

# Data needs for Brown Crab Assessments

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September 2017

NWWAC Brown Crab subgroup  
Dublin, Sept 2017



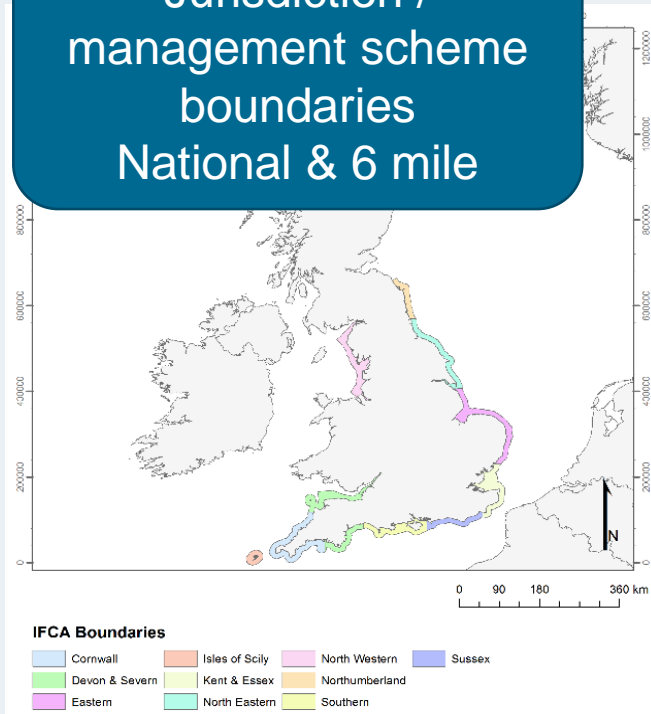
Centre for Environment  
Fisheries & Aquaculture  
Science



**Cefas**

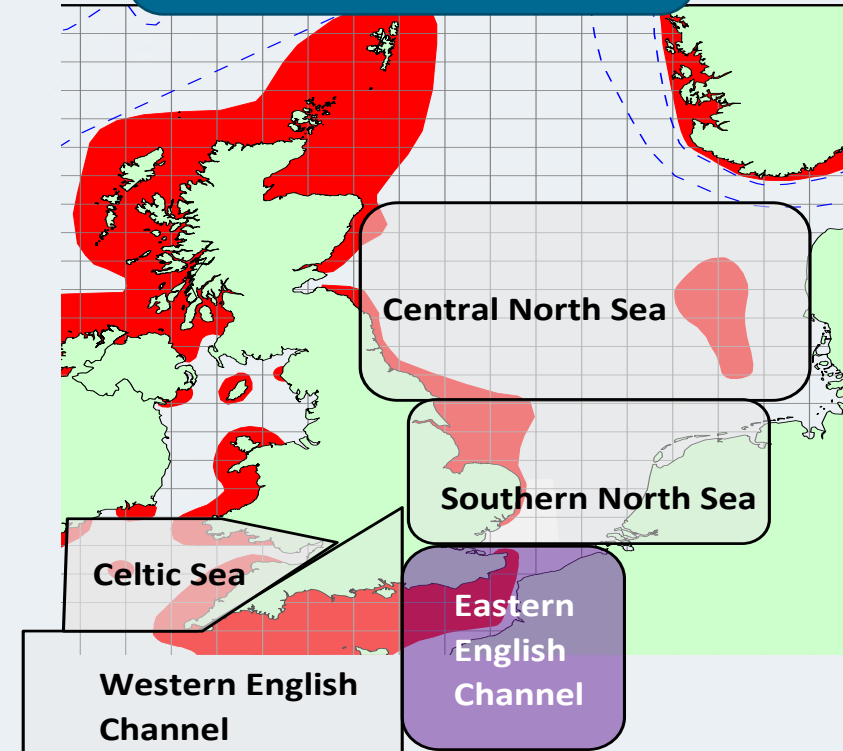
# Spatial scales

Jurisdiction /  
management scheme  
boundaries  
National & 6 mile

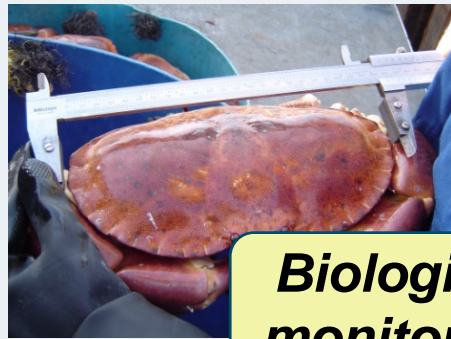


Data needed on a  
fine scale:  
Measuring local  
management effectiveness  
Vs  
Stock level dynamics

Stock Assessment  
Boundaries

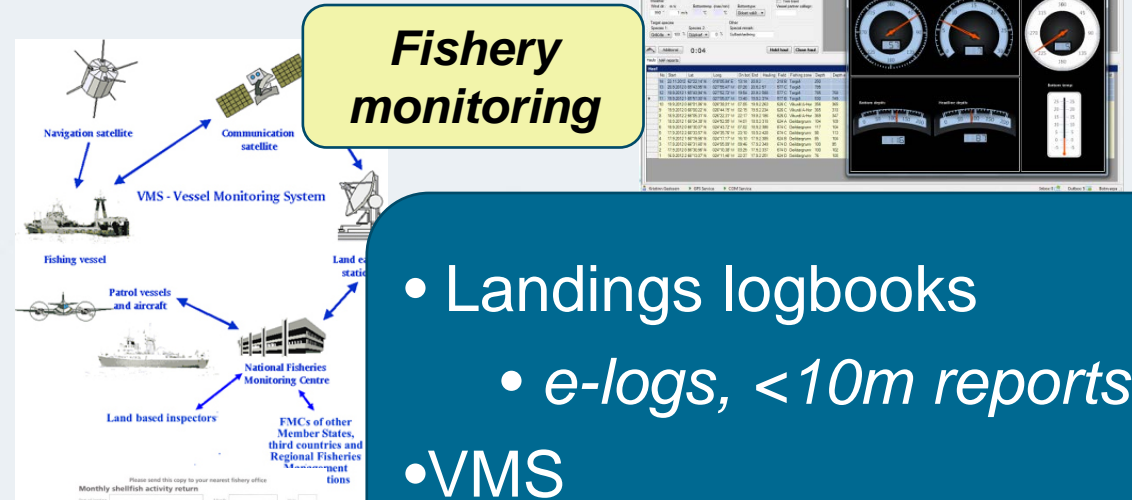
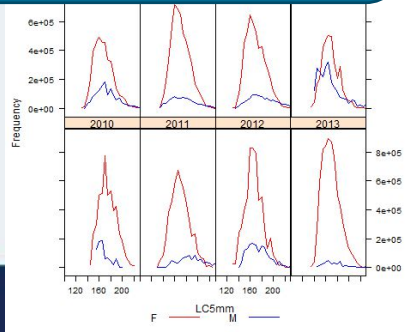


# Current data streams



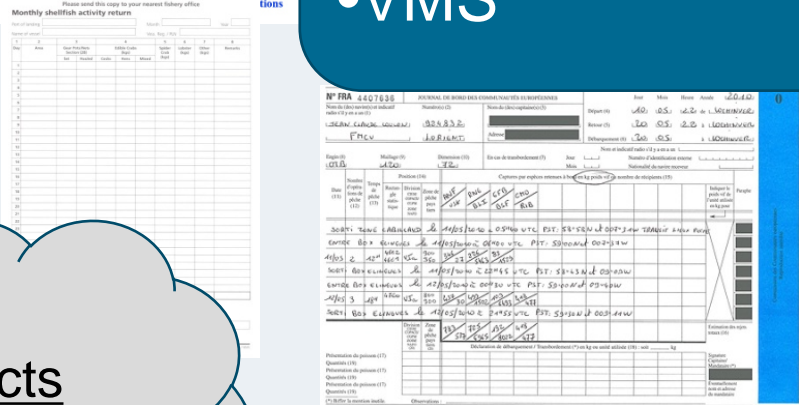
**Biological monitoring**

- Sampling of landings
- Length, Sex & Maturity



**Fishery monitoring**

- Landings logbooks
- e-logs, <10m reports
- VMS



Science projects  
Migration  
Growth

# What are we missing?

## Meaningful effort metrics.

- *Pot numbers*
- *Soak time*
- *Pot type*

## Current growth rate.

- *Have historic data*
- *Poor regional resolution*
- *Coordinated tagging program?*

## “Live” migration data.

- *Have historic data*
- *Limited sex/area coverage*



# Data volumes:

## Catch 2016

- ~49,000 catch records per year
- ~45,000 voyages per year

## Sampling (2016).

- ~34,000 crabs measured
- 313 samples

- 5 stocks
- 4 quarters
  - *20 strata*
- *Spread over 130 ports*



# Potential data streams:

## Self-sampling:

Blue-tooth callipers & tablets now being tested by fishers

## Grading machines:

Some investigations going on to use grading machine data in processors.

## Auto-recognition cameras:

Under development:  
Low-cost camera with built in image recognition



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