



1990 Billfish Newsletter

- **Southern California swordfish and striped marlin**
 - Tagging program for the 1990 season.
- **Trends in world-wide and Pacific catches, and**
 - Status of stocks for Pacific resources.
- **Trends in billfish angler catch rates for the**
 - Pacific and Indian Ocean.
 - Results of the 1989 Pacific International
 - Billfish Angler Survey
- **1989 Billfish Tagging Results**
 - Tagging record by region.
 - Report on billfish tag recoveries.

SWORDFISH AND MARLIN TAGGING OFF SOUTHERN CALIFORNIA, 1990

During the 1990 billfish fishing season off southern California, anglers are requested to harpoon tag as many swordfish as possible. In previous years, with the exception of 1978, it was rare to have a swordfish tagged and released off southern California. However, in 1978 through the efforts of a number of anglers in the Newport area (Bill Pigg, Larry Barrett and others), approximately 15 swordfish were harpoon tagged and 6 swordfish were recaptured by the harpoon fleet off southern California - an amazing 40% recovery rate.

Since little is known of the migratory patterns of swordfish in the Pacific, and particularly those that are

common to southern California waters during the summer to early winter, we are requesting that all anglers, including those fishing for striped marlin, attempt to harpoon tag swordfish. Details on construction of a tagging pole required for swordfish tagging will be made available through the local marlin clubs or from the La Jolla laboratory.

TRENDS IN CATCHES AND STATUS OF STOCKS

Of particular interest to billfish anglers in the Pacific is the status of billfish stocks. For stocks of billfish in the Pacific, several papers at the 1988 Billfish Symposium dealt with stock assessment.

The papers provide the following current thinking with regard to the status of stocks in the Pacific:

1. **Swordfish** (Bartoo & Coan 1988) - The Pacific swordfish resource was assessed using catch per unit effort (CPUE) realized by the Japanese longline fleet as an indicator of abundance. Two stock structure cases were considered, a) Pacific-wide, and b) three stocks (northwest, south, and southeast). The conclusion was reached that none of the data examined indicates that the stock(s) have been exploited heavily enough to cause a noticeable decline in CPUE through 1980.
2. **Striped marlin** (Suzuki 1988) - The striped marlin resource in the Pacific was divided into two stocks: the north stock and the south stock. The catch of striped marlin has been sustained over a wide range of fishing intensity, which does not yield useful information on the maximum sustained yield (MSY) and the optimum fishing effort required to produce a sustaining yield. Judging from a wide fluctuation in the CPUE, without any trend, it is inferred that the fishing impact on the north stock may not be high enough to be a dominant factor in changing stock size. However, as inferred in previous (1977) billfish stock assessments, increased fishing effort beyond the 1975 level has resulted in no further increases in catch.

For the south stock, the fishing intensity showed a significant reduction after 1980. Production modeling of the south stock infers that the fishery currently exploits the south stock close to the optimum level.

3. **Blue marlin** (Suzuki 1988) - The stock assessment workshop held in 1977 indicated the Pacific stock (one stock) had been overfished since the early 1960's. Further increases in effort (beyond the 1975 level) were anticipated to be accompanied by a reduced catch. However, catches after 1975 appear to have remained above the 1975 level despite considerably higher fishing effort. Increase in fishing effort beyond the 1975 (or 1985) level would not be favorable to the blue marlin stock since the CPUE has shown a further decline.
4. **Black marlin** (Suzuki 1988) - Assessments were made for the Pacific stock which is centered in the southwest Pacific and Indo-Pacific region. In the early years of the fishery (1952-1956) the CPUE was quite high (7 to 14

fish/1,000 hooks fished). There has been a steady, but fluctuating, decline in CPUE as measured by the Japanese longline fishery, throughout the period, 1950's to 1985. The catch rate in 1985 was about 1.0 fish/1,000 hooks fished. The total catch has been sustained at a level of 2,000 to 4,000 tons over a wide range of fishing effort. However, the stock should be monitored carefully in view of the consistent decline in CPUE.

5. **Pacific sailfish** (Skillman 1988) - Skillman considered three stocks of Pacific sailfish; northwest, southwest and eastern. For the eastern Pacific, catches increased sharply in the 1960's, then declined possibly because of excessive fishing pressure or a loss of interest (lower value of catch) by the fleet. If the decline was due to fishing, then the fishery had a substantial effect on the density of the stock, with the stock now being at a much reduced level. For other areas of the Pacific (northwest, southwest), catch-rate trends do not show much variation over time.

Using data for the total Pacific suggested the sailfish/spearfish fishery is closely approaching MSY (10,000-20,000 tons). This infers that sailfish stocks are, to some degree, overharvested.

In the 1980 Billfish Newsletter, a graph of the world catches of billfish, 1964-1979 (from FAO annual statistical reports) was presented. This graphic (Figure 1) is extended through 1986 in this year's Newsletter. United Nations FAO reports total catches of billfish to be 113,361 metric tons

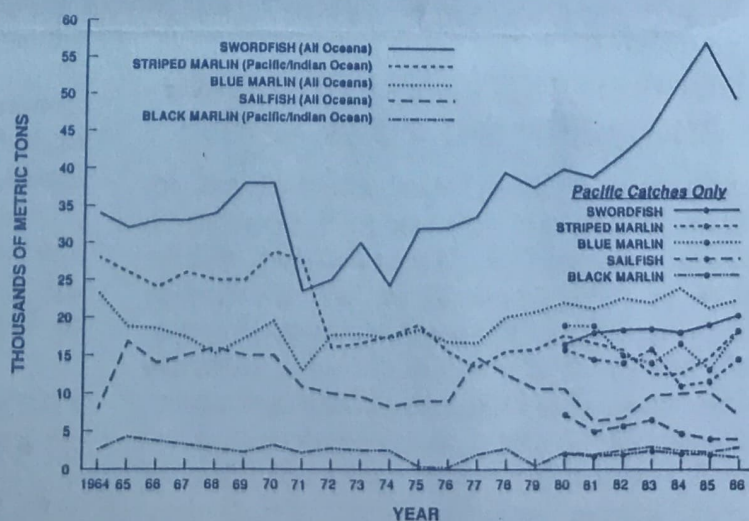


Figure 1. World catch of billfish (from FAO) all oceans, 1964-1986, and for the Pacific ocean, 1980-1986.

(mt) in 1986. Marlins and sailfish comprise 63,667 mt of the total, and swordfish the remainder (49,694 mt). The world catch of swordfish has increased sharply since 1980 with a substantial increase coming from the Mediterranean Sea. Blue marlin, though showing a near steady catch world-wide, had a decline in the Pacific in the early 1980's, increasing back to about 18,000 mt in 1986. Striped marlin, like blue marlin, declined in the early 1980's, but increased to a catch of near 15,000 mt in 1986. Black marlin total Pacific and Indian Ocean catch remained about steady with a decline to 1,565 mt in the Pacific. Sailfish catches remained near even levels in the 1980's.

PACIFIC INTERNATIONAL BILLFISH ANGLER SURVEY

The 1988 Pacific International Billfish Angler Survey, a survey started in 1969, annually collects information on billfish angler catch rates in the Pacific and Indian Ocean. Increased angler participation in fishing for billfish in the Indian Ocean in recent years has resulted in data being collected from cooperating anglers in several Indian Ocean locations.

The objective of the Survey is to measure, as accurately as possible, the trend of billfish fishing in the major angling areas. The results of the surveys are presented in this Newsletter to keep anglers informed of their CPUE, and also to develop information on the trend of the angler CPUE in relation to the CPUE and catch data provided by the longline fleets operating in the Pacific and Indian Oceans. Billfish anglers complain, and in some cases rightfully so, that commercial longline operations have resulted in lower angler catch rates. If management measures are to be applied, it is necessary to determine the magnitude of the impact, and without such supportive data on angler catch trends, it is difficult to assess the impact and develop rational solutions.

It is requested that billfish anglers that fished for billfish in 1989 complete the 1989 enclosed billfish angler survey form giving information as accurately as possible.

The survey form has been designed for only the minimal information necessary to determine the trend of fishing. Your honest and accurate estimate of the number of days you fished for billfish in 1989 (by quarter) and the number of billfish you caught is required. Please indicate the correct species and quarter of the year when the fish was caught. If you did not catch any billfish, we would like to know how many days you spent billfishing even though you did

not land a billfish. Some anglers indicate the number of billfish caught, but they do not record the number of days fished. Both number of fish caught and number of days spent fishing are essential. Please check your form and make sure you have filled in all the appropriate blanks before mailing.

If you fished for billfish in 1989, or if you have not fished but would like to remain on the mailing list of the Newsletter, complete the enclosed form. If you would like additional survey forms for other billfish anglers or for distribution by billfish clubs, contact the Southwest Fisheries Center, National Marine Fisheries Service, P.O. Box 271, La Jolla, California 92038 ((619) 546-7072) and I will be pleased to mail a supply of cards to you for distribution.

RESULTS - 1988 BILLFISH ANGLER SURVEY

In 1988, the total number of billfish fishing days in the Pacific, Indo-Pacific and Indian Oceans reported by those anglers responding to the Survey was 11,304. Anglers responding to the Survey reported catching 6,589 billfish. The catch rate for the Pacific, Indo-Pacific and Indian Oceans was 0.58 billfish/day or 1.31 days/billfish. This catch rate is higher than that reported for 1987, 0.44 billfish/angler day.

The angler catch rate for 1988 is slightly higher than the average for the 1969-1972 period (0.55 fish per day).

CPUE (catch per angler day) data by fishing area are shown graphically for striped marlin (Figure 2), blue marlin (Figure 3), black marlin (Figure 4), and sailfish (Figure 5).

Tables 1 and 2 give the results of the 1988 survey as submitted by anglers, by landing locations in the Pacific and Indian Oceans. The tables include location, number of angler days reported, number of billfish reported caught, CPUE in terms of fish/day and days/fish, for locations having over 100 angler days reported, major species reported for each area, and number of angler days and catch for areas reporting less than 100 angler days. Information on 1987 data is given in parenthesis for comparison. In these tables the codes are striped marlin (SM), blue marlin (BLM), black marlin (BKM), and sailfish (SF).

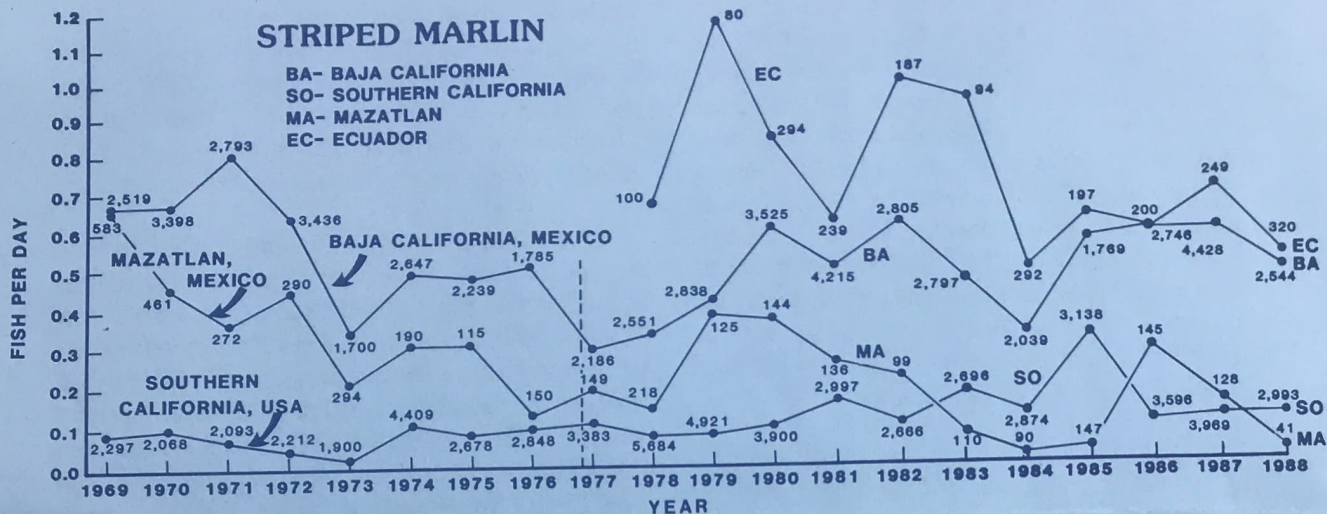


Figure 2. CPUE (number of fish/angler day) for striped marlin and number of angler days reported fishing in important catch areas, 1969-1988.

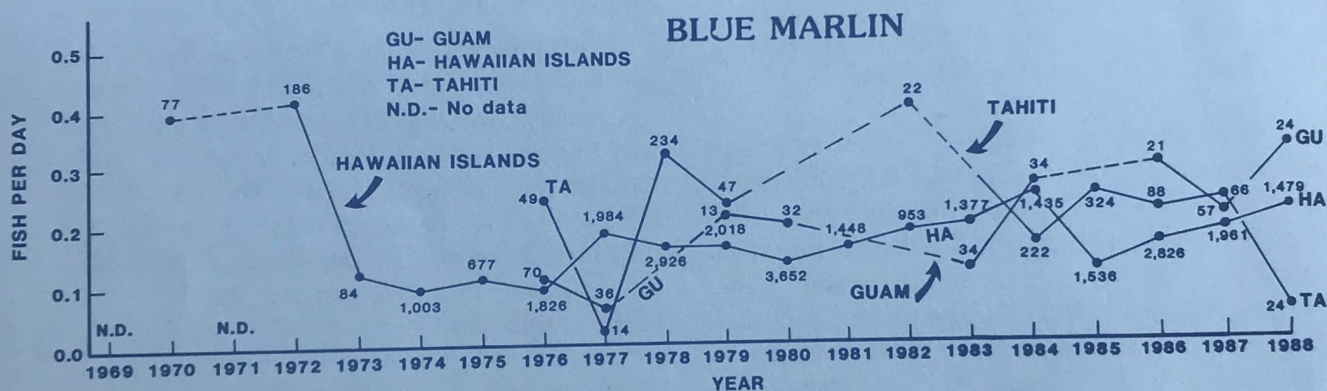


Figure 3. CPUE (number of fish/angler day) for blue marlin and number of angler days reported fishing in important catch areas, 1969-1988.

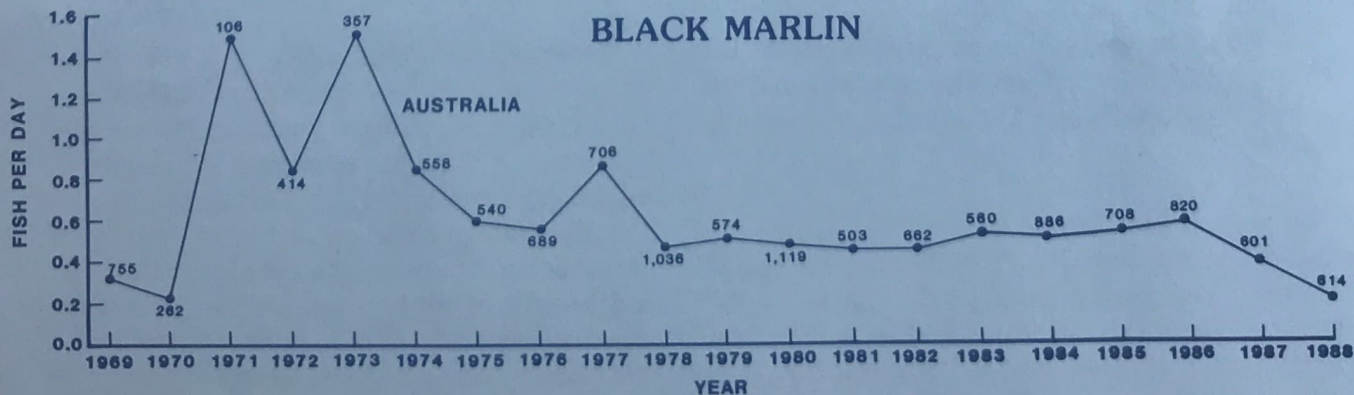


Figure 4. CPUE (number of fish/angler day) for black marlin and number of angler days reported for fishing in important

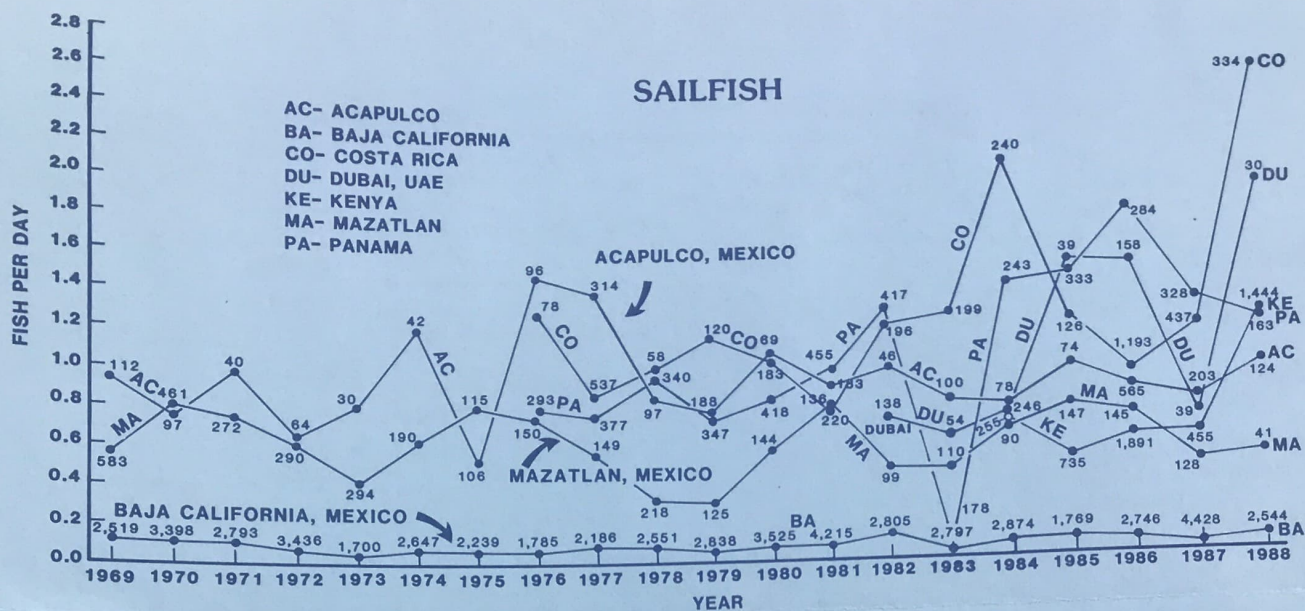


Figure 5. CPUE (number of fish/angler day) for sailfish and number of angler days reported for fishing in important catch areas, 1969-1988.

Table 1. Results of 1988 Billfish Angler Survey - for areas with more than 100 angler days reported. () 1987 data.

	Angler Fishing Days	No. of Billfish	Billfish/Fishing Day	Major Species
PACIFIC OCEAN				
Southern California U.S.A.	2,993 (3,969)	334 (499)	0.11 (0.12)	SM (SM)
Baja California Mexico (tip area)	2,544 (4,428)	1,647 (3,236)	0.65 (0.73)	SM (SM)
Acapulco, Mexico	124 (203)	144 (189)	1.16 (0.93)	SF (SF)
Guatemala	193 (116)	120 (148)	0.62 (1.27)	SF (SF)
Costa Rica	334 (328)	934 (597)	2.80 (1.82)	SF (SF)
Panama	163 (328)	238 (597)	1.46 (1.82)	SF (SF)
Ecuador	320 (249)	210 (225)	0.65 (0.90)	SM (SM)
Hawaii	1,479 (1,961)	509 (492)	0.34 (0.25)	BLM (BLM)
New Zealand	395 (560)	38 (34)	0.09 (0.06)	SM (SM)
Australia	614 (601)	224 (314)	0.36 (0.52)	BKM (BKM)
INDIAN OCEAN				
Kenya	1,444 (456)	1,844 (317)	1.27 (0.69)	SF (SF)

Table 2. Results of 1988 Billfish Angler Survey - for areas with less than 100 angler days reported. () 1987 data.

	Angler Fishing Days	No. of Billfish	Billfish/Fishing Day	Major Species
PACIFIC OCEAN				
Guaymas/Kino, Mexico	55 (119)	21 (14)	0.38 (0.11)	SF (SF)
Mazatlan, Mexico	41 (128)	27 (110)	0.65 (0.86)	SF (SF)
Puerto Vallarta, Mexico	27 (7)	24 (5)	0.88 (0.71)	SF (BKM)
Manzanillo, Mexico	91 (107)	88 (58)	0.96 (0.54)	SF (SF)
Colombia	6 (8)	3 (7)	0.50 (0.87)	SF (SF)
Tahiti	24 (66)	2 (19)	0.08 (0.28)	BLM/SF (BLM)
Samoa	4 (4)	8 (4)	2.00 (1.00)	SM (SM)
Fiji	12 (38)	5 (3)	0.41 (0.07)	BLM (BLM)
Guam	24 (57)	10 (19)	0.41 (0.33)	BLM (BLM)
Caroline Islands	5 (17)	1 (2)	0.20 (0.11)	BLM (BLM/SF)
Vanuatu/Solomon Islands	8	4	0.50	BKM
Papua New Guinea	126 (51)	7 (4)	0.05 (0.07)	BLM/SF (BKM)
Japan	63 (28)	11 (6)	0.17 (0.21)	BLM (BLM)

Table 2 (continued)

	Angler Fishing Days	No. of Billfish	Billfish/Fishing Day	Major Species
INDO-PACIFIC				
Malaysia	64 (25)	14 (5)	0.21 (0.20)	BKM (BKM)
Hong Kong-Pratas	3	1	0.33	SF
Bali (2-single day, (-)no catch)	(-)	(-)	(-)	(-)
Thailand	31 (72)	8 (120)	0.25 (1.66)	SF (SF)
INDIAN OCEAN				
Dubai, U.A.E.	30 (39)	60 (28)	2.00 (0.71)	SF (SF)
South Africa	24 (9)	3 (1)	0.12 (0.11)	SF (SF)
Mauritius	48 (76)	12 (14)	0.25 (0.18)	BLM (BLM)

COOPERATIVE MARINE GAME FISH TAGGING PROGRAM 1989 RESULTS

In 1989, billfish anglers tagged and released 787 billfish, a decrease of 783 billfish tagged from the number tagged (1,570) in 1988. This decline was partly due to the new policy of discouraging the tagging of striped marlin about the southern tip of Baja California, Mexico.

The distribution of tagging effort and number of billfish tagged by area in 1989 is given in Table 3.

Table 3. Summary of number of billfish tagged - 1989

Area	Species	Total
PACIFIC OCEAN		
Australia	Black marlin	25
Solomon Islands	Striped marlin	1
Hawaii	Blue marlin	174
	Striped marlin	83
	Short billed spearfish	51
	Billfish (sp. unk.)	1
	Black marlin	1
Southern California USA	Striped marlin	191
	Marlin	39
	Blue marlin	1

Table 3 (continued)

Area	Species	Total
Baja California, Mexico	Striped marlin	60
	Blue marlin	17
	Sailfish	9
Manzanillo to Acapulco	Blue marlin	6
	Sailfish	5
	Striped marlin	2
Socorro Island, Mexico	Striped marlin	2
Guatemala	Sailfish	21
Costa Rica	Sailfish	47
	Blue marlin	8
	Black marlin	4
	Striped marlin	1
Panama	Sailfish	10
	Black marlin	1
Guam	Blue marlin	2

INDIAN OCEAN

Kenya	Sailfish	17
Mauritius	Blue marlin	4

INDO-PACIFIC

Pulau AUR, East Coast of Peninsula Malaysia	Black marlin	2
Pratas Island, South China Sea, Hong Kong	Sailfish	1
	Blue marlin	1

In 1989, through support of Dr. Dave Groebeck of the Pacific Gamefish Research Foundation, charterboat captains and others in the Hawaiian Islands, 209 billfish were reported as tagged and released, with several recoveries reported. This is an increase in number of billfish tagged and released. The following captains tagged and released two or more billfish in 1989.

Table 4. Names of captains reporting tagging 2 or more billfish in Hawaii, and number of billfish tagged and released.

Captain Name	No. fish
J. Allen	2
B. Bean	2
B. Berringer	2
J. Berzanskis	3
B. Blossie	2
B. Brown	62
D. Cannon	2
B. Crawford	5
G. Csige	3
F. Dowty	2
K. Everette	4
J. Fay	10

Table 4 (continued)	
Captain Name	No. fish
C. Fischer	2
M. Harlan	5
C. Hauptert	7
D. Healy	2
B. Hoey	4
M. Holtz	4
P. Hoogs	8
D. Hudson	5
G. Hudson	4
J. Jeremiah	7
J. Judd	2
S. Kaiser	12
D. Leverone	2
R. McGuckin	6
R. Newcomb	4
A. Oldfield	2
R. Parker	7
D. Putnam	2
T. Putnam	3
M. Rand	2
F. Rice	11
T. Rogers	5
C. Rose	4
B. Ross	4
J. Ross	2
C. Sims	2
M. Stanford	2
S. Sullivan	3
G. Testa	6
R. Unger	8
J. Vermillion	2
J. Wagner	4
J. Waroquiers	7

A record number of striped marlin (231) were tagged and released off southern California in 1989. The leading angler was Stan Ecklund of Redondo Beach, CA who tagged and released 11 striped marlin. For the leading captain there was a four-way tie with Doug Carson of Costa Mesa, CA, Gene Grimes of San Diego, CA, Bob McNary of Palos Verdes, CA, and Bill Woodard of Huntington Beach, CA all credited with nine striped marlin each.

The names of anglers and captains reporting tagging and releasing two or more billfish off southern California in 1989 is given in Tables 5 and 6.

Table 5. Names of anglers reporting tagging 2 or more striped marlin off southern California in 1989, and number of marlin tagged and released.

Angler	No. fish
Bateman, Jim	2
Batram, Ken	5
Bird, Bill J.	2
Block, John C.	2
Blower, Mike	2
Denholm, Dave	8
Earl, Matt	2
Ecklund, Stan	11
Ecklund, Stan Jr.	2
Halpern, Jeff	3
Hampton, Bob	2
Hetzler, Jim	3
Houck, Linda	3
Jasper, Gary	2
Jasper, Lynn	3
Kingsmill, Jim	3
Kogler, Karl	9
Lambert, Carl	2
Lescher, Bill	2
Lloyd, John	4
McIntyre, Connie	2
Morris, Marty	3
Passerello, Judy	2
Prigger, Bill	2
Schilling, Ken	2
Stroud, Tom	4
Tooley, Pat	2
Warner, Mark	2
Williams, Tim	2
Wisch, Mark	2
Wood, Jeff	4
Woodard, Bill	2

Table 6. Names of captains (as listed on the tag return card) reporting tagging and releasing 2 or more striped marlin off southern California, and number of fish tagged and released.

Captain	No. billfish
Arciero, Phil	2
Bailor, Robi	2

Table 6 (continued)

Captain	No. billfish
Bateman, J.G.	3
Bohannon, Jack	2
Bosworth, Harold	2
Carson, Doug	9
Crean, Andy	5
Crispino, Joe	3
Ecklund, Stan	4
Feldhom, Bill	3
Ferrell, Kit	2
Garrett, George	2
Garrett, Gerald	2
Garrett, Marvin	2
Good, Bob	3
Grimes, Gene	9
Halpern, Jeff	5
Hargraves, Tom	2
Hefty, Mike	2
Hetzler, Barbara	2
Houck, Joe	7
Hull, Bob	2
Jasper, Gary	3
Johnson, Ron	4
Kogler, Karl	3
Kogler, Michele	5
Lescher, Bill	2
Martin, Ed	4
McIntyre, Dennis	4
McNary, Bob	9
Morris, Marty	3
Mosbach, Dave	2
Oliver, Craig	2
Patierno, Tom	2
Patterson, Jack	7
Repins, Karl	3
Roberts, Matt	2
Santiago, David	2
Schuller, Robert	4
Sieminski, Dick	4
Thomas, Fred	2
Thompson, Bill	2
Von Segren, Steve	3
Ware, Don	2
Warner, Mark	3
Williams, B.G.	5
Wisch, Mark	3
Wood, Randy	3

Table 7. Billfish tag recoveries reported to the SWFC in 1989.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
STRIPED MARLIN					
(486) Off San Clemente Island	DON MC ADAM Fullerton, CA GARY GRAHAM San Diego, CA	Oct 1, 1988 (H-47648)	Longliner/ Copemapro IX Ensenada, MEXICO	Nov 27, 1988	19°14'N 111°41'W
(487) Near Santa Catalina Island, CA	JIM BATEMAN Huntington Beach, CA J.G. BATEMAN Long Beach, CA	Sep 10, 1989 (A-5442)	BOB BRYANT San Diego, CA	Oct 29, 1989	30 mi off Pt. Loma, CA
(488) 209 Bank, off Oceanside, CA	BRENT PERKINS San Diego, CA DON WARE Fontana, CA	Aug 5, 1989 (H-43168)	MARK WOODARD Huntington Beach, CA BILL WOODARD Huntington Beach, CA	Sep 2, 1989 (Retagged and released)	5 mi off Dana Pt., CA
(489) 277 Spot off S. California	LARRY THOMPSON San Juan Capistrano, CA PHIL HAMNER San Clemente, CA	Oct 1, 1988 (H-29936)	BORDEN BOOTHBY Dwight, Ontario Canada	Feb 22, 1989	Off Cabo San Lucas, BCS, MEXICO
(490) 12 mi. SW Magdalena Bay, BCS, MEXICO	CHRIS HULL Huntington Beach, CA DAN MUSLIN Costa Mesa, CA	Oct 26, 1986 (H-45383)	TANYA O'NEILL Mercerville, NJ	Mar, 1989	Off Cabo San Lucas, BCS MEXICO
(491) Off Rancho Buena Vista, BCS, MEXICO	GUY NATION Modesto, CA JESUS ARAIZA R. Rancho Buena Vista, BCS, MEXICO	Jun 1, 1988 (A-6850)	PAUL DENNIS Eureka, CA Capt - Memo Spa Buena Vista BCS, MEXICO	Jun 12, 1988	Bahia de Palmas area, BCS, MEXICO
(492) 10 mi 240' from Santa Maria Bay (near Magdalena Bay) BCS, MEXICO	HALE DOUGHERTY, MD., Anaheim, CA ED & BETTY MARTIN Garden Grove, CA	Nov 15, 1987 (A-6302)	T. BALDWIN MARTIN, JR Macon, GA Captain - from Spa Buena Vista BCS, MEXICO	Jun 11, 1988	Off Spa Buena Vista, BCS MEXICO
(493) Unknown Tag card not received, Tag #A-9738)	---	---	JUSTIN GODBEHERE M/V Tiari, Kaneohe, HI	Jan 30, 1989	19°51' N 154°50' W SE of Hawaii
(494) 6 mi. W. of Kaena Pt., Lanai, HI	MASON MIYOSE Pahia, HI BOBBY BROWN Kailua-Kona, HI	Oct 20, 1989 (A-13571)	JOSEPH WILLIAMS Waianae, HI	Nov 24, 1989	Off R buoy, Waianae Coast
(495) 2 mi SE of Pta. Pescadero, BCS, MEXICO	WALTER SCOTT Long Beach, CA VICTOR GARCIGLIA Rancho Buena Vista, BCS, MEXICO	Jul 15, 1988 (A-6451)	Longliner/ Copemapro IX Ensenada, MEXICO	Nov. 13, 1988	22°58' N 111°03' W
(496) Off Kona, HI	RON FORD Bellevue, WA ROBT. F. ERICKSON Kailua-Kona, HI	Nov. 3, 1988 (A-3651)	Korean Longliner Deung Reyunho	Jan 31, 1989	157°21' W 21°50' N
(497) Unknown No tag card received Tag #A-11409	---	---	SHANNAHAN (Angler) Capt MIKE "BEAK" HURT Vista, CA	Oct. 6, 1989	Off S. Calif.
(498) Off Rancho Buena	PAUL E. TUCKER Huntington Beach, CA Capt. MARTIN Rancho Buena Vista, BCS, MEXICO	Jun 18, 1988 (A-6772)	HIN CHEUNG Fullerton, CA	Jun 14, 1988	Off Rancho Buena Vista, BCS MEXICO

Table 7. (continued)

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
(499) 38', 22 mi. from Pyramid Head, San Clemente, CA	STAN ECKLUND, JR. Redondo Beach, CA STAN ECKLUND Redondo Beach, CA	Sep 9, 1989 (A-1701)	ED FITZGERALD Phoenix, AZ	Oct. 13, 1989	290' off Pt. Loma, CA, 24 miles
(500) Unknown Tag card not received Tag #A-8285	---	---	Longliner/ Copemapro IX Ensenada, MEXICO	Jan 29, 1989	20°16' N 107°43' W
(501) Unknown Tag card not received Tag #A-9387	---	---	RICHARD TAM SING Makawao, HI	Jan 7, 1989	Off Lahaina, Maui, HI
(502) Unknown Tag reported recovered from striped marlin (68 lbs). Tag damaged, tag # A90-?	---	---	Unknown	---	---
(503) Unknown Tag card not received Tag #A 4581	---	---	Unknown Recovery number reported to NMFS Laboratory, Honolulu, HI	---	---
(504) Unknown Tag card not received Tag #H-40212	---	---	Longliner/ Copemapro IX Ensenada, MEXICO	Nov. 15, 1988	23°11' N 111°19' W

BLUE MARLIN

(505) TT Buoy off Kailua-Kona, HI	MICHAEL BUSH Palo Alto, CA BOBBY BROWN M/V No Problem Kailua-Kona, HI	Jul 13, 1989 (A-12682)	Found at Fish Auction, Honolulu, HI 1st Part of Jan., 1990. Est. 190 lb. blue marlin	1-15 Jan, 1990	Unknown
(506) Unknown Tag card not received Tag #A-4583	---	---	LEE (Angler) Reported by boat EXACT, Lahaina, Maui, HI	Apr 25, 1989	Off Maui, HI
(507) Off Kona, HI "B" Buoy	TIM HANLON Ryde, NSW Australia FREDDY RICE Kailua, Kona, HI	Aug 17, 1989 (A-7062)	Unknown From rental boat Kona, HI/ re-captured about 3 hrs. after tagging	Aug 17, 1989	Off Kona, HI

BLACK MARLIN

(508) 2 mi NE of South Point, HI	FEDRICK J. KELLY "Red Hill", Bowning, Australia BOBBY BROWN M/V No Problem Kailua-Kona, HI	May 2, 1989 (A-11702)	DICK ROGERS M/V Puka Kai Kailua-Kona, HI	Jun 12, 1989	Off Kona, HI
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SAILFISH

(509) 10 mi NE of Isla Partida, BCS, MEXICO	PETER HODGSON San Diego, CA DR. ERIC WAHRENBROCK San Diego, CA	Sep 27, 1989 (A-0223)	PATRICK KELLY San Diego, CA	Oct. 11, 1989	10 mi N. of Loreto, BCS, MEXICO
(510) Off Rancho Buena Vista, BCS, MEXICO	CALVIN SHEETS Arcadia, CA MARTIN FIOL Rancho Buena Vista, BCS, MEXICO	Jun 17, 1989 (A-8242)	MIKE MC LACHLAN La Mirada, CA	Jul 30, 1989	Off south end of Cerralvo Island, BCS, MEXICO
(511) Off East Cape BCS, MEXICO	AUGUST WEBER McHenry, IL JESUS MANRIQUEZ COSIO Spa Buena Vista, BCS, MEXICO	Oct 19, 1988 (A-9448)	J.D. HESS Boulder, CO Captain SANTOS COSIO	Oct 23, 1988 Reported tagged as a blue marlin, recover'd as a sailfish (90 lbs)	5 mi E. of Pt. Arena, BCS, MEXICO

BILLFISH TAG RECOVERIES - 1989

Table 7 (on pages 8 & 9) lists the tag recoveries reported to the National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, California during the calendar year 1989.

If you plan to tag billfish in 1990, and need tagging supplies, please contact the Southwest Fisheries Center (SWFC). If you fish in southern California waters, you are encouraged to tag striped marlin and swordfish, and tagging equipment (tag applicator tips and tags) is available to boat operators at the following locations:

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

For billfish tagging supplies for the Hawaiian area and the central and western Pacific area, contact the Pacific Game Fish Research Foundation, Kailua Kona, Hawaii (Dr. Dave Grobecker, P.O. Box 3189, Kailua Kona, HI 96745 (808) 329-6105). The Pacific Game Fish Foundation supports and is a cooperator in the tagging of billfish in the central Pacific.

GENERAL INFORMATION

In August of 1988, the 2nd International Billfish Symposium was held in Kailua-Kona, Hawaii, 16 years after the 1st International Symposium was held at the same location in 1977. The Proceedings of this Symposium are now in the process of being published, and anyone interested in information on the biology, distribution, fisheries, and information on abundance of the important species of marlins, swordfish, and sailfish will find the Proceedings of interest. Part I (Planning the Future of Billfishes) of the Proceedings has been published. Part II which includes additional papers covering the biology, distribution, and other aspects of billfish is expected to be published in June, 1990. Both Parts (I&II) are bound volumes, and can be obtained from the National Coalition for Marine Conservation, P.O. Box 23298, Savannah, GA 31403. The cost is \$30.00 per volume, \$60.00 for both.

INFORMATION FOR RECEIVING THIS NEWSLETTER

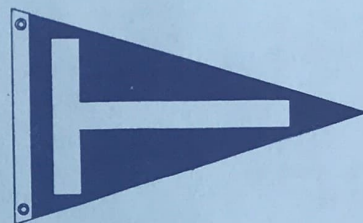
This Newsletter is sent to individuals who have within the past year tagged and released billfish, or who have submitted the Billfish Angler Survey form during the past year. U.S. Government regulations require us to revise our mailing list each year, and to

delete names that do not fall under the above categories. However, if you did not fish for billfish in 1988, but you would like to continue to receive the Newsletter, complete 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. Response to the Billfish Angler Survey is voluntary.

Again, your cooperation and interest in the Billfish Angler Survey and the Cooperative Marine Game Fish Tagging Program is appreciated.

Sincerely,

James L. Squire, Jr.
Fishery Biologist (Research)
Southwest Fisheries Center
P.O. Box 271
La Jolla, CA 92038



U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Center

