

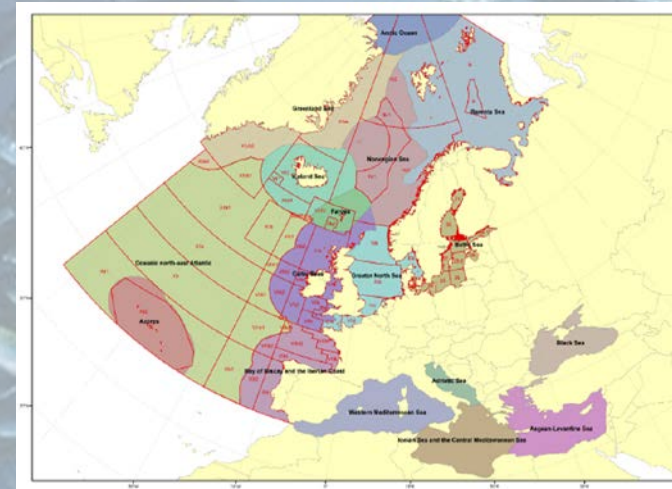
Fish Stock Status

10th November 2016

Seafish Common Language Group

Friend's House, 173-177 Euston Road, London NW1 2BJ

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Centre for Environment
Fisheries & Aquaculture
Science



Cefas

Three main topics are covered:

- Focus on stocks in the North-East Atlantic
- Overview of global trends
- December Council 2016 and the setting of TACs and quotas for 2017



Decisions made should be based on:

- Scientific advice
- Sustainability
(*MSY*)
- Need for continued discard reduction
(*unwanted catch*)



EU fish stocks in which the UK has an interest being fished a) at or b) below Maximum Sustainable Yield (MSY) in 2016:

a) At MSY

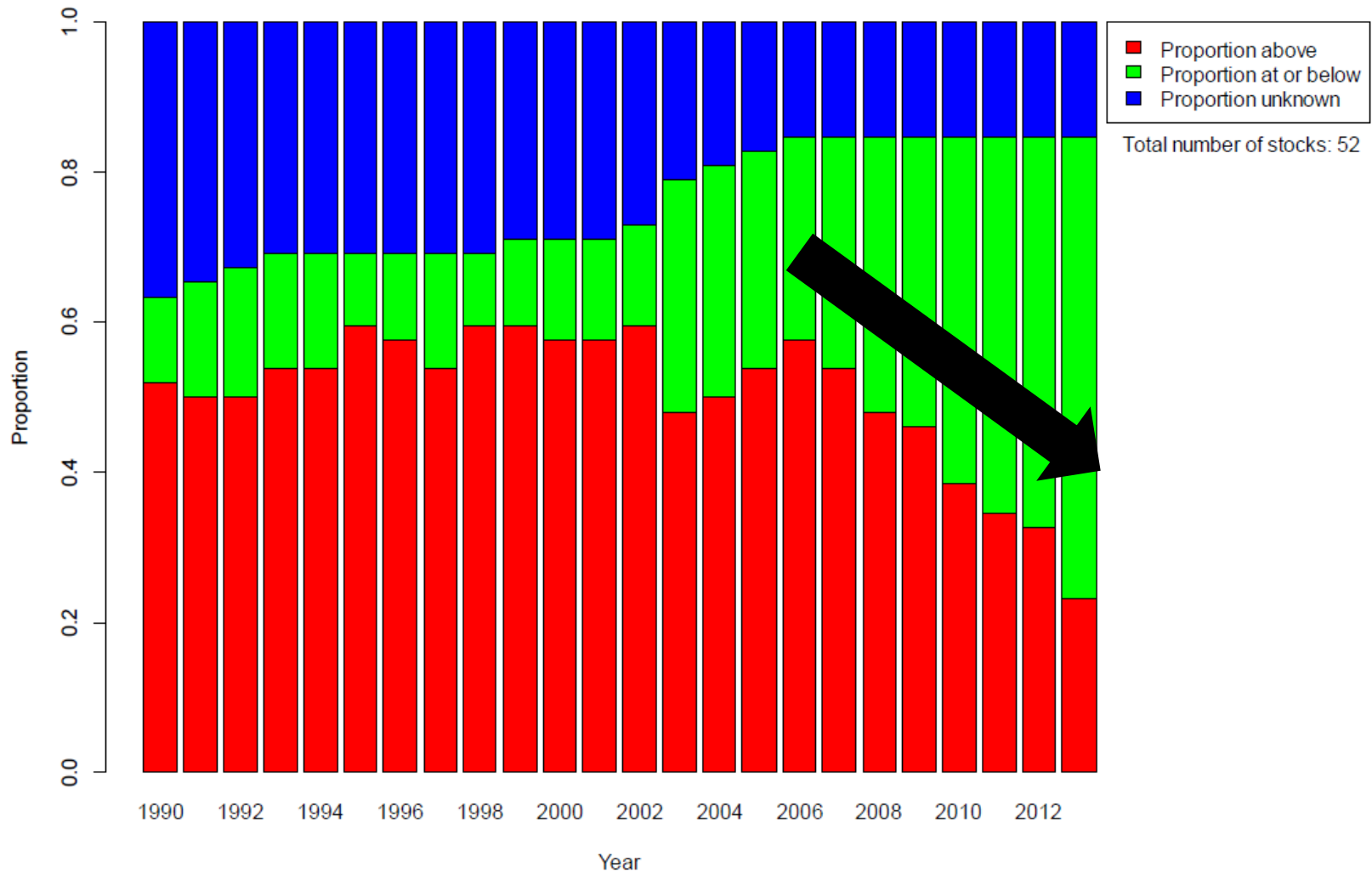
1. North Sea haddock
2. West of Scotland haddock
3. Nephrops IV in Fladen ground
4. North Sea autumn spawning herring
5. Irish Sea herring
6. Herring in subareas I, II, V and sub areas Vi and VII
7. Horse Mackerel IIa. IVa. Vb. VIa. VIIa-c. e-k. VIII
8. Blue ling in Division Vb. and Subareas VI and VII
9. Roundnose grenadier in Vb, VI, VII
10. North Sea cod
11. Nephrops in the Firth of Forth
12. Nephrops in Moray Firth
13. North Sea, West of Scotland and Rockall saithe
14. Rockall haddock
15. Megrin in Divisions IVa and VIa

b) Below MSY

1. North Sea plaice
2. North Sea sprat
3. Herring in Division VIa (North)
4. Herring VIIa Celtic Sea and South of Ireland
5. Western Channel sole
6. Whiting VII b-k
7. NE Atlantic spurdog
8. Channel plaice
9. Irish Sea sole

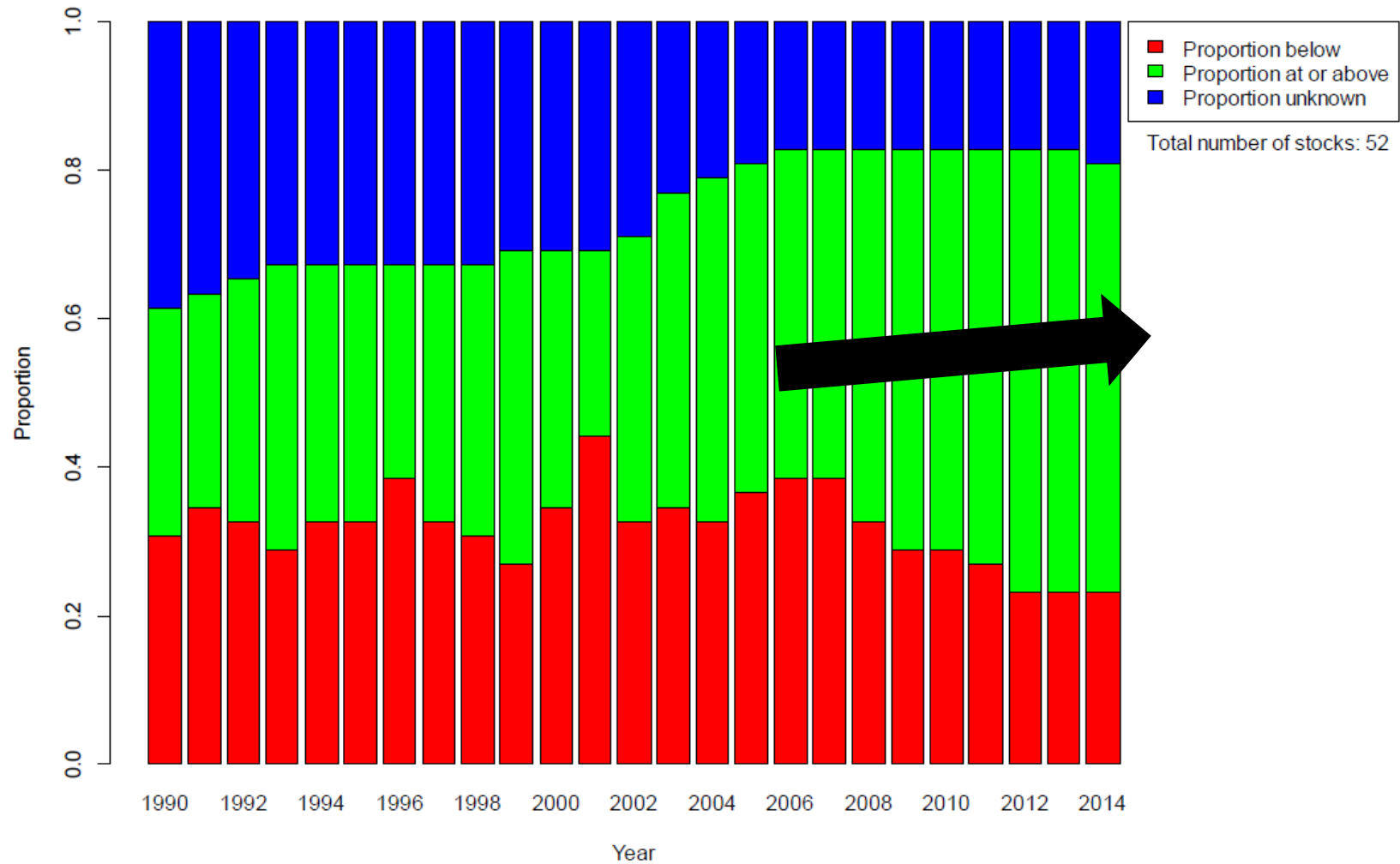


Proportion of stocks of UK interest exploited with respect to F_{MSY}

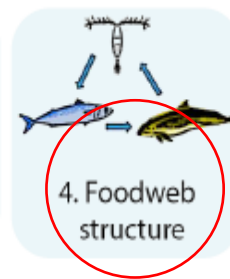


UK's progress towards MSY - fishing mortality

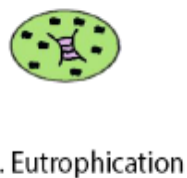
Proportion of stocks of UK interest exploited with respect to MSY $B_{trigger}$



UK's progress towards MSY - spawning stock biomass



Common Fisheries Policy (CFP)

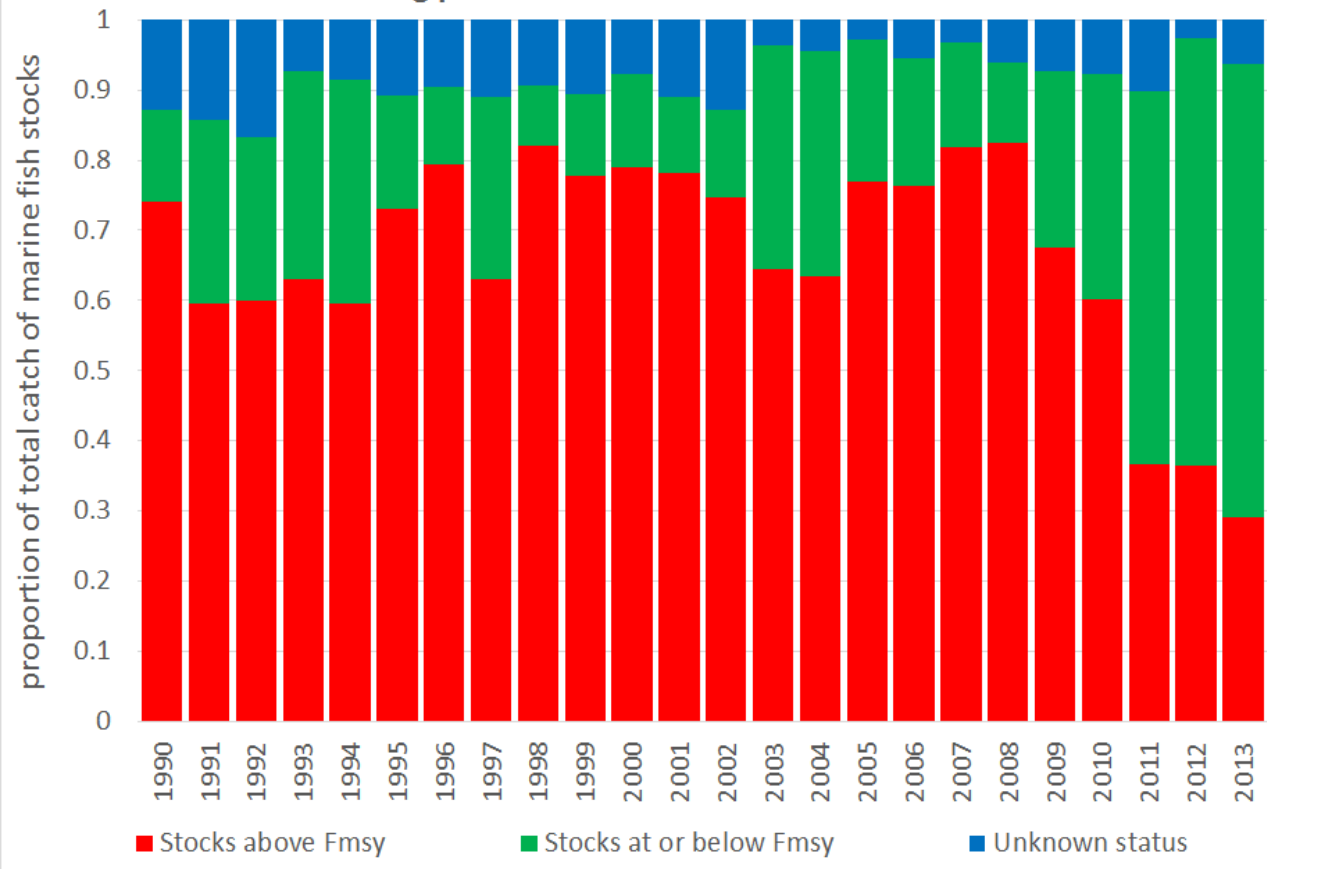


Marine Strategy Framework Directive (MSFD)

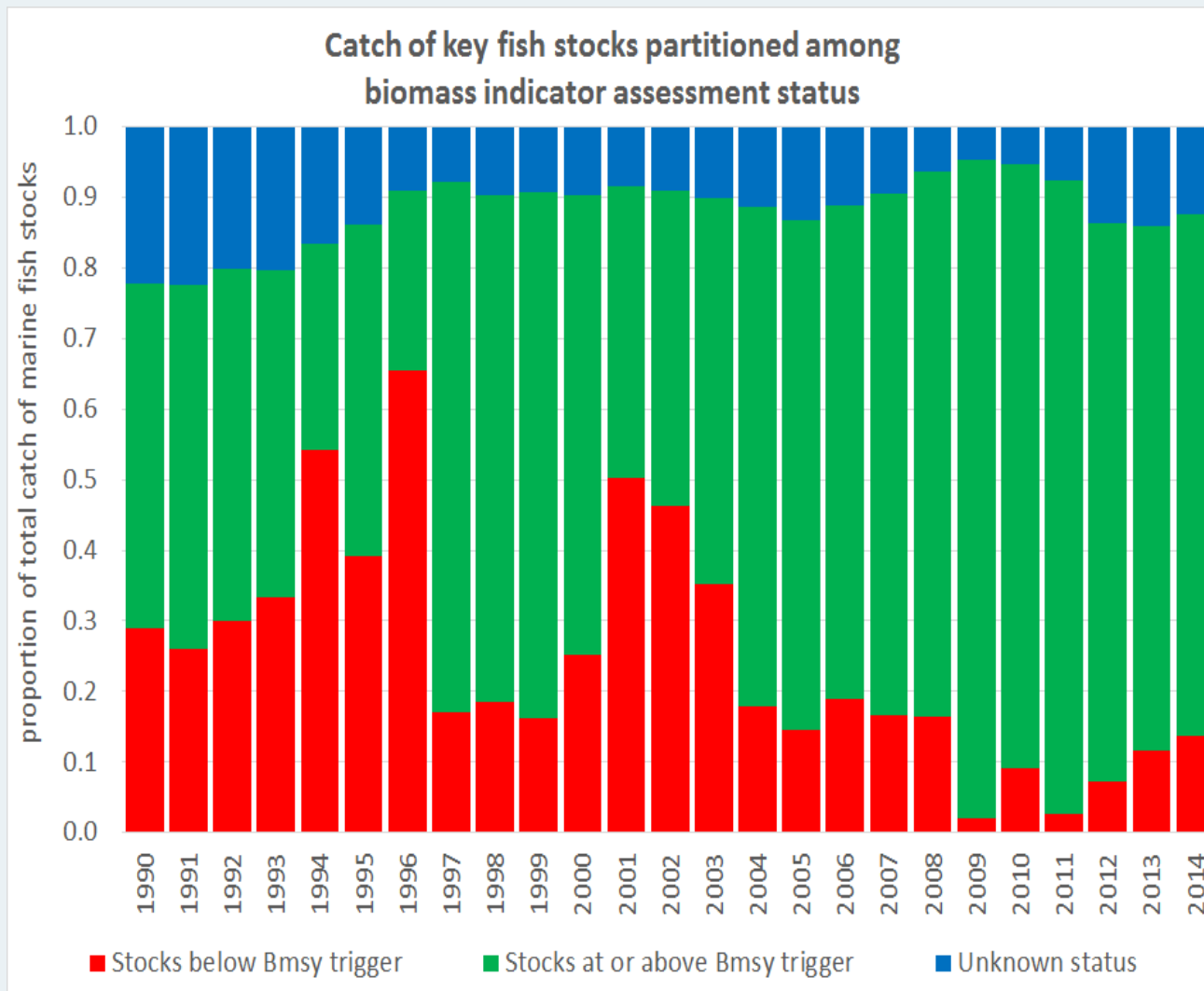


Fisheries management measures critical

Catch of key fish stocks partitioned among fishing pressure indicator assessment status

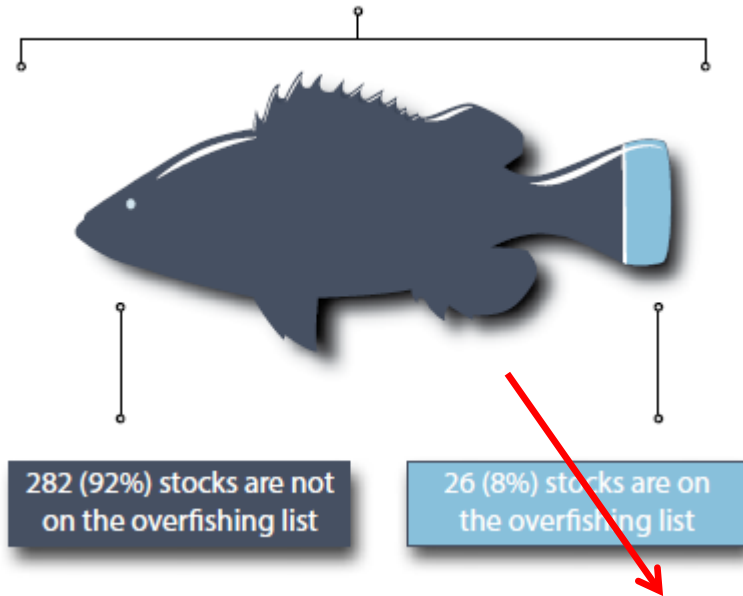


Proportion of total international catch of stocks of UK interest partitioned among assessment status with respect to F_{MSY}

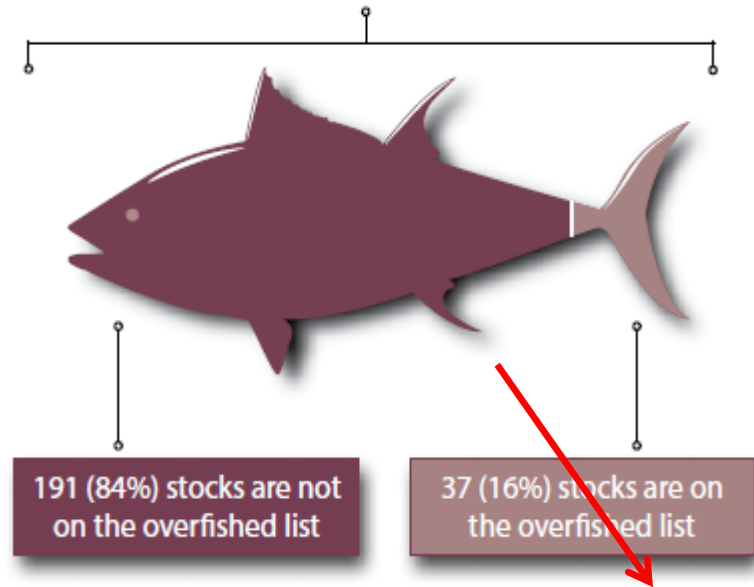


Proportion of total international catch of stocks of UK interest partitioned among assessment status with respect to MSY $B_{trigger}$

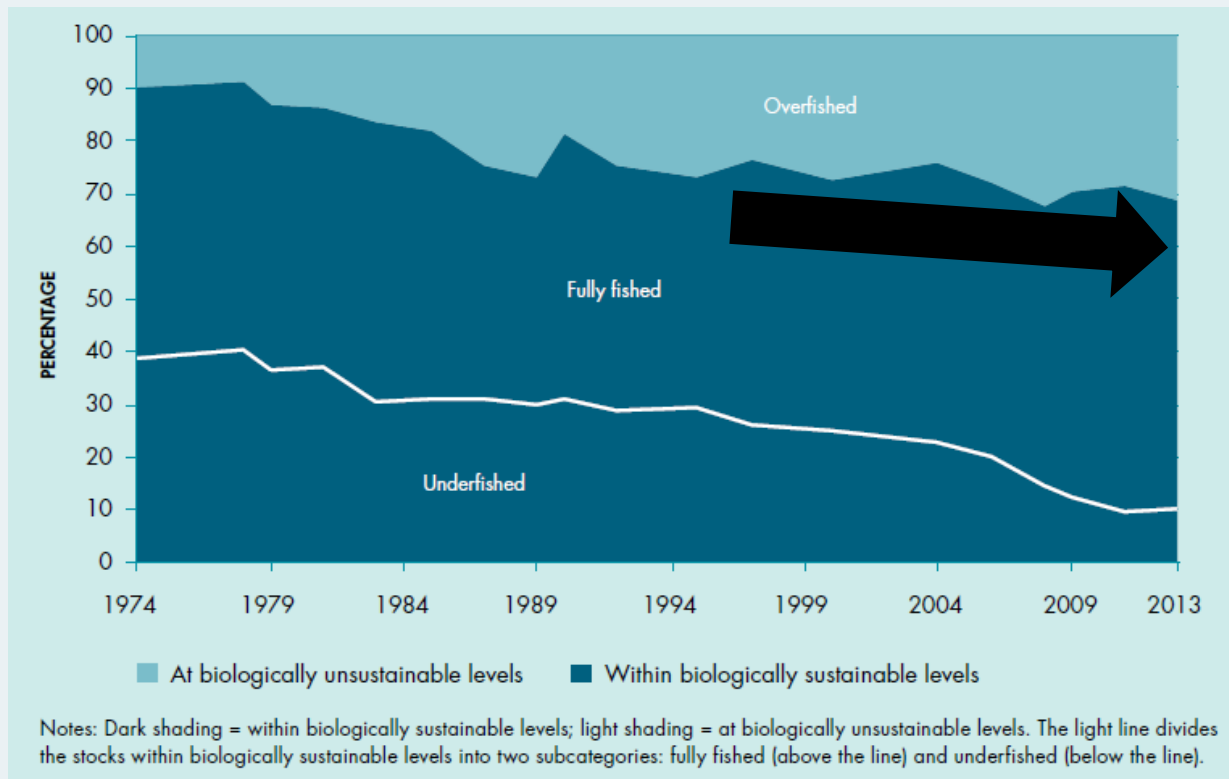
Overfishing: 308 stocks with known status:



Overfished: 228 stocks with known status

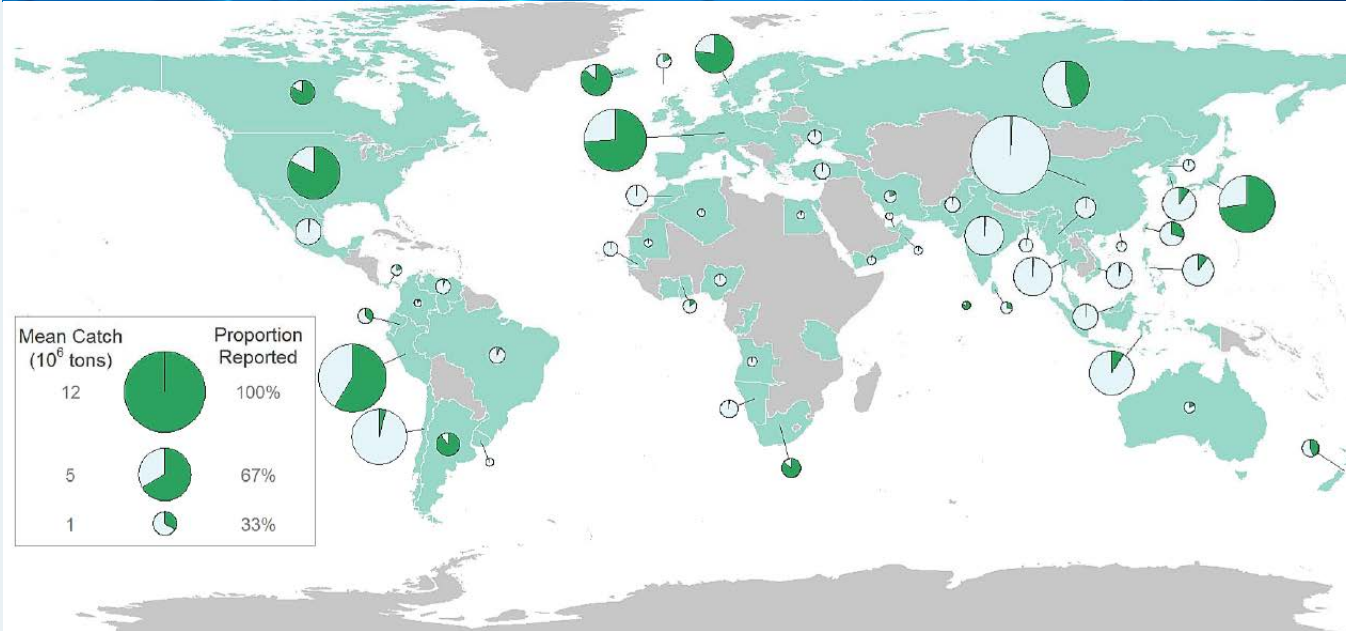


- Overfishing – harvest rate $>$ MSY rate
- Overfished – population size that is too low
- Both at their lowest point since 1997



Source: FAO (2016). 69% of stocks sustainably fished in 2013. The FAO approach is weighted to larger stocks which are generally in better condition than smaller stocks based on an analysis of stocks in the RAM Legacy Stock Assessment Database (e.g. Hilborn and Ovando, 2014).





Proportions of catch from stocks included in the database

see: www.ramlegacy.org

✓ Advice in 2015 for 2016

➤ Advice in 2016 for 2017:

- For stocks only partially under the EU landing obligation in 2016, ICES is not in a position to advise on landings in 2017 corresponding to the advised catch in 2017.
- Methodological issue!
- Expect Commission to ask STECF



Event	Date
Release of ICES' Advice: <ul style="list-style-type: none"> • Main tranche – 30 June • Pelagic - 30 September • Remaining advice (including skates and rays) – 31 October • Revised advice (cod, saithe and <i>Nephrops</i>) – 11 November (tomorrow) 	June - November
Commission's TQR Proposal	27 October
UK Stakeholder Event	8 November
Discussions with stakeholders, NGOs, Member States and Commission	mid-November – early December
Coastal States – Possible further discussions	w/c 21 November
EU/Norway Negotiations <ul style="list-style-type: none"> • Round 1 – 8-10 November • Round 2 – 28 November–2 December 	November - December
EU/Faroes Negotiations	6-7 December
Fisheries Council	12-13 December



- Generally, prospects look good:
 - Continuing improvements in terms of sustainable fishing
 - North Sea, Skagerrak and Kattegat
 - West of Scotland, Irish Sea and Celtic Sea



Stock	F(2013)		SSB(2014)	
Cod in Division VIIa	✗		✗	
Haddock in Division VIIa	?	✓	?	✓
Whiting in Division VIIa	?		?	
Plaice in Division VIIa	?	✓	?	✓
Sole in Division VIIa	✗	✓	✓	✗

Status in pictogram			
$F < F_{MSY}$: appropriate	✓	✓	
$F < F_{MSY}$: above target	✗	✗	
$SSB > B_{pa}$: Full reproductive capacity		✓	✓
$B_{lim} < SSB < B_{pa}$: Increased risk		o	
$SSB < B_{lim}$: Reduced reproductive capacity	✗		✗



F(2014)
F(2015)



SSB(2015)
SSB(2016)

Stock	F(2015)	SSB(2016)
Cod in Division VIIa	✘	✘
Haddock in Division VIIa	✔	✔
Whiting in Division VIIa	? ✘	? ✘
Plaice in Division VIIa	✔	✔
Sole in Division VIIa	✔	✘

Stock	F(2015)	SSB(2016)
Herring in Division VIIa (North)	✓	✓
Herring in Celtic Sea and Division VIIj	✓	✓
Herring in Subarea IV, Division VIIId and Division IIIa (autumn spawners)	✓	✓

Irish Sea

Stock	TAC 2016 (tonnes)	ICES' Advice (tonnes) (diff % 2016 TAC)	2017 TAC proposal/UK quota (tonnes) (diff % 2016 TAC)	Type of Advice / Notes
Haddock VIIa	1,654	Catch 1,286	pm	Data-Limited Method – 'Biomass Index'. 'Use-it-or-lose-it' based on landings < TAC.
Herring VIIa	4,575	Land 4,127 (-10%)	4,127/3,053 (-10%)	MSY
Cod VIIa	146	zero catch	pm	MSY (MP advises -20%)
Whiting VIIa	80	zero catch	80/42 Roll-over	Precautionary considerations; Subject to 5232/14 and a TAC roll-over.
Sole VIIa	40	zero catch	0 (-100%)	MSY
Plaice VIIa	1,098	Land 436 (-60%)	1098/562 Roll-over	Data-Limited Method – 'Biomass Index'. 'Use-it-or-lose-it' based on landings < TAC.



West of Scotland

Stock	TAC 2016 (tonnes)	ICES' Advice (tonnes) (dif % 2016 TAC)	2017 TAC proposal/UK quota (tonnes) (dif % 2016 TAC)	Type of Advice / Notes
Cod VIa	0	No directed fishery zero catch	0 TAC Roll-over	MSY
Whiting VI	213	zero catch	0/0 (-100%)	VIa advice is MSY Approach; VIb advice is Data-limited Method – 'Precautionary reduction'.
Haddock VIa	6462	Advice due November 2016	pm	N/A
Haddock Rockall VIb	3,225	Land 4,690 (+15%)	4,130/3,329 (+28%)	MSY
Nephrops VI	16,524	Land 16,317 (-1%)	pm	Functional Unit with the sum at MSY
Blue Ling Vb, VI, VII	5,046	Land 10,763 (+124%)	pm	MSY
Herring VIb & VIaN	4,170	zero catch	3,480/2,102 (-17%)	MSY



Stock	F(2015)	SSB(2016)
Cod in Subarea IV (North Sea), Division VIIId (Eastern Channel) and Division IIIa (Skagerrak)	✘	✘
Haddock in Subarea IV (North Sea) and Division IIIaN (Skagerrak)	<i>Due in November 2016</i>	
Whiting in Subarea IV (North Sea) and Division VIIId (Eastern Channel)	✘	✔
Saithe in Subarea IV (North Sea), Division IIIa (Skagerrak) and Subarea VI (West of Scotland and Rockall)	✔	✔
Plaice in Subarea IV	✔	✔
Plaice in Division VIIId (Eastern Channel)	✔	✔
Sole in Subarea IV	✔	✔
Sole in Division VIIId (Eastern Channel)	✘	✘

North Sea

Stock	TAC 2016 (tonnes)	ICES' Advice (tonnes) (dif % 2016 TAC)	2017 TAC proposal/UK quota (tonnes) (dif % 2016 TAC)	Type of Advice / Notes
Cod IV	33,651	Catch 32,212	pm	MSY
Haddock IV	61,933	Advice due in November 2016	pm	NA
Herring	531,624	Land 435,984 (-18%)	pm	EU-Norway MP
Plaice IV	131,714	Catch 121,523	pm	MSY
Whiting IV	13,678	Catch 18,115	pm	MSY
Saithe IIIa & IV	65,696	Catch 100,491	pm	MSY
Nephrops IV	13,700	Land 13,222 (-3%)	13,686/11,854 (-0.1%)	Functional Unit with the sum at MSY, Advice for FUs 6,7 and 8 being reviewed



Stock	F(2015)	SSB(2016)	
Sole in Division VIIe	✓	✓	
Plaice in Division VIIe	✓	✓	
Sole in Division VIIfg	✗	✓	
Plaice in Division VIIfg	?	✓	
Sole in Division VIIh-k	?	? ↗	
Plaice in Division VIIh-k	✗	? ✗	Status
Cod in Division VIIe-k	✗	✗	Unknown / undefined ?
Haddock in Division VIIb-k	✗	✓	Increasing ↗
Whiting in Division VIIe-k	✓	✓	Unchanged →
			Decreasing ↘

Stock	F(2015)	SSB(2016)
Northern hake in Division IIIa, Subbareas IV, VI and VII, and Divisions VIIIa,b,d	✓	✓
Anglerfish in Division VIIb-k and VIIIa,b,d	? ?	? ↘ ✓
Megrim in Division VIIb-k and VIIIa,b,d	? ↘	? ↗
Anglerfish in Divisions IIIa and Subareas IV and VI	? ↘	? ↗
Megrim in Divisions IVa and VIa	✓	✓
Megrim in Divisions VIb (Rockall)	?	?
	F(2015)	SSB(2016)
European sea bass	? ✗	✗

Celtic Sea & Channel - Part 1

Stock	TAC 2016 (tonnes)	ICES Advice (tonnes) (diff % 2016 TAC)	2017 TAC proposal/UK quota (tonnes) (diff % 2016 TAC)	Type of Advice / Notes
Cod Celtic Sea VIIbc,e-k	4,565	Land 1,447 (-68%)	1,447/114 (-68%)	MSY
Haddock Celtic Sea VIIb-k	7,258	Land 7,751 (+7%)	7,751/775 (+7%)	MSY
Whiting Celtic Sea VIIb-k	22,778	Catch 28,060	pm	MSY
Anglerfish VII	33,516	No new advice	29,534/5,311 (-12%)	Data-Limited Method – 'Biomass Index'
Herring Celtic Sea VIIg-k	15,442	Land 16,145 (+5%)	14,467/18 (-6%)	MSY
Megrim (VII)	18,254	Land 12,477 (-31%)	13,099/1,878 (-28%)	MSY
Nephrops VII	23,348	Land 19,241 (-18%)	pm	FU16 (Porcupine) has an <i>of which</i> provision



Celtic Sea & Channel - Part 2

Stock	TAC 2016	ICES' Advice (diff % 2016 TAC)	2017 TAC proposal/UK quota (diff % 2016 TAC)	Type of Advice / Notes
Sole Western Channel VIIe	979	Catch 1,198	1,178/693 (+20%)	MSY approach; MP not evaluated by ICES.
Sole Eastern Channel VIIId	3,258	Land 2,487 (-24%)	2,257/434 (-31%)	MSY
Sole Celtic Sea VIIhjk	382	Land 223 (-41%)	382/64 Roll-over	Data-limited method - 'biomass index'; Subject to 5232/14 and a TAC roll-over.
Sole Bristol Channel VIIfg	779	Catch 806	782/220 (+0.4%)	MSY
Plaice Channel VIIde	12,446	Land 10,022 (-19%)	10,022/2,915 (-19.5%)	MSY
Plaice Celtic Sea VIIhjk	135	Land 86 (-36%)	108/14 (-20%)	Data-limited method - 'biomass index'; Subject to 5232/14 and a TAC roll-over.
Plaice Bristol Channel VIIfg	420	Land 405t (-4%)	405/95 (-3.5%)	Data-Limited Method – 'Biomass index'.



Pelagics

Stock	TAC 2016 (tonnes)	ICES' Advice (tonnes) (diff % 2016 TAC)	2017 TAC proposal/UK quota (tonnes) (diff % 2016 TAC)	Type of Advice / Notes
Mackerel in the Northeast Atlantic	895,900	MSY- Catch 944,302 (+5%) MP- Catch 1,020,966 (+14%)	pm	MSY/MP
Blue whiting in Subareas I-IX, XII and XIV (combined stock)	TAC not agreed	Catch 1,342,330	pm	MSY
Atlanto-Scandian Herring	316,876 (EU share - 20,629)	Catch 646,075 (+104%)	pm	MP
Western Horse mackerel IIa, Iva, VI, VIIa-c, VIIe-k, VIIIa, VIIb, VIIIId and VIIIe	108,868	Catch 69,186 (-36%)	pm	MSY
North Sea Horse Mackerel IVb-c, VIId	15,200t	Catch 18,247 (+20%)	pm	Precautionary approach
Boarfish	42,637	Catch 27,288 (-36%)	27,288/1,734 (-36%)	Data-limited method - 'biomass index'
Sprat in Subarea IIa and IV (North Sea)	245,000	Catch 125,541 (-49%)	pm	MSY
Sprat VIIId,e (English Channel)	5,150	Catch 3,678 (-28%)	4,120/2,163 (-20%)	Precautionary approach
Clyde Herring VIa	583	Advice due early 2017	To be established	Established by the UK

