

Blue whiting (*Micromesistius poutassou*) in subareas 1–9, 12, and 14 (Northeast Atlantic and adjacent waters)

ICES advice on fishing opportunities

ICES advises that when the long-term management strategy agreed by Norway, the European Union, the Faroe Islands, Iceland, and the United Kingdom is applied, catches in 2024 should be no more than 1 529 754 tonnes.

ICES advice on conservation aspects

ICES has not identified any conservation aspects.

Stock development over time

Fishing pressure on the stock is above F_{MSY} and F_{pa} but below F_{lim} ; spawning-stock size is above $MSY B_{trigger}$, B_{pa} , and B_{lim} .

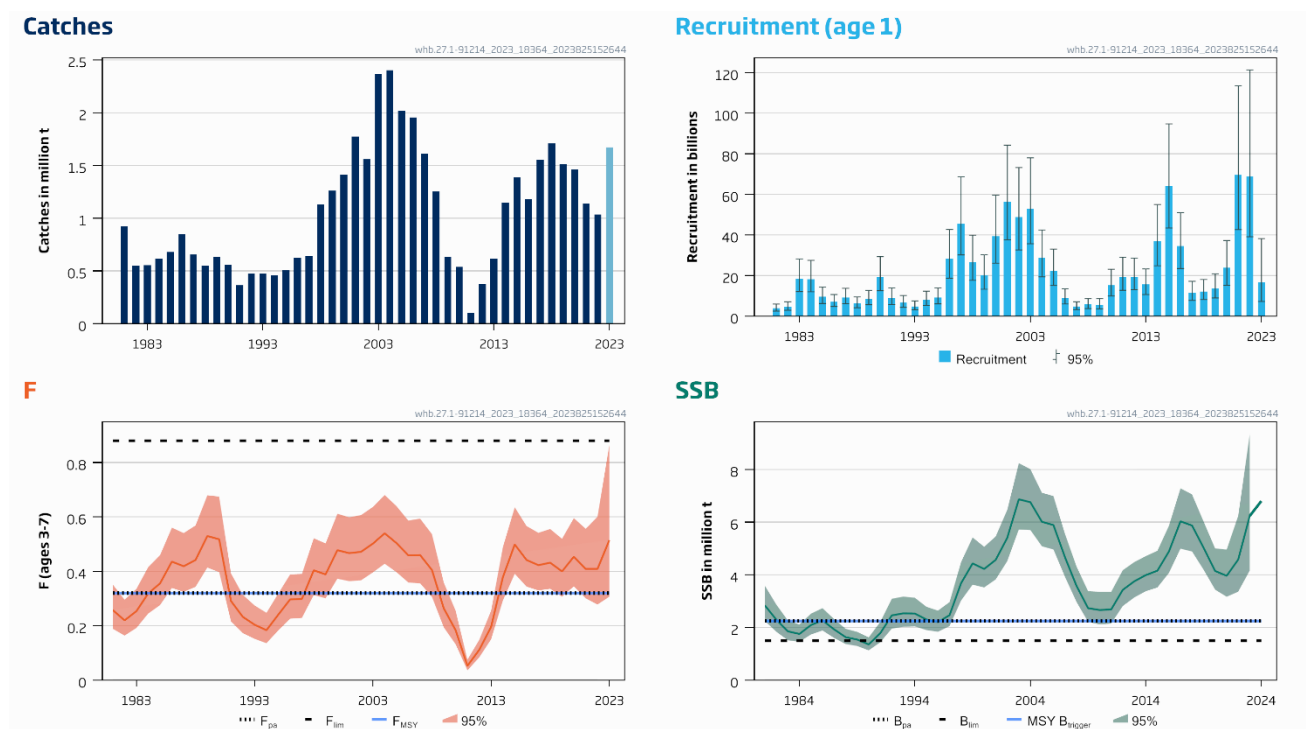


Figure 1 Blue whiting in subareas 1–9, 12, and 14. Summary of the stock assessment. The catch estimate for 2023 is preliminary.

Conservation status

ICES is not aware of any information on stock/species specific conservation status.

Catch scenarios

Table 1 Blue whiting in subareas 1–9, 12, and 14. Values in the forecast and for the interim year.

Variable	Value	Notes
$F_{ages\ 3-7}$ (2023)	0.52	From the assessment (based on assumed 2023 catches)
SSB (2024)	6799985	From the assessment; tonnes
$R_{age\ 1}$ (2023)	16657741	From the assessment; thousands
$R_{age\ 1}$ (2024–2025)	22997749	Geometric mean (1996–2022); thousands
Total catch (2023)	1672378	As estimated by ICES, based on declared national quotas and expected uptake; tonnes

Table 2 Blue whiting in subareas 1–9, 12, and 14. Annual catch scenarios. All weights are in tonnes.

Basis	Total catch (2024)	F (2024)	SSB (2025)	% SSB change*	% catch change**	% advice change***
ICES advice basis						
Long-term management strategy: $F = F_{mgt}$	1529754	0.32	7258384	6.7	-8.5	12.5
Other scenarios						
MSY approach: F_{MSY}	1529754	0.32	7258384	6.7	-8.5	12.5
$F = 0$	0	0	8709263	28	-100	-100
F_{pa}	1529754	0.32	7258384	6.7	-8.5	12.5
F_{lim}	3507334	0.88	5411744	-20	110	158
$SSB_{2025} = B_{lim}^{\wedge}$	7997215	4.5	1500006	-78	378	488
$SSB_{2025} = B_{pa} = MSY B_{trigger}^{\wedge}$	7066101	3.04	2250000	-67	323	420
$F = F_{2023}$	2306302	0.52	6528681	-4.0	38	70
$SSB_{2025} = SSB_{2024}^{\wedge}$	2016931	0.44	6799982	0	21	48
$Catch_{2024} = catch_{2023}^{\wedge}$	1672363	0.35	7123994	4.8	0	23
$Catch_{2024} = catch_{2023} -20\%$	1337926	0.28	7439411	9.4	-20	-1.6
$Catch_{2024} = catch_{2023} +25\%$	2090423	0.46	6731007	-1	25	54
$Catch_{2024} = advice_{2023} -20\%$	1087653	0.22	7676013	12.9	-35	-20
$Catch_{2024} = advice_{2023} +25\%$	1699525	0.36	7098416	4.4	1.6	25

* SSB 2025 relative to SSB 2024.

** Catch 2024 relative to expected catch in 2023 (1672378 tonnes).

*** Catch 2024 relative to advice for 2023 (1359629 tonnes).

\wedge SSB_{2025} and $Catch_{2024}$ values are the closest available approximation to either B_{lim} , B_{pa} , $B_{trigger}$, SSB_{2024} , or target catches.

The advice for 2024 is 12.5% higher than that for 2023 because of the strong year classes of 2020 and 2021 that now contribute to the exploitable stock (from age 2).

Basis of the advice

Table 3 Blue whiting in subareas 1–9, 12, and 14. The basis of the advice.

Advice basis	Long-term management strategy
Management plan	A long-term management strategy was agreed by the European Union, the Faroe Islands, Iceland, and Norway (Anon., 2016) and subsequently by UK in 2021 (Anon., 2021). ICES has evaluated the strategy, including clause 6.b, and found it to be precautionary (ICES, 2016a, 2017).

Quality of the assessment

This year's assessment shows a substantial revision of the recruitment estimate for 2022 (Figure 2). The 2021 year class (recruitment at age 1 in 2022) is now estimated to be 68.9 billion, while last year's estimate was 43.2 billion. This is due to a high survey index value in 2023 and is corroborated by high commercial catch-at-age of the same year class in 2022 and 2023.

Other surveys, which are not presently used in the assessment, confirm very large 2020 and 2021 year classes.

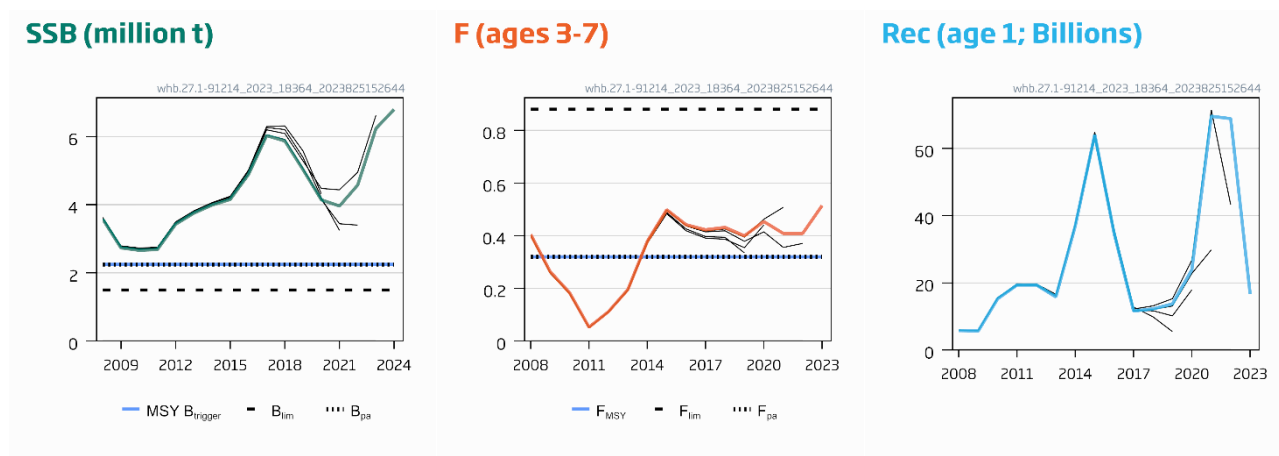


Figure 2 Blue whiting in subareas 1–9, 12, and 14. Historical assessment results.

Issues relevant for the advice

There have been consistent deviations from the long-term management strategy since 2018 as evident from the sum of unilateral quotas. During the evaluation of the management strategy (ICES, 2016a), the implementation error in the form of a consistent overshoot of the TAC was not included. Therefore, failing to adhere to the advised catches as derived from the application of the MSY approach or the long-term management strategy may not be precautionary. Specifically, this may result in an increased risk for the stock to fall below B_{lim} and loss of catch in the long term.

Both the 2020 and 2021 year classes are amongst the highest in the time-series, and are expected to be largely recruited to the fishery in 2024. Notably, 44% and 31% of the catch in 2024 is predicted to consist of fish from the 2020 and 2021 year class, respectively. The fishery will depend on these two large year classes in the coming years. The history of the stock shows that subsequent years of low recruitment after a period of high recruitment may cause the SSB to quickly drop to lower levels and would lead to a reduction in future advice.

Reference points

Table 4 Blue whiting in subareas 1–9, 12, and 14. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	2250000 t	B_{pa}	ICES (2013a, 2013b, 2016a)
	F_{MSY}	0.32	Stochastic simulations with segmented regression stock–recruitment relationship capped to F_{P05}	ICES (2016a)
Precautionary approach	B_{lim}	1500000 t	Approximately B_{loss}	ICES (2013a, 2013b, 2016a)
	B_{pa}	2250000 t	$B_{lim} \exp(1.645 \times \sigma)$, with $\sigma = 0.246$	ICES (2013a, 2013b, 2016a)
	F_{lim}	0.88	Equilibrium scenarios with stochastic recruitment: F value corresponding to 50% probability of ($SSB < B_{lim}$)	ICES (2016a)
	F_{pa}	0.32	F_{P05} ; the F that leads to $SSB \geq B_{lim}$ with 95% probability	ICES(2016a, 2021)
EU–Faroes–Iceland–Norway long-term management strategy	$SSB_{mgt\ lower}$	1500000 t	B_{lim}	Anon (2016)
	SSB_{mgt}	2250000 t	B_{pa}	
	$F_{mgt\ lower}$	0.05	Arbitrary low F	
	F_{mgt}	0.32	F_{MSY}	

Basis of the assessment

Table 5 Blue whiting in subareas 1–9, 12, and 14. Basis of the assessment and advice.

ICES stock data category	1 (ICES, 2023a)
Assessment type	Age-based analytical assessment (SAM; ICES, 2021)
Input data	Commercial catches, preliminary estimate of catch-at-age in the year (Q1–Q2) in which the assessment is carried out. One survey index (International Blue Whiting Spawning Stock Survey [IBWSS; A1142] ages 1–8, 2004–2023, excluding 2010 and 2020). Time invariant maturity at age was estimated in 1994 by combining maturity ogives from the southern and northern areas. Time invariant natural mortality fixed at 0.2 for all ages, derived in the 1980s from age compositions before the targeted fishery started.
Discards and bycatch	Discard data since 2014 have been included in the assessment
Indicators	Estimates of recruitment from surveys: Joint Norwegian-Russian survey Barents Sea (G5348), International Ecosystem Survey in the Nordic Seas in May (A3675, [IESNS]), the Faroese bottom-trawl surveys (G1264 [FO-GFS-Q1], G3284 [FO-GFS-Q3]) and the Icelandic bottom-trawl survey in spring (G3239 [IS-SMB])
Other information	The stock was benchmarked in 2012 (WKPELA; ICES, 2012). An interbenchmark protocol was conducted in the spring of 2016 (ICES, 2016b).
Working group	Working Group on Widely Distributed Stocks (WGWIDE; ICES 2023b)

History of the advice, catch, and management

Table 6 Blue whiting in subareas 1–9, 12, and 14. ICES advice and catch. All weights are in tonnes.

Year	ICES advice	Catch corresponding to advice	TAC	ICES estimated landings	ICES estimated discards ⁵	ICES catch
1987	TAC for northern areas; no advice for southern areas	950000	-			655000
1988	TAC for northern areas; no advice for southern areas	832000	-			557847
1989	TAC for northern areas; no advice for southern areas	630000	-			627447
1990	TAC for northern areas; no advice for southern areas	600000	-			561610
1991	TAC for northern areas; no advice for southern areas	670000	-			369524
1992	No advice	-	-			475026
1993	Catch at <i>status quo</i> F (northern areas); no assessment for southern areas	490000	-			480679
1994	Precautionary TAC (northern areas); no assessment for southern areas	485000	650000*			459414
1995	Precautionary TAC for combined stock	518000	650000*			578905
1996	Precautionary TAC for combined stock	500000	650000*			645982
1997	Precautionary TAC for combined stock	540000	-			672437
1998	Precautionary TAC for combined stock	650000	-			1128969
1999	Catches above 650 000 t may not be sustainable in the long run	650000	-			1256228
2000	F should not exceed the proposed F_{pa}	800000	-			1412927
2001	F should not exceed the proposed F_{pa}	628000	-			1780170
2002	Rebuilding plan	0	-			1556792
2003	F should be less than the proposed F_{pa}	600000	-			2321406
2004	Achieve 50% probability that F will be less than F_{pa}	925000	-			2380161
2005	Achieve 50% probability that F will be less than F_{pa}	1075000	-			2034309
2006	F old management plan	1500000	2100000**			1976176
2007	F should be less than the proposed F_{pa}	980000	1847000***			1625255
2008	F should be less than F_{pa}	835000	1250000^			1260615
2009	Maintain stock above B_{pa}	384000	606000^^			641818
2010	Follow the agreed management plan	540000	548000			526357
2011	See scenarios	40100–223000	40000			103620
2012	Follow the agreed management plan	391000	391000			384021
2013	Follow the agreed management plan	643000	643000			628169
2014	Follow the agreed management plan	948950	1200000			1155279
2015	Follow the agreed management plan	839886	1260000^^^	1389953	6291	1396244
2016	MSY approach	≤ 776391	1147000^^^	1178180	5007	1183187

Year	ICES advice	Catch corresponding to advice	TAC	ICES estimated landings	ICES estimated discards [§]	ICES catch
2017	MSY approach	≤ 1342330	1675400 ^{^^^}	1556030	2030	1558061
2018	Long-term management strategy	≤ 1387872	1727964 ^{^^^}	1707152	4325	1711477
2019	Long-term management strategy	≤ 1143629	1483208 ^{^^^}	1512922	2604	1515527
2020	Long-term management strategy	≤ 1161615	1478358 ^{^^^}	1492420	2828	1495248
2021	Long-term management strategy	≤ 929292	1157604 ^{^^^}	1139514	3936	1143450
2022	Long-term management strategy	≤ 752736	752736 ^{§§§}	1035094	3641	1038736
2023	Long-term management strategy	≤ 1359629	1359629 ^{§§§}			1672378 ^{§§}
2024	Long-term management strategy	≤ 1529754				

* NEAFC proposal for the northern stock component.

** Agreed TAC from the four Coastal States of 2 million tonnes and an additional allocation of 100 000 tonnes to Russian Federation in the international zone.

*** Agreed TAC from the four Coastal States of 1.7 million tonnes and an additional allocation of 147 000 tonnes to Russian Federation and Greenland.

^ Agreed TAC from the four Coastal States of 1.1 million tonnes and an additional allocation to Russian Federation and Greenland.

^^ Agreed TAC from the four Coastal States of 0.59 million tonnes and an additional allocation of 16 000 tonnes to Russian Federation.

^^^ Sum of unilateral quotas (Note: the Coastal States agree a TAC of 1 161 615 tonnes for 2020 and 929 292 tonnes for 2021).

§ Discards estimates include BMS landings.

§§ Preliminary.

§§§ Official TAC agreed between the Coastal States that have signed up to the MP.

History of the catch and landings

Table 7 Blue whiting in subareas 1–9, 12, and 14. Catch distribution by fleet in 2022, as estimated by ICES.

Total catch (2022)	Landings		Discards
1038736 tonnes	96% pelagic trawl	4% other gears	3641 tonnes
	1035094 tonnes		

Table 8 Blue whiting in subareas 1–9, 12, and 14. History of commercial catch; ICES estimated values are presented for each country participating in the fishery. Discard data are included since 2014. All weights are in tonnes.

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Denmark	48659	18134	248	140	165	340	2167	35256	45178	39395	60868	87348	68716	58997	40321	45644
Estonia													0			
Faroe Islands	317859	225003	58354	49979	16405	43290	85768	224700	282502	282416	356501	349838	336569	343372	202415	217401
France	16638	11723	8831	7839	4337	9799	8978	10410	9659	10345	13369	16784	16095	13769	14612	14202
Germany	34404	25259	5044	9108	278	6239	11418	24487	24107	20025	45555	47708	38244	42362	35327	21667
Iceland	236538	159307	120202	87942	5887	63056	104918	182879	214870	186914	228934	292944	268356	243725	190146	191813
Ireland	31132	22852	8776	8324	1195	7557	13205	21466	24785	27657	43238	49903	38836	40135	39514	28972
Lithuania	9812	5338						4717		1129	5300			9543	21183	13149
Netherlands	79875	78684	35686	33762	4595	26526	51635	38524	56397	58148	81156	121864	75020	62309	62017	63249
Norway	539587	418289	225995	194317	20539	118832	196246	399520	489439	310412	399363	438426	351429	354033	233968	194973
Poland											15889	12152	27185	47616	26077	20948
Portugal	3897	4220	2043	1482	603	1955	2056	2150	2547	2586	2046	2497	3481	2819	2522	2784
Spain	13557	14342	20637	12891	2416	6726	15274	32065	29206	31952	28920	24718	22782	23676	25509	26310
Sweden	464	4	3	50	1	4	199	2	32	42	90	16**	54	25	40	20
UK (England + Wales)	12926	14147	6176	2475	27	1590	4100	11	131	1374+	3447	1864	4062	7458	8783	7482
UK (Northern Ireland)							1232	2205	1119			4508	2899	2958		
UK (Scotland)	43540	38150	173	5496	1331	6305	8166	24630	30508	37173	64724	66682	54040	41344	65085	42903
Russia	236369	225163	149650	112553	45841	88303	120674	152256	185763	173655	188449	170892	188006	181496	133605^	128002
Greenland							2133				20212	23333	19753	19611	20190	19218
Unallocated						3499									22137	
Total	1625255	1260615	641818	526357	103620	384021	628169	1155279	1396244	1181850	1558061	1711461	1515527	1495248	1143450	1038736

* Only landings.

^ Russia 2021 preliminary data (Q1+Q2) submitted to WGwide 2021.

Table 9 Blue whiting in subareas 1–9, 12, and 14. ICES estimated catches by main fishing areas. All weights are in tonnes.

Area	Norwegian Sea fishery (subareas 1 and 2; divisions 5.a, 14.a–b)	Fishery in the spawning area (Subarea 12; divisions 5.b, 6.a–b, 7.a–c)	Directed and mixed fisheries in the North Sea (Subarea 4; Division 3.a)	Total northern areas	Total southern areas (subareas 8, 9; divisions 7.d–k)	Total
1988	55829	426037	45143	527009	30838	557847
1989	42615	475179	75958	593752	33695	627447
1990	2106	463495	63192	528793	32817	561610
1991	78703	218946	39872	337521	32003	369524
1992	62312	318018	65974	446367	28722	475026
1993	43240	347101	58082	448423	32256	480679
1994	22674	378704	28563	429941	29473	459414
1995	23733	423504	104004	551241	27664	578905
1996	23447	478077	119359	620883	25099	645982
1997	62570	514654	65091	642315	30122	672437
1998	177494	827194	94881	1099569	29400	1128969
1999	179639	943578	106609	1229826	26402	1256228
2000	284666	989131	114477	1388274	24654	1412928
2001	591583	1045100	118523	1755206	24964	1780170
2002	541467	846602	145652	1533721	23071	1556792
2003	931508	1211621	158180	2301309	20097	2321406
2004	921349	1232534	138593	2292476	85093	2377569
2005	405577	1465735	128033	1999345	27608	2026953
2006	404362	1428208	105239	1937809	28331	1966140
2007	172709	1360882	61105	1594695	17634	1612330
2008	68352	1111292	36061	1215704	30761	1246465
2009	46629	533996	22387	603012	32627	635639
2010	36214	441521	17545	495280	28552	523832
2011	20599	72279	7524	100401	3191	103592
2012	24391	324545	5678	354614	29402	384016*
2013	31759	481356	8749	521864	103973	625837**
2014	45580	885483	28596	959659	195620	1155279
2015	150828	895684	44661	1091173	305071	1396244
2016	59744	905087	55774	1020604	162583	1183187***
2017	136565	1284105	45474	1466144	91917	1558061
2018	143204	1445957	43484	1632646	78831	1711477
2019	68593	1271883	44856	1385333	130194	1515527
2020	92084	1059197	64327	1215608	279640	1495248
2021	112082	801768	39509	953359	190091	1143450
2022	105752	724086	59371	889209	149527	1038736

* Official catches by area from Sweden are not included for this year.

** Official catches by area from Sweden and Greenland are not included for this year.

*** The total includes only 1336 tonnes from UK (England + Wales; 2016 total catch from UK [England + Wales] = 1374 tonnes).

Table 10 Blue whiting in subareas 1–9, 12, and 14. Landings inside and outside the NEAFC regulatory areas (RAs), as estimated by ICES, as well as total landings. Weights are in tonnes.

Year	Inside the NEAFC RAs	Outside the NEAFC RAs	Total catches	Percentage inside the NEAFC RAs
2017	263019	1295042	1558061	17
2018	176399	1535078	1711477	10
2019	340062	1175465	1515527	22
2020	246412	1248836	1495248	16
2021	154661	833047	987708*	16
2022	85618	953119	1038736	8

* Without the Russian 2021 preliminary catch data (quarter 1 and 2) submitted to WGWIDE 2021 and the area unallocated catch data.

Summary of the assessment

Table 11 Blue whiting in subareas 1–9, 12, and 14. Assessment summary.

Year	Recruitment age 1 (thousands)			SSB (tonnes)			Catches (tonnes)*	F ages 3–7		
	Low	Value	High	Low	Value	High		Low	Value	High
1981	2542552	3911082	6016225	2251018	2845036	3595809	922980	0.189	0.258	0.352
1982	2954287	4602198	7169319	1840037	2300091	2875169	550643	0.164	0.220	0.296
1983	12146933	18511944	28212230	1516723	1856066	2271332	553344	0.192	0.254	0.336
1984	12057609	18224999	27546971	1459001	1757369	2116755	615569	0.245	0.319	0.416
1985	6316880	9520388	14348507	1735590	2094932	2528672	678214	0.276	0.356	0.460
1986	4788339	7170043	10736397	1886703	2273262	2739021	847145	0.339	0.436	0.561
1987	6105371	9163882	13754567	1605869	1931949	2324241	654718	0.325	0.419	0.541
1988	4235323	6359063	9547720	1372285	1637486	1953938	552264	0.343	0.442	0.569
1989	5620281	8473071	12773904	1298703	1544913	1837799	630316	0.414	0.530	0.680
1990	12577484	19205066	29324987	1132465	1358925	1630670	558128	0.397	0.518	0.675
1991	5807979	8990754	13917689	1438091	1783751	2212493	364008	0.216	0.291	0.393
1992	4367243	6672861	10195694	1958396	2461071	3092771	474592	0.173	0.233	0.314
1993	3168318	4894647	7561606	2029521	2539067	3176545	475198	0.152	0.204	0.275
1994	5289445	8099362	12401994	2044110	2530221	3131934	457696	0.136	0.184	0.248
1995	6072120	9198605	13934891	1903350	2304714	2790715	505176	0.183	0.241	0.319
1996	18690153	28266556	42749688	1838629	2205312	2645123	621104	0.226	0.297	0.389
1997	30196797	45544571	68692979	2054331	2469353	2968220	639681	0.229	0.299	0.391
1998	17728779	26605119	39925615	3022328	3682838	4487699	1131955	0.313	0.404	0.522
1999	13317535	20058745	30212292	3626579	4434099	5421428	1261033	0.301	0.389	0.503
2000	26114854	39473578	59665787	3520188	4222973	5066065	1412449	0.373	0.478	0.612
2001	37581210	56306875	84363014	3824137	4569865	5461015	1771805	0.364	0.467	0.599
2002	32629977	48903240	73292325	4516418	5405451	6469487	1556955	0.367	0.472	0.607
2003	35738139	52805994	78025131	5720699	6865601	8239637	2365319	0.396	0.502	0.637
2004	19426922	28725410	42474520	5698044	6757214	8013265	2400795	0.428	0.540	0.681
2005	15168475	22392243	33056226	5081192	6013337	7116485	2018344	0.397	0.504	0.640
2006	6029168	8996712	13424874	4960696	5888790	6990522	1956239	0.359	0.459	0.587
2007	3210720	4795411	7162245	3919153	4665843	5554795	1612269	0.356	0.460	0.594
2008	3811865	5770397	8735220	2966020	3578643	4317802	1251851	0.306	0.405	0.537
2009	3598884	5610707	8747165	2213093	2735822	3382019	634978	0.194	0.264	0.359
2010	9996269	15216679	23163375	2116773	2665797	3357219	539539	0.132	0.184	0.256
2011	12817112	19324947	29137109	2149471	2687130	3359277	103771	0.036	0.053	0.076
2012	13051426	19332266	28635683	2813103	3428138	4177640	375692	0.084	0.112	0.149
2013	10695254	15784350	23294978	3141104	3754261	4487109	613863	0.150	0.196	0.256
2014	24858889	36984108	55023546	3379263	3991146	4713823	1147650	0.293	0.379	0.490
2015	43480822	64187156	94754210	3517303	4157578	4914405	1390656	0.391	0.499	0.636
2016	23537436	34652405	51016141	4070905	4886263	5864930	1180786	0.344	0.442	0.567
2017	7790955	11587354	17233675	4992140	6030186	7284078	1555069	0.330	0.423	0.542
2018	8239911	12227217	18143986	4885116	5870963	7055762	1709856	0.336	0.432	0.556
2019	8991825	13717621	20927134	4193676	5028573	6029685	1512026	0.307	0.400	0.520
2020	15288265	23895318	37348005	3436547	4146964	5004241	1460507	0.345	0.454	0.596
2021	42726573	69630575	113475444	3166661	3963726	4961417	1139531	0.301	0.409	0.557
2022	39144619	68911606	121314489	3359598	4579983	6243678	1035891	0.278	0.409	0.601
2023	7251643	16657741	38264476	4162399	6236191	9343188	1672378***	0.307	0.515	0.865
2024		22997749**			6799985^					

* Catches presented are the sum of product (SOP) values from catch- and weight-at-age used in the assessment model.

** Geometric mean (1996–2022).

*** Preliminary catches.

^ SSB calculated from the assessment and assumed recruitment for 2024.

Sources and references

- Anon. 2016. Agreed record of conclusions of fisheries consultations between the European Union, the Faroe Islands, Iceland and Norway on the management of blue whiting in the north-east Atlantic in 2017. 6 pp. <https://d3b1dqw2kzexi.cloudfront.net/media/8742/agreed-record-blue-whiting-2017.pdf>
- Anon 2021. Agreed record of conclusions of fisheries consultations between the European Union, the Faroe Islands, Iceland, Norway and UK on the management of blue whiting in the north-east Atlantic in 2022. <https://www.regjeringen.no/contentassets/2ea04e97a8fd45c2b1758e2602e79c46/blue-whiting-agreed-record-october-2021.pdf>
- ICES. 2012. Report of the Benchmark Workshop on Pelagic Stocks (WKPELA 2012), 13–17 February 2012, Copenhagen, Denmark. ICES CM 2012/ACOM:47. 572 pp.
- ICES. 2013a. NEAFC request to ICES to evaluate the harvest control rule element of the long-term management plan for blue whiting. *In* Report of the ICES Advisory Committee, 2013. ICES Advice 2013, Book 9, Section 9.3.3.1. 13 pp.
- ICES. 2013b. NEAFC request on additional management plan evaluation for blue whiting. *In* Report of the ICES Advisory Committee, 2013. ICES Advice 2013, Book 9, Section 9.3.3.7. 8 pp.
- ICES. 2016a. Report of the Workshop on Blue Whiting Long Term Management Strategy Evaluation (WKBWMS), 30 August 2016, ICES HQ, Copenhagen, Denmark. ICES CM 2016/ACOM:53. 104 pp.
- ICES. 2016b. Report of the Inter-Benchmark Protocol for Blue Whiting (IBPBLW), 10 March–10 May 2016, by correspondence. ICES CM 2016/ACOM:36. 118 pp.
- ICES. 2017. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 30 August -5 September 2017, ICES Headquarters, Copenhagen, Denmark. ICES CM 2017/ACOM:23. 1111 pp.
- ICES. 2021. Working Group on Widely Distributed Stocks (WGWIDE). ICES Scientific Re-ports. 3:95. 874 pp. <http://doi.org/10.17895/ices.pub.8298>
- ICES. 2023a. Advice on fishing opportunities. *In* Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1.1. <https://doi.org/10.17895/ices.advice.22240624>
- ICES. 2023b. Working Group on Widely Distributed Stocks (WGWIDE). ICES Scientific Reports. 5:82. <https://doi.org/10.17895/ices.pub.24025482>

[Download the stock assessment data and figures.](#)

Recommended citation: ICES. 2023. Blue whiting (*Micromesistius poutassou*) in subareas 1-9, 12, and 14 (Northeast Atlantic and adjacent waters). *In* Report of the ICES Advisory Committee, 2023. ICES Advice 2023, whb.27.1-91214, <https://doi.org/10.17895/ices.advice.21856554>