

1992 BILLFISH NEWSLETTER



Results of Cooperative Programs

- 1991 Billfish Tagging and Recoveries
— Leading Southern California and
Hawaiian taggers/captains
- Billfish angler catch rate trends for the
Pacific, Indo-Pacific and Indian Oceans



INTRODUCTION

This report gives the results of the 1990 Pacific Billfish Angler Survey, and results of the Cooperative Marine Game Fish Tagging Program in 1991. The data in this Newsletter are a result of cooperation of billfish anglers of many countries with this agency, and we express our sincere appreciation to all anglers completing the Survey forms, and to those tagging and releasing billfish.

The reason for the collection of angler catch and effort data by the Billfish Angler Survey is to determine the trend of fishing in terms of catch rates for the recreational segment of a Pacific-wide resource. The other fisheries which are commercial in nature are the longline and drift gillnet fisheries which are by far the larger takers of billfish (blue, striped and black marlin, sailfish, short-billed spearfish, and swordfish). The recreational fisheries, though not the major producer in terms of tonnage, are very important economically in many areas of the Pacific. Examples of this are the recreational billfish fishery about the southern tip of Baja California (Cabo San Lucas area) Mexico and about the Hawaiian Islands. Tourism is very important to the economy of these areas, and although many people who visit these areas may not fish for billfish, the thought that it is possible to catch a large billfish is part of the attraction. If the recreational billfish catch rates decline to a low level, the image of these areas as a location to visit and possibly catch a billfish is degraded.

Angler catch rates have shown declines in some areas indicating a problem. Declining catch rates for striped marlin about the tip of Baja California, Mexico were recorded in the 1970s and were related to extensive longline operations in the northeast Pacific. Controls on longline operations in the late 1970s resulted in an increased angler catch rate. In the mid to late 1980s, the catch rate declined; however, 1989 was the last year of targeted longline fishing on striped marlin off Mexico. A sharp increase in catch rate for the striped marlin angler off Mexico and Ecuador was recorded in 1990. In Hawaii, a location of an intensive recreational billfish fishery for blue marlin and other species, there is great concern about the future of sustaining angler catch rates of past years due to the recent large increase in longline operations for tuna and billfish in the Hawaiian Island area.

Cover Photo - Taken from an exceptionally sharp color photo by Elsbeth Pfenninger (photographer) and Dr. Hans H. Pfenninger (angler) of Männedorf, Switzerland. The photo is of a black marlin caught on August 3, 1991 off Islas Murciélagos, Gulf of Papagayo, Costa Rica. Weight 750-780 lbs.

TRENDS IN ANGLER CATCH RATES, 1969-1990

In 1990, the total number of billfish fishing days in the Pacific, Indo-Pacific, and Indian Oceans reported by those anglers responding to the Survey was 15,606. Anglers responding to the Survey reported catching 5,827 billfish in the Pacific. The catch rate for the Pacific was 0.42 billfish/day or 2.4 days/billfish.

Tables 1 and 2 give the results of the 1990 survey as submitted by anglers, by landing locations in the Pacific and Indian Oceans. These tables include location, number of angler days reported, number of billfish reported caught, CPUE in terms of fish per day and days fishing per fish, and major species reported. Table 1 is for locations having 100 angler days or more reported, and Table 2 is for areas having less than 100 days reported. Information on 1989 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).

Table 1. Results of 1990 Billfish Angler Survey - for areas with more than 100 angler days reported. (-) is the days, CPUE and major species as recorded in 1989.

	ANGLER FISHING DAYS	BILLFISH PER FISHING DAY (CPUE)	MAJOR SPECIES
PACIFIC OCEAN			
S. California, U.S.A.	4,039 (3,067)	0.12 (0.16)	SM (SM)
Baja California, Mexico	2,851 (2,075)	0.73 (0.67)	SM (SM)
Acapulco, Mexico	133 (85)	1.20 (1.85)	SF (SF)
Guatemala	126 (158)	1.03 (0.87)	SF (SF)
Costa Rica	457 (254)	2.21 (2.51)	SF (SF)
Ecuador	106 (190)	0.80 (0.61)	SM (SM)
Hawaii, U.S.A.	4,396 (1,891)	0.24 (0.34)	BLM (BLM)
Tahiti, French Polynesia	226 (1)	0.22 (0.00)	BLM -
Guam, U.S.A.	470 (30)	0.32 (0.23)	BLM (BLM)
New Zealand	284 (311)	0.15 (0.13)	SM (SM)
Australia	306 (316)	0.50 (0.41)	BKM (BKM)
INDO-PACIFIC			
Thailand	125 (23)	0.08 (0.00)	BLM -
INDIAN OCEAN			
Kenya	1,347 (1,398)	0.53 (1.48)	SF (SF)

Table 2. Results of 1990 Billfish Angler Survey - for areas with less than 100 angler days reported. (-) is the days, CPUE and major species as recorded in 1989.

	ANGLER FISHING DAYS	BILLFISH PER FISHING DAY (CPUE)	MAJOR SPECIES
PACIFIC OCEAN			
Kino Bay, Mexico	13 (-)	0.38 (-)	SF (-)
Guaymas, Mexico	71 (24)	0.18 (0.04)	SF (SF)
Mazatlan, Mexico	79 (28)	0.94 (0.00)	SF (-)
San Blas, Mexico	7 3	0.28 (1.33)	SF (SF)
Puerto Vallarta, Mexico	35 (27)	0.66 (0.26)	SF (SF)
Manzanillo, Mexico	95 (112)	0.88 (1.24)	SF (SF)
Panama	43 (11)	1.51 (1.18)	SF (SF)
Peru	5 (-)	0.40 (-)	BLM (-)
Samoa, U.S.A.	2 (-)	0.00 (-)	(-) (-)
Japan	42 (7)	0.20 (0.00)	BLM (-)
Cook Island	2 (-)	0.00 (-)	(-) (-)
Christmas Island	5 (-)	0.00 (-)	(-) (-)
INDO-PACIFIC			
Malaysia	43 (21)	0.20 (0.00)	BKM (-)
New Guinea	150 (-)	0.20 (-)	SF (-)
Thailand	125 (23)	0.08 (0.00)	BLM (-)
Vanuatu/Solomon Islands	1 (2)	1.00 (1.00)	BKM (BKM)
Hong Kong (Pratas)	33 (25)	0.00 (0.04)	- (SF)
Philippines	3 (4)	0.33 (1.00)	SF (SF)
INDIAN OCEAN			
Mauritius	82 (44)	0.26 (0.18)	BLM BLM)
Seychelles	(3) (25)	1.00 (0.20)	SF (SF)
Dubai, U.A.E.	2 (-)	0.00 (-)	- (-)
Oman	2 (-)	0.00 (-)	- (-)
Mozambique	6 (-)	0.50 (-)	SF (-)

Your response to this survey is needed to better determine the trend of angler catch rates in relation to the trend of commercial longline catch rates.

Enclosed you will find three copies of the Billfish Angler Survey for the 1991 Survey year - one for your use, and others to give to a billfish angler that has not completed the Survey form for 1991. If you would like additional 1991 Survey forms for distribution to other billfish anglers and to billfish club members, please write and we will send additional Survey forms to you.

CPUE (catch-per-angler day) data by fishing area are shown graphically for striped marlin (Figure 1), blue marlin (Figure 2), black marlin (Figure 3), and sailfish (Figure 4). Please see page 4.

COOPERATIVE MARINE GAME FISH TAGGING PROGRAM

1991 RESULTS

Billfish tagging reports (tag report cards) received at the Southwest Fisheries Science Center in 1991 were tabulated and results indicate that in 1991, billfish anglers tagged and released 1,477 billfish, an increase of 289 billfish tagged from the number tagged (1,188) in 1990. Although few tag cards were received from Kenya in 1990, a total of 509 tag cards was received from this location in 1991.

The distribution of number of billfish tagged by area from tag cards received during the calendar year 1991 is given in Table 3.

Other species tagged consisted of: yellowfin tuna, bigeye tuna, dolphinfish, jack cravelle, amberjack, bonito, hammerhead shark, tiger shark, whitetip shark, mako shark, blue shark, thresher shark, dusky shark and basking shark. The total of "other" fish species tagged is 67.

The tagging of swordfish continues to be encouraged in areas where they are commonly observed at the surface (such as off southern California). Plans for making an extended tagging pole for harpoon tagging of basking swordfish are available from the Southwest Fisheries Science Center. Also, U.S. longline boats operating in the central Pacific for swordfish are encouraged to tag and release small swordfish.

We are pleased to advise marine recreational billfish anglers that billfish tagging equipment is available on the island of Guam by contacting Ms. Gretchen R. Grimm,

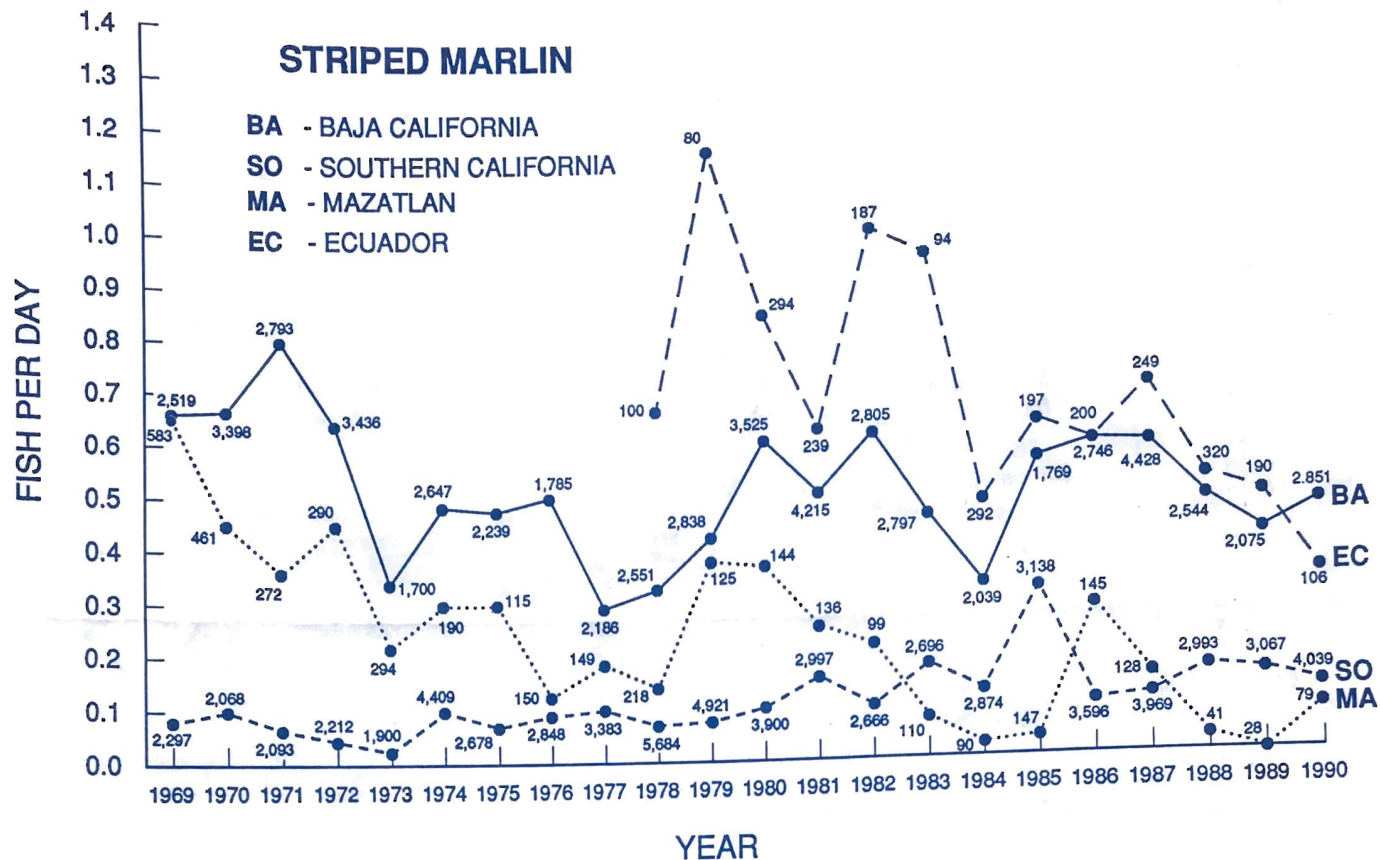


Figure 1. CPUE (number of fish/angler day) for striped marlin and number of angler days reported fishing in important catch areas, 1969-1990.

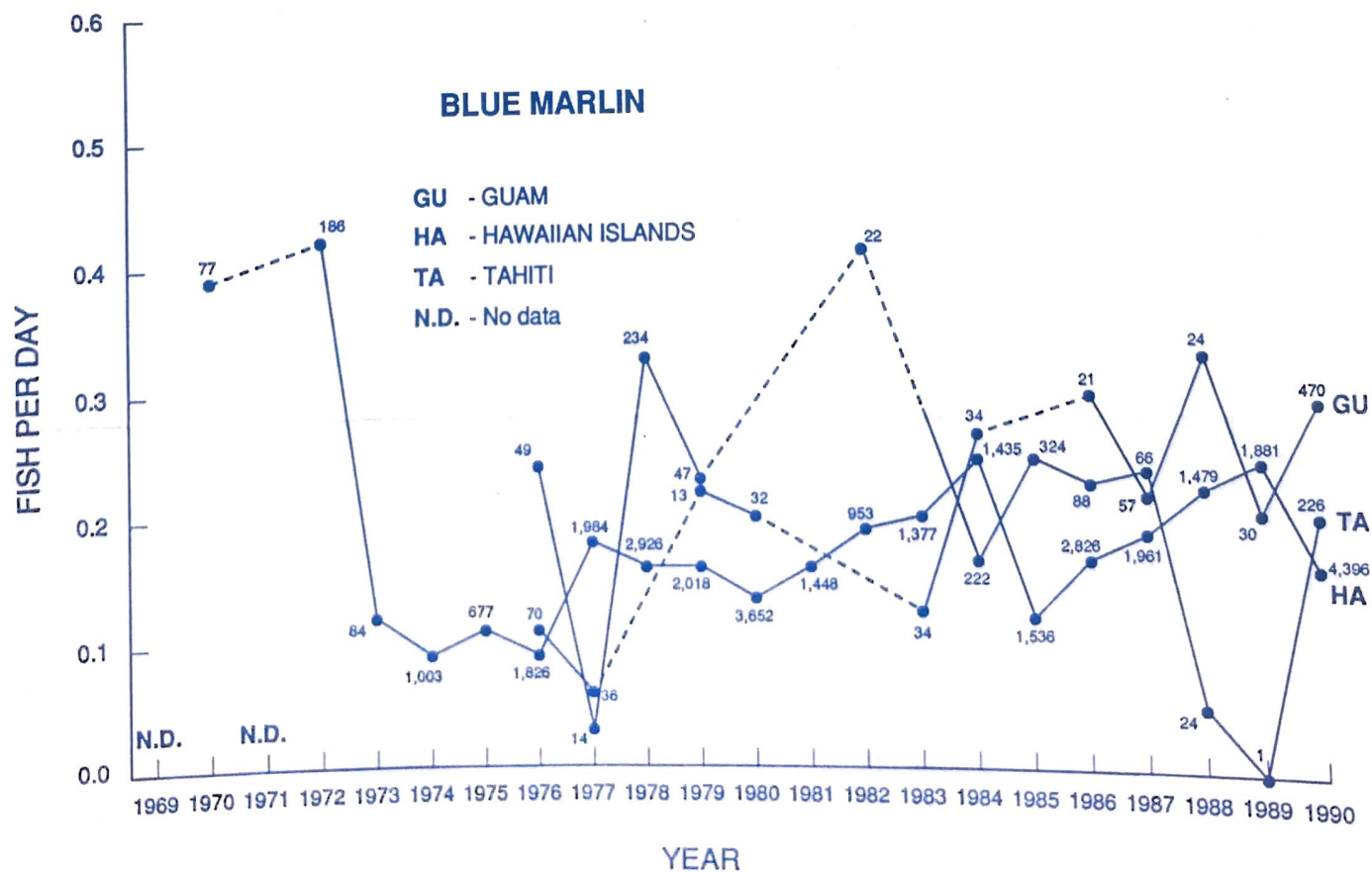


Figure 2. CPUE (number of fish/angler day) for blue marlin and number of angler days reported fishing in important catch areas, 1969-1990.

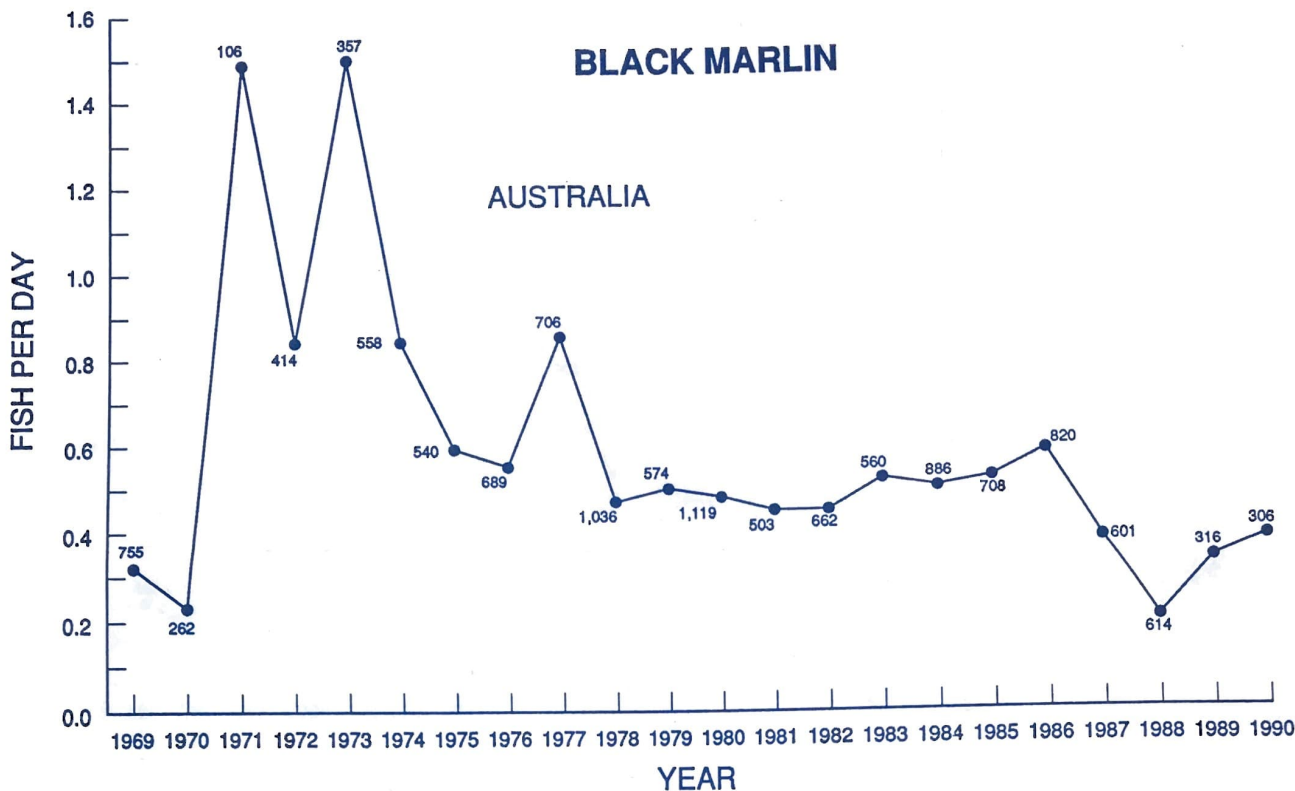


Figure 3. CPUE (number of fish/angler day) for black marlin and number of angler days reported for fishing in Australia, 1969-1990.

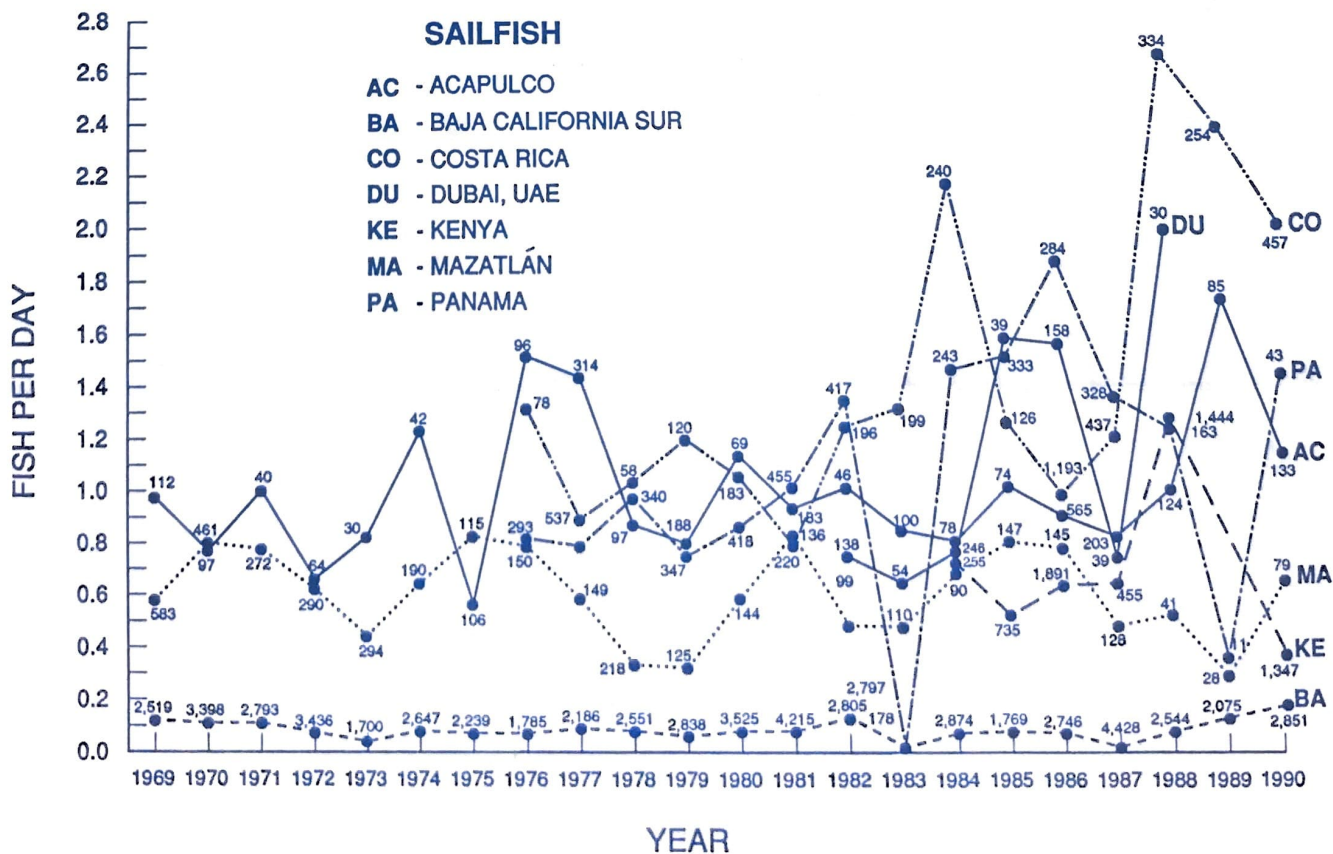


Figure 4. CPUE (number of fish/angler day) for sailfish and number of angler days reported for fishing in important catch areas, 1969-1990.

Table 3. Summary of billfish tagged - 1991

Area	Species	Total
PACIFIC OCEAN		
Southern California, U.S.A.	Striped marlin	44
	Marlin	15
	Swordfish	1
Hawaii, U.S.A.	Blue marlin	263
	Striped marlin	114
	Sailfish	2
	Short-Billed spearfish	88
	Swordfish	8
	Black marlin	1
	Marlin	2
Guam, U.S.A.	Billfish	1
	Blue marlin	19
Baja California, Mexico	Short-billed spearfish	1
	Striped marlin	152
	Blue marlin	23
	Sailfish	65
Mazatlan to Puerto Vallarta, Mexico	Marlin	12
	Striped marlin	32
	Black marlin	1
	Blue marlin	9
	Sailfish	9
Manzanillo/Acapulco Mexico	Marlin	1
Socorro Island, Mexico	Sailfish	9
Costa Rica	Striped marlin	1
	Blue marlin	23
	Striped marlin	2
	Sailfish	2
Panama	Black marlin	1
	Sailfish	22
Colombia	Black marlin	15
	Blue marlin	4
Fiji	Blue marlin	6
	Sailfish	2
INDO-PACIFIC		
New Guinea	Sailfish	6
Malaysia	Black marlin	2
INDIAN OCEAN		
Kenya	Sailfish	493
	Striped marlin	7
	Black marlin	7
	Blue marlin	2
	Blue marlin	9
Mauritius	Short-billed spearfish	1

Fishery Biologist with the Government of Guam, Division of Aquatic and Wildlife Resources, Agaña, Guam.

In the Hawaiian Island area, billfish tags and applicator tips can be obtained by contacting the Hawaiian International Billfish Association, Honolulu, HI (808) 836-0974 or the National Marine Fisheries Service Laboratory, also in Honolulu, Hawaii. Tagging equipment is also available from the Southwest Fisheries Science Center, La Jolla, California.

If you fish in southern California waters, you are encouraged to tag striped marlin and swordfish in 1992; tagging equipment (tag applicator tips and tags) is again available to boat owners at the following locations:

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

We would like to list all names of anglers and charterboat captains that have tagged and released billfish in 1991. The list, however, would be long and in excess of space available. In past issues, we have listed the names of charterboat captains in the Hawaiian area that have tagged and released a substantial number of billfish, and the captains and anglers off southern California who have contributed. We do this again this year, but we emphasize that although your name as a tagger or captain might not be listed, we nonetheless appreciate your efforts in contributing to the research program. In Table 4, the leading charterboat captains tagging billfish in the Hawaiian Islands is listed. Table 5 lists the leading anglers and captains tagging billfish off southern California.

Table 4. Names of charterboat captains about Hawaii tagging 10 or more billfish, and the number of billfish tagged and released. Taken from tag report cards received in La Jolla, California in calendar year 1991.

CAPTAIN NAME/LOCATION	NO. FISH
Capt. Mark Schultz, Lahaina, Maui, HI	34
Capt. Kelly Everette, Kailua-Kona, HI	28
Capt. Doug Barna, Lahaina, Maui, HI	22
Capt. Gene Vanderhoek, Kailua-Kona, HI	22
Capt. Steven Kaiser, Kailua-Kona, HI	16
Capt. Tim Putnam, Lahaina, Maui, HI	16
Capt. Rob Purdy, Kailua-Kona, HI	15
Capt. Freddy Rice, Kamuela, HI	15
Capt. Tomo Rogers, Kailua-Kona, HI	14
Capt. Jeff Honings, Lahaina, Maui, HI	12
Capt. Fran Miller, Kailua-Kona, HI	11
Capt. Kevin Hogan, Kihei, Maui, HI	11
Capt. Bill Hoey, Kamuela, HI	10
Capt. Randy Orkisch, Lahaina, Maui, HI	10
Capt. Erwin Fergerstrom, Wailuku, Maui, HI	10

Table 5. Names of anglers and captains tagging two or more billfish off southern California in 1991. Information taken from tag cards received in La Jolla in calendar year 1991.

ANGLER	NO.	CAPTAIN	NO.
Dave Denholm	7	Capt. Doug Carson	8
Doug Daniels	4	Capt. Jim Sieminski	3
Karl Kogler	2	Capt. Kenny Knight	3
Larry Krueger	2	Capt. Michele Kogler	2
Stan Ecklund	2	Capt. Stan Ecklund	2
Dick Sieminski	2	Capt. Harold Bosworth	2
Rob McNary	2	Capt. Bill Lescher	2
Dan Taylor	2	Capt. Bruce Hezlep	2
		Capt. Ted Taylor	2

BILLFISH TAG RECOVERIES - 1991

A total of 23 tagged billfish was reported to the SWFSC as being recovered in the Pacific Ocean in 1991 (6 blue marlin, 8 striped marlin and 9 sailfish). This is a significant increase from the 9 billfish recoveries reported for 1990. Two of these recoveries were long distance recaptures. One striped marlin was from Baja California, Mexico to 600 nm N.W. of Oahu, Hawaii, and the other was a blue marlin from Baja, California, Mexico to 540 nm northwest of the Marquesas Islands. Table 6 lists the recoveries reported to the National Marine Fisheries Service, La Jolla, CA during the calendar year 1991. It is possible that additional tagged fish have been recovered but not reported. Any information on recoveries that may not have been reported is appreciated.

You will note that we have been unable to locate the tagging information (tag card) for several recoveries. On each tag report card to which the tag is attached, and which is used by taggers, there is a statement "tagging is of no value unless tag card is returned." Obviously, this admonishment is being disregarded by a number of anglers. Anglers are reminded: If you tag a fish, complete and submit the tag report card. If your inclination is not to submit the tag report card, don't tag fish. Missing tag report cards cost the Tagging Program lost time and money for searching files and records for nonexistent information.

Table 6. Billfish tag recoveries reported to the SWFSC in 1991.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
STRIPED MARLIN					
(521) Off Kailua-Kona, HI	Rob McGuckin Kailua-Kona, HI McGuckin/Hoey Co-captains	Nov. 13, 1991 (A14818)	Capt. Paik F/V Kolea Honolulu, HI	Dec. 19, 1991	85 miles S. of Kahae Hawaii (17°35'N x 156°14'W)
(522) 34 miles 270° from Pt. Loma (San Diego, CA)	Bob Woodard San Diego, CA Capt. Bob Woodard, Jr.	Sep. 23, 1989 (H-50924)	Capt. Tony Geisman F/V Edward G. Honolulu, HI	Jun. 19, 1991	Approx. 600 nm NW of Oahu (27°38'N x 166°40'W)
(523) 2 mi. S.E. of Manele, HI	Tony Rose Capt. Ron Honings Lahaina, HI	Jun. 24, 1991 (A-18678)	F/V East Ocean Rec. by Mr. K. Kawamoto at the Honolulu Fish Auction	Jul. 16, 1991	16 nm NE of Oahu, HI
(524) Off Rancho Buena Vista, B.C.S., Mexico	Charles R. Reynolds Redding, CA Capt. Manuel Rancho Buena Vista, B.C.S. Mexico	May 15, 1991 (A17522)	Larry L. Barker Auburn, AL Capt. Gerardo Aug	Jun. 7, 1991	Off Cabo San Lucas, B.C.S. Mexico
(525) 2 mi. W. of Keahou-Kona, HI	Dale Paas Aspen, CO Capt. Bobby Brown Kailua-Kona, HI	Jun. 28, 1990 (A13811)	F/V Audree Kristine	Sept. 10, 1990	Approx. 200 nm N of Hawaii (38°N x 160°W)
(526) Off La Ribera, B.C.S. Mexico	Ben Roth Chelsea, MA Capt Julio Cota Palmas de Cortez	Aug. 6, 1989 (A04896)	Mike Small Rancho Mirage, CA	Jan. 20, 1991	18 mi NE of tagging point
(527) UNK. (Tag A19327)	-----	-----	Norman Brindo-Vas Lanai City, HI	Jul. 24, 1991	Near FAD MC Lanai, HI
(528) UNK. (Tag H-43017)	-----	-----	Rep. by Maria Pigott Chula Vista, CA	Dec. 20, 1991	Caught off Ensenada Mexico by gill-net boat

Table 6 (continued). Billfish tag recoveries reported to the SWFSC in 1991.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo/Year	Recovered by	Recovered Date Day/Mo/Year	Location
BLUE MARLIN					
(529) 4.5 nm north of Keahole Pt., Kona, HI	Steven Weinstein Williams Isl., FL Capt. Bobby Brown Kailua-Kona, HI	June 25, 1990 (A12100)	Capt. Steve Kaiser Kailua-Kona, HI	Jul. 16, 1990	Near VV buoy off Kona, HI
(530) Off Keahole Pt., Kona, HI	David Armstrong Kailua-Kona, HI Capt. Rob McGluchen Kailua-Kona, HI	Aug. 30, 1991 (H-48570)	Capt. D. Waitley	Sep. 16, 1991	Near DD buoy, HI
(531) 6 nm W of Milolii, HI	Bob Pernecky Flintridge, CA Capt. Bobby Brown Kailua-Kona, HI	Aug. 21, 1990 (A15745)	Kelly Furlong Sebastapol, CA	Sep. 19, 1991	Caught off B buoy Kailua-Kona, HI
(532) Off Juliet buoy Kailua-Kona, HI	West Marshall Tauranga, N.Z. Capt Kobayashi Kailua-Kona, HI	Aug. 23, 1990 (A-04510)	Garrett Viernes Pearl City, HI Returned by John Flores, Honolulu, HI	Aug. 4, 1991	7 nm WSW of Kaena Pt., Oahu, HI
(533) Off Gordo Bank, B.C.S. Mexico	Jim Clarke San Diego, CA Capt. Bill Chapple San Diego, CA	Oct. 6, 1990 (A16387)	Burt Pratch Capt. Dale Simmons Wainae, HI	Dec. 7, 1991	Off Waianae, HI (21°27.5'N 158°16.8'W)
(534) Off Cabo Pulmo, B.C.S. Mexico	Kip Adam Oakland, CA Capt. Jesus Araiza Los Barriles, B.C.S. Mexico	Oct. 17, 1989 (H13344)	F/V No. 35 Kin-e-maru Reported by Hideo Ondaira Iwaki City, Japan	Feb. 13, 1991	About 540 nm NE of Marquesas Islands (6°13.6'S 131°42.3'W)
SAILFISH					
(535) Off La Ribera, B.C.S. Mexico	Mike Vergini Valencia, CA	July 17, 1990 (A-10071)	Daniel Tirado Barrett, Flota America, Mazatlan Sin, Mexico	Jul. 4, 1991	Off Mazatlan, Mexico
<p>We have sent billfish tags to Kenya at the request of Captain Peter J. Ready, Malindi, Kenya.</p> <p>South Africa and Australia have also sent tagging equipment. Capt. Ready reported on July 1, 1991 that during the post season, 619 fish were tagged and released (240 U.S.A., 255 South Africa and 124 Australia cobia. tags were used). Tagged were 540 sailfish, 9 black marlin, 60 striped marlin, plus 2 black-tip shark, and one Of the tags from U.S.A., nine recaptures were recorded and are listed. NOTE: All tagging is off Malindi, Kenya.</p>					
(536) Off Malindi, Kenya	T. Fischer Germany Capt. Callan Looman F/V Sally	Nov. 22, 1990 (A 14773)	Capt. Karl-Heinz Waidelich F/V Scorpio	Jan. 13, 1991	Off Malindi, Kenya
(537) Off Malindi, Kenya	H. Clausen Plymouth Capt. Angus Paul F/V Tina	Nov. 24, 1990 (A 14322)	Capt. Andrew Wright F/V Snow Goose	Nov. 27, 1990	Off Malindi, Kenya
(538) Off Malindi, Kenya	M. Ott Germany Capt. Angus Paul F/V Tina	Nov. 30, 1990 (A 14339)	Recaptured by net boat	Dec. 13, 1990	Off Tanga, Tanzania

Table 6 (continued). Billfish tag recoveries reported to the SWFSC in 1991.

Species/Location of Tagging	Tagged by Angler/Captain	Tag Date Day/Mo./Year	Recovered by	Recovered Date Day/Mo./Year	Location
(539) Off Malindi, Kenya	A. Brown England Capt. Pete Glover F/V OL JOGI 11	Dec. 10, 1990 (A 14762)	Capt. David Slater F/V Honeylulu	Dec 14, 1990	Off Malindi, Kenya
(540) Off Malindi, Kenya	R. Hartmann Switzerland Capt. Angus Paul F/V Tina	Dec. 11, 1990 (A 14429)	Recaptured by net boat	Dec 16, 1990	Off Malindi, Kenya
(541) Off Malindi, Kenya	T. Klockenbrink Houston, TX Capt. Ali Al-Haragi F/V Kusi	Dec. 13, 1990 (A 15000)	Recaptured by net boat	Dec. 18, 1990	Off Malindi, Kenya
(542) Off Malindi, Kenya	S. Muhidin Malindi, Kenya Capt. Peter Ready F/V Seahorse	Dec 26, 1990 (A 14448)	Capt. Mohamed F/V Esther	Jan. 20, 1991	Off Malindi, Kenya
(543) Off Malindi, Kenya	N. Conway England Capt. Angus Paul F/V Tina	Dec. 26, 1990 (A 14501)	Capt. A. Paul F/V Tina	Feb. 15, 1991	Off Malindi, Kenya

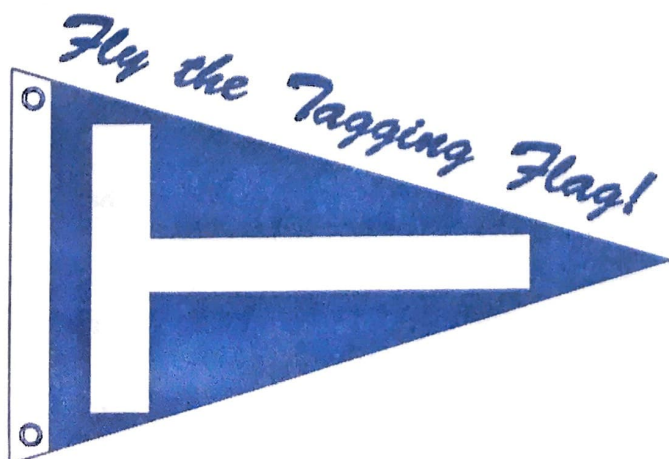
Your cooperation in the annual Billfish Angler Survey and the Cooperative Marine Game Fish Tagging Program is appreciated.

Best of fishing, and thanks to the Pfenningers for one of the outstanding photos (cover) of a billfish in action.

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INFORMATION FOR RECEIVING THIS NEWS- LETTER AND BILLFISH ANGLER SURVEY FORM

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 1990, but 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.



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