

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
MARINE RESOURCES REGION

REPORT FOR THE MONTH OF MAY 1971

The owners of the Danish vessel, "LEXA MAERSK", pled "nolo contendere" to a pollution charge in Malibu Justice Court and were fined \$700. The vessel was observed to have been pumping bilges as she left Los Angeles enroute to San Francisco by Coast Guard boats and helicopter. The oily wake stretched out for some 65 miles. The federal authorities were unable to take action in U. S. courts because of treaty provisions. However, once the oil came within state waters, we filed on information and belief using excellent Coast Guard evidence.

Eight Russian trawlers were reported operating, outside the 12-mile limit, off Redding Rock in 80-200 fathoms. Seven of the vessels were described as stern trawlers (BMRT's) and one was reported to be a side trawler.

The 1970-71 anchovy reduction season closed May 15th. Preliminary catch figures for the season revealed that 80,736 tons were taken with nearly 99% of the catch coming from the southern permit area. The 80,090 tons landed in the southern permit area nearly equaled last seasons' total of 81,453 tons. February's closure combined with poor fishing during March, April, and May kept the catch below the 100,000 ton quota.

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1. WILDLIFE PROTECTION

- A. Canneries: Anchovy reduction fishery closed on May 15th. The last dark of the season was extremely poor fishing as the fish were scattered and deep. The few tons of fish caught were located by under-water fishfinding devices.

The 30-day unloading period for yellowfin boats ended on May 5, 1971. Considerable amounts of large fish are being sent to storage by the boat owners on speculation for future sales.

Jack mackerel landings were extremely poor during the past dark, however, total landings are at 9,500 ton -- up 4,400 ton over last year.

- B. Market Fish: Commercial salmon fishermen settled price dispute on May 5, 1971, after two and one-half weeks of strike. Prices: large = 76¢ lb., medium = 56¢ lb., small = 46¢ lb. Adverse weather along the north coast held fishing effort down, however, salmon fishing was hot between Pt. Arguello and Pt. Sal, with some boat's catch at forty to fifty fish per day.

In southern California--good landings of squid; medium landings of rock cod, jack mackerel, halibut, and flying fish; and light landings of barracuda, white sea bass, and pompano.

- C. Sportfish: The sportfish catch in the south was made up of mostly rock cod and other bottom feeders with a sprinkling of bonito and kelp bass. Fair catches of yellowtail were landed in the San Diego area.
- D. Weather: Fishing activities were curtailed along the entire coast due to high winds and rough water. This was especially true along the north coast where winds reached forty-five knots with gusts over ninety knots.
- E. Law Enforcement: The case load and fines are down again this month because of inclement weather. Patrols were adjusted to enforce laws relating to salmon, abalone diving, and the lobster--closed season. The patrol boat, "BLUEFIN", located seven (7) BMRT's and one (1) SRT outside the contiguous fishing zone of Crescent City.

One thousand, three hundred and twenty (1,320) pounds of abalone and one thousand, three hundred and twenty-five (1,325) pounds of lobster were seized and placed into cold storage to await disposition by the courts.

The Los Angeles County Superior Court awarded the purse seine net from the vessel, "ELAINE III", to the State. The "ELAINE III" was cited for fishing for mackerel in the closed area at Santa Catalina Island on February 5, 1971. The net was released to the owners after they posted a bond of \$1200.

- F. Pollution: The owners of the Danish vessel, "LEXA MAERSK", pled "nolo contendere" to a pollution charge in Malibu Justice Court and were fined \$700. The vessel was observed to have been pumping bilges

as she left Los Angeles enroute to San Francisco by Coast Guard boats and helicopter. The oily wake stretched out for some 65 miles. The federal authorities were unable to take action in U. S. courts because of treaty provisions. However, once the oil came within state waters, we filed on information and belief using excellent Coast Guard evidence.

A criminal complaint was filed against Royal Manor Housewares for allowing 1,000 gallons of cyanide to pass into State waters near Marina Del Rey through the county storm drain system.

In the Los Angeles-Long Beach area; merchant vessels had seven (7) spills = eleven (11) barrels, Navy vessels had eight (8) spills = twenty (20) barrels; industrial spills amounted to twenty-one (21) spills = six hundred and ten (610) barrels. Two prosecutions for violation of Section 5650 were completed.

- G. Miscellaneous: Marine patrol attended nineteen formal meetings during the month, including presentations to the Los Angeles Medical Association, Environmental Pollution Committee, and the Symposium for Maritime section of the 18th Annual Western Safety Congress in Anaheim.

2. BOTTOMFISH

A. Fishery

Flatfish: Price disputes have resulted in a month long trawler strike in Eureka. In the San Francisco-Monterey areas moderate amounts of petrale and English sole were landed when the weather permitted. Moderate to good landings of petrale sole were enjoyed by Avila and Santa Barbara fishermen.

Roundfish: Eureka roundfish landings were very low due to the trawler strike. Fishing with pots for sablefish was initiated off of Eureka during the month. Moderate to good landings of bocaccio and chilipepper were landed by San Francisco and Monterey boats while Morro Bay-Avila and Santa Barbara boats landed good catches of bocaccio.

Eight Russian trawlers were reported operating, outside of the 12 mile limit, off Redding Rock in 80-200 fathoms. Seven of the vessels were described as stern trawlers (BMRT's) and one was reported to be a side trawler.

B. Research

Flatfish: Market samples were taken at all major trawl ports. Aging of flatfish market samples and validation of Dover and petrale aging methods continues.

During the month, 11 northern California tagged Dover sole were recovered and processed. Eight recoveries were from a 1969 tagging experiment and three were of 1971 origin.

Roundfish: Final preparations for the rockfish cruise on the SCOFIELD were completed and the cruise was started on May 18.

3. SHELLFISH

A. Fishery

Crab: The fishing effort for crabs in central California is at a minimum with only occasional deliveries to the markets. The reduction of effort was caused by poor crab catches and the start of salmon fishing. The total landings to date are approximately 618,000 pounds.

The start of salmon fishing and nearly continuous high winds have reduced crab fishing effort in northern California to a minimum. The few vessels still fishing have been working close in to the beach and have suffered considerable gear losses during recent storms. The total landings of 6.9 million pounds to date include approximately 3.9, 2.4, and 0.6 million pounds from Crescent City, Eureka, and Fort Bragg respectively. Price remains at 27 cents per pound.

Shrimp: Ocean shrimp season opened May 1, but no effort has been reported in Areas B-1, B-2 and C.

There has been no fishing in Area A due to a price dispute. The Oregon Fish Commission reports that three vessels fished two days out of Brookings for a total of 1,500 pounds. No Oregon vessels have fished south of the border. Volume and grade of shrimp in northern Oregon have been fair to poor, with as much as 60 percent of some hauls being "pinheads". Price is 11 cents per pound.

Bay shrimp fishermen report reduced catches and have turned their effort from south San Francisco Bay near Alviso to off China Camp and Petaluma Slough in San Pablo Bay.

Clam: A series of good tides at the beginning of the month brought out large numbers of razor clam diggers at Clam Beach, but even experienced diggers reported that fishing was poor. This was perhaps due to heavy surf, although catches on days with calmer water were not much better. A few people have been prospecting on South Beach but, as expected, most effort has been expended on North Beach since the regulation change.

Oyster: Oyster demand remains high and sales are good at Drakes Estero, Tomales Bay, and Morro Bay. Some of the oystermen are not pleased with the present low wholesale price for 10 ounce jar oysters, however.

Stringing of seed-bearing shell for hanging culture is still taking place at Drakes Estero. Most of the shell will be strung by the end of this month.

Eureka Oyster Farms is producing at a steady rate, with the oysters averaging 135 per gallon. They are beginning to turn soft, but the market is still fair for this time of year.

Coast Oyster Company is experimenting with the artificial setting of giant Pacific oyster seed. Five million oyster larvae from Pacific Mariculture were used in the experiment. Variable setting conditions were used and first results were encouraging to company officials. The oyster seed will be planted in various areas of Arcata Bay and their development and survival closely followed.

B. Research

Crab: Trap sampling at sea off central California was concluded for the season in April because almost all boats ceased fishing for crabs on a regular basis.

The growth and migration study of *Cancer magister* in San Francisco and San Pablo Bays continued this month. Five hundred crabs have been tagged to date.

The market crab growth study being conducted at Point Molate, near Richmond, continued. The April sample consisted of 218 males with an average size of 103.5 mm and 28 females with an average size of 99.6 mm.

Due to weather and reduced fishing activity off northern California, it has been difficult to obtain market samples and fishermen interviews. A sample in Crescent City averaged 1.9 pounds per crab, and the crabs were still in excellent condition.

A crab tagged in 80 fathoms off Mad River last November was recovered in approximately 5 fathoms off Trinidad.

Shrimp: Twenty-five new shrimp log books were distributed to fishermen who have indicated that they plan to fish in Area A.

Clam: A total of 130 arc shell clams (*Anadara broughtoni*) and 365 scallops (*Patinopecten yessoensis*) were planted in trays at Drakes Estero. These shellfish, which came from Japan during April, were held at the Marine Culture Laboratory. Initial measurements were taken and observations will be made on growth and survival.

Data from catch, effort, and species composition studies of Humboldt Bay clams made from 1967 through 1969 are being analyzed.

Oysters: At Drakes Estero survival of experimental giant Pacific oyster seed from Japan has been good. This seed, which was caught on scallop shell, averaged 8.8 oysters per shell after 14 months. The seed-bearing scallop shell was strung on wires and suspended from a rack. Shucked count per gallon was estimated at 160.

Scallop shell, which is stronger than oyster shell, does not break as easily in hanging culture. Many oysters are lost due to the breaking of oyster shell when the oysters become heavy. Some of our oystermen have noticed this and have, or are, contemplating change-over to the scallop shell.

4. SHELLFISH LABORATORY OPERATIONS (Bartlett Project M64R6)

The market crab larvae, which had metamorphosed through the five zoeal stages, developed into the megalopa stage in a weakened condition. They did not survive to the next stage. We will analyze our methodology and results in anticipation of further research to rear crabs into juvenile stages beyond larval forms.

The young spot prawns continue to exhibit good growth and survival characteristics. Our larger juveniles are now feeding upon fish carcasses. Research is in progress on growth and survival at elevated temperatures and in raw and filtered water.

The remaining ovigerous adult spot prawn, from our original brood stock of five, commenced hatching larvae on May 23.

We gave approximately 200 juvenile spot prawns to a graduate student at U.C. Santa Barbara for growth and survival studies in the lagoon by the campus.

The majority of the Japanese scallops and red clams that were being held in the laboratory for the Shellfish Program were delivered to the Shellfish Program for field experiments. The remaining Japanese scallops in the laboratory are exhibiting shell growth.

Adult Japanese scallops in the laboratory, that have been conditioned at lowered temperatures for several months, have well developed gonads and appear ready for spawning. We plan to induce spawning by thermal shock the last of May or early in June.

Pacific oysters, that have been conditioning at elevated water temperatures (18-22°C) preparatory to spawning, will be subjected to thermal shock to induce spawning the last of May.

A pump was installed on the incoming domestic water line in order to obtain sufficient pressure to operate the autoclave according to the manufacturer's specifications.

5. ABALONE

A dive was made at the Richfield Oil Company's Rincon Island to search for the pink, green and black abalones that were transplanted to this area from San Clemente Island in 1969. Poor visibility obstructed our search and only one black abalone shell was found. We have made three dives at the island since the transplant, but have located very few abalones, however, the absence of shells indicates the planted abalones probably survived, having crawled deep into large boulders that form the island and out of our range to observe them.

About 20 dozen pink, green and red abalones were weighed at Veteran Fisheries at Santa Barbara.

Several reconnaissance dives were made near Diablo Cove in the Lion Rock area to locate sites for a July fish collection. A small population of large red abalones was located and 30 were collected for the Region's mariculture lab.

Work was resumed on our shoreside lab. The pump intake and outfall lines, reserve tank and aquaria were installed. We hope to complete the system and have it in use during June.

The annual (1970) Diablo Canyon Ecological Study report was completed and submitted to the Pacific Gas and Electric Company.

Project divers attended the recertification course at Santa Catalina Island.

6. OYSTER DISEASE AND MORTALITY STUDY (N.M.F.S. Contract)

Routine investigations were carried out in Tomales and Humboldt Bays during May. Losses among the experimental stocks of Pacific oysters were negligible. New rack and bed stations were established in Humboldt Bay to more thoroughly monitor the expected losses this summer.

The routine processing and examination of tissue continues.

The project is on schedule.

7. SEA OTTER

A public information exhibit concerning Departmental research activities on sea otters was presented at the annual open house at Hopkins Marine Station (May 8, 9) and Moss Landing Marine Laboratories (May 16). Public attendance at these events was excellent.

Project personnel attended the diving safety seminar held at Catalina Island during May 11-13.

Work was begun on a report of three years' activities in the sea otter project. This report is due at the end of Fiscal Year 1970-71.

The sea otter tagged during experimental gear trials on April 29 has subsequently been observed on four different occasions. Observations have been made in a rafting group off Cannery Row and in the Monterey marina.

8. PELAGIC FISH

A. Fishery

Landings in tons	May		January 1 - May 31		
	1971*	1970	1971*	1970	10-yr. mean 1960-69
<u>Species</u>	<u>1971*</u>	<u>1970</u>	<u>1971*</u>	<u>1970</u>	<u>1960-69</u>
Anchovy	4,247	8,455	22,103	34,715	6,868
Mackerel, jack	681	3,003	9,467	5,639	11,531
Mackerel, Pacific	0	81	7	89	3,144
Sardines	17	17	37	82	997
Squid	2,050	1,466	7,002	5,142	3,231
Total	6,995	13,022	38,616	45,667	25,771

* Estimated. Accumulated landings are revised monthly.

B. Fishery Research and Monitoring

Anchovy: The 1970-71 anchovy reduction season closed May 15th. Preliminary catch figures for the season revealed that 80,736 tons were taken with nearly 99% of the catch coming from the southern permit area. The 80,090 tons landed in the southern permit area nearly equaled last seasons' total of 81,453 tons. February's closure combined with poor fishing during March, April, and May kept the catch below the 100,000 ton quota. Fishing in the northern permit area did not develop as expected and the catch of 646 tons fell well short of the 10,000 ton quota. The low catch figure is the result of a major reduction in fishing effort.

Jack Mackerel: Fair mackerel fishing was reported during the first week of May. After that period, light-of-the-moon and bad weather combined to drastically curtail fleet activity. Traditionally, this month is slow although during the past 2 years it has been exceptionally good.

Pacific Mackerel: No landings.

Sardines: Approximately five tons were landed.

C. Biological Studies

Inshore Sardine Spawning: Weekly plankton tows were made at three stations outside Los Angeles-Long Beach Harbor. Sorting of the samples has not been completed, but sardine eggs have been found in some samples.

Live Bait: Live bait fishing improved during May in most areas north of Los Angeles. Fishing has been relatively good at Oxnard and Redondo Beach. Los Angeles Harbor remained good this month, but with a lot of fluctuation from day to day. Most Newport Beach fishing was done offshore, and was not as good as during April. Fishing at San Diego was poor much of the month, partly due to bad weather. In most areas fish were scattered and schools were strung out much of the time, but schooling improved towards dawn. Schools have been moving around a lot, so greater search time is required. Commitments have been lower than usual this year due to the slow sportfishing.

D. Fisheries Resources Sea Survey (Bartlett M63R)

Sea Survey: The ALASKA returned from a cruise off northern Baja and southern California on April 30. Poor weather and heavy seas reduced the amount of planned work accomplished. Uncommonly low surface water temperatures prevailed over the entire area surveyed with temperatures ranging from 2^oF - 4^oF below normal. Anchovy schools located were small and scattered, a condition unusual for this time of year. Numerous scattering layers of small hake were located with our new 38K scientific sounder. Summarily, results from the cruise were rather anomalous.

The ALASKA departed on May 18 for a 20-day cruise in Mexican waters and started work at Alijos Rocks.

CalCOFI Data Report 20 (for 1970) is at the printers and will be ready for distribution in early June.

Data for all cruises completed in 1971 have been edited and computer print-out of these data have been received.

Sea Survey Data Analysis: Work continued on data gathered during the 1967-68 and 1968-69 jack mackerel seasons. A "Students" t test was used and showed no significant difference in growth between male and female jack mackerel for all ages sampled. The same results were achieved when the t test was used on the anchovy data from the 1969-70 season.

The jack mackerel annual period was changed so that it will extend from August 1 to July 31 the following calendar year. This should lessen otolith reader error.

A manuscript describing the major purse seine gear changes in the wetfish fleet based at San Pedro has been expanded and more detail was added to existing sections.

At month's end, a program was started to determine the fishing power of individual boats within the wetfish fleet. The primary objective will be to determine if the sonar and purse seine drum has increased the fishing power of certain boats.

The manuscript describing the 1964-65 through 1967-68 Pacific mackerel age composition was finished and edited. It now awaits approval by the co-author who is at sea on the N. B. SCOFIELD at the present time.

9. BIG GAME FISH

A. Albacore

Research: One of our computer program estimates age composition from historical length-frequency data and calculates a seasonal total for numbers of fish. It differs from the estimate obtained from logbooks. A study was initiated to examine these differences prior to expressing historical landings in numbers.

Fishery: No fishing activity this month; however, the time of year and the first warm days of spring have resulted in preparation for the forthcoming season. Increasing phone calls and visits, requesting evaluation of environmental conditions and fishing prospects reflect this increased preparation.

B. Bluefin Tuna

Research

Life History: Age and growth--three weight-length-scale samples were taken.

Population Dynamics: Debugging of the bluefin catch-effort program continued.

Fishery

Sport: No action.

Commercial: The first bluefin of the season were caught, about mid-month off Cape San Lazaro, Baja California. At month's end over 300 tons had been landed.

Bluefin prices opened at \$405. per ton. This is about \$60. higher than last year's opening price.

C. Bonito

Research

Life History: Age and growth--two length-weight-age samples were taken.

Migration: Three tags were returned during the month revealing local movements.

Fisheries

Sport: A few bonito were caught at most landings from San Diego to Los Angeles.

Commercial: High seas purse seiners caught about 400 tons of bonito to complete their loads when tuna fishing slowed.

D. Billfishes

Since the pronouncement, by the Federal Food and Drug Administration a month ago, that billfish fishermen may be held liable for donating their catch to charity, several large clubs have been trying to work out a compatible program for the summer. We have maintained a close liaison with this development for the benefits that might be gained.

Big Game Resources: A sampling program was initiated to monitor the big game species taken by sportsmen: yellowtail, white seabass, bonito and barracuda. Sportfishing boats from Los Angeles to San Diego and the long range boats fishing Mexican waters will be sampled. The primary objective is to gain additional information concerning the condition of the populations and to learn more about the life history of each species.

Meetings and Talks: Several charts comparing sports catch numbers and commercial catch numbers were prepared for the CASCOR meeting. Hal Clemens gave a talk on big game species.

Personnel: Charles Hooker and Brian Thayer attended a one-week course in systems analysis given in Sacramento.

10. SPORTFISH

A. Partyboat

Research: In preparation for a CASCOR meeting in which the status of sport fish stocks was an agenda item, an extensive review of catch statistics was undertaken. The data, in chart form, were presented to CASCOR on May 14. On May 15, data relating to California halibut were presented to an audience of 60 fishermen, legislators and others in Santa Barbara. Several tagged bass were recovered; their growth and migration data fitted the established pattern.

Fishery: The catch of key marine species and total fishing effort through April, compares to 1970 for the same period as follows: (nearest 100)

<u>Through April</u>	<u>1971</u>	<u>1970</u>	<u>Variation</u>
Rockfish	674,400	830,700	off 19%
Bonito	49,700	33,200	+ 50%
Salmon	41,900	18,300	+ 129%
Kelp-sand bass	20,300	57,200	off 65%
California halibut	3,500	9,500	off 62%
Barracuda	3,600	58,200	off 94%
Striped bass	600	1,200	off 50%
Yellowtail	1,500	3,800	off 60%
Sturgeon	432	609	off 29%
<u>Total Catch</u>	877,700	1,148,000	off 24%
<u>Total Anglers</u>	112,700	152,000	off 26%

B. Central California Marine Sportfish Survey

Partyboat and skiff sport catches were sampled at Monterey during the month.

Most of the month was spent analyzing project data for the final report. Effects of kelp cutting and the sport catch analysis are nearing completion. Data were also prepared for the pending Monterey gill net legislation.

The Cen-Cal skindiving meet was attended at Carmel Beach on May 16.

On May 19, Miller participated in a discussion with other Department biologists on proposed management of kelp harvesting in central California.

On May 26, a field trip was made with Bert Williams from the Sacramento office to locate tide pools suitable for filming for a Fish and Game movie.

11. INSHORE FISHERIES HABITAT EVALUATION AND MONITORING

Most of the month was devoted to completing the Seal Beach and Sunset Beach, and the Santa Ana River surveys for the Santa Ana Regional Water Quality Control Board.

We assisted in organizing and conducting the Diving Recertification Seminar at Santa Catalina Island, May 11, 12 and 13, 1971.

Some time was spent assisting in the quarterly CONES survey off Palos Verdes Point.

ENVIRONMENTAL AND BEHAVIORAL STUDIES OF COASTAL SPORT FISHES

Two weeks were spent on the spring survey of our CONES transect at Palos Verdes Point. We used a double hose hookah outfit borrowed from the Abalone Project and it performed very well even at our deepest station (105 feet).

Project divers attended the Diving Safety Seminar at Santa Catalina Island and monitored the length-frequency and species composition of fish at two G.L.A.C.D. spearfishing meets; one held at Leo Carrillo State Beach and the other at Paradise Cove.

Diving assistance was given to the Inshore Fisheries Project during their surveys off the Santa Ana River.

12. SPECIAL PROJECTS

A. Southern California

Corps of Engineer environmental statements and permit applications continued to pour in and comments and recommendations took much of the project time.

Ernie Ornelaz and Joe McCloskey of the Seafill Corp. visited the lab to discuss artificial reef development in Santa Monica Bay.

A talk on marine pollution and the contaminants in the ocean which can be attributed to the plastics industry was given at the annual meeting of the Society of the Plastics Industry at the Hotel Del Coronado.

Dr. Wendell Gayman of Ocean Science and Engineering, Inc. came in to discuss a large expansion of docking facilities near Fish Harbor and the possible effects on the harbor environment.

A tour was made of the Pesticide Laboratory in Sacramento and the Pollution Laboratory at Nimbus to gain a better understanding of methods used to analyze for pesticides and mercury in marine species.

A meeting was attended between MRR and Environmental Services personnel in Sacramento to discuss mutual problems.

A meeting with Environmental Services and Paul Bonderson was held to discuss the problems related to the expansion of discharges and facilities at the Oxnard Sewage Plant.

A seminar on Environmental Ecology and Pesticides was attended at the Naval Air Station in Alameda.

B. Northern California

Coastal Wetlands: It was decided at a coastal wetlands coordinated meeting in Sacramento, May 17, that MRR's contribution to the Humboldt Bay report would be completed within six months. Deadlines for Tomales Bay and Bodega Bay reports were established as July 1972 and January 1973 respectively.

Review and Comments: MRR and Environmental Services Branch personnel met in Sacramento to coordinate the increasing flow of requests for and comments regarding environmental impact statements, Corps of Engineers' public notices, and work projects requiring review and comment. Comments were prepared in May on projects involving Bolinas Lagoon, Pillar Point Harbor, Morro Bay Harbor, and an outfall in San Pablo Bay proposed by Navato Sanitary District.

Liaison: We are continuing to work with the Corps of Engineers in developing a comprehensive evaluation of environmental effects of dredging activities. We met twice with personnel of Marine Ecology Research (Project MER) of Contra Costa County Department of Education. Project MER is a cooperative education-science research proposal for the study of the San Francisco Bay-Delta-Estuary complex. We serve in the capacity of advisor.

C. Environmental Services Section

Water Quality and Pollution Activities: Several waste discharge requirements were evaluated and comments and recommendations prepared for transmittal to the appropriate Regional Water Quality Board.

The evaluation of proposed Preliminary Interim Water Quality Management Summary Plans were completed.

Upper Newport Bay siltation problems and fish and wildlife uses were discussed by personnel from various interested agencies. The main discussion concerned the removal of silt and how to minimize future siltation.

Two reports of fish die-offs were investigated. Approximately 1,000 bonito have become stranded in poor quality water approximately 2 miles upstream in Los Cerritos Channel near Long Beach State College. Grunion were stranded at several beaches during spawning tides.

Fish toxicity tests were conducted on several industrial wastes at the request of Wildlife Protection personnel.

13. MARINE FISHERIES STATISTICS

A. Source Documents

The April 1971 Marine Sport Catch letter was prepared and mailed. Checking and editing of the following 1971 documents was completed: February and March market receipts; April cannery receipts; April sport catch logs; and March trawler receipts.

Editing continued on April market receipts, May cannery receipts, April trawler receipts and May sport catch logs.

A list of partyboats located in the San Francisco Bay and Delta areas, together with names and addresses of skippers, was prepared for Jim Bybee.

B. Machine Processing

The unit processed 20 reports during May. Routine work included January and February statistical reports, February trawler reports, April cannery and processors reports, sport catch reports of salmon, striped bass and marine fish.

Annual report runs included: tables for the 1970 statistical circular, striped bass reports, live bait reports, and oyster reports. Special reports included, San Pedro Tuna fleet, the fish catch within the 12-mile zone off Mexico; 1956 trawler re-run, crab and shrimp cruises 70-N-14 and 70-S-8; jack mackerel age-length; and Sea Survey data.

C. Information

The following routine reports for the month of April 1971 were decoded and distributed: cannery check runs (3 reports); processors (4); marine sport catch (4); salmon and striped bass catch by partyboats (2); jack mackerel cannery, area 7 (1); and tuna letter.

The following Annual reports for 1970 were decoded and distributed: Oyster (4); Striped Bass (9); and Bait Fishery (8).

Special requests included completion of the following jobs: number and net tonnage of California trawl vessels for Tom Jow; gear for the 1969 Herring report for Tom Jow; xerox copies of block area 430 for the period 1964-69 for Dr. H. Orcutt; prepared table of fish catch by zones off Mexico for the United States-Mexico treaty; prepared activities, other than lobster fishing, of a selected group of boats for Dr. Farris, SCSD; provided Dan Miller with selected block area catch data; landing, shipments and value data for the San Diego area was supplied to Norman Nierenberg, U.S. Corps of Army Engineers.

D. Licenses and Vessel Documents

Master list changes were noted and mailed to Sacramento and Field offices.

As of the close of business on May 14, we received a total of 4,267 commercial fishing licenses, 2,427 commercial boat registrations and 353 sportfishing partyboat licenses. The usual seasonal backlog of licenses and registration remained at months' end for processing.

E. Ecology and Vital Statistics

Mr. M. J. Doyle and Mr. Hall of Pacific Gas and Electric, San Francisco, applied to Marine Fisheries Statistics for Nansen bottle station data in the Point Arena area. We supplied xerox copies of National Oceanographic Data Center computer printouts. Mr. Doyle offered any and all environmental data gathered by Pacific Gas and Electric for the use of the Marine Resources Region.

The Marine Culture Laboratory, Granite Canyon, has begun supplying Marine Fisheries Statistics with daily sea surface temperatures taken at their site.

F. Miscellaneous

A total of 200 hours was spent by supervisory personnel in in-service training; 40 hours in a management seminar and 160 hours in Fundamentals of Systems Analysis.

Compilation of the Interrogatories for the litigation State of California vs Union Oil, et al. required considerable clerical time. Additional typing effort was also expended in drafting the final manuscript for the Food Habits Study report.

A report on the Status of the Barracuda and White Seabass Resources was prepared and presented at the May 14 meeting of CASCOR.

14. VESSELS

ALASKA: From the 18th through the 31st, the vessel was engaged in a Pelagic Fish Study off Baja California. The balance of the month the crew was on time-off.

N. B. SCOFIELD: From the 1st through the 17th, the vessel was secured for CTO and "Z" time.

On the 18th, the N. B. SCOFIELD sailed for a four-week Rockfish Study off southern California and Channel Islands.

KELP BASS: On the 11, 12, and 13 the vessel conducted diving certification classes off Santa Catalina Island.

On the 18th and 19th, the KELP BASS conducted ecological survey off Santa Ana River Estuary.

15. MISCELLANEOUS

A. Meetings, Talks and Visitors

May 4

-Carlisle met with McCloskey and Ornelaz of the Seafill Corp. to discuss artificial reef development in Santa Monica Bay; Long Beach.

- May 4-6 -William Yost and Alec MacCall attended an "Advanced Computer Programming" course given by O.M.S. in Sacramento.
- May 5 -Blunt spoke to the Eureka High School conservation class on Department operations and showed the anchovy movie as an example of how Fish and Game laws are made.
- May 7 -Gates attended and participated in Director's Marine Advisory Meeting; Sacramento.
- May 6 -Swartzell delivered a talk to the Sertoma Club on the function of the Marine Resources Laboratory at Menlo Park.
- May 6 -Les Edgerton, Executive Secretary to the Commission, Commissioner J. Russ and his wife, and W. MacGregor, Wildlife Management Supervisor, were conducted on a sea otter viewing cruise by Wild; Monterey.
- May 7 -Carlisle gave a talk on marine pollution and the role played by the plastics industry at the annual meeting of the Society of the Plastics Industry; Coronado.
- May 7 -Frey met with members of Wildlife Management Branch concerning Santa Barbara Oil Spill data.
- May 7 -Hardy gave a talk and slide presentation to 50 gifted students at Overland School, Los Angeles.
- May 7 - 8 -Blunt attended the Coastal Zone Planning Conference sponsored by Humboldt State College Sea Grant Program.
- May 9 -Short talks were given to about 300 visitors at the Hopkins Marine Station open house, Pacific Grove.
- May 9 -A talk on gill net and partyboat operations in Monterey Bay was given to about 90 members and friends of the Salinas Isaak Walton Club, attended by Miller.
- May 10 -Blunt spoke to the Eureka Masonic Lodge on tropical tuna.
- May 11 -Gates and Pinkas met with Dr. Wheeler, Norm Abramson, and Tommy Allen, NMFS, to discuss possibility of providing them with statistical service under contract.
- May 11 -Project findings and artificial reef development procedures were presented to 20 members of the Santa Cruz Angling and Hunting Club.
- May 11 - 13 -Ken Mais and Robert Lea spent three days at a Scuba Diving Seminar for Departmental divers held at Santa Catalina Island.

- May 12 -Staff of the Eureka Laboratory met with Dick Hansen, Water Quality Biologist, from Region 1 concerning standardized procedures for data collection in the event of a local fish kill.
- May 12 -Leo Pinkas was part of a citizen's group consulting with the Long Beach City Manager's Office regarding the establishment of an ecological unit or office for the City of Long Beach.
- May 12 -Carlisle met with Dr. Wendell Gayman to discuss the impact of the construction of large docking facilities near Fish Harbor, Long Beach.
- May 13 -Powell and Frey met with members of the Oil Spill Information Center at University of California, Santa Barbara.
- May 13 -Gates, Miller, Orcutt, Young, Clemens, Pinkas and Frey met for a pre-CASCOR meeting.
- May 14 -The CASCOR meeting at MRR, Long Beach was attended and a talk was given on sportfishing from Pt. Arguello to Oregon at Long Beach. Those in attendance were, Gates, Orcutt, Clemens, Pinkas, Frey and Miller.
- May 14 -Leo Pinkas presented a Barracuda-White seabass Status report to CASCOR, Long Beach.
- May 17-21 -Leo Pinkas attended the Management Seminar, El Segundo.
- May 18 -Frey, Ganssle, Haugen, and Knaggs met with Farley, Lynch, and Berude of ORB, concerning System Analysis Review of the Pelagic Fish Program.
- May 19 -Gates attended a Regional Manager's Meeting at Catalina Island.
- May 19 -Miller, Ebert, Wild, Wilson, Geibel and Hardwick met to discuss recommendations on kelp harvesting; Monterey.
- May 20 -Gates attended Headquarters Staff meeting in Sacramento.
- May 21 -Gates attended staff meeting; Long Beach.
- May 20 -Carlisle attended a meeting with Environmental Services personnel and Paul Bonderson to attempt a clarification of problems related to the expansion of facilities at the Oxnard Sewage Plant, Sacramento.

- May 21 -Duffy, Hardy and Ames met with Douglas A. Hotchkiss, an Oceanographer with Los Angeles County Sanitation Districts, to discuss nearshore scuba surveys.
- May 24-28 -Jow and Dahlstrom attended a systems analysis training session at Sacramento.
- May 24-28 -Robert Bell, Malcolm Oliphant, Jeanne Cowger, Frey and Dorothy Bailey attended the Fundamentals of Systems Analysis school, Sacramento.
- May 25-27 -Carlisle attended a seminar on Environmental Ecology and Pesticides, Alameda.
- May 27 -Gates, Fullerton, Baxter, Orcutt attended meeting in Monterey regarding sea otter project.
- May 27 -Gregory talked to students at Wilbur Junior High School "Career Days" in Palo Alto.

B. Personnel

- May 3 -Steven A. Schultz, Junior Aquatic Biologist, Ecological Study, Diablo Canyon, Morro Bay promoted to Assistant Marine Biologist.
- May 3 -Lawrence F. Quirollo, Junior Aquatic Biologist, Bottomfisheries, Eureka, promoted to Assistant Marine Biologist.
- May 4 -Marigene H. Fauber, Clerk Typist II, Marine Patrol, Long Beach, transferred from Marine Fisheries Statistics.
- May 5 -Ernest Farmer, Fish & Game Warden, Marine Patrol, Berkeley transferred to Region 1.
- May 5 -Miro N. Ferrara, Ship's Cook (limited-term) Research Vessels, San Pedro, terminated.
- May 6 -Antonio E. Barajas, Janitor, Administration, Long Beach, appointed permanent.
- May 10 -Dan B. Odenweller, Junior Aquatic Biologist, Ecological Survey, Orange County Coastal Waters and Point Loma, Long Beach, appointed limited-term.
- May 12 -Martha C. Bacon, Account Clerk II, Marine Fisheries Statistics, Long Beach, appointed TAU.

Doyle E. Gates

Doyle E. Gates
Regional Manager

WILDLIFE PROTECTION BRANCH MONTHLY REPORT FORM

Region MRR

Fill-In Section

Report for Month of May, 1971

A. Reserve Warden Activities

- | | | |
|---|------------|-------------|
| 1. Number of patrols made by reserve wardens | <u>9</u> | <u>20</u> |
| 2. Hours worked | <u>91</u> | <u>171</u> |
| 3. Arrests or citations issued by reserve wardens
(Wardens not present) | | |
| 4. Arrest Assists or Citations Issued by Reserve
Wardens (Wardens present) | <u>31</u> | <u>40</u> |
| 5. Personal vehicle miles traveled on patrol | | |
| 6. Personal vehicle miles traveled to and from assignment | <u>369</u> | <u>1089</u> |

B. Hunter Safety Training Program

- | | |
|--|-----------|
| 1. Time spent on hunter safety training | <u>13</u> |
| 2. Hunter safety instructors contacted | <u>11</u> |
| 3. Hunter safety training classes attended | <u>2</u> |
| 4. Hunter safety instructor classes attended | <u>0</u> |

C. Deer Accidentally Killed

- | | |
|--|--|
| 1. Road kills by motor vehicles | |
| 2. Kills from other causes (railroads, canals, dogs, etc.) | |

D. Arrest Report

Number of persons arrested as compared to same periods last year:

<u>286</u>	<u>364</u>
Current Month	Same Month Last Year
<u>1301</u>	<u>1615</u>
Total Arrests This Year	Total Same Period Last Year

Remarks - (To explain any marked changes in above totals)

Fines paid

\$7,986.00
Current month

\$8,932.50
Same month last year

\$36,684.00
Total fines this year

\$36,281.80
Total same period last year

Remarks (To explain any marked changes in above totals)

Jail days served	<u>2</u>
Jail days suspended	<u>10</u>
Cases dismissed	<u>11</u>
Cases in which all of fine was suspended	<u>27</u>
Juvenile cases turned over to juvenile authorities or parents contacted	<u>2</u>
Hunting licenses revoked by court	<u> </u>
Hunting licenses suspended by court	<u> </u>
Angling licenses revoked by court	<u> </u>
Angling licenses suspended by court	<u> </u>

Summary: Following is the number of violations prosecuted against type of violation

Hunting no license	Angling no license	<u>165</u>
Waterfowl	No Colo. Riv. Use Stamp	<u> </u>
Deer	No inland stamp	<u> </u>
Pheasant	Trout	<u> </u>
Loaded gun in car	Other inland fish	<u> </u>
Public shooting area trespass	Angling more than one rod	<u>2</u>
Trespass (2016-18)	Clams and shellfish	<u>65</u>
Resident small game	Commercial abalone	<u>3</u>
Doves	Commercial lobster	<u>5</u>
Pigeons	Commercial fish	<u>4</u>
Bear	Ocean sportfish	<u>31</u>
Baited pond shooting	Pollution (5650)	<u>3</u>
Protected nongame birds and fully protected birds	Stream obstruction (5948)	<u> </u>
Litter (5652)	Suction dredge (5653)	<u> </u>
	Miscellaneous	<u>3</u>
	Total	<u>286</u>

E. Assistance to Other Law Enforcement Agencies

1. Number of cases filed by Wildlife Protection officers for violation of Penal or other code sections
2. Number of cases filed by Wildlife Protection officers for city or county ordinances
3. Number of cases turned over to federal agencies for filing
4. Number of cases of assistance to other agencies resulting in filing of charges (not included in 1, 2, or 3 above)
5. Number of cases involving felony charges