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Review of the ISC Albacore Working Group Data Base [1]

Atilio L. Coan Jr.
Southwest Fisheries Science Center
La Jolla, California , USA

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Introduction

The International Scientific Committee (ISC) Albacore Working Group started in 2005. The Working Group was first known as the North Pacific Albacore Workshop. The Workshop began in 1974 as an informal agreement between the USA and Japan to promote and accelerate research on North Pacific albacore, particularly through exchange of data and information and collaborative research. The first meeting of the Workshop was held in 1975. A data base was developed to maintain data from all participants that could be used by workshop participants to assess the status of the North Pacific albacore stock. The original data bases were kept on disks at the National Marine Fisheries Service (NMFS), Southwest Fisheries Science Center (SWFSC) and copies of the data base were sent to participants as requests were made. The data base was transferred to an ftp site (ftp.afsc.noaa.gov) in 2001 and can be accessed directly by Workshop participants that have an account number and password. All data on the data base, except Category I data, are confidential and can only be released outside the Workshop or Albacore Working Group with the consent of the data owner.

The purpose of this report is to describe the data and procedures used to manage the Albacore Working Group Data Base. The report will also describe data that are part of the Albacore Working Group Data Base that could be used by the ISC Swordfish and Marlin Working Groups to create their own data base for stock assessments.

Data Base Contents/Submission Requirements

The Albacore Working Group Data Base contains three types of data Category I (landings and vessels), Category II (summarized logbook catch and effort) and Category III (size composition data). The data base expanded in 2003 to include workshop papers and reports and input data sets used in various assessment models. Currently six countries have contributed data to the data base Canada, Japan, Korea, Mexico, Taiwan, and the USA.

Data base submissions are made on April 1 each year and at least 3 months before any Albacore Working Group meeting. Preliminary Category I data are required annually on April 1. Final data from all data Categories are submitted three months before any Albacore Working Group meeting (Appendix 1)

Category I data (for more detail - see Appendix 1):

Two types of data are included in Category I, landings and effort in number of vessels. Landings are reported by year, nation and gear for each albacore related fishery. Landings are in round weight and if round weight is estimated from processed weight, the conversion algorithm and procedure for estimation is provided. Nominal estimates of the number of vessels are reported by year, nation, fishing gear and vessel size category. Vessel size categories can be seen in Appendix 1. Category I data currently on the data base date back to 1952 for landings and 1971 for number of vessels (Table 1 and 2).

Category II data (for more detail - see Appendix 1):

Category II data consist of summary catch and effort data derived from logbook data. Longline fleets submit data by year, 5-degree square (or larger when appropriate) and month and surface fisheries by 1-degree square and month. The typical data elements included in Category II submissions are year, month, latitude and longitude, effort (hooks, days fished, sets), species and catch. Category II data should contain all species caught. The requirement is for data from the North Pacific, however some fisheries have submitted data for both the North and South Pacific. Category II data currently on the data base are shown in Table 3.

Category III data (for more detail - see Appendix 1):

Category III data consist of length or weight of fish frequencies and sex data (if available) by year, nation, gear and the same time/area resolutions as Category II data. Reporting of length frequency data should be by 1 or 2 cm intervals. All size composition data should include notes on how the data was collected such as (1) port, observer or fisherman sampled; (2) type of measurement (fork or total length), whole or dressed weight; (3) sample size; (4) accuracy of measurement (nearest cm, nearest kg, etc.). The typical Category III data elements include year, month, latitude, longitude, length/weight and number of fish at each length/weight interval. Species is albacore only. Category III data currently on the data base are shown in Table 4.

Data base Design

The Data Base consists of a series of directories containing the various Categories of data. Category I data are stored in a directories labeled Landings and Vessels. Category II and III data are in directories that specify the country, then the gear and category (i.e. jpdwllce for Japan-distant water longline catch and effort or Category II data), and lastly files are listed by year (i.e. jpdwll02 for Japanese distant-water longline, 2002. All data are in flat file structures with formats attached. In the past, data have been imported into Access file structures for more efficient processing. However, in processing the data for ISC, all structures will be reformatted into 1 standard flat file structure for category II and III data. Formatting of these data will be completed in October 2005.

Landings and vessel data are currently in Excel files. The landings data are from 1952 to 2003 (Table 1) and the vessel data are for different years for each fishery (Table 2). This structure has been useful for easy plotting of the data. Both tables can be easily imported to Access data structures.

Category II and III file structures are unique to each country. All are flat file structures with the accompanying formats. During the years, files have been requested in different formats from Excel spread sheets to Access data bases.

Swordfish, Striped, Blue, and Black Marlin Data on the Albacore Working Group Data Base

There are Category I and Category II data currently on the Albacore Working Group Data Base that could be used by the Swordfish and Marlin Working Groups for stock assessments. The data on the Albacore Working Group Data Base may need to be modified slightly to accommodate needs of the Swordfish and Marlin Working Groups.

Category I Data:

Category I landings data will need to be developed by the Swordfish and Marlin Working Group. However, Albacore Working Group Data Base, Category I, number of vessels for longline fisheries of Taiwan, Japan and the USA, included in Table 2, not only catch albacore but also other tuna species, swordfish, sharks, and striped, blue and black marlin. Therefore, the number of longline vessels can be used in swordfish and marlin stock assessments and fisheries monitoring. Korea, Category II number of vessels data are missing from Table 2 and will need to be included in the future.

Category II Data:

Category II summarized logbook catch end effort data for longline fisheries of Japan, Korea, Taiwan and the USA include catches and effort for swordfish and marlins. Therefore, these data can be used in swordfish and marlin stock assessments. The distributions of recent swordfish, striped, blue, and black marlin catches for Japan, Taiwan, Korea and the USA can be seen in Figures 1-5. Of note is that the distributions for the Japanese longline fisheries only contain data for the North Pacific. If the Swordfish and Marlin Working Groups need data from the southern hemisphere, then the Japanese data would have to be updated. Also, the Taiwan longline data include catch by weight (plots shown here are in number of fish). If catch by weight is to be used for this fleet the Swordfish and Marlin Working Groups should clarify how weights are determined, if weights are processed or whole weights and if conversions from processed weights are made, procedures and conversion factors used should be documented. Lastly, Korea Category II data are only available through 1992 and will need to be updated.

Summary

The Albacore Working Group Data Base has data that could be used by the Swordfish and Marlin Working Groups. These data include Category I numbers of vessels and Category II summary longline logbook information. To facilitate this sharing of data and to eliminate a potential for duplication of effort, the three groups need to develop protocols for collection and sharing of data. Needs to be addressed include: 1) Select a data base manager who will mange data for the Swordfish and Marlin Working Groups; 2) Determine who will be responsible for data that are used by both the Swordfish and Marlins working Groups and the Albacore Working group; 3) Develop requirements and submission deadlines by either adopting those used by the Albacore Working Group or developing new requirements and deadlines specific to the Swordfish and Marlin Working Groups; 4) Determine the requirements of the Swordfish and Marlin Working Groups for screening of submitted data (procedures for accepting data submitted from various countries) and 5) Work to update data from Korea,

The Swordfish and Marlins Working Groups will also need to develop their own data bases for Categories I-III data. They will need their own landings data, possibly an extension of the Japanese Category II data for longline fisheries on the Albacore Working Group Data Base to include data from the South Pacific, the inclusion of Category II data from other fisheries such as the Japanese coastal gill net fishery and lastly, category III size composition data for swordfish, striped, blue and black marlins.

Table 1. North Pacific albacore catches (in metric tons) by fisheries, 1952-2004[1]. Blank indicates no effort. -- indicates data not available. 0 indicates less than 1 metric ton. Provisional estimates in ().

YEAR	CANADA[2]		JAPAN[3]						KOREA[4]		MEXICO[5]
	TROLL	PURSE SEINE	GILL NET	LONG LINE	POLE & LINE	PURSE SEINE	TROLL	UNSP. GEAR	GILL NET	LONG LINE	UNSP. GEAR
1952	71			26,687	41,787	154		237			
1953	5			27,777	32,921	38		132			
1954				20,958	28,069	23		38			
1955				16,277	24,236	8		136			
1956	17			14,341	42,810			57			
1957	8			21,053	49,500	83		151			
1958	74			18,432	22,175	8		124			
1959	212			15,802	14,252			67			
1960	5	136		17,369	25,156			76			
1961	4			17,437	18,639	7		268			0
1962	1			15,764	8,729	53		191			0
1963	5			13,464	26,420	59		218			0
1964	3			15,458	23,858	128		319			0
1965	15			13,701	41,491	11		121			0
1966	44			25,050	22,830	111		585			0
1967	161			28,869	30,481	89		520			
1968	1,028			23,961	16,597	267		1,109			
1969	1,365			18,006	31,912	521		935			0
1970	390			16,283	24,263	317		456			0
1971	1,746			11,524	52,957	902		308			0
1972	3,921		1	13,043	60,569	277		623			100
1973	1,400		39	16,795	68,767	1,353		495			0
1974	1,331		224	13,409	73,564	161		879			1
1975	111		166	10,318	52,152	159		228		2,463	1
1976	278		1,070	15,825	85,336	1,109		272		859	36
1977	53		688	15,696	31,934	669		355		792	0
1978	23		4,029	13,023	59,877	1,115		2,078		228	1
1979	521		2,856	14,215	44,662	125		1,126	0	259	1
1980	212		2,986	14,689	46,742	329		1,179	6	597	31
1981	200		10,348	17,922	27,426	252		663	16	459	8
1982	104		12,511	16,767	29,614	561		440	113	387	7
1983	225		6,852	15,097	21,098	350		118	233	454	33
1984	50		8,988	15,060	26,013	3,380		511	516	136	113
1985	56		11,204	14,351	20,714	1,533		305	576	291	49
1986	30		7,813	12,928	16,096	1,542		626	726	241	3
1987	104		6,698	14,702	19,082	1,205		155	817	549	7
1988	155		9,074	14,731	6,216	1,208		134	1,016	409	15
1989	140		7,437	13,104	8,629	2,521		393	1,023	150	2
1990	302		6,064	15,789	8,532	1,995		249	1,016	6	2
1991	139		3,401	17,046	7,103	2,652		392	852	3	2
1992	363		2,721	19,049	13,888	4,104		1,527	271	15	10
1993	494		287	29,966	12,797	2,889		867		32	11
1994	1,998		263	29,612	26,389	2,026		799		45	6
1995	1,720		282	29,080	20,981	1,177	856	81		440	5
1996	3,591		116	32,492	20,272	581	815	117		333	21
1997	2,433		359	38,988	32,238	1,068	1,585	123		319	53
1998	4,188		206	35,813	22,926	1,554	1,190	88		288	8
1999	2,641		289	33,365	50,369	6,872	891	127		107	23
2000	4,465		67	30,032	21,549	2,408	645	171		414	428
2001	4,985		117	28,809	29,430	974	416	96		82	18
2002	5,022		332	23,917	48,454	4,303	787	135		146	0
2003	6,735	0	332	23,917	35,222	683	787	135	0	146	0
2004	7,796	0	332	23,917	35,222	683	787	135	0	146	0

[1] Data are from the 19th North Pacific Albacore Workshop meetings except as noted. Data from 2004 and later are from the Interim Scientific Committee

[2] 1960 Canadian purse seine catch from Shaver (1962). 1994 troll catch from Shaw, 2001. 2004 troll catch from Stocker & Shaw, 2005.

[3] Japanese pole & line catches include fish caught by research vessels. Longline catches for 1952-1960 exclude minor amounts taken by vessels under 20 metric tons.

[4] Korean longline catches for 1975 to 1986 calculated from Y. Gong (pers. comm.) using the ratio of catches in numbers, from the North Pacific. Gillnet catches for 1979-1990 are calulated by multiplying the 1991 CPUE (# fish per pok) by effort (# poks) then multiplying by average weight (1991, 1992: 4.13 kg/fish). 1987 - 1991 catches provided by Inter-American Tropical Tuna Commission (M. Hinton, pers.com.). 1992 - 2002 catches provided by D. Moon (pers. com.)

[5] 1998-2002 Mexico catch from purse seine and bait boats. Catches provided by Inter-American Tropical Tuna Commission (M. Hinton, pers.com.)

Table 1. Continued

YEAR	TAIWAN		U.S.							OTHERS		GRAND TOTAL
	GILL NET	LONG LINE	POLE & LINE	GILL NET	LONG[6] LINE	PURSE SEINE	SPORT	TROLL[7]	UNSP. GEAR	LONG[8] LINE	TROLL[9]	
1952					46		1,373	23,843				94,198
1953					23		171	15,740				76,807
1954					13		147	12,246				61,494
1955					9		577	13,264				54,507
1956					6		482	18,751				76,464
1957					4		304	21,165				92,268
1958					7		48	14,855				55,723
1959					5		0	20,990	0			51,328
1960					4		557	20,100	0			63,403
1961			2,837		5		1,355	12,055	1			52,608
1962			1,085		7		1,681	19,752	1			47,264
1963			2,432		7		1,161	25,140	0			68,906
1964		26	3,411		4		824	18,388	0			62,419
1965		261	417		3		731	16,542	0			73,293
1966		271	1,600		8		588	15,333	1			66,421
1967		635	4,113		12		707	17,814	0			83,401
1968		698	4,906		11		951	20,434	0			69,962
1969		634	2,996		14		358	18,827	0			75,568
1970		1,516	4,416		9		822	21,032	0			69,504
1971		1,759	2,071		11		1,175	20,526	0			92,979
1972		3,091	3,750		8		637	23,600	0			109,621
1973		128	2,236		14		84	15,653	0			106,964
1974		570	4,777		9		94	20,178	0			115,197
1975		1,494	3,243		33		640	18,932	10			89,950
1976		1,251	2,700		23		713	15,905	4			125,381
1977		873	1,497		37		537	9,969	0			63,100
1978		284	950		54		810	16,613	15			99,100
1979		187	303		--		74	6,781	0			71,110
1980	--	318	382		--		168	7,556	0			75,195
1981	--	339	748		25		195	12,637	0			71,238
1982	--	559	425		105		257	6,609	21			68,481
1983	--	520	607		6		87	9,359	0			55,039
1984	--	471	1,030		2	3,728	1,427	9,304	0			70,729
1985	--	109	1,498	2	0		1,176	6,415	0			58,279
1986	--	--	432	3			196	4,708	0			45,344
1987	2,514	--	158	5	150		74	2,766	0			48,986
1988	7,389	38	598	15	308		64	4,212	10			45,592
1989	8,350	544	54	4	249		160	1,860	23			44,644
1990	16,701	287	115	29	177	71	24	2,603	4			53,966
1991	3,398	353	0	17	313	0	6	1,845	71			37,594
1992	7,866	300	0	0	337	0	2	4,572	72			(55,096)
1993		494		0	440		25	6,254	0			(54,556)
1994		586	0	38	546		106	10,978	213		158	(73,763)
1995		2,504	80	52	883		102	8,045	1		137	66,426
1996		3,594	24	83	1,187	11	88	16,938	0	1,735	505	82,503
1997		4,199	73	60	1,652	2	1,018	14,252	1	2,824	404	101,651
1998		4,797	79	80	1,120	33	1,208	14,410	2	5,871	286	(94,147)
1999		4,768	60	149	1,540	48	3,621	10,060	1	6,307	261	121,499
2000		5,866	69	55	940	4	1,798	9,645	3	6,307	490	85,355
2001		4,641	139	94	1,295	51	1,635	11,210	0	6,307	127	90,427
2002		(7,491)	378	30	525	3	(2,357)	10,387		(6,307)	(127)	(110,702)
2003		(7,491)	59	15	521	44	(2,212)	14,102	(2)	(6,307)	(127)	(98,838)
2004		(7,491)	(125)	(9)	(521)	(1)	(2,212)	(13,432)	(0)	(6,307)	(127)	(98,838)

[6] Hawaii catches for 1987 through 1999 are from Ito and Machado, 2001. Hawaii catches for 2000 through 2003 are from Ito (pers. Comm.).

[7] U.S. troll catches for 1952-1960 include fish caught by pole & line vessels. U.S. troll catches for 1984-1988 include gillnet catches.

[8] Other longline catches from vessels flying flags of convenience being called back to Taiwan.

[9] Other troll catches from vessels registered in Belize, Cook Islands, Tonga, and Ecuador

Table 2. Number of vessels fishing for albacore in the North Pacific Ocean

	Canada	Japan									Taiwan			USA	
Year	Troll	Longline				Pole-and-line			Purse seine			Distant-water Longline			Troll	Longline
		Small 10-19 GRT	Offshore 20-119	Distant water 120- GRT	Total	Offshore 20-119	Distant water 120- GRT	Total	50-199 GRT	200- GRT	Total	200-500 GRT	500-1000- GRT	Total		
1970																
1971									33	4	37					
1972						161	209	370	12	-	12					
1973						187	248	435	18	-	18					
1974						182	240	422	11	-	11					
1975						174	238	412	17	-	17					
1976						233	255	488	49	-	49					
1977						192	258	450	27	-	27					
1978						236	256	492	27	-	27					
1979						238	236	474	25	-	25					
1980						258	205	463	23	-	23					
1981						248	182	430	9	-	9				1,817	
1982						261	142	403	26	-	26				752	
1983						168	128	296	26	1	27				1,648	
1984						163	118	281	41	-	41				1,151	
1985						163	110	273	32	-	32				824	
1986						152	99	251	43	-	43				462	39
1987						114	106	220	42	-	42				518	37
1988						103	64	167	35	-	35				547	50
1989						108	78	186	40	-	40				346	88
1990						107	75	182	32	1	33				371	138
1991						78	50	128	32	1	33				179	144
1992						94	50	144	25	-	25				603	125
1993						75	47	122	24	2	26				518	129
1994		272	161	243	676	83	51	134	19	2	21				686	156
1995	284	270	147	231	648	53	45	98	19	1	20				464	132
1996	295	264	116	223	603	80	51	131	12	3	15	12	4	16	640	118
1997	200	250	112	193	555	80	54	134	21	4	25	12	4	16	1,121	130
1998	216	269	123	176	568	84	52	136	16	1	17	12	4	16	755	147
1999	238	262	157	174	593	82	56	138	22	10	32	12	4	16	705	130
2000	243	271	105	171	547	52	55	107	23	8	31	15	5	20	649	129
2001	244	275	98	160	533	66	54	120	22	7	29	12	4	16	870	125
2002	230	249	104	155	504	69	55	124	18	8	26	16	8	24	641	123
2003	193	221	94	133	448	61	53	114	6	2	8	13	10	23	834	129
2004															731	129

Table 3. Available Category II data on the Albacore Working Group Data Base.

Country	Gear	Years	Units		Resolution		Species
			Catch	Effort	Area	Time	
Canada	Troll	1999-2004	Numbers	Days	1 degree	Month	Albacore
Japan	Pole and line	1955-1969	Numbers	Successful days	5x10 degree	Month	Albacore
Japan	Pole and line	1970-1971	Metric tons	Successful days	1 degree	Month	Albacore
Japan	Pole and line	1972-2003	100 kilograms	Poles	1 degree	Month	Albacore, skipjack
Japan	Distant water longline	1952-2003	Numbers	Hooks	5-degree	Month	Tunas, billfish, shark
Japan	Coastal longline	1994-2003	Numbers	Hooks	5-degree	Month	Tunas, billfish, shark
Korea	Longline	1975-1993	Numbers	Hooks	5-degree	Month	Tunas, billfish, shark
Taiwan	Longline	1967-2002	Numbers/kilograms	Hooks	5-degree	Month	Tunas, billfish, shark
USA	Troll/pole and line	1961-2004	Numbers	Days	1 degree	Month	Albacore
USA	Longline	1990-2004	Numbers	Hooks	5-degree	Month	Tunas, billfish, shark

Table 4. Available albacore Category III data on the Albacore Working Group Data Base.

Country	Gear	Years	Type	Sampling Program	Interval	Resolution		Sample size
						Area	Time	
Canada	Troll	1996-2003	Fork length	Port	1 cm	1 degree	Month	Yes
Japan	Pole and line	1951-1959	Fork length	Port	1 cm	Pacific	Year	No
Japan	Pole and line	1960-1964	Fork length	Port	1 cm	10 Longitude	Month	No
Japan	Pole and line	1965-1998	Fork length	Port	1 cm	5x10 degree	Month	Yes
Japan	Pole and line	1999-2003	Fork length	Port	1 cm	5 degree	Month	Yes
Japan	Longline	1952-2003	Fork length	Port	1 cm	5-degree	Month	Yes
Taiwan	Drift gill net	1988-1990	Fork length	Port	1 cm	5-degree	Month	Yes
USA	Troll	1961-2004	Fork length	Port	1 cm	1 degree	Month	Yes
USA	Pole and line	1968-2004	Fork length	Port	1 cm	1 degree	Month	Yes
USA	Longline	1987-2004	Fork length	Port	2 lb	Pacific	Year	Yes
USA	Longline	1994-2004	Fork length	Observer	1 cm	5-degree	Month	Yes

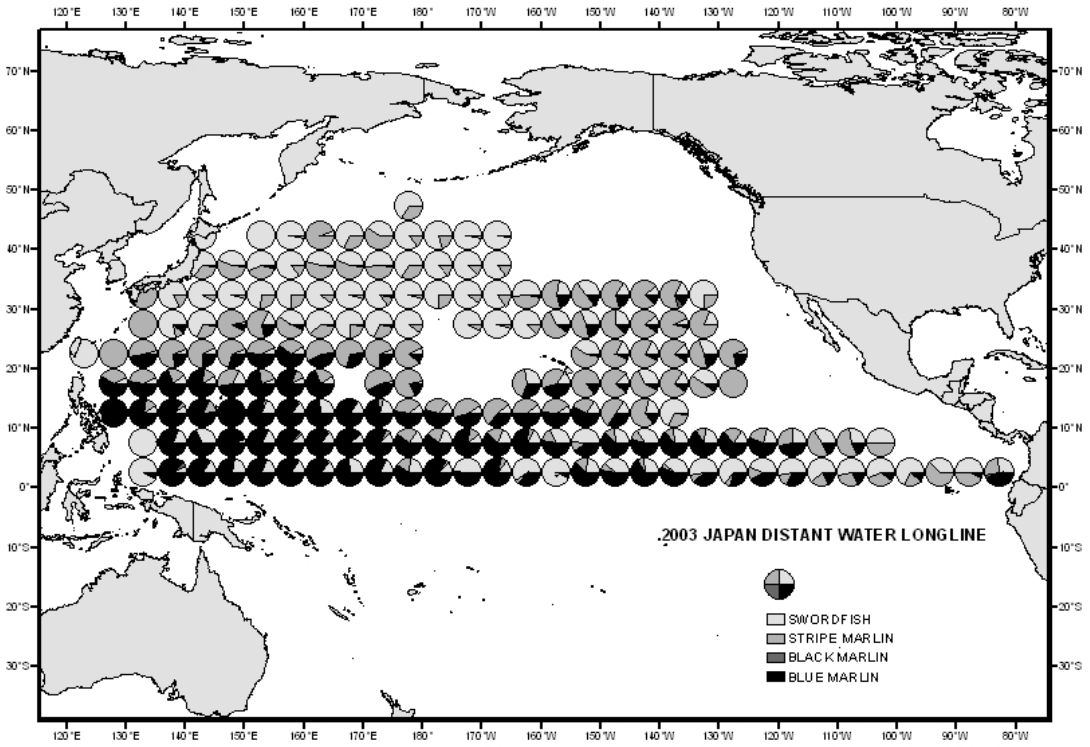

Figure 1. Catch distribution of swordfish, striped, blue and black marlin from the 2003 Japan distant-water longline fishery.

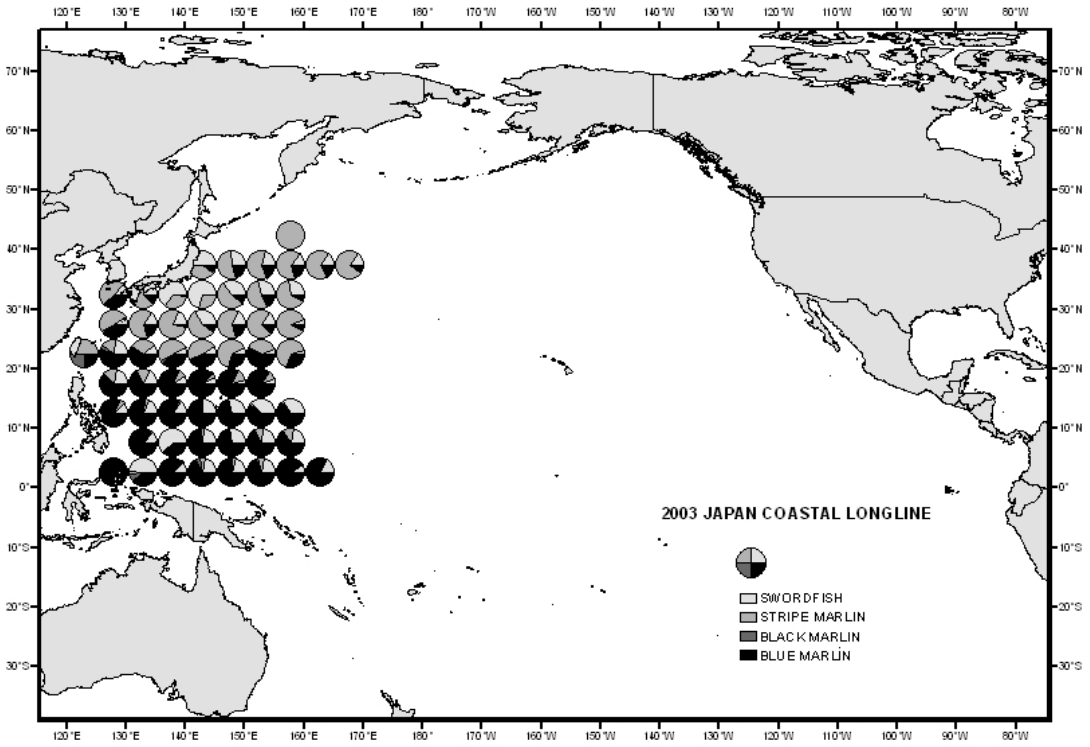

Figure 2. Catch distribution of swordfish, striped, blue and black marlin from the 2003 Japan coastal longline fishery.

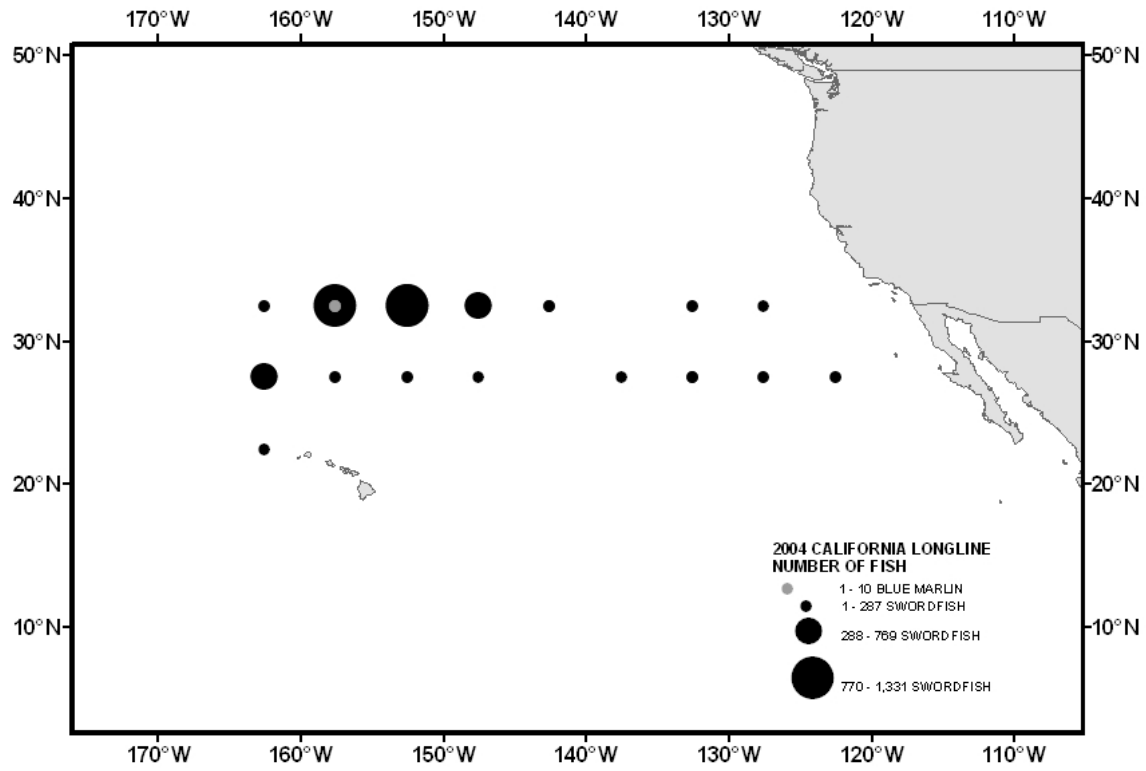

Figure 3. Catch distribution of swordfish, striped, blue and black marlin from the 2004 California longline fishery.

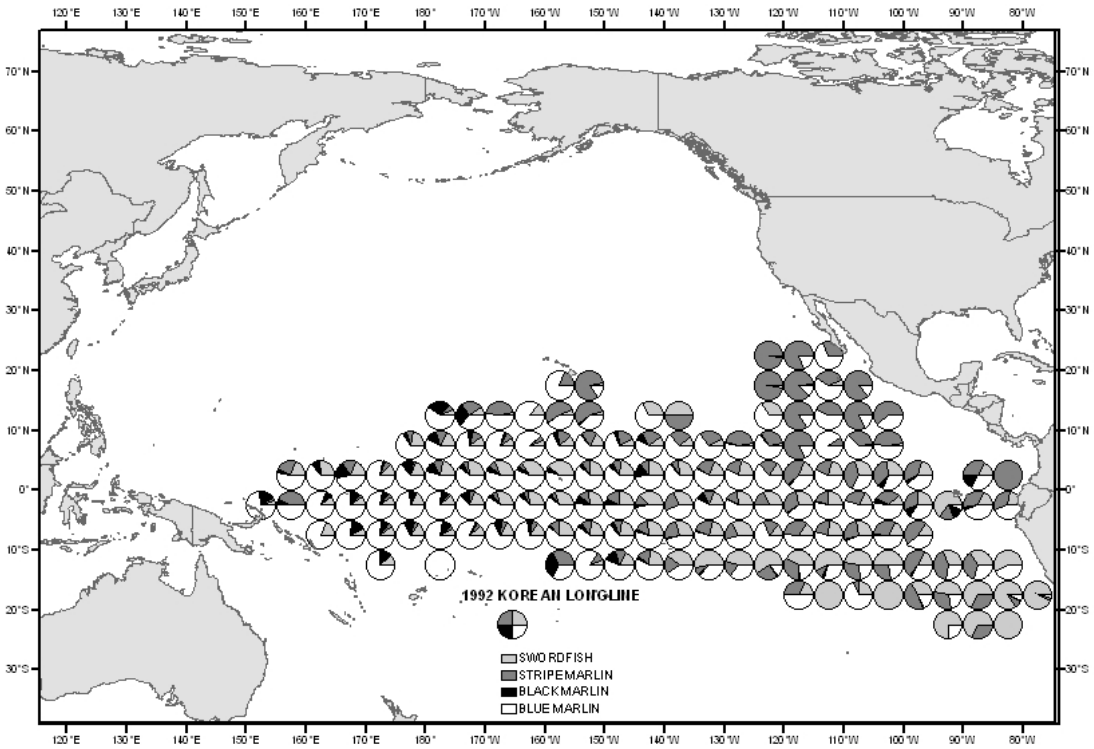

Figure 4. Catch distribution of swordfish, striped, blue and black marlin from the 1992 Korea longline fishery.

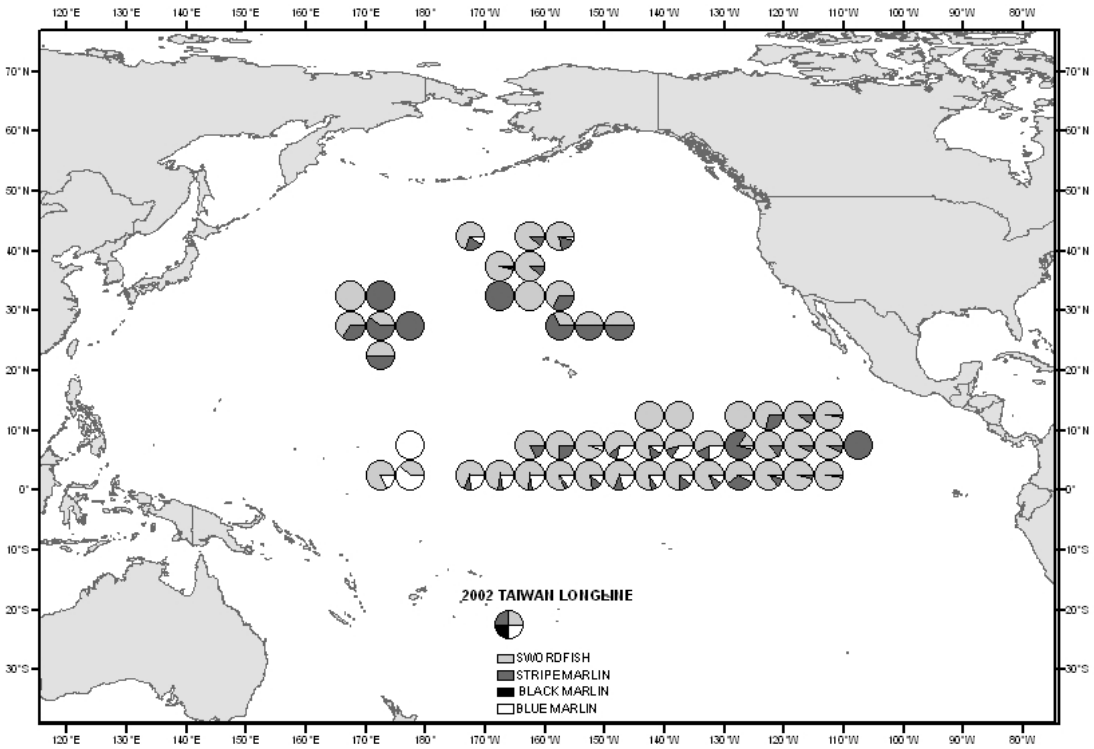

Figure 5. Catch distribution of swordfish, striped, blue and black marlin from the 2002 Taiwan longline fishery.

APPENDIX 1

Protocols for Data Exchange and Access

Data exchange has been a significant activity of the North Pacific Albacore Workshop since its inception in 1974. At first, the types of data, format, frequency, schedule, etc. for exchange were handled on an informal and ad hoc basis, largely because the nucleus of researchers involved was small and only a few fisheries produced significant catches. As the Workshop participation expanded and the fisheries increased, it became evident that a more formalized exchange procedure was needed. Thus, formal procedures were developed based generally on those adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT), but modified to suit the special conditions of the North Pacific albacore fisheries and the customary practices of the Workshop organizers. Recently, significant revisions were made to the procedures to accommodate the increasing use of the internet as a communication channel and requests for albacore-related data by researchers. It is intended that further revisions will be accommodated in the future as needs arise.

Protocols for data exchange and access adopted by the Workshop as of December 2000 are as follows:

Category I Data

Landings

Total landings in mt (round weight) shall be reported by year, nation, and gear for each albacore-related fishery that operates in the North Pacific Ocean (i.e., north of the Equator). If round weight is estimated from processed weight, the conversion algorithm and procedure for estimation is to be provided.

Effort

Total effort (nominal estimates) in number of active vessels fishing should be reported by year, nation, gear, and vessel size category for each albacore-related fishery in the North Pacific Ocean. If effort cannot be reported for the North Pacific region only, effort should be reported for a larger area, the area boundaries provided in the data submission. Vessel size categories to be used in reporting effort are as follows:

Gear type	Nation	Vessel size category
Longline	Taiwan	(1) Distant-water; and (2) Offshore
	Japan	(1) Distant-water; (2) Offshore; (3) Coastal
	Other	(1) Distant-water; and (2) Coastal
Purse seine	Japan	(1) Distant-water; and (2) Offshore
	Other	(1) Large (>300 mt capacity vessels); and (2) Small (<300 mt capacity vessels)
Harpoon, handline, troll, gill net, pole-and-line, etc.	All	Aggregated by gear type

Category II Data

Catch and effort data (from logbooks) should be reported by nation, gear type, area, and year/month. The format is as follows:

Gear Type	Area	Catch by species	Effort	Region
Longline	5°[a]	Number or weight	Hooks	North Pacific
Purse seine	1°	Weight	Days fishing (including searching)	North Pacific
Troll	1°	Number	Days fishing (include searching)	North Pacific
Gill net	1°	Number	Tans or net-days	North Pacific
Harpoon	1°	Number	Days fishing	North Pacific
Handline	1°	Number	Number of lines/days fished	North Pacific
Pole-and-line	1°	Number or weight	Number of poles/successful days	North Pacific
Other	1°	Number or weight	As needed	North Pacific

[a] Preference is 1 x1 degree data, but 5 x5 data are acceptable, if this is necessary for confidentiality purposes.

Category III Data

Size composition (length or weight of fish frequencies) and sex data (if available) should be reported by nation, gear type, year, and the same area resolution information as required for Category II data. However, broader area resolutions may be substituted, if recommended resolutions are not appropriate. Reporting of length frequencies should be in intervals of 1 or 2 cm.

All size composition data should include notes on collection method, including: (1) port sampled, observer sampled, fisherman sampled; (2) type of measurement (fork or total length), whole or gill-and-gutted weight, sample size, etc.; and (3) accuracy of measurement (nearest cm, next larger 2-cm interval, nearest kg, etc.).

Access and Availability

Category I statistics are largely free from proprietary information and therefore, shall be made available to anyone that requests the statistics. Category II (catch and effort) and Category III (biological) statistics may contain proprietary information and thus, shall be made available only to Workshop members, as well as authorized scientists designated by Workshop participants. A File Transfer Protocol (FTP) electronic file system will be used to exchange these statistics among the interested parties. The Southwest Fisheries Science Center (SWFSC) in La Jolla, CA has been assigned the task of serving as the depository for these data, maintaining the FTP system, and overseeing the exchange of data among the Workshop members and authorized scientists.

Submission Deadlines

Data for the previous year shall be submitted to as follows, e.g., 2000 data submitted in 2001 and (year '-1' = 1999):

Submission date	Statistics
April 1	(1) Preliminary Category I
At least 3 months	(1) Final/updated Category I
Before Workshop Meeting	(2) Final longline Category II (year '-2'; preliminary longline Category II (year '-1'; and final surface Category II[a] (3) Final longline Category III (year '-2'); preliminary longline Category III (year '-1'); and final surface Category III[a] (4) Estimated current year (e.g., 2001) Category I

[a] Surface gears are all gears other than longline gear.