

Whiting in Irish Waters

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Length frequency distributions have been obtained for Irish Sea whiting for different times of the year using the research vessel Cú Feasa. Figures for the growth of different age classes are suggested and some factors influencing growth are demonstrated in this paper. Unfortunately it has not yet been possible to collect data at all times of year for the Irish Sea. For the autumn, therefore, the figures given are for commercial fishing hauls. Table 1 shows the rate of growth of the different year-classes of Irish Sea whiting from data obtained by the Cú Feasa during January, March, May and July, and commercial data during other months.

Considerable variations in the modal length of a year-class have been discovered according to the areas sampled. Table 2 shows modal lengths of fish of 'O' group (March) and 'I' group (July, i.e. same year-class) at different points off the east coast of Ireland at different depths. The number of fish of the year-class present in the haul (per hour) is shown in brackets. Clearly the presence of very large numbers imposes a restriction on growth; it appears, however, than in water shallower than the areas containing maximum numbers conditions are unsuitable, hence the growth rate continues to diminish (maximum numbers occur in 15-25 fm. in July, and possibly deeper in March). In the case of 'O' group fish in July, however (Table 3), it appears that maximum numbers occur in 13-16 fm. and maximum growth in 35-40 fm.

Summary

Findings of research cruises are discussed, showing the growth rate of Irish Sea Whiting. Growth rates from different areas are also compared, and the modal lengths of 'O' and 'I' fish from different depths are compared.

Table 1. Lengths (in cm.) attained by Irish Sea whiting populations in different months

Age Group	Month											
	A	M	J	J	A	S	O	N	D	J	F	M
Extreme			36					36				39
2 Mode	(29)	29	30	31								
Extreme			28	26				27				28
Extreme			27	28				34				35
1 Mode	(18)	19	(19)	20	(22)	(24)	(26)	28	(28)	29	(29)	29
Extreme				16				23		25		25
Extreme				9.8				23	23	24		26
0 Mode				7.2	(10)	(12)	(14)	(15)	(16)	17	(17)	18
Extreme				5.0						11		12

N.B. Modal lengths shown in brackets are interpolated.

Table 2. Variation with depth of the modal length of 'O' (March) group and 'I' (July) group Whiting in the Irish Sea. (Fish per hour's trawling in brackets).

	Depth, Fm.	10-15	14-18	21-26	32	36-39	43-46	50	56	
	Latitude, °N									
MARCH	53° 51'				17.8(2296)		17.1(76)			MARCH
	53° 38'		17.1(348)	17.9(1494)						
	53° 25'		17.0(154)	17.7(218)						
JULY	53° 46'	17.8(252)		21.3(427)			21.7(512)			JULY
	53° 39'		20.0(1344)			20.5(346)			20.6(77)	
	53° 33'	19.2(1368)		19.4(1114)		20.2(312)		21.0(44)		
	53° 25'	21.5(644)		21.8(486)						

Table 3. Variation with depth of the mean length of 'O' group whiting in July in the Irish Sea. (Fish per hour in brackets)

Depth, Fm.	10-17	21-26	36-39	45-46	50	56
Latitude, °N						
53° 46'	7.30(2)	7.36(81)		7.76(66)		
53° 39'	7.00(137)			8.33(14)		6.96(5)
53° 33'	7.03(44)	7.42(44)	7.91(8)		7.10(1)	