

SWORDFISH DATA SUBSTITUTIONS AND RAISING MADE FOR 1990 SCRS MEETINGS

ICCAT Secretariat
Príncipe de Vergara, 17 - 7, Madrid, Spain

AREA	COUNTRY	GEAR	YR	TH	CATCH		SIZE DATA OR SUBSTITUTIONS				SAMPLE	#	REMARK		
					OLD	NEW	R.F.	AREA	COUNTRY	GEAR				YR	TH
14	KOREA	LLFB	84	Q	20**	0.080321	14	JAPAN	LL	84	Q				
24	KOREA	LLFB	84	Q	12**	0.034431	24	JAPAN	LL	84	Q				
3	KOREA	LLFB	85	M	12**	19.127021					612	6			
14	KOREA	LLFB	85	Q	68**	0.134971	14	JAPAN	LL	85	Q				
24	KOREA	LLFB	85	Q	80**	0.190261	24	JAPAN	LL	85	Q				
14	KOREA	LLFB	86	Q	46**	0.116411	14	JAPAN	LL	86	Q				
24	KOREA	LLFB	86	Q	22**	0.076661	24	JAPAN	LL	86	Q				
14	KOREA	LLFB	87	Q	20**	0.138881	14	JAPAN	LL	87	Q				
24	KOREA	LLFB	87	Q	40**	0.138881	24	JAPAN	LL	87	Q				
14	KOREA	LLFB	88	M	3**	3.965801					807	17			
24	KOREA	LLFB	88	M	27**	30.230711					880	20			
24	PORT-MAIN	LLHB	88	M	323	1.198141									
3	NEI	LL	88	M	333	0.228231									
2	CANADA	LL	89	2	2	0.011181	2	CANADA	LL	89	YR	178829			
2	CANADA	LL	89	7	104	3.767301					27606	564			
2	CANADA	LL	89	8	208	3.301801					62996	1206			
2	CANADA	LL	89	9	353	4.697581					75145	1492			
2	CANADA	LL	89	10	272	20.791931					13062	170			
2	CANADA	LL	89	11	3	0.016781	2	CANADA	LL	89	YR	178829			
14	CANADA	LL	89	2	1	0.042441	14	CANADA	LL	89	7	23563			
14	CANADA	LL	89	7	13	0.551711					23563	470			
14	CANADA	LL	89	8	45	1.909771	14	CANADA	LL	89	7	23563			
14	CANADA	LL	89	9	70	2.970761	14	CANADA	LL	89	7	23563			
14	CANADA	LL	89	10	26	1.103421	14	CANADA	LL	89	7	23563			
2	CANADA	HARP	89	6	3	0.066181	2	CANADA	HARP	89	7	45328			
2	CANADA	HARP	89	7	58	1.279561					45328	395			
2	CANADA	HARP	89	8	73	2.197141					33225	224			
2	CANADA	HARP	89	9	12	0.361171	2	CANADA	HARP	89	8	33225			
14	CANADA	HARP	89	8	4*	1.000001					3757	18			
1-4	CHI-TAIW	LLFB	89	Q	13	0.007521	1-4	JAPAN	LL	89	Q				
1-4	CUBA	LL	89	Q	834	0.482361	1-4	JAPAN	LL	89	Q				
1-3	JAPAN	LL	89	Q	33	1.000001					562				
14	JAPAN	LL	89	Q	614	1.000001					879				
24	JAPAN	LL	89	Q	990	1.000001					1060				
14	KOREA	LLFB	89	M	211**	68.280421					3090	54			
24	KOREA	LLFB	89	M	109**	68.280421					1591	28			
24	LIBERIA	UNCL	89	M	19***	0.005821	24	SPAIN	LLHB	89	M				
24	MAROC	LL	89	M	219	0.067101	24	SPAIN	LLHB	89	M				
24	MAROC	TRAP	89	M	4	0.001231	24	SPAIN	LLHB	89	M				
24	PORT-MADR	HAND	89	M	7	7.297751					959	27			
24	PORT-AZOR	LL	89	M	104	0.031861	24	SPAIN	LLHB	89	M				
24	PORT-MAIN	LLHB	89	M	185	0.056681	24	SPAIN	LLHB	89	M				
24	PORT-MAIN	PS	89	M	1	0.000311	24	SPAIN	LLHB	89	M				
24	SPAIN	LLHB	89	M	3264	1.000001					37014				
14	SPAIN	LLHB	89	M	2432	1.000001					31220				
24	SPAIN	GILL	89	M	949	1.000001					9076				
24	SPAIN	BB	89	M	1	0.000311	24	SPAIN	LLHB	89	M				
2	USA	GILL	89	M	512	1.000001					6438				
2	USA	HARP	89	M	26	1.000001					96				
3	USA	LL	89	M	949	1.000001					14379				
1	USA	LL	89	M	1046	1.000001					14515				
2	USA	LL	89	M	2113	1.000001					38303				
14	USA	LL	89	M	1541	1.000001					32534				
3	VENEZUELA	LL	89	M	57	0.069061	3	USA	LL	89	M				
3	NEI	LL	89	M	38	0.040041	3	USA	LL	89	M				
24	NEI	LL	89	M	74	0.022671	24	SPAIN	LLHB	89	M				

AREA	COUNTRY	GEAR	YR	TH	CATCH		SIZE DATA OR SUBSTITUTIONS				SAMPLE	#	REMARK	
					OLD	NEW	R.F.	AREA	COUNTRY	GEAR				YR
7	ANGOLA	SURF	84	Q	26	0.006071	7	JAPAN	LL	84	Q			
7	C.IVOIRE	SURF	84	Q	10	0.002331	7	JAPAN	LL	84	Q			
6	KOREA	LLFB	84	M	485**	18.067381					26850	405		
7	KOREA	LLFB	84	M	140**	42.316331					3297	45		
7	ANGOLA	SURF	85	Q	228	0.055681	7	JAPAN	LL	85	Q			
7	C.IVOIRE	SURF	85	Q	10***	0.002441	7	JAPAN	LL	85	Q			
6	KOREA	LLFB	85	M	598**	52.018851					11502	206		
7	KOREA	LLFB	85	M	319**	156.654891					2038	34		
7	ANGOLA	SURF	86	M	815	12.348481	7	SPAIN	LLHB	86	M			
6	BRASIL	GILL	86	M	1	0.002361	6	BRASIL	LL	86	M			
7	C.IVOIRE	SURF	86	M	10***	0.151521	7	SPAIN	LLHB	86	M			
6+7	CUBA	LL	86	Q	588	0.0319716+7	6	JAPAN	LL	86	Q			
6	KOREA	LLFB	86	Q	263**	0.318671	6	JAPAN	LL	86	Q			
7	KOREA	LLFB	86	Q	106**	0.049591	7	JAPAN	LL	86	Q			
7	ANGOLA	SURF	87	Q	84	0.048841	7	JAPAN	LL	87	Q			
7	C.IVOIRE	SURF	87	Q	10***	0.005811	7	JAPAN	LL	87	Q			
6+7	CUBA	LL	87	Q	912	0.0691316+7	6	JAPAN	LL	87	Q			
7	GHANA	SURF	87	Q	14	0.071511	7	JAPAN	LL	87	Q			
6+7	JAPAN	LL	87	Q	3077	1.000001					1877			
6	KOREA	LLFB	87	Q	197**	0.251371	6	JAPAN	LL	87	Q			
7	KOREA	LLFB	87	Q	469**	0.272671	7	JAPAN	LL	87	Q			
7	ANGOLA	SURF	88	M	84	0.019121	7	SPAIN	LLHB	88	M			
6	ARGENTINA	UNCL	88	Q	198	0.213641	6	JAPAN	LL	88	Q			
7	BENIN	GILL	88	M	19	0.004331	7	SPAIN	LLHB	88	M			
6	BRASIL	LL	88	Q	343	0.370101	6	JAPAN	LL	88	Q			
6	BRAS-JPN	LLFB	88	Q	467	0.503891	6	JAPAN	LL	88	Q			
6+7	CHI-TAIW	LLFB	88	Q	614	0.1446116+7	6	JAPAN	LL	88	Q			
7	C.IVOIRE	SURF	88	M	10***	0.002281	7	SPAIN	LLHB	88	M			
6+7	CUBA	LL	88	Q	159	0.0374516+7	6	JAPAN	LL	88	Q			
7	GHANA	SURF	88	M	235***	0.053491	7	SPAIN	LLHB	88	M			
6	JAPAN	LL	88	Q	960	1.000001					153			
7	JAPAN	LL	88	Q	3131	1.000001					2723			
6	KOREA	LLFB	88	M	243**	73.701441					3300	67		
7	KOREA	LLFB	88	M	769**	106.311791					7233	119		
7	S. AFRICA	LLHB	88	Q	5	0.001511	7	JAPAN	LL	88	Q			
7	S. AFRICA	TRAW	88	Q	4	0.001211	7	JAPAN	LL	88	Q			
7	SPAIN	LLHB	88	M	4393	1.000001					2348			
6	URUGUAY	LLHB	88	Q	432	0.466131	6	JAPAN	LL	88	Q			
7	ANGOLA	SURF	89	M	84***	0.012221	7	SPAIN	LLHB	89	M			
6	ARGENTINA	UNCL	89	Q	198***	0.174301	6	JAPAN	LL	89	Q			
7	BENIN	GILL	89	M	26	0.003781	7	SPAIN	LLHB	89	M			
6	BRASIL	LL	89	Q	463	0.407571	6	JAPAN	LL	89	Q			
6	BRAS-JPN	LLFB	89	Q	242	0.213031	6	JAPAN						

AREA COUNTRY	GEAR	YR	TR	CATCH		SIZE DATA OR SUBSTITUTIONS				REMARK
				TASKI	TASKI	R.F.	AREA	COUNTRY	GEAR	

SOUTH ATLANTIC - CONTINUED

7	SPAIN	LLHB	89	M	6876	1.00000				10009	RAISED BY NAT. SCIENTISTS	
6	SPAIN	LLHB	89	M	849	1.00000				1069	RAISED BY NAT. SCIENTISTS	
6	URUGUAY	LLHB	89	Q	314	0.27641	6	JAPAN	LL	89	Q	RAISED BY TASKI
7	NEI	LL	89	M	856	0.12450	7	SPAIN	LLHB	89	M	RAISED BY TASKI

- * TASKI catch is taken from size data.
- ** Catch for Area 4 was estimated from the logbook records as it is much more than official TASK I Catch. As catch was not separated between Areas 4A and 4B for 1987 and 1989, they were estimated according to the sample weight.
- *** TASK I catch not reported. The previous year's figure was carried over.
- **** Catches were estimated from the logbook as reported TASK I catches were much less.

NOTE: The following catch at size files and for some occasions Task I catches have been modified. Those modifications have been made for the respective countries' data. However, no change was introduced for the data for which (unrevised) data of these countries had been used as substitutions, in the past.
 Japan - 1988
 Spain LLHB - 1988
 U.S.A. - 1986 through 1988

CATCH DATA AVAILABLE					MATCHED SIZE DATA (OR SUBSTITUTED DATA)					REMARKS
COUNTRY	YR	TIME	GEAR	CATCH HT	R.F.	COUNTRY	GEAR	YR	TIME	

MEDITERRANEAN

ALGERIE	85	0	UNCL	890	0.74388	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
ALGERIE	86	0	UNCL	847	0.51768	SPAIN	LLHB	86	0	R.F.=TASKI/EST.WGT
ALGERIE	87	0	UNCL	1820	0.61356	SPAIN	LLHB	86	0	R.F.=TASKI/EST.WGT
ALGERIE	88	0	UNCL	2621	0.86359	SPAIN	LLHB	86	0	R.F.=TASKI/EST.WGT
ALGERIE	89	0	UNCL	2621*	1.34747	SPAIN	LLHB	89	0	R.F.=TASKI/EST.WGT
CYPRUS	85	0	LL	71	0.03085	GREECE	LL	86	0	R.F.=TASKI/EST.WGT
CYPRUS	86	0	LL	154	0.06692	GREECE	LL	86	0	R.F.=TASKI/EST.WGT
CYPRUS	87	0	LL	84	0.03659	GREECE	LL	87	0	R.F.=TASKI/EST.WGT
CYPRUS	88	0	LL	121	1.78392	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
CYPRUS	89	0	LL	139	2.04929	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
GREECE	85	0	LL	925	0.60458	GREECE	LL	86	0	RAISED BY TASKI
GREECE	86	0	LL	1530	1.00000					0** 1091 BY NAT. SCIENTISTS
GREECE	87	0	LL	1163	1.00000					0 1100 BY NAT. SCIENTISTS
GREECE	88	0	LL	1251	18.44363					17 67828 2171 R.F.=TASKI/EST.WGT
GREECE	89	0	LL	1251*	18.44363	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
ITALY	85	0	LLHB	2226	29.14185					0 76385 2127 RAISED BY SECR.
ITALY	85	0	UNCL	8098	171.16232					17 35627 707 RAISED BY SECR.
ITALY	85	0	GILL	1375	38.59432	ITALY	UNCL	85	17	R.F.=TASKI/EST.WGT
ITALY	86	0	LLHB	2341	32.15483					0 72804 2106 RAISED BY SECR.
ITALY	86	0	UNCL	6403	177.78703					17 36015 713 RAISED BY SECR.
ITALY	86	0	GILL	1446	40.14994	ITALY	UNCL	86	17	R.F.=TASKI/EST.WGT
ITALY	87	0	LLHB	2528	1.10118	GREECE	LL	87	0	R.F.=TASKI/EST.WGT
ITALY	87	0	UNCL	6915	244.20822					17 28316 590 RAISED BY SECR.
ITALY	87	0	GILL	1562	55.16316	ITALY	UNCL	87	17	R.F.=TASKI/EST.WGT
ITALY	88	0	LLHB	2669	39.34936	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
ITALY	88	0	UNCL	7299	265.35064					17 27507 602 RAISED BY SECR.
ITALY	88	0	GILL	1648	59.91202	ITALY	UNCL	88	17	R.F.=TASKI/EST.WGT
ITALY	89	0	LLHB	2669*	39.34936	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
ITALY	89	0	UNCL	6677	268.01268					17 24913 640 RAISED BY SECR.
ITALY	89	0	GILL	2270	91.11709	ITALY	UNCL	89	17	R.F.=TASKI/EST.WGT

CATCH DATA AVAILABLE					MATCHED SIZE DATA (OR SUBSTITUTED DATA)					REMARKS
COUNTRY	YR	TIME	GEAR	CATCH HT	R.F.	COUNTRY	GEAR	YR	TIME	

MEDITERRANEAN - CONTINUED

JAPAN	85	Q	LL	14	1.00000					Q 14694 156 BY NAT. SCIENTISTS
JAPAN	86	Q	LL	7	1.00000					Q 10794 127 BY NAT. SCIENTISTS
JAPAN	87	Q	LL	3	1.00000					Q 422 6 BY NAT. SCIENTISTS
JAPAN	88	Q	LL	4	1.00000					Q 13 BY NAT. SCIENTISTS
JAPAN	89	Q	LL	1	1.00000					Q 5 BY NAT. SCIENTISTS
MALTA	85	0	UNCL	96	1.25479	ITALY	LLHB	85	0	R.F.=TASKI/EST.WGT
MALTA	86	0	UNCL	87	1.19499	ITALY	LLHB	86	0	R.F.=TASKI/EST.WGT
MALTA	87	0	UNCL	117	0.05096	GREECE	LL	87	0	R.F.=TASKI/EST.WGT
MALTA	88	0	UNCL	185	2.72748	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
MALTA	89	0	UNCL	185*	2.72748	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
MOROCCO	85	0	LL	37	0.03093	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
MOROCCO	86	0	LL	99	0.06051	SPAIN	LLHB	86	0	R.F.=TASKI/EST.WGT
MOROCCO	87	0	LL	39	0.01315	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
MOROCCO	88	0	LL	62	0.02090	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
MOROCCO	89	0	LL	97	0.04987	SPAIN	LLHB	89	0	R.F.=TASKI/EST.WGT
SPAIN	85	0	LLHB	1219	1.00000					0 11794 BY NAT. SCIENTISTS
SPAIN	85	0	TRAP	3	0.00251	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
SPAIN	85	0	SURF	2	0.00167	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
SPAIN	85	0	UNCL	1	0.00084	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
SPAIN	85	0	TRAW	1	0.00084	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
SPAIN	85	0	HAND	1	0.00084	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
SPAIN	86	0	LLHB	1337	1.00000					0 28217 BY NAT. SCIENTISTS
SPAIN	87	0	LLHB	1134	0.38229	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
SPAIN	88	0	LLHB	1760	0.59333					0 24895 R.F.=TASKI/EST.WGT
SPAIN	88	0	TRAP	2	0.00067	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
SPAIN	89	0	LLHB	1077	0.55369					0 16802 R.F.=TASKI/EST.WGT
SPAIN	89	0	GILL	87	0.79086					0 R.F.=TASKI/EST.WGT
TUNISIE	85	0	UNCL	61	0.05098	SPAIN	LLHB	85	0	R.F.=TASKI/EST.WGT
TUNISIE	86	0	UNCL	64	0.03912	SPAIN	LLHB	86	0	R.F.=TASKI/EST.WGT
TUNISIE	87	0	UNCL	63	0.02124	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
TUNISIE	88	0	UNCL	80	0.02697	SPAIN	LLHB	88	0	R.F.=TASKI/EST.WGT
TUNISIE	89	0	UNCL	80*	0.04113	SPAIN	LLHB	89	0	R.F.=TASKI/EST.WGT
TURKEY	85	0	GILL	190	0.08257	GREECE	LL	86	0	R.F.=TASKI/EST.WGT
TURKEY	86	0	GILL	226	0.09821	GREECE	LL	86	0	R.F.=TASKI/EST.WGT
TURKEY	87	0	GILL	557	0.24263	GREECE	LL	87	0	R.F.=TASKI/EST.WGT
TURKEY	88	0	GILL	557*	8.21191	GREECE	LL	88	17	R.F.=TASKI/EST.WGT
TURKEY	89	0	GILL	557*	8.21191	GREECE	LL	88	17	R.F.=TASKI/EST.WGT

TIME 0=MONTHLY DATA
 Q=QUARTERLY DATA
 17=YEARLY DATA

- * Estimated catches carried over from the previous year.
- ** Months 1-6 combined into 1 frequency.