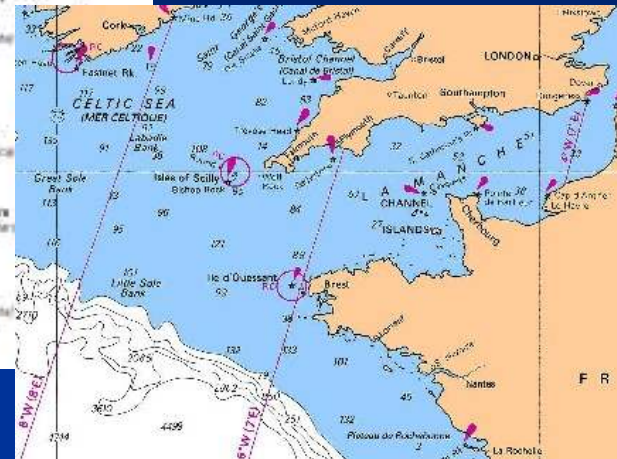


RAYS and SKATES, french contribution



1. Background , ICES advices and consequences
2. Towards a better knowledge
on fishing activities : Project RAIMOUEST
on biology : project DEMERSQUALE

1. Background , ICES advices and consequences

- **Lack of data on these species :**
Composition and distribution
Fishing effort

➡ **ICES advices , EC decisions, Fishing restrictions: 4
banned species in Western Channel/ Celtic Sea
2 in Eastern Channel**

- **Case of undulate ray**
**French studies in 2009 show importance of this species
in Western Channel**

2.Proposals

- More informations to reevaluate the status of the species
- Wishes:
 - Return to fishing opportunity using adapted management measures RB
 - Management at low scale (ICES 2010)

2 projects in France

RAIMOUEST
DEMERSQUALE



RAIMOUEST

Fishing activities Western Channel

4 species

1. Fisheries overview

2. Data Collection for main species of rays

- Distribution and abundance (by survey)
- Observations at sea (catch complement of DCF program)

3. Scientific and technical communication

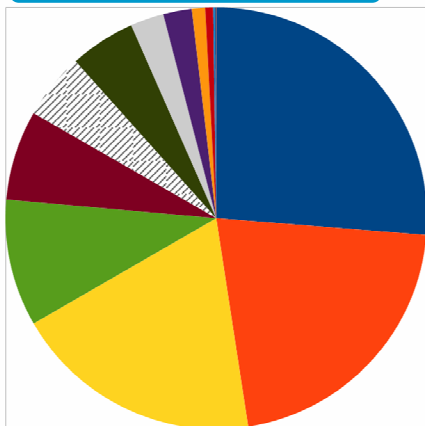
- Fishing industry
- JCBG Jersey, ICES, RACs and EC



Sea data observations (DCF)

7e - Skates and Rays - France - % catch in weight
(all Métiers, raised to sampled fishing operations, 371 Trips, 2003-2010)

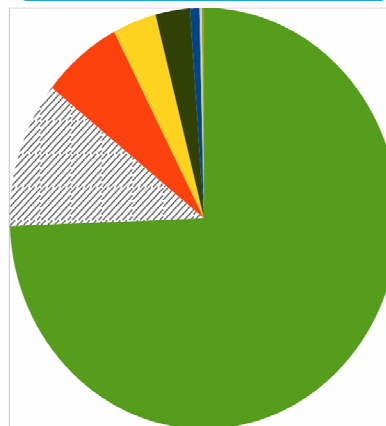
Western Channel



- Raja brachyura
- Raja undulata
- Raja montagui
- Raja clavata
- Leucoraja circularis=Raja circularis
- ▨ Raja sp.
- Raja naevus
- Torpedo marmorata
- Raja microocellata
- Raja (Dipturus) batis
- Dasyatis pastinaca
- Torpedo torpedo
- Torpedo nobiliana
- Leucoraja fullonica
- Raja radiata

7d - Skates and Rays - France - % catch in weight
(all Métiers, raised to sampled fishing operations, 263 trips, 2003-2010)

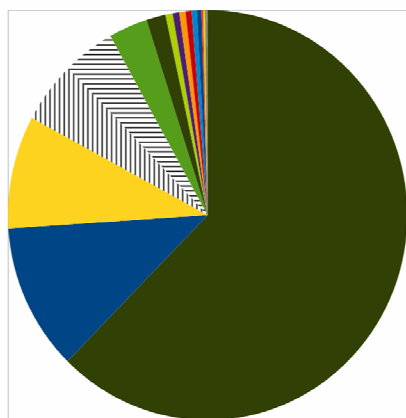
Eastern Channel



- Raja clavata
- ▨ Raja sp.
- Raja undulata
- Raja montagui
- Raja naevus
- Raja brachyura
- Torpedo marmorata
- Raja radiata
- Raja microocellata
- Dasyatis pastinaca
- Leucoraja circularis=Raja circularis

7a,b,c,f,g,h,j,k - Skates and Rays - France - % catch in weight
(all Métiers, raised to sampled fishing operations, 120 Trips, 2003-2010)

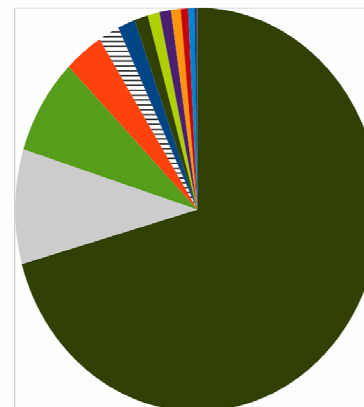
Celtic sea



- Raja naevus
- Raja brachyura
- Raja montagui
- ▨ Raja (Dipturus) batis
- Leucoraja fullonica
- Raja clavata
- Leucoraja circularis=Raja circularis
- Raja microocellata
- Torpedo nobiliana
- Raja (Dipturus) oxyrinchus
- Raja sp.
- Rajidae
- Raja undulata
- Raja asterias
- Rajella fyllae
- Dipturus nidarosiensis
- Rajella kulujevi
- Torpedo marmorata
- Dasyatis pastinaca
- Neoraja caerulea

8a,b - Skates and Rays - France - % catch in weight
(all Métiers, raised to sampled fishing operations, 621 Trips, 2003-2010)

Biscay bay



- Raja naevus
- Torpedo marmorata
- Raja clavata
- Raja undulata
- Leucoraja fullonica
- Raja brachyura
- Raja microocellata
- Dasyatis pastinaca
- Raja sp.
- Torpedo nobiliana
- Leucoraja circularis=Raja circularis
- Raja montagui
- Myliobatis aquila
- Raja (Dipturus) batis
- Raja radiata
- Torpedo torpedo
- Raja (Dipturus) oxyrinchus



DEMERSQUALE

Biology on main species of rays Western Channel and Biscay Bay

1. Tagging experiments
2. Stock identity by genetic methods
3. Biology: length maturity, growth and reproduction



CONCLUSIONS

Management long term

- Specific management / main species
- Minimum size
- Close/ open Box
- Fishing / LPUE ou quota ?



Thanks for your
attention

Merci de votre
attention

