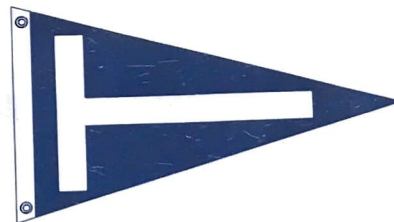




U.S. DEPARTMENT OF COMMERCE  
National Oceanic & Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Fisheries Center  
P.O. Box 271, La Jolla, California 92038 U.S.A.



## 1987 BILLFISH NEWSLETTER



### Results of the PACIFIC BILLFISH ANGLER SURVEY and the COOPERATIVE MARINE GAME FISH TAGGING PROGRAM

#### ● RECORD BILLFISH RECOVERIES

- Blue marlin - Christmas Island to New South  
Wales, Australia  
- Southern California to west of  
Cabo San Lucas, Mexico  
Striped marlin - Southern California to north  
of the Hawaiian Islands

#### ● SOUTHERN CALIFORNIA STRIPED MARLIN TAGGING LEADERS ARE DON MCPHERSON, ED CLELAND AND DOUG CARSON.

#### ● A RECORD NUMBER OF 240 BLUE MARLIN WERE TAGGED AND RELEASED IN 1986, WITH A RECORD OF 93 IN THE HAWAIIAN ISLANDS.

#### PACIFIC INTERNATIONAL BILLFISH ANGLER SURVEY

The National Marine Fisheries Service (NMFS) has conducted a Billfish Angler Survey annually from 1969 to the present. Biologists from the NMFS use the information from the survey to determine trends in billfish fishing in the important recreational fishing areas in the Pacific and Indian Oceans.

In this issue, we are reporting on the results of the 1985 Survey.

The total number of days reported for the Pacific and Indian Oceans was 10,218, and the total number of billfish caught was 5,235 (total includes all species: blue, black, and striped marlin, sailfish and shortbilled spearfish). After combining catch and number of days fishing for all anglers participating in the Survey, we found that the catch per unit of effort (CPUE) or catch per angler day, which is the number of fish caught per angler day, for 1985 is slightly lower than the CPUE

calculated for the early years of the Survey, 1969 to 1972. Based on the results of the Survey for 1969 to 1972, the CPUE was 0.55 billfish per angler day and the angler spent 1.8 days of fishing for each billfish. For 1985, the CPUE was 0.51 billfish per day and the angler spent 1.95 days fishing per

billfish.

To illustrate the trend in billfish fishing from 1969 to 1985, we have plotted the CPUE rates for striped marlin, black marlin and sailfish for several of the major fishing areas (see Figures 1 through 4).

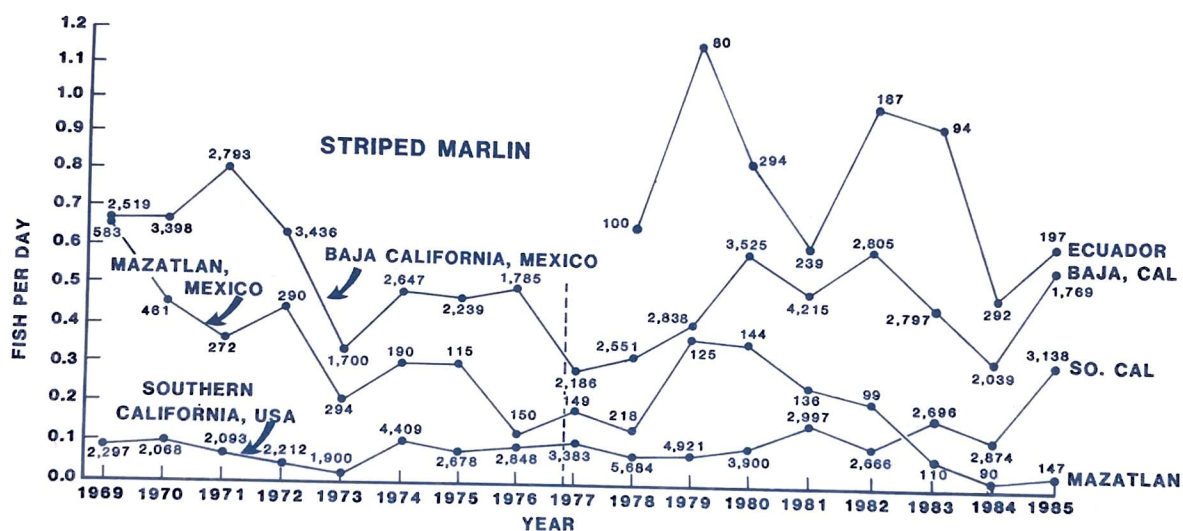


Figure 1. CPUE (#fish, angler day) for striped marlin, 1969-1985.

In 1985, the catch rates were up in all the major fishing areas for this species. There was a noticeable increase in the catch rate off southern California to a record 0.32 fish per angler day; the historical CPUE rate for southern California has been about 0.1 fish per day or 10 days fishing per striped marlin. The CPUE rate for Baja California, a major recreational and commercial longline fishing area, continues to fluctuate around 0.4 billfish per angler day. Catch rates recovered from very low CPUE rate of 0.3 in 1977 to near 0.6 fish per angler day by 1982 and has fluctuated about the 0.4 level since.



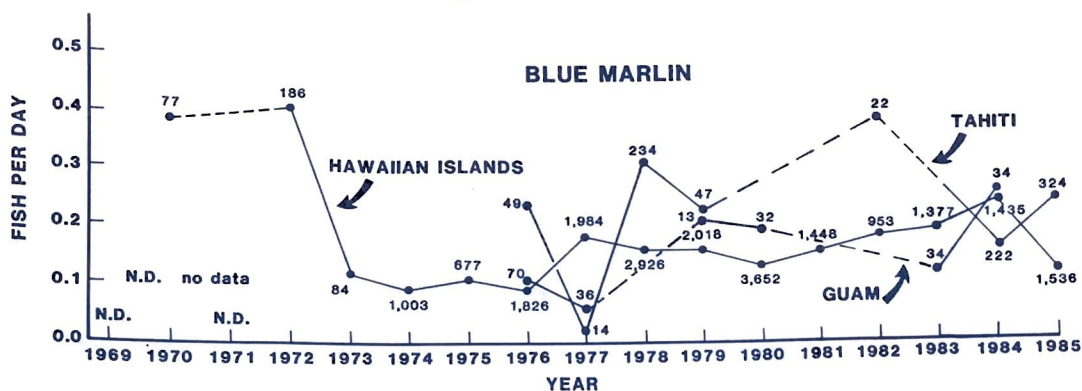


Figure 2. CPUE (#fish/angler day) for blue marlin, 1969-1985.

The catch rate for blue marlin for the Hawaiian Islands declined from 0.25 in 1984 to 0.16 in 1985. Before 1985, the CPUE had shown a steady increase since 1980. It is now only slightly above the level observed in the mid 1970s. Tahiti recorded an increase in CPUE from 0.16 to 0.27 billfish per day in 1985.

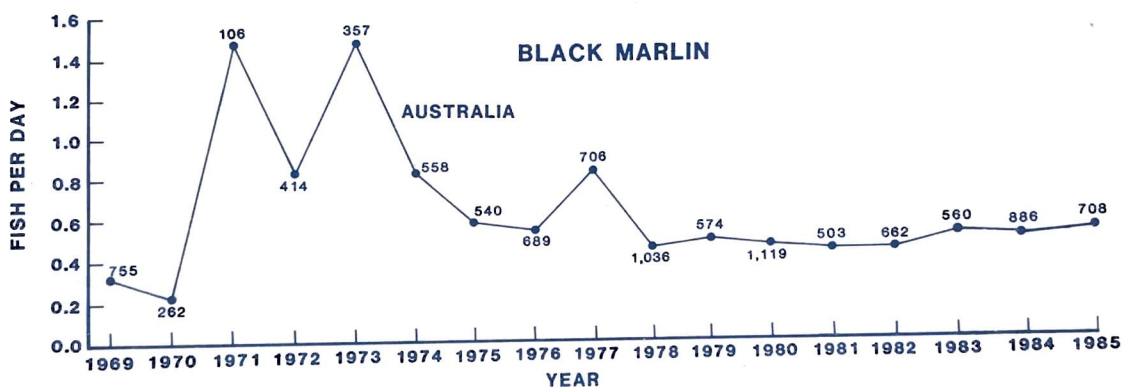


Figure 3. CPUE (#fish/angler day) for black marlin, 1969-1985.

The major fishing area for black marlin is off Australia. The 1985 CPUE rate was 0.48; the CPUE has been stable in this area since 1978 at about 0.50. Before 1978, the rate fluctuated considerably for a few years.

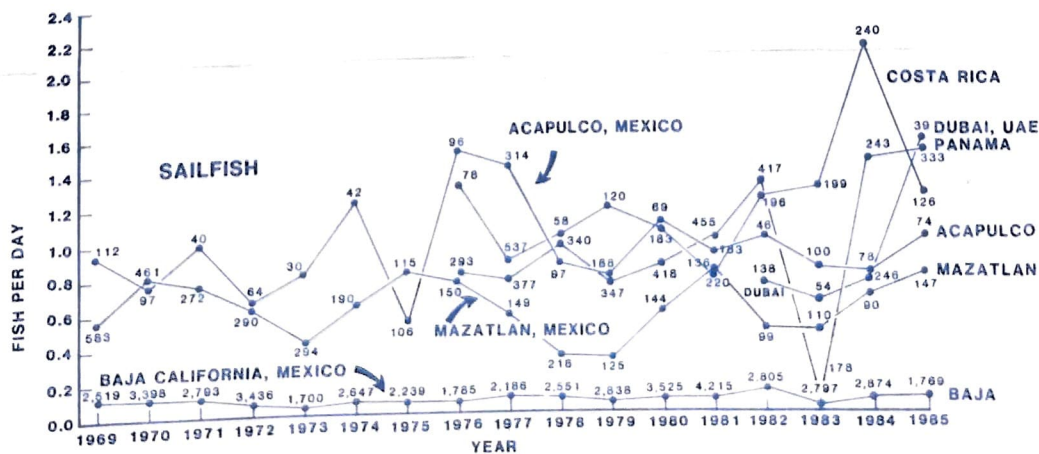


Figure 4. CPUE (#fish/angler day) for sailfish, 1969-1985.

In all major fishing areas for sailfish the CPUE rate increased, except for Costa Rica which reported a lower catch rate. Dubai, United Arab Emirates, reported an increase in CPUE rate from 0.69 to 1.6 fish per angler day.

For other important fishing areas in the Pacific and Indian oceans see Table 1 for a list of catch rates.

RESULTS OF THE SURVEY - 1985

Table 1. Results of the 1985 Billfish Angler Survey by location, number of angler days reported, number of billfish caught, catch per unit effort in terms of number of billfish per fishing day and number of days fishing per fish, and major species reported for the area. For comparative purposes 1984 data are given in parentheses.

	Angler fishing days	No. of billfish	Billfish per fish- ing day	Fishing days per billfish	Major species*
A. Pacific & Indian Oceans - areas with 100 or more angler days reported.					
Southern California, U.S.A.	3,138 (2,874)	998 (394)	0.32 (0.13)	3.14 (7.29)	SM (SM)
Baja California Sur, Mexico (tip area)	1,769 (2,039)	1,303 (1,044)	0.74 (0.51)	1.36 (1.95)	SM (SM)
Hawaii, U.S.A.	1,536 (1,435)	250 (357)	0.16 (0.25)	6.14 (4.02)	BLM (BLM)
Australia	708 (866)	606 (471)	0.85 (0.53)	1.17 (1.88)	BLKM (BLKM)
Panama	333 (243)	574 (364)	1.72 (1.50)	0.58 (0.67)	SF (SF)
New Zealand	410 (473)	22 (50)	0.05 (0.11)	18.64 (9.50)	SM (SM)
Costa Rica	126 (140)	179 (303)	1.42 (2.16)	0.70 (0.46)	SF (SF)
Ecuador	197 (292)	133 (200)	0.68 (0.68)	1.48 (1.46)	SM (SM)
Tahiti	324 (222)	87 (36)	0.27 (0.16)	3.72 (6.17)	BLM (BLM)
Mazatlán, Mexico	147 (90)	113 (64)	0.77 (0.71)	1.30 (1.41)	SF (SF)
San Blas, Mexico	140 (5)	247 (10)	1.76 (2.00)	0.57 (0.50)	SF (SF)
Kenya	735 (341)	391 (255)	0.53 (0.75)	1.88 (1.34)	SF (SF/SM)

Table 1. (continued)

	Angler fishing days	No. of billfish	Billfish per fish- ing day	Fishing days per billfish	Major species*
B. Pacific & Indian Ocean - areas with 100 or fewer angler days reported.					
Guaymas and Kino, Mexico	48 (194)	5 (30)	0.10 (0.16)	9.60 (6.36)	SF (SF)
Manzanillo, Mexico	35 (71)	10 (25)	0.29 (0.35)	3.50 (2.84)	SF (SF)
Acapulco and Zihuatanejo, Mexico	84 (78)	86 (62)	1.02 (0.79)	0.98 (1.25)	SF (SF)
Guatamala	29 (62)	8 (38)	0.28 (0.62)	3.63 (1.59)	SF (SF)
Puerto Vallarta, Mexico	50 (15)	66 (23)	1.32 (0.65)	0.76 (1.53)	SF (SF)
Revillagigedo Islands, Mexico	76 (2)	2 (2)	0.03 (1.00)	38.0 (1.00)	BLKM (SM/SF)
Guam	1 (34)	0 (9)	- (0.26)	- (3.77)	- (BLM)
Japan	88 (34)	14 (7)	0.16 (0.21)	6.29 (4.86)	SM (BLKM)
Thailand	2 (3)	0 (0)	- (0.00)	- (0.00)	- (-)
New Guinea	82 (100)	5 (0)	0.06 (0.00)	16.4 (0.00)	SF (-)
Kiribati	23 (56)	0 (1)	- (0.02)	- (56.00)	- (SF)
Fiji	52 (12)	0 (1)	- (0.33)	- (3.00)	- (BLM)
Marshall Islands	32 (26)	2 (1)	0.06 (0.04)	16.00 (26.00)	BKLM (BKLM)
Dubai, U.A.E. Persian Gulf	39 (34)	61 (15)	1.56 (0.44)	0.64 (2.27)	SF (SF)



Table 1. (continued)

	Angler fishing days	No. of billfish	Billfish per fish- ing day	Fishing days per billfish	Major species*
South Africa	32 (22)	13 (12)	0.41 (0.55)	2.46 (1.83)	SF (SM)
Mauritius	3 (17)	1 (9)	0.33 (0.53)	3.00 (1.90)	BLM (BLM)
Maldiv Islands	2 (-)	1 (-)	0.50 (-)	2.00 (-)	BLM (-)
Somalia	21 (-)	3 (-)	0.14 (-)	7.00 (-)	SF (-)
Peru	6 (-)	1 (-)	0.17 (-)	6.00 (-)	SM (-)

\*SM - striped marlin  
 \*BLKM - black marlin  
 \*SF - sailfish  
 \*BLM - blue marlin

We are now collecting information for the 1986 Pacific International Billfish Angler Survey. If you have fished for billfish in 1986, or if you have not fished but you would like to remain on the mailing list, complete the enclosed form. If you would like additional forms for other billfish anglers or for distribution by billfish clubs, contact the Southwest Fisheries Center (SWFC), NMFS, and we will mail a supply of cards to you for distribution.

The Billfish Angler Survey is conducted in cooperation with the International Game Fish Association. Each year they enclose a Survey form in an issue of their publication entitled The International Angler.

We need your honest and accurate estimates of the number of

days you fished for billfish (by quarter) in 1986 and the number of fish you caught. Please indicate the correct species and quarter of the year the fish was caught. Some anglers have indicated that they caught striped marlin off southern California in the spring quarter. This is highly unlikely since the fishing season ends during the early part of the winter quarter. If you did not catch any fish, we would like to know how much time you spent. Some anglers indicate the number of billfish caught but they do not record the number of days fished. Both number of fish caught and the days spent fishing are essential. Please check your form, and make sure you have filled in all of the appropriate blanks.

We plan on closing the Survey for 1986 by late summer 1987, so

please complete and return the Survey form as soon as possible. Postage is paid if mailed within the U.S. We suggest that clubs or fishing groups send their Survey forms together to reduce postage costs for foreign mailing. Your cooperation is needed and appreciated. The larger the sample of angler effort and catch we have, the more accurate our findings will be. The data collected are considered public information.

COOPERATIVE MARINE GAME FISH TAGGING  
PROGRAM 1986

In 1986, anglers tagged and released a total of 1,252 fish (all species), an increase of 413 fish from 1985. This number represents the number of tag cards returned to the SWFC from January 1 to December 31, 1986. Of these, 1,203 were billfish; in 1985 a total of 653 billfish were tagged and released. Tagging of striped marlin in southern California, as well as total catch, was down substantially; 59 billfish were tagged and released compared with 217 in 1985.

On the tag card is written "PLEASE RETURN CARD - - OTHERWISE TAGGING IS OF NO VALUE." In 1986, 19 recoveries were recorded of which 5, or 26%, did not have a tag card on file. This is a poor record. It would seem that a substantial number of anglers are not returning their tag cards after tagging. The rate of tag recovery for billfish is low (1% to 3%) and every tag recovery counts toward a better understanding of billfish migrations throughout the world's oceans.

When your tag card is received at the SWFC the information is entered in our computer and the card is filed. When a billfish tag is recovered, we search both the card file and the computer file for the information that was sent in by the tagger. If you fail to return the tag card, we cannot recognize your effort in tagging and releasing the fish.

In Table 2 we have summarized the tag releases reported to the SWFC in 1986.

Table 2. TAG RELEASE SUMMARY FOR 1986.

<u>AREA</u>	<u>TOTAL</u>	<u>AREA</u>	<u>TOTAL</u>
Australia - 73		Hawaii - 151	
Sailfish	5	Sailfish	1
Black Marlin	68	Striped Marlin	14
		Blue Marlin	93
		Marlin	1
New Zealand - 9		Short-Billed Spearfish	18
		Skipjack Tuna	18
Blue Marlin	2	Bigeye Tuna	1
Mako Shark	3	Bronze Whaler Shark	1
Bronze Whaler Shark	1	Shark	1
Hammerhead Shark	3	Whitetip Shark	3



Table 2. (continued)

<u>AREA</u>	<u>TOTAL</u>	<u>AREA</u>	<u>TOTAL</u>
Southern California -868		Ecuador - 12	
Striped Marlin	59	Blue Marlin	12
Blue Shark	9		
Baja California - 868		OTHER AREAS	
Sailfish	103	Benidicto/ Clarion/ Socorro Island Area, Mexico	
Striped Marlin	627	Blue Marlin	2
Black Marlin	5	Shark	2
Blue Marlin	108	Line Islands (Central Pacific)	
Marlin	18	Blue Marlin	4
Yellowfin Tuna	2	West of Line Islands (Central Pacific)	
Dolphin Fish	2	Blue Marlin	6
Black Snook	2	Short-billed Spearfish	2
Bluefin Tuna	1	Marshall Islands	
Mazatlan/Puerto Vallarta - 6		Blue Marlin	3
Sailfish	3	Caroline Islands	
Striped Marlin	1	Blue Marlin	2
Blue Marlin	2	Sailfish	2
Manzanillo/Acapulco - 3		Number of billfish =	1, 03
Sailfish	3	Number of other species =	49
Costa Rica - 39			1,252
Broadbill Swordfish	5		
Sailfish	15		
Striped Marlin	3		
Black Marlin	11		
Blue Marlin	5		

#### 1986 STRIPED MARLIN TAGGING IN SOUTHERN CALIFORNIA

Many anglers have worked hard to tag and release striped marlin off southern California in 1986 (see Table 3 for a list of the names). This program is supported by the National Coalition for Marine Conservation. The National Marine Fisheries Service would like to thank the anglers who tagged and released the billfish in 1986.

Billfish angler Don McPherson was the leading tagger off southern California in 1986--he tagged and released 4 fish. In the Captains category, there were two winners--Doug Carson and Ed Cleland, who tagged 4 fish each.

Table 3 lists the names of anglers and Captains that reported tagging marlin off southern California in 1986.



Table 3. Names of anglers and captains, reporting tagging striped marlin in 1986 and number of releases and ranking.

Angler	#Fish	Ranking	Captain	Fish	Ranking
Marshall Hugo	1		Dick Sieminiski	1	
James Mackel	1		John J. Griffith Jr.	1	
Gordon Horru	1		Tom Shaver	2	3
Ken Knight	1		Ernie Schag	1	
William M. McCune	2	3	Doug Daniels	2	3
Pat Griffin	1		Gary Griffin	1	
Richard E. Barrett	2	3	Fred Thomas	2	
Michael S. Callan	2	3	Fred Barkis	2	
Cam Sterning	1		*Ed Cleland	4	1
Florence Sherman	1		Allan Sherman	1	
Jim Kaye	1		Al Lesson	1	
John Lawder	1		Herman Fink	1	
Gary Griffin	2	3	Pat Griffin	2	
Jim Bridges	2	3	Steve Bridges	1	
Patricia P. Crosby	3	2	Randy Wood	2	
Jim Cleland	1		Jim Searles	3	2
Craig Covey	1		Bill Bridges	1	
Bill Feldhorn	1		Mike Hurt	1	
Danny Jones	1		K.C. Little	2	3
Paul A. Brower	1		Gerald Brennock	2	3
Buck Buchanan	1		D. Epsten	1	
Robert Epsten	1		Martin Morris	1	
Kenneth Morris	1		David Hayes	1	
Ed Dempsey	1		Tom Hargraves	1	
Jan Hargraves	2	3	Bill Lescher	1	
Mark Wisch	1		Alan Sheridan	1	
Richard Pomo	1		Don McPherson	2	3
*Don McPherson	4	1	Gary Jasper	1	
Lynn Jasper	1		Jack Patterson	2	3
Bob Jensen	1		*Doug Carson	4	1
Dave Denholm	3	2	George Garrett	1	
Marcus Campbell	1		P.A. Clmo	1	
George Branstetter	1		Mike Callan	1	
Robert Shaver	2	3	Joe Houck	1	
Robert Mankin	1		Don Sloan	1	
Carl Mueller	1		Marie Johnson	1	
Ralph Marsden	1		Mike Thomas	1	
Richard Johnson	1		Richard Pomo	1	
Kenneth Wood	1		Ed Martin	1	
Larry Barrett	1				
Alan Sheridan	1				
Patricia Dougherty	1				

#### TAG RECOVERIES - 1986

Nineteen tags were recovered and returned to the Southwest Fisheries Center in 1986. Billfish recoveries comprised 9 striped marlin, 2 blue 2 blue marlin, 1 black marlin and

and 1 sailfish.

Several long-distance recoveries were made (see Table 4 for details). The most notable recovery was a blue marlin tagged off Christmas Island on October 21, 1985, by

Kathy Huber and recovered by billfish angler Geoff Lewis off New South Wales, Australia. This fish had travelled 3,420 nautical miles (straight-line) distance in 136 days (Recovery #416). Another long distance recovery was a blue marlin tagged off the Coronado Islands, Mexico (near San Diego California) by Al Strabic. This fish was recovered 340 days later after it had travelled 690 nautical miles south (Recovery 423).

striped marlin was tagged off southern California near Santa Rosa Island on September 7, 1984, by D. Brown of Huntington Beach, California. The fish was recovered by a Japanese longliner north of the Hawaiian Islands, 2,460 nautical miles west and 636 days later (Recovery #422). In contrast, a striped marlin which had been tagged in the same general area off southern California by Dan Morris two days earlier on September 5, was recovered off the southern tip of Baja California, Mexico, by a commercial longliner, 20 nautical miles south and 807 days later (Recovery #414).

The tagging has shown interesting migrations in striped marlin tagged in the same general area. A

A summary of the tag recoveries is given in Table 4.

Table 4. 1986 tag recoveries of billfish and other species.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo./Year	Recovered By	Recover Date Day/Mo./Year	Location	Days Released	Nautical Miles From Tagging
<u>STRIPED MARLIN</u>							
(411) 12 mi SW Magdalena Bay, Mexico	Dan Muslin Costa Mesa, CA. Chris Holl Huntington Beach, CA.	26 Oct 86	Copenapro No. IV longliner	22 Nov 86	23°57'N Lat. 112°30'W Long	27	>15 nm
(412) Off Cabo San Lucas, Mexico	Don Bach Huntington Beach, CA. Fran Miller Avalon, Catalina, CA.	26 Jan 86	Copenapro longliner No. unknown	3 Oct 86	23°38'N Lat. 112°30'W Long.	117	110 nm NW
(413) Off Rancho Buena Vista, BCS Mexico	Terry Walton Huntington Beach, CA. Manuel Castro Rancho Buena Vista, Mexico	27 Jun 86	Copenapro longliner, No. unknown	28 Aug 86	19°41'N Lat. 110°48'W Long.	93	1240 nm S
(414) N. Santa Barbara Island, CA. "17 Fathom area"	Daniel Morris Northridge, CA. Marty Morris Northridge, CA.	5 Sept 84	Copenapro longliner, No. unknown	27 Oct 86	24°30'N Lat. 112°50'W Long.	807	1720 nm SE
(415) Off Cabo San Lucas Mexico	Tim Baskin Laguna, CA. Mike Solouy Vernon, CA.	2 Jan 86	Ivan Daley Palm Springs, CA.	12 Nov 86	Off Cabo San Lucas, Mexico	283	<10 nm
(421) 262° 7 nm off Oceanside, CA	Jan Hargraves Balboa Island, CA. David Hayes Balboa Island, CA.	6 Sept 86	Gary Hjermsted San Diego, CA.	13 Sept 86	167°-30 nm from Pt. Loma, CA.	7	141 nm SSW
(422) Off Santa Rosa Island, CA	D. Brown Huntington Beach, CA. J. Brown Huntington Beach, CA.	7 Sept 84	Capt. Tetsuya Ooyogi-Etsuzan Maru/No-0 Fisheries High School, Japan	6 Jun 86	26°37'N Lat. 160°37'W Long.	636	12,460 nm W



Table 4. (continued)

Species/Location Tagging	Tagged by Angler/Captain	Tag Date Day/Mo./Year	Recovered By	Recover Date Day/Mo./Year	Location	Days Released	Nautical Miles From Tagging
(424) <u>Unknown</u> Tag No. <u>H25753</u>	Unknown	Unknown	Debbie Coleman So. Lake Tahoe, CA.	10 Jan 86	Off Cabo San Lucas, Mexico	Unknown	Unknown
(430) <u>Unknown</u> Tag No. <u>H09539</u>	Unknown	Unknown	Dave Vick Gary Jasper Costa Mesa, CA.	29 Sept 86	4nm, 300° from Long Pt., Catalina Island, CA.	Unknown	Unknown
<u>BLUE MARLIN</u>							
(416) Christmas Island	Kathy Huber Balboa Island, CA. Peter Groesbeck San Diego, CA.	21 Oct 85	Geoff Lewis Kingscliff, NSW Australia	7 Mar 86	60 mi. S. of Cape Bryon, NSW Australia	137	3,420 nm
(423) Coronado Islands, Mexico	Al Strabic El. Toro, CA. J.R. Torre Costa Mesa, CA.	26 Aug 83	Shoichi No. 1 longliner	14 Dec 85	23°34' Lat. 112°06' Long.	840	690 nm S
<u>SAILFISH</u>							
(428) Off Buena Vista, BCS, Mexico	John Truschke Pacifica, CA. Antonio Lucero Castillo, La Paz, BCS, Mexico	25 Oct 85	Richard Hoover Santa Cruz, CA.	3 Nov 85	5 nm SE Punta Colorado, BCS Mexico	9	<10 nm
<u>BLACK MARLIN</u>							
(410) Thetis Bank Baja, CA. Mexico	Ron Piazza Lakewood, CA. Mark Wisch Newport, CA.	26 Oct 86	Tiburón II Longliner (shark)	Mar 86	10nm W of Mazatlan, Mexico	136±	300 nm
<u>OTHER SPECIES</u>							
<u>Mako Shark</u>							
(417) 37°55'S Lat. 177°00'E Long.	A.J. Rust Rotorua, New Zealand	22 Feb 85	Erie S. Prole Kati Kati, New Zealand	3 Mar 86	8 mi. NE Tairanga-Bay of Plenty,	374	110 nm
(429) Taheke Reef, Cavalli Islands, New Zealand	Ian Trever Brock Napier, New Zealand Alan Limmer Pahia, New Zealand	9 Feb 84	Longliner-tag Ret. by Jiuric Sefeti-Pacific Fish. Co. Suva, Fiji Islands	24 Apr 85	16°20'S Lat. 176°13'E Long.	439	780 nm NE
(427) 15 nm N of Kohi Pt., Bay of Plenty, New Zealand	Kaye Cavanagh Whakatane, New Zealand Peter Cavanagh Whakatane, New Zealand	30 Dec 84	J. Osborne Millbay, Mangonui, New Zealand	1 Jan 86	1 mi. N of Knuckle Pt.- N part of Doubtless Bay, New Zealand	385	1205 nm NW
<u>BLUE SHARK</u>							
(420) <u>Unknown</u> Tag No. <u>H49645</u>	Unknown	Unknown	Seihuku-Marui No. 35	25 Apr 86	35°05'S Lat. 172°07'E Long.	Unknown	Unknown
(419) <u>Unknown</u> Tag No. <u>H49697</u>	Unknown	Unknown	Seihuku-Marui No. 35	29 Apr 86	34°40'S Lat. 172°05'E Long.	Unknown	Unknown
<u>YELLOWFIN TUNA</u>							
(418) <u>Unknown</u> Tag No. <u>H48241</u>	Unknown	Unknown	Dennis Moody Naalehii, Hawaii	17 Sept 86	Milolii TT Buoy	Unknown	Unknown

## BILLFISH TAGGING - 1987

If you plan on tagging billfish in 1987 and need tagging supplies, contact the Southwest Fisheries Center. If you fish in southern California waters, tagging equipment is available at the following locations:

San Diego Marlin Club--San Diego, CA  
Balboa Angling Club -- Newport Beach, CA  
Bisbee's -- Balboa Island, CA  
Catalina Seafood -- End of Avalon Pier, Avalon, Catalina Island, CA (Rose Cadman)

For billfish tagging supplies in the Hawaiian area and the central and western Pacific area, contact the Pacific Gamefish Foundation at Kailua Kona, Hawaii (P.O. Box 3189, Kailua Kona, HI 96745). The Pacific Gamefish Foundation supports the tagging of billfish in the mid-Pacific area. You can also contact the National Marine Fisheries Service, Honolulu Laboratory (Dr. Jerry Wetherall) located on the University of Hawaii campus at 2570 Dole St., Honolulu, HI 96822.

## INFORMATION FOR RECEIVING-THIS NEWSLETTER

This Newsletter is sent to individuals who 1) have recently tagged and released billfish and

other ocean species, 2) have submitted the Billfish Angler Survey form during the past year, or 3) requested a copy of the survey form.

U.S. Government regulations require us to revise our mailing list each year. We are required to delete names that do not fall under the above categories. However, if you did not fish for billfish in 1985 but you would like to continue to receive the Newsletter, fill out the Billfish Angler Survey by including your name and address; write "no billfish fishing" and return the card. Your name will be retained on the mailing list.

Those anglers who reported tagging and releasing fish in 1986 will be placed on the mailing list for the year following tagging.

Again, thank you for your cooperation and interest in the Billfish Angler Survey and tagging program.

Sincerely,



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