

5.3.67 Whiting (*Merlangius merlangus*) in Division 7.a (Irish Sea)

ICES stock advice

ICES advises that when the precautionary approach is applied, there should be zero catch in 2017.

Stock development over time

Catch composition and surveys indicate that the present stock size is extremely low and likely to be well below possible reference points. There are indications that the 2014 year class is relatively high.

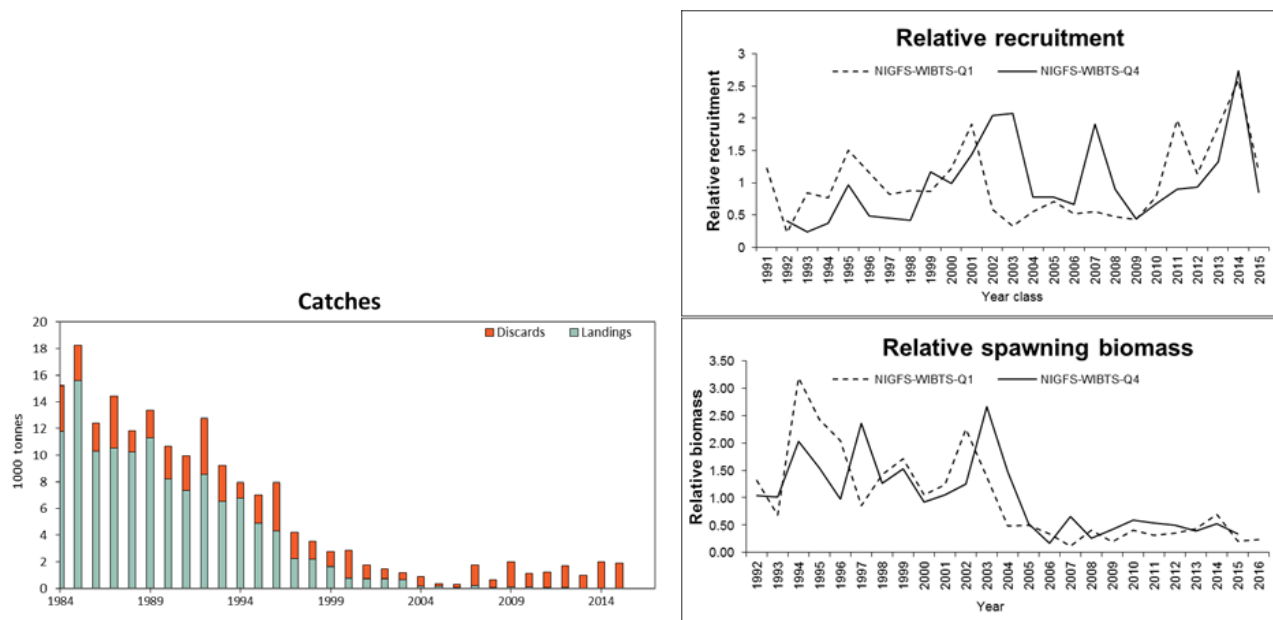


Figure 5.3.67.1 Whiting in Division 7.a. Catch reported to the Working Group for the Celtic Seas Ecoregion (WGCSE) (in thousand tonnes; 1991–2002 estimates include sampled-based estimates of landings at a number of Irish Sea ports), and mean standardized: SSB, and recruitment estimates, from single fleet SURBA analysis.

Stock and exploitation status

Table 5.3.67.1 Whiting in Division 7.a. State of the stock and fishery, relative to reference points.

		Fishing pressure			Stock size		
		2013	2014	2015	2014	2015	2016
Maximum Sustainable Yield	F_{MSY} Proxy	✗	✗	⊛ Undefined	MSY $B_{trigger}$	⊛ ⊛	⊛ Undefined
Precautionary approach	F_{pa} , F_{lim}	✗	✗	⊛ Undefined	B_{pa} , B_{lim}	⊛ ⊛	⊛ Undefined
Management Plan	F_{MGT}	-	-	- Not applicable	SSB_{MGT}	-	- Not applicable
Qualitative evaluation	-	-	-	✗ Likely above any candidate reference points	-	✗ ✗	✗ Likely below possible reference points

Note: State of the stock evaluation is based on reference point proxies (ICES, 2016a).

Catch options

The ICES framework for Category 3 stocks is applied (ICES, 2012). The perception of the stock has not changed; therefore, the advice given in the recent years is still applicable this year.

Table 5.3.67.4 Whiting in Division 7.a. For stocks in ICES data categories 3, one catch option is provide.

Recent advised catches	0 t
Discard rate (average 2013–2015)	0.98
Catch advice*	0 t

* [recent advised catch]

Basis of the advice

Table 5.3.67.5 Whiting in Division 7.a. The basis of the advice

Advice basis	Precautionary approach
Management plan	There is no management plan for whiting in this area.

Quality of the assessment

The advice is based on an assessment accepted for trends because discards are substantial and not included in the assessment. Discard sampling coverage has improved after a period of incomplete discard information between 2003 and 2006. Discards in recent years have been high and variable relative to landings, mainly between 1000 and 2000 tonnes, with landings generally less than 50 tonnes.

Issues relevant for the advice

The majority of whiting caught are discards in the *Nephrops* fishery and are below the minimum landings size. Despite the introduction of several technical measures to reduce fin fish catch and discards in the *Nephrops* fishery the total discards estimates remain high. Given the continued high discards and low total allowable catch (TAC) this stock could become a major 'choke species' for the 7.a *Nephrops* fishery in the context of the landing obligation.

Table 5.3.67.6 Whiting in Division 7.a. ICES landings and indicative estimates of discards and catches by gear grouping for 2013–2015 as reported to ICES (in tonnes). The discard values are indicative because their accuracy and precision is dependent on sampling intensity and coverage by gear group.

Gear Grouping	2013			2014			2015		
	Discards	Landings	Catch	Discards	Landings	Catch	Discards	Landings	Catch
<i>Nephrops</i> Otter Trawls	911	18	929	1672	10	1682	1884	7	1891
Fin-fish Otter Trawls	7	12	19	288	5	293	1	12	13
Beam Trawls	18	2	20	15	1	16	9	2	11
Other Gears	2	1	3	0	6	6	0	6	6
Total	939	33	972	1976	22	1998	1894	27	1921

Reference points

Table 5.3.67.7 Whiting in Division 7.a . Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY B _{trigger} proxy	-	No Proxy identified	ICES (2016a)
	F _{MSY} proxy	22 cm	Expected mean length of catch above L _c when F = M	ICES (2016a)
Precautionary approach	Blim	Not defined		
	Bpa	Not defined		
	Flim	Not defined		
	Fpa	Not defined		
Management plan	SSBMGT	Not applicable		
	FMGT	Not applicable		

Basis of the assessment

Table 5.3.67.8 Whiting in Division 7.a. The basis of the assessment.

ICES stock data category	3 (ICES 2016a)
Assessment type	Survey-based assessment(SurbaR) considered to be indicative of trends only.
Input data	Survey indices (NIGFS-WIBTS-Q1 and NIGFS-WIBTS-Q4); fixed maturity ogive from surveys; constant natural mortality assumed.
Discards and bycatch	Not included in the current survey based assessment. Discard estimates are available for the main fleets.
Indicators	Length Based Indicator (LBI) (ICES, 2016b)
Other information	Commercial catches. This stock is planned to be benchmarked in 2017.
Working group	Working Group for the Celtic Seas Ecoregion (WGCSE)

Information from stakeholders

No information available.

History of advice, catch and management

Table 5.3.67.9 Whiting in Division 7.a. History of ICES advice, the agreed TAC, and ICES estimates of landings. Weights in thousand tonnes.

Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	Official landings	ICES landings***	33E2&E3	Disc.**	ICES catch
1987	Reduce F	16.0	18.2	11.7	-		-	-
1988	No increase in F enforce mesh regulations	12.0	18.2	11.5	10.24		1.90	12.14
1989	F = F _{high} ; enforce mesh regulations	11.0	18.2	11.3	11.30		2.00	13.30
1990	No increase in F; TAC	8.3*	15.0	8.2	8.21		2.70	10.91
1991	Increase SSB to SSB(89)	6.4*	10.0	7.4	7.35		2.70	10.05
1992	80% of F(90)	9.7*	10.0	7.1	8.59		4.30	12.89
1993	70% of F(91) ~ 6 500 t	6.5	8.5	6.0	6.52		2.70	9.22
1994	Within safe biological limits	-	9.9	5.6	6.76		1.20	7.96
1995	No increase in F	8.3*	8.0	5.5	4.89		2.20	7.09
1996	No increase in F	9.8*	9.0	5.6	4.33		3.50	7.83
1997	No advice given	-	7.5	4.5	2.28		1.90	4.18
1998	20% reduction in F	3.8 [#]	5.0	3.4	2.23		1.30	3.53
1999	Reduce F below F _{pa}	3.5 [#]	4.41	2.0	1.67		1.10	2.77
2000	Reduce F below F _{pa}	<1.6 [#]	2.64	1.1	0.76		2.10	2.86

Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	Official landings	ICES landings***	33E2&E3	Disc.**	ICES catch
2001	Lowest possible F	~0	1.39	1.1	0.73		1.00	1.73
2002	Lowest possible F	~0	1.00	0.7	0.75		0.70	1.45
2003	Lowest possible F	~0	0.50	0.5	0.68		n/a	-
2004	zero catch	0	0.514	0.2	0.18		n/a	-
2005	zero catch	0	0.514	0.2	0.16		n/a	-
2006	lowest possible catch	0	0.437	0.08	0.09		n/a	-
2007	lowest possible catch	0	0.371	0.2	0.20		n/a	-
2008	lowest possible catch	0	0.278	0.08	0.08		1.91	1.68
2009	Same advice as last year	0	0.290	0.1	0.10		1.03	2.01
2010	Same advice as last year	0	0.157	0.12	0.12		1.03	1.15
2011	See scenarios	-	0.118	0.11	0.07		1.17	1.25
2012	Lowest possible catch and improve selectivity	0	0.089	0.09	0.06	0.032	1.62	1.68
2013	Lowest possible catch and improve selectivity	0	0.084	0.07	0.03	0.034	0.94	0.97
2014	Same advice as for 2013	0	0.080	0.07	0.02	0.049	1.98	2.00
2015	Same advice as for 2013	0	0.080	0.06	0.03	0.032	1.89	1.92
2016	Precautionary approach (minimize all catches)	0	0.080					
2017	Precautionary approach	0						

* Not including discards from the *Nephrops* fishery.

** From the *Nephrops* fishery from 1987 to 2002.

*** Including estimates of misreporting between 1992–2002 and since 2012 landings from statistical rectangles 33E2, and 33E3 reallocated to Divisions 7.e–k whiting landings.

Landings only, no discards included.

n/a = not available.

History of catch and landings

Table 5.3.67.10 Whiting in Division 7.a. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings				Discards
1922 t	fin-fish trawls	<i>Nephrops</i> directed otter trawl	Beam trawlers	Other gears	<i>Nephrops</i> directed otter trawls
	44%	26%	7%	23%	99%
	28 t				1894 t

Table 5.3.67.11 Whiting in Division 7.a. History of official landings as reported to ICES for each country participating in the fishery.

Year	Belgium	France	Ireland	Netherlands	UK(NI, Engl. & Wales)	Spain	UK (Isle of Man)	UK (Scotland)	UK	Total official landings
1988	90	1,063	4394		5823		15	107		11 492
1989	92	533	3871		6652		26	154		11 328
1990	142	528	2000		5202		75	236		8183
1991	53	611	2200		4250		74	223		7411
1992	78	509	2100		4089		44	274		7094
1993	50	255	1440		3859		55	318		5977
1994	80	163	1418		3724		44	208		5637
1995	92	169	1840		3125		41	198		5465
1996	80	78	1773	17	3557		28	48		5581
1997	47	86	1119	14	3152		24	30		4472
1998	52	81	1260	7	1900		33	22		3355
1999	46	150	509	6	1229		5	44		1989
2000	30	59	353	1	670		2	15		1130
2001	27	25	482		506		1	25		1066
2002	22	33	347		284		1	27		714
2003	13	29	265		130	85	1	31		554
2004	11	8	96		82		1	6		204
2005	10	13	94		47			<0.5		164
2006	4	4	55		22			<0.5		85
2007	3	3	187		3		1	<0.5		197
2008	2	2	68		11		1			84
2009	2		78		20					100
2010	5	3	97		16		<0.5			121
2011	4	3	95		16		<0.5			118
2012	5	1	58		10			1	11	86
2013	2	<0.5	44				<0.1	2	20	68
2014	2	<0.5	60		11		<0.1			73
2015*	1	<0.5	49		8					59

* Preliminary

Table 5.3.67.12 Whiting in Division 7a. History of commercial catch, and landings, as reported to ICES expert group. The discard values in this table should be treated as indicative rather than precise estimates.

Year	Discards by Country/Fleet						ICES Estimates of:		
	Nephrops fishery ^	IR-OTB fleet##	IR-TBB	NI Nephrops fishery##	Belgium	UK (E&W) fleet	Discards	Landings	Catch
1988	1611						1611	10 245	11 856
1989	2103						2103	11 305	13 408
1990	2444						2444	8212	10 656
1991	2598						2598	7348	9946
1992	4203						4203	8588	12 791
1993	2707						2707	6523	9230
1994	1173						1173	6763	7936
1995	2151						2151	4893	7044
1996	3631						3631	4335	7966
1997	1928						1928	2277	4205
1998	1304						1304	2229	3533
1999	1092						1092	1670	2762
2000	2118						2118	762	2880
2001	1012						1012	733	1745
2002	740						740	747	1487
2003		524					524	676	1200
2004		680					680	184	864
2005		201					201	158	359
2006		223					223	86	309
2007		1545					1545	196	1741
2008		585					585	81	666
2009		892		1019			1911	102	2013
2010		330		704			1033	121	1154
2011		269		903			1172	74	1246
2012		658	27	922	17	1	1624	60	1684
2013		85	1	832	17	3	938	33	971
2014		288		1645	15	28	1975	23	1998
2015*		805		1080	9	1	1894	28	1922

^ Based on UK (N.Ireland) and Ireland data.

Based on data from Ireland.

Based on data from Northern Ireland.

* Preliminary

‡ Raised using days

Summary of the assessment

Table 5.3.67.13 Whiting in Division 7a. SSB and recruitment from NIGFS-WIBTS-Q1 and Q4 survey relative to the mean of the time-series.

Year	Relative spawning biomass		Relative recruitment	
	NIGFS-WIBTS-Q1	NIGFS-WIBTS-Q4	NIGFS-WIBTS-Q1	NIGFS-WIBTS-Q4
1992	1.31	1.04	0.23	0.41
1993	0.68	1.01	0.85	0.25
1994	3.20	2.02	0.77	0.37
1995	2.42	1.54	1.51	0.97
1996	2.05	0.97	1.16	0.49
1997	0.85	2.36	0.82	0.45
1998	1.42	1.27	0.88	0.42
1999	1.71	1.52	0.87	1.17
2000	1.05	0.92	1.23	0.99
2001	1.24	1.05	1.91	1.44
2002	2.26	1.26	0.59	2.05
2003	1.39	2.66	0.33	2.07
2004	0.49	1.47	0.56	0.77
2005	0.50	0.52	0.71	0.78
2006	0.34	0.17	0.52	0.67
2007	0.11	0.66	0.56	1.91
2008	0.40	0.26	0.48	0.90
2009	0.20	0.42	0.43	0.44
2010	0.40	0.59	0.79	0.68
2011	0.31	0.54	1.98	0.91
2012	0.35	0.50	1.13	0.94
2013	0.43	0.39	1.88	1.33
2014	0.70	0.53	2.59	2.74
2015	0.21	0.33	1.18	0.85
2016	0.24			

Sources and references

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