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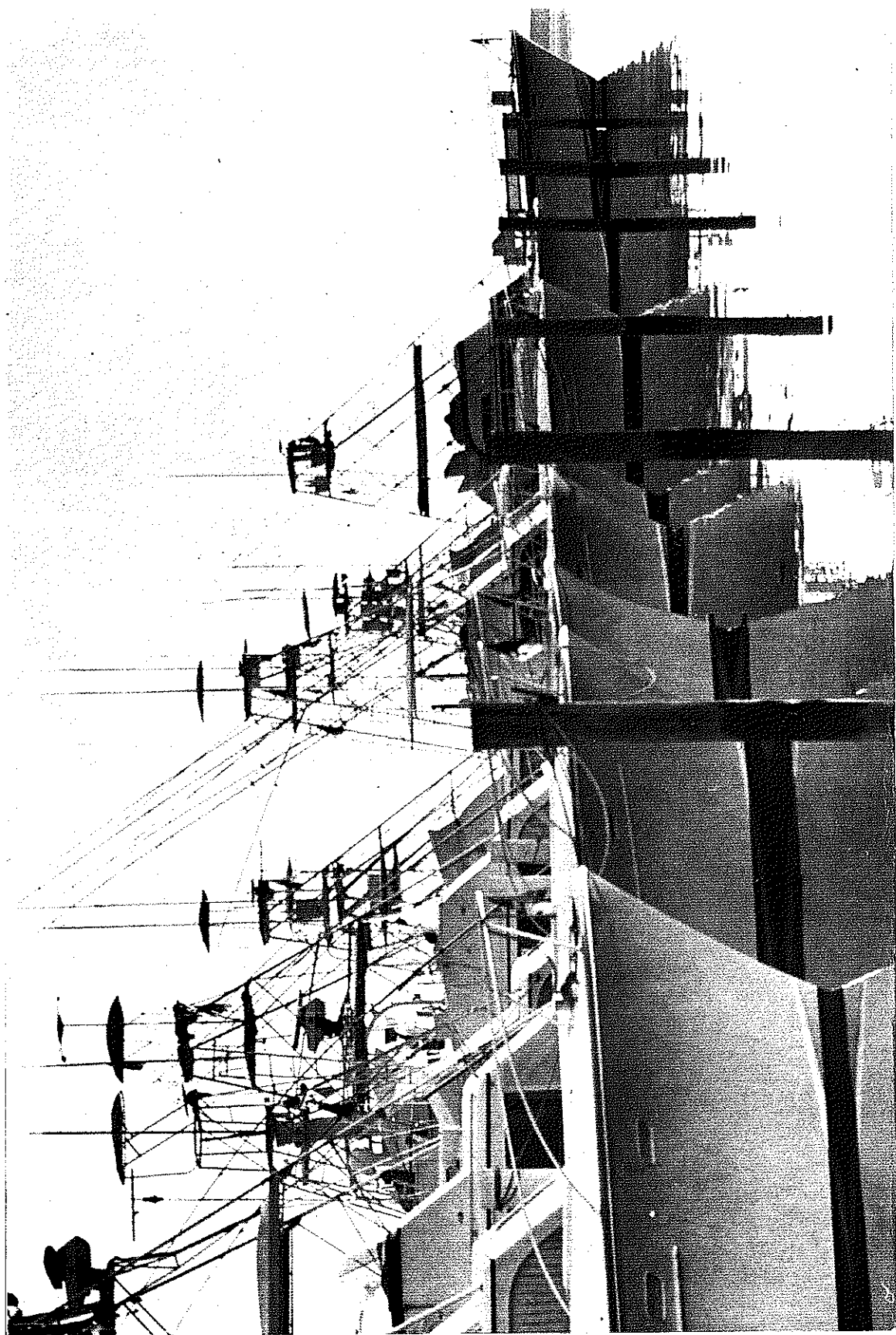
OCEANIC GAME FISH INVESTIGATIONS

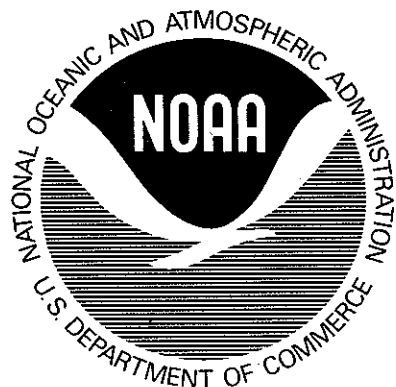


NEWSLETTER

1974

Ranallo/73





1974 NEWSLETTER

SOUTHEAST FISHERIES CENTER

Harvey R. Bullis, Jr., Director

OCEANIC GAME FISH INVESTIGATIONS

Grant L. Beardsley, Director

MIAMI

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PANAMA CITY

Luis R. Rivas
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PORT ARANSAS

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PORT SAMPLERS

Joseph Yurt — South Pass, LA Jay Ogle — Destin, FL
Charles Fontaine — Panama City, FL Jay Davies — Pensacola, FL
Al Zwirko — Ocean City, MD

NATIONAL MARINE FISHERIES SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

U. S. DEPARTMENT OF COMMERCE

May, 1975

Contribution No. 408, Southeast Fisheries Center
National Marine Fisheries Service, NOAA, Miami, FL 33149

In 1974, research continued on the biology and population dynamics of billfishes in the western North Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. Biological and statistical data were collected from 33 big-game fishing tournaments from New York to Jamaica and from Texas to the Virgin Islands (Table 1). Six tournaments were sampled by cooperating investigators from the Florida Department of Natural Resources, the Georgia Department of Natural Resources, and the South Carolina Wildlife and Marine Resources Department. Data from the Ocean City Light Tackle Club's tournament at Cozumel, Mexico, were provided by the Ocean City Light Tackle Club. Sampling was extended north of Cape Hatteras for the first time in 1974, and the greater than 50% increase in the number of white marlin hooked over 1973 reflects this coverage of the great white marlin fishing grounds off the mid-Atlantic coast of the U.S. In three tournaments, the Cape May Marlin, the Ocean City White Marlin, and the Ocean City Blue Marlin, 160 white marlin were hooked.

Daily sampling in the northern and western Gulf of Mexico was conducted from May through November at Panama City, Destin, and Pensacola, Fla.; South Pass, La.; and Port Aransas, Tex. (Table 2). Additional dock sampling was carried out at Ocean City, Md. and Palm Beach, Fla. (Table 3). The Palm Beach sampling was conducted by personnel from the Florida Department of Natural Resources.

We are also examining the feasibility of using boat logs as an additional source of data. Logbooks were distributed to 21 anglers in 1974. To date, log sheets have been returned totaling 163 fishing hours. We hope that additional participation in this program will provide a substantial amount of data from areas and during seasons when coverage by other means is not available.

Hook rates at tournaments in the Atlantic and Caribbean for sailfish and white marlin increased in 1974 from

previous years, however hook rate for blue marlin declined (Figure 1). Hook rates increased for sailfish and blue marlin in the Gulf of Mexico but decreased for white marlin (Figure 2). Even though the hook rate for sailfish increased in 1974, it is far below 1971 and 1972 levels.

The lack of comparability in our data for white and blue marlins between the two areas (Gulf of Mexico vs. Atlantic and Caribbean) may be because of an unknown bias in our sampling or in fishing strategy, or it may indicate that we are sampling separate stocks with different trends in abundance. Previous analyses of tagging data suggested that white marlin stocks in the Gulf and in the Atlantic are separate.

Hook rate in relation to moon phase was analyzed for the years 1971-74 (Figure 3). Only dock sampling data from the Gulf of Mexico were used because of the consistency of the effort over a fairly extended period during the years and because tournament data were strongly influenced by individual tournaments and when they happened to be held during a month. No consistent trends are evident for any of the three species. A more detailed statistical analysis of the data showed that for certain years the hook rate for white marlin was significantly higher during certain phases of the moon than during others. These differences, however, were not consistent between years and are undoubtedly the result of some factor other than moon phase. The 28-day lunar month was divided into four 7-day periods corresponding to spring tides during the full and new moons and neap tides during the first and third quarters. In 1972 and 1973 hook rates for white marlin were significantly higher during the third-quarter period than they were during the other periods. In 1974, however, hook rates were highest during the new- and full-moon periods.

An analysis of hook rate by time of day for each species gave results similar to those obtained in 1972 and

1973 (Figure 4). The one feature that appears to be consistent between all three years is a sharp increase in the hook rate of blue marlin in the late afternoon. Almost 90% of the recorded fishing effort, however, falls between the hours of 0900 and 1600, and effort earlier or later than those times was usually in the Gulf of Mexico. Care should be taken, therefore, in attaching too much significance to hook rates before 0900 or after 1600. The hook rate for sailfish, for example, is very high between 0600 and 0700, but this is the result of a single fish hooked and 6.5 hours of fishing effort. The consistency with which the hook rate for blue marlin increases in the late afternoon in all three years suggests nevertheless that this increase is real. Increased fishing during the late afternoon hours would help in establishing the reliability of this hypothesis. It is in areas of this nature where log-books can be useful in filling in gaps in our data.

The largest blue marlin sampled this year weighed 666 pounds and the smallest, 51. The largest white marlin weighed 117 pounds and the smallest, 27. The largest sailfish weighed 71 pounds and the smallest, 6.5. Table 4 gives the average weights of blue marlin, white marlin, sailfish, bluefin tuna, and yellowfin tuna sampled in 1972, 1973, and 1974. Figure 5 shows the average weights of blue marlin caught off Cape Hatteras, N.C., and Atlantic City, N.J., from 1953 to 1974. The Cape Hatteras data were provided through the courtesy of Dr. William Hassler of N.C. State University. Wide fluctuations are evident, however the high and low points occur at regular intervals of about four to five years. This could occur by chance, but it could also indicate some consistent behavioral pattern or fluctuations in recruitment. The trends in average weight are similar between Cape Hatteras and Atlantic City, although the time span for Atlantic City is not as extensive as for Cape Hatteras.

Research is continuing on the spawning and age and growth of the

blue and white marlins. Preliminary analyses of hard parts from blue marlins indicate that dorsal spines hold the most promise for revealing annual growth marks. Ovaries from female blue and white marlins are being collected at tournaments and stored for later analysis of fecundity and time and place of spawning.

Japanese longline data for 1972 were examined for the western North Atlantic between lat. 10°-40° N and west of long. 60° W (Figure 6). Effort declined considerably from the all-time high recorded in 1971 (Table 5). Catch rates for white and blue marlins continued to decline from previous high levels in the 1960's (Figure 7); the catch rate for blue marlin was at a 15-year low. The catch rate for sailfish increased slightly over 1971, although as pointed out in the 1973 Newsletter this category includes the spearfishes, and it is likely that most of the fish recorded under the category of sailfish are spearfish.

Interpretation of these data should be made with caution since the fishery is oriented towards tunas, and for the most part billfishes are incidental catches. The apparent overall decline in relative abundance of the two marlins, however, cannot be disregarded. The analyses of tournament and dock sampling data for white and blue marlins indicates that abundance has not changed significantly from 1972 through 1974. It should be realized, however, that our data coincide with longline data only for 1972 and what we may be measuring with tournament and dock sampling data are populations that have stabilized at relatively low levels of abundance.

The NMFS-WHOI Cooperative Game Fish Tagging Program completed its first full year of joint research on the tuna and billfish stocks in the Atlantic Ocean. Over 1,800 game fish were tagged; 673 of these were sailfish tagged and released off the southeast coast of Florida and off Cozumel, Mexico. Seventy-nine recoveries of tagged game fish were recorded in 1974. Amberjacks provided

Table 1 - List of tournaments sampled in 1974 by Oceanic Game Fish Investigations personnel or by personnel from cooperating agencies.

Tournament	Location	Date	Boats Entered	Hours Fished	Boat Days	BM	NUMBER HOOKED			
							WM	SF	BFT	YFT
Silver Sailfish Derby	West Palm Beach, FL	Jan 12-Feb 1	14	167.2	20.9	0	0	25	0	0
Frankie Brown Memorial All Billfish	Bimini, Bahamas	Mar 18-22	33	889.6	111.2	15	28	3	0	0
His & Hers Billfish	Chub Cay, Bahamas	Mar 25-29	33	909.6	113.7	22	20	6	0	0
Members Only Billfish	Chub Cay, Bahamas	Apr 1-5	17	544.8	68.1	24	45	6	0	0
Bimini White Marlin	Bimini, Bahamas	Apr 15-18	22	608.8	76.1	3	15	1	0	0
Bimini/Cat Cay Boat Tournament	Bimini/Cat Cay, Bahamas	Apr 29-May 3	8	203.2	25.4	1	7	1	0	0
Marathon/Cay Sal Billfish	Marathon, FL	May 2-6	20	560.0	70.0	2	21	3	0	0
Savannah Sport Fishing Club	Savannah, GA	May 16-17	21	233.6	29.2	18	0	0	0	0
Ocean City L.T.C.	Cozumel, Mexico	May 19-23	14	240.8	30.1	0	6	203	0	0
Bimini Tuna	Bimini, Bahamas	May 20-24	18	592.0	74.0	0	1	0	44	0
Sea Pines Invitational Billfish	Hilton Head Island, SC	May 23-24	35	338.4	42.3	31	0	0	0	0
Georgetown Billfish	Georgetown, SC	May 25-26	20	180.8	22.6	5	0	0	0	0
Cat Cay Invitational Tuna	Cat Cay, Bahamas	May 27-June 1	13	367.2	45.9	0	0	0	32	0
International Invitational Blue Marlin	Hatteras, NC	June 10-14	48	1,176.8	147.1	74	12	2	0	0
Bimini Blue Marlin	Bimini, Bahamas	June 24-28	47	1,176.8	147.1	26	4	7	4	1

Cat Cay Blue Marlin	Cat Cay, Bahamas	July 1-5	14	484.0	60.5	10	0	5	0	0
Chub Cay Blue Marlin	Chub Cay, Bahamas	July 8-12	35	952.0	119.0	50	1	3	0	0
Cape May Marlin	Cape May, NJ	July 16-17	48	524.0	65.5	2	58	0	0	0
Block Island Billfish	Block Is., RI	July 29-31	30	377.6	47.2	6	0	0	0	0
Governor's Charity Invitational Blue Marlin	St. Thomas, VI	July 30-Aug 3	7	168.0	21.0	29	2	0	0	0
Ocean City \$20,000 White Marlin	Ocean City, MD	Aug 8-10	39	450.4	56.3	4	79	0	0	1
Ocean City Blue Marlin	Ocean City, MD	Aug 17-18	9	120.0	15.0	2	23	0	0	0
Pensacola International Billfish	Pensacola, FL	Aug 20-25	49	445.6	55.7	7	38	9	0	0
Mobile Mini	Mobile, AL	Aug 31-Sept 2	10	138.4	17.3	3	6	0	0	0
Oceanic Open	Charleston, SC	Sept 11-15	24	345.6	43.2	24	0	43	0	0
Jamaica International Blue Marlin	Port Antonio, Jamaica	Sept 17-21	31	1,057.6	132.2	46	0	0	0	1
Jamaica International Blue Marlin Team	Port Antonio, Jamaica	Sept 17-21	12	448.0	56.0	44	1	0	0	0
San Juan International Billfish	San Juan, PR	Sept 19-22	58	2,024.8	253.1	89	0	2	0	0
Marathon Tripod	Marathon, FL	Nov 13-15	7	157.6	19.7	0	0	5	0	0
Bill King One Day Billfish	Marathon, FL	Nov 18	31	232.8	29.1	0	0	5	0	0
City of Key Colony Beach Sailfish	Marathon, FL	Nov 20-24	34	920.8	115.1	0	0	51	0	0
Greater Marathon Sailfish	Marathon, FL	Nov 26-29	15	311.2	38.9	0	1	66	0	0
Stuart Light Tackle	Stuart, FL	Dec 12-15	50	1,125.6	140.7	0	0	322	0	0
			866	18,473.6	2,309.2	537	368	768	80	3

Table 2 - Dock sampling results in the Gulf of Mexico, 1971 through 1974.

Year	Number of Boats	Number of Hours Fished	Number of Boat Days	Number of Fish Hooked				Number Hooked Per-Boat-Day					
				BM	WM	SF	BFT	YF	BM	WM	SF	BFT	YFT
Destin, FL													
1971	93	5966.4	745.8	110	318	407	0	0	.15	.43	.55	.00	.00
1972	106	6354.4	794.3	112	275	340	0	2	.14	.35	.43	.00	.00
1973	186	4341.6	542.7	66	357	67	0	0	.12	.66	.12	.00	.00
1974	107	4295.2	536.9	92	335	74	0	3	.17	.62	.14	.00	.01
Panama City, FL													
1971	21	660.8	82.6	18	58	25	0	0	.22	.70	.30	.00	.00
1972	38	1092.8	136.6	32	41	42	0	0	.23	.30	.31	.00	.00
1973	44	763.2	95.4	4	27	59	0	2	.04	.28	.62	.00	.01
1974	11	177.6	22.2	1	5	3	0	0	.04	.22	.13	.00	.00
Pensacola, FL													
1971	66	2820.0	352.5	50	71	18	0	0	.14	.20	.05	.00	.00
1972	109	1876.0	234.5	38	118	42	0	0	.16	.50	.18	.00	.00
1973	15	143.2	17.9	1	9	2	0	0	.06	.51	.11	.00	.00
1974	74	979.2	122.4	16	51	13	0	1	.13	.42	.11	.00	.01

Port Aransas, TX

1972	68	1016.0	127.0	50	20	94	0	0	.39	.16	.74	.00	.00
1973	63	717.6	89.7	19	5	24	0	1	.22	.06	.27	.00	.00
1974	90	1409.6	176.2	57	23	108	0	1	.32	.13	.61	.00	.01

South Pass, LA

1971	101	3096.8	387.1	81	48	31	38	158	.21	.12	.08	.10	.41
1972	108	2510.4	313.8	72	71	26	9	98	.23	.23	.08	.03	.31
1973	129	3742.4	467.8	114	93	6	2	60	.24	.20	.01	.00	.13
1974	93	3512.0	439.0	130	64	9	0	147	.30	.15	.02	.00	.33

Mobile Big Game Gishing Club (At Pensacola, FL.)

1974	36	636.0	79.5	12	54	3	1	1	.15	.68	.04	.01	.01
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Table 3 - Dock sampling results from Ocean City, MD and West Palm Beach, FL, 1974.

Year	Number of Boats	Number of Hours Fished	Number of Boat Days	Number of Fish Hooked			Number Hooked Per Boat Day						
				BM	WM	SF	BFT	YF	BM	WM	SF	BFT	YFT
Ocean City, MD													
1974	48	974.0	121.7	20	314	2	2	10	.16	2.58	.02	.02	.08

West Palm Beach, FL

1974	22	522.0	65.2	1	3	63	0	0	.02	.05	.97	.00	.00
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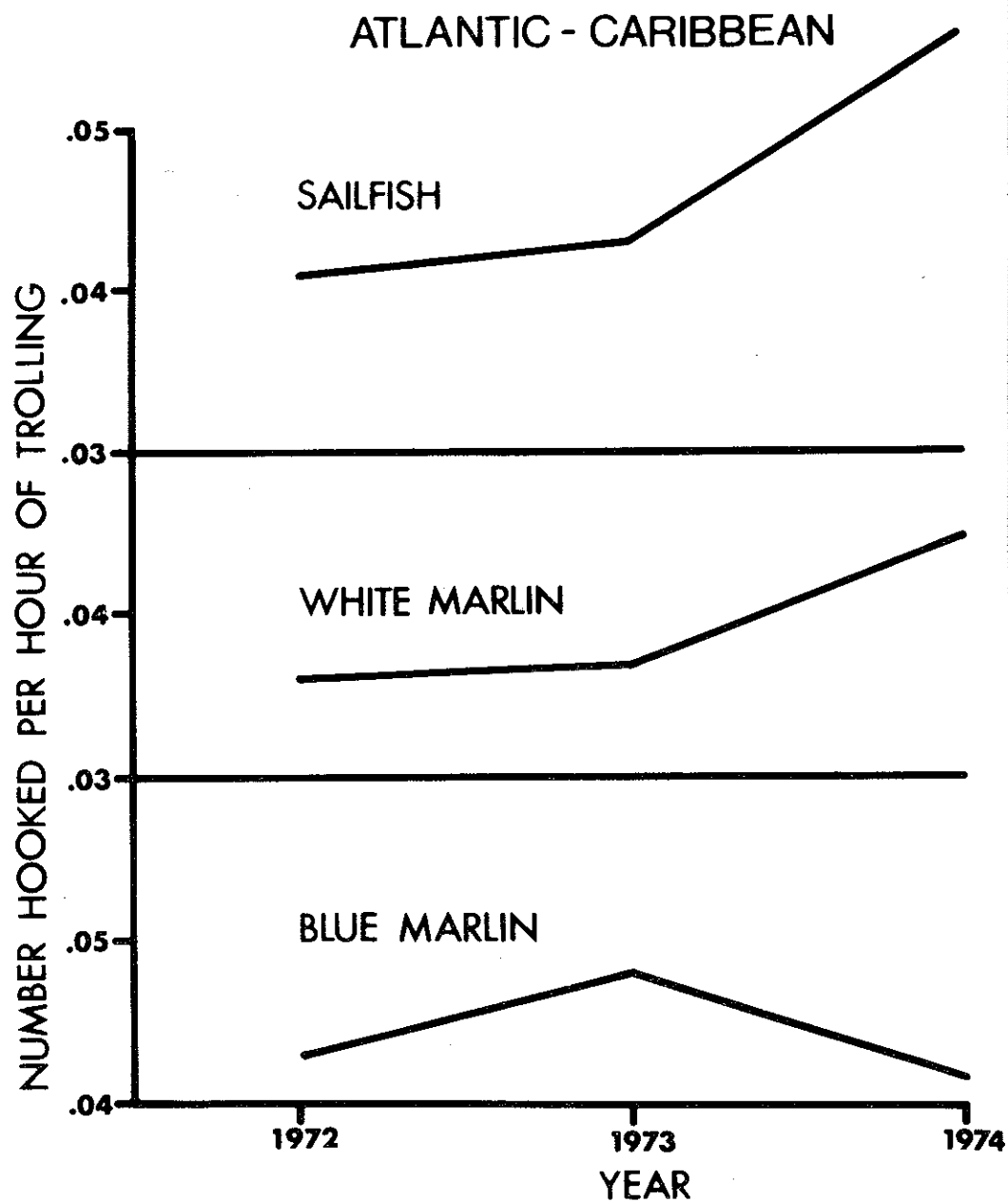


Figure 1 - Number of sailfish, blue marlin, and white marlin hooked per hour of trolling at tournaments sampled in the Atlantic and Caribbean, 1972-1974.

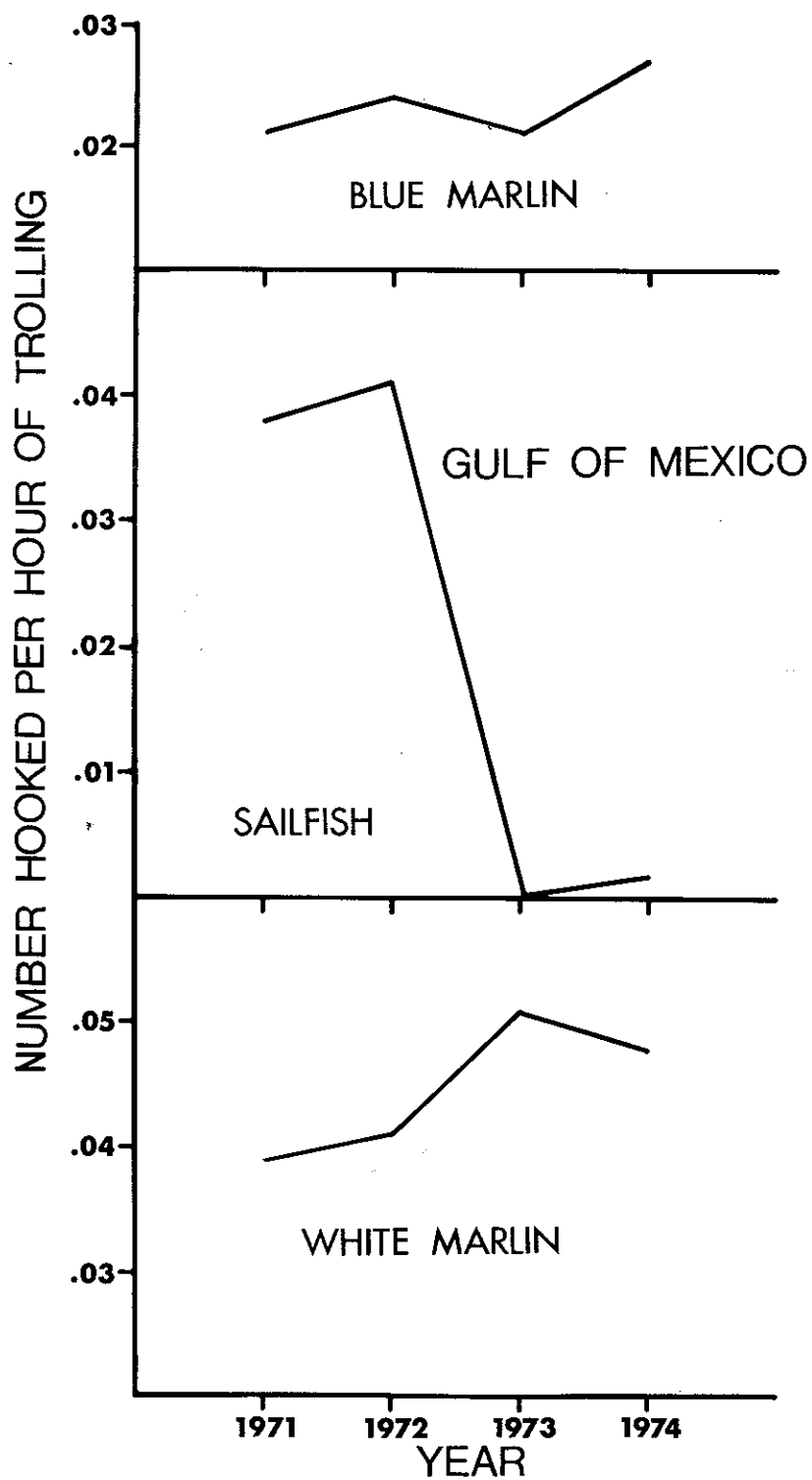
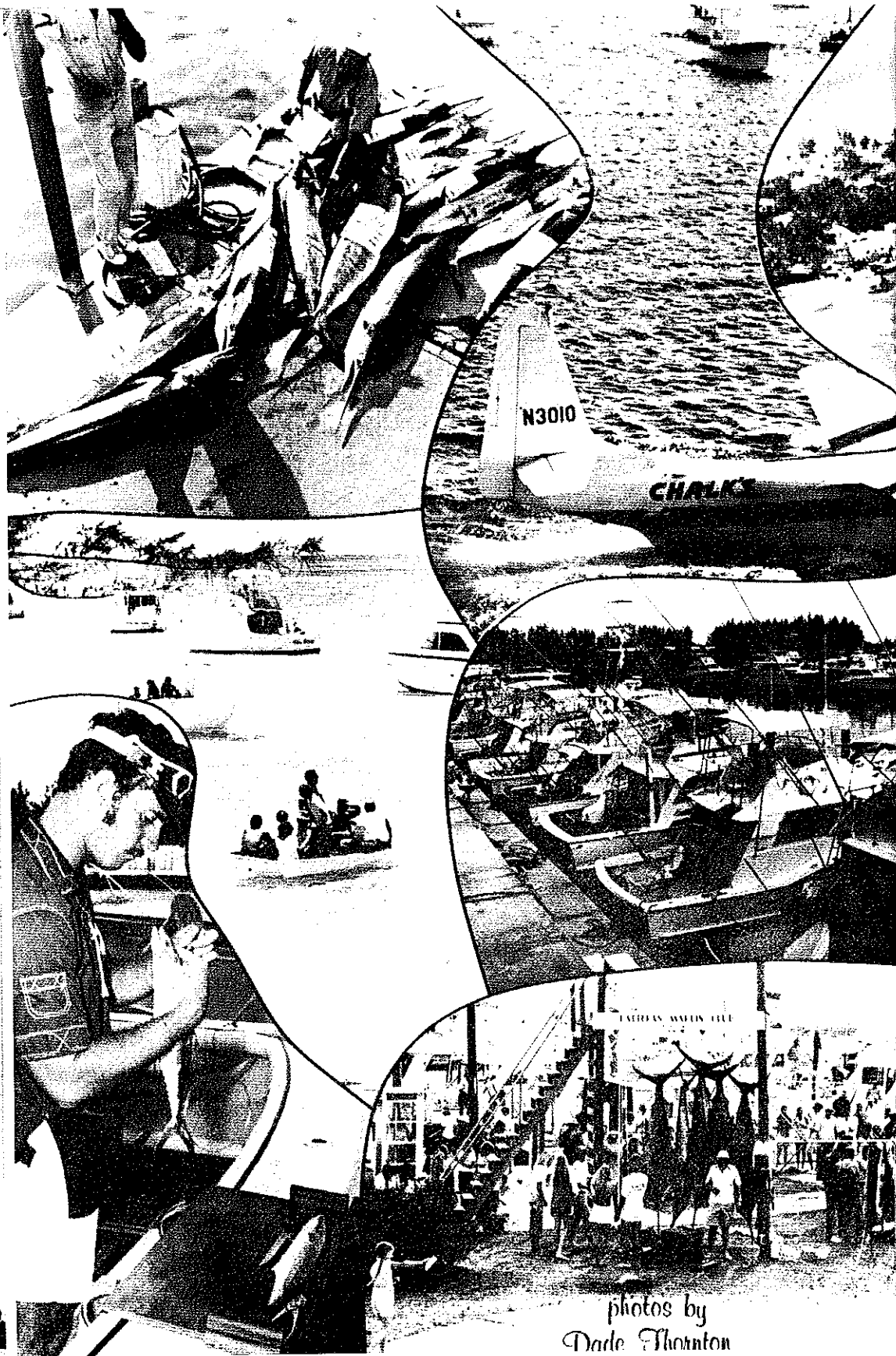
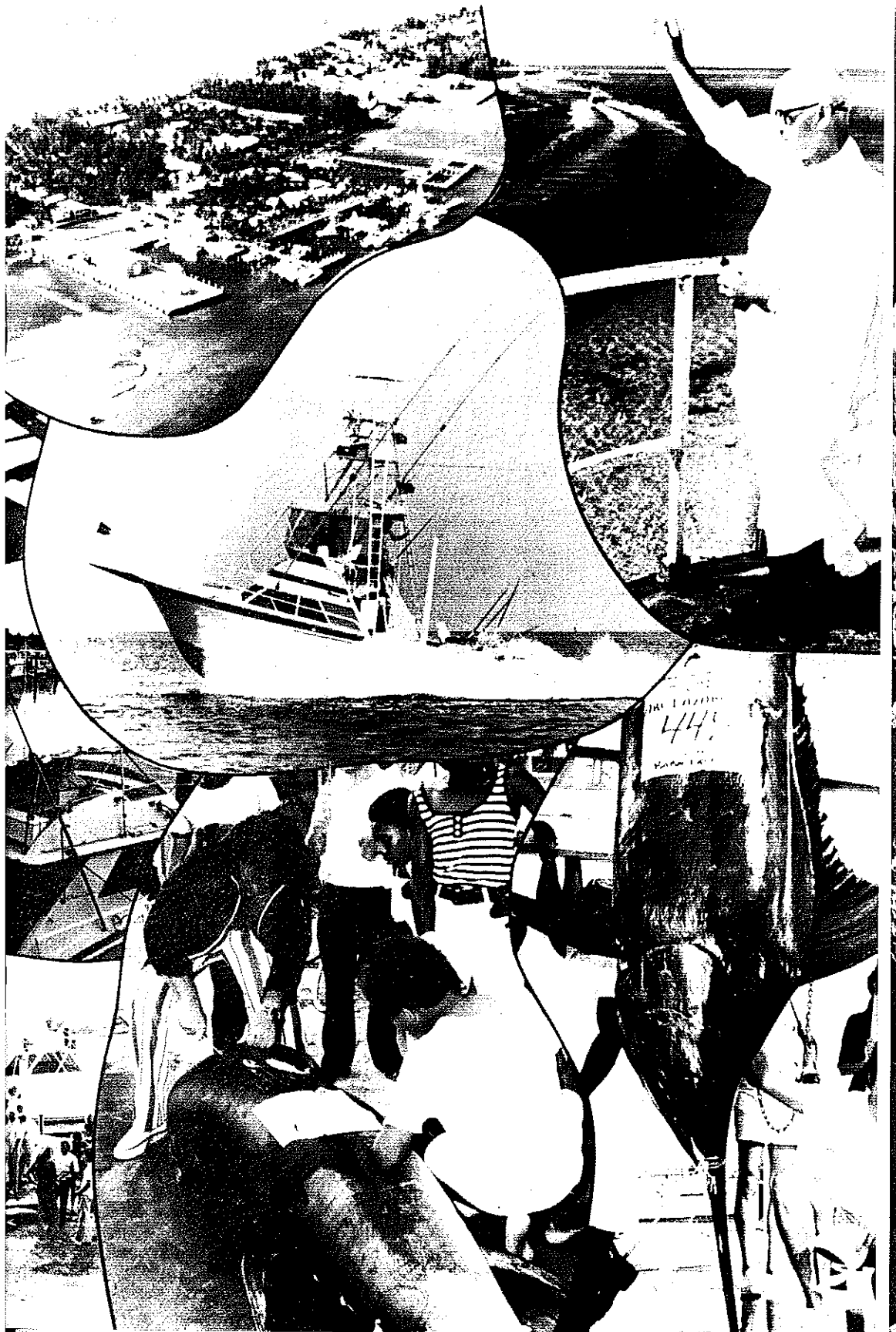


Figure 2 -- Number of blue marlin, sailfish, and white marlin hooked per hour of trolling in the Gulf of Mexico, 1971-1974.



photos by
Dade Thornton



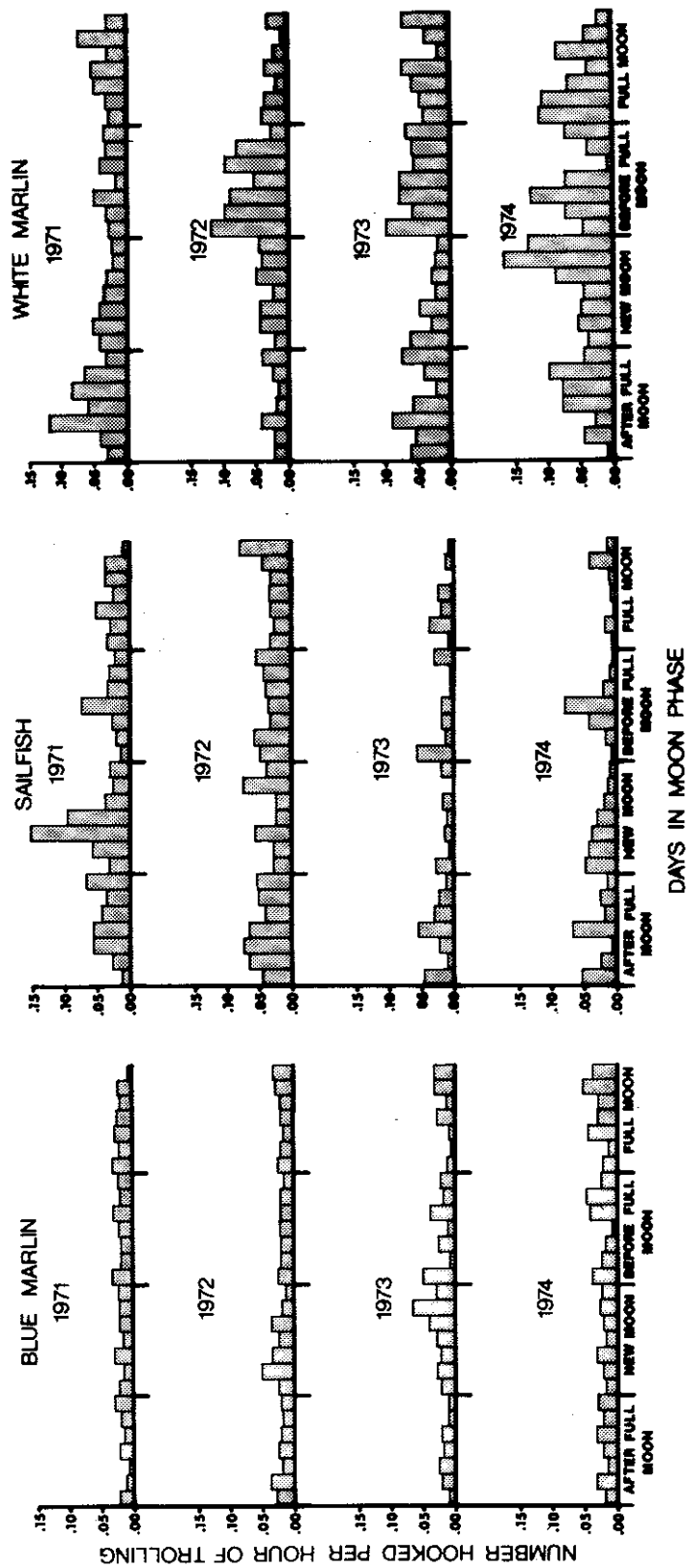


Figure 3 - Number of blue marlin, sailfish, and white marlin hooked per hour of trolling in relation to days within the moon phase. The 28-day lunar cycle is divided into four 7-day periods on the abscissa.

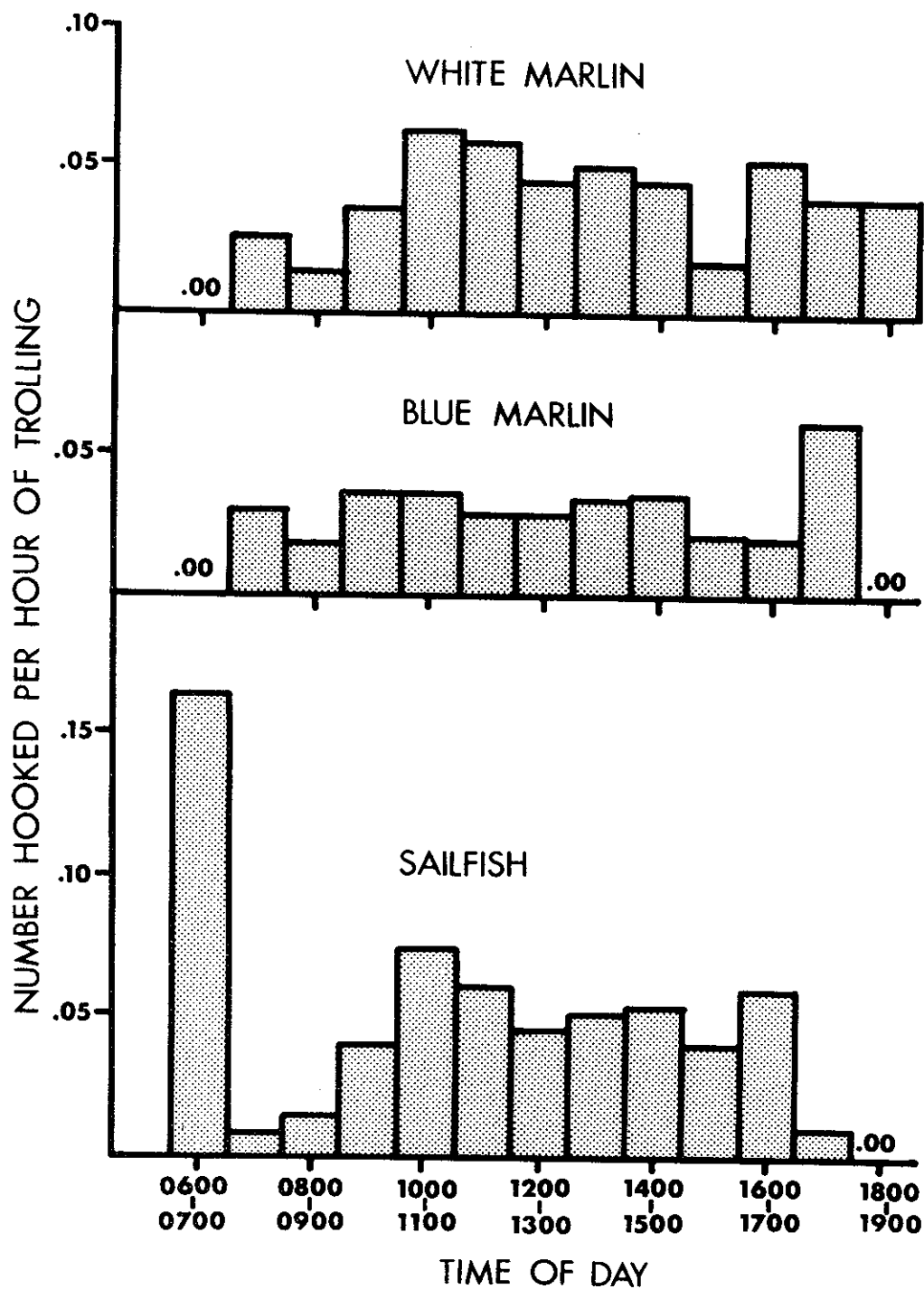


Figure 4 - Number of white marlin, blue marlin, and sailfish hooked per hour of trolling by time of day.

Table 4 - Average weights (in pounds) for blue marlin, white marlin, sailfish, bluefin tuna, and yellowfin tuna for 1972, 1973, and 1974.

Year	Blue Marlin	White Marlin	Sailfish	Bluefin Tuna	Yellowfin Tuna
1972	215	56	42	557	98
1973	226	59	33	549	114
1974	226	56	42	600	79

Table 5 - Fishing effort, catch, and catch-per-unit-effort (number caught per 10,000 hooks) for white marlin (WM), blue marlin (BM), and sailfish (SF) by the Japanese longline fleet in the western Atlantic Ocean between latitude 10°-40°N and west of longitude 60°W.

Year	Hooks	No.	WM	C/E	No.	BM	C/E	No.	SF	C/E
1957	5,428	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
1958	289,866	0	0.0	0.0	400	13.8	0	0	0.0	0.0
1959	258,101	300	11.6	11.6	400	15.5	300	11.6	11.6	11.6
1960	350,431	200	5.7	5.7	950	27.1	220	6.3	6.3	6.3
1961	91,551	100	10.9	10.9	150	16.3	200	21.7	21.7	21.7
1962	4,449,866	6,772	15.2	15.2	37,612	84.5	1,103	2.5	2.5	2.5
1963	9,534,821	18,614	19.5	19.5	38,534	40.4	2,630	2.8	2.8	2.8
1964	12,866,326	34,670	26.9	26.9	29,202	22.7	11,860	9.2	9.2	9.2
1965	8,467,161	24,156	28.5	28.5	18,007	21.3	6,456	7.6	7.6	7.6
1966	8,221,994	36,162	44.0	44.0	7,984	9.7	8,598	10.5	10.5	10.5
1967	2,219,776	6,166	27.8	27.8	1,837	8.3	1,777	8.0	8.0	8.0
1968	2,528,629	9,456	37.4	37.4	2,694	10.7	2,359	9.3	9.3	9.3
1969	2,687,096	10,140	37.7	37.7	8,575	31.9	3,864	14.4	14.4	14.4
1970	6,511,006	14,936	22.9	22.9	7,782	12.0	9,762	15.0	15.0	15.0
1971	13,936,722	27,069	19.4	19.4	14,695	10.5	10,509	7.5	7.5	7.5
1972	5,248,399	8,669	16.5	16.5	3,011	5.7	4,653	8.9	8.9	8.9

AVERAGE BLUE MARLIN WEIGHTS (lbs.)

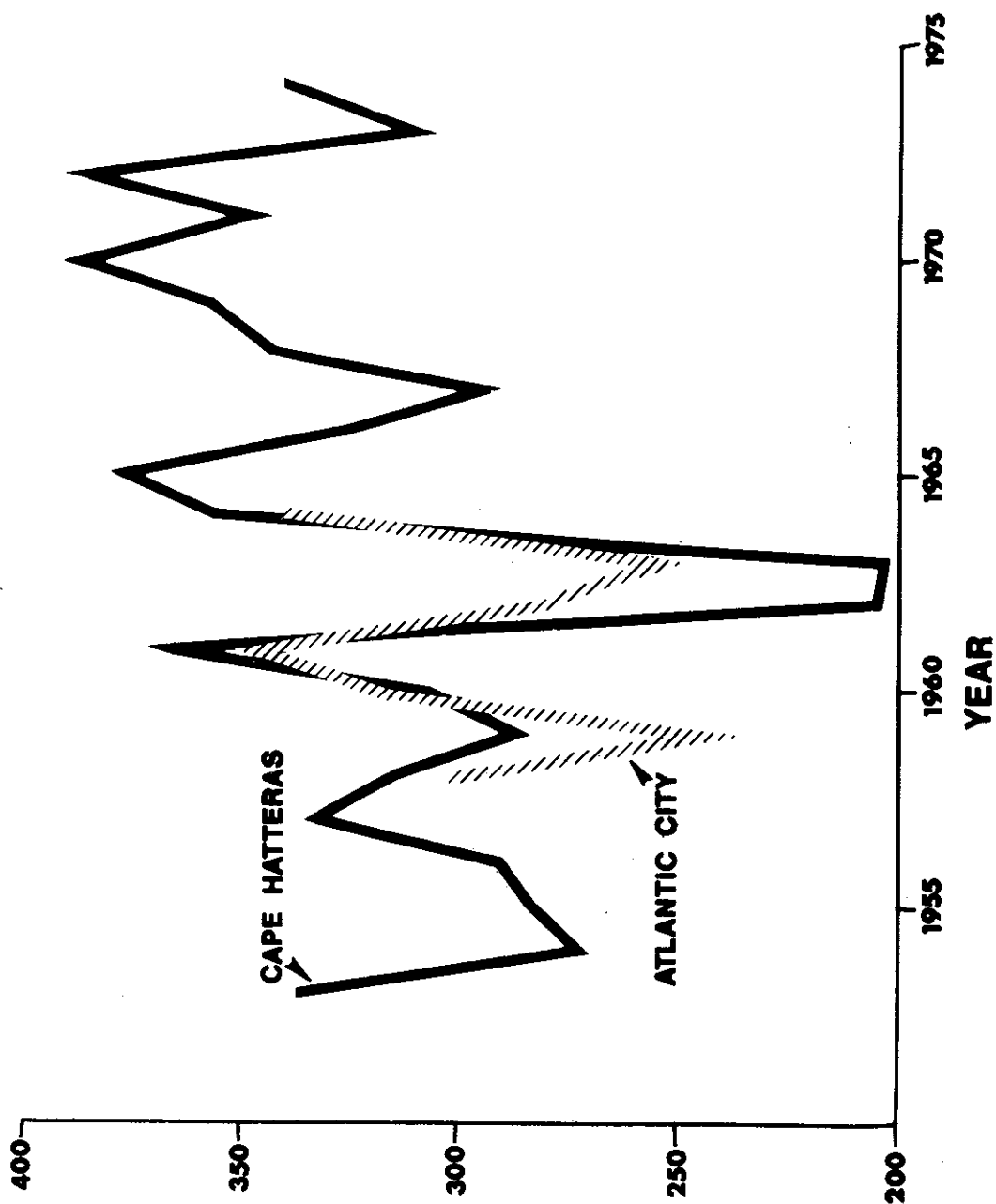


Figure 5 -- Average weights of blue marlin sampled off Cape Hatteras, N.C., and Atlantic City, N.J., from 1953-1974.

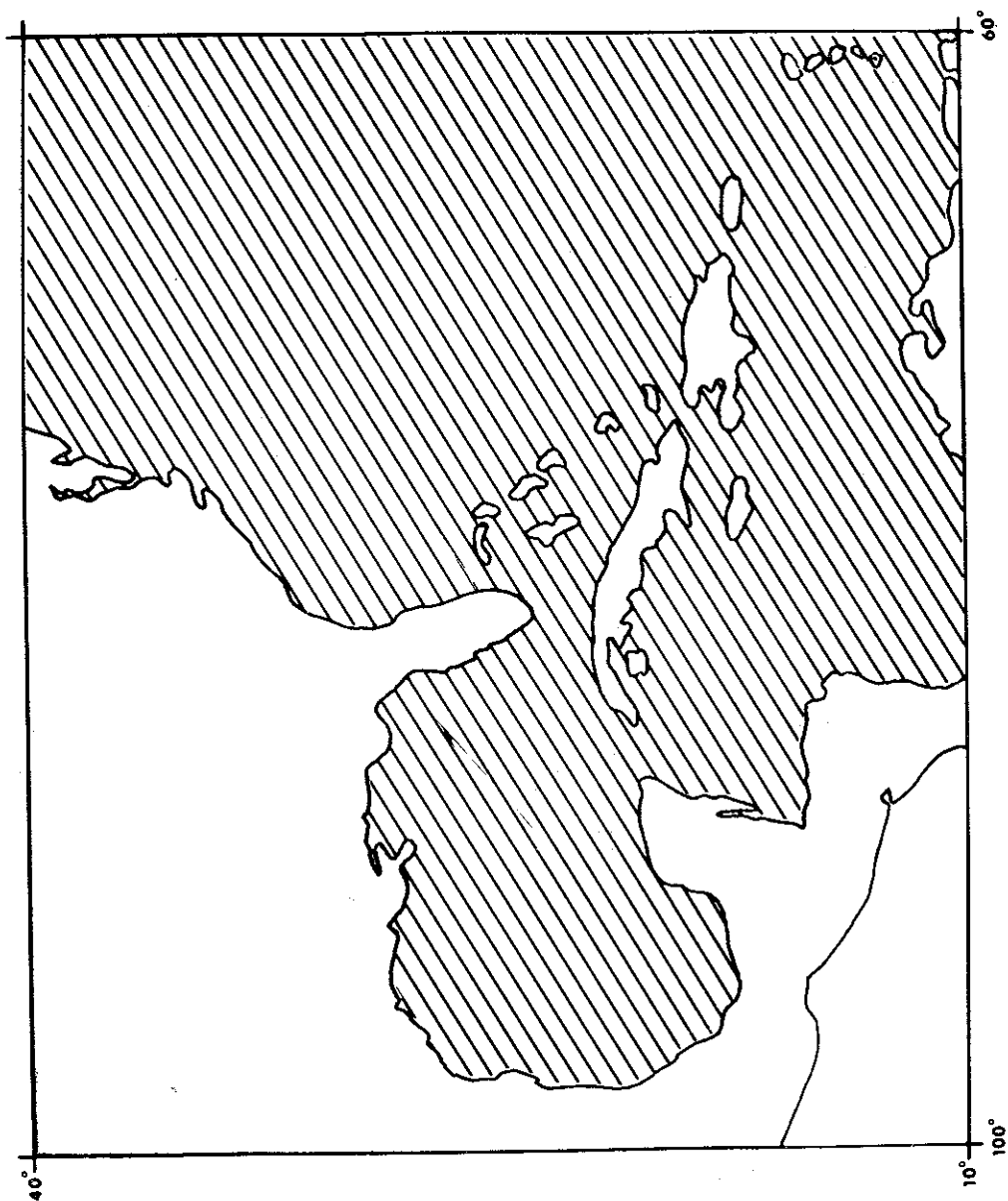


Figure 6 -- Area of the western North Atlantic used for discussion of longline catch rates in text.

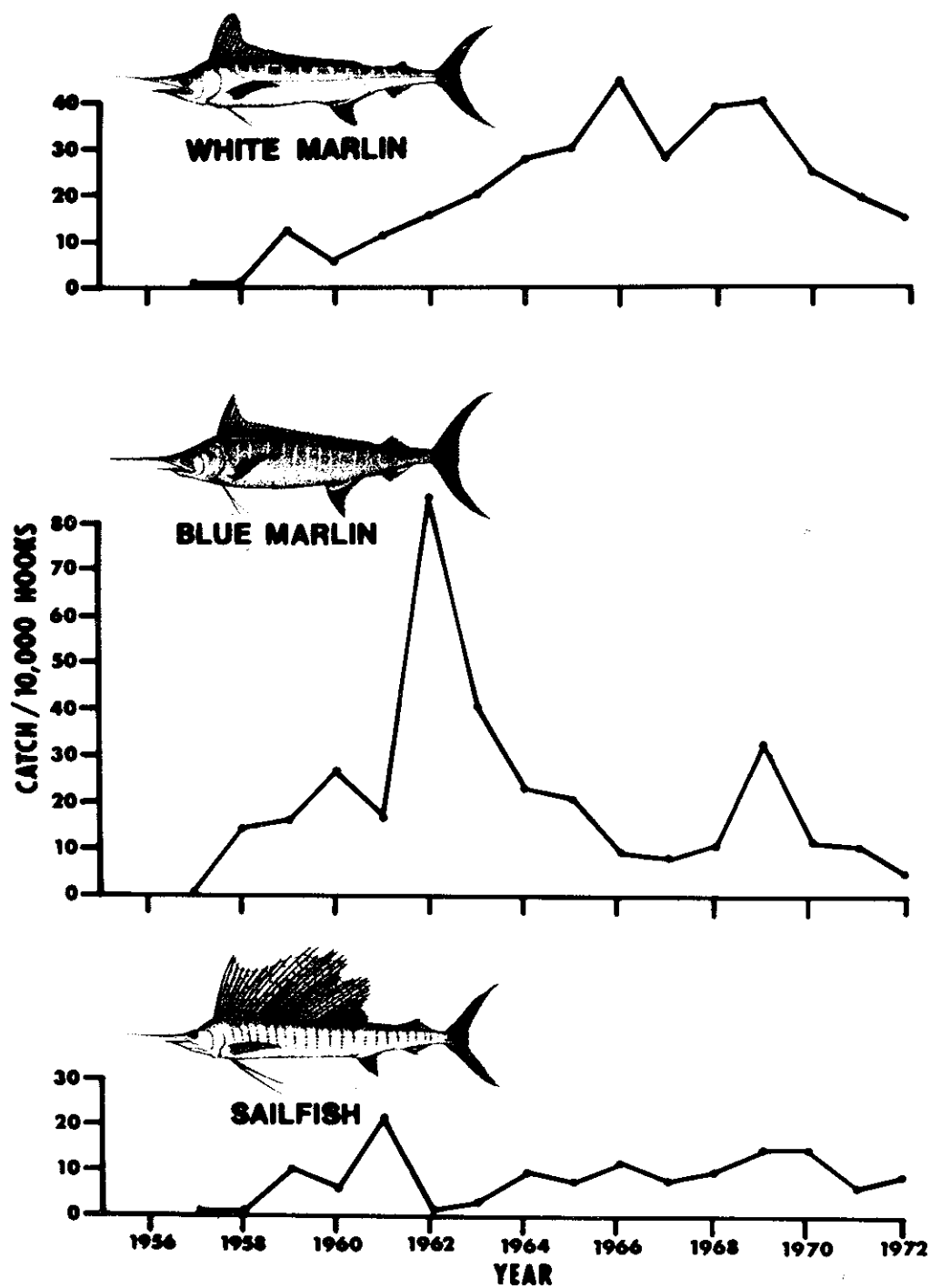


Figure 7 – Catch-per-unit-of-effort for white marlin, blue marlin, and sailfish from 10° – 40°N latitude and west of 60°W longitude. Data are from the Japanese longline fishery.

the most returns (25) with small bluefin second (19). One giant bluefin tagged off the Bahamas was recaptured off Norway after 461 days at large. An amberjack was recaptured by the same captain who tagged and released it exactly 365 days earlier at the same location in the Florida Keys. A NMFS-WHOI Cooperative Game Fish Tagging Program Newsletter listing full details on all 1974 recaptures is available from this office upon request.

Our greatest need is to tag and release more blue marlin. Only 89 were tagged in 1974 and two recoveries recorded. There are indications that this species has declined in relative abundance over the past decade and information on the migrations, seasonal abundance, and stock separation are urgently needed.

In February 1974, the National Marine Fisheries Service directed that a separate research program be organized at the Southeast Fisheries Center in Miami to study the biology, ecology, and population dynamics of North Atlantic bluefin tuna, and to develop rational management recommendations for conservation of the stocks. The Oceanic Game Fish Investigations has been involved with studies of Atlantic bluefin, and in view of the fact that the bluefin is one of the top big-game species in the Atlantic, we will include a brief review of bluefin research in our annual Newsletter.

In May, meetings were held with Canadian scientists to discuss mutual concern over the condition of Atlantic bluefin stocks and to develop management recommendations for the 1974 season. As a result of these meetings, voluntary restrictions were requested for the U.S. commercial and sport fisheries. The purse seine catch quota was set at 1,200 tons of school bluefin with a minimum size limit of 14 pounds. The commercial fishery was also requested to observe a quota of 500 tons of giant bluefin. Sportsmen were made aware of the bluefin problem through news releases and publications of various sport fishing organiza-

tions and were requested to restrict their harvest of bluefin. In general, cooperation from both commercial and sport fishermen was excellent. The U.S. purse seine fleet caught 870 tons of small bluefin in 1974 and refrained from capturing fish under 14 pounds except specifically for the purposes of tagging. They also cooperated with the research program by allowing sea-going samplers to ride aboard their vessels and measure and sample their catch and tag as many bluefin as they could. Over 1,400 bluefin were tagged and released from the seine fishery last year. Many old and established tuna tournaments were either cancelled or were changed to tag and release tournaments to aid in protecting bluefin.

Research was initiated on spawning and recruitment, age and growth, sex ratios, stock size, and status of stocks. In May, daily aerial flights were begun to provide visual estimates of the number of adult bluefin tuna migrating past Cat Cay and Bimini, Bahamas. Sightings were concentrated in June (Figure 8), and we estimated that approximately 65,000 giant bluefin tuna participated in the annual migration.

Additional studies based on new as well as historical information have revealed a curious shift in sex ratios of bluefin between the Bahamas and the coasts of New England and Canada. Off the Bahamas the sex composition has consistently been 70% females. Off New England and Canada, however, the composition changes to 60-70% males. We are not sure why this occurs, although we are investigating the possibility that somewhere during the northward migration the stock splits with most of the females moving to Norwegian waters and the males going into coastal waters of the U.S. and Canada. This hypothesis is reinforced by the disproportionate number of tag returns from Norway of giant bluefin tagged off the Bahamas.

New techniques are being examined for age and growth analysis. One of the most promising is the use of otoliths, one of the small bones in the inner ear, as an aging device. This tech-

BLUEFIN TUNA COUNTS ONE HOUR FLIGHTS

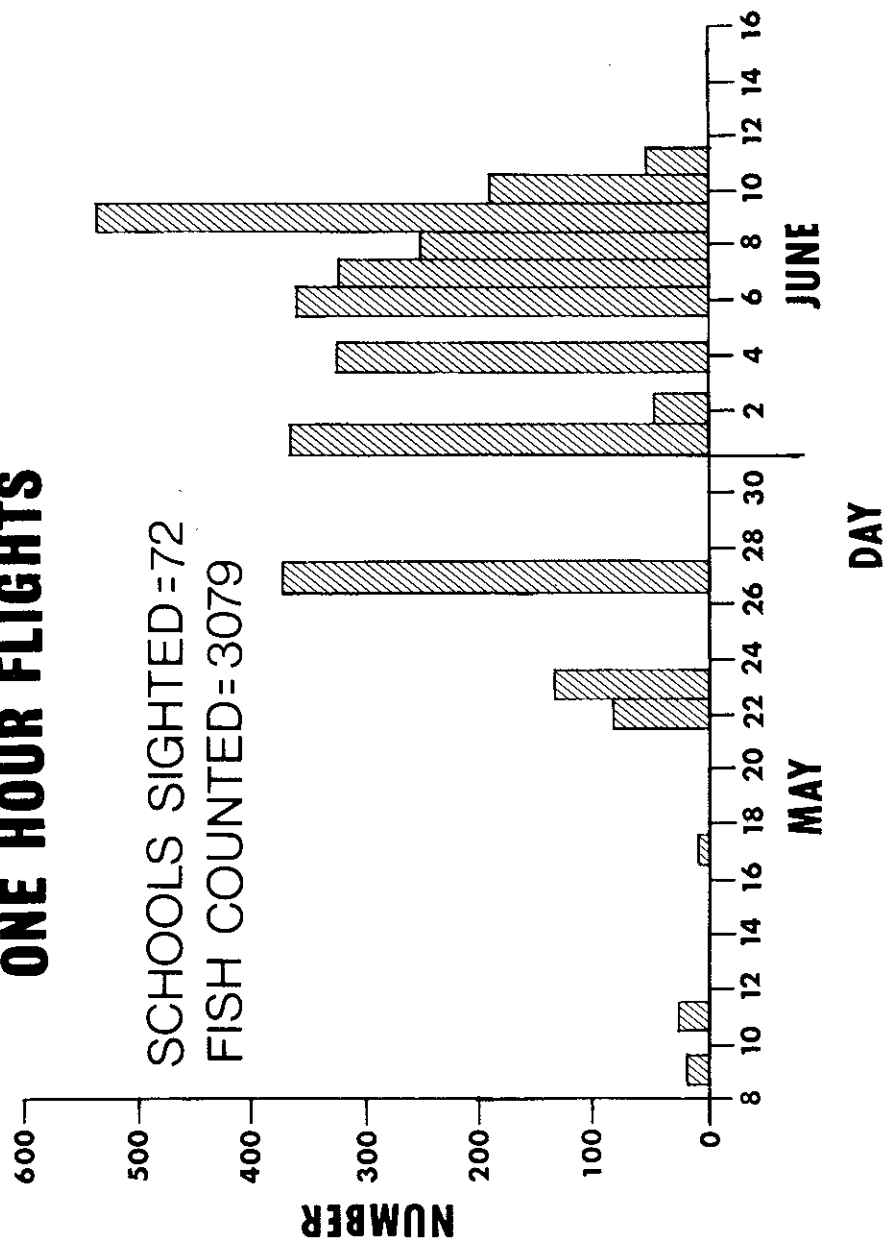


Figure 8 - Counts of bluefin tuna made by daily aerial flights off Cat Cay, Bahamas, from May 9 to June 16. Each daily observation period was 1.0 hours in duration except for 1.5 hours on May 9 and June 7 and 2.0 hours on June 9.

nique was developed by a scientist from the NMFS Northeast Fisheries Center, and as many as 25 rings have been counted on otoliths from specimens as large as 900 pounds.

We are organizing an extensive survey of the summer sport fishery for small bluefin along the New Jersey and New York coasts. Last year there were reports of large numbers of small bluefin being caught by anglers from Montauk to Cape May, however we have very little statistical or biological information on these catches. Port sampling, aerial overflights, and volunteer participation from anglers will be used to estimate the catch and fishing effort. If you would like to participate in this program please contact us.

At the November meeting of the International Commission for the Conservation of Atlantic Tunas in Madrid, the U.S. delegation proposed that international regulations be adopted to conserve the stocks of Atlantic bluefin. The Commission agreed to limit fishing mortality on bluefin to levels of recent years and to adhere to a minimum size limit of 14 pounds. The U.S. will conform to these regulations on both the sport and commercial fisheries by imposing bag limits, seasons, and catch quotas.

One of the most significant scientific publications on billfishes in many years is now available to the public. The Proceedings of the International Billfish Symposium held in Kailua-Kona, Hawaii, in 1972 is being published in three parts. Part 2, Review and Contributed Papers, is now available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. It is listed as NOAA Technical Report NMFS SSRF-675 and costs \$3.95. Parts 1 and 3 are in press and will be available shortly. Part 3 contains synopses of the biology of each of the billfishes in the world's oceans and should be invaluable as a reference source to anyone interested in billfishes.

The International Game Fish Re-

search Conference held its 17th annual meeting on Miami Beach November 11-13. The Conference provides a forum for anglers, administrators, and scientists to discuss topics of mutual interest. In 1974 topics included the Law of the Sea, the National Fisheries Plan, and Marine Conservation and Domestic Management. Papers were also presented on the NMFS Recreational Fisheries Program, the Atlantic Bluefin Tuna Situation, and the Status of Oceanic Game Fish Investigations.

We are grateful for the cooperation and assistance of all of the anglers and their crews. We particularly thank the big-game fishing clubs and charterboat associations in the Gulf of Mexico for their support. Special thanks go to the Bimini Big Game Fishing Club, Cat Cay Club, Chub Cay Club, and Club Nautico de San Juan, and the Governor's Invitational Blue Marlin Tournament for their special efforts in supporting our research. We thank Dade Thornton for his continued support and assistance. We also acknowledge the support of the State of Florida Department of Natural Resources, the Georgia Department of Natural Resources, and the South Carolina Wildlife and Marine Resources Department. Cooperative sampling arrangements with these organizations have produced a great deal of valuable data on billfishes.

The covers of the 1972, 1973, and 1974 Newsletters are from original batiks by Mrs. Gabrielle Ranallo and Mr. Grady Reinert from the NMFS Southeast Fisheries Center.

We periodically review our mailing list. If you wish to continue to receive our Newsletters please fill in the enclosed card and return to us.

With best wishes and good fishing.

Grant L. Beardsley
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