



1989 Billfish Newsletter

- **International Billfish Symposium**
- **Pacific International Billfish Angler Survey**
 - Request for angler response for 1988 billfish fishing
- **Cooperative Marine Game Fish Tagging Program**
 - Southern California tagging
 - Hawaiian Islands tagging

International Billfish Symposium

The most important occasion with regard to the advancement of knowledge concerning billfish resources of the world, since the 1st International Billfish Symposium in 1972, was the 2nd International Billfish Symposium, held on August 1-5, 1988 at Kailua-Kona, Hawaii. This meeting brought together over 155 persons from all the major billfish fishing countries of the world to discuss past, present, and future research and management of billfish resources. The meeting was sponsored by several national and international organizations, with the lead organizer being the National Coalition for Marine Conservation. The five days of meetings saw more than 60 papers presented on all phases of biology, behavior, status of stocks, and distribution of

billfish (marlins, sailfishes, swordfish, and spearfishes), and the socio-economic aspects of recreational and commercial fisheries for billfish. This Symposium not only reviewed the resources, but made recommendations for future research and development of international management programs. Better statistics on both the recreational and commercial catches were given high priority as was the recommendation for development of regional and international management regimes for billfish resources.

The Proceedings of the International Symposium will be published in two volumes. Volume 1 includes the billfish fishery review papers, and is expected to be published in the summer of 1989.

Volume 2 will include scientific presentations concerning the biology, distribution of fisheries and species, management, and socio-economic aspects, and is expected to be published by the fall of 1989. The cost is \$15.00 per volume or \$30.00 for both volumes. They may be ordered from Mr. Ken Hinman, Symposium Coordinator, c/o National Coalition for Marine Conservation, P.O. Box 23298, Savannah, GA 31403.

PACIFIC INTERNATIONAL BILLFISH ANGLER SURVEY

Started in 1969, the Pacific International Billfish Angler Survey annually collects information on billfish angler catch rates in the Pacific and Indian Ocean. This is the 19th year of the Survey. The results of the previous year's Survey, determined from the responses from billfish anglers, are updated in each issue of the Billfish Newsletter.

A review of the catch trends for billfish as determined by the Survey (1969-1984), was published in 1988 in the National Marine Fisheries' "Marine Fisheries Review" (1987, Vol. 49, No.2:15-25). The title of the paper is "Pacific billfish angler catch rates for key area stock assessments" by J. L. Squire, Jr.; Marine Fisheries Review is available at major libraries.

Billfish anglers are the source of information for the Survey, and your efforts in taking the time to complete the postcard form and send it to us is appreciated. The Survey results are known to the public through this newsletter and other media. The International Game Fish Association is an active partner in the distribution of the angler survey form, and the Association's cooperation, in particular that of Mr. Elwood Harry, President, is greatly appreciated.

The objective of the Survey is to measure as accurately and honestly as possible (this depends on you) catch rate and trends in all areas of the Pacific and Indian Ocean. It is recognized that certain fishing areas have higher catch rates than others, due primarily to the distribution/availability of the resource. However, information from all areas is important, particularly in measuring changes owing to heavy fishing by commercial longliners. The effects of heavy commercial longline fishing may evidence itself first in areas having lower catch rates. Survey results (from angler data) indicating a low or zero catch for fishing effort are important data for following trends, and we wish to stress the need for

information on all billfish fishing effort and its results. Angler catch/effort data have been particularly useful in determining the effects of heavy longline fishing for striped marlin in the eastern Pacific off the southern tip of Baja California, Mexico, on the recreational billfish fishery in the same area.

We request that anglers that fished for billfish in 1988 complete the attached 1988 billfish angler survey form. We have maintained a policy of requesting 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 1987 (**by quarter**) and the **number of billfish** you caught. 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.

If you fished for billfish in 1988, 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 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 we will be pleased to mail a supply of cards to you for distribution.

RESULTS - 1987 SURVEY

In 1987, the total number of billfish fishing days (or angler days) reported by those anglers responding to the Survey was 14,847. Of this number, 13,722 angler days were reported for the Pacific Ocean (and Indo-Pacific), and 708 angler days reported for the Indian Ocean. The remaining angler days, 417, were reported by anglers fishing in the Gulf of Mexico, Caribbean Sea or Atlantic Ocean.

Anglers responding to the Survey reported catching 6,625 billfish in the Pacific Ocean and 364 billfish in the Indian Ocean, for a total of 6,989 billfish. Species breakdown for the Pacific Ocean catch was 997 blue marlin, 368 black marlin, 3,460 striped marlin, and 1,800 sailfish. For the Indian

Ocean, it was 17 blue marlin, 8 black marlin, 26 striped marlin, and 313 sailfish. The catch rate for the Pacific Ocean was 0.48 fish per day or 2.1 days per fish. For the Indian Ocean, the rate was 0.51 fish per day or 1.94 days per fish. These catch rates are lower than those reported in 1986, 0.51 for the Pacific, and 0.66 for the Indian Ocean

The Pacific Ocean angler catch rate for 1987 is 13% below that determined for the 1969-1972 period (0.55 fish per day).

Graphics showing CPUE (catch per angler day) data are given for some fishing areas, for striped marlin (Figure 1), blue marlin (Figure 2), black marlin (Figure 3), and sailfish (Figure 4).

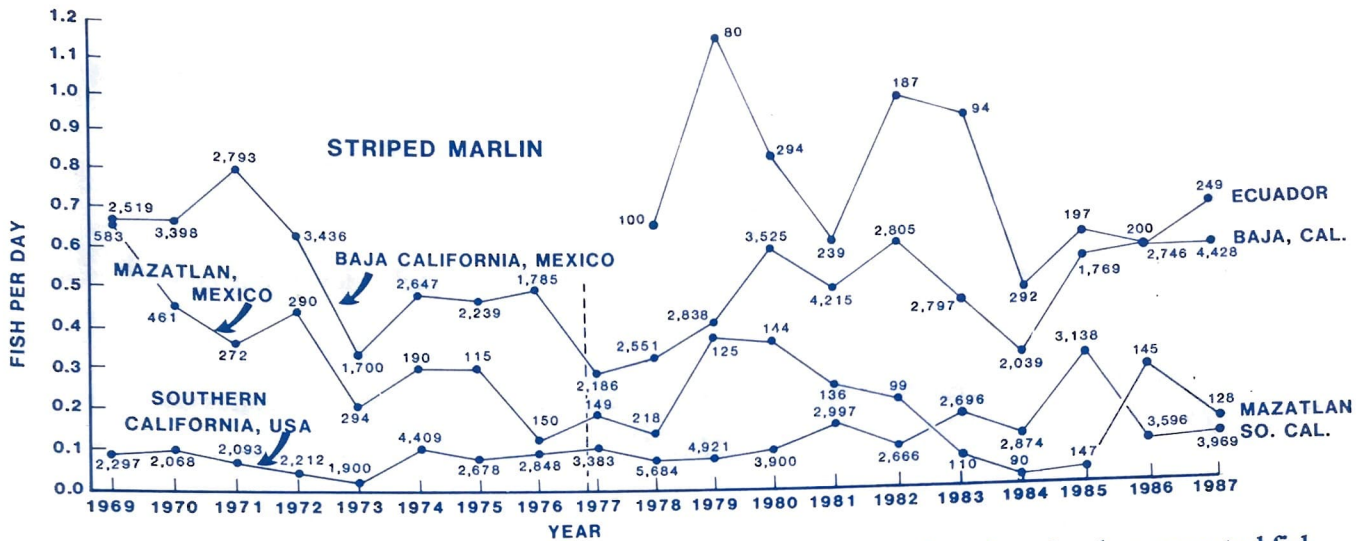


Figure 1. CPUE (number of fish/angler day) for striped marlin and number of angler days reported fishing in important catch areas, 1969-1987.

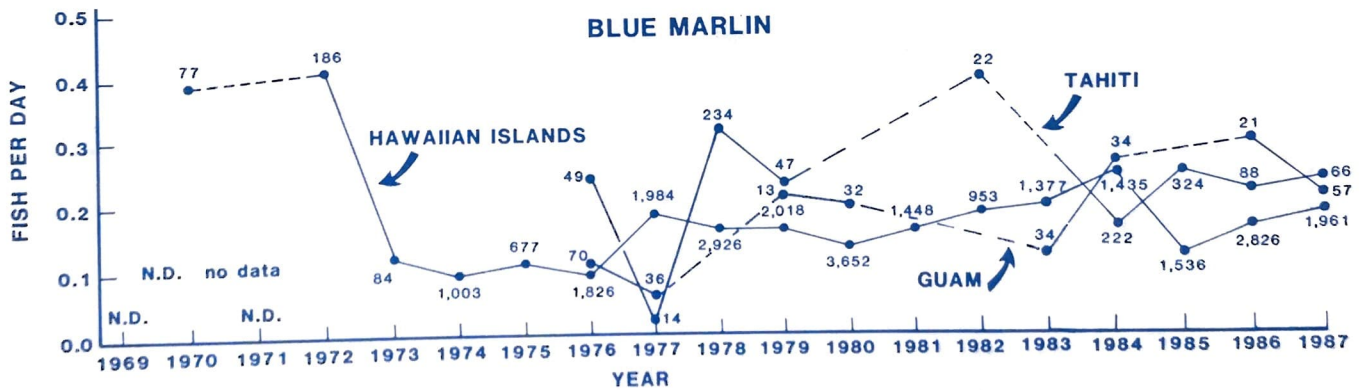


Figure 2. CPUE (number of fish/angler day) for blue marlin and number of angler days reported fishing in important catch areas, 1969-1987.

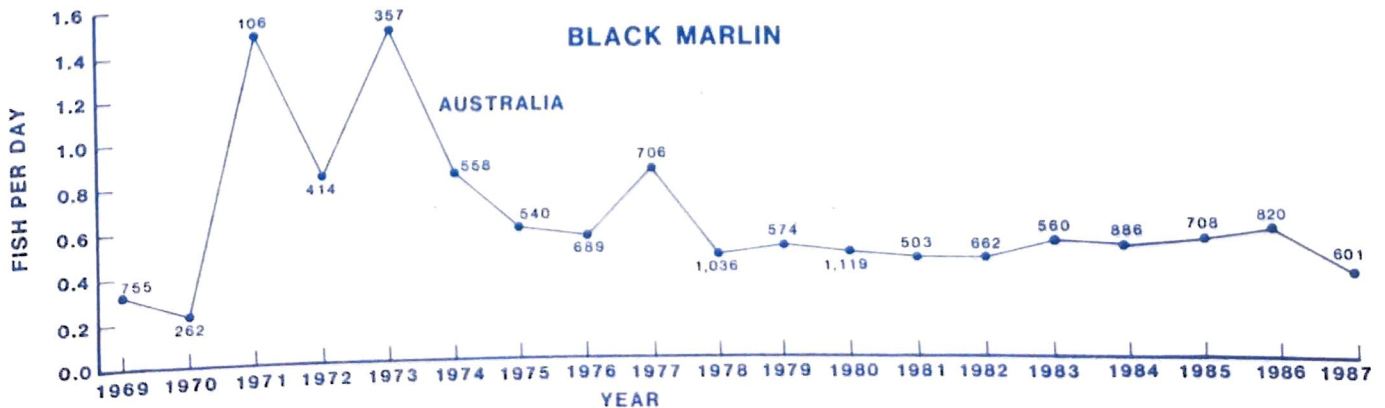


Figure 3. CPUE (number of fish/angler day) for black marlin and number of angler days reported for fishing in important catch areas, 1969-1987.

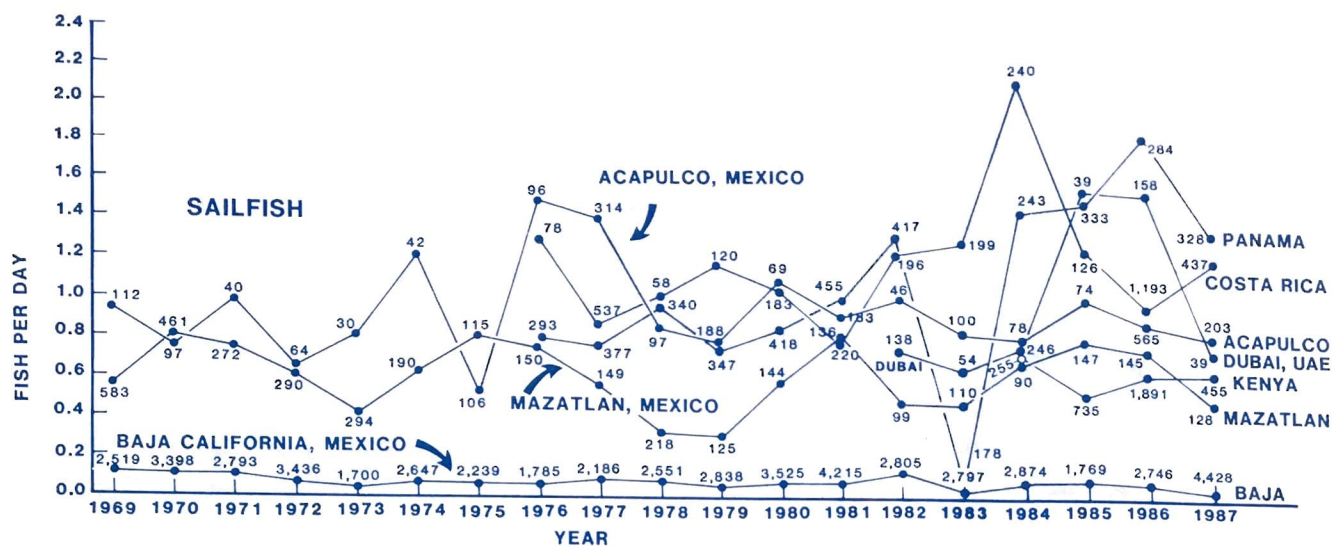


Figure 4. CPUE (number of fish/angler day) for sailfish and number of angler days reported for fishing in important catch areas, 1969-1987.

Tables 1 and 2 give the results of the 1987 survey 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 area, and number of angler days and catch for areas reporting less than 100 angler days. Information on 1986 data is given in parenthesis (-) for comparison, for areas having over 100 angler days reported.

Table 1. Results of 1987 Billfish Angler Survey - More than 100 angler days reported.

	Angler Fishing Days	No. of Billfish	Billfish/ Fishing Day	Fishing Days/ Billfish	Major Species ¹
Pacific Ocean					
Baja California, Mexico (tip area)	4,428 (2,746)	3,236 (2,022)	0.73 (0.74)	1.3 (1.3)	SM (SM)
Southern California, U.S.A.	3,969 (3,596)	499 (401)	0.12 (0.11)	7.9 (8.9)	SM (SM)
Hawaii, U.S.A.	1,961 (2,826)	492 (836)	0.25 (0.30)	3.9 (3.2)	BLM (BLM)
Australia	601 (820)	314 (615)	0.52 (0.75)	1.9 (1.3)	BKLM (BKLM)
New Zealand	560 (532)	34 (35)	0.06 (0.07)	15.2 (15.2)	SM (SM)
Costa Rica	437 (1,193)	577 (1,268)	1.32 (1.06)	0.7 (0.9)	SF (SF)
Panama	328 (284)	597 (588)	1.82 (2.07)	0.5 (0.4)	SF (SF)
Ecuador	249 (200)	225 (160)	0.90 (0.80)	1.1 (1.2)	SM (SM)
Acapulco, Mexico	203 (565)	189 (506)	0.93 (0.90)	1.1 (1.1)	SF (SF)
Mazatlan, Mexico	128 (145)	110 (137)	0.86 (0.94)	1.2 (1.1)	SF (SF)
Guaymas/Kino, Mexico	119 (124)	14 (11)	0.11 (0.09)	8.5 (11.2)	SF (SF)
Guatemala	116 (21)	148 (9)	1.27 (0.43)	0.8 (2.3)	SF (SF)
Manzanillo, Mexico	107 -	58 -	0.54 -	1.8 -	SF -
Indian Ocean					
Kenya	456 (1,891)	317 (1,194)	0.69 (0.63)	1.4 (1.6)	SF (SF)

¹SM-Striped Marlin; BKLM- Black Marlin; BLM- Blue Marlin; SF- Sailfish

Table 2. Results of 1987 Billfish Angler Survey - Less than 100 angler days reported

	Angler Fishing Days	# of Billfish	Major Species ¹
Pacific Ocean			
Thailand	72	120	SF
Tahiti	66	19	BLM
Guam	57	19	BLM
Papua New Guinea	51	4	BKLM
Peru	45	16	SM
Fiji	38	3	BLM
Japan	28	6	BLM
San Blas, Mexico	25	6	SF
Malaysia	25	5	BKLM
Caroline Islands	17	2	BLM/SF
Chile	12	0	-
Christmas Island	9	2	SF
Colombia	8	7	SF
Puerto Vallarta, Mexico	7	5	BKLM
Revillagigedo Island, Mexico	5	1	BKLM
Samoa	4	4	SM
Nicaragua	3	4	SF
Indian Ocean			
Mauritius	76	14	BLM
Arabian Gulf (Dubai)	39	28	SF
Maldives Islands	24	4	BKLM
Somalia	20	1	SF
South Africa	9	1	SF

¹SM- Striped Marlin; BKLM- Black Marlin; BLM- Blue Marlin; SF- Sailfish

1988 RESULTS

In 1988, billfish anglers tagged and released 1,106 billfish, a decrease of 464 billfish tagged over the number tagged in 1987. In addition, anglers used billfish tags to tag 49 other fish species, including sharks for a total 1,155 fish tagged. A total of 732 striped marlin, 157 blue marlin, 7 black marlin, 150 sailfish and 13 short-billed spearfish, plus 96 billfish, unidentified as to species, was tagged and released in 1988. Some of these fish were reported tagged in the Gulf of Mexico, Caribbean Sea, and Atlantic Ocean.

1988 TAGGING

The distribution of tagging effort and number of billfish tagged by area and tag recoveries made in 1988 is given in Table 3.

Table 3. Summary of number of billfish tagged - 1988

Area	Species	Total
Pacific Ocean		
Hawaii, U.S.A.	Swordfish	2
	Striped marlin	97
	Blue marlin	67
	Marlin (unclassified)	3
	Short-billed spearfish	12
Southern California, U.S.A.	Striped marlin	92
	Marlin (unclassified, probably SM)	25
Baja California, Mexico	Striped marlin	416
	Sailfish	78
	Blue marlin	42
	Marlin (unclassified)	17
Mazatlan to Puerto Vallarta, Mexico	Striped marlin	121
	Blue marlin	8
	Sailfish	5
	Short-billed spearfish	1
Socorro Island, Mexico	Striped marlin	1
Manzanillo to Acapulco	Blue marlin	1
	Sailfish	16
Guatemala	Sailfish	21
Costa Rica	Sailfish	4
	Striped marlin	4
	Black marlin	4
	Blue marlin	27
Panama	Sailfish	7
Tahiti	Blue marlin	3
Papua New Guinea	Striped marlin	1
	Black marlin	1
Australia	Black marlin	2
TOTAL		1,074
Indian Ocean		
Kenya	Sailfish	12
Mauritius	Blue marlin	4
Seychelles Islands	Sailfish	3
TOTAL		19

Key individuals participating in the billfish tagging process are the charter boat and private boat captains. It is these individuals who have frequently taken the time to obtain the tags and encourage their use by the anglers. In Hawaii, the tagging of billfish increased during the past three years, thanks to the support given by the Pacific Game Fish Research Foundation, Kona, HI, and the Hawaiian boat captains.

In 1988, 181 billfish were reported tagged and released in the Hawaiian Islands. On the tag card is a place for the name of the angler and the captain who used the tag. Our records indicate the following 10 captains tagged and released three or more billfishes in Hawaiian waters:

Name	No. of Billfish
Bobby Brown	34
Rusty Unger	15
Freddy Rice	9
Jeff Fay	8
Gary Testa	5
Marlin Parker	5
Siebler	4
Harlan	4
Berringer	3
Glenn Hodson	3

Note: 45 additional captains participated in the tagging program, tagging an additional 126 billfish.

In 1988, tagging of striped marlin was continued off southern California with the support of the anglers, captains, billfish angling clubs, and the National Coalition for Marine Conservation (NCMC). A list of anglers and captains (derived from the tag cards received at the National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, California in calendar year 1988) who have tagged and released striped marlin off southern California, and the number of billfish tagged, is given in Tables 4 and 5.

Table 4. Names of anglers reporting tagging striped marlin in 1988 off Southern California and number of releases.

Name of Angler	No. Fish	Name of Angler	No. Fish
1. Dave Denholm	20	Terry Kaser	1
2. Michele Kogler	6	Ed Kogler	2
3. Don McAdam	5	Karl Kogler	3
		John Lauder	1
Fred Allen	2	John Lloyd	2
Bob Ballenger	2	Bill MacCorkell	1
Mort Barke (M.D.)	4	Ralph Marsden	1
Richard E. Barrett	2	Ed Martin	1
Pat Brennan	1	Phillip Martin	1
Greg Burke	1	Steve May	1
Matt Campbell	1	Mike McAlear	1
Andy Crean	1	Bob Middleton	1
Joe Crispino	1	Roger Miller	1
Hale Dougherty	2	Richard Moore	1
Pat Dougherty	1	Craig Oliver	1
Stephen Dougherty	1	Ed Radomski	2
Matthew Earl	1	Rick Radomski	3
Rick Ecklund	1	Linda Reed	1
Dorothy Epsten	1	John Riordan	1
G.R. "Bob" Firth	1	Roy Roberts	4
Kenny Ford	1	Chuck Robertson	1
John Friemoth	1	Harry J. Rogers	1

Table 4 (continued)

Name of Capt'n	No. Fish	Name of Capt'n	No. Fish
Missy Gabris	1	Jim Schollard	1
George Garrett	1	T. Scliatzlein	1
Gerald A. Garrett	1	Robert Shaver	3
Vicki Garrett	1	Steve Shaver	1
Alyson Gillett	1	Tom Shaver	1
Tom Gillett	1	Sam Sogioan	1
Don Goodwin	1	David Solomon	1
Pat Griffin	1	Ken Solomon	1
Mary Guentner	1	Sheldon Solomon	1
Brock Guentner	1	Larry Thompson	1
Bob Hampton	1	Steve Tucker	1
Diana Hampton	1	Mark Warner	1
Gray Hills	1	Harry Westover	1
Tom Holder	1	Jerry White	1
Bones Houghton	1	Beau Wilkins	1
Lynn Jasper	2	Doug Williams	1
Ron Johnson	1	Mark Wisch	3
Danny Lee Jones	1	Tom Young	1

Table 5. Names of captains reporting tagging striped marlin in 1988 off Southern California and number of releases.

Name of Capt'n	No. Fish	Name of Capt'n	No. Fish
1. Doug Carson	23	Phil Hamner	2
2. Jack Bohannon	9	Mile Hefty	2
3. Karl Kogler	8	Mark Henwood	1
		Joe Houck	7
Mike Beandsly	1	Gary Jasper	3
Dr. Bremock	1	Ed Kogler	1
Buck Buchanan	1	Michele Kogler	3
Mike Bullard	4	Bill MacCorkell	1
Andy Crean	2	Ed Martin	2
Steven Dillingham	1	Phillip Martin	1
Pat Dougherty	2	Mike McAlear	1
Hale Dougherty	2	William McCune	1
John Dragos	1	John D. McGuire	1
Stan Ecklund	1	Craig Oliver	2
Robert Epsten	1	Tom Rogers	1
Jim Evans	1	Ted Royal	1
Kit Ferrell	3	Bob Shaver	2
Gary Fink	4	Neal Shaver	1
Cami Garnier	1	Tom Shaver	3
Gerald Garrett	1	Dick Siemineki	1
Robert Good	1	Ken Solomon	1
Gary Graham	7	Sheldon Solomon	1
Gay Griffin	1	Jim Strobe	1
Peter Groesbeck	1	Fred Thomas	2
Bernard Guentner	2	Mark Wagner	1
Jack Guhring	1	Larry Warlaumont	1
		Mark Wisch	3
		Bill Woodard	1

TAG RECOVERIES - 1988

Table 6 lists the recoveries reported to the National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, California during the calendar year 1988.

Table 6. Billfish Tag Recoveries reported to the SWFC in 1988.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
STRIPED MARLIN					
(467) So. California off Osborne Bank	JEFF WOOD Noreco, CA RANDY WOOD Newport Beach, CA	Sep 5, 1983	MARC MULLER San Diego, CA	2nd week Jan 1988	5 mi off Cabo Falso, near Cabo San Lucas BCS, Mexico
(468) Off Magdalena Bay, B.C.S., Mexico	STEVE MADES San Diego, CA DAVE MCINTYRE La Mesa, CA	Nov 4, 1987	MIKE WILLIAMS Fordstown, CA	Jan 11, 1988	1 mi. S. Cabo San Lucas, B.C.S., Mexico
(469) Unknown (Tag #H51032)	_____	_____	YOSHIYUKI ITO Chidori Maru No. 86	Aug 1, 1987	Off Baja California, B.C.S. Mexico
(470) Off Rancho Buena Vista, B.C.S. Mexico	TINA LEVRANT Lakewood, CO JESUS ARAIZA R. Buena Vista	Jun 26, 1987	DON DILDAY Zephyr Cove, NV	Nov 11, 1987	Off Golden Gate Bank, Cabo San Lucas, B.C.S., Mexico
(471) Unknown (Tag #A-1437)	_____	_____	Reptd by BILL HEMPLE, JR. Mazatlan, Mexico	Mar 9, 1988	28 mi. off Mazatlan, Mexico
(472) Unknown (Tag #A-6046)	_____	_____	LISA TAM SNG Makawao, Maui, HI	Feb 16, 1988	Off Lahaina, HI
(473) Off Magdalena Bay, B.C.S., Mexico	EVELYN BUSO Los Angeles, CA MICHAEL LIBBY Los Angeles, CA	Oct 27, 1987	GUSSIE MCBRIDE Merced, CA	Dec 22, 1987	2 mi. off Cabo San Lucas, B.C.S. Mexico
(474) Off Rancho Buena Vista, B.C.S. Mexico	NORMAN PORTER Nampa, ID EDUARDO COSSIO Buena Vista	Jun 2, 1987	OMER FOUILLARD St. Lazare, Manitoba, Canada	Feb 1988	Off Mazatlan, Mexico
(475) Off Cabo San Lucas, B.C.S., Mexico	HARRY BATEMAN San Diego, CA J.G. BABRUN San Diego, CA	Apr 4, 1988	MEL NELSON Livermore, CA	May 19, 1988	Off Spa Buena Vista, B.C.S., Mexico
(476) Off Rancho Buena Vista, B.C.S. Mexico	ED BOGNER Santa Cruz, CA MARTIN FIOL Buena Vista	Apr 30, 1988	MR. LINDSTRONG Reported by DIDIER VAN DER VEECKEN, Cabo San Lucas, B.C.S., Mexico	Jun 17, 1988	Off Cabo San Lucas, B.C.S.,
(477) Off Rancho Buena Vista, B.C.S. Mexico	OSWALD F. GREGOR Coburg, W. Germany JOSE ORTIZ Buena Vista	Jun 1, 1988	STEVE TEINCUFF La Mesa, CA	Jun 24, 1988	Off Cabo San Lucas, B.C.S.
(478) Off Rancho Buena Vista, B.C.S. Mexico	MEG BULLOCK Campbell, CA VICTOR GARCILIA Buena Vista	May 29, 1988	MIGUEL SILVA Spa Buena Vista	Jun 1, 1988	Near Pt. Arena, B.C.S., Mexico

Table 6. (continued)

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
STRIPED MARLIN (continued)					
(479) Off Pt. Arena, B.C.S., Mexico	TOM SNYDER Tarzana, CA PABLO LOREDO La Ribera	Jun 26, 1987	GREG KOVACEVICH Arvin, CA	Mar, 1988	Jaime Bank, near Cabo San Lucas, B.C.S., Mexico
(480) Unknown (Tag #H-46699)	_____	_____	GABRIEL GUTIERREZ C Ensenada, Mexico	Feb 28, 1988	SW Magdalena Bay
(481) 15 mi. E. of Rancho Buena Vista, B.C.S., Mexico	WADE TREMBATH Phoenix, AZ GILBERTO CASTRO C. Buena Vista	Unk.	WILLIAM LEFFINGWELL La Mirada, CA	Jul 9, 1988	Off La Ribera, B.C.S., Mexico
(482) Off Rancho Vista, B.C.S.	PAUL E. TUCKER Huntington Beach, CA MARTIN VERDUSCO Buena Vista	Jul 18, 1988	HIN CHEUNG Fullerton, CA	Jun 14, 1988	Off Rancho Buena Vista, B.C.S., Mexico
BLUE MARLIN					
(483) Off Rancho Buena Vista, B.C.S., Mexico	Unknown ANTONIO VARGAS M.	Oct 28, 1987	Longliner, Mexico	Dec 23, 1987	Between Tres Marias & Mazatlan, about 40 mi. offshore
SAILFISH					
(484) Off Malindi Kenya (3°14'S x 40°8'E)	FRANZ FLEMMING Wein, Austria PAUL ANGUS Malindi, Kenya	Dec 9, 1987	Reported by I.A. SULEIMAN Dir. of Fisheries, Zanzibar	Sep 18, 1988 May 25, 1988	Zanzibar, between Tonga and Nungui
UNUSUAL RECOVERY					
(485) Black Sea Bass (Grouper) Tagged at Anacapa Island, CA	W.G. GRAHAM (SCUBA gear) Thousand Oaks, CA	Jul 23, 1978	ANDY RASMUSSEN	Aug 5, 1988	Recovered near location of tagging 10 years + later - Anacapa Island. Dressed weight 225 lbs.

BILLFISH TAGGING - 1989

Changes in tagging program policy

Due to budget reductions and a review of the research needs of the Southwest Fisheries Center, we will be limiting tagging supplies for tagging of **striped marlin** about the southern tip of Baja California, Mexico and for the tagging of **sailfish** in the eastern

Pacific only. We continue, however, to encourage billfish anglers to **tag and release blue marlin and black marlin off Baja California, Mexico and all species (striped, blue and black marlin, and sailfish) in other areas off Mexico, and throughout the Pacific and Indian Ocean.** The only tags provided to fishing resorts in Mexico will be to those resorts that have supported the program in past years for the tagging of blue or black marlin,

or for special studies. These fishing resorts are Rancho Buena Vista, and Spa Buena Vista in Baja California, Mexico.

If you plan to tag billfish in 1989, and need tagging supplies, please contact the Southwest Fisheries Center (SWFC). If you fish in southern California waters, tagging equipment 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.

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.

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

The Southwest Fisheries Center thanks Barry M. Fitzpatrick for the cover photograph on this newsletter.

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.