

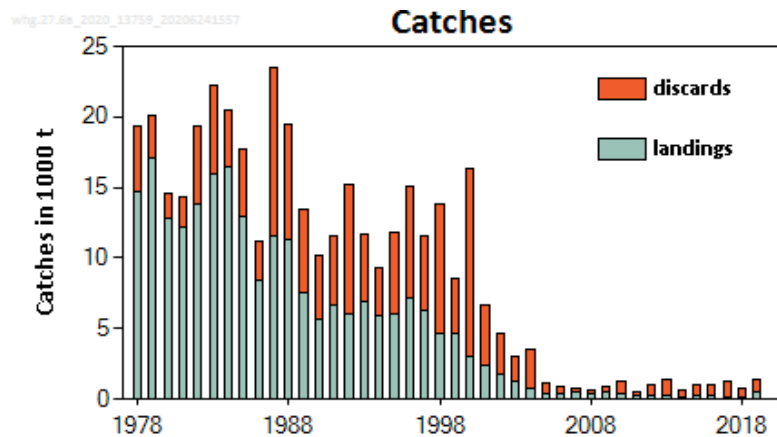
## Whiting (*Merlangius merlangus*) in Division 6.a (West of Scotland)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, there should be zero catches in each of the years 2021 and 2022.

### Stock development over time

Catches progressively declined until 2005 and have remained low since then.



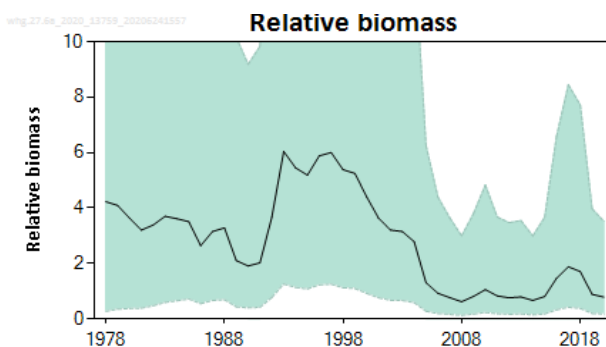
**Figure 1** Whiting in Division 6.a. Observed catches (weights in thousand tonnes).

### Stock and exploitation status

ICES cannot assess the exploitation status relative to the maximum sustainable yield (MSY). However, the stock size is considered to be below possible reference points (Figure 2).

**Table 1** Whiting in Division 6.a. State of the stock and the fishery relative to reference points.

	Fishing pressure			Stock size						
		2017	2018	2019	2018	2019	2020			
Maximum sustainable yield	$F_{MSY}$	?	?	?	Undefined	$MSY B_{trigger}$	?	?	?	Undefined
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Undefined	$B_{pa}, B_{lim}$	?	?	?	Undefined
Management plan	$F_{MGT}$	—	—	—	Not applicable	$B_{MGT}$	—	—	—	Not applicable
Qualitative evaluation	-	—	—	—		-	⊗	⊗	⊗	Below possible reference points



**Figure 2** Whiting in Division 6.a. Exploratory SPiCT analysis showing biomass relative to  $B_{MSY}$ . The shaded area in the biomass plot represents 95% confidence intervals.

### Catch scenarios

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented where there is no ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. Discard rate is 78% of the total catch for this stock.

The present advice is based on the recent advised catches and not on the recent average catches, as the present stock biomass is considered to be below possible reference points.

**Table 2** Whiting in Division 6.a. The basis for the catch scenarios.

Advised catch for 2019 and 2020, issued in 2018	0 tonnes	
Discard rate (2017–2019)	78%	
Precautionary buffer	Not applicable	-
Catch advice *	0 tonnes	

\* Advised catches for 2019 and 2020.

### Basis of the advice

**Table 3** Whiting in Division 6.a. The basis of the advice.

Advice basis	Precautionary approach
Management plan	The EU multiannual plan (MAP) for stocks in Western Waters and adjacent waters (EU, 2019) takes into account bycatch of this species.

### Quality of the assessment

The assessment was benchmarked in 2020 (ICES, 2020a), resulting in the rejection of the previous assessment. The SPiCT model proposed by the benchmark was considered to be inadequate for providing advice, due to the large confidence intervals and the stock is currently classified as category 5. However, the results of the SPiCT model provide general information on the relative size of the stock and suggest that stock biomass is very low.

### Issues relevant for the advice

Despite low catches since 2005, the stock shows no signs of rebuilding.

Bycatch reduction measures are likely to be beneficial to future stock development.

### Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 4** Whiting in Division 6.a. The basis of the assessment.

ICES stock data category	5 ( <a href="#">ICES, 2019</a> ).
Assessment type	No assessment.
Input data	Commercial landings and estimated discards.
Discards and bycatch	Included in the assessment (ages 1+), dataserries from the main fleets (covering 95% of the landings).
Indicators	Four survey indices (ScoGFS-WIBTS-Q1 [1985–2010], IGFS-WIBTS-Q4 [2003–2010], UK-SCOWCGFS-Q1 [2011–2020], and combined IGFS-UK-SCOWCGFS-Q4 [2011–2019]).
Other information	The stock was benchmarked in 2020 (WKDEM; ICES, 2020a).
Working group	Working Group for the Celtic Seas Ecoregion ( <a href="#">WGCSE</a> )

## Information from stakeholders

No additional information is available.

**History of the advice, catch and management**

**Table 5** Whiting in Division 6.a. History of ICES advice, the agreed TAC, ICES estimates of landings and discards. Weights in tonnes.

Year	ICES advice / Single-stock exploitation boundaries since 2004	Catch corresponding to advice	Agreed TAC *	Official landings	ICES landings	Discards ^	ICES catch ^
1987	No increase in F	15000	16400	12399	11544	11918	23462
1988	No increase in F; TAC	15000	16400	11879	11352	8132	19484
1989	No increase in F; TAC	13000	16400	7669	7531	5876	13407
1990	No increase in F; TAC	11000	11000	6026	5643	4530	10173
1991	70% of effort (89)	-	9000	6908	6660	4883	11543
1992	70% of effort (89)	-	7500	6010	6004	9249	15253
1993	70% of effort (89)	-	8700	6751	6872	4759	11631
1994	30% reduction in effort	-	6800	5786	5901	3455	9356
1995	Significant reduction in effort	-	6800	6277	6076	5771	11847
1996	Significant reduction in effort	-	10000	6642	7156	7940	15096
1997	Significant reduction in effort	-	13000	6178	6285	5251	11536
1998	No increase in F	6500	9000	4657	4631	9216	13847
1999	Reduce F below $F_{pa}$	4300	6300	4677	4613	3975	8588
2000	Reduce F below $F_{pa}$	< 4300	4300	3203	3010	13285	16295
2001	Reduce F below $F_{pa}$	< 4200	4000	2543	2438	4263	6701
2002	SSB > $B_{pa}$ in the short term	< 2000	3500	1735	1709	2851	4560
2003	No cod catches	-	2000	1365	1331	1984	3316
2004	SSB > $B_{pa}$ in the short term	< 2100 **	1600	819	798	2887	3686
2005	Exploitation not allowed to increase	< 1600	1600	289	335	972	1307
2006	Lowest possible level	0	1360	383	378	746	1124
2007	Lowest possible level	0	1020	488	481	366	847
2008	Lowest possible level	0	765	440	441	156	598
2009	Same advice as last year	0	574	482	480	826	1305
2010	Same advice as last year	0	431	349	345	1091	1436
2011	See scenarios	-	323	230	231	630	861
2012	Reduce catches	-	307	301	300	742	1042
2013	Lowest possible catch, improve selectivity	0	292	214	215	1172	1387
2014	Lowest possible catch, improve selectivity	0	292	181	181	745	926
2015	Lowest possible catch	0	263	221	221	1458	1679
2016	Precautionary approach (minimize all catches)	0	213	232	227	1040	1266
2017	MSY approach	0	213	169	168	1331	1498
2018	MSY approach	0	213	180 ^^	189	666	855
2019	Precautionary approach	0	1112	486 ^^	484	960	1444
2020	Precautionary approach	0	937				
2021	Precautionary approach	0					
2022	Precautionary approach	0					

\* TAC is set for Division 5.b and subareas 6, 12, and 14.

\*\* Single-stock boundary and the exploitation of this stock should be conducted in the context of mixed fisheries, protecting stocks outside safe biological limits.

^ Discards and catch for 1987–2002 estimated for ages 1+ only, and for 2003–2019 estimated for all ages.

^^ Preliminary.

## History of the catch and landings

**Table 6** Whiting in Division 6.a. Catch distribution by fleet in 2019 as estimated by ICES.

Catch	Landings			Discards *		
	Finfish directed otter trawl	<i>Nephrops</i> directed otter trawl	Other gear	Finfish directed otter trawl	<i>Nephrops</i> directed otter trawl	Other gear
1444 tonnes	92%	0%	8%	39%	58%	3%
	484 tonnes			960 tonnes		

\* All discards, including the 0-group.

**Table 7** Whiting in Division 6.a. History of official landings by country. All weights are in tonnes.

Year	Belgium	Denmark	Faroe Islands	France	Germany	Ireland	Netherlands	Norway	Spain	UK (E, W, and NI)	UK (Scot.)	UK (total)	Official BMS **	Total official
1989	1	1	-	199	< 0.5	1315	-	-	-	44	6109			7669
1990	-	< 0.5	-	180	-	977	-	-	-	50	4819			6026
1991	-	3	-	352	< 0.5	1200	-	-	-	218	5135			6908
1992	-	1	-	105	1	1377	-	-	-	196	4330			6010
1993	-	1	-	149	1	1192	-	-	-	184	5224			6751
1994	-	< 0.5	-	191	< 0.5	1213	-	-	-	233	4149			5786
1995	-	< 0.5	-	362	-	1448	-	-	1	204	4263			6277
1996	-	< 0.5	-	202	-	1182	-	-	-	237	5021			6642
1997	1	< 0.5	-	108	-	977	-	-	1	453	4638			6178
1998	1	-	-	82	-	952	-	-	2	251	3369			4657
1999	< 0.5	-	-	300	-	1121	-	-	< 0.5	210	3046			4677
2000	-	-	-	48	-	793	-	-	-	104	2258			3203
2001	-	-	-	52	-	764	-	-	2	71	1654			2543
2002	-	-	-	21	-	577	-	-	-	73	1064			1735
2003	-	< 0.5	-	11	-	568	-	-	-	35	751			1365
2004	< 0.5	< 0.5	-	6	-	356	-	-	-	13	444			819
2005	-	-	-	9	-	172	-	-	-	5	103			289
2006	-	-	-	7	-	196	-	-	-	2	178			383
2007	-	-	-	6	1	56	-	-	-	20	405			488
2008	-	-	-	1	-	69	-	-	-	2	368			440
2009	-	-	< 0.5	1	-	125	-	2	-	-	354			482
2010	-	-	-	3	-	99	-	-	-	2	245			349
2011	-	-	1	+	-	149	-	-	-	-	-	80		230
2012	-	-	1	+	-	96	-	-	-	-	-	204		301
2013	-	-	-	1	-	97	-	-	-	-	-	116		214
2014	-	-	-	1	-	97	-	-	-	-	-	83		181
2015	-	-	-	< 0.5	-	88	11	-	-	-	-	122		221
2016	-	-	-	-	-	77	52	-	-	-	-	98		232
2017	-	-	-	3	-	53	19	-	-	-	-	94		169
2018 *	-	2	-	2	-	72	2	< 0.5	-	-	-	101	2	182
2019 *	-	56	-	6	-	160	23	-	< 0.5	-	-	240	< 0.5	486

\* Preliminary.

\*\* Below minimum size (BMS) landings.

## Summary of the assessment

There is no assessment for whiting in this area.

## Sources and references

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