

TRENDS AND DEVELOPMENTS

Additions to the Fleet of U. S. Fishing Vessels

A total of 76 vessels of 5 net tons and over received first documents as fishing craft during May 1953—28 less than in May 1952. Washington led with 20 vessels, followed by Texas with 11 vessels, and Louisiana with 8 vessels, according to the Bureau of the Customs.

Vessels Issued First Documents as Fishing Craft, May 1953 and Comparative Data

Section	May		January-May		Total 1952
	1953	1952	1952	1952	
	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Number</u>
New England	7	4	10	10	30
Middle Atlantic	3	4	9	16	26
Chesapeake	2	8	25	27	65
South Atlantic	11	4	40	33	89
Gulf	27	4	92	43	161
Pacific	25	57	65	109	203
Great Lakes	-	-	5	4	13
Alaska	1	23	17	70	88
Total	76	104	263	312	675

NOTE: VESSELS HAVE BEEN ASSIGNED TO THE VARIOUS SECTIONS ON THE BASIS OF THEIR HOME PORT.



California Develops New Mid-Water Trawl

An almost untouched zone of the Pacific Ocean has been opened to commercial fishing and research by a new mid-water trawl developed and perfected by the California Department of Fish and Game, an August 5 release from that agency states.

Using a giant net towed behind a powerful State marine research vessel, fishing at almost any desired depth in the ocean was possible. Until now, most ocean fishing has been concentrated in two zones—near the surface and along the bottom.

The assistant chief of the Department's marine fisheries branch reports that the trawl is being used to find out what kinds of fish, and how many, are in this salty "no man's land." Studies are planned for the life histories of many species, including unknown chapters in the ocean life of the young salmon.

While operations with the mid-water type of trawl are not new, having been conducted in Europe and Canada among other places, this modification is believed to have produced the first successful results with commercial-sized gear in California waters.

The new device, which can be used with standard otter-trawl gear, operates on the same principle as the parachute. Four quarter doors, or small kite-like deflectors at the corners of the net, are forced outward as the net is towed through the water. Pulling against each other, they stretch the mouth of the net tight. The

modification eliminates the fish-scaring bridle which runs in front of the ring-type net and earlier adaptations of the mid-water trawl. Only the amount of cable available limits the depth at which the new rig can be towed.

From the research vessel N. B. Scofield, State workers have already made successful catches of rockfish, hake, black cod, and other middle-depth fish.



Cans--Shipments for Fishery Products, January-June 1953



Total shipments of metal cans for fish and sea food during January-June 1953 amounted to 47,584 short tons of steel (based on the amount of steel consumed in the manufacture of cans), compared to 43,916 short tons shipped during the same period in 1952. Increased canning of tuna in California accounts for some of this year's increase to date.

NOTE: STATISTICS COVER ALL COMMERCIAL AND CAPTIVE PLANTS KNOWN TO BE PRODUCING METAL CANS. REPORTED IN BASE BOXES OF STEEL CONSUMED IN THE MANUFACTURE OF CANS, THE DATA FOR FISHERY PRODUCTS ARE CONVERTED TO TONS OF STEEL BY USING THE FACTOR: 23.0 BASE BOXES OF STEEL EQUAL ONE SHORT TON OF STEEL.



Federal Purchases of Fishery Products

FRESH AND FROZEN FISHERY PRODUCTS PURCHASED BY DEPARTMENT OF THE ARMY--APRIL, MAY, AND JUNE 1953: For the military feeding of the U. S. Army, Navy, Marine Corps and Air Force, the Army Quartermaster Corps in April 1953 purchased 1,455,915 pounds (valued at \$654,757) of fresh and frozen fishery products; in May, a total of 3,124,176 pounds (valued at \$1,183,404); and in June, a total of 4,648,870 pounds (valued at \$1,696,864). April purchases were 48.9 percent less in quantity than for the same month in 1952, but May and June purchases were greater by 24.0 and 16.5 percent, respectively.

Period	Quantity		Value	
	1953	1952	1953	1952
	Lbs.	Lbs.	\$	\$
April	1,455,915	2,849,408	654,757	1,316,859
May	3,124,176	2,518,736	1,183,404	1,180,951
June	4,648,870	3,989,047	1,696,864	1,743,593
January-April	5,826,872	9,716,797	3,125,183	4,546,503
January-May	8,951,048	12,235,533	4,308,587	5,727,454
January-June	13,599,918	16,224,580	6,005,451	7,471,047

Purchases of fresh and frozen fish by the Army Quartermaster Corps for the first six months in 1953 amounted to 13,599,918 pounds (valued at \$6,005,451), a drop of 16.2 percent in quantity and 19.6 percent in value as compared with the same period in 1952.

The over-all average prices paid in 1953 for fresh and frozen fishery products by the Quartermaster Corps were: April 45.0 cents per pound, May 38.2 cents, and June 36.5 cents. The 1952 prices for the same months were: 46.2, 46.9, and 43.7 cents per pound, respectively.

In addition to the purchases of fresh and frozen fishery products indicated above, the Armed Forces generally makes some local purchases which are not included in the above figures. Therefore, actual purchases are somewhat higher than indicated, but it is not possible to obtain data on the local purchases made by military installations throughout the country.



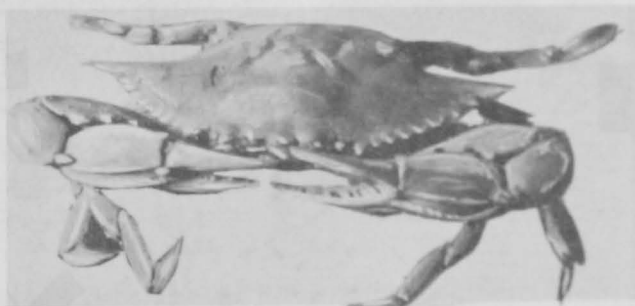
Maryland

CRAB MORTALITIES IN CHESAPEAKE BAY DUE TO LOW OXYGEN IN WATER: Crab mortalities in crab pots placed in 15 feet or greater depths of water and in certain soft-crab shedding pounds situated in sheltered areas in shallow water in the Chesapeake Bay area apparently are due to a low oxygen content in the water, according to a biologist of the Maryland Department of Research and Education. "Nature, not man, is responsible for these kills," he said.

He stated that the localized mortalities which affect the Bay's blue crab population in summer recurred during the second and third weeks of July 1953. This period was characterized climatically by rather high temperatures, light winds, and in some localities, by exceptionally low tides. During this period crab fishermen reported dead crabs in crab pots in considerable numbers. Biologists, and investigators of the Chesapeake Bay Institute of the Johns Hopkins University, believe that the influx of the deep low oxygen waters that occurs during summer months in the Bay, on to the shallower bottoms where the pots are set, is responsible for the crab kill.

Certain soft-crab shedding pounds suffered rather large losses at the same time. Situated as they are in sheltered, shallow areas where wave action is kept down by natural wind breaks or by board fences constructed for the purpose, the pounds (seldom in waters deeper than eight feet) were the location of high mortalities and were attributed also to low oxygen content in the water.

Investigators of the Chesapeake Bay Institute and Chesapeake Biological Laboratory of the Maryland Department of Research and Education found the following conditions at one crab pound: (a) three or four days of light winds preceded the kill; (b) high temperatures prevailed; and (c) low tides



BLUE CRAB

and very shallow water occurred. Although the normal depth of water was about five feet, the depth at the time of the mortality was less than two feet. The crabs enclosed by the floats are confined to the upper 8 to 10 inches of this depth. "The combination of all these factors contributed to a high death rate among the impounded crabs," one biologist stated.

The crab biologist commented further, "Disregarding the presence of green crabs in the floats, the investigations indicate that the conditions, although stemming from different causes in the crab pots and in the soft crab pounds, are fundamentally the same." In the crab pots, the crabs suffer from a lack of oxygen in the deeper waters because there is no mixing of the oxygenated surface waters due to the thermal stratification which occurs in summer months. In the crab pounds, low oxygen affects the crabs which are crowded in small floats in shallow, quiet, warm wa-

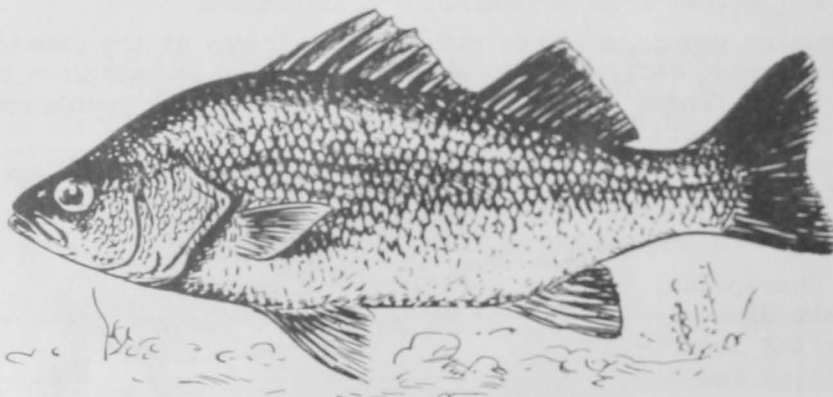
ters. The high temperatures decrease the water's ability to hold oxygen in a dissolved state while at the same time increasing the oxygen requirements of all living organisms in the water. He concluded: "Therefore, with little aeration of the water being accomplished by wave action coupled with an increased oxygen demand, it follows that an oxygen shortage must develop with the subsequent ill effects upon the populations of animals present."

Many of the spectacular fish kills recorded in late spring and fall in Chesapeake Bay waters are probably due to the effects of natural conditions described above. Crab mortalities while less spectacular can affect the livelihood of watermen rather seriously. It is probable that nothing can be done to prevent the recurrence of the conditions, but a prediction of impending mortalities might be of considerable value.

* * * * *

WHITE PERCH TAGGED: White perch, the silver-hued pan-sized native of Chesapeake tributaries, lives a very circumscribed existence, according to a preliminary analysis of tags returned to Maryland's Chesapeake Biological Laboratory at Solomons. Last spring 3,000 white perch were tagged in the Patuxent River system; 10 percent were recaptured by fishermen. A reward of 50 cents was paid for each numbered tag, reports the Maryland Department of Research and Education.

With the exception of those fish traveling over 60 miles from the mouth of the river during spawning season to a point above tidewater, white perch seem to be a home-loving fish, rarely moving great distances during the summer and autumn. Not



WHITE PERCH (MORONE AMERICANA)

one has been recaptured in Chesapeake Bay proper, according to a biologist of the Maryland Department of Research and Education at Solomons, although one was taken at the very mouth of the River at Little Cove Point. Tagging returns indicate that white perch seem to be restricted generally to specific tributaries.

At least, 2,700 tags worth \$1,350, remain at large in the Patuxent River system below Priests Bridge, awaiting an angler or commercial netter. Fishermen are urged to look out for fish with plastic disks about the size of a dime attached to the back under the top fin. Two tags, colored a bright yellow and red, are attached to the fish by means of a straight pin, inserted directly into the flesh below the dorsal fin.

The study is designed to determine (a) distances and speed which they travel from one locality to another; (b) movements during the summer months; and (c) fishing pressure upon the different year classes. Since scale samples have been taken from each fish that was tagged, the age can be ascertained by examining the scale for growth rings or annuli that are formed in winter each year. Thus it is imperative for each fisherman upon catching a marked white perch to send in his tag immediately for the reward with the following information: (a) exact locality where fish was captured; (b) date and time of capture; and (c) type of gear used to land the fish.

Send all tags to Chesapeake Biological Laboratory, Solomons, Maryland.

* * * * *

JELLYFISH SCARCE IN CHESAPEAKE BAY: The spectacular scarcity of jellyfish in Chesapeake Bay during the current season has been noted by both layman and marine biologist, reports a recent release from the Maryland Department of Research and Education. Bay residents in the past have been able to predict the invasion of jellyfish into their special coves, shores, and Bay locations with precision. They arrive late in June, reach a peak the first week in August, and disappear in early September. The summer of 1953 has witnessed conditions in the Bay in which scarcely a jellyfish has been seen by casual observers even during the peak of the season.

Marine biologists at the Chesapeake Biological Laboratory have developed a number of theories why jellyfish are less abundant this year. Jellyfish are strongly affected by changes in their environment. One of the most plausible explanations for the scarcity is that of temperature and oxygen supply. Heavy rains, coupled with a very warm spring, caused marked stratification of estuarine waters in the Bay: (a) one of fresher, less dense, oxygen-rich water on the surface; and (b) the other of saltier, denser, oxygen-poor water on the bottom. Oxygen-poor bottom waters have probably entered creeks and small estuaries this late spring and summer where the vegetative polyp form and immature jellyfish occur. These stagnant waters may have affected jellyfish production by slowing down or halting their reproduction.

* * * * *

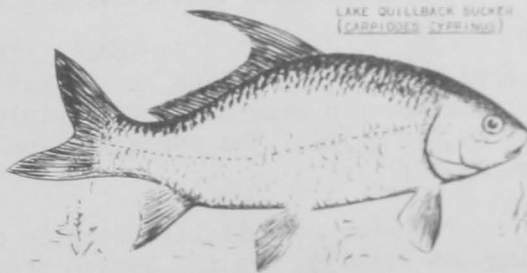
LOBSTERS REPORTED IN COASTAL WATERS: The occurrence of the lobster (*Homarus americanus*) in Maryland coastal waters comes as a surprise to many conservationists, but the Maryland Tidewater News published at the Chesapeake Biological Laboratory of the Maryland Department of Research and Education reports that the increased use of otter trawls in the Atlantic Ocean has produced sufficient numbers for a commercial yield.

Lobster captures are incidental. Lobster landings in Maryland in 1938 totaled 100 pounds, valued at \$100; in 1948, 1,500 pounds, valued at \$450; in 1950, 1,100 pounds, valued at \$274; and in 1951, 400 pounds, valued at \$100. In Virginia offshore waters, the landings have been progressively higher. Many more lobsters landed from Maryland's offshore waters do not enter the official commercial statistics because they are used locally by fishermen.

Attempts were made to introduce lobsters into Chesapeake Bay in 1884, when 100 lobsters were transplanted from Long Island to a point off the mouth of the James River. Conditions, however, are recognized by biologists to be unsuitable for the establishment and successful propagation of lobsters in the Bay.

* * * * *

RARE FRESH-WATER FISH CAUGHT IN MARINE WATERS OF PATUXENT RIVER: Pound-net fishermen operating off Cove Point near the mouth of the Patuxent River were surprised at catching a large mysterious hump-backed fish, with thick lips, reports a recent release from the Maryland Department of Research and Education. Biologists at the Chesapeake Biological Laboratory, Solomons, were more startled when they identified the fish as the lake quillback sucker (*Carpion cyprinus*). This sucker is fresh water in nature, and was caught in marine waters where few fresh-water fish dare to swim.



LAKE QUILLBACK SUCKER
(CARPION CYPRINUS)

The quillback sucker has never been found south of Bear Creek (near Baltimore) in the Chesapeake Bay basin. It is an uncommon species in Conowingo Reservoir, and

is occasionally found in the brackish parts of the Susquehanna River at the head of the Bay. It is characteristically found in fresh waters of lakes and large rivers.

The fish weighed about three pounds and was about 20 inches long. Long-term records kept at the Chesapeake Biological Laboratory indicate that this species has never been found in the Patuxent drainage.



New York State Enacts New Fishery Legislation

The 1953 session of the New York State Legislature enacted five bills pertaining to commercial fisheries in that State, according to the June-July 1953 issue of The New York State Conservationist, a publication of the State of New York Conservation Department. The new laws are as follows:

Butterfish (Marine fisheries)—Provides that butterfish of any size may be taken and possessed, bought, and sold at any time. Effective June 1, 1953.

Fluke or Summer Flounder (Marine fisheries)—Reduces minimum size limit from 15" to 14" for taking fluke or summer flounder by commercial fishing gear, and legalizes the sale of fluke or summer flounder measuring not less than 14". Effective immediately.

Menhaden, Shad, and Herring (Richmond County)—Extends to July 1, 1955, power of Department to issue licenses to operate gill nets, pound nets, and trap nets for taking menhaden, shad, and herring from March 15 through June 15 in waters of the Marine District in Richmond County; fixes the terms of such licenses, and makes rules and regulations for the operation of nets used in taking such fish. Effective July 1, 1953.

Alewives--Amends law to add alewives to the list of fish which may be taken by use of scap or dip nets in waters of the State when permitted by the Department. Effective immediately and until January 1, 1955.

Closing Waters to Fishing--Extends to July 1, 1955, power of the Department to close, by order, any waters of the State to the taking of fish whenever an environmental investigation reveals that fish life therein is in danger of undue depletion because of low water levels brought on by drought. Effective July 1, 1953.



Pribilof Seal Skin Production Increased in 1953

A total of 66,378 fur-seal skins was obtained in 1953 in Government-administered sealing operations on Alaska's Pribilof Islands, the Secretary of the Interior announced recently. This yield was 2,508 skins greater than last year's take of 63,870 skins. The average annual yield over the past ten years has been 64,260 skins.

The Fish and Wildlife Service conducts these sealing operations annually during the Pribilof sealing season from June 22 to July 29.

Although the fur-seal industry on the Pribilofs is the responsibility of the United States Government, 20 percent of this year's take will be delivered to the

Canadian Government under the terms of the Provincial Fur-Seal Agreement of 1942 between the two countries. The remaining skins will be delivered to a private concern in St. Louis for processing and sale at public auction under a special Government contract and account. Net receipts from the sale of 48,582 skins last fiscal year were \$3,265,868.

Approximately 80 percent of the world's fur seals go to the Pribilof Islands each summer to breed. During the winter these seals range southward as far as Southern California.

At one time the number of Alaskan seals diminished to such an extent that the herd's commercial value was threatened. The depletion was due principally to pelagic sealing—the indiscriminate killing of seals at sea.

Under the protection of international agreements, the herd has since been restored to its original level of abundance. As the annual take is limited to 3-year old males—considered surplus from the standpoint of breeding—the species is assured of survival under present conditions.



Tariff Treatment of Foreign-Caught Tuna Processed in Guam or American Samoa

"Frozen, cooked, tuna loins prepared in Guam or Samoa from fish landed there by Japanese vessels would be treated for tariff purposes as products or manufactures of those islands, regardless of their subsequent use in the United States." This is the opinion of the Bureau of Customs, Treasury Department, in a recent letter to the Director of the Fish and Wildlife Service in answer to an inquiry on the status for tariff purposes of fishery products shipped out of those islands to the United States.

The letter further explains: "Tuna landed by Japanese vessels in Guam or Samoa where they are prepared for cooking, cooked, and frozen in unsealed cans would also be considered as products or manufactures of those islands even though oil is to be added to the tuna in the United States after which the cans are sealed.

"The labeling in Guam or Samoa of tuna which has been completely processed and canned in a foreign country would not make such tuna a product or manufacture of such islands.

"The term 'actual importations into the island,' as it appears in the present regulations, refers to articles imported into any of those islands with a bona fide intent that they shall be commingled with the mass of things in the island. It does not refer to goods merely in transit through the islands nor to goods merely stored in the islands with the intent to later send them to some place other than in the islands."

NOTE: SEE COMMERCIAL FISHERIES REVIEW, JULY 1953, P. 31; APRIL 1953, P. 26.



Wholesale Prices, July 1953

Since the July catch of edible fish and shellfish was somewhat lighter than the previous month, prices for edible fishery products stiffened slightly in July. The edible fish and shellfish (fresh, frozen, and canned) wholesale index for July 1953 was 102.5 percent of the 1947-49 average (see table)--higher than June 1953 by 1.6 percent and below July 1952 by 0.4 percent.

Products under the drawn, dressed, or whole finfish subgroup were priced higher in July. Although the price of fresh offshore haddock at ex-vessel moved only slightly upward from June to July, substantially higher prices were reported at wholesale for halibut, salmon, and most fresh-water varieties. But compared with July 1952, prices this July were considerably lower for fresh offshore haddock (2 percent), Western halibut (5 percent), and most fresh-water fish. The drawn, dressed or whole finfish index for July this year was 3.7 percent above that for the previous month, but 9.5 percent lower than in July 1952.

Table 1 - Wholesale Average Prices and Revised Indexes for Edible Fish and Shellfish,
July 1953 and Comparisons

Group, Subgroup, and Item Specification	Point of Pricing	Unit	Avg. Prices ¹		Indexes (1947-49 = 100)			
			(\$)		July	June	May	July
			1953	1952	1953	1952	1953	1952
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)								
Fresh and Frozen Fishery Products:								
Drawn, Dressed, or Whole Finfish:								
Haddock, large, offshore, drawn, fresh	Boston	lb.	.09	.09	87.3	87.1	90.1	113.4
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	N.Y.C.	"	.33	.31	102.9	95.9	90.5	108.3
Salmon, king, lge. & med., dressed, fresh or frozen	"	"	.49	.48	110.7	108.4	104.5	110.2
Whitefish, mostly Lake Superior, drawn (dressed), fresh	Chicago	"	.46	.36	112.8	88.0	122.7	86.7
Whitefish, mostly Lake Erie pound or gill net, round, fresh	N.Y.C.	"	.45	.52	91.0	104.1	121.3	94.0
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	"	.53	.52	107.6	106.5	98.4	117.8
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	N.Y.C.	"	.61	.45	143.6	105.5	72.7	166.5
Processed, Fresh (Fish and Shellfish):								
Filletts, haddock, sml., skins on, 20-lb. tins	Boston	lb.	.28	.27	93.6	91.9	91.9	90.2
Shrimp, lge. (26-30 count), headless, fresh or frozen	N.Y.C.	"	.79	.74	124.9	117.0	158.1	94.9
Oysters, shucked, standards	Norfolk area	gal.	4.50	4.50	111.3	111.3	117.5	111.3
Processed, Frozen (Fish and Shellfish):								
Filletts: Flounder (yellowtail), skinless, 10-lb. pkg.	Boston	lb.	.31	.31	108.7	108.7	108.7	124.4
Haddock, sml., skins on, 10-lb. cello-pack	"	"	.22	.21	82.8	79.0	70.7	87.4
Ocean perch, skins on, 10-lb. cello- pack	Gloucester	"	.21	.22	101.1	103.5	108.3	108.3
Shrimp, lge. (26-30 count), 5-lb. pkg.	Chicago	"	.87	.78	133.4	119.5	163.5	98.7
Canned Fishery Products:								
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	case	18.95	19.70	100.4	104.4	104.4	104.4
Tuna, light meat, solid pack, No. 1/2 tuna (7 oz.), 48 cans per case	Los Angeles	"	14.80	14.80	92.4	92.4	92.4	90.5
Sardines (pilchards), Calif., tomato pack, No. 1 oval (15 oz.), 48 cans per case	"	"	9.25	9.25	108.0	108.0	108.0	109.4
Sardines, Maine, keyless oil, No. 1/4 drawn (3 1/2 oz.), 100 cans per case	N.Y.C.	"	6.70	6.70	71.3	71.3	76.6	68.6

¹/REPRESENT AVERAGE PRICES FOR ONE DAY (MONDAY OR TUESDAY) DURING THE WEEK IN WHICH THE 15TH OF THE MONTH OCCURS.

Fresh shrimp prices, which had dropped substantially in June, rose again in July because the Gulf catch did not come up to expectations. Fresh haddock fillet prices also increased. Quoted considerably higher this July than during the same month last year were fresh haddock fillets and fresh shrimp. The fresh processed fish and shellfish index in July was 3.6 percent above the previous month and 14.4 percent higher than in July 1952.

Frozen shrimp prices (like those for fresh shrimp) also rose substantially in July. Prices for frozen shrimp in July were 11.5 percent higher than in June and 35.2 percent above July 1952. From June to July there was no change in frozen flounder fillet prices, but frozen haddock fillet prices increased 4.8 percent while ocean perch fillets dropped 2.3 percent. Compared with July 1952, frozen fillet prices this July were lower. Principally because of higher shrimp and haddock fillet prices, the processed frozen fish and shellfish index rose 5.4 percent from June to July and was 9.5 percent higher than a year earlier.



MARKET, CORNER OF FULTON AND UNION STS., CHICAGO, ILL.

most a year. The lower salmon prices accounted for the drop of 2.1 percent in the canned fishery products index for July 1953; this index was 1.3 percent below July 1952.



Wisconsin's Great Lakes Commercial Fisheries Catch, 1951-52

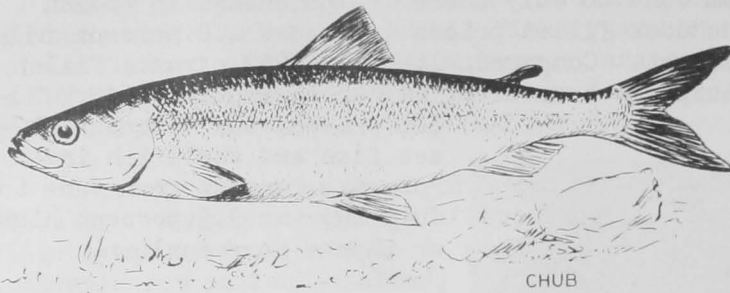
The total catch of Wisconsin's Great Lakes commercial fisheries during 1952 amounted to 21,613,710 pounds (see table), an increase of 9.5 percent over 1951.

Wisconsin's Great Lakes Commercial Fisheries Catch, 1951-52

Species	Lake Michigan		Lake Superior		Total Catch	
	1952	1951	1952	1951	1952	1951
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Lake trout	3,058	6,700	521,000	504,123	524,058	510,823
Whitefish	289,857	242,284	140,176	182,828	430,033	425,109
Menominee	75,504	44,312	306	4,387	75,810	48,699
Chubs	6,755,125	6,578,057	17,761	6,461	6,772,886	6,584,518
Lake herring	3,959,117	3,392,840	5,889,584	5,346,740	9,848,701	8,739,580
Yellow perch	1,247,648	854,726	...	...	1,247,648	854,726
Mullet (Suckers) ..	254,576	246,062	45,698	43,763	300,274	289,825
Carps	1,068,578	1,111,527	19	22	1,068,597	1,111,549
Catfish	7,326	9,187	...	...	7,326	9,187
Bullhead	48,210	41,023	...	...	48,210	41,023
Smelt	1,071,206	954,978	44,834	966	1,116,040	955,944
Lawyer	8,621	15,207	7,011	6,652	15,632	21,859
Crawfish	3,298	593	...	...	3,298	593
Wall-eyed pike	10,487	22,500	10,499	19,656	20,986	42,156
Pickereel	46,276	9,580	61	874	46,337	10,454
Sheepshead	8,557	19,534	24	...	8,581	19,534
Bloaters	74,892	61,822	...	...	74,892	61,822
Sebago salmon ....	...	...	4,401	3,860	4,401	3,860
Billfish .....	...	6	...	...	...	6
Total	14,932,336	13,610,935	6,681,374	6,120,332	21,613,710	19,731,267

Lake herring (46 percent) and chubs (31 percent) comprised the bulk of the total catch in 1952, and represented about the same percentage as in 1951. Landings of lake trout increased slightly in 1952 but comprised only about 2 percent of the total in 1952, a very slight increase over 1951.

In both 1951 and 1952 Lake Michigan yielded 59 percent of the total catch and Lake Superior the remaining 31 percent. In Lake Michigan the leading species in



both years was chubs, followed by herring and carp; there was only a very small quantity of lake trout landed in Lake Michigan. Lake herring comprised the bulk of the catch in Lake Superior in both years (about 90 percent). Practically all the lake trout landed in Wisconsin in both years was taken from Lake Superior waters.

BYPRODUCTS PRODUCTION, 1952--U. S. AND ALASKA

DO YOU KNOW:

That the 1952 production of fishery byproducts in the United States and Alaska was valued at almost \$68 million--2 percent less than in the previous year.

Fish and marine animal scrap production in 1952 amounted to over 221 thousand tons, valued at over \$27 million to the manufacturers. This was an increase of 11,600 tons in quantity and \$1.8 million in value as compared with 1951.

Marine-animal oils produced in the United States and Alaska during the year amounted to over 16 million gallons valued at \$9.4 million to the manufacturers. This was a decrease of 11 percent in quantity and 44 percent in value as compared with 1951.

Some of the other important byproducts produced during the year were marine pearl-shell, oyster shell, and fresh-water shell products, valued at almost \$15 million; and fish solubles and homogenized condensed fish, valued at nearly \$6 million. Byproducts were produced in 255 plants in 25 states and Alaska during 1952.

--Canned Fish & Byproducts - 1952,
C. F. S. No. 882