

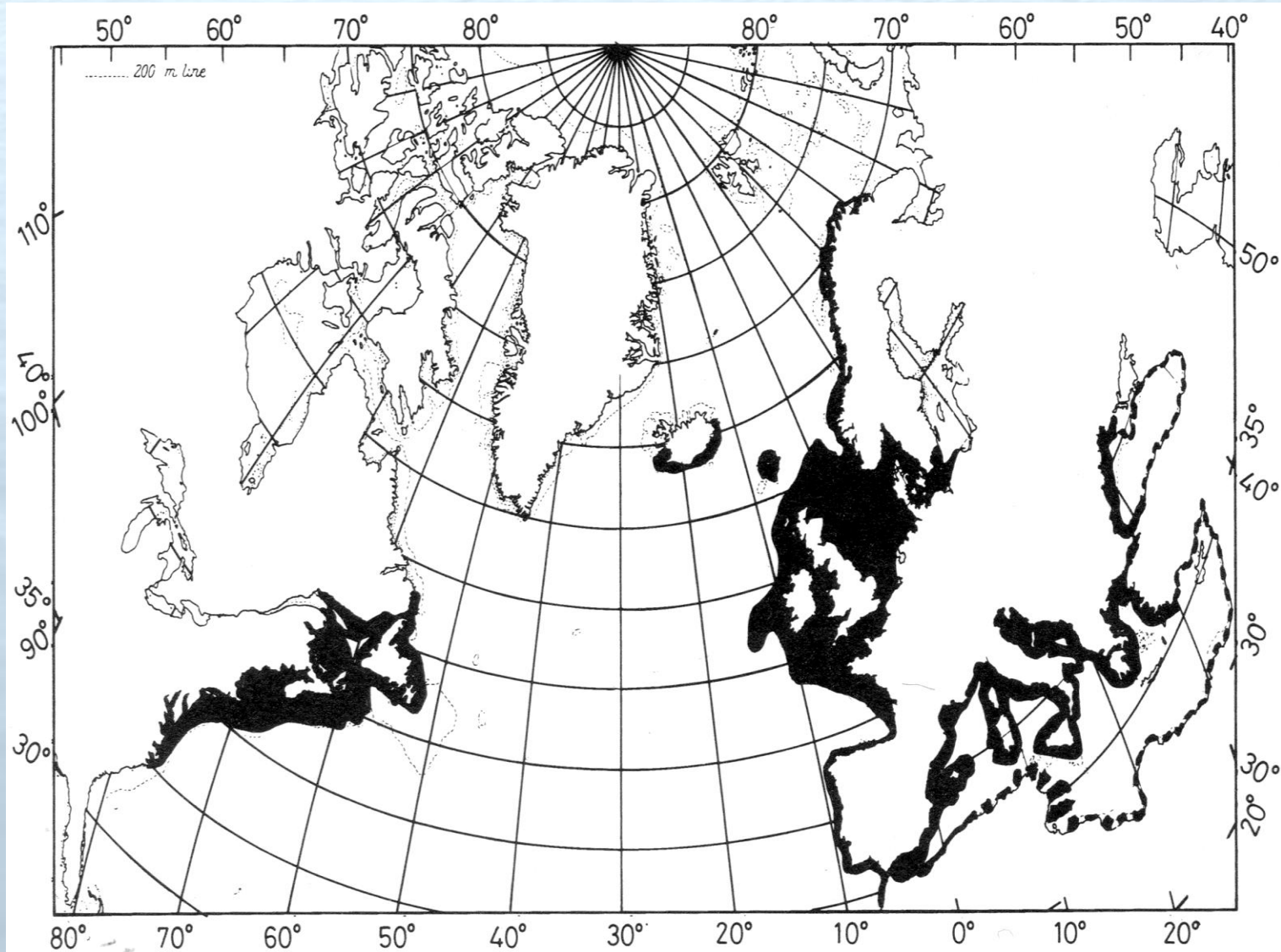
North–East Atlantic Mackerel

A Review of Stock Status & Prognosis

Stephen J Lockwood

Coastal Fisheries Conservation
&
Management

Global Distribution of Mackerel (*Scomber scombrus*) from Historic Records



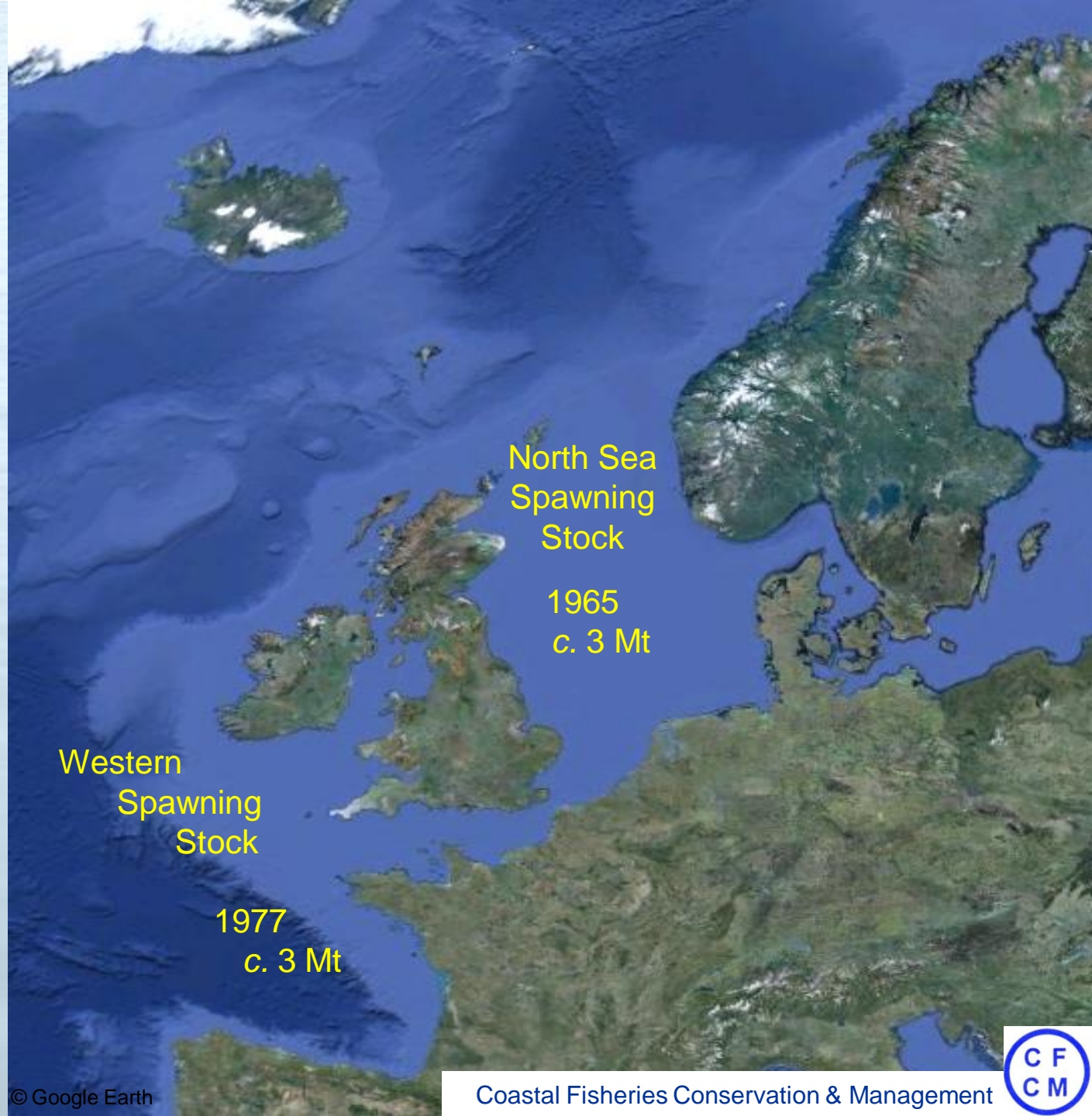
First North Sea Assessment

Norwegian
Tagging
in Northern
North Sea



First Western Stock Assessment

English
Plankton
Survey Biscay
to
Porcupine
Bank



North-East Atlantic Mackerel

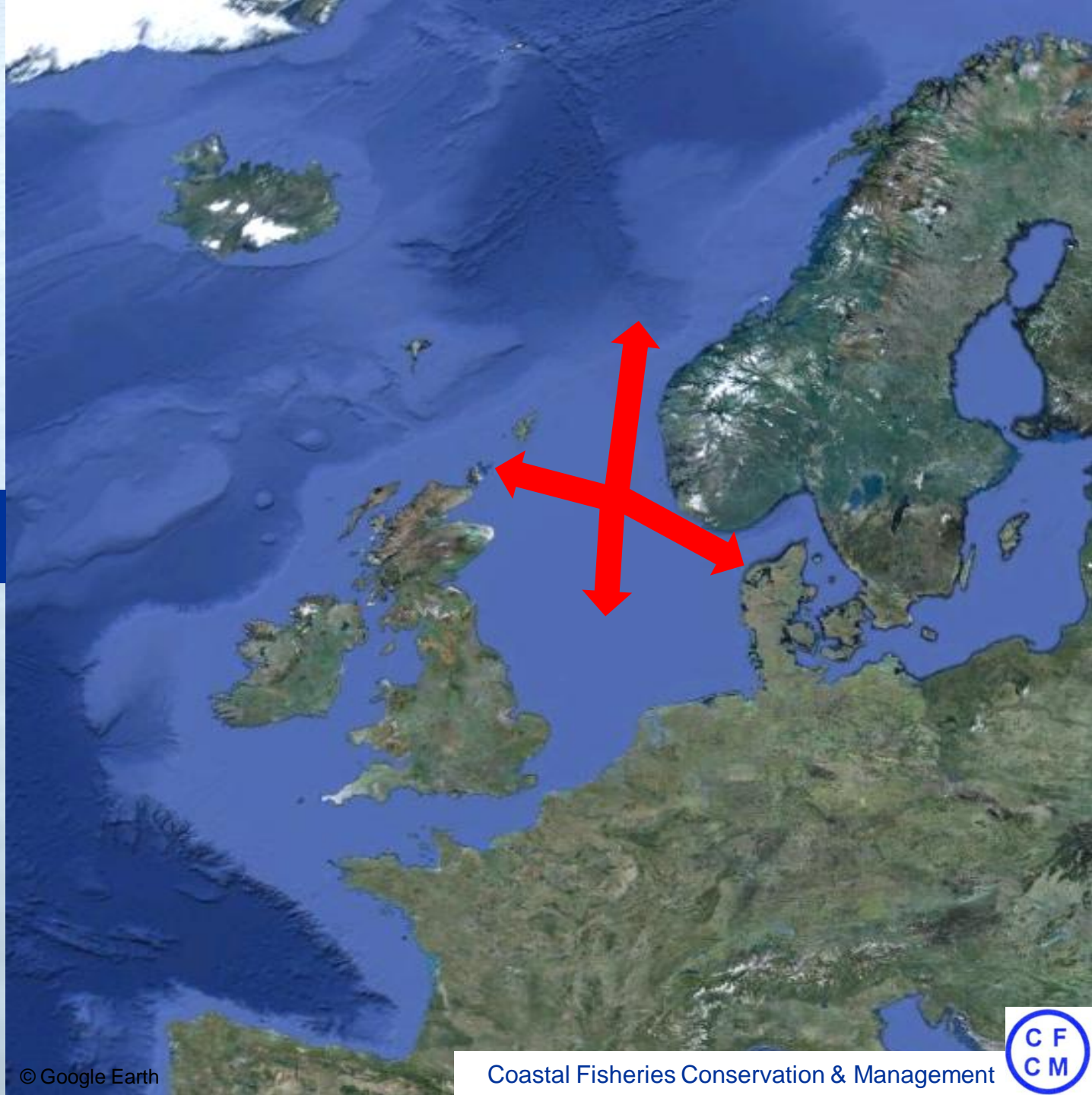
Spawning Grounds



North-East Atlantic Mackerel

North Sea
Spawning
component
Spring–Summer
Migration

North Sea spawning
component



North-East Atlantic Mackerel

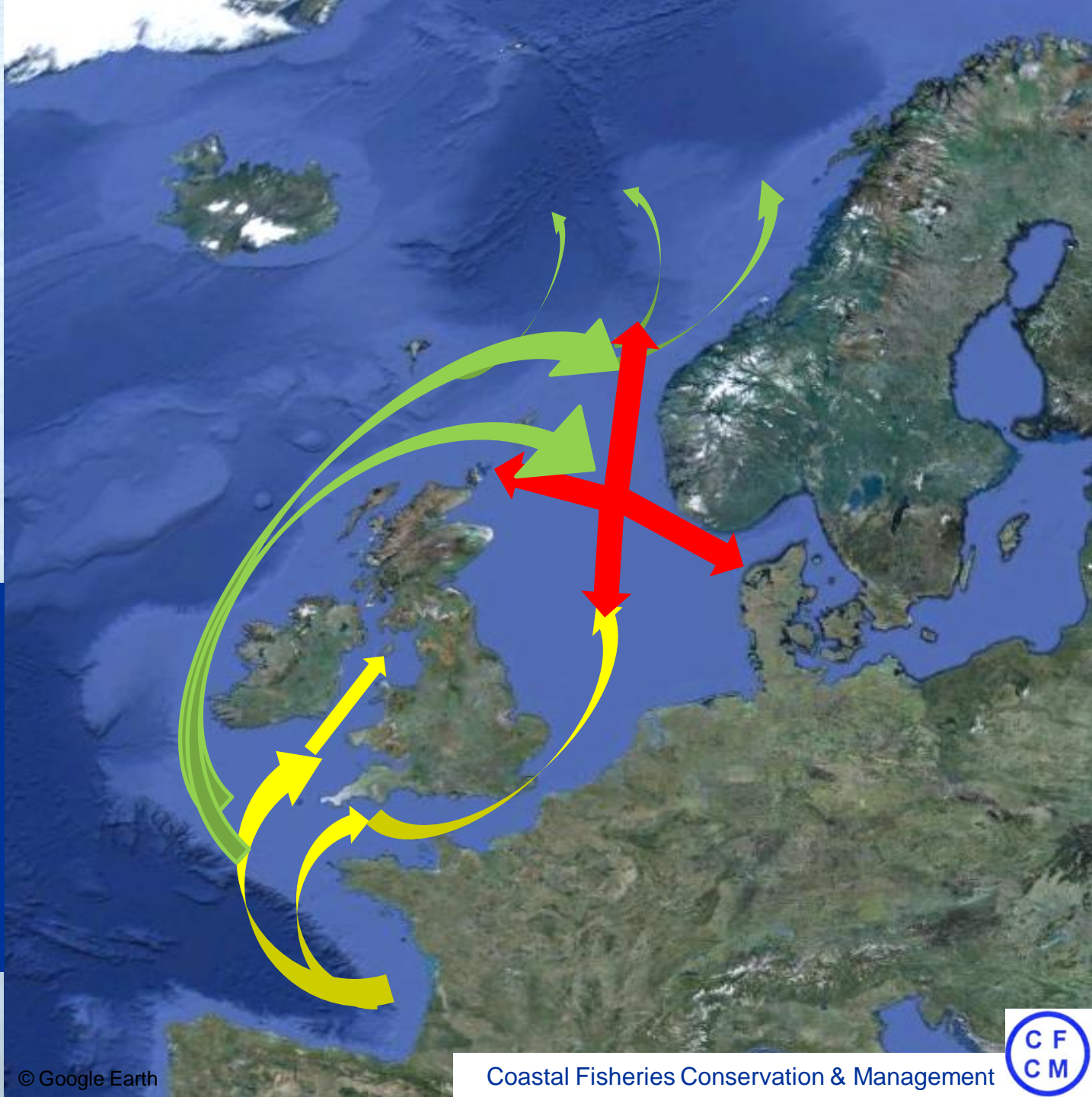
Western & Southern Spawning components

Spring–Summer Migration
Pre~2007

North Sea spawning component 

Southern spawning component 

Western spawning component 



North-East Atlantic Mackerel

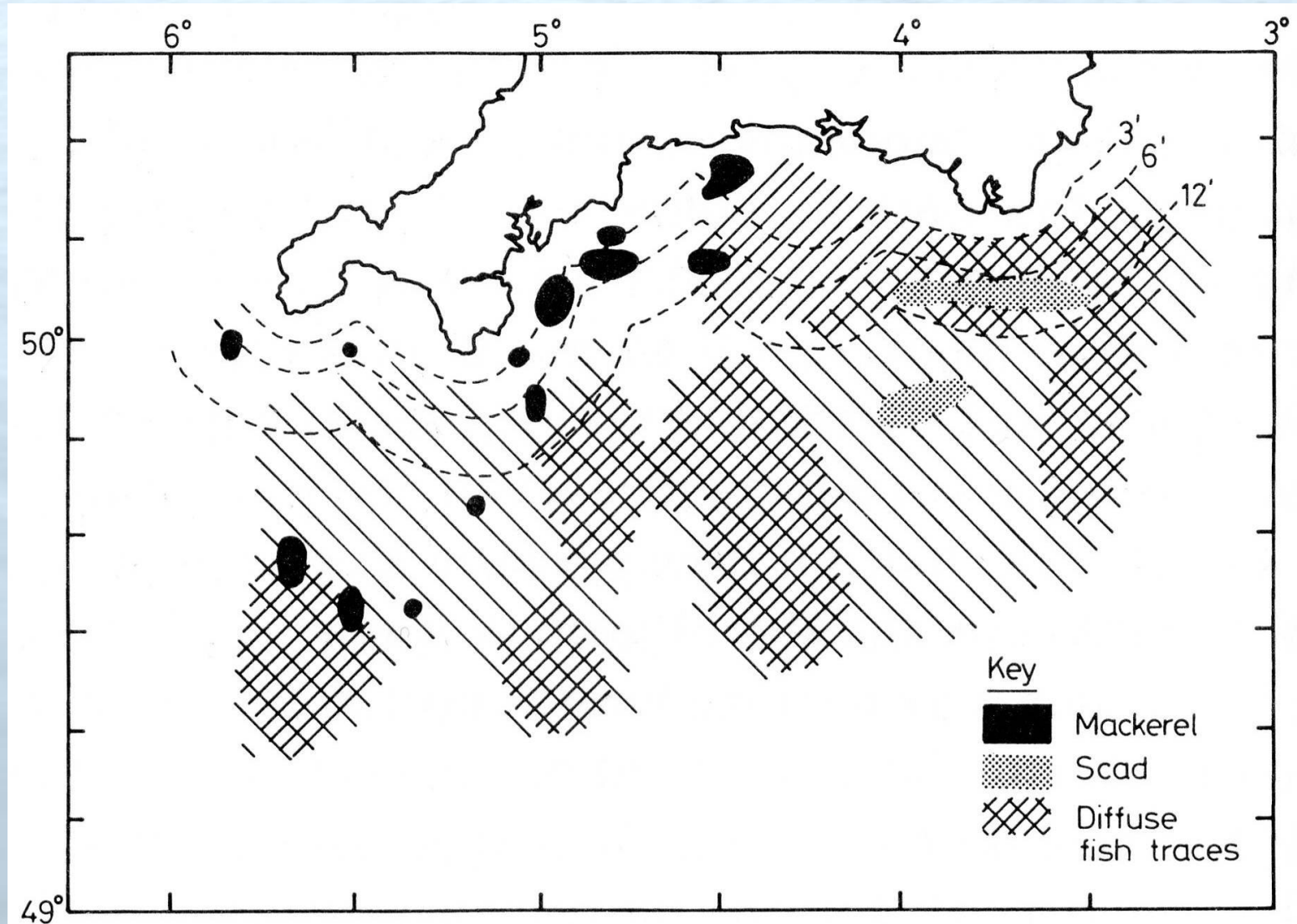
Western spawning component

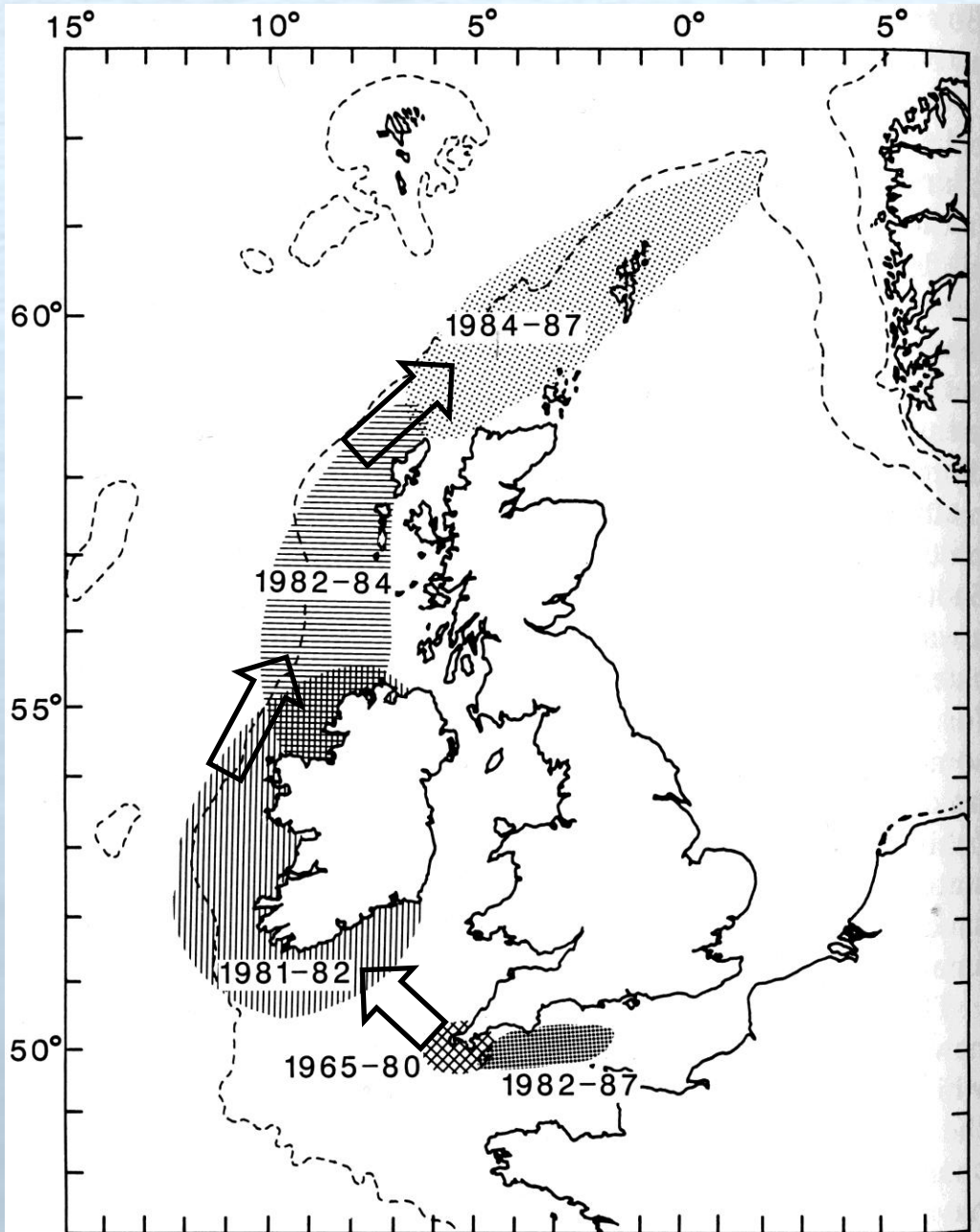
Spring Migration
Post~2006

Western spawning component →



Typical Winter Mackerel Shoal Distribution in the Western English Channel in the 1970s



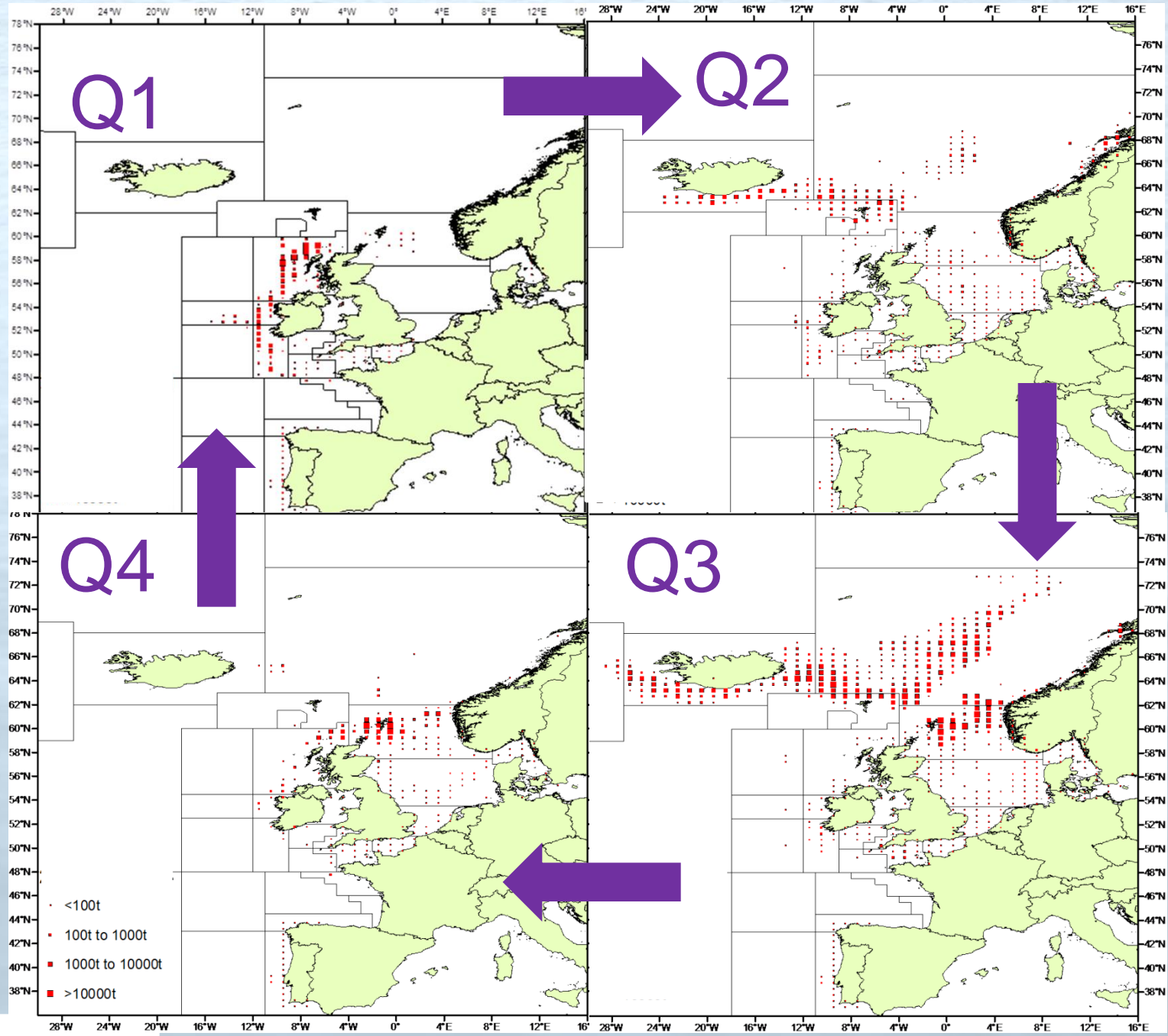


Progressive Northward Shift in Winter Mackerel Shoal Distribution through the 1980s

Current winter distribution is similar to that first described in 1950s

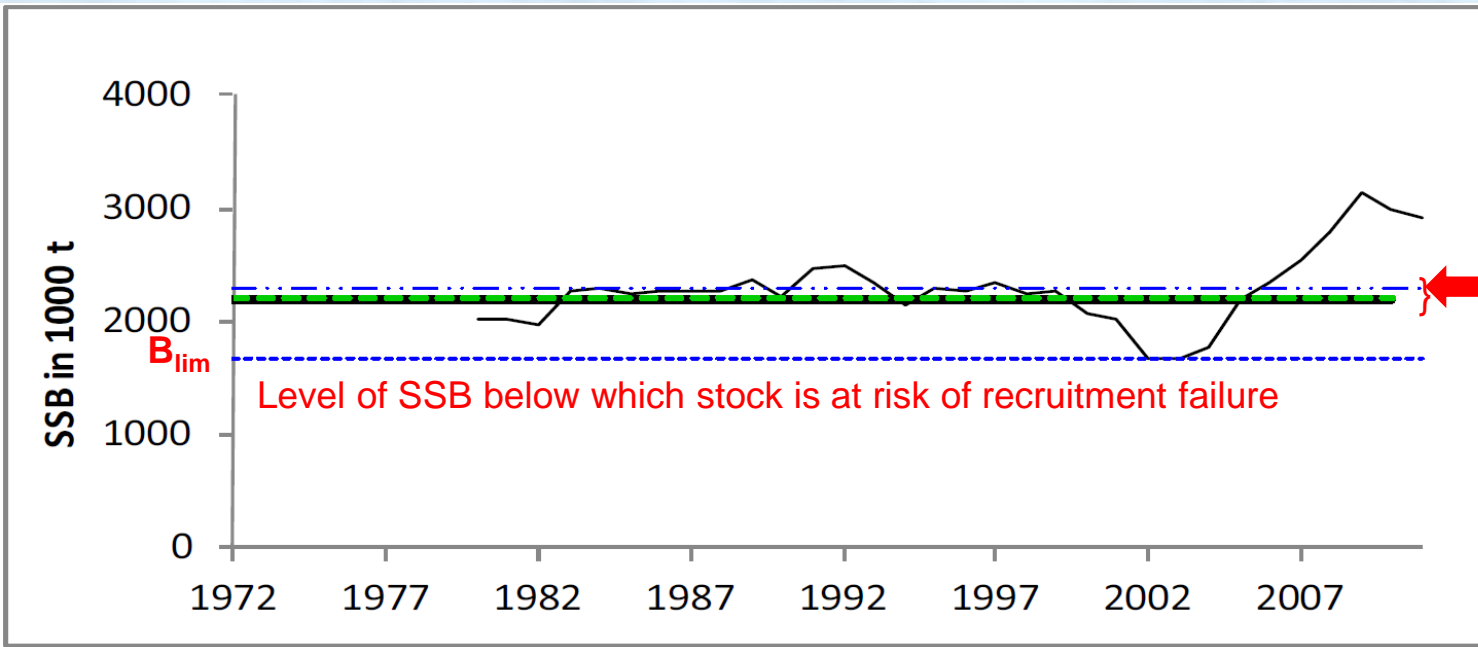
NE Atlantic Mackerel

Quarterly Fishing Distribution 2011



North-East Atlantic Mackerel Stock

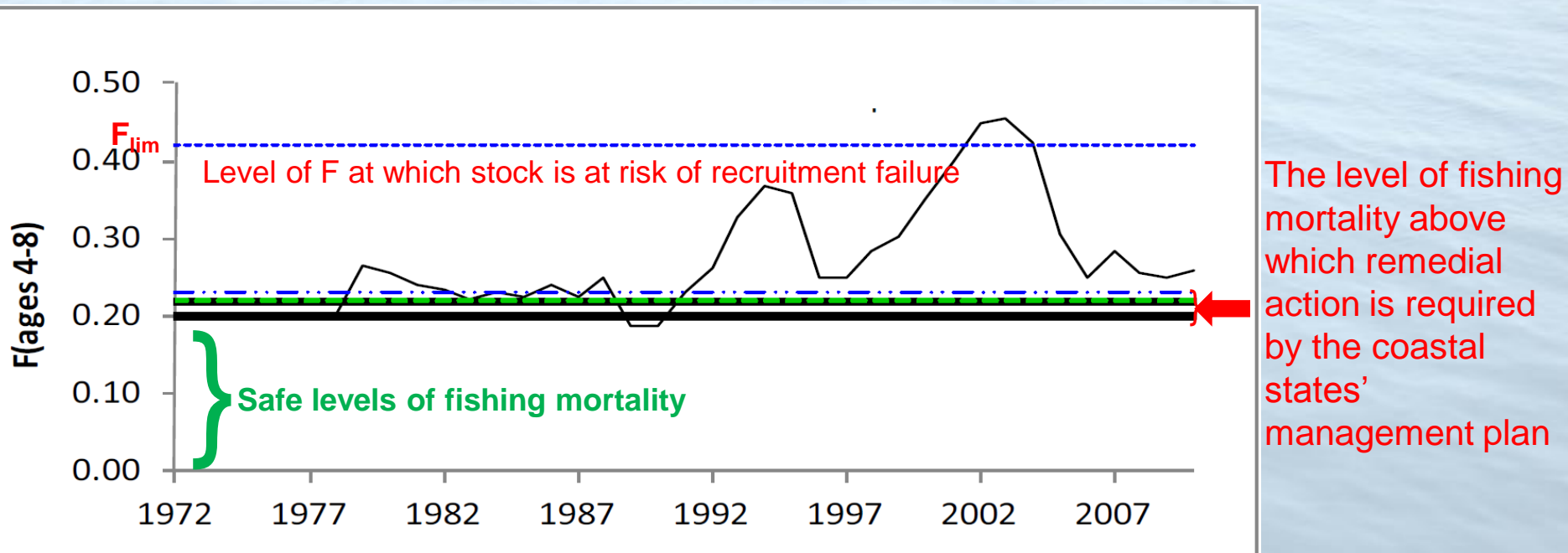
Spawning Stock Biomass



ACOM (Mackerel) 2012

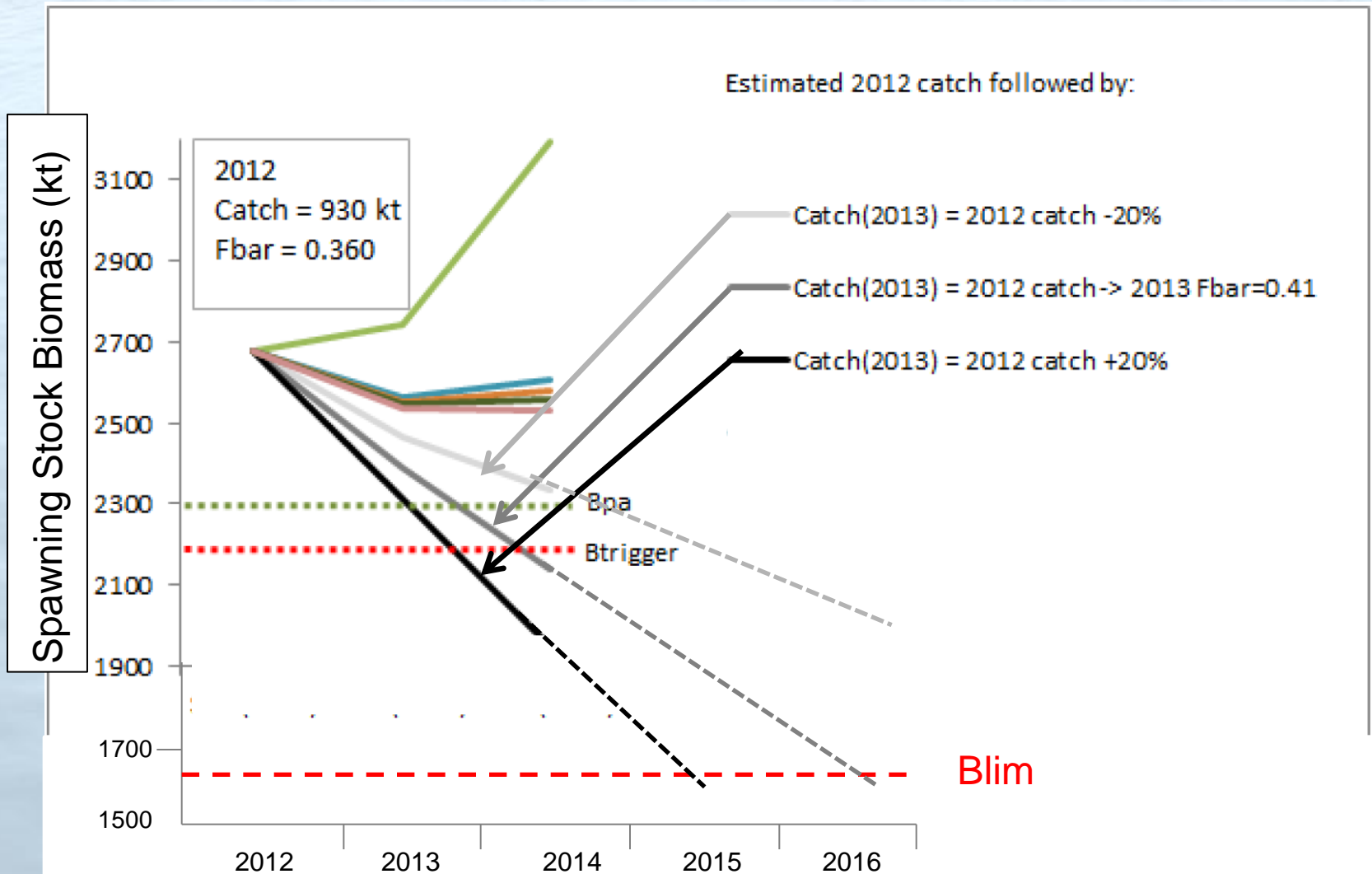
North-East Atlantic Mackerel Stock


Fishing Mortality Rate



ACOM (Mackerel) 2012

NE Atlantic Mackerel Short-term Prognosis



A satellite map of the North Atlantic Ocean, showing the coastlines of North America, Europe, and Africa. The ocean is a deep blue, and the landmasses are green and brown. The text is overlaid on the map.

The NE Atlantic mackerel fishery management was a shambles throughout the 1970s & '80s but the industry managed to sort it out before irreversible harm was done.

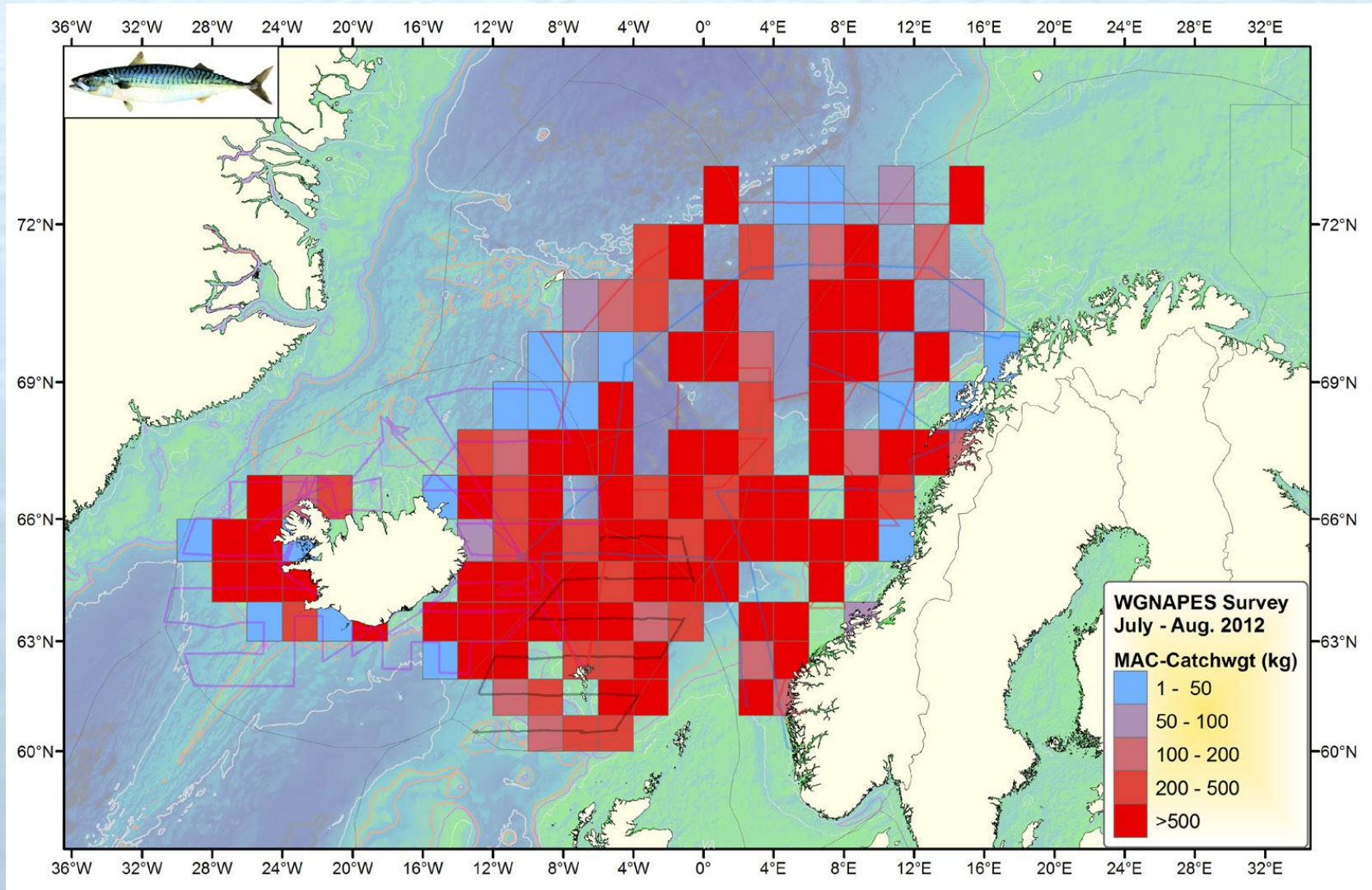
The question is – can it do it again before it is too late?

The clock is ticking.

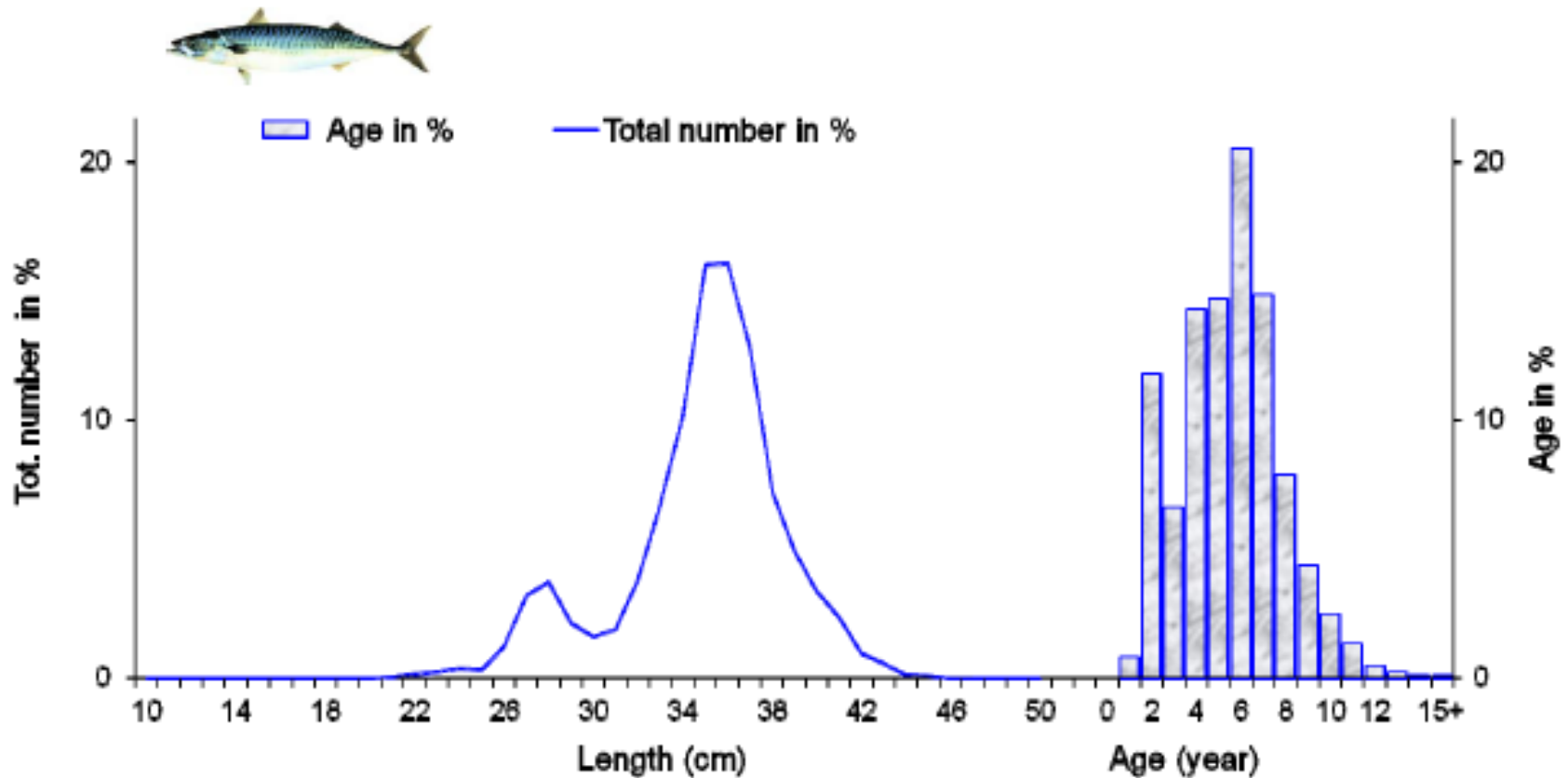
Annexe Figures

NE Atlantic Mackerel Summer Distribution 2012

Nordic Tri-nation Research Vessel Trawl Survey

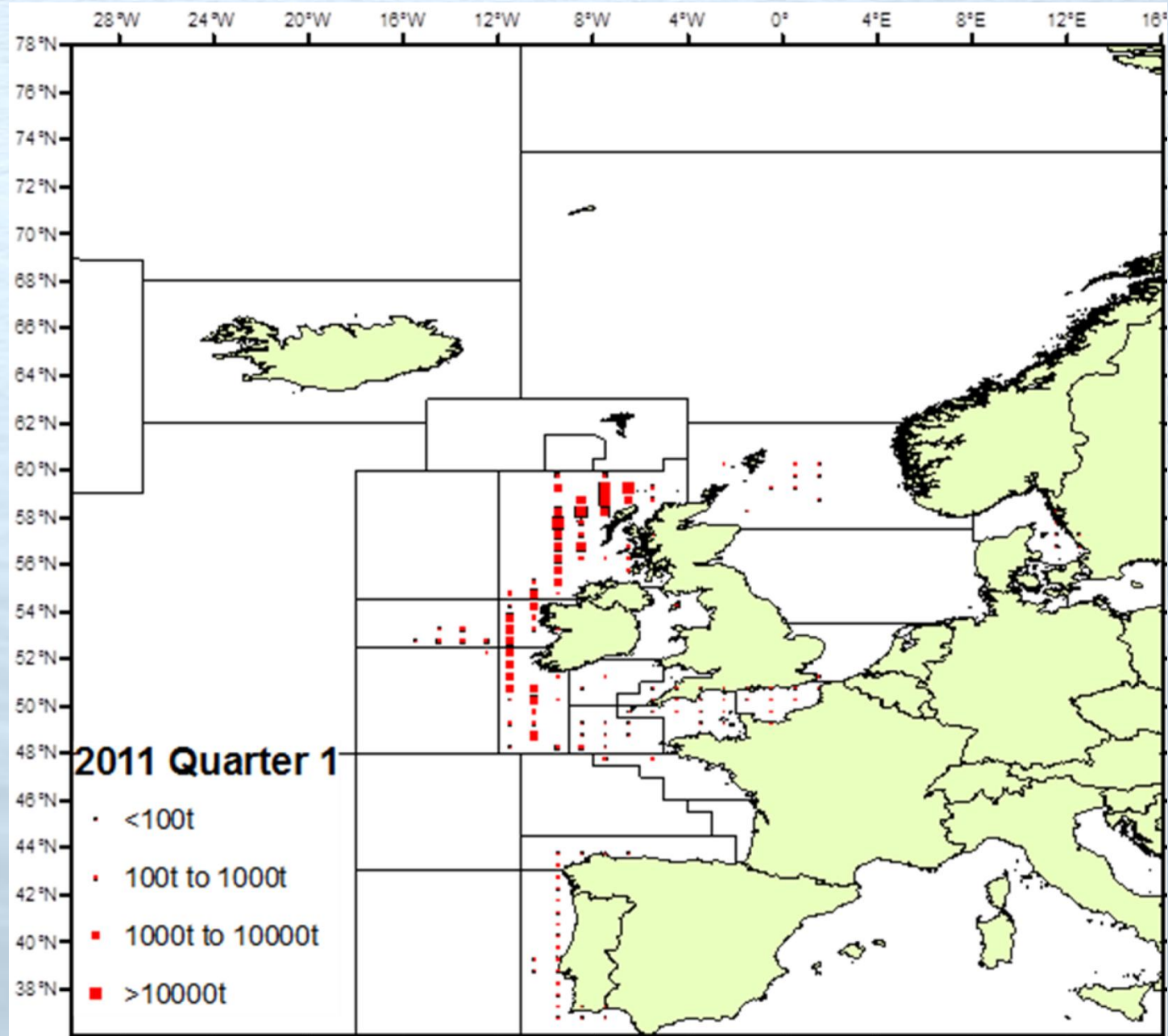


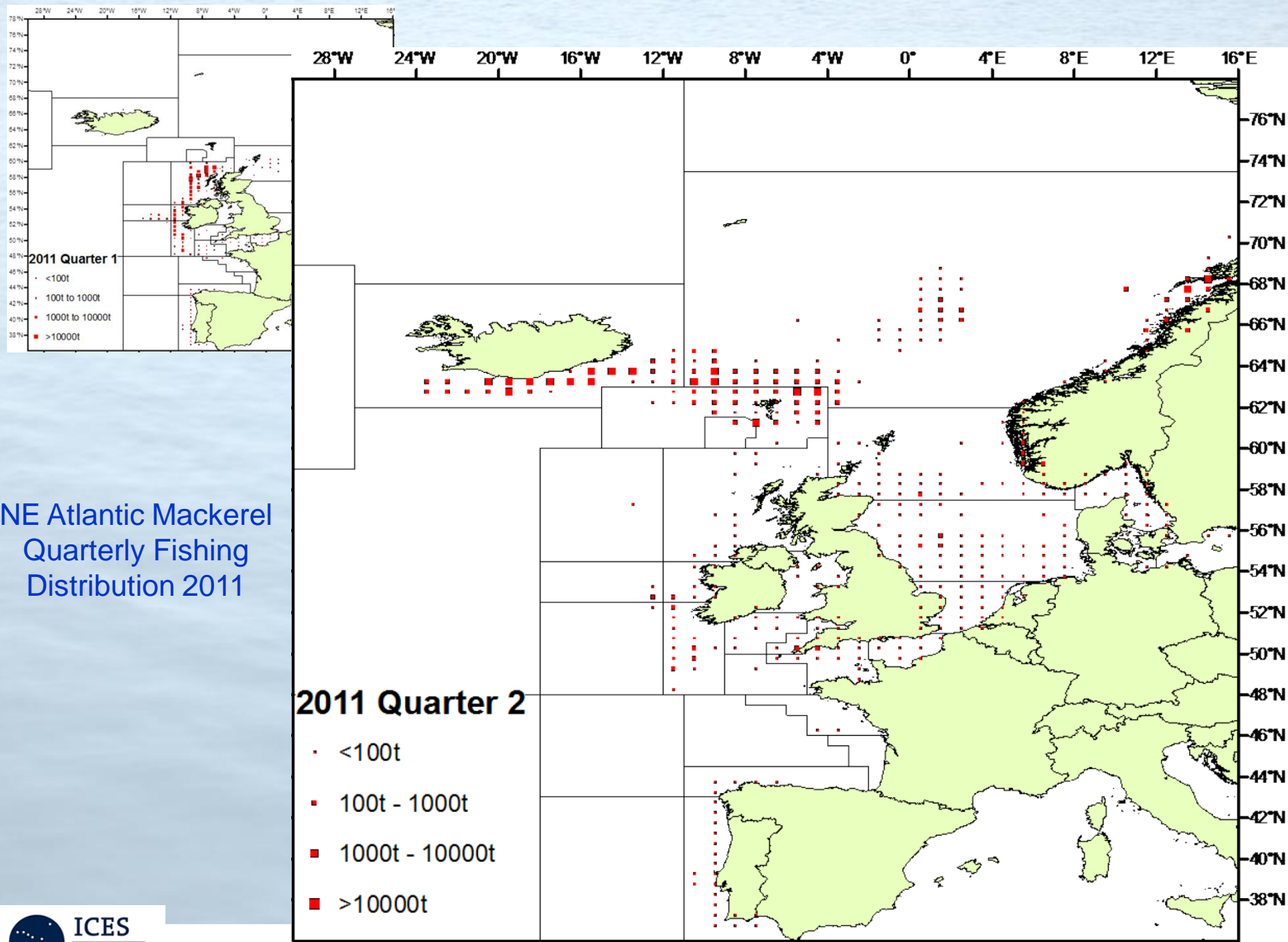
NE Atlantic Mackerel Length & Age-frequency Distributions 2012 Nordic Tri-nation Research Vessel Trawl Survey



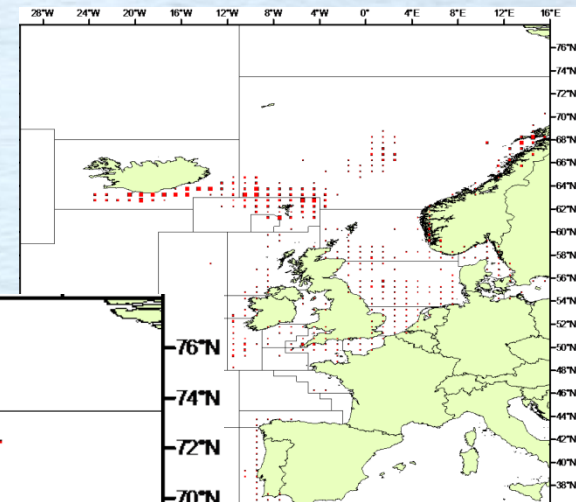
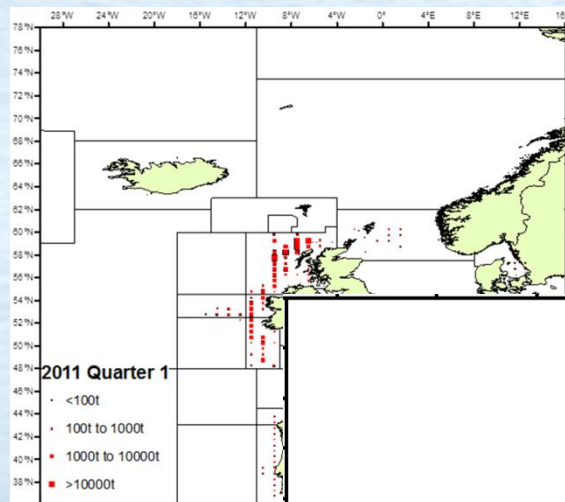
Mackerel Age and length distribution
(NOFOIS July-Aug 2012)

NE Atlantic Mackerel Quarterly Fishing Distribution 2011





NE Atlantic Mackerel Quarterly Fishing Distribution 2011



2011 Quarter 3

- <100t
- 100t to 1000t
- 1000t to 10000t
- >10000t

WGwide, 2012

