

Working document to the Northern Pelagic and Blue Whiting Fisheries Working Group

DATA ON BLUE WHITING DISCARDS IN SOUTHERN FISHERIES

By

Manuel Meixide and Nélida Pérez

Instituto Español de Oceanografía.
Apdo 1552. 36280 Vigo. Spain.

INTRODUCTION

The lack of information on discards in the Southern area has been commented in the past by the ACFM and by the former Blue Whiting Assessment Working Group. The amount of discards in this area was expected to be high. A sampling program on discards was carried out in 1994, financed by the EU, in which observers on board sampled both retained catch and discards. This paper presents the preliminary results on discards of blue whiting, from the bottom trawl fleet, i.e. single and pair trawlers.

RESULTS

Discards were estimated to be 62 % in weight in the single bottom trawlers and 22 % in the bottom pair trawlers.

As is shown in text table below, discards estimated by age were high in ages 0 to 2 in the pair trawlers. (Fig. 1). In single trawlers the decrease of discards estimated in older ages was more smooth.

SINGLE TRAWL		PAIR TRAWL	
AGE	% DISCARDED	AGE	% DISCARDED
0	95,5	0	98,7
1	74,7	1	94,8
2	60,0	2	27,8
3	54,2	3	4,0
4	45,9	4	1,5
5	37,2	5	0,8
6	28,0	6	0,0
7	21,3	7	0,0
8	18,3	8	0,0
9	21,6	9	0,0
10	15,7	10	0,0
11	15,9	11	0,0
12	12,5	12	0,0

An exercise was made applying these discarding rates to the age composition of landings from the southern fisheries in 1995. In this exercise the discarding rates of the Portuguese fleet were assumed to be the same as estimated for the Spanish bottom trawl. Results are shown in text table below:

LANDINGS AGE	SPAIN			PORTUGAL
	Single Trawl	Pair Trawl	Long line	Trawl
0	552	979	30	1351
1	19022	56859	13	20156
2	20739	87585	40	14592
3	10006	41427	134	3548
4	9143	26763	113	2134
5	10137	32064	106	1798
6	3982	13936	64	1754
7	1607	4086	63	674
8	794	2652	18	280
9	160	531	37	63
10	101	296	28	67
11	120	83	6	124
12	51	4	15	21

DISCARDS AGE	SPAIN		PORTUGAL
	Single Trawl	Pair Trawl	Single Trawl
0	11641	75454	28514
1	56065	1038683	59407
2	31047	33716	21845
3	11859	1726	4205
4	7753	398	1809
5	5997	272	1064
6	1550	2	683
7	436	0	183
8	178	0	63
9	44	0	17
10	19	0	12
11	23	0	23
12	7	0	3

CATCH AGE	SPAIN			PORTUGAL
	Single Trawl	Pair Trawl	Long line	Trawl
0	12193	76433	30	29865
1	75087	1095542	13	79564
2	51786	121301	40	36437
3	21864	43153	134	7753
4	16896	27161	113	3943
5	16134	32336	106	2862
6	5532	13938	64	2437
7	2043	4086	63	857
8	972	2652	18	343
9	204	531	37	80
10	120	296	28	80
11	143	83	6	147
12	58	4	15	23

CATCH AGE	SOUTHERN FISHERY		
	LANDINGS	DISCARDS	CATCH
0	2912	115609	118521
1	96049	1154156	1250205
2	122956	86608	209564
3	55114	17790	72904
4	38153	9961	48114
5	44105	7333	51438
6	19737	2234	21972
7	6430	619	7049
8	3744	241	3985
9	791	61	852
10	492	31	523
11	333	46	379
12	89	10	100

DISCUSSION AND CONCLUSIONS

Landings of ages 0, 1 and 2 from the southern fisheries are 2% of the total blue whiting catch in numbers used in the assessment, and will increase to be 15% if estimated discards are included. If the same calculation is made comparing landings of the same ages from the southern fisheries with the corresponding ages in the international catch in numbers, the obtained value is 13%, and will increase to 91% including discards.

As there is available only one single estimation of discards in this fleets, the evolution of this values in the past is unknown, and the use of this values to correct the historical series could produce serious bias. In particular, the effects of changes in fisheries policy, market demand and variability of recruitment, can modify the discarding rates in a way that make unwise to use a single estimate.

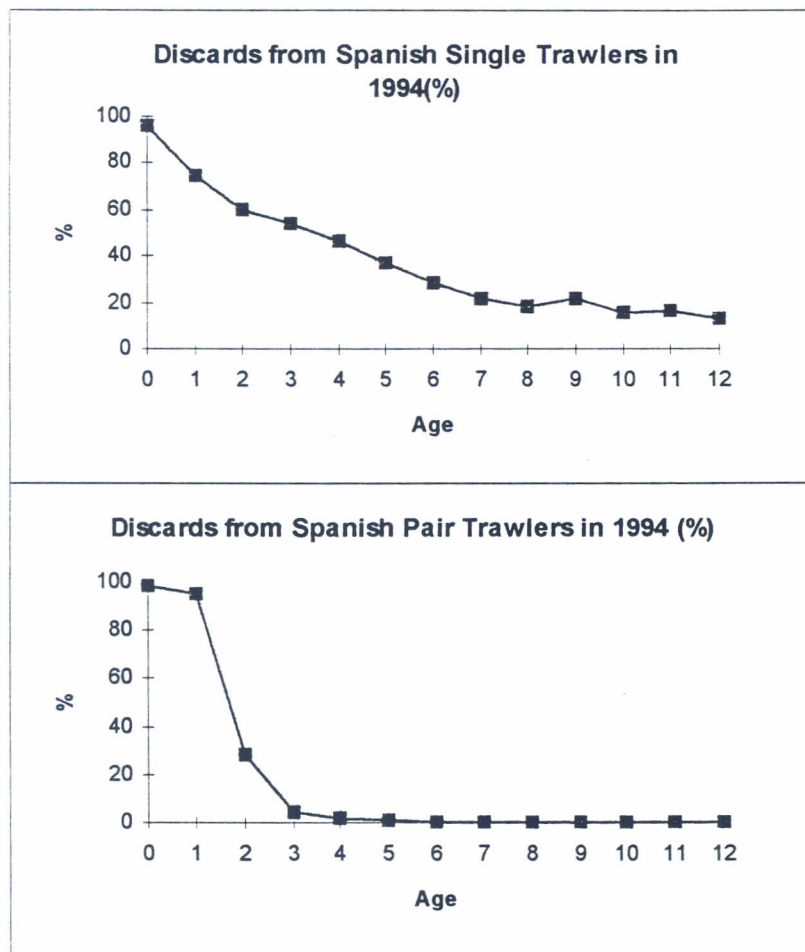


Fig. 1. Discards in Spanish bottom fleets. (single and pair trawlers).