

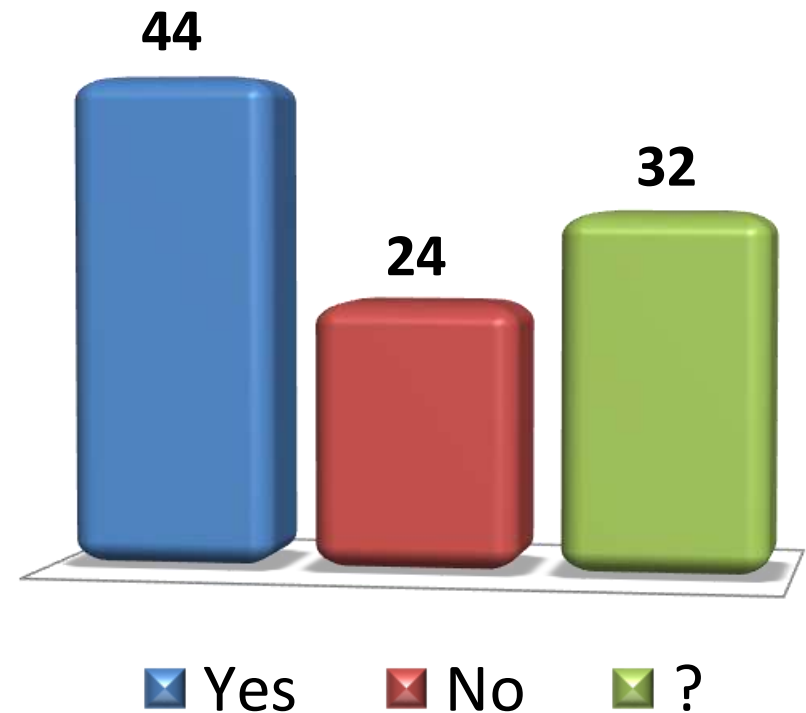
MareFrame



The Future of European Fisheries Under Sustainable Management

Paul G. Fernandes*, N.G. Fallon, V. Bartolino, B. Elvarsson, E. Sturludottir, J.P.C. Ribeiro, B. Bauer, M. Sinerchia, S. Cerviño, C. Saavedra, J. Pope, J. Horbowy, M. Rincon, & A. Baudron

Q: Are the Majority of Northern European Fish Stocks being Overfished?



“Litany of gloom”



Fishery reform slips through the net

Froese, R. (2011)

THE SAD STATE OF
EUROPEAN
FISH STOCKS
IS NOT A FAILURE
THAT GOOD
MANAGEMENT
SIMPLY COULD NOT
OVERCOME.



Contents lists available at ScienceDirect

Marine Policy (2010)

journal homepage: www.elsevier.com/locate/marpol

Designed for failure: A critique of the Common Fisheries Policy of the European Union

Setareh Khalilian ^{a,*}, Rainer Froese ^{b,1}, Alexander Proelss ^{c,2}, Till Requate ^{d,3}



Contents lists available at SciVerse ScienceDirect

Marine Pollution Bulletin (2011)

journal homepage: www.elsevier.com/locate/marpolbul

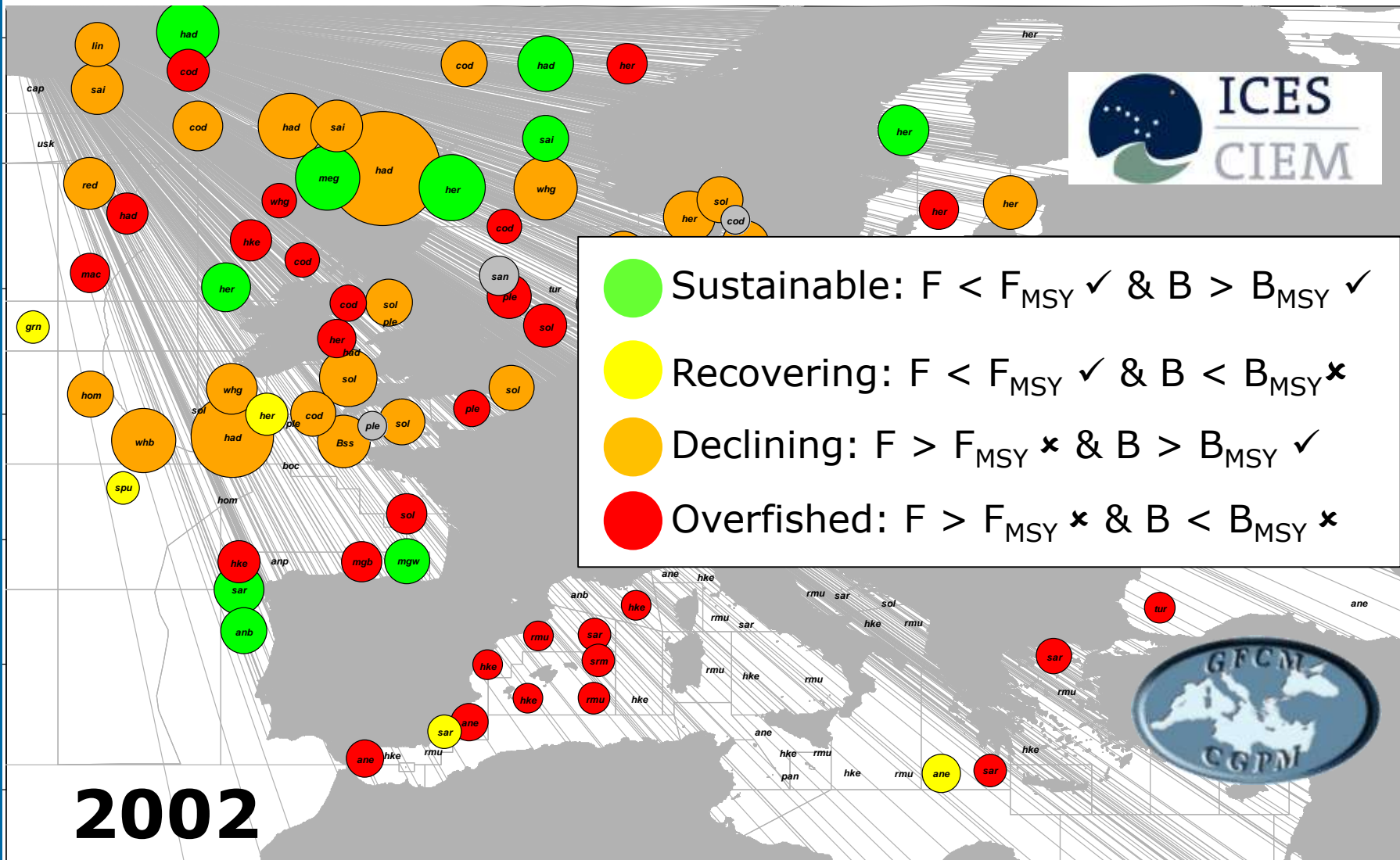
Fisheries mismanagement

Bethan C. O'Leary ^{*}, James C.R. Smart, Fiona C. Neale, Julie P. Hawkins, Stephanie Newman ¹, An Callum M. Roberts

Environment Department, University of York, York YO10 5DD, UK

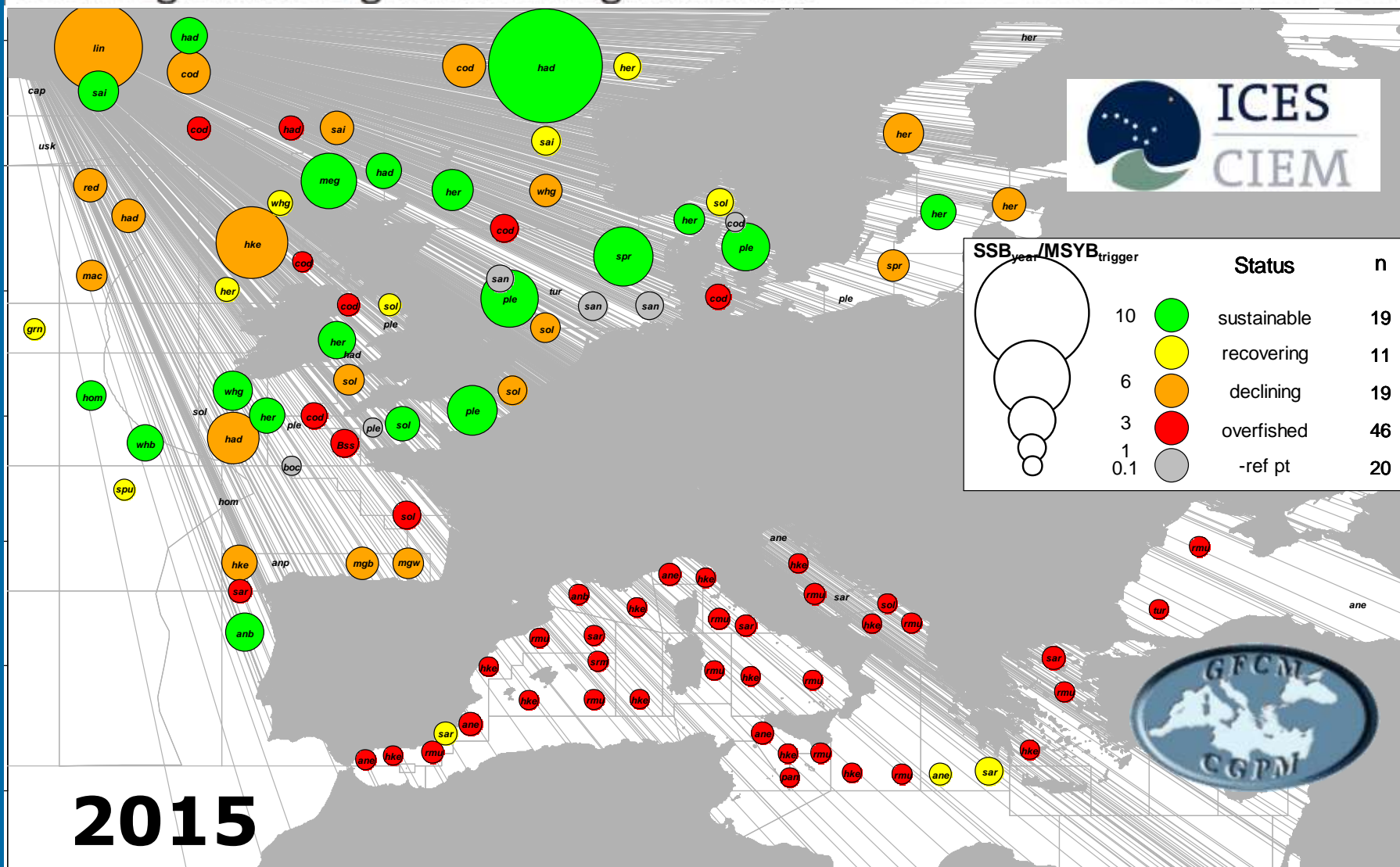
Coherent assessments of Europe's marine fishes show regional divergence and megafauna loss

Paul G. Fernandes^{1*}, Gina M. Ralph², Ana I. Christos D. Maravelias⁴, Robin M. Cook⁶,



Coherent assessments of Europe's marine fishes show regional divergence and megafauna loss

Paul G. Fernandes^{1*}, Gina M. Ralph², Ana I. ...
Christos D. Maravelias⁴, Robin M. Cook⁶,



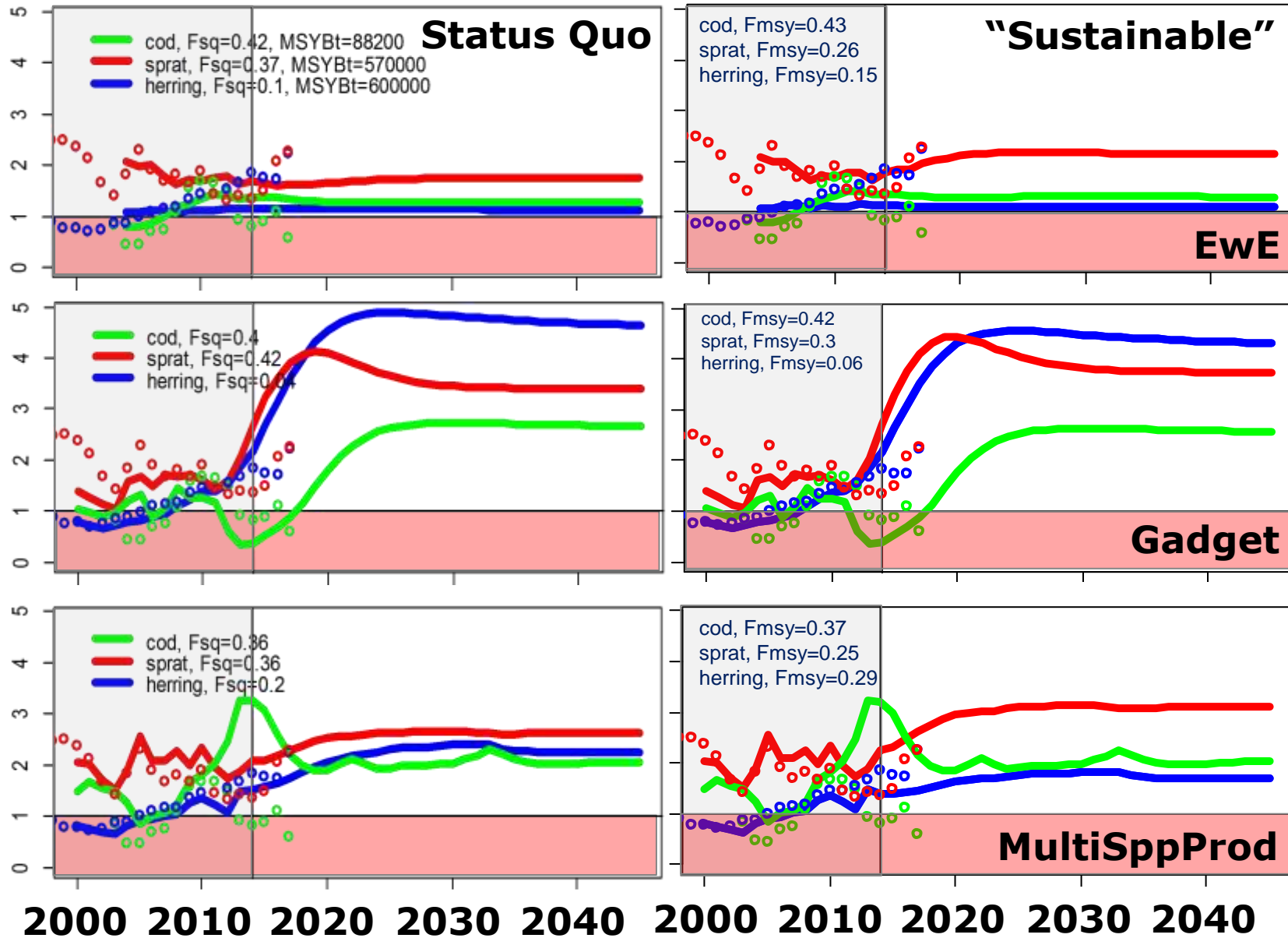
**Can all stocks
“recover” under
“sustainable”
fishing (Fmsy)?**



**Can
MAREFRAME’s
ecosystem
models provide
an answer?**

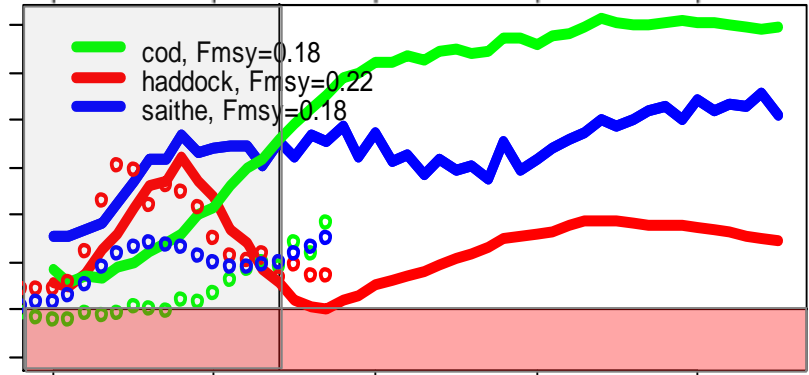
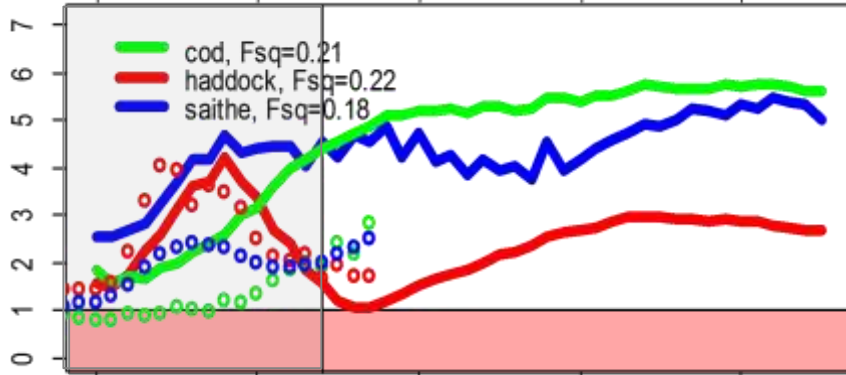
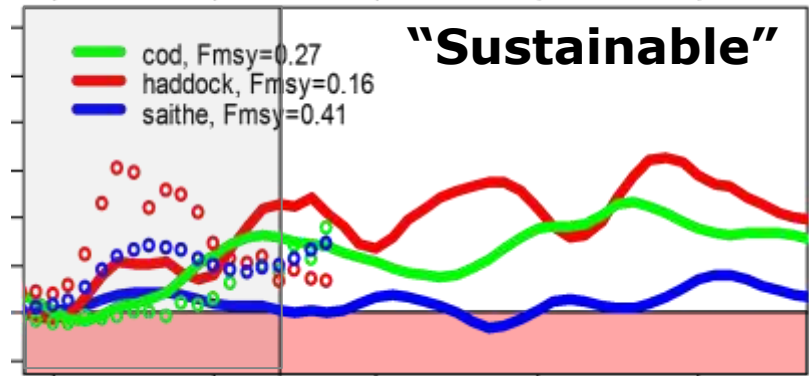
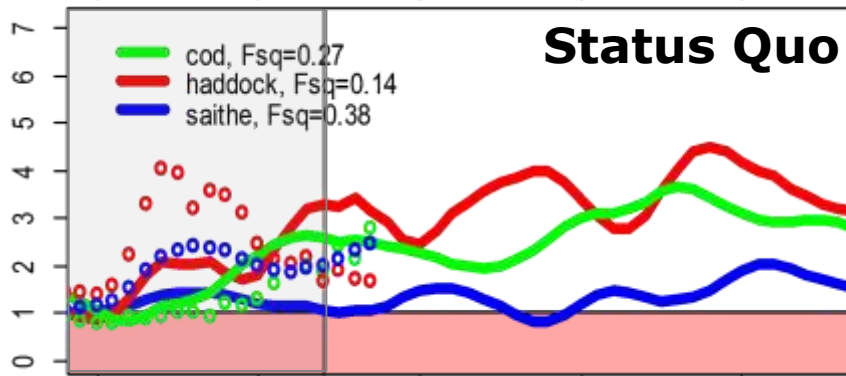
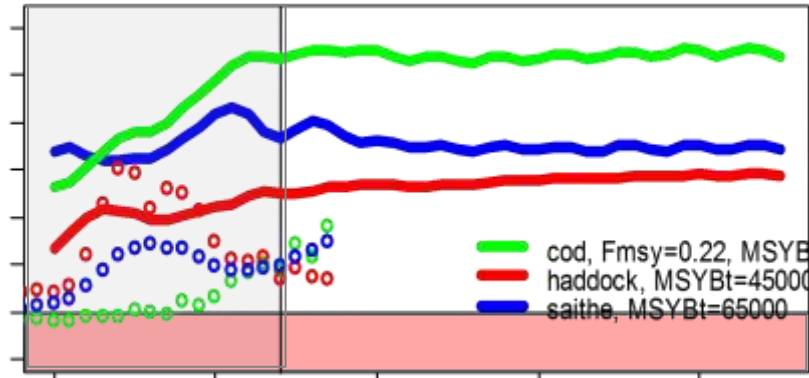
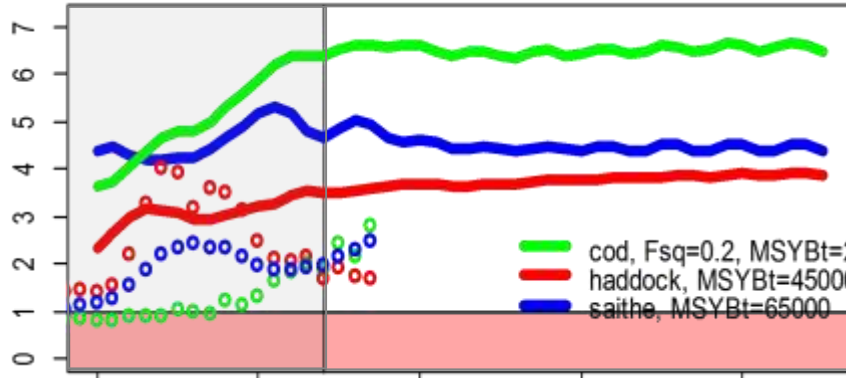
What about the future?

Baltic Sea: cod, sprat, herring Biomass/Sustainable biomass



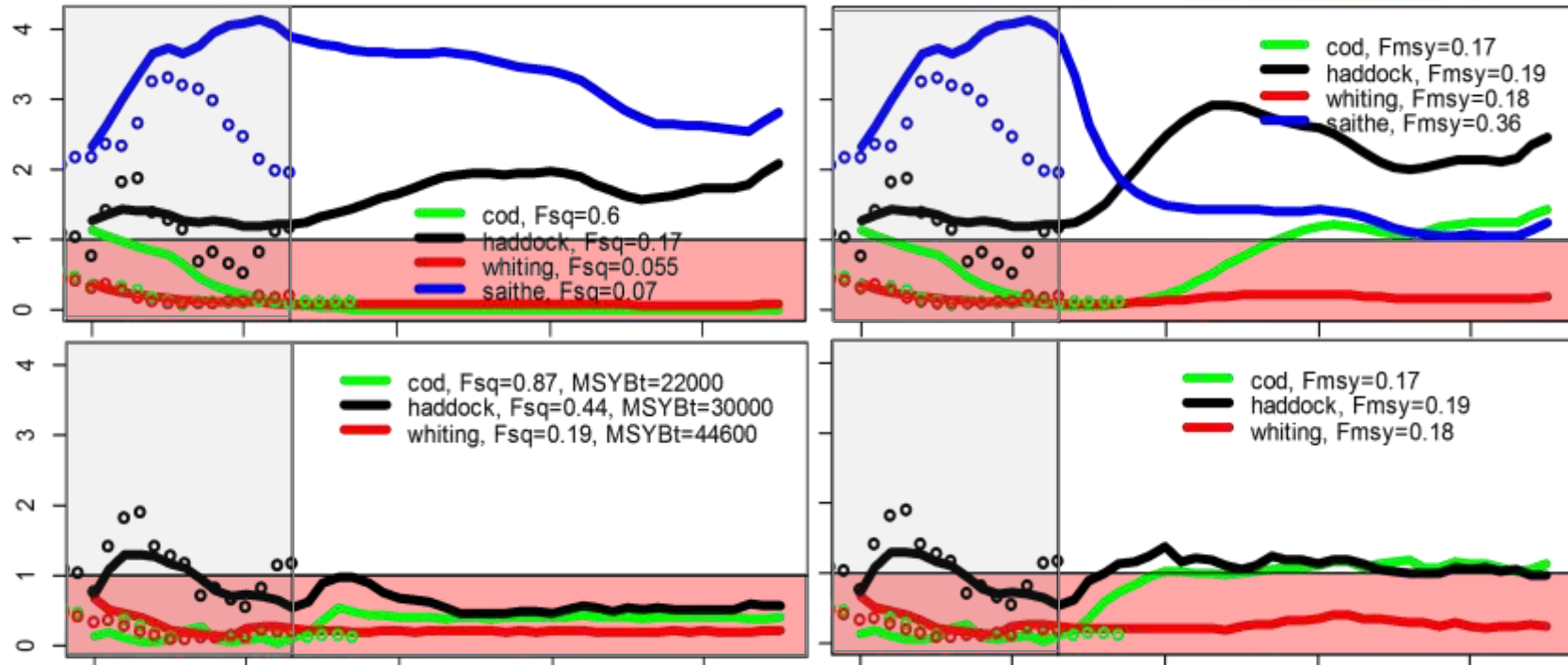
Iceland: **cod**, **haddock**, **saithe** Biomass/Sustainable biomass

MareFrame

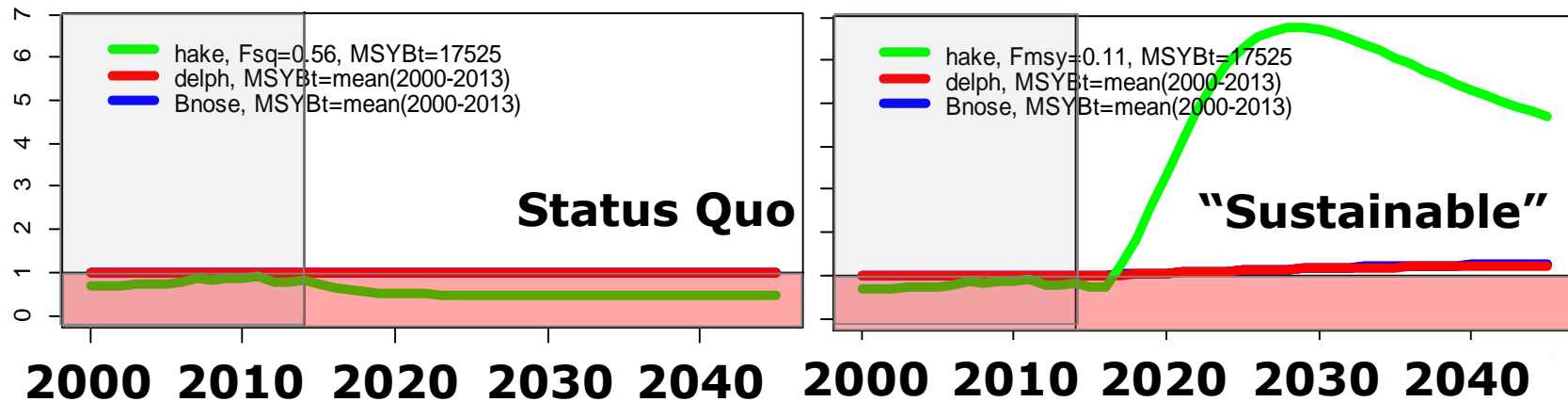


2000 2010 2020 2030 2040 2000 2010 2020 2030 2040

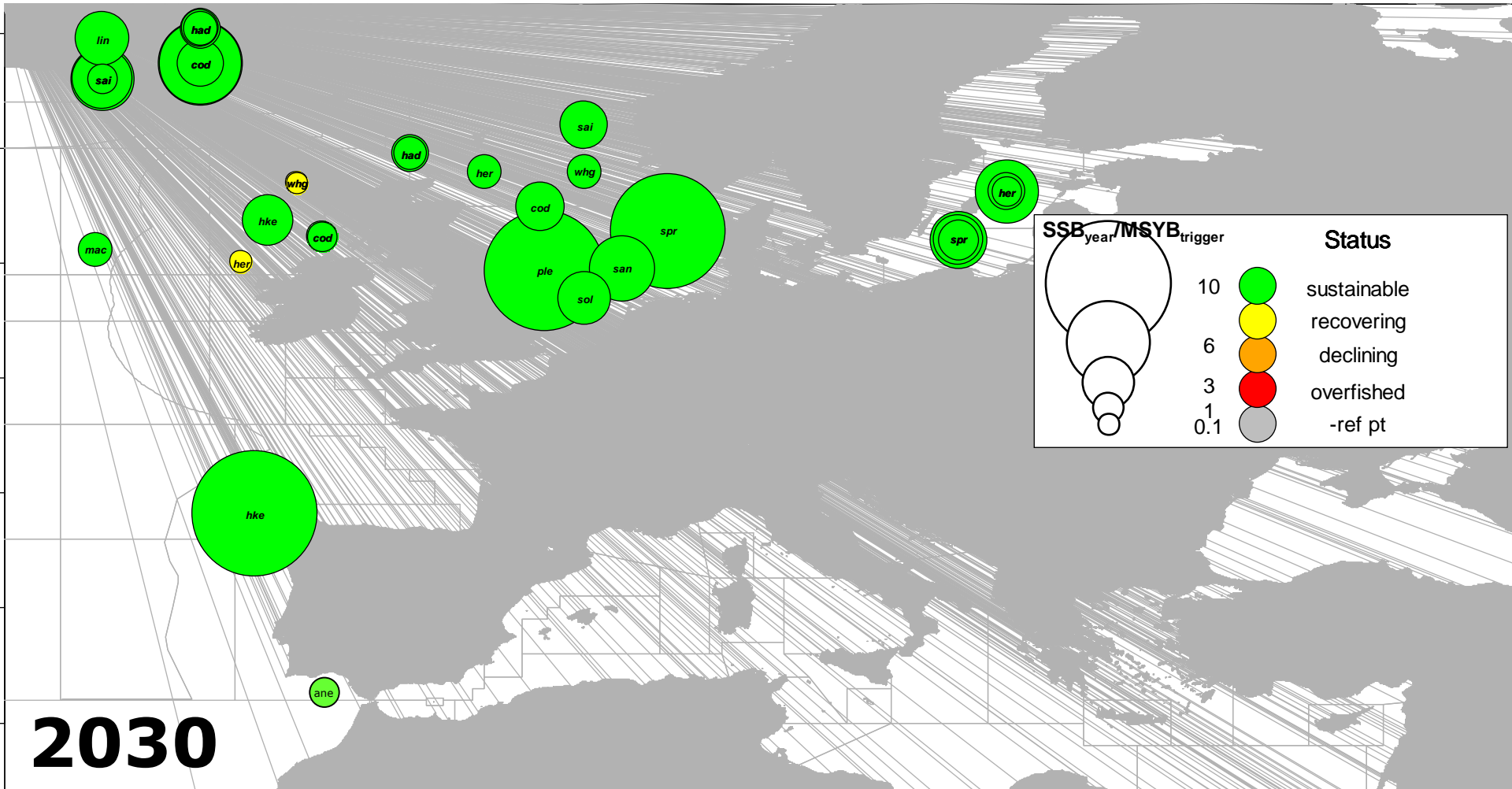
West of Scotland: **cod**, haddock, **whiting**, **saithe**



South West Waters (N. Iberia): **hake**, **b.dolphin**, **c.dolphin**



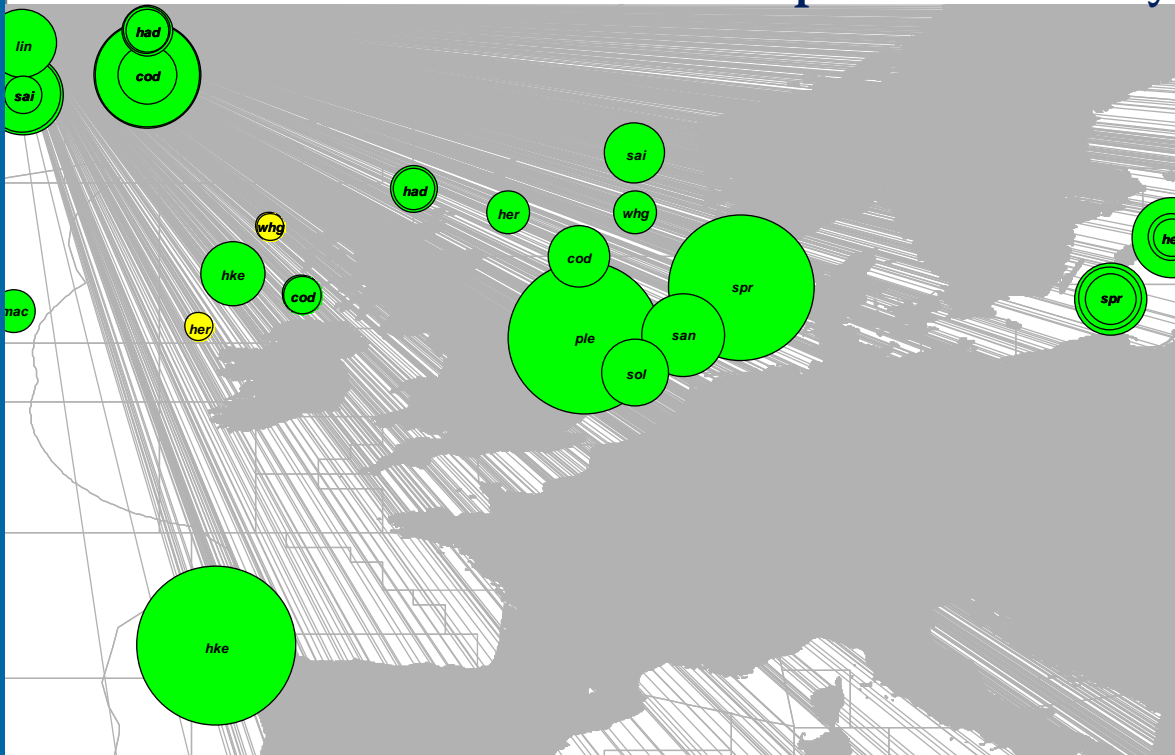
By 2030, most stocks recover.
 Except: West of Scotland whiting
 West of Scotland herring



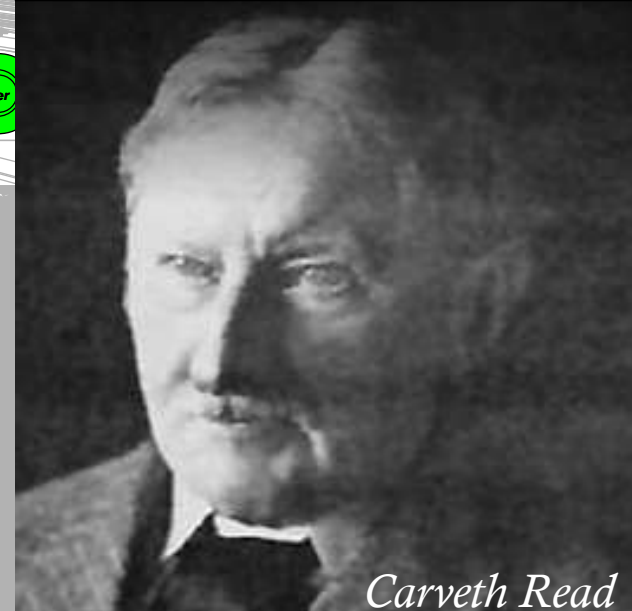
2030

The Future of European Fisheries Under Sustainable Management...

...according to these models, looks good*, under “sustainable” fishing.
...but could it be [more] optimal? “Fisheries engineering”
MMSY? Maximum multispecies sustainable yield
MMEY? Maximum multispecies economic yield (€£\$ species)



“It is better to be vaguely right than exactly wrong”



Carveth Read

...what is a “sustainable” fishing rate?
...and what about the rest of the species?
...and the Mediterranean & the Black Sea?



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