

Northwest Atlantic



Fisheries Organization

Serial No. N2594

NAFO SCR Doc. 95/77

SCIENTIFIC COUNCIL MEETING - JUNE 1995

Independent CPUE Analysis of Portuguese Trawlers and Spanish Pair-Trawlers

by

A. Vazquez

Instituto Investigaciones Marinas
Muelle de Bouzas, Vigo, Spain

Independent CPUE analysis of Portuguese trawlers and Spanish pair-trawlers. Catch and effort columms indicate the total value of both magnitudes, and the quotient of both is present in column Y/f. Only results concerning Fleish Cap are included.

Spanish pair-trawlers

name of the factor	cases	factor	s(f)	Catch	Effort	Y/f
total	1084			75798	222077	0.34

FACTOR 2 : Year

3M	1983	7	1.552	0.295	446	1356	0.33
3M	1984	19	1.785	0.201	991	3511	0.28
3M	1985	27	1.755	0.151	1878	5871	0.32
3M	1986	27	1.098	0.099	1313	5750	0.23
3M	1987	47	0.613	0.049	1696	11952	0.14
3M	1988	52	0.992	0.067	2909	12914	0.23
3M	1989	65	1.000	0.054	3927	14913	0.26
3M	1990	64	0.896	0.056	3688	16496	0.22
3M	1991	59	0.662	0.049	2584	11012	0.23
3M	1992	38	0.709	0.065	1307	8907	0.15
3M	1993	5	0.066	0.032	105	1738	0.06
3M	1994	4	0.139	0.058	125	1210	0.10

FACTOR 4 : Zone

3M	414	0.192	0.005	20969	95630	0.22
3N	332	0.108	0.003	14974	64092	0.23
3L	270	0.272	0.009	16430	34455	0.48
IIB	68	0.351	0.013	23425	27900	0.84

Power = 1.530
Ftest n-n = 0.998 554 - 530
Squiew = 0.866
Curtosis = 3.486
determination coeficient : 0.795

Portuguese trawlers

name of the factor	cases	factor	s(f)	Catch	Effort	Y/f
total	69			8568	9740	0.88

FACTOR 2 : Year

3M	1988	5	1.217	0.180	378	505	0.75
3M	1989	12	1.775	0.129	2418	2770	0.87
3M	1990	22	1.000	0.000	1338	2306	0.58
3M	1991	2	0.940	0.491	30	37	0.81
3M	1992	3	2.277	0.548	432	554	0.78
3M	1993	16	1.582	0.191	2221	1782	1.25
3M	1994	9	2.529	0.253	1751	1786	0.98

FACTOR 4 : Zone

3M	69	0.727	0.000	8568	9740	0.88
----	----	-------	-------	------	------	------

Power = 1.800
Ftest n-n = 0.384 35 - 34
Squiew = 0.369
Curtosis = 1.508
determination coeficient : 0.214

FACTOR 3 : Month, in both series

name of the factor	cases	factor	s(f)	Catch	Effort	Y/f
Portuguese trawlers						
3M 1	7	1.610	0.000	939	807	1.16
3M 2	5	0.447	0.000	62	173	0.36
3M 3	4	0.555	0.000	66	216	0.31
3M 4	5	0.656	0.000	234	315	0.74
3M 5	8	1.000	0.000	1321	1403	0.94
3M 6	8	0.561	0.067	629	774	0.81
3M 7	4	0.686	0.129	684	1074	0.64
3M 8	6	0.610	0.083	856	1141	0.75
3M 9	6	0.601	0.074	863	1012	0.85
3M 10	4	0.717	0.092	1320	1240	1.06
3M 11	6	0.928	0.176	694	564	1.23
3M 12	6	0.553	0.196	899	1021	0.88
Spanish pair-trawlers						
3M 1	20	1.560	0.244	473	1715	0.28
3M 2	30	0.820	0.086	1032	5929	0.17
3M 3	33	0.841	0.089	1072	6112	0.18
3M 4	29	0.734	0.071	1215	7459	0.16
3M 5	41	1.223	0.084	2576	9798	0.26
3M 6	45	1.000	0.070	2412	11886	0.20
3M 7	38	1.194	0.090	3113	12191	0.26
3M 8	33	1.526	0.116	2429	9287	0.26
3M 9	40	1.087	0.080	1965	10479	0.19
3M 10	36	0.984	0.075	2280	10116	0.23
3M 11	41	0.957	0.085	1500	6466	0.23
3M 12	28	0.898	0.104	902	4192	0.22