

# Trends in Fish Records

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South West Marine Ecosystems 2019, Plymouth, 12<sup>th</sup> April 2019

# Rarities



Nick Pope



## Britain's First Jellynose

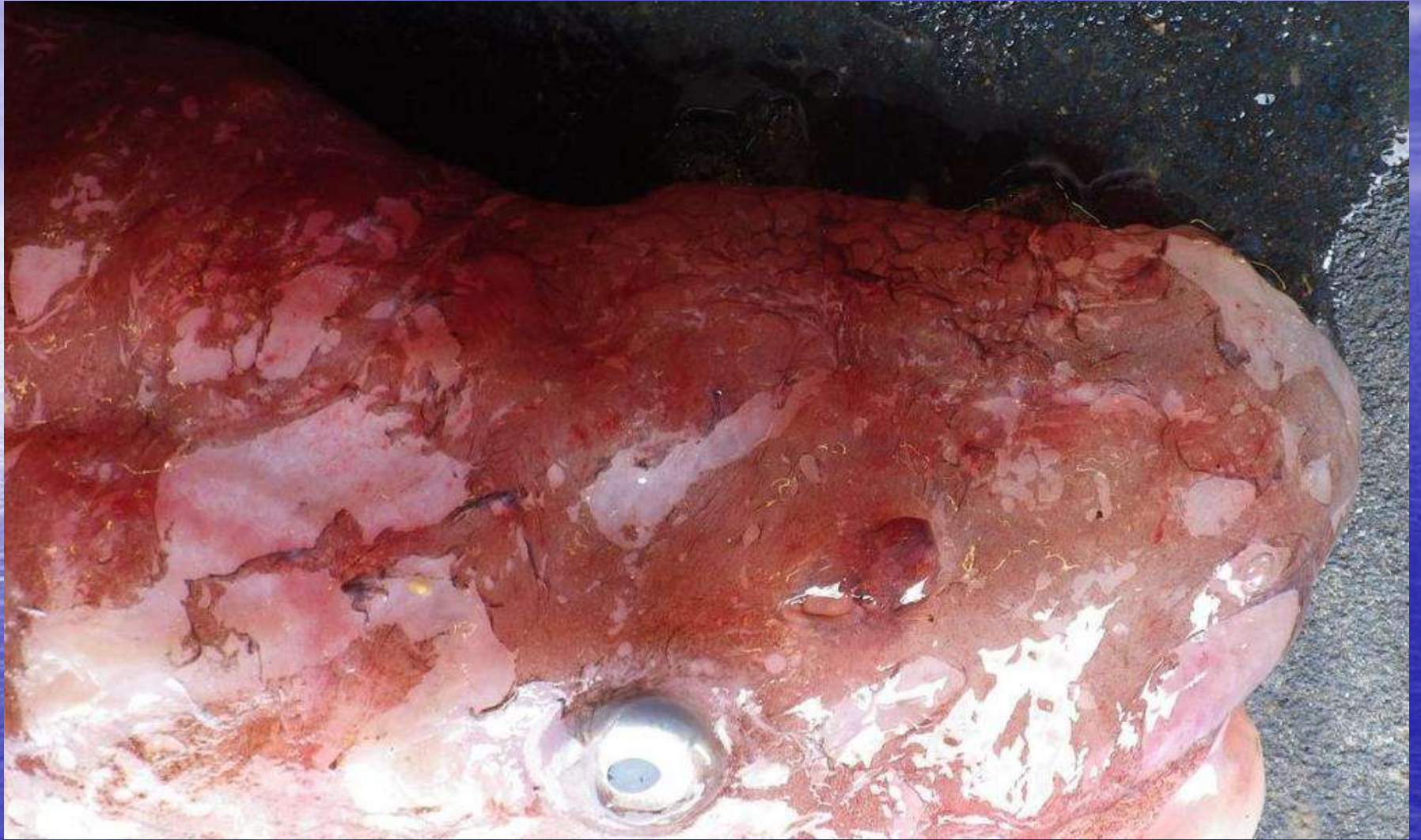


1.9 m of Loppe's Tadpole fish *Ijimaia loppei*  
Plymouth Fish Market, April 2013













Pelvic fins



# Pompano Dolphinfish



Mark Padfield

*Coryphaena equiselis*, Chesil beach  
8 Sept 2017,





Ross Spearing

Crocodile  
shark  
*Pseudocarcharias  
kamoharai*,  
Hope Cove,  
Devon.  
18 February  
2017





Ross Spearing

Crocodile shark  
First European report





E Stephan



E Stephan

Smalltooth Sand Tiger or ragged-tooth (*Odontaspis ferox*),  
Normandie.

13 August 2012



# Range extension



Red Mullet *Mullus surmuletus*





Juvenile Red Mullet  
Plymouth Sound Bioblitz, September 2014





Almaco Jack *Seriola rivoliana*





Blue Runner *Caranx crysos*





**Derbio, *Trachinotus ovatus***  
Probably the seventh recorded in Britain



## Plymouth Fish Market, 14<sup>th</sup> December 2018

Four different species of sea bream (Sparidae).  
Not a large amount of any, but this is the first  
time I can remember this occurring. There were  
at least six Couch's *Pagrus pagrus*, three or four  
Black Sea Bream *Spondyliosoma cantharus*,  
four nice Giltheads *Sparus aurata*, and one Red  
or Blackspot *Pagellus bogaraveo*.





Red (above) and Couch's (below) Sea Breams





Gilthead Bream *Sparus aurata*





Black Sea Bream *Spondyliosoma cantharus*





Andy Giles

*Pandora Pagellus erythrinus*  
Whitsand Bay, September 2018.





Triggerfish, Porth Towan 2007

Emily Priestley





Atlantic bonito *Sarda sarda*





Figure 6. Specimen of Atlantic bonito (*Sarda sarda*) collected during the survey.

Bonitos had not previously been seen, but 91 0-year group (15 – 30 cm) were caught during the CEFAS PELTIC 18 cruise October-November 2018





Haddock *Melanogrammus aeglefinus*



## Non-Native Fish



Rainbow trout, *Onchorhynchus mykiss*





Humpback Salmon, *Oncorhynchus gorbuscha*,  
Mid Norway,



Pacific Pink or Humpback Salmon,  
*Oncorhynchus gorbuscha* caught in  
the River Camel, Cornwall  
September 2007

[Also north east Scotland,  
Northumberland and Co Durham]

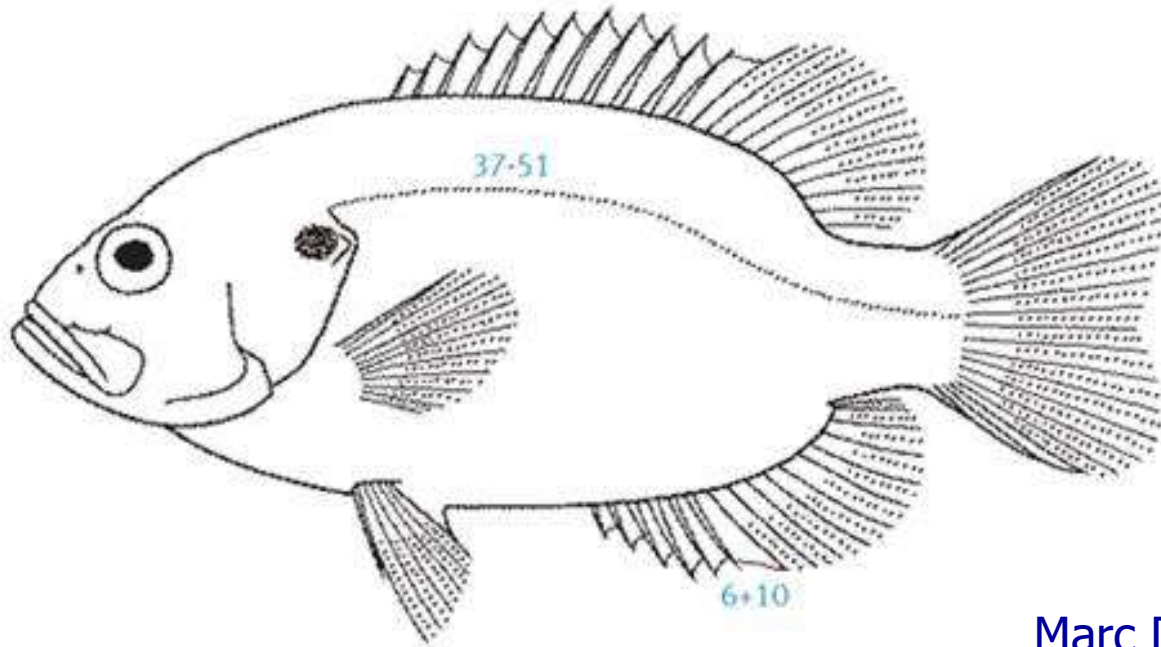




Green Sunfish, Pumpkinseed or Rock Bass ?  
Mevagissey Harbour, Cornwall,  
21 October 2018



Rock Bass *Ambloplites rupestris*



Marc Dando



A vast, deep blue ocean stretches to the horizon under a clear blue sky with wispy white clouds. A bright, shimmering reflection of light is visible on the water's surface on the left side. The overall scene is serene and expansive.

But some unexpected stories can  
emerge



**Anchovy  
goldrush: UK  
trawlers  
cash in as  
warm water  
fish arrive by  
the ton**

**Daily Mail 31  
October 2009**







Two Devon trawlers hauled in a staggering 36 tons of anchovies - worth £72,000 - in just two days



The Guardian  
Tuesday 8 May 2012

## Warm water marine species spreading northwards into British waters

Higher sea temperatures around UK mean bluefin tuna, thresher sharks and anchovies among others are increasingly common.



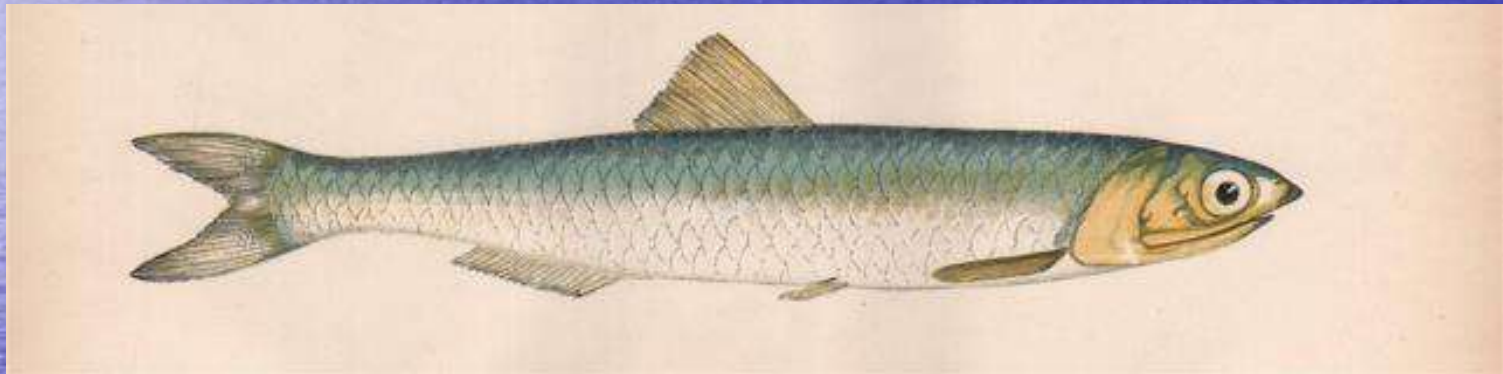
Exotic warm water marine species such as anchovy, bluefin tuna, stingray, and

thresher shark are spreading northwards into British coastal waters, where average sea temperatures are now moving closer to the warmer conditions of southern Europe.

Severin Carrell, Scotland correspondent



*Anchovy Engraulis encrasicolus*



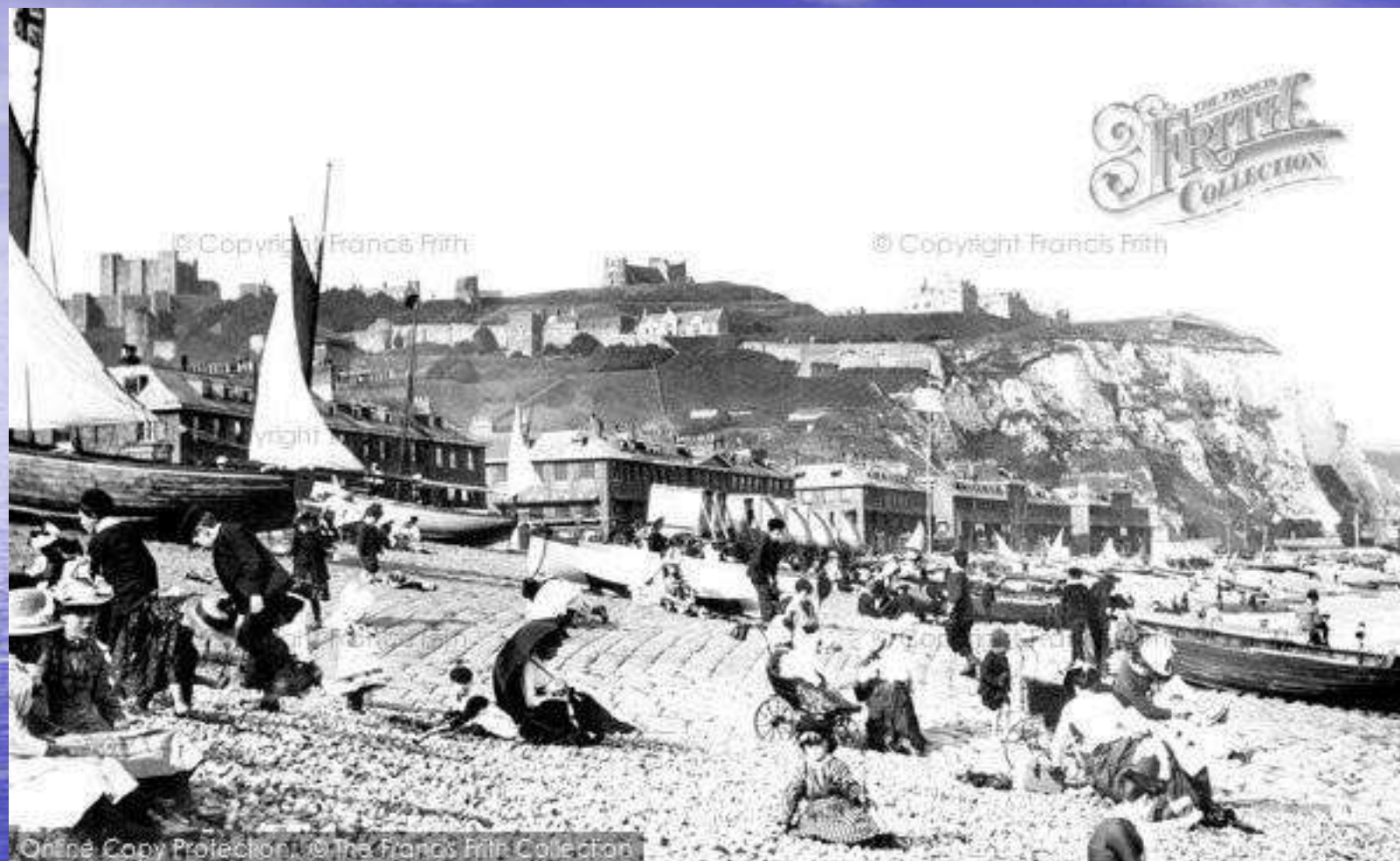
**First described from Cornwall by  
Jonathan Couch in 1838.**





November 1889, Large catches of sprats off Dover and Deal, with 25% of the catch being anchovies





Dover Beach, 1890



Anchovies in the English Channel  
By J T Cunningham, M.A.,F.R.S.E.  
Journal of the Marine Biological  
Association of the UK 1(03):328 -  
339; 1890

The Migration of the Anchovy  
By J T Cunningham, M.A.  
Journal of the Marine Biological  
Association of the UK 3(04):300 -  
303; 1895



Cunningham's studies suggested that the anchovies on the south coast in 1889 and 1890 had originated from the spawning stocks in the Zuider Zee, where they spawned around June and July.









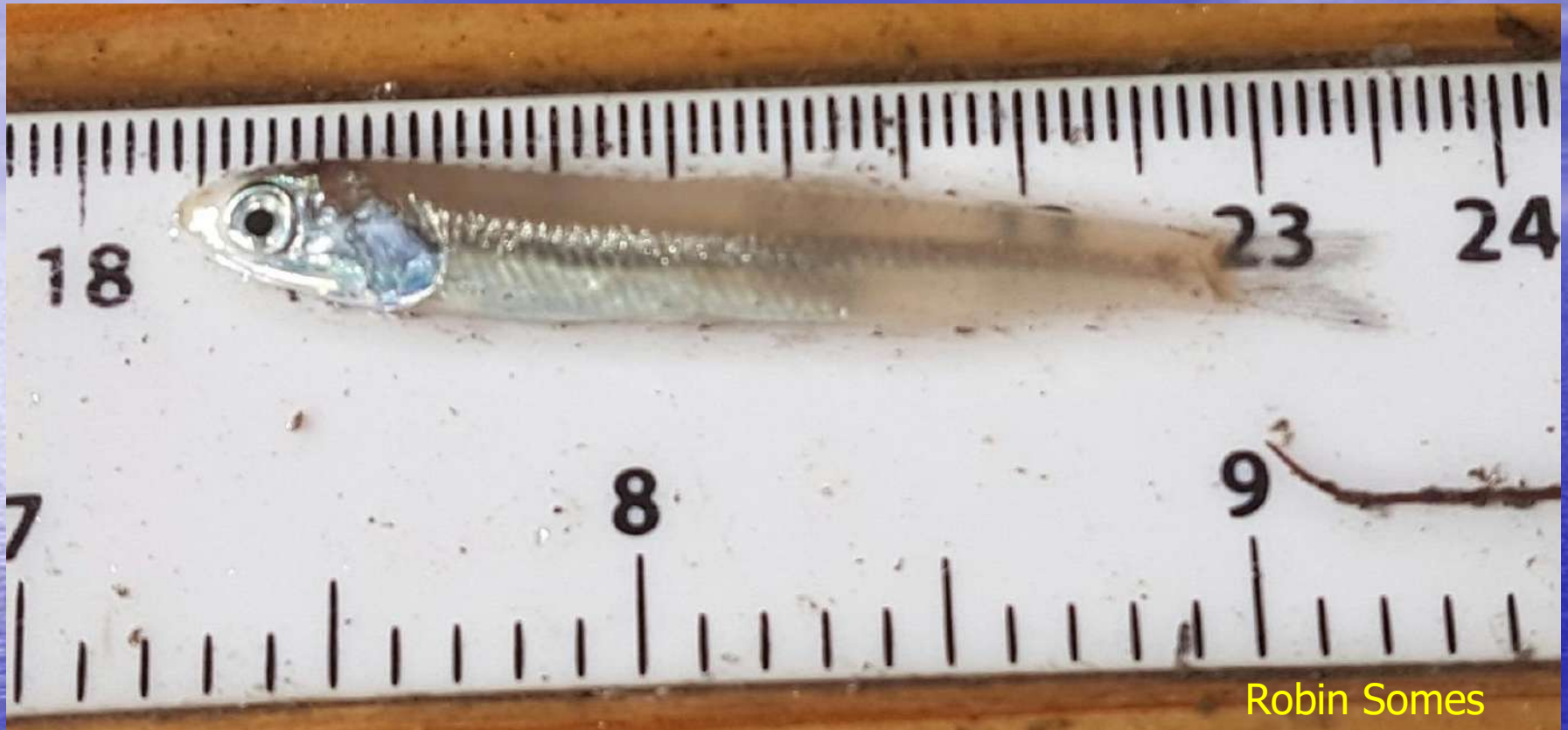
Mandic et al. 2012

Anchovy eggs



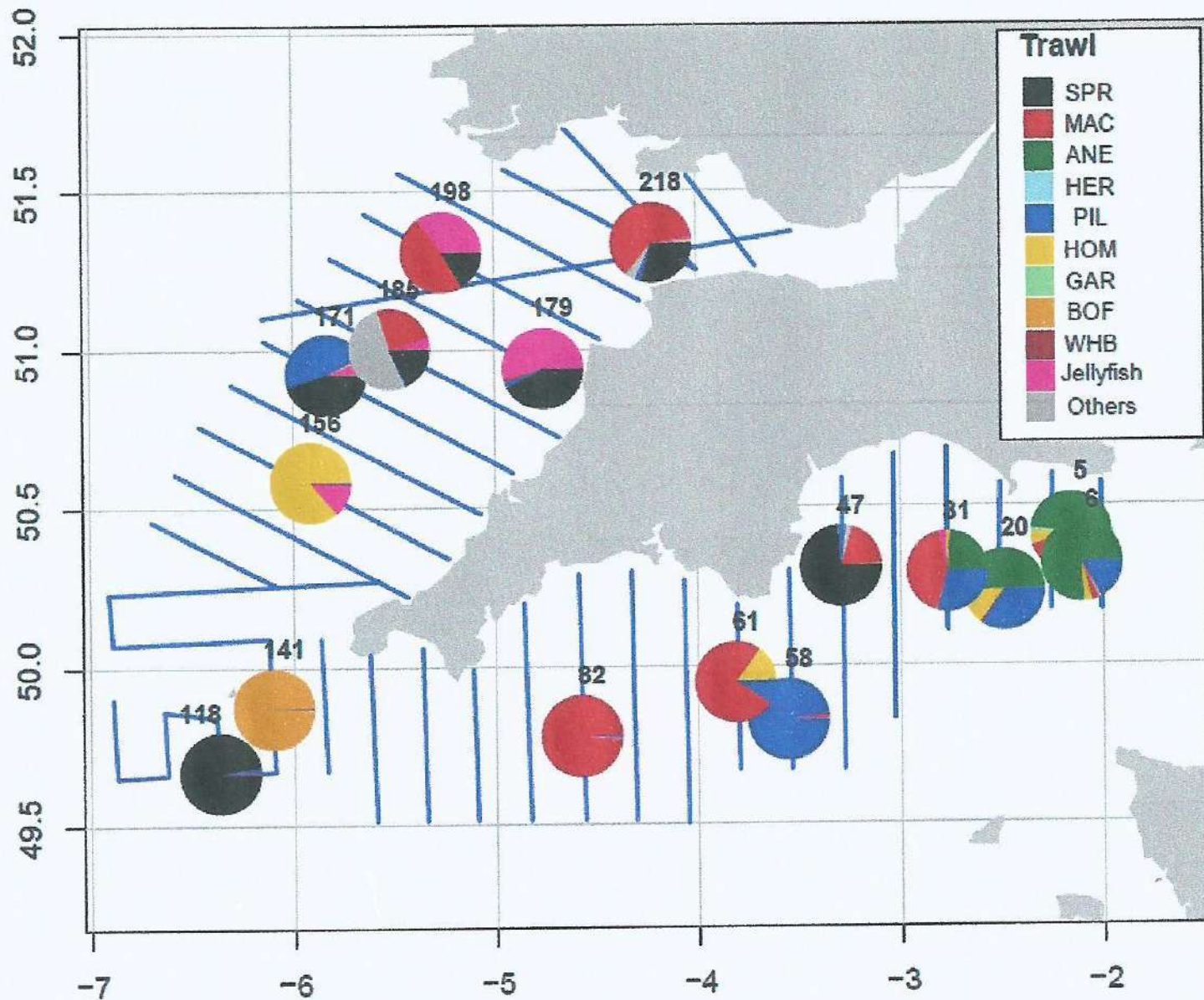
The main spawning area was lost in 1932 when the Zuider Zee was closed by a dyke to give polders. This left a remnant breeding population in the adjacent Wadden Sea.

North Sea catches of anchovy the remained at a minimal level until the 1990s; when they began to increase both there and in the Baltic, giving welcome catches to fishermen on the English east coast and even in July 2014 to anglers in Essex.



Juvenile Anchovy  
44mm, Southampton  
water, 5 October 2016





PELTIC 2014 30th September –19th of October 2014



# Unloading Anchovies











**Anchovies** *Engraulis encrasicolus*  
Plymouth, November 2014





David Fenwick

**Anchovies, Mounts Bay, 18 January 2017**

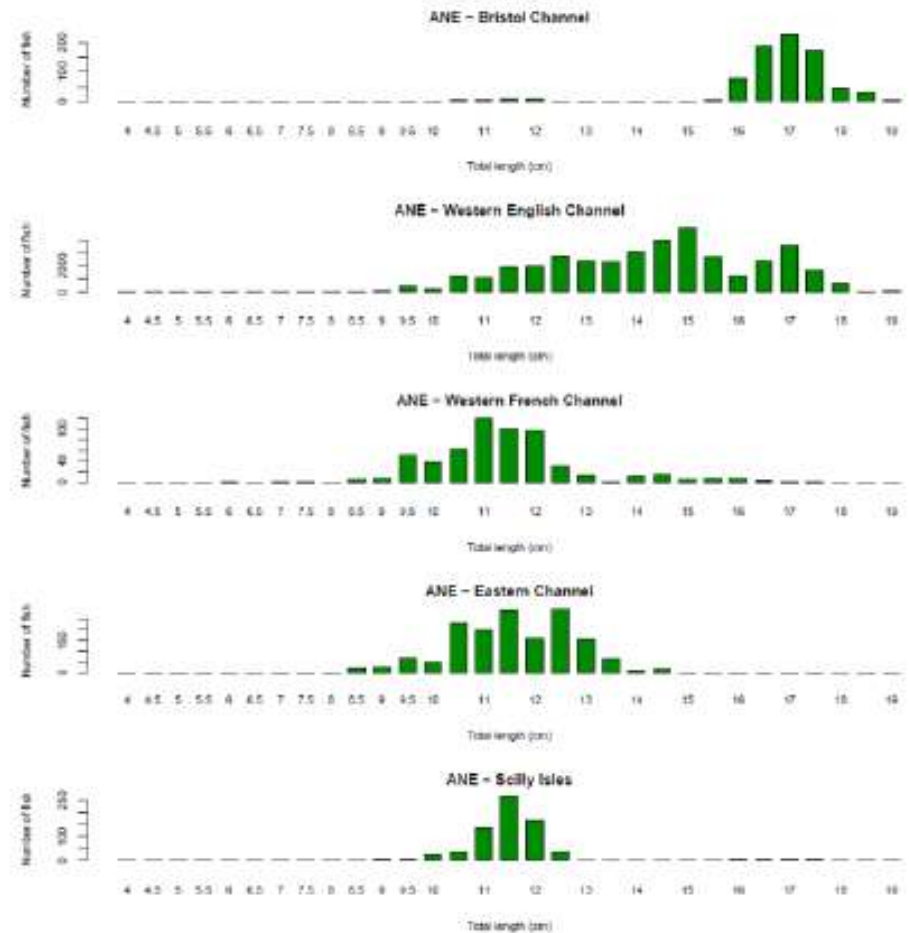
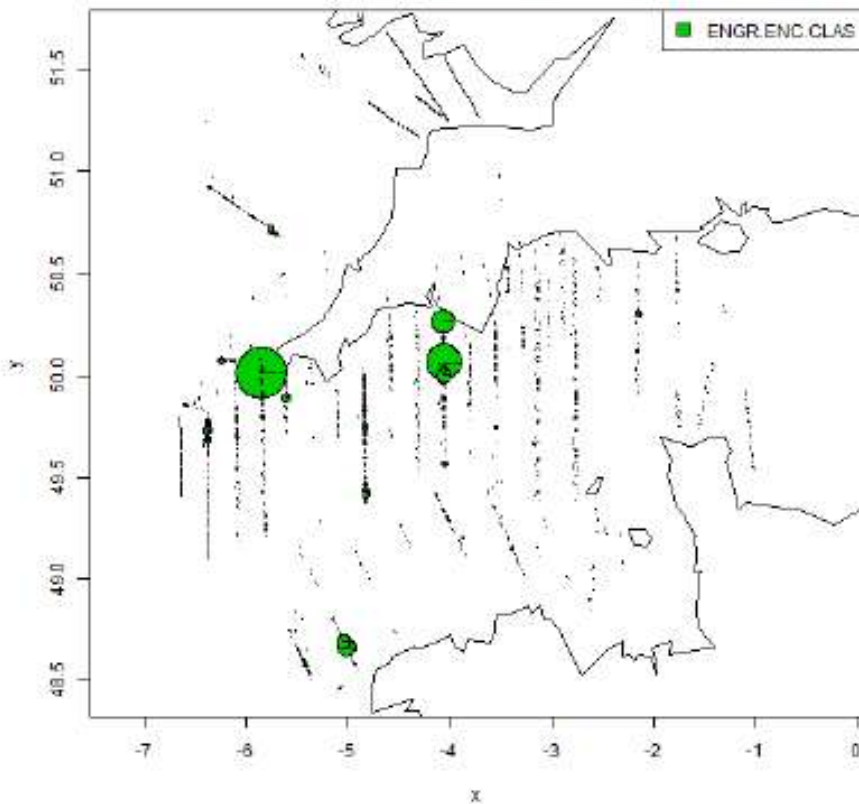


Hence in a typical year anchovies occur off Portland in October. With the shoals off Plymouth in November/December and in Cornish inshore waters in December/January.

Two studies published in 2012 looked at single nucleotide polymorphisms and found that the North Sea and English Channel shoals were genetically homogeneous. Three Biscay stocks were also homogeneous; but there were significant genetic differences between the Biscay and North Sea and Channel stocks.



PELTIC2018 D2 biomass per species



**Figure 5.** Acoustically derived anchovy biomass distribution (left) and trawl-based length frequency histogram for anchovy in each of the subareas of the Peltic survey. Please note that bubble size has not been standardised between species.

PELTIC 2018 (October/November 2018) found anchovies more widespread than previous years, with small fish in French waters. Not a typical year.



Many thanks for information from:-

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Nigel Jones

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MarLIN

Oliver Crimmen

Marine and Fisheries Agency (now the Marine Management Organisation)

And many others



Questions ?

Paul Naylor