

**PROCEDURES ADOPTED IN UPDATING THE ALBACORE CATCH-AT-SIZE DATA
FOR THE 1993 SCRS STOCK ASSESSMENT**

*P. M. Miyake and P. Kebe
ICCAT Secretariat*

The catch-at-size data for Atlantic albacore were updated using procedures similar to those adopted in the past. Some substitutions and raising carried out by the Secretariat are listed in Table 1 for the North Atlantic and in Table 2 for the South Atlantic. Due to the lack of size data and adequate catch data, the catch-at-size table could not be created for the Mediterranean. Special attention should be given to the following points:

1. North Atlantic albacore

U.S. data for 1990 through 1992 were submitted in dressed weight. Therefore, the Secretariat could not convert them into fork length, as we lacked the equation showing the relationship between dressed weight and fork length. Therefore, the final catch-at-size data base does not include U.S. catches for the years 1990 through 1992.

Venezuelan size data for 1991 baitboat and purse seine catches are available from two sources (one from the Venezuelan scientists and another from IATTC samplers stationed in Venezuela). Those two sets of data were combined and used for raising to the catches.

2. South Atlantic albacore

South African scientists have revised their historical Task I catches since 1973. However, no gear breakdown was made available. Therefore, the Secretariat prorated the new total Task I catches by the proportion of the old Task I catches by gear. The catch-at-size files created in the past were then re-raised to the new Task I catches (except for the period of 1984 through 1992).

South African scientists also re-compiled size data for 1985 and thereafter, and provided the Secretariat with total catch-at-size data. However, no gear breakdown was provided. Consequently, the old catch-at-size data, created by the Secretariat for those years for South Africa, were replaced by the new data with no gear breakdown. Also, all the data that had been substituted by South African data were deleted from the file and the new data were used for substitution and raising (including South African data for 1984 for which 1985 size data were used as substitution).

In order to calculate factors to raise the new South African catch-at-size to the Task I catch for which these data are matched, South African Task I catch was used, rather than the estimated weight of fish in the frequencies. The reason is that the catch-at-size data provided by the South African scientists used actual weight of samples, when available, or different length-weight equations from those that had been agreed upon to use in raising up to the present.

The Taiwanese catch-at-size for 1991 was revised and consequently all the data created with the substitutions of old Taiwanese size data have been replaced using the new data.

All the up-dating of the South Atlantic albacore catch at size (for the historic period mentioned above) as well as for 1991 and 1992 are recorded in Table 2.

Table 1. Data matching and substitutions made for 1993 SCRS albacore stock assessment, North Atlantic.

CATCHES						MATCHED SIZE DATA									
A	COUNTRY	GEA	Y	T	CATC	R.F.	AR	COUNTRY	GEAR	Y	T	WGHT	NO.	REMARKS	
R			E	I	(MT)	Y				E	I				
E			A	M		P				A	M				
A			R	E		E				R	E				
1	CHI-TAIW	LL	91	0	217	17.64863						12310	900	TaskI/Est'd smpl wght	
2	CHI-TAIW	LL	91	0	1357	17.64863						76876	4280	TaskI/Est'd smpl wght	
1	JAPAN	LL	91	0	709	1.00000						0	0	By national scient.	
2	JAPAN	LL	91	0	28	1.00000						0	0	By national scient.	
1	KOREA	LL	91	0		0.01134		1	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd smpl wght
2	PORT-MDR	LL	91	0	2	0.25000		1	SPAIN	LLHB	91	0	0	0	TaskI/TaskI (Originally Span.Az
2	USA	LL	91	0	5	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	LL	91	0	5	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	LL	91	0	191	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	TRA	91	0	2	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	UNC	91	0	0	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	TRA	91	0	0	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	HAN	91	0	9	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	RR	91	0	254	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	MWT	91	0	5	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	VENEZUELA	LL	91	0	75	15.00000						798	30	RE-RAISED	
2	VENEZUELA	PS	91	0	221	6.86523						32191	1530	TaskI/Est'd smpl wght	
2	VENEZUELA	BB	91	0	18	21.88982						822	16	TaskI/Est'd smpl wght	
1	CANADA	LL	92	0	1	0.00132		1	JAPAN	LL	91	0	0	0	TaskI/Est'd smpl wght
2	CHI-TAIW	LL	92	0	2077	123.06544		2	CHI-TAIW	LL	92	0	16877	539	TaskI/Est'd smpl wght
1	FRANCE	GILL	92	0	3999	18.49395						216233	36923	TaskI/Est'd smpl wght	
1	FRANCE	MWT	92	0	2459	711.53738		1	FRANCE	MWT	92	0	0	0	TaskI/Est'd smpl wght
1	JAPAN	LL	92	0	709	1.00000		1	JAPAN	LL	91	0	0	0	TaskI/Est'd smpl wght
2	JAPAN	LL	92	0	28	1.00000		2	JAPAN	LL	91	0	0	0	TaskI/Est'd smpl wght
2	PORT-AZOR	SUR	92	0	16	0.01302		1	PORT-AZO	BBF	92	0	0	0	TaskI/Est'd smpl wght
1	PORT-AZOR	BBF	92	0	1209	1.00000						0	0	By national scient.	
2	PORT-MDR	BB	92	0	413	181.29939						0	0	TaskI/Est'd smpl wght	
2	SPAIN	LLH	92	0	8	0.00661		2	SPAIN-AZ	BB	92	0	0	0	TaskI/Est'd smpl wght
2	SPAIN	UNC	92	0	1	0.00010		2	SPAIN	BB	92	0	0	0	TaskI/Est'd smpl wght
1	SPAIN	TRO	92	0	7347	1.00000						186120	30210	By national scient.	
2	SPAIN	BB	92	0	9306	1.00000						66028	9325	By national scient.	
2	SPAIN-CANAR	BB	92	0	299	1.00000						0	0	By national scient.	
1	SPAIN-AZR	BB	92	0	1210	1.00000						21599	1440	By national scient.	
1	USA	LL	92	0	129	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	LL	92	0	8	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	LL	92	0	9	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	TRO	92	0	1	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	TRA	92	0	8	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	TRA	92	0	-1	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	HAN	92	0	4	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	RR	92	0	103	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	MWT	92	0	109	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	USA	GILL	92	0	6	0.00000						0	0	DWGT FREQ. NOTHING DON	
2	VENEZUELA	LL	92	0	48	9.60000		2	VENEZUE	LL	91	0	0	0	TaskI/Rais'd 92 file
2	VENEZUELA	PS	92	0	139	4.31795		2	VENEZUE	PS	91	0	0	0	TaskI/Est'd smpl wght
2	VENEZUELA	BB	92	0	12	14.59321		2	VENEZUE	BB	91	0	0	0	TaskI/Est'd smpl wght

Table 2. Updating albacore catch-at-size file for 1993 SCRS, SOUTH ATLANTIC

CATCHES							MATCHED SIZE DATA								
A	COUNTRY	GEAR	Y	T	CATC	R.F.	A	COUNTRY	GEAR	Y	T	WGH	NO.	REMARKS	
R			E	I	(MT)	Y	R			E	I				
E			A	M	P		E			A	M				
A			R	E	E		A			R	E				
4	S. AFRICA	SPOR	75	17	104	0	0.97196	4	S. AFRICA	SPORT	75	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	75	17	46	0	0.97872	4	S. AFRICA	BB	75	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	76	17	150	0	4.28571	4	S. AFRICA	SPORT	76	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	77	17	149	0	2.04110	4	S. AFRICA	SPORT	77	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	78	17	150	0	1.19048	4	S. AFRICA	SPORT	78	0	0	0	Task I changed. Re-raised
4	S. AFRICA	LL	79	17	14	0	1.07692	4	S. AFRICA	LL	79	0	0	0	Task I changed. Re-raised
4	S. AFRICA	PS	79	17	5	0	2.50000	4	S. AFRICA	PS	79	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	79	17	408	0	1.25153	4	S. AFRICA	SPORT	79	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	79	17	53	0	1.29268	4	S. AFRICA	BB	79	0	0	0	Task I changed. Re-raised
4	S. AFRICA	LL	80	17	350	0	1.25448	4	S. AFRICA	LL	80	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	80	17	257	0	1.24757	4	S. AFRICA	SPORT	80	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	80	17	1233	0	1.26074	4	S. AFRICA	BB	80	0	0	0	Task I changed. Re-raised
4	S. AFRICA	LL	81	17	536	0	1.24942	4	S. AFRICA	LL	81	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	81	17	63	0	1.26000	4	S. AFRICA	SPORT	81	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	81	17	1720	0	1.24909	4	S. AFRICA	BB	81	0	0	0	Task I changed. Re-raised
4	S. AFRICA	LL	82	17	120	0	1.25000	4	S. AFRICA	LL	82	0	0	0	Task I changed. Re-raised
4	S. AFRICA	PS	82	17	81	0	1.24615	4	S. AFRICA	PS	82	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	82	17	455	0	1.24658	4	S. AFRICA	SPORT	82	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	82	17	2523	0	1.24839	4	S. AFRICA	BB	82	0	0	0	Task I changed. Re-raised
4	S. AFRICA	LL	83	17	593	0	1.24842	4	S. AFRICA	LL	83	0	0	0	Task I changed. Re-raised
4	S. AFRICA	PS	83	17	6	0	1.20000	4	S. AFRICA	PS	83	0	0	0	Task I changed. Re-raised
4	S. AFRICA	SPOR	83	17	422	0	1.25223	4	S. AFRICA	SPORT	83	0	0	0	Task I changed. Re-raised
4	S. AFRICA	BB	83	17	1739	0	1.24838	4	S. AFRICA	BB	83	0	0	0	Task I changed. Re-raised
3	BRASIL	SURF	34	17	5	0	0.00075	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BBF	84	17	194	0	0.02896	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BB	84	17	23	0	0.00343	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	FRANCE	PS	84	17	7	0	0.00104	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	PORTUGAL	PSM	84	17	17	0	0.00254	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	84	17	3540	0	0.52836	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	ESPANA	PS	84	17	307	0	0.04582	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	84	17	27	0	0.00403	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BB	84	17	14	0	0.00209	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	84	17	9	0	0.00134	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BBF	85	17	4	0	0.00060	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BB	85	17	37	0	0.00552	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	FRANCE	PS	85	17	18	0	0.00269	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	85	17	6700	0	1.00000					88047	7307	By national scient.	
3	ESPANA	PS	85	17	155	0	0.02313	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	85	17	48	0	0.00716	4	SAFRICA	BB	85	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	SURF	86	17	6	0	0.00101	4	SAFRICA	BB	86	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BB	86	17	4	0	0.00067	4	SAFRICA	BB	86	0	0	0	R.F.=TASKI/TASKI
3	FRANCE	PS	86	17	35	0	0.00586	4	SAFRICA	BB	86	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	86	17	5970	0	1.00000					32735	2498	By national scient.	
3	ESPANA	PS	86	17	200	0	0.03350	4	SAFRICA	BB	86	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	86	17	9	0	0.00151	4	SAFRICA	BB	86	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	SURF	87	17	8	0	0.00110	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BBF	87	17	10	0	0.00138	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BB	87	17	47	0	0.00646	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	FRANCE	PS	87	17	100	0	0.01376	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	MAROC	PS	87	17	41	0	0.00564	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	87	17	7270	0	1.00000					50551	3778	By national scientists	
3	ESPANA	PS	87	17	807	0	0.11100	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	87	17	1	0	0.00014	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BB	87	17	7	0	0.00096	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	87	17	2	0	0.00028	4	SAFRICA	BB	87	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	SURF	88	17	9	0	0.00137	4	SAFRICA	BB	88	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BB	88	17	14	0	0.00213	4	SAFRICA	BB	88	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	88	17	6570	0	1.00000					39287	2926	By national scientists	
3	ESPANA	PS	88	17	185	0	0.02816	4	SAFRICA	BB	88	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	88	17	3	0	0.00046	4	SAFRICA	BB	88	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	88	17	1	0	0.00015	4	SAFRICA	BB	88	0	0	0	R.F.=TASKI/TASKI
3	BRASIL	BBF	89	17	1	0	0.00015	4	SAFRICA	BB	89	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	89	17	6890	0	1.00000					12538	1027	By national scientists	
3	SLEONE	UNCL	89	17	10	0	0.00145	4	SAFRICA	BB	89	0	0	0	R.F.=TASKI/TASKI
3	BRASJPN	BBF	89	17	1	0	0.00015	4	SAFRICA	BB	89	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	89	17	1	0	0.00015	4	SAFRICA	BB	89	0	0	0	R.F.=TASKI/TASKI
4	ARGENTINA	UNCL	90	17	151	0	0.00710	4	CHI-TAIW	LL	90	0	0	0	TaskI/Est'd wght
3	BRASIL	SURF	90	17	9	0	0.00170	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI

Table 2. Updating albacore catch-at-size file for 1993 SCRS, SOUTH ATLANTIC

CATCHES							MATCHED SIZE DATA								
A	COUNTRY	GEAR	Y	T	CATC	R.F.	A	COUNTRY	GEAR	Y	T	WGH	NO.	REMARKS	
R			E	I	(MT)	Y	R			E	I				
E			A	M		P	E			A	M				
A			R	E		E	A			R	E				
3	BRASIL	BB	90	17	14	0	0.00265	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
3	CHLTAIW	GILL	90	17	927	0	0.17557	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	90	17	5280	0	1.00000					10823	823	By national scientists	
3	BRASJPN	BBF	90	17	15	0	0.00284	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	90	17	1	0	0.00019	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
4	NEI	PS	90	17	4	0	0.00076	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
4	ARGENTINA	UNCL	91	17	151	0	5.05458	4	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
3	BRASIL	LLMB	91	17	1	0	0.00839	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
3	BRASIL	LLHB	91	17	60	0	0.50366	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
4	BRASIL	BB	91	17	18	0	0.00528	4	S.AFRICA	BB	90	0	0	0	R.F.=TASKI/TASKI
3	CHI-TAIW	LL	91	17	16950	0	142.28073					0	4607	TaskI/Est'd wght	
4	CHI-TAIW	LL	91	17	4250	0	142.28073					0	3303	TaskI/Est'd wght	
3	JAPAN	LL	91	17	356	0	1.00000					0	18434	By national scientists	
4	JAPAN	LL	91	17	231	0	1.00000					0	16342	By national scientists	
3	KOREA	LLFB	91	17	31	0	0.26023	3	CHI-TAIW	LL	91	0	0	0	R.F.=TASKI/TASKI
4	S.AFRICA	BB*	91	17	3410	0	1.00000					0	0	By national scientists	
3	ESPANA	PS	91	17	389	0	0.11408	4	S.AFRICA	BB	91	0	0	0	TaskI/Est'd wght
3	URUGUAY	LLHB	91	17	34	0	0.28541	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
3	BRASJPN	LLFB	91	17	199	0	1.67049	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
3	BRASJPN	LLHB	91	17	15	0	0.12592	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
3	S.HELENA	RR	91	17	5	0	0.00147	4	S.AFRICA	BB	91	0	0	0	R.F.=TASKI/TASKI
4	NEI	PS	91	17	40	0	0.01173	4	S.AFRICA	BB	91	0	0	0	R.F.=TASKI/TASKI
3	BRAS.TAI	LLFB	91	17	813	0	6.82465	3	CHI-TAIW	LL	91	0	0	0	TaskI/Est'd wght
4	ARGENTINA	UNCL	92	17	306	0	1.81105	4	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght
3	BRASIL	LLHB	92	17	70	0	0.59216	3	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght
3	CHI-TAIW	LL	92	17	7327	0	61.98008					118211	5055	TaskI/Est'd wght	
4	CHI-TAIW	LL	92	17	10472	0	61.98008					168962	10910	TaskI/Est'd wght	
3	CUBA	UNCL	92	17	5	0	0.00079	3	S.AFRICA	BB	92	0	0	0	R.F.=TASKI/TASKI
3	ESPANA	PS	92	17	1691	0	0.26588	4	S.AFRICA	BB	92	0	0	0	R.F.=TASKI/TASKI
3	JAPAN	LL	92	17	356	0	1.00000	3	JAPAN	LL	91	0	0	0	R.F.=TASKI/TASKI
4	JAPAN	LL	92	17	231	0	1.00000	4	JAPAN	LL	91	0	0	0	R.F.=TASKI/TASKI
3	KOREA	LL	92	17	5	0	0.04230	3	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght
4	S.AFRICA	BB*	92	17	6360	0	1.00000					0	0	By national scientists	
3	URUGUAY	LLHB	92	17	29	0	0.24533	3	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght
3	BRASJPN	LLFB	92	17	61	0	0.51603	3	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght
3	BRASJPN	BBF	92	17	1	0	0.00016	3	S.AFRICA	BB	92	0	0	0	R.F.=TASKI/TASKI
3	S.HELENA	RR	92	17	29	0	0.00456	3	S.AFRICA	BB	92	0	0	0	R.F.=TASKI/TASKI
4	NEI	PS	92	17	439	0	0.06903	3	S.AFRICA	BB	92	0	0	0	R.F.=TASKI/TASKI
3	BRAS.CHI	LLFB	92	17	3095	0	26.18211	3	CHI-TAIW	LL	92	0	0	0	TaskI/Est'd wght

*South Africa catch since 1984 included some minor quantity of longline, purse seine and sport catches. South African Task I catches were revised but not by gear. Hence totals were prorated to old Task I catch for 1975-84.