Term Projection

E. Medium-Term Projections

F. Long-Term Projections

G. Biological Reference Points

No reference points have been adopted by ICES for this stock

H. Other Issues

H.1. Historical overview of previous assessment methods

I. References

Johnston G., A. Tetard, A. Ribeiro Santos, E. Kelly and M. Clarke, 2014. Spawning and nursery areas of selected rays and skate species in the Celtic Seas. Working Document to WGEF 2014

Pina-Rodrigues, M.T. 2012. Age, growth and maturity of two skate species (Raja brachyura and Raja montagui) from the continental Portuguese coast. (Master thesis) Gent University. (49pp)