

# European hake: a North Sea choke species?

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Marine Scotland

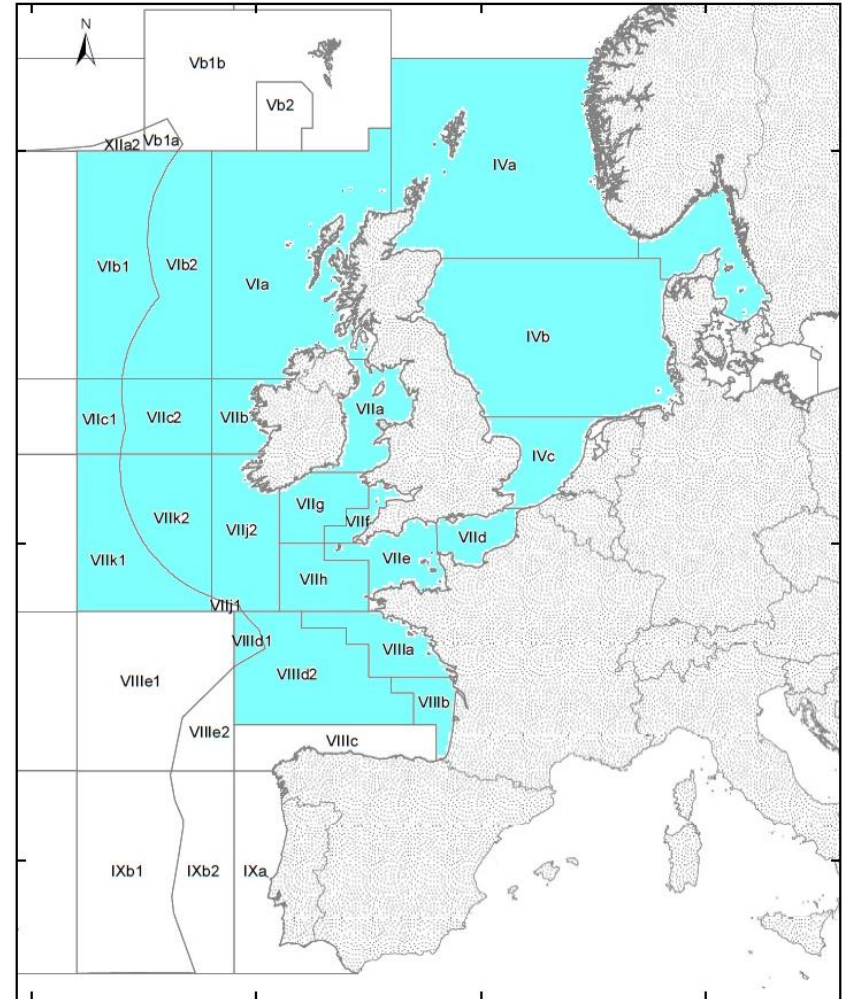


# What is the issue?

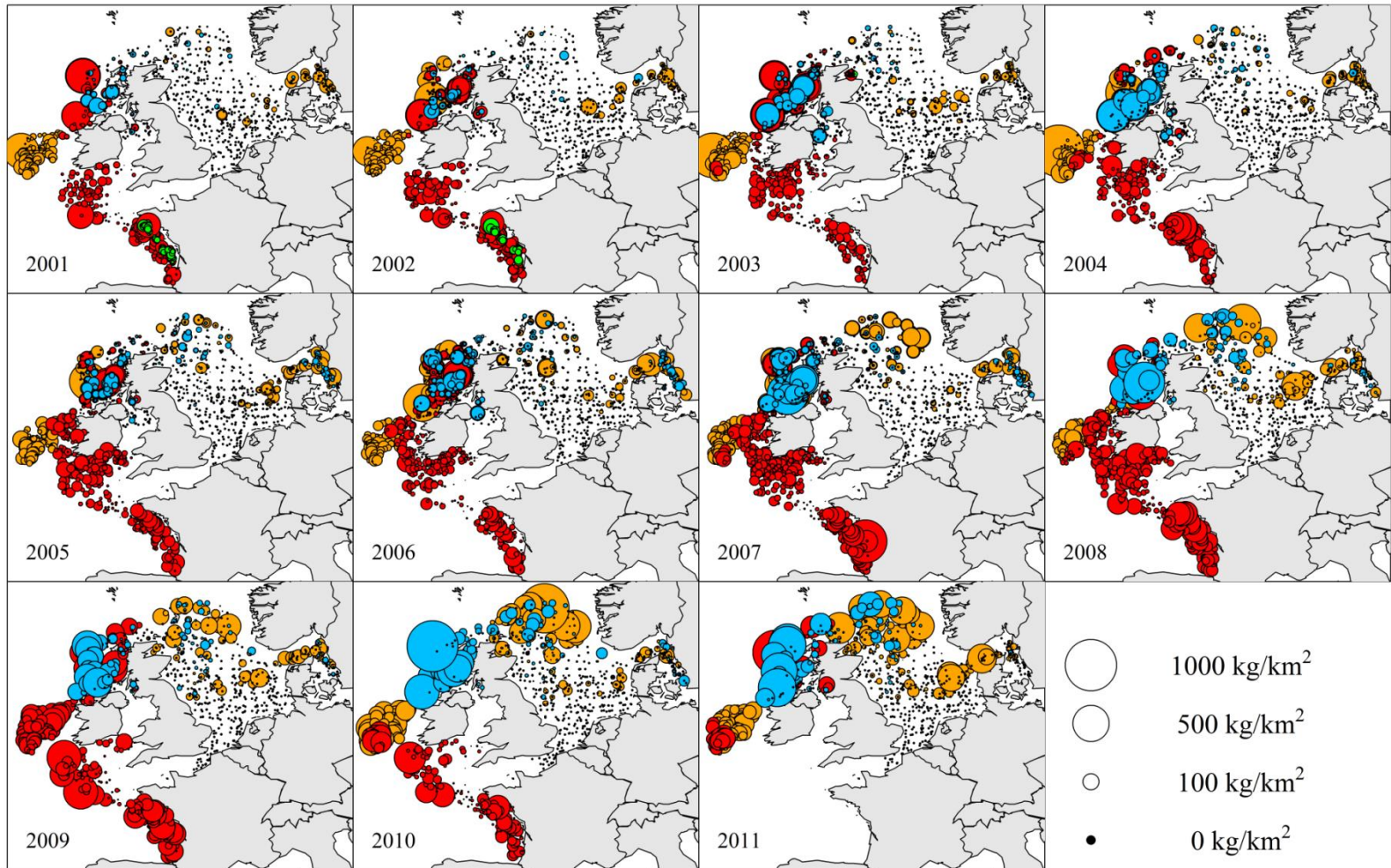
- Northern hake global TAC
- TAC distribution does not seem to be in any way closely aligned with stock distribution
- Significant and on-going changes in the stock abundance and distribution
- Implications pose challenges to most, if not all, member states fishing in the North Sea

# Distribution

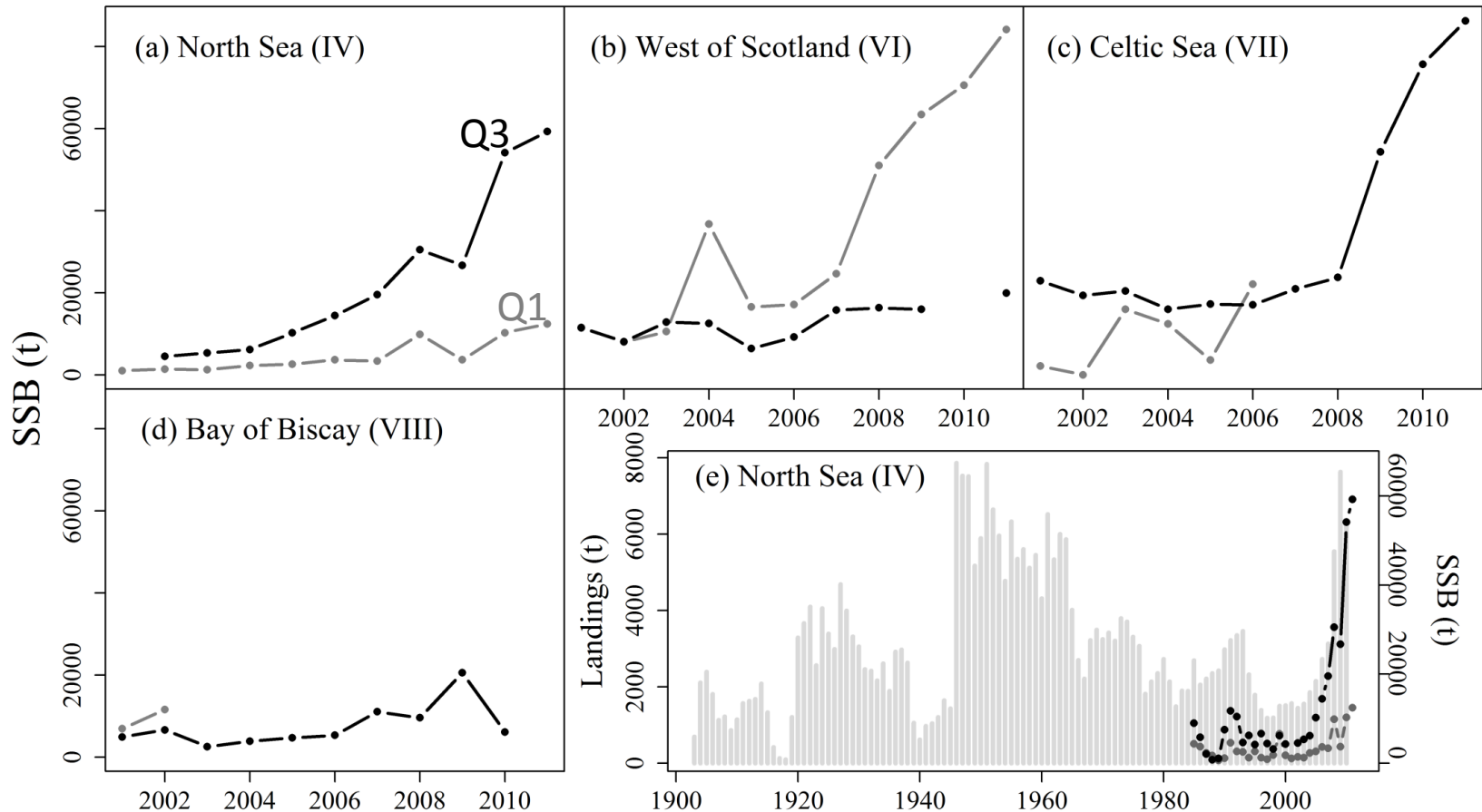
- European hake - widely distributed
- Highest densities Bay of Biscay and west Ireland/UK
- Northern and southern stocks
- Limited knowledge of stock in northern areas



# Observed densities

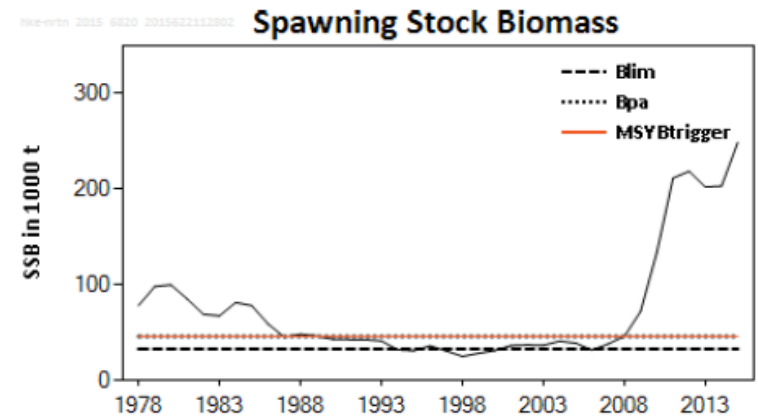
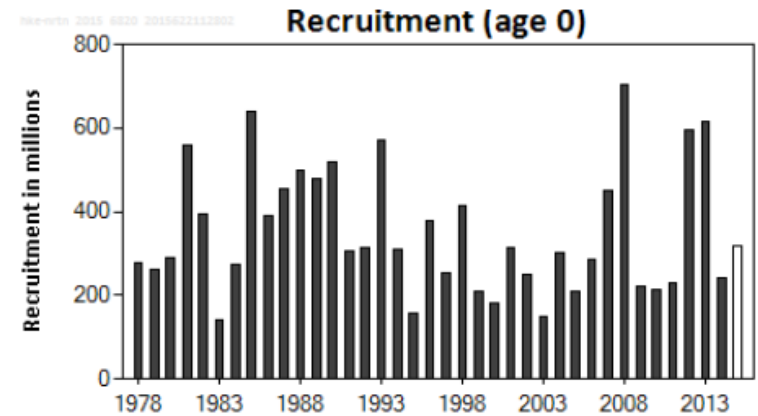


# Regional biomass estimates

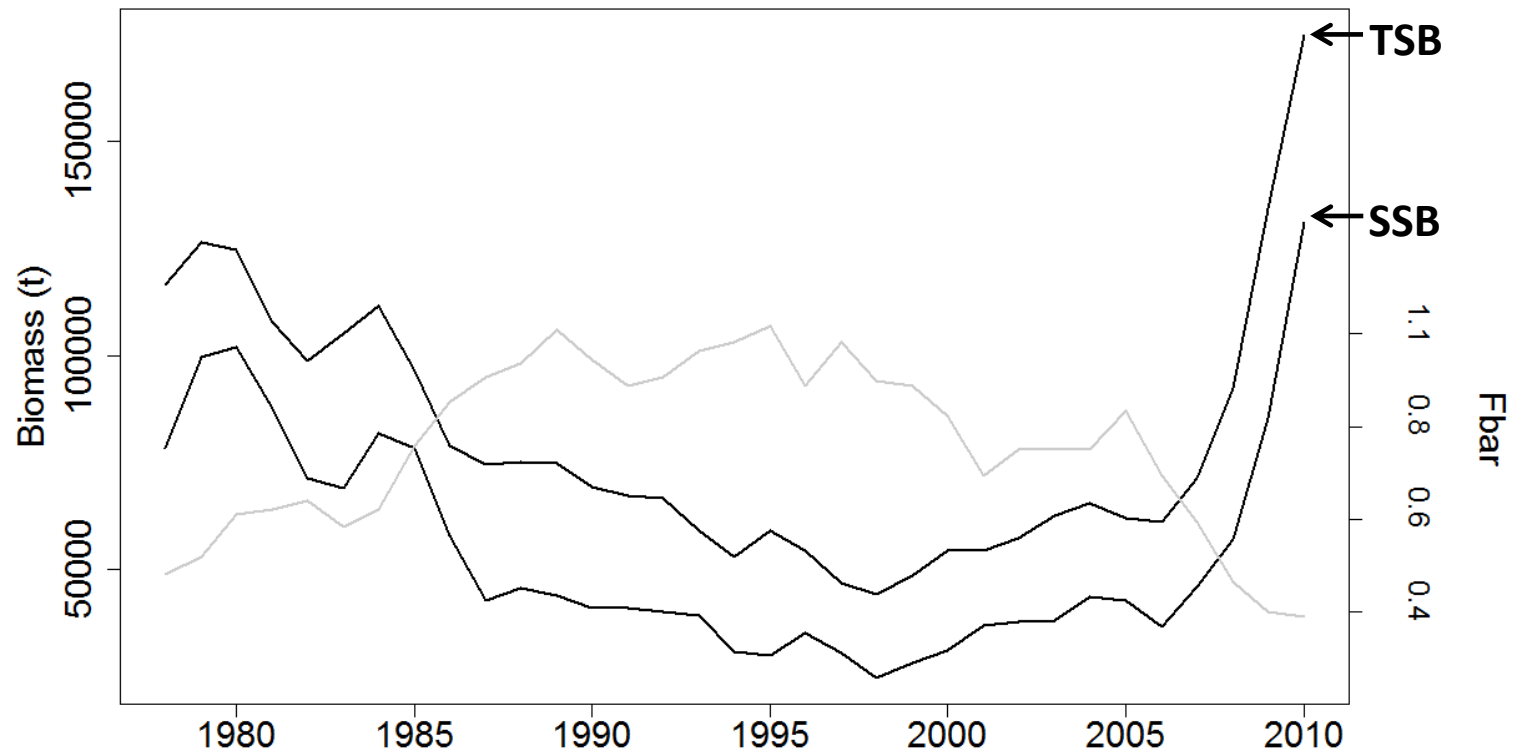


North Sea: increase by a factor 8 in quarter 3 (factor 4 in quarter 1)

# Looking ahead

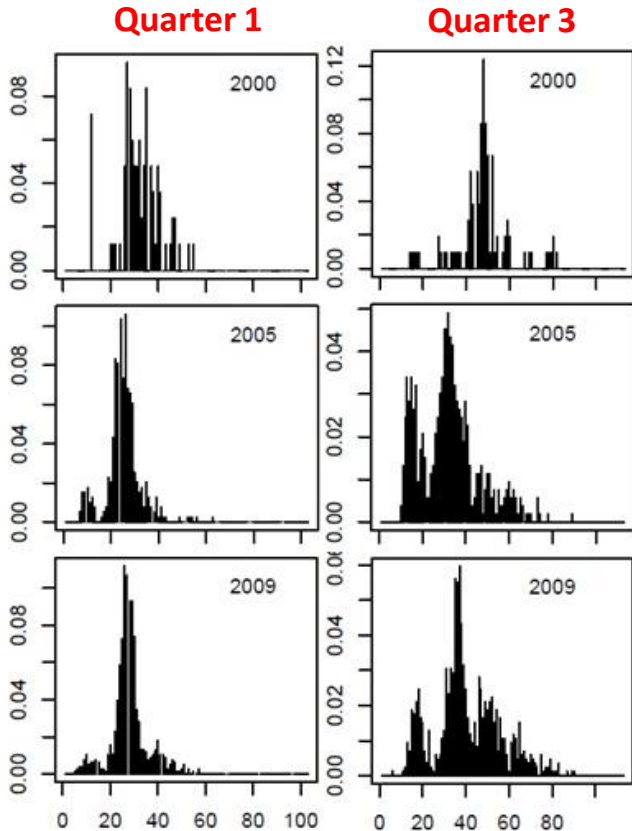


# Why? Fishing & 2004 recovery plan



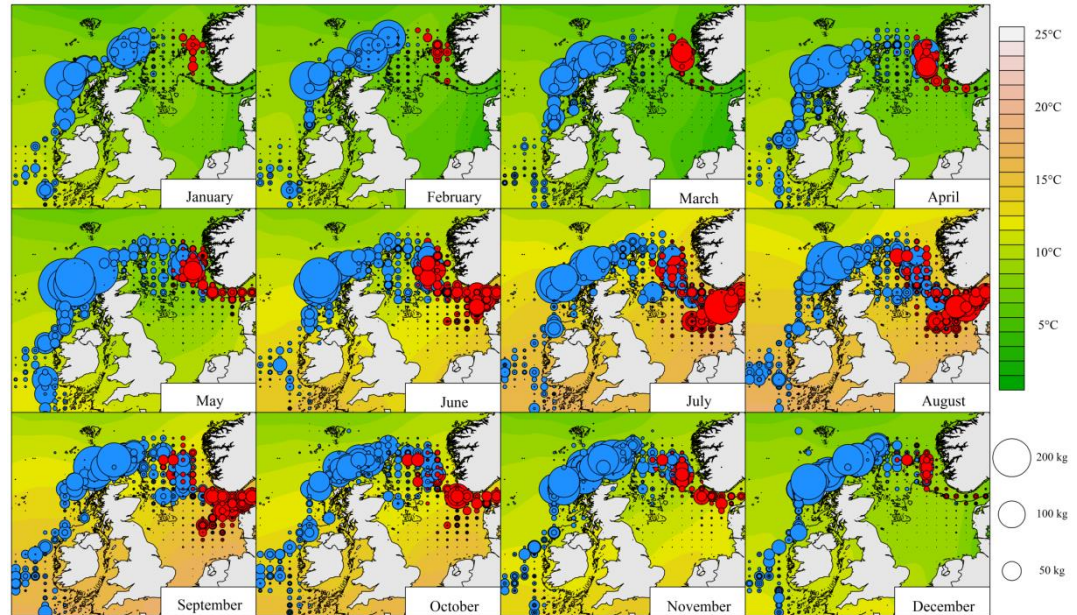
# Why? Seasonal migration

North Sea length frequencies:  
more large individuals at Q3



Significant relationships observed  
between hake landings distribution,  
and both temperature and depth

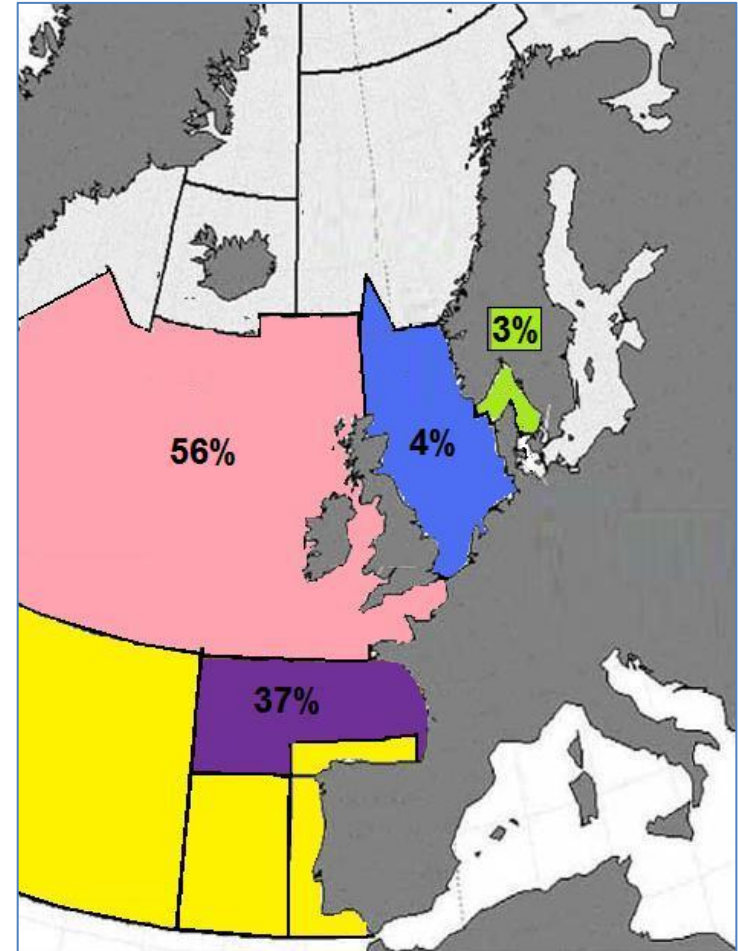
Monthly distribution of UK hake landings (kg)  
2000 to 2011 (note Q3: July-September)





# TAC arrangements

- Historic split of global TAC between basins doesn't align with current distribution of stock →
- Additional layer of constraint beside RS
- Insufficient quota in North Sea: 4% of TAC but 34% of biomass in Q3
- Supports what fishermen tell us



# A possible solution

- Not enough fish allocated to North Sea (4%) to cover catches
- Changing shares, swapping within basin and flexibility are not complete viable solutions
- For hake, a wealth of scientific and catch information to assist making informed choices
- An evidence based and scientifically justified approach may be one option

# A science-based solution

- We suggest the North Sea HLG should seek ICES or STECF advice on a new allocation of the global TAC between regional basins that better reflects current stock abundance and distribution
- Such a science-based increase in the allocation of the global TAC to the North Sea has potential to solve choke challenge

<b>2014 NS TAC (tonnes)</b>	2,874
<b>2014 EU landings (tonnes)</b>	4,428
<b>2014 STECF North Sea discard rate</b>	40.34%
<b>Total catch (tonnes)</b>	7,421
<b>EU surplus/deficit (tonnes)</b>	-4,548
<b>EU total catch as % of global TAC</b>	9.07%

# Associated issues

- Implications for other TAC areas:
  - additional share for North Sea would have to come from other TAC areas; although there is NO change to RS, this would reduce quota previously available
  - “Robbing Peter to pay Paul”: don’t move the problem from one basin to another
- Depending on level of revision, deficits may remain at Member State level within North Sea:
  - swaps and/or use of flexibility required, but may be more difficult under increasing stock scenario (LO, new fisheries)
  - given evolving distribution (climate change?), periodic review of the advice (every 5 years or so?) may be prudent

# Conclusions

- Significant seasonal increases in North Sea abundance and distribution, and changes in migration
- Allocation from global TAC to North Sea basin doesn't match where the fish are found
- Insufficient quota in North Sea creates a significant choke risk under landing obligation
- Scientific advice should be sought on reviewing, and periodically revisiting, the allocation to the North Sea
- Regional quota trading and use of inter-area flexibilities may still be required



Thank you