

SUMMARY OF 2021 ICES ADVICE FOR PELAGIC SPECIES

	Date of advice	Status of key stocks in 2020 and 2021 (more detail in the following pages)	ICES Catch advice	TAC for previous year	SSB Compared with previous yr	Pg
Blue whiting combined stock I-IX, XII & XIV	Sept 2021	Recruitment in 2020–2021 is estimated to be higher than recruitment in the three previous years. These recruits will mature and contribute to the spawning-stock biomass in 2023.	752,736 (2022)	929,292 (2021)	1	4
Barents Sea capelin	Oct 2021	Spawning-stock biomass (SSB) has been declining since 2018. The advice for 2022 has increased from zero in 2021 because the maturing stock is estimated to be larger.	70,000 (2022)	Zero (2021)	1	5
Capelin Iceland East Greenland Jan Mayen	Nov 2020	The spawning-stock biomass in 2020 is likely to be below any possible Bpa. The initial advice for 2021/2022 is higher than the initial advice for the 2020/2021 fishing season, because the estimated number of immature fish was higher after the autumn survey in 2020.	400,000 (2021/22)	169,520 (2020/21)	1	5
Herring N Sea autumn spawners	Sept 2021	The 2021 data suggests the steep decline of the stock observed since 2016 has stalled, and SSB is now above MSY Btrigger. This has led to higher catch advice for 2022, compared to 2021.	532,183 (2022)	365,792 (2021)	1	6
Herring Icelandic summer spawners	June 2021	Fishing pressure on the stock is below the harvest rate for the management plan. The spawning stock size is above all the reference points. The infection rates of <i>Ichthyophonus</i> infection remain high.	72,239 (2021/22)	34,572 (2019/20)		6
Norwegian spring spawning herring	Sept 2021	The spawning-stock biomass (SSB) has been declining since 2008, but estimated to be above MSY Btrigger in 2019. Recruitment of the 2016 year class has been revised upwards and is expected to dominate the catches in 2022. Subsequent year classes are estimated to be weak.	598,588 (2021)	651,033 (2021)	\Rightarrow	7
Mackerel in the North East Atlantic	Sept 2021	In 2021, there has been an upwards revision of SSB and a downwards revision of fishing mortality in recent years. The recruitment estimates at age 0 are highly uncertain and year-class strength only becomes apparent when fish enter the fishery at age 2 to 3.	794,920 (2022)	852,284 (2021)	1	8

	Date of advice	Status of key stocks in 2020 and 2021 (more detail in the following pages)	ICES Catch advice	TAC for previous year	SSB Compared with previous yr	Pg
Norway pout in the North Sea	Oct 2021	Stock size is highly variable from year to year. There has been a downward revision of recruitment in 2020, as well as a weak 2021 year class, which has produced a lower forecasted SSB	118,273 (2022)	254,038 (2021)	-	9
Sandeel in the Dogger Bank (1r)	Feb 2021	Catch advice for 2021 has decreased compared to 2020. 2020 year- class is below average. Large reduction in fishing mortality is required to bring the SSB above MSY Bescapement.	5,464 (2021)	113,987 (2020)	1	10
Sandeel in central and southern N Sea (2r)	Feb 2021	Zero catch is advised because stock size in 2022 is expected to remain below MSY Bescapment with zero catches in 2021 due to the current low stock size and below average incoming 2020 year class.	5,000 Monitoring (2021)	62,658 (2020)	1	10
Sandeel in north/central N Sea (3r)	Feb 2021	This stock was inter-benchmarked in 2020. A density dependency has been included to account for overestimation of recruitment and SSB of large incoming year classes when recruitment is above average.	161,335 (2021)	155,072 (2020)	-	10
Sandeel in north/central N Sea (4)	Feb 2021	The large increase in the advised catch is driven by the high 2019 and 2020 recruitments as evidenced by the dredge survey	77,512 (2021)	39,611 (2020)	1	11
Sandeel in waters West of Scotland	Feb 2021	The available information on sandeel in Division 6.a is inadequate to evaluate stock status	Zero (2021)	No TAC (2020)		11
Sandeel in Viking and Bergen Banks (5r)	Feb 2021	No landings have occurred since 2007. Available information is inadequate to evaluate stock status or trends so status is unknown.	Zero (2021)	Zero (2020)		11
Sandeel in the Kattegat (6)	Feb 2021	Available information is inadequate to evaluate stock status or trends. The state of the stock is therefore unknown.	140 (2021)	175 (2020)		11
Sandeel in Shetland (7r)	Feb 2021	The stock size is unknown. Fishing pressure is unknown, but it is probably very low and stable.	Zero (2021)	Zero (2020)		11
Sprat in the Baltic	May 2021	The advised catches for 2022 have increased compared to those for 2021 mainly because of the two above-average year classes of 2019 and 2020.	214,000 - 373,210 (2021)	181,567 - 316,833 (2020)		12

	Date of advice	Status of key stocks in 2020 and 2021 (more detail in the following pages)	ICES Catch advice	TAC for previous year	SSB Compared with previous yr	Pg
Sprat in the Skaggerak/ Kattegat/ North Sea	April 2021	The 49% reduction in advised catch this year is due to the large decrease in recruitment in 2020 and a subsequent decrease in SSB in 2021.	106,715 (2021-22)	207,807 2020-21	1	12
Sprat in the West of Scotland/S. Celtic Sea	June 2021	Adult stock size and fishing pressure are unknown.	1,446 (2021-22)	2,800 2020-21		13
Sprat in the English Channel	June 2021	The advice from last year has increased, following on from the application of a new advice method (constant harvest rate) after an interbenchmark.	2,897 (2022)	1,446 (2021)	1	13

KEY

Fishing mortality – Removals from a stock by fishing.

Spawning Stock Biomass – total weight of all sexually mature fish in the stock.

MSY - Maximum Sustainable Yield.

F_{MSY} fishing at levels that catch the maximum proportion of a fish stock that can safely be removed on a continuous basis.

 B_{MSY} spawning stock biomass that results from fishing at F_{MSY} for a long time.

MSY B trigger value of spawning stock biomass that triggers a specific management action.

PA - Precautionary Approach

F_{pa} precautionary reference point for fishing mortality.

F_{lim} minimum limit (fishing limit reference point).

B_{pa} precautionary reference point for spawning stock biomass (SSB)

B_{lim} limit reference point for spawning stock biomass (SSB)

B_{escapement} biomass reference point for short-lived species. Target is to leave reference SSB to spawn the next year **Mg'ment – Management Plan** – agreed by all parties to maintain/rebuild stocks.

F_{MGT} fishing mortality reference point as defined in management plans.

B_{MGT} fishing mortality reference point as defined in management plans.

Cpue - Catch per unit effort. Lpue - Landing per unit effort.

In the following tables a very simple statement has been included on the status of the spawning stock biomass in comparison with the previous year. This is an estimate based on ICES stock status information and is not necessarily definitive.

BLUE WHITING

Stock	TAC for 2021 Tonnes	Status of stock in September 2021	*Fishing mortality - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice for 2022	*Stock status 1. MSY 2. PA 3. Mg'ment plan
Inside safe biological lin Blue whiting combined stock Sub-areas I-IX, XII and XIV September 2021	929,292 tonnes	Recruitment in 2020–2021 is estimated to be higher than recruitment in the three previous years. These recruits will mature and contribute to the SSB in 2023 The assessment uses data from one survey only, the International Blue Whiting Spawning Stock Survey, which was cancelled in 2020 due to the COVID-19 disruption but continued in 2021.	Fishing mortality is above FMSY and Fpa but below Flim;	ICES advises that when the long-term management strategy agreed by the European Union, the Faroe Islands, Iceland, and Norway is applied, catches in 2022 should be no more than 752,736 tonnes. The advice is based on the application of the long-term management strategy agreed by the European Union, the Faroe Islands, Iceland, and Norway. The recommended catch scenario uses the latest TAC (ICES advice) as the basis from which to calculate the option relating to the –20% TAC constraint. The advice for 2022 is 19% lower than for 2021 due to a lower advised F for 2022 of 0.32 compared to the advice for 2021, which was based on an F of 0.36.	Spawning stock biomass is above MSY Btrigger, Bpa, and Blim

CAPELIN

Stock	TAC Tonnes	Status of stock	*Fishing mortality - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice	*Stock status 1. MSY 2. PA 3. Mg'ment plan
Reference points not full Advice in October 2021	lly defined				
Barents Sea capelin Subareas I and II, excluding Division IIa west of 5°W. October 2021. Abbreviated due to the COVID-19 disruption	Zero (2021)	In Oct 2021. Spawning-stock biomass (SSB) has been declining since 2018. The advice for 2022 has increased from zero in 2021 because the maturing stock is estimated to be larger.	No reference points for fishing pressure have been defined for this stock	ICES advises that when the management plan of the Joint Norwegian–Russian Fisheries Commission (JNRFC) is applied, catches in 2022 should be no more than 70,000 tonnes.	Spawning stock biomass size is above Blim.
Advice in November 202					
Capelin in the Iceland East Greenland Jan Mayen area Subareas V and XIV and Division IIa west of 5°W November 2020 New advice due 30 Nov 2021 Abbreviated due to the COVID-19 disruption	2020/21 169,520	In Nov 2020. The spawning- stock biomass in 2020 is likely to be below any possible Bpa. The initial advice for 2021/2022 is higher than the initial advice for the 2020/2021 fishing season, because the estimated number of immature fish was higher after the autumn survey in 2020.	 Undefined Undefined Not applicable 	ICES advises that when the harvest control rule agreed in 2015 by the Coastal States is applied, the initial TAC for the fishing season July 2021–March 2022 should be 400,000 tonnes. ICES recommends the initial TAC is revised based on acoustic survey information in autumn 2021 (intermediate TAC). The final TAC to be based on winter 2022 survey results.	Spawning stock biomass 1. Undefined 2. Increased risk 3. Not above with 95% probability

HERRING

Stock	TAC advice	Status of stock in 2021	*Fishing	TAC advice for 2022	*SSB Status
	Tonnes		mortality - 1. MSY		1. MSY
			2. PA		2. PA
			3. Mg'ment Plan		3. Mg'ment plan
Inside safe biological li					
Herring in IV and VIId	365,792 in	The new assessment model	Fishing	ICES advises that when the	IMPROVING
North Sea, Eastern	2021	resulted in a lower estimated	pressure on the	MSY approach is applied,	•
English channel -		stock size and higher fishing	stock is below	catches in 2022 should be	4
autumn spawners		mortality than the previous	FMSY, Fpa, and	no more than 532,183	
		assessment. The 2021 data	Flim;	tonnes. The basis for the	_
September 2021		suggests the steep decline		45% increase in catch	Spawning stock
Abbreviated due to the		of the stock observed since		advice is twofold. 1.The recent interbenchmark on	biomass
COVID-19 disruption		2016 has stalled, and SSB is now above MSY Btrigger.		the stock has led to changes	is above MSY Btrigger,
COVID-19 distuption		The decrease in the rate of		in both the assessment	Bpa, and Blim
		stock decline and the higher		model, the reference points	
		FMSY leads to higher catch		and associated increase in	
		advice for 2022 compared to		FMSY. 2. The 2021 data	
		2021.		suggests the rate of stock	
				decline has decreased.	
Stocks at risk of being	outside safe b	iological limits and below bio	mass action point	t BMSY-trigger	
Herring Icelandic	34,572	ICES assesses that fishing	No information	ICES advises that when the	SAME
summer spawners Va	2019/20	pressure on the stock is		Icelandic management plan	
		below the harvet rate for the		is applied, catches in the	
June 2021	No advice	management plan. The		fishing year 2021/2022	
	requested	spawning stock size is		should be no more than	
Abbreviated due to the	2020/21	above MSY Btrigger, Bpa		72,239 tonnes.	Spawning stock
COVID-19 disruption		and Blim.			biomass
		, , , , , , , , , , , , , , , , , , ,		The infection rates of	
		Advice has increased as a		Ichthyophonus remain high,	Below trigger
		result of the upward revision		and this is taken into	2. Increased risk
		in the stock size, due to a		account in the assessment	3. Above trigger
		large 2017 year class		and in the management	
		entering the fishery at age 4.		plan rule.	

HERRING contd

Stock	TAC for 2021	Status of stock in September 2021	*Fishing mortality - 1. MSY	TAC advice for 2022	*SSB Status 1. MSY
	Tonnes		2. PA		2. PA
			3. Mg'ment Plan		3. Mg'ment plan
Inside safe biological li Norwegian spring	mits 651,033	The estimated SSB and	Fishing	ICES advises that when the	SAME
spawners (Atlanto-Scandian) herring. ICES sub area I, divisions IIa, Va, Vb. September 2021. Abbreviated due to the COVID-19 disruption	(2021)	fishing mortality are generally in line with the estimates from last year's assessment. Recruitment of the 2016 year class is, revised upwards. The 2016 year class is expected to dominate the catches in 2022. Subsequent year	pressure on the stock is above FMSY and Fpa but below Flim.	long-term management strategy agreed by the European Union, the Faroe Islands, Iceland, Norway, and the Russian Federation is applied, catches in 2022 should be no more than 598,588 tonnes.	Spawning stock biomass size is above MSY Btrigger, Bpa, and Blim
		classes are estimated to be weak. There has been an overshoot of the catches in relation to the advised TAC since 2013. Failing to adhere to the advised catches as derived from the application of the long-term management		A long-term management strategy was agreed by the European Union, the Faroe Islands, Iceland, Norway, and Russia in 2018. ICES has evaluated the long-term management strategy and found it to be precautionary.	
		strategy may no longer be precautionary in the long term		The advice is based on the target fishing mortality in the long-term management strategy agreed by the parties above. It does not take into account the deviations from the plan as evident from the sum of declared unilateral quotas.	

MACKEREL

Stock	TAC for 2021 Tonnes	Status of stock in Sept 2021	*Fishing mortality. Key - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice for 2022	*SSB Status 1. MSY 2. PA 3. Mg'ment plan
Inside safe biological li	mits				
Mackerel in the North East Atlantic (NEA) (combines Southern, Western and North Sea spawning components). September 2021. August 2020 ICES was asked to advise on long-term management strategies for NEA mackerel. Their response was published on 3 Aug. Their Management Evaluation Strategy (MSE) tool provides a useful instrument to explore a wider range of uncertainties associated with NEA mackerel stock assessment.	No internation ally agreed quotas. Values presented are the sum of unilateral quotas (including quotas and transfers).	In 2021, there has been an upwards revision of SSB and a downwards revision of fishing mortality in recent years. The recruitment estimates at age 0 are highly uncertain and year-class strength only becomes apparent when fish enter the fishery at age 2 to 3. Estimates of recruitment for 2020 and 2021 make a relatively small contribution to catches (6.7% and 0.8%) and to the SSB (10.4% and 0.7%) forecasted for 2022	Fishing pressure on the stock is below FMSY, Fpa, and Flim	ICES advises that when the MSY approach is applied, catches in 2022 should be no more than 794,920 tonnes. The advised catch for 2022 is 7% lower than the advice for 2021 because of the continued decline in stock size, though this was partly offset by the upward revision of the perception of stock size. There is no long-term management strategy for Northeast Atlantic (NEA) mackerel agreed by all parties involved in the mackerel fishery.	Spawning stock biomass DECLINING Spawning-stock size is above MSY Btrigger, Bpa, and Blim.

NORWAY POUT

Stock	TAC for 2021 Tonnes	Status of stock in October 2021	*Fishing mortality - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice for 2022	*SSB Status 1. MSY 2. PA 3. Mg'ment plan
Inside safe biological lin	nits				
Norway pout in the North Sea and Skagerrak & Kattegat Subarea IV and Division Illa October 2021	254,038	The change (-53%) from this year's to last year's advice results from a downward revision of recruitment in 2020, as well as the weak 2021 year class, which produces a lower forecasted SSB The directed fishery for Norway pout was closed in 2005, the first half of 2006, and in 2007, as well as in the first half of 2011 and 2012. Historically, the fisheries have resulted in bycatches of other species, particularly whiting, blue whiting, haddock, saithe, and herring. Bycatches of these species have been low in the recent decade.	no reference points for fishing pressure or for MSY Btrigger have been defined for this stock	Due to the short-lived nature of this species a preliminary TAC is set every year, which is updated on the basis of advice in the first half of the year. ICES advises that when the MSY approach is applied, catches from 1 November 2021 to 31 October 2022 should be no more than 118,273 tonnes. The catch forecast is for the period 1 October to 30 September. ICES considers that this forecast sufficiently approximates the TAC period and that it can be used directly for management purposes.	Spawning stock biomass is above Bpa and Blim.

SANDEEL

Stock	TAC for 2020	Status of stock in February 2021	*Fishing mortality - 1. MSY	TAC advice for 2021	*SSB Status 1. MSY
	Tonnes		2. PA 3. Mg'ment Plan		2. PA 3. Mg'ment plan
Sandeel in North Sea IV	and Illa – di	│ vided into sub areas 1r, 2r, 3r,			3. Wg ment plan
Reference points not ful		11.00 11.10 000 01.000 11., 21, 01.	1, 01, 0 4114 111		
1r Sandeel Central and	113,987	1r Catch advice for 2021 has	1r	1r - ICES advises that when	DECREASING
southern North Sea,	(2020)	decreased compared to	No fishing	the MSY approach is	
Dogger Bank		2020. 2020 year-class is below average. Large	reference points defined	applied, catches in 2021 should be no more than	Below MSY Bescapement and Bpa but above Blim.
Feb 2021		reduction in fishing mortality is required to bring the SSB above MSY Bescapement.		5,464 tonnes. ICES advises a sampling protocol similar to a monitoring TAC.	·
2r Sandeel Central and	62,658	2r. Zero catch is advised	2r	2r - ICES advises that when	DECREASING
South North Sea	(2020)	because stock size in 2022	No fishing	the MSY approach is	
Feb 2021		is expected to remain below MSY Bescapment with zero catches in 2021 due to the current low stock size and below average incoming 2020 year class	reference points defined	applied, catches in 2020 should be zero. Monitoring TAC for 2021 of 5,000 tonnes.	Below MSY Bescapement and Bpa but above Blim.
3r Sandeel North and Central North Sea, Skaggerak Feb 2021	155,072 (2020)	3r. This stock was interbenchmarked in 2020 because the assessment can overestimate both recruitment and SSB when recruitment is above average. A density dependency has been included to account for overestimation of large incoming year classes.	3r No fishing reference points defined	3r – ICES advises that when the MSY approach is applied, catches in 2021 should be no more than 161,335 tonnes.	SAME Above MSY Be _{scapement} , B _{pa} and B _{lim} .

SANDEEL contd

Stock	TAC for 2020 Tonnes	Status of stock in February 2021	*Fishing mortality - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice for 2021	*SSB Status 1. MSY 2. PA 3. Mg'ment plan
		vided into sub areas 1r, 2r, 3r,	4, 5r, 6 and 7r.		
Reference points not fu		1 . =	T		
Area 4 Sandeel North	39,611	4. The large increase in the	Area 4	Area 4 – ICES advises that	IMPROVING
and Central North Sea	(2020)	advised catch is driven by	No fishing	when the MSY approach is	Above MSY Bescapement,
Feb 2021		the high 2019 and 2020	reference points	applied, catches in 2021	B _{pa} and B _{lim} .
		recruitments evidenced in	defined	should be no more than	
5r Sandeel North North	Zero	the dredge survey.	5r	77,512 tonnes. 5r - ICES advises that when	SAME
Sea Viking and Bergen	(2020)	5r. No landings have occurred since 2007.	No fishing	the precautionary approach	No biomass reference
Bank	(2020)	Available information is	reference points	is applied, there should be	points defined
Feb 2021		inadequate to evaluate stock	defined	zero catches in each of the	points defined
1 05 2021		status or trends so status is	delined	years 2021 and 2022.	
		unknown.		youro 2021 and 2022.	
Area 6 Sandeel	<175	6. Available information is	Area 6	Area 6 - ICES advises that	SAME
Skagerrak, Kattegat	(2020)	inadequate to evaluate stock	No fishing	when the precautionary	No biomass reference
and Belt Sea		status or trends. The state of	reference points	approach is applied, catches	points defined
Feb 2021		the stock is therefore	defined	should be no more than 140	
		unknown.		tonnes in 2021 and 2022	
				(buffer quota)	
7r Sandeel Shetland	Zero	7r. The available information	7r	7r - ICES advises that when	SAME
area	(2020)	is inadequate to evaluate	No fishing	the precautionary approach	No biomass reference
Feb 2021		stock status or trends. The	reference points	(PA) is applied there should	points defined
		state of the stock is therefore	defined	be zero catches in each of	
		unknown.		the years 2021 and 2022.	
Sandeel in 6a West of	No TAC	The available information on	No fishing	ICES advises that when the	SAME
Scotland	(2020)	sandeel in Division 6.a is	reference points	precautionary approach (PA)	No biomass reference
Ech 2024		inadequate to evaluate stock	defined	is applied, there should be	points defined
Feb 2021		status		zero catches in each of the	
				years 2021, 2022, and 2023.	

SPRAT

Stock	TAC for 2020/2021	Status of stock in April and May 2021	*Fishing mortality - 1. MSY	TAC advice for 2021/2022	*SSB Status 1. MSY
	Tonnes		2. PA		2. PA
Inside safe biological lim	nito.		3. Mg'ment Plan		3. Mg'ment plan
Sprat in the Baltic	Between	The advised catches for	1. Above	ICES advises that when the	SAME
Subdivisions 22 – 32	181,567 –	2022 have increased	2. Below	EU multiannual plan (MAP)	SAME
Gubaivisions 22 32	316,833	compared to those for 2021	3. Below	for the Baltic Sea is applied,	
May 2021	(2021)	mainly because of the two	o. Bolow	catches in 2022 that	
	, ,	above-average year classes		correspond to the F ranges	•
		of 2019 and 2020.		in the plan are between 214,000 tonnes and 373,210 tonnes. Catches higher than those corresponding to FMSY (291,745 tonnes) can only be taken under conditions specified in the plan, whilst the entire range is considered precautionary when applying ICES advice rule.	Above MSY B _{trigger} , B_{pa} and B_{lim} .
Sprat in the Skagerrak &	207,807	The 49% reduction in	No fishing	ICES advises that when the	DECLINING
Kattegat Division IIIa	1 July	advised catch this year is	reference points	MSY approach is applied,	DECEMENTO
and North Sea	2020 –	due to the large decrease in	defined	catches in the period from 1	
Subarea IV	30 June	recruitment in 2020 and a		July 2021 to 30 June 2022	
	2021	subsequent decrease		should be no more than	
April 2021		in SSB in 2021. A high		106,715 tonnes.	•
		proportion of the predicted			Above MSY Bescapement,
		SSB consists of recruits from the previous year for which			B _{pa} and B _{lim} .
		the abundance and			
		proportion of mature fish at			
		spawning time are unknown			

SPRAT contd

Stock	TAC for 2020/2021 Tonnes	Status of stock in June 2021	*Fishing mortality - 1. MSY 2. PA 3. Mg'ment Plan	TAC advice for 2022	*SSB Status 1. MSY 2. PA 3. Mg'ment plan
Reference points not fully defined					
Sprat in Subarea VI and Divisions VIIa-c and f-k (West of Scotland and southern Celtic Sea)	<2,800 (2020/21)	The information available is insufficient to evaluate stock trends and exploitation. Stock identity for this species in this area is not defined.	No fishing reference points defined	ICES advises that when the precautionary approach is applied, catches should be no more than 2,240 tonnes in each of the years 2022 and 2023.	No biomass reference points defined
Sprat in Divisions VIId,e (English Channel) June 2021	1,446 (2021)	The advice from last year has increased, following on from the application of a new advice method (constant harvest rate) after an interbenchmark.	Below MSY	ICES advises that when the MSY approach is applied, catches in 2022 should be no more than 2,897 tonnes.	INCREASING Above MSY B _{trigger}

For further information:

ICES advice https://www.ices.dk/advice/Pages/Latest-Advice.aspx

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