

ICES advice for North Western Waters stocks for 2022

NWWAC meeting, July 5, 2021

WORKING GROUP 1 – WEST OF SCOTLAND

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ICES ACOM vice-chair



Science for sustainable seas

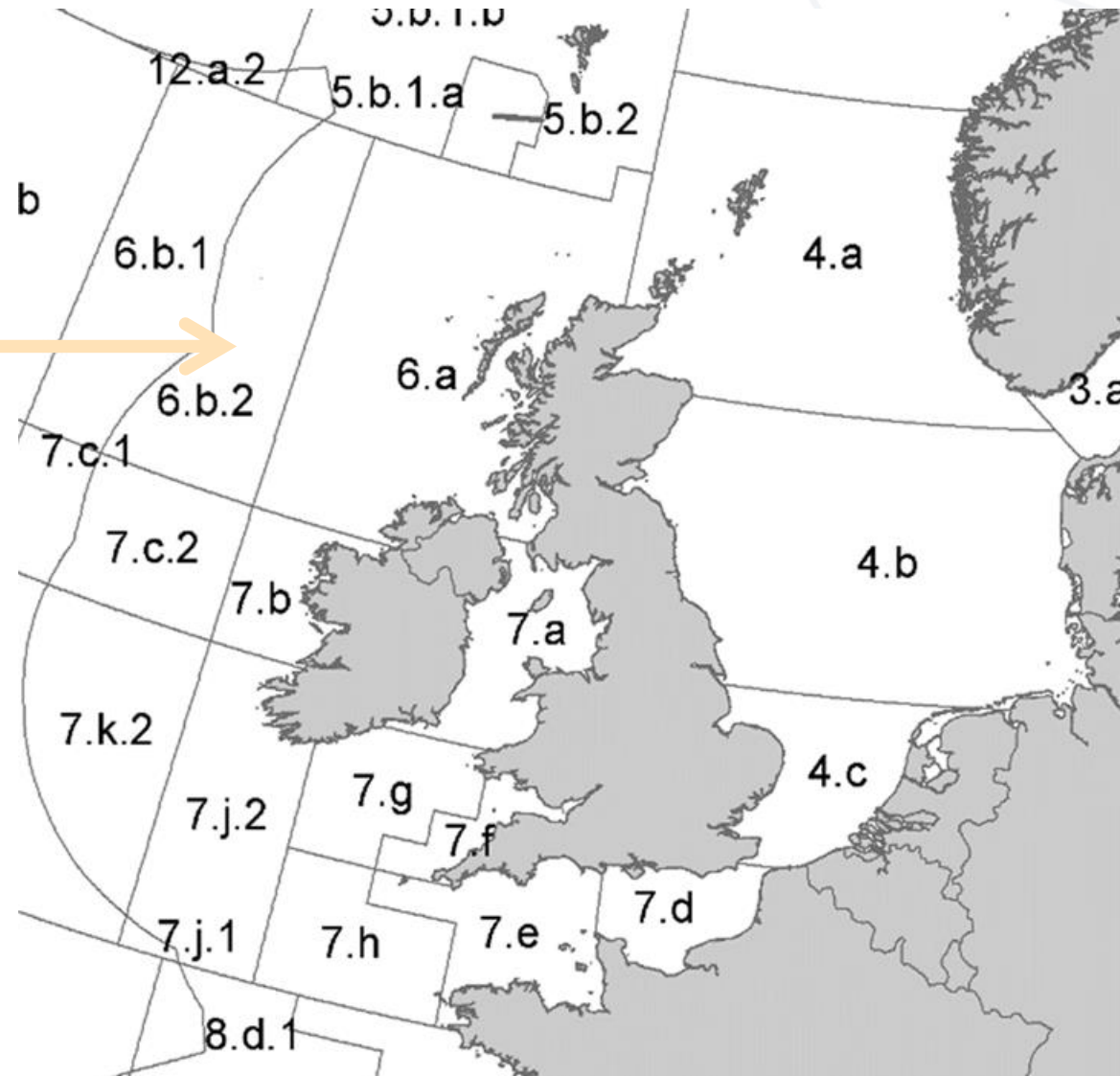
Image Dirk Vonten, Fotolia

Introduction – West of Scotland

- Includes advice released up to 30 June 2021.
- Full advice sheets for all stocks. COVID-19 impacts inserted in Quality of the assessment.
- Stocks managed by EU and UK: advice provided on the basis of MSY or PA but EU MAP option provided in catch scenario table if available.
- Advice rules applied by ICES in developing advice on fishing opportunities similar to previous years.
- Advice to be released in the autumn for the following stocks: Anglerfish (3.a,4,6), Megrim (6.b), Nephrops (Fu 11-13)

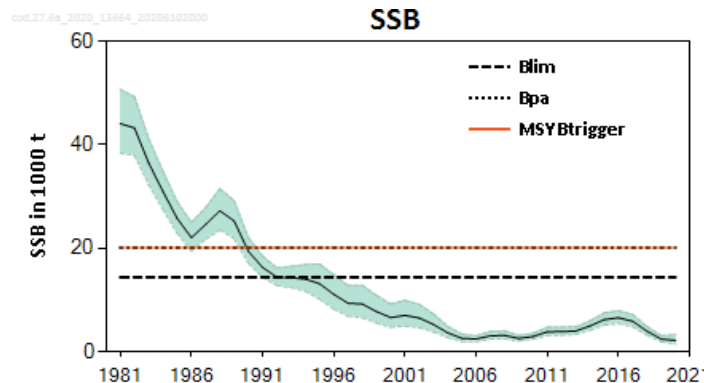
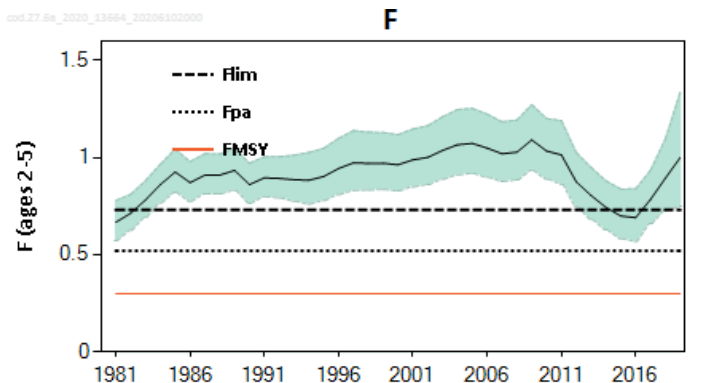
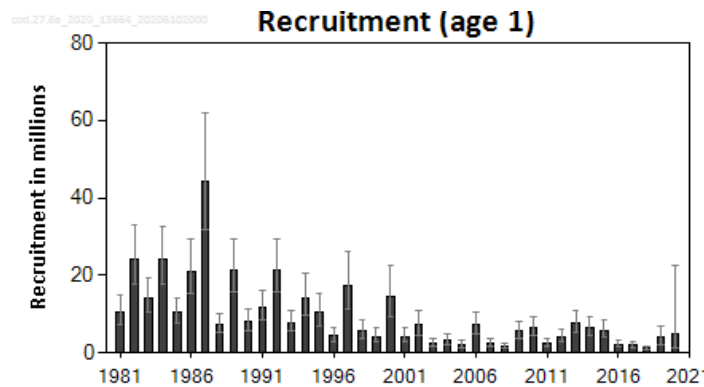
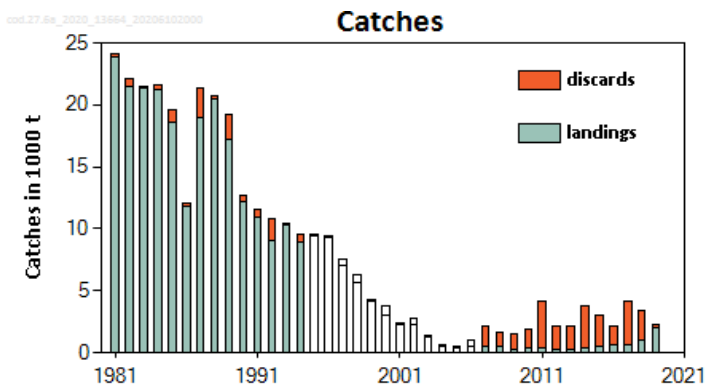
West of Scotland & Rockall (6.a & 6.b)

- Cod 6.a
- Cod 6.b
- Haddock 4, 6.a, sub. 20
- Haddock 6.b
- Hake (4,6,7, 3.a, 8.ab,d)
- Megrin 4.a, 6.a
- Pollack 6, 7
- Saithe 3.a, 4, 6
- Whiting 6.a
- Whiting 6.b
- Tusk 4, 7-9, 3.a, 5.b, 6.a, 12.b
- Tusk 6.b
- Blue ling 6-7 and 5.b
- Rays and skates



Cod in the West of Scotland (6.a)

Advice for 2021 and 2022, MSY: Catch = 0 t



- Benchmarked in 2020
- Stock structure issues remain.
- Spawning-stock biomass (SSB) extremely low, has been below B_{lim} since 1997.
- Fishing mortality above F_{pa} .
- Recruitment has been low since early 2000s and impaired.

	Fishing pressure			Stock size			
		2017	2018	2019	2018	2019	2020
Maximum sustainable yield	F_{MSY}	✗	✗	✗ Above	$B_{trigger}$	✗	✗ Below trigger
Precautionary approach	F_{pa}, F_{lim}	✗	✗	✗ Harvested unsustainably	B_{pa}, B_{lim}	✗	✗ Reduced reproductive capacity
Management plan	F_{MGT}	—	—	— Not applicable	B_{MGT}	—	— Not applicable

Cod in the West of Scotland (6.a)

Catch (2020) : 1 583 t (20 % discards);

Technical service on likely catches in 2022 :

- fishing effort consistent with advice for saithe : 1 319 t
- fishing effort consistent with fishing on haddock : 2 362 t

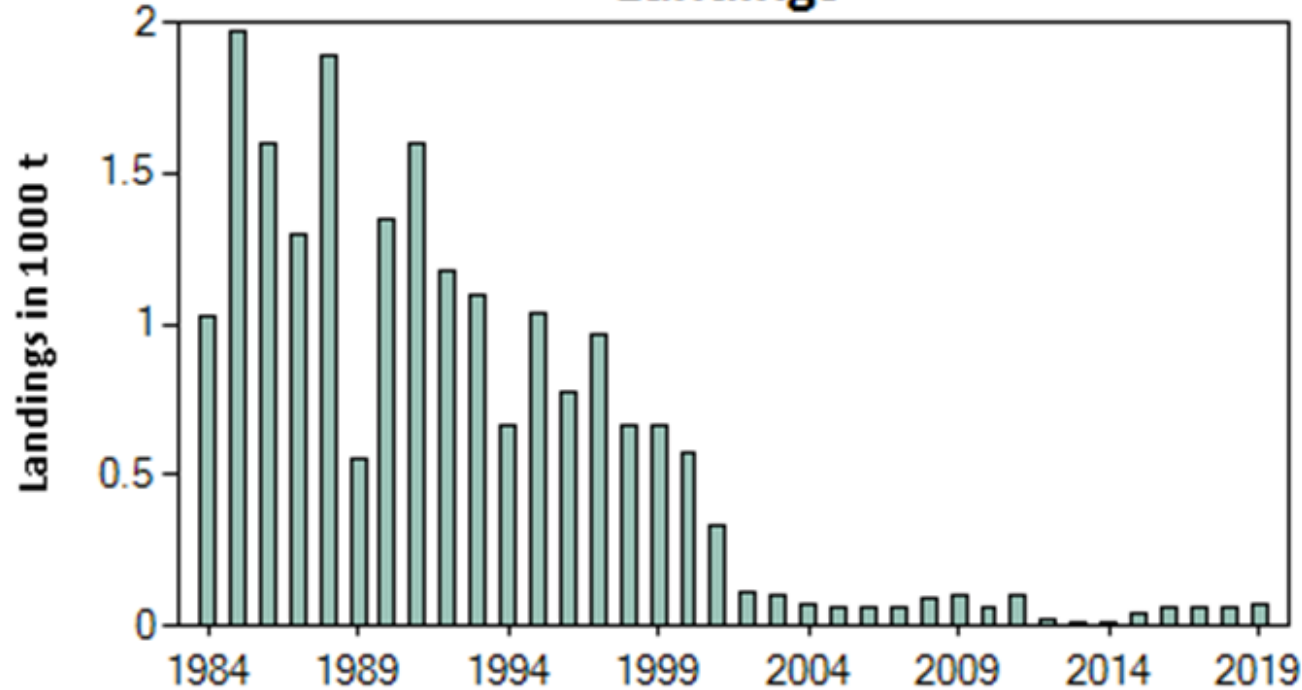
Basis	Total catch (2022)	Projected landings (2022)	Projected discards (2022)	F _{total} (2022)	F _{projected} landings (2022)	F _{projected} discards (2022)	SSB (2023)	% SSB change *
MSY approach: F = 0	0	0	0	0	0	0	5040	70
F = F _{MSY lower}	534	373	161	0.18	0.136	0.044	4404	49
F = F _{MSY}	841	584	257	0.3	0.23	0.073	4037	36
F = F ₂₀₂₁	1729	1177	552	0.75	0.57	0.184	2976	0.44
F = 0.69 × F ₂₀₂₁	1319	908	411	0.52	0.39	0.127	3466	17
F = 1.66 × F ₂₀₂₁	2362	1578	784	1.25	0.95	0.31	2213	-25

Cod at Rockall (6.b)

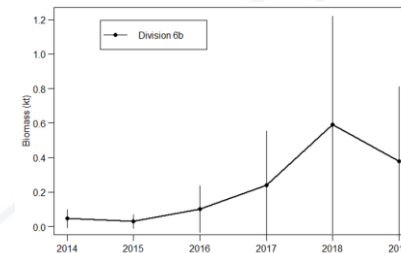
Advice for 2021, 2022 and 2023: PA: Catch ≤ 14 t

cod.27.Sb_2020_13626_20205111326

Landings



- Landings in 2020 = 39 t.
- Limited information available on cod at Rockall.
- New survey (SIAMISS) suggest some increase but abundance considered low.



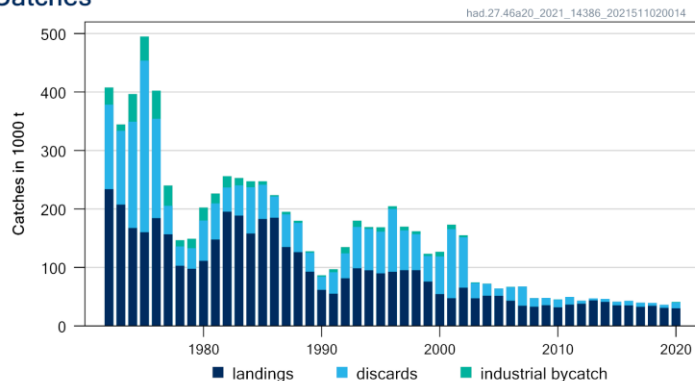
		Fishing pressure			Stock size					
		2017	2018	2019	2017	2018	2019			
Maximum sustainable yield	F_{MSY}	?	?	?	Unknown	$MSY B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	-	-	-	Not applicable	B_{MGT}	-	-	-	Not applicable

- Stock identity is unknown.
- Advice based on recent advised catch.

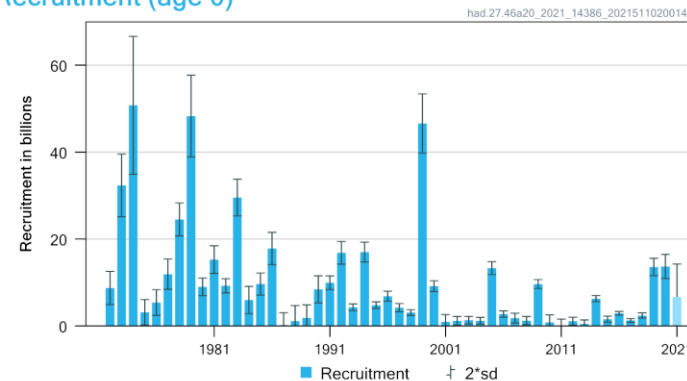
Haddock in the North Sea, West of Scotland, Skagerrak (4, 6.a and Subdiv. 20)

Advice for 2022: MSY: Catch \leq 128 708 t

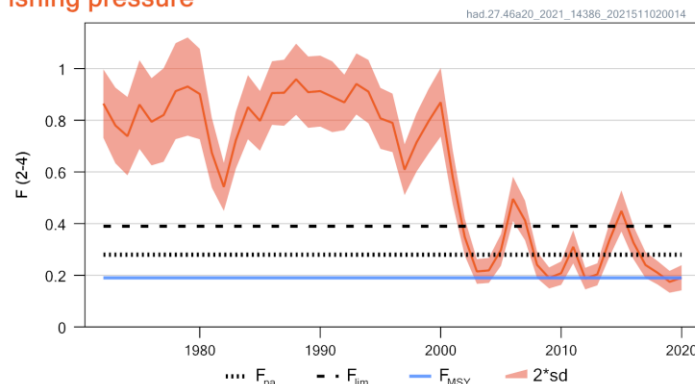
Catches



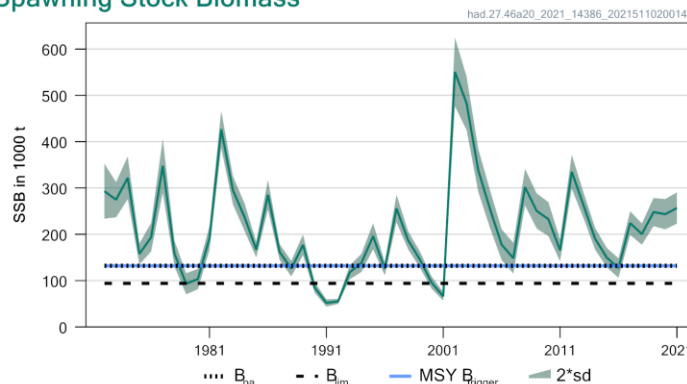
Recruitment (age 0)



Fishing pressure



Spawning Stock Biomass



- Spawning stock mostly above MSY B_{trigger} since 2002.
- Fishing pressure slightly below F_{MSY} in 2020.
- Recruitment since 2000 at low level but 2019 and 2020 year-classes larger.
- Increased in advised catch due to substantial recruitment increase
- Increase in catch of small fish expected.
- In 2020, TAC in 6.a was about 9.5 % of TAC for the stock.

Haddock in the North Sea, West of Scotland, Skagerrak (4, 6.a and Subdiv. 20)

Catch (2020) : 40 588 t (23 % discards); **3 603 t catch in 6.a**

$F(2021) = 0.117$ (catch constraint – 51,031 t)

$SSB(2022) = 573\,071\text{ t} > MSY_{B_{trigger}} (132\,000\text{t})$ $F_{MSY} = 0.194$

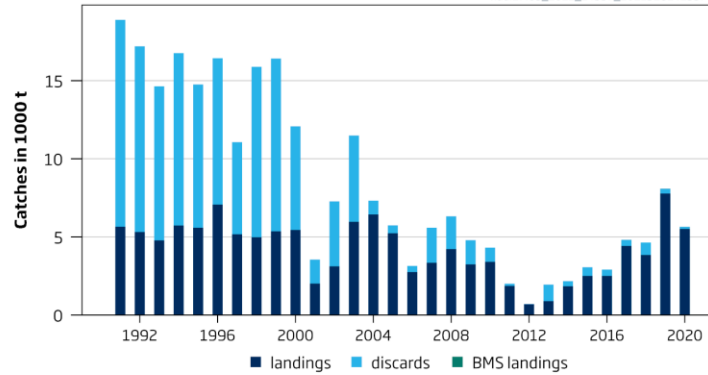


Basis	Total catch - 2022	Projected landings* - 2022	Projected discards** - 2022	Industrial bycatch - 2022	Human consumption catch - 2022	F_{total} (ages 2-4) - 2022	$F_{projected}$ landings (ages 2-4) - 2022	$F_{projected}$ discards (ages 2-4) - 2022	F_{IBC}^{***} (ages 2-4) - 2022	SSB - 2023	% SSB change [^]	% TAC change ^{^^}	% advice change ^{^^^}
ICES advice basis													
MSY approach: F_{MSY}	128708	101908	25339	1460	127248	0.194	0.155	0.037	0.0021	723334	26%	154%	86%
Other scenarios													
$F = F_{MSY\ lower}$	111702	88316	21909	1477	110225	0.167	0.133	0.031	0.0021	740295	29%	120%	61%
$F = F_{MSY\ upper}^{\#}$	128708	101908	25339	1460	127248	0.194	0.155	0.037	0.0021	723334	26%	154%	86%
$F = 0$ (IBC only)	1586	0	0	1586	0	0	0	0	0.0021	850838	48%	-100%	-98%
F_{pa}	128708	101908	25339	1460	127248	0.194	0.155	0.037	0.0021	723334	26%	154%	86%
F_{lim}	248379	197557	49482	1340	247039	0.384	0.309	0.073	0.0021	603983	5.40%	392%	259%
$SSB(2023) = B_{lim}$	759578	606204	152547	826	758751	1.19	0.964	0.227	0.0021	94000	-84%	1412%	996%
$SSB(2023) = B_{pa} = MSY\ B_{trigger}$	721485	575754	144866	864	720620	1.13	0.916	0.215	0.0021	132000	-77%	1336%	941%
F_{2021}	79958	62944	15504	1509	78448	0.117	0.093	0.022	0.0021	771954	35%	56%	15%
Rollover TAC	51719	40368	9814	1537	50182	0.072	0.057	0.013	0.0021	800133	40%	0%	-25%

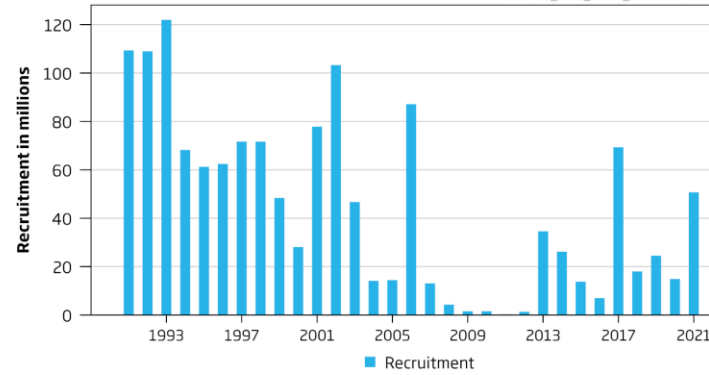
Haddock at Rockall (6.b)

Advice for 2022: MSY: Catch \leq 5 825 t

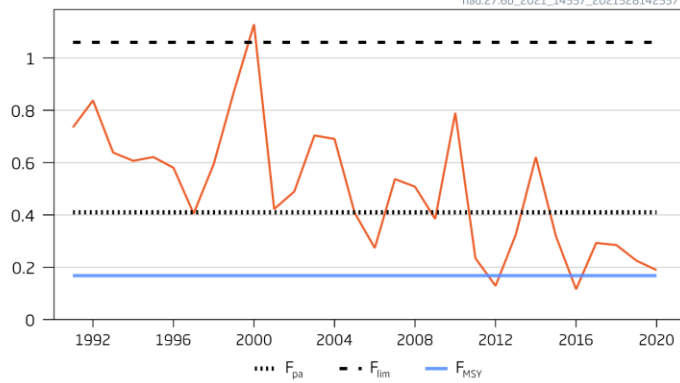
Catches



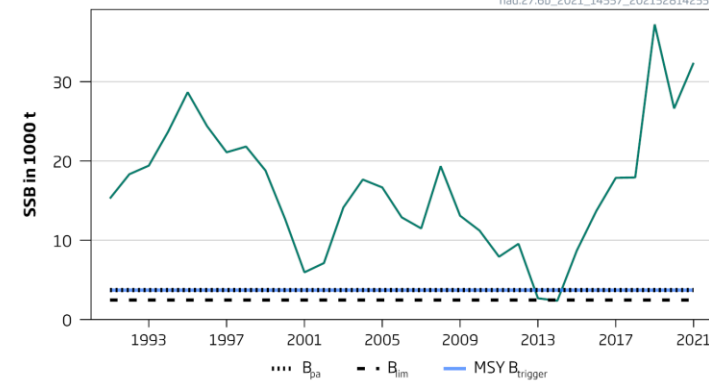
Recruitment (age 1)



F



SSB



- Updated estimates of SSB revised downwards.
- Spawning stock above MSY $B_{trigger}$ since 2015 and currently near highest.
- Fishing pressure slightly above F_{MSY} in 2020.
- Recruitment is sporadic – 2017 and 2021 year-classes estimated above average.

Haddock at Rockall (6.b)

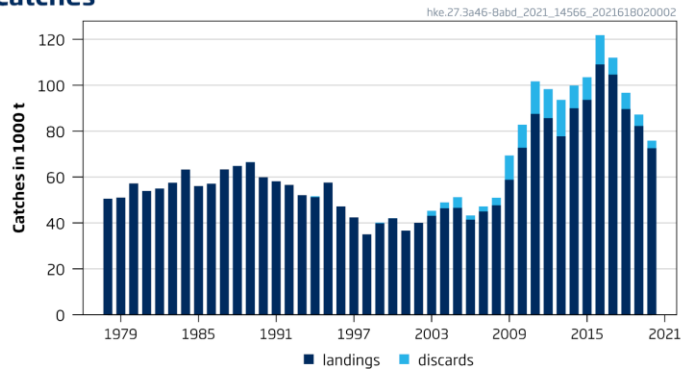
Catch (2020) : 5 463 t (2 % discards);
 F(2021) = 0.233 (average fishing pressure (2018-2020));
 SSB (2022)= 29 717 t > $MSY_{B_{trigger}}$ (3 712 t) $F_{MSY} = 0.168$

Basis	Total catch (2022)	Projected landings (2022)	Projected discards (2022)	F _{total} (2022)	F _{projected} landings (2022)	F _{projected} discards (2022)	SSB (2023)	% SSB change*	% advice change^
ICES advice basis									
MSY approach: F_{MSY}	5825	5052	773	0.168	0.135	0.033	44783	51	-6.6
Other scenarios									
NEAFC proposed management strategy 1^^	5908	5124	784	0.171	0.137	0.0335	44678	50	-5.3
NEAFC proposed management strategy 2^^^	5825	5052	773	0.168	0.135	0.033	44783	51	-6.6
F = 0	0	0	0	0	0	0	52100	75	-100
F _{pa}	12774	11040	1734	0.41	0.33	0.0805	36113	22	105
F _{lim}	25411	21770	3641	1.06	0.85	0.208	20605	-31	307
SSB ₂₀₂₃ = B _{lim}	41377	34623	6754	3.8	3.05	0.7439	2474	-92	563
SSB ₂₀₂₃ = B _{pa} = MSY B _{trigger}	40118	33680	6438	3.23	2.6	0.6346	3712	-88	543
SSB ₂₀₂₃ = SSB ₂₀₂₂	17947	15462	2485	0.63	0.51	0.1241	29717	0	188
F = F ₂₀₂₁	7954	6902	1052	0.23	0.187	0.046	42684	44	27
F = MAP [#] F _{MSY lower}	3745	3251	494	0.105	0.084	0.021	47391	59	-40
F = MAP [#] F _{MSY upper}	8944	7746	1198	0.27	0.22	0.053	40883	38	43

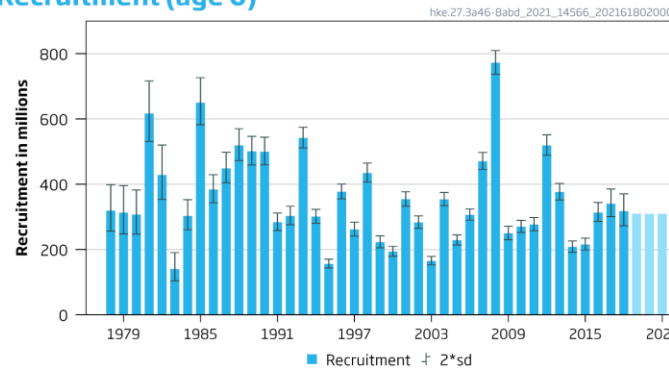
Hake – Northern stock (3.a, 4, 6, 7, 8.abd)

Advice for 2022: MSY: Catch = 75 052 t

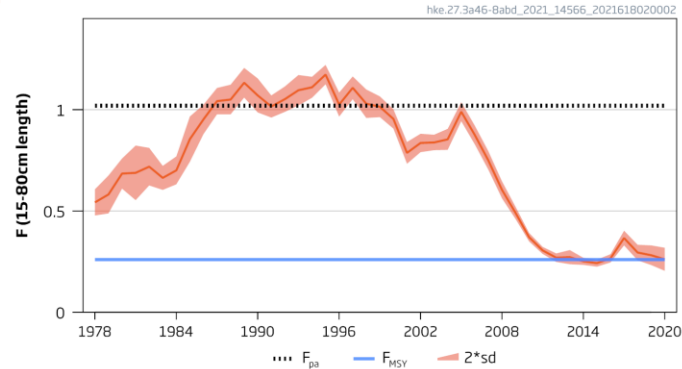
Catches



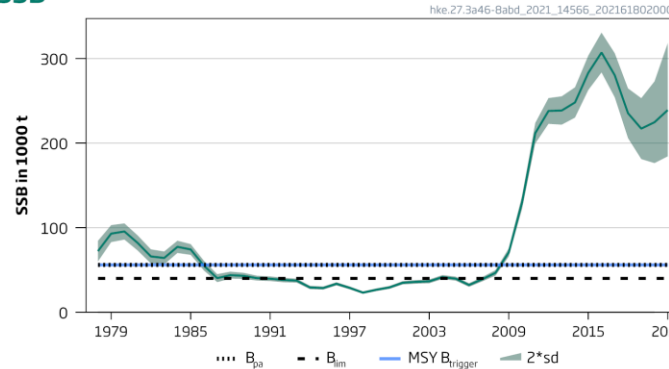
Recruitment (age 0)



F



SSB



- Spawning stock above MSY $B_{trigger}$ since 2009, near highest values but estimates revised downwards over 2020.
- Recruitment variable with no trend.
- Fishing pressure declined and around F_{MSY} since 2013.
- Reduction in advice due to lower revised estimates of the stock.
- Advice based on MSY but EU MAP option provided.

- **Note:** advice issued in 2020 for 2021 revised from 98 657 to 102 888 t in June 2021

Hake – Northern stock (3.a, 4, 6, 7, 8.abd)

Catch (2020) : 75 835t (4.3 % discards)

F(2021) = 0.28 Average F₂₀₁₈₋₂₀₂₀

SSB (2022)= 218 924 t > MSY_{Btrigger} (56 000 t)

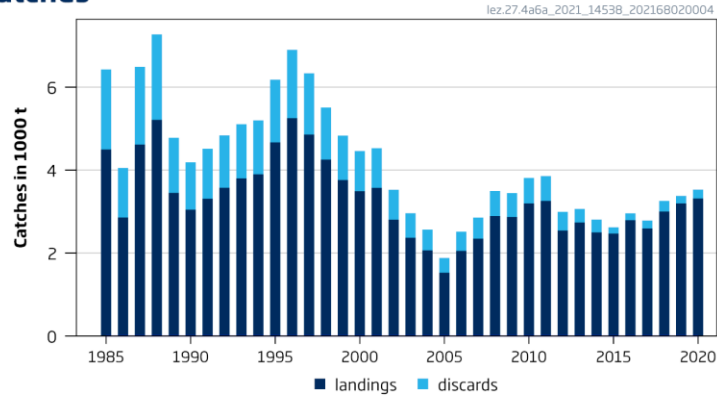
F_{MSY} = 0.26

Basis	Total catch (2022)	Projected landings [^] (2022)	Projected discards [^] (2022)	F _{total} (2022)	F _{projected} landings -2022	F _{projected} discards -2022	SSB -2023	% SSB change *	% advice change **
ICES advice basis									
MSY approach = F_{MSY}	75 052	69 608	5 444	0.26	0.21	0.055	207 398	-5.3	-27
Other scenarios									
EU MAP : F _{MSY}	75 052	69 608	5 444	0.26	0.21	0.055	207 398	-5.3	-27
F = MAP F _{MSY lower}	54 433	50 552	3 881	0.18	0.142	0.038	227 366	3.9	-47
F = MAP F _{MSY upper}	106 651	98 688	7 963	0.4	0.32	0.084	176 838	-19.2	3.7
F = 0	0	0	0	0	0	0	280 183	28	-100
F = F _{pa}	197 425	180 948	16 477	1.02	0.81	0.21	89 303	-59	92
SSB (2023) = B _{lim}	248 401	225 384	23 017	1.8	1.42	0.38	40 000	-82	141
SSB (2023) = B _{pa}	231 939	211 298	20 641	1.47	1.16	0.31	56 000	-74	125
SSB (2023) = MSY B _{trigger}	231 939	211 298	20 641	1.47	1.16	0.31	56 000	-74	125
SSB (2023) = SSB(2022)	63 150	58 615	4 535	0.21	0.168	0.045	218 922	0	-39
F = F ₂₀₂₁	79 754	73 945	5 808	0.28	0.22	0.0587	202 847	-7.3	-22
F = F _{sq}	102 889	95 235	7 654	0.38	0.3	0.08	180 474	-17.6	0

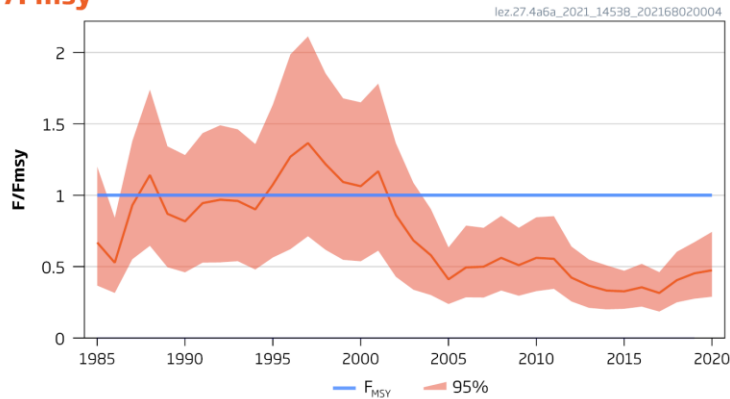
Megrim in the northern North Sea and West of Scotland (4.a and 6.a)

Advice for 2022: MSY: Catch \leq 7 350 t

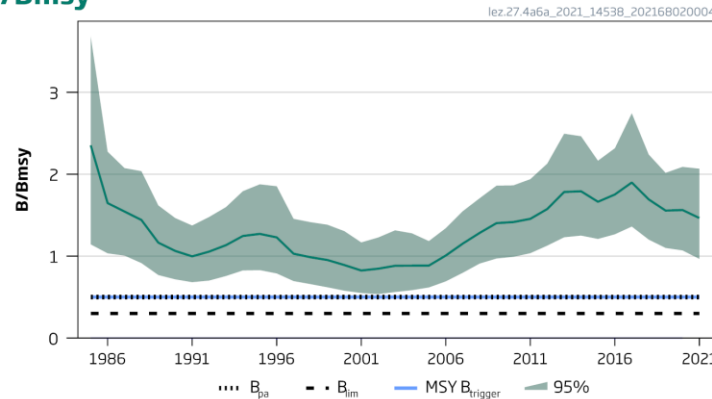
Catches



F/F_{MSY}



B/B_{MSY}



- Increase in spawning stock since the mid-2000s and is above MSY $B_{trigger}$. Some decline in recent years.
- Fishing pressure reduced well below F_{MSY} since mid-2000.
- Bycatch in the mixed demersal trawl in 6a and 4a.
- Advice is for 2 species: *L. whiffiagonis* and *L. boscii* combined.
- *L. boscii* negligible in catches.
- Separate advice for Division 6b in autumn.

Megrim in the northern North Sea and West of Scotland (4.a and 6.a)

Catch (2020) : 3 529 t (6% discards); 1 380 t (landings) from West of Scotland
 F(2021) = 0.44 (Recent average fishing pressure (2018-2020); 3 529 t.)



SSB (2022) > $MSY_{Btrigger}$

Note: TAC is combined for 6.a and 6.b

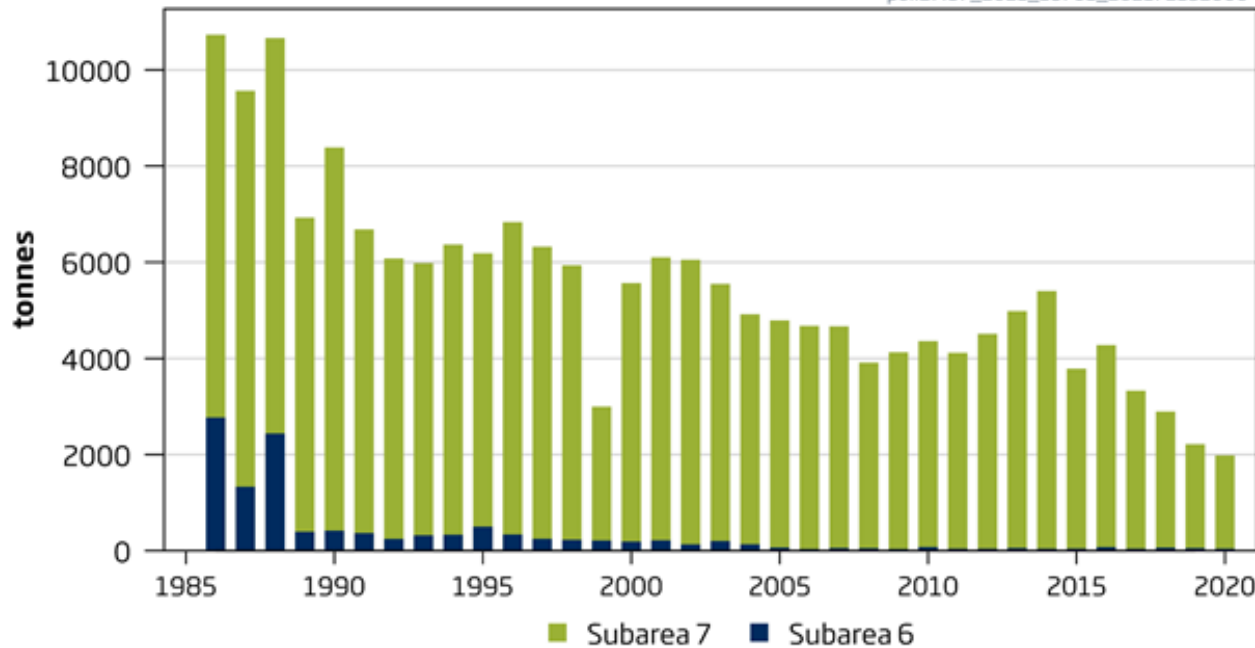
Basis	Total catch (2022)	Projected landings (2022)	Projected discards (2022)	Fishing mortality F_{2022}/F_{MSY}	Stock size B_{2023}/B_{MSY}	% B change*	% TAC change^	% advice change^^
ICES advice basis								
MSY approach = F_{MSY}	7350	6888	462	1	1.34	-14.1	-5.9	0.68
Other scenarios								
EU MAP^^^: F_{MSY}	7350	6888	462	1	1.34	-14.1	-5.9	0.68
F = MAP F_{MSY} lower	5750	5389	361	0.77	1.43	-8.3	-26	-21
F = MAP F_{MSY} upper	7350	6888	462	1	1.34	-14.1	-5.9	0.68
F = 0	0	0	0	0	1.72	10.3	-100	-100
$B_{2023} = B_{lim}$	27750	26007	1743	3.75	0.34	-78	255	280
$B_{2023} = B_{pa} = MSY B_{trigger}$	13800	12933	867	1.86	1.01	-35	77	89
$B_{2023} = B_{2022}$	7850	7357	493	1.06	1.32	-15.4	0.5	7.5
F = F_{2021}	3293	3086	207	0.44	1.56	1.79	-58	-54.9

Pollack in the Celtic Seas and the English Channel (6 and 7)

Advice for 2022 : PA: Commercial catch \leq 3 360 t

Landings

pol.27.67_2021_16701_202172132000



Limited information available on pollack in this area. Catches have declined since the late 1980's, lowest in 2019-2020. Recreational catch unknown, but thought to be significant. Fishing pressure considered to be below reference points.

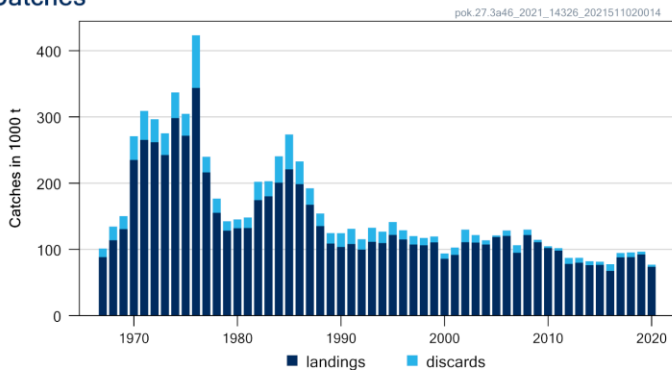
Catch (2020) = 2 258 t (discards negligible but recreational catch unknown)

Advised commercial landings for 2021	3360 tonnes
Discard rate	< 1%
Uncertainty cap	Not applied
Commercial catches advice for 2022	3360 tonnes
% advice change *	0

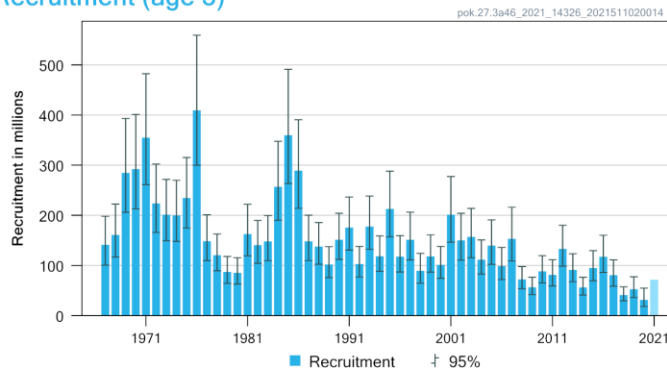
Saithe in the North Sea, Rockall and West of Scotland, Skagerrak and Kattegat (4,6,3.a)

Advice for 2022: MSY: Catch $\leq 49\ 614$ t

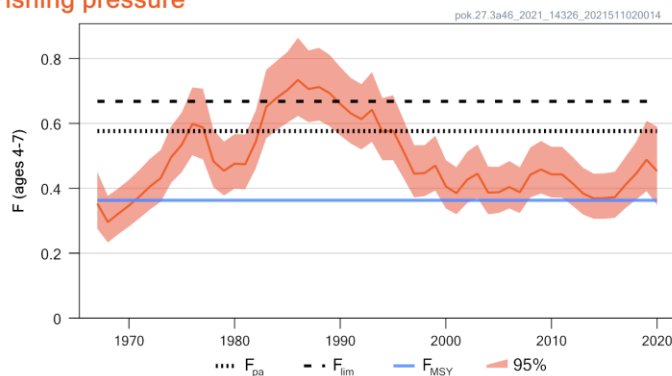
Catches



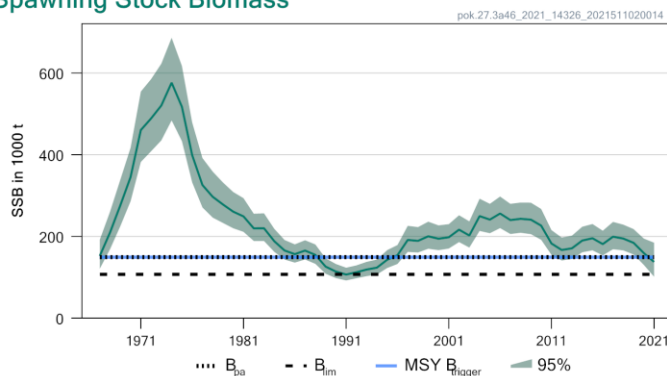
Recruitment (age 3)



Fishing pressure



Spawning Stock Biomass



- Spawning stock fluctuated without trend and has been above MSY $B_{trigger}$ since 1996.
- Fishing pressure increased recently; above F_{MSY} in 2020.
- Recruitment lower in recent years.
- Stock declining since 2017 as a result of poorer recruitment.
- In 2021, quota in 6 is 9.4% (6175 t) of TAC for the stock

Saithe in the North Sea, Rockall and West of Scotland, Skagerrak and Kattegat (4,6,3.a)

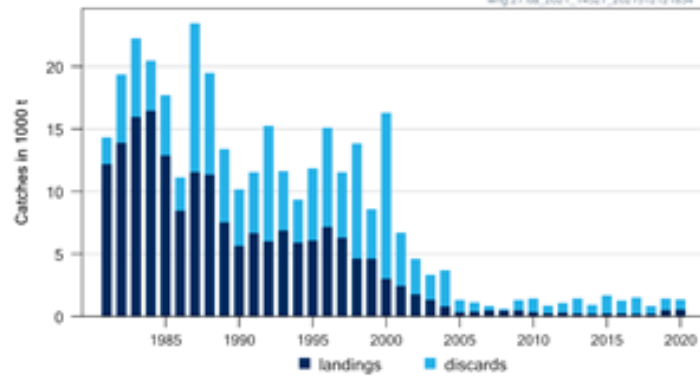
Catch (2020) : 76 820 t (4 % discards); **4 113 t from West of Scotland**
 F(2021) = 0.45 (Average exploitation pattern (2018-2020), scaled to 2020);
 SSB (2022)= 127 092t < MSY_{Btrigger} (149 098 t) F_{MSY} = 0.363



Basis	Total catch (2022)	Projected landings* 2022	Projected discards 2022	Projected landings		F _{total} (ages 4-7) -2022	F _{projected landings} (ages 4-7) -2022	F _{projected discards} (ages 4-7) -2022	SSB 2023	% SSB change ***	% TAC change #	% advice change ^
				Div. 3.a and Subarea 4	Subarea 6							
ICES advice basis												
MSY approach: F_{MSY} × SSB (2022) /MSY B_{trigger}	49614	46644	2970	42259	4385	0.31	0.29	0.017	153272	21	-24	-24
Other scenarios												
F = F _{MSY lower} × SSB (2022) /MSY B _{trigger}	30204	28397	1807	25728	2669	0.179	0.169	0.01	170840	34	-54	-54
F _{MSY}	57046	53596	3450	48558	5038	0.363	0.34	0.02	146645	15.4	-13.2	-13.2
F = F _{MSY lower}	35009	32911	2098	29817	3094	0.21	0.198	0.012	166510	31	-47	-47
F = F _{MSY upper}	82159	77129	5030	69879	7250	0.564	0.53	0.032	124350	-2.2	25	25
F = 0	0	0	0	0	0	0	0	0	198814	56	-100	-100
F _{pa}	83556	78420	5136	71049	7371	0.576	0.54	0.032	123198	-3.1	27	27
F _{lim}	93718	87921	5797	79656	8265	0.668	0.63	0.037	114361	-10.0	43	43
SSB ₂₀₂₃ = B _{lim}	102288	95980	6308	86958	9022	0.75	0.71	0.042	107297	-15.6	56	56
SSB ₂₀₂₃ = B _{pa}	54770	51467	3303	46629	4838	0.35	0.33	0.019	149098	17.3	-16.6	-16.6
SSB ₂₀₂₃ = MSY B _{trigger}	54770	51467	3303	46629	4838	0.35	0.33	0.019	149098	17.3	-16.6	-16.6
F = F ₂₀₂₁	68786	64585	4201	58514	6071	0.45	0.43	0.025	136046	7	4.7	4.7
TAC ₂₀₂₁	65687	61675	4012	55878	5797	0.43	0.4	0.024	138834	9.2	0	0

Advice for 2022: MSY: Catch $\leq 4\ 114$ t

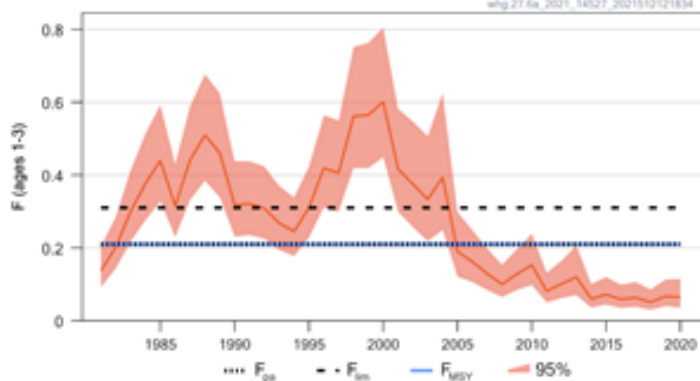
Catches



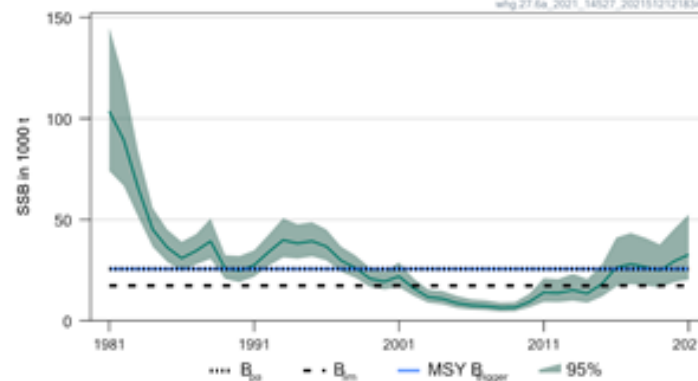
Recruitment (age 0)



F



SSB



- Benchmarked in 2021, upgraded to category 1.
- New reference points.
- Spawning stock above MSY $B_{trigger}$ since 2020.
- Fishing pressure well below F_{MSY} since 2005
- Recruitment lower in since 2000, low in last 2 years
- Very high discards.

Whiting in division 6.a

Catch (2020) : 1375 t (61 % discards)

$F(2021) = 0.065$ (Average exploitation pattern (2018-2020), scaled to 2020);

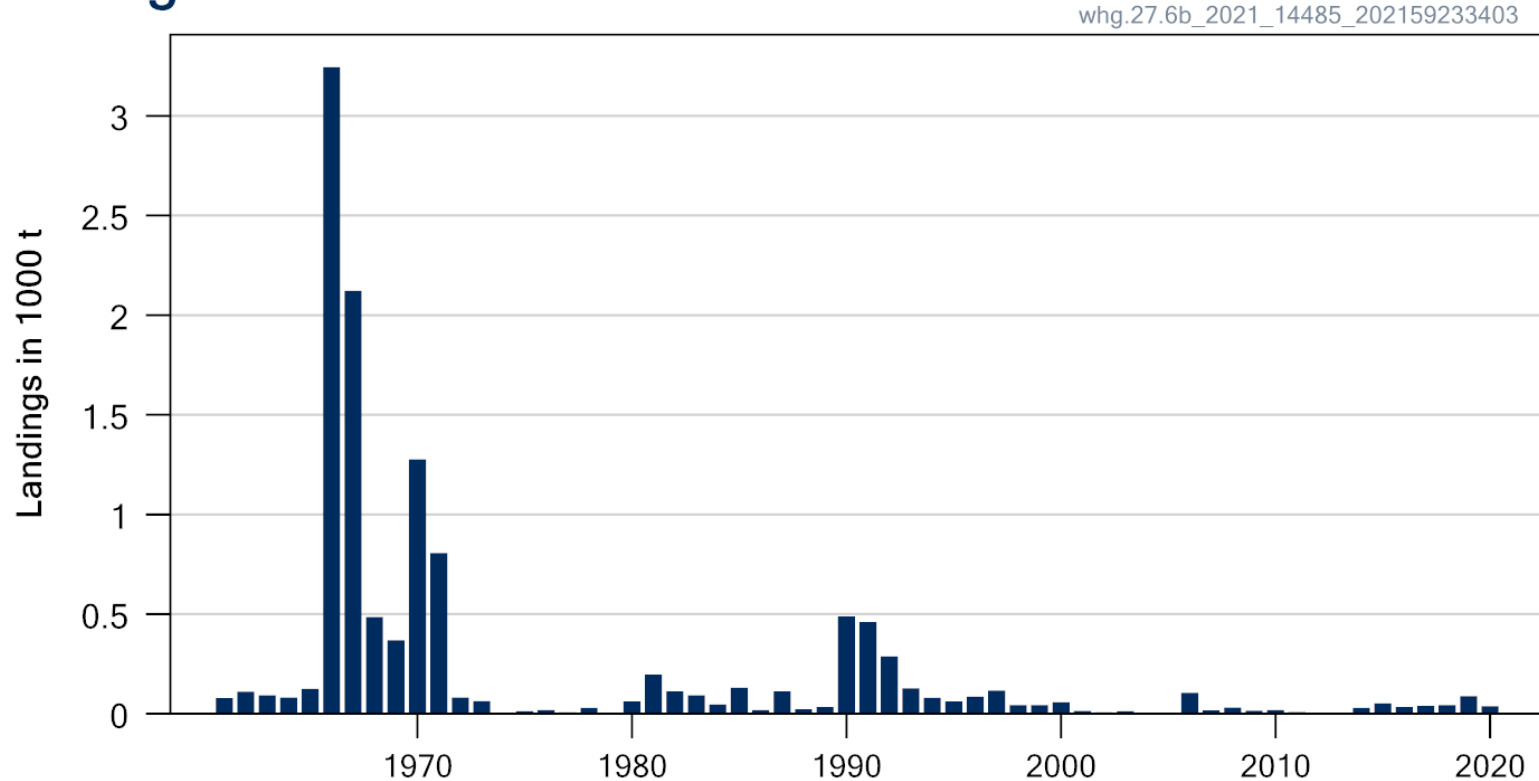
$SSB(2022) = 31548 > MSY_{Btrigger}$ (25 597 t) $F_{MSY} = 0.21$

Basis	Total catch (2022)	Projected landings* (2022)	Projected discards** (2022)	F_{total} (2022)	$F_{projected}$ landings (2022)	$F_{projected}$ discards (2022)	SSB (2023)	% SSB change ***	% advice change ^
ICES advice basis									
MSY approach: MSY	4 114	2 142	1 972	0.21	0.038	0.172	26 294	-16.70	
Other scenarios									
$F = 0$	0	0	0	0	0	0	31 193	-1.13	
$F_{MSY lower}$	3 433	1 784	1 649	0.173	0.031	0.142	27 062	-14.20	
$F_{MSY upper}$	4 114	2 142	1 972	0.21	0.038	0.172	26 294	-16.70	
F_{pa}	4 114	2 142	1 972	0.21	0.038	0.172	26 294	-16.70	
F_{lim}	5 870	3 074	2 796	0.31	0.056	0.25	24 383	-23	
$SSB(2023) = B_{lim}$	13 196	7 039	6 157	0.82	0.148	0.67	17 286	-45	
$SSB(2023) = B_{pa} = MSY B_{trigger}$	4 750	2 479	2 271	0.25	0.044	0.2	25 597	-18.90	
$SSB(2023) = SSB(2022)^{\wedge\wedge}$									
$F = F_{2021}$	1 332	688	644	0.065	0.0117	0.053	29 530	-6.40	

Whiting in division 6.b

Advice for 2022, 2023, 2024: PA: Catch ≤ 7 t

Landings

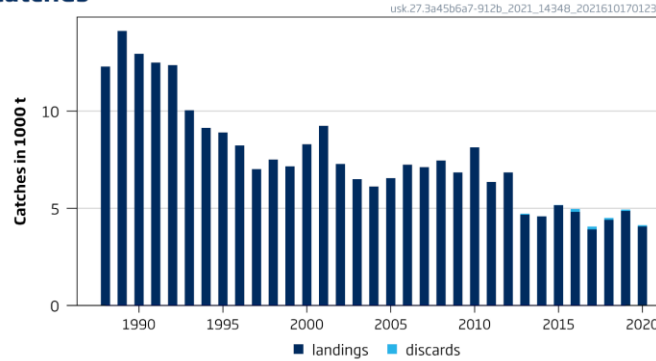


- Only landings data are available.
- Catch of 38 t in 2020.
- There is uncertainty on the accuracy of historical landings.
- Discards uncertain.

Tusk in the Northeast Atlantic (4, 7–9, 3.a, 5.b, 6.a, and 12.b)

Advice for 2022 and 2023, PA: Catch \leq 7 821 t

Catches



Biomass index

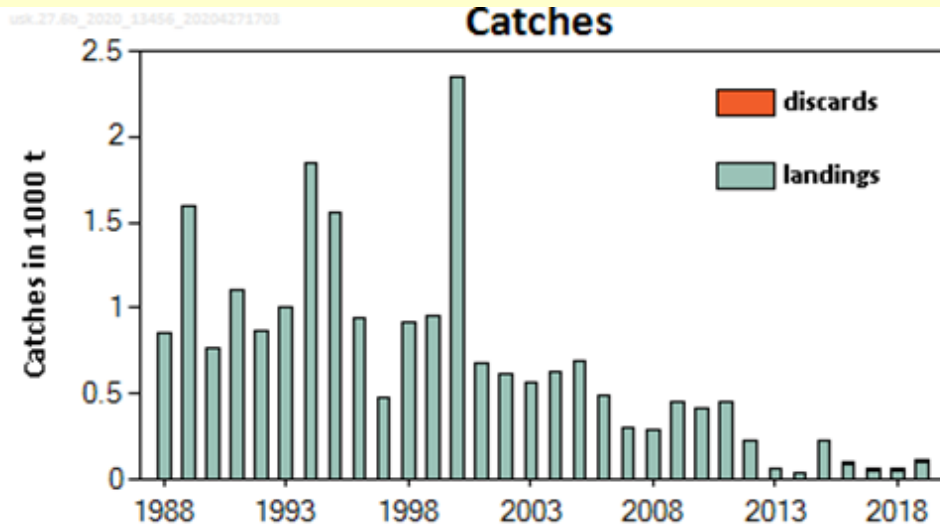


Catch (2020) = 4 134 t (2% discards)

Index A (2019–2020)	144	
Index B (2016–2018)	127	
Index ratio (A/B)	1.13	
Uncertainty cap	Not applied	
Advised catch for 2020–2021 (issued in 2019)	8 627 tonnes	
Discard rate	1.80%	
Precautionary buffer	Applied	0.8
Catch advice *	7 821 tonnes	
Projected landings corresponding to advice**	7 684 tonnes	
% Advice change ***	-9.30%	

- Lower catches since 2013
- Catch per unit effort based on the Norwegian longline fleet remains high.

Advice for 2021 and 2022, PA: Catch = 280 t



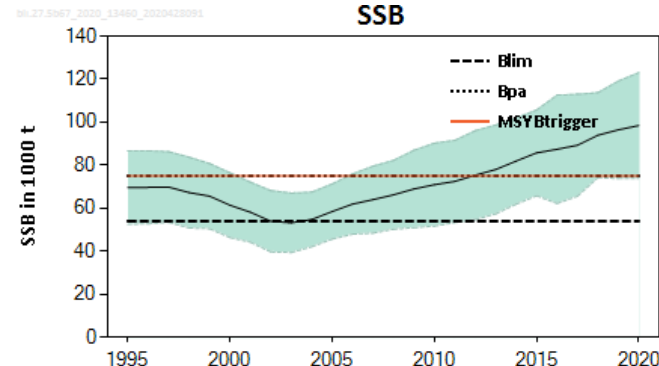
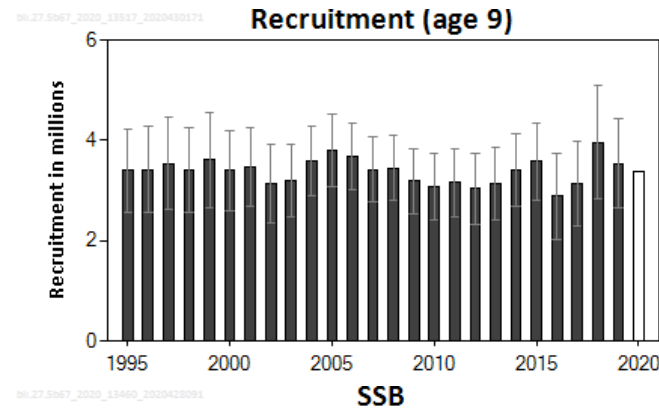
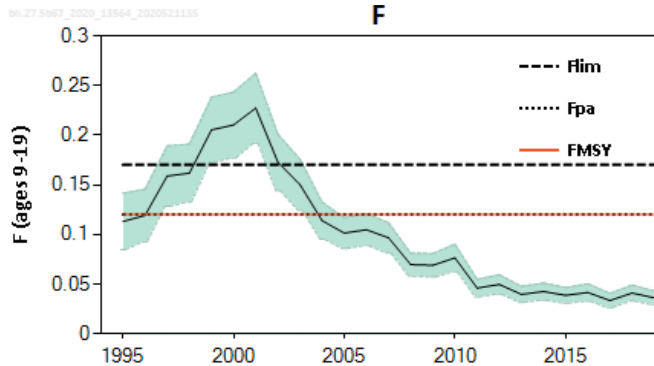
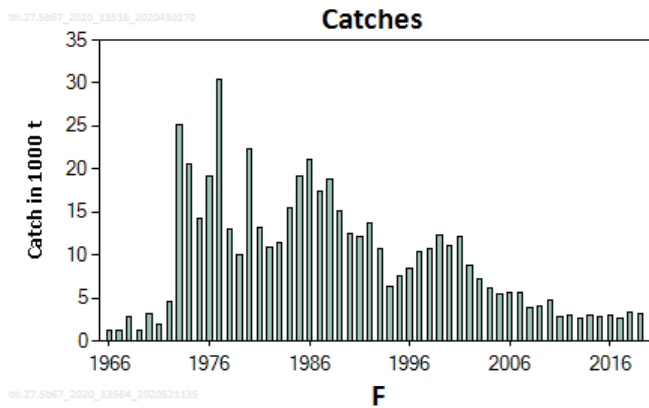
- Catches in 2019 = 112 t (11% discards)
- No assessment
- Only commercial catches are available
- Advice unchanged

		Fishing pressure			Stock size				
		2017	2018	2019	2017	2018	2019		
Maximum sustainable yield	F_{MSY}	?	?	?	MSY $B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	-	-	-	B_{MGT}	-	-	-	Not applicable
Qualitative evaluation	-	?	?	?	-	?	?	?	Unknown

Advised catch for 2019–2020 issued on 2018	280 tonnes
Discard rate, average 2017–2019	0.22
Precautionary buffer	Not applied (last applied in 2018) -
Catch advice**	280 tonnes
Landings corresponding to catch advice***	218 tonnes
% advice change^	0%

Blue ling in 6–7 and 5.b (Celtic Seas, English Channel, and Faroes grounds)

Advice for 2022, MSY: Catch $\leq 10\,859$ t

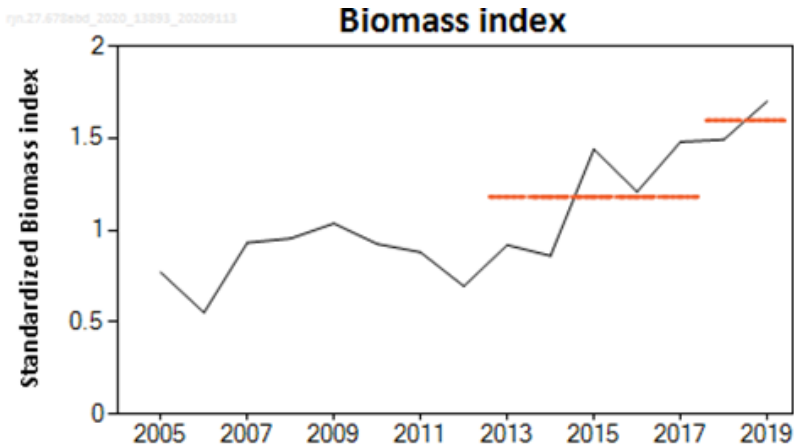


- Stock increased since 2004 and has been above $MSY_{Btrigger}$ since 2010.
- Fishing mortality been lower than $FMSY$ since 2004.
- Recruitment is estimated to be stable.
- Discarding is negligible.
- Advice is slightly lower for 2022 due to the recruitment assumption.

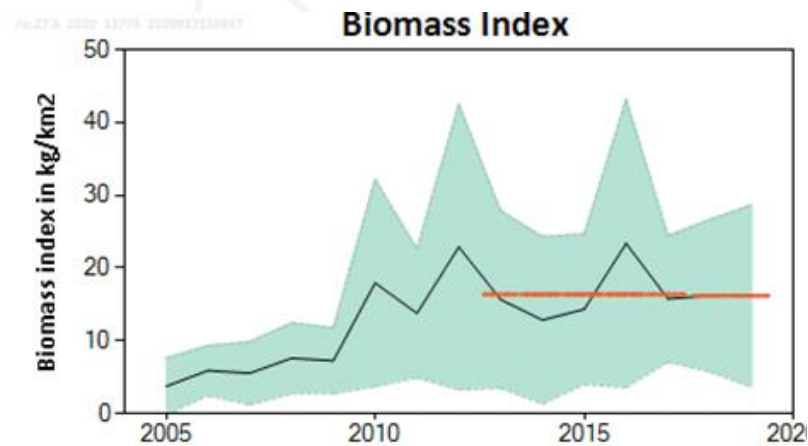
- Advice issued in 2020 for 2021/2022

Stock	Landings (2020)	Advice for 2022 Landings	Rationale
Cuckoo ray in 6,7, 8abd	2453	3150	PA - based on survey indices (IGFS and EVHOE)
Thornback ray in 6	315	137	PA - based on survey index (IGFS)
Spotted ray in 6, 7b, 7j	5	51	PA - based on survey index (IGFS)

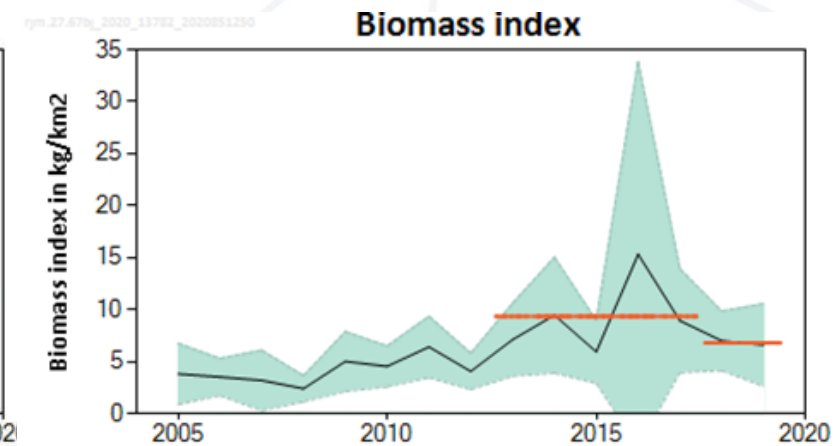
Cuckoo ray in 6, 7, 8 abd



Thornback ray in 6



Spotted ray in 6, 7b, 7j



West of Scotland & Rockall (6.a & 6.b)

SUMMARY

Stock	Exploitation	State of stock	Advice 2022	Advice 2021	Catch 2020	TAC 2021
Cod 6.a	X	X	0	0	1583	1279
Cod 6.b	?	?	14	14	39	74
Haddock 4, 6.a, sub. 20	✓	✓	128708	69280	40588	50182
Haddock 6.b	X	✓	5825	6239	5643	8375
Hake 4,6,7, 3.a, 8.ab,d	✓	✓	75052	98657	75835	65949
Megrim 4.a, 6.a	✓	✓	7350	7300 (5700-7300)	3529	7812
Pollack 6-7	?	?	3360	3360	2258	9610
Saithe 3.a, 4, 6	X	O	49614	65687	76820	65687
Whiting 6.a	✓	✓	4114	0	1375	937
Whiting 6.b	?	?	7	9	38	937
Tusk 4, 7-9, 3.a, 5.b, 6.a, 12.b	?	?	7821	8627	4134	4294
Tusk 6.b	?	?	280	280	116	4294
Blue ling 6-7 and 5.b	✓	✓	10859	11522	3490	11522

Colours indicate that the value for the Advice for 2022 is either above (green) or below (red) the Advice for 2021. For TAC 2020 in blue, area or species differ from the advice.



**Thank you
for your
attention!**



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