OTHER FISHERY NOTES

Additions to the Fleet of U.S. Fishing Vessels

A total of 71 vessels received their first documents as fishing craft during February 1947, compared with 43 in the same month in 1946. The South Atlantic and Gulf States lead with 28 vessels documented during the month, followed by the Pacific Coast States with 19 vessels. During the first two months of 1947, 135 vessels received their first documents as fishing craft compared with 85 vessels during the same period in 1946.

Vessels Obtaining Their First Documents as Fishing Craft

Section	February		Two mos. ending with February		Twelve Months
	1947	1946	1947	1946	1946
	Number	Number	Number	Number	Number
New England	5	6	8	9	86
Middle Atlantic	4	5	9	7	74
Chesapeake Bay	4	3	10	4	71
South Atlantic and Gulf	28	13	53	30	351
Pacific Coast	19	11	34	23	375
Great Lakes	7	3	13	8	76
Alaska	2	1	2	1	19
Hawaii	1	-	4	-	17
Unknown	1	1	2	3	16
Total	71	43	135	85	1,085

Note: Vessels documented by the Bureau of the Customs are craft of 5 net tons and over.

Canned and Salted Fish off Allocation

No fish products will be under international allocation recommendations after June 30, 1947, the International Emergency Food Council announced on March 12.

Allocation recommendations on canned fish terminate March 31, 1947 and on salted cod and related species of 1946 production on June 30, 1947. There have been no allocation recommendations on salted fish of 1947 production.

The Committee on Fishery Products pointed out that the bulk of the current canned fish pack will have been delivered or contracted for by March 31. In the case of salted cod and related species of 1946 production, the delivery period will extend throughout June. The Committee recognized that shortages may continue to exist in certain types and varieties of both canned and salted fish, but reports that world supply is coming into approximate balance with effective demand, when all fish products are taken into consideration--those not under allocation recommendation as well as those which in the past have been allocated. The Committee will keep the situation under continuous review and in case significant changes in supply and demand appear will reconsider the necessity for allocation recommendations.

FAO Fisheries Official Speaks in Newfoundland

In a talk at St. John's, Newfoundland, on March 13, Dr. D. B. Finn, Director of Fisheries in the Food and Agriculture Organization of the United Nations, called attention to the destructive effects of international competition in fisheries, and advocated instead an international approach to the industry's common problems. Dr. Finn addressed a dinner meeting in his honor sponsored by the Newfoundland Fisheries Board.

"Already surpluses of fresh and frozen fish are occurring," Dr. Finn declared. "This will probably result in more fish under salt, which will eventually produce additional surpluses and may lead to a fall in price. If this occurs the danger is that fishermen's incomes will fail to support them at minimum standards of living. Price supports, subsidies, and relief will follow. Aggressive countries will capture markets from others by one means or another, and the displaced countries will attempt to recapture their position. The resultant fight will mean ruin to all."

Dr. Finn said the answer to the problem lay first in a conviction that it concerns all countries. Willingness of all nations to examine and analyze the facts, he said, could lead to discovery of a practical program and agreement to its operation.

"No proper solution can be found in prosperity for one fellow and poverty for others. A poor fisherman in Norway, or indeed anywhere, is a liability to Newfoundland and all the rest of the fish-producing countries. Prosperity is indivisible."

If there is to be a solution it will have to include every point of view, Dr. Finn concluded. Since a solution must be sought cooperatively by all nations and represents the interests of both producers and consumers, Dr. Finn expressed the belief that FAO was qualified to bring the nations to an approach to the fisheries problem.

Halibut Season

The 1947 halibut season starts May 1, and will close November 30, according to an announcement of the International Fisheries Commission. The quota for 1947 is 53 million pounds, divided between the four areas. When each area's quota is reached, that area will be closed to fishing of halibut.

The 1947 Pacific Halibut Fishery Regulations have the following significant changes from the regulations of last year:

Section 1(a). A definition of convention waters has been added for the benefit of those not familiar with the Treaty and Enabling Acts.

Section 1(c). The boundary line between Areas 3 and 4 has been relocated. It now runs true west from Cape Sarichef Light on Unimak Island and places in Area 3 the waters immediately north of the Aleutian Islands as well as the intervening straits and passes of these islands.

Section 2(a). A catch limit of 500,000 pounds has been set for Area 4 which hitherto had no limit.

Section 3(b). Area 4 will close with Area 3 unless it has been previously closed by reason of the attainment of its own catch limit.

Section 4(c). It is provided that fishery officers can issue licenses to vessels fishing out of places where there are no customs officers.

Section 12. This section is added to permit tagged halibut to be retained and landed by any type of vessel at any time of year, provided such tagged halibut are brought to the attention of representatives of the Commission or enforcement officers with the tag still attached.

Copies of the complete regulation may be obtained by writing to the International Fisheries Commission, University of Washington, Seattle, Washington.

Registered Icelandic Vessels in 1946

According to an extract from the register of shipping, published in the Icelandic Nautical Almanac for 1947, the number and tonnage of registered vessels, over 12 gross tons, at the end of the year 1946, were as follows:

	Steam Vessels		Motor Vessels		Total	
	Number	Gross Tonnage	Number	Gross Tonnage	Number	Gross Tonnage
Trawlers	24	8,145	-	-	24	8,145
Other Fishing Vessels ..	11	2,583	444	18,841	455	21,424

Statistical Abstract of the United States

The Bureau of the Census announced recently that the 1946 edition of Statistical Abstract of the United States is available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for $2.25. It is a summary of statistics on population, trade, production, finance, and numerous other subjects. One section is on fisheries.

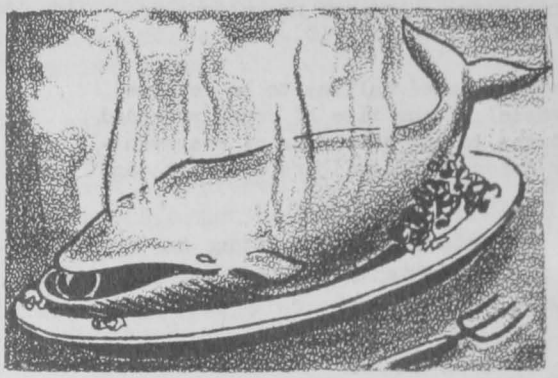
Whale Meat

The whole subject of the utilisation of whale meat for human food has, up to the present, been only superficially surveyed, but nowhere have the results suggested that any fundamental obstacle exists in the future development with the practical objective of utilising whale protein as a valuable foodstuff in one form or another, according to an article entitled "Whalemeat" by E. C. Bate-Smith[1] and J. G. Sharp[1] in Food Manufacture, 21, pp. 371-377, Leonard Hill Limited, London.

1/Low Temperature Station for Research in Biochemistry and Biophysics, University of Cambridge and Department of Scientific and Industrial Research.

Excerpts follow from "the work described in the article which forms part of the programme of the Food Investigation Board of the Department of Scientific and Industrial Research."

"Since, by comparison with land mammals, the limbs are greatly reduced, most of the meat on a whale is found on the trunk. Half of it, the most readily accessible, is in fact found in two muscles, the longissimi dorsi, that run from head to tail along the back. Together with the psoas muscles, which run along the inner surface of the ribs alongside the vertebral column, they are known as the back fillets and constitute 70 per cent. of the flesh. These muscles are straight-grained, and form more suitable meat than the remaining muscles of the ribs and shoulders, which are scrappy and confused owing to the complexity of the musculature in this region.



"Contrary to expectation, the muscles do not as a rule contain so much fat as do those of our ordinary meat animals. The adipose tissue of the whale, from which the oil is largely obtained, occurs as a layer of blubber around the body, quite distinct from the meat. This layer varies in thickness with the fatness of the animal, but may reach 8 inches in thickness and represent 20 per cent. of the body weight. Apart from the proportion of adipose tissue that is usually served with a grilled beefsteak, the so-called 'lean' of butcher's meat may contain as much as 12 per cent. of fat, whereas the corresponding value for whale meat does not appear to exceed 5 per cent.

"The whalers usually hang their meat in the cold Antarctic air for at least a week and sometimes for as long as a fortnight before cooking it. After hanging for a day or two the flesh hardens and blackens on the outside, the inside becoming soft and tender. Before preparation the hard black crust is cut away, the tender inside only being used. A quantity of blood drains away while the meat is hanging, and it is probable that the loss of it improves the quality or sweetness of the meat.

"One of the best ways of serving hung whale meat is as a fried steak with onions. In this form, both in colour and flavour, whale meat is not readily distinguishable from best beefsteak. It is remarkably tender, in this respect being equal to good fillet steak. In addition to its being an excellent subject for straight frying, whale meat is commonly used on the whaling grounds as a basis for the preparation of sausages, meat balls, and other made-up meat dishes. These take the place of beef or pork sausages and similar products which as a rule can only be obtained at sea in tins. The whalers also produce a 'biltong' from whale meat which has been salted and smoked. This is eaten raw, the blackened crust being cut away and the inside cut into very thin slivers and served as an hors d'oeuvre or savoury. It has an attractive smoky flavour inclined to a certain pungency associated with all cured flesh.

"It is recognised by the whalers that whale meat varies greatly in quality. It certainly varies greatly in appearance from one carcass to another, depending for the most part on the size and therefore on the age of the individual. In immature animals the flesh is pale, darkening with increasing age, that of the oldest animals being of a deep black-red. In such meat can be seen narrow white tendons

crossing at varying angles and giving to the dark meat the appearance of quartz veins in rock. This connective tissue represents, of course, the necessary mechanical support for the huge mass of contractile tissue, and its means of attachment to the ribs and vertebrae. Meat is selected for eating purposes on the basis of depth of colour, the paler meat being both more tender and of a better flavour. As the meat becomes darker, and possibly as the animal reaches sexual maturity, a stronger characteristic flavour enters into it, which can only be described as 'whaley.' There is no evidence of difference between the two principal species, Blue and Fin.

"A proportion of the catch is therefore good meat and a proportion not so good. If whale meat is to be used for food it is obviously very desirable to know how much of each quality can be expected, and how to select the meat as it is caught so that it can be allocated to its most appropriate use. The criteria employed must be ascertainable by the simplest tests, and preferably such as are normally logged by the Ministry of Agriculture and Fisheries' inspectors who accompany each expedition. These are, for instance, species and size, estimated age and weight. Actually a rough system of grading of the meat has been practised by the officers of one whaling company. In this system the whalers relied very largely upon the colour of the flesh, classifying the meat into three classes; A, pale red flesh; B, darker red; and C, very dark red, almost black.

"One can only study the data for whale meat in relation to the data scattered through the literature for the muscles or meat of other species. In a review of the composition of meat,[2/] one of the authors drew up a table of the composition of 'typical' mammalian muscle, and it is interesting to compare the range of values encountered in a number of samples of whale meat with the corresponding items in this table.

Table 2

	Whale meat	Typical Mammalian Muscle
	Percent	Percent
Water	71.1-76.5	75
Protein	15.1-17.9	18.5
Fat	0.7- 6.3	3
Carnosine	0.42-0.67	0.5
"Anserine"	0.99-1.30	
Creatine	0.43-0.49	0.4
Purines (as hypoxanthine)	0.12-0.13	0.12
Urea	0.09-0.13	0.06
Acid soluble P	0.16-0.19	0.15
Na	0.07	0.05
K	0.295	0.42
Ca	0.004	0.01
Mg	0.022	0.03
Cl	0.026-0.128	0.06
Lactate	1.1 -1.3	0.9

"Tests carried out on frozen whale meat with the personnel of, and visitors to, the Low Temperature Station as subjects have shown unequivocally that whale meat is an acceptable meat food. In the course of the tests 150 different people were invited to give their opinion on samples prepared for the table in various ways. The most exacting test was of whale meat presented in the form of fried steak. In this form the dark colour of the flesh (especially that of C grade meat) and the absence of an edging of fat was commented upon, but all subjects agreed that steaks from Grade A meat were excellent in flavour and as tender as the tenderest

2/E. C. Bate-Smith, Chem. and Ind., 1942, 61, 373.

beef. Steaks from Grades B and C meat are tougher in texture and coarser in flavour. Only occasionally a slight fishiness in flavour could be detected at the edge of the steak. Fishiness was also noticed in the odour of the meat when cooking, but, except as mentioned, was absent from the cooked product.

"Whale meat canned by itself has a mild and not unpleasant fishy flavour, but canned with vegetables, for instance, this is not evident and the meat is scarcely distinguishable from beef. According to preliminary observations the fishiness seems to arise from oxidation products of fat reacting with protein to give methylamines, which are driven off during cooking. In the straight whale meat canned pack the methylamines cannot escape so freely and would therefore produce the observed fishiness. It is not known whether the absence of fishiness in seasoned canned packs is due to chemical reactivity or to a simple masking effect. Trimethylamine oxide from which in fish trimethylamine is produced was not present in the whale meat samples examined.

"The samples carried at -22° C. (-8° F.) were in slightly better condition than others brought back in a ship's refrigerator at a temperature (probably fluctuating) in the region of -10° C. (14° F.). Nevertheless, various cooked meat products, such as rissoles, pastries, meat rolls, and sausages prepared from the latter meat, were judged by 80 to 90 per cent. of the subjects to be indistinguishable from their counterparts made with beef. The minority were divided as to whether the whale meat items were better or worse than beef. In no case was any mention made of the presence of a fishy flavour."

Wholesale and Retail Prices

Wholesale prices for all foods showed a decline of 1.7 percent from mid-November to mid-December 1946. Retail prices for all foods decreased 1.0 percent for the same period, according to reports from the Bureau of Labor Statistics, Department of Labor. The average retail price of fresh and canned fish

Wholesale and Retail Prices

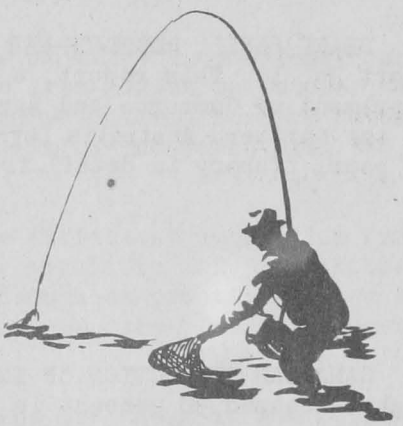
Item	Unit		Percentage change from--	
Wholesale: (1926 = 100)		Dec. 14, 1946	Nov. 16, 1946	Dec. 15, 1945
All commodities	Index No.	139.7	+2.9	+30.9
Foods	do	161.3	-1.7	+48.9
Fish:		Dec. 1946	Nov. 1946	Dec. 1945
Canned salmon, Seattle:				
Pink, No. 1, Tall	$ per doz. cans	3.189	0	+61.9
Red, No. 1, Tall	do	5.363	0	+45.2
Cod, cured, large shore, Gloucester, Mass.	$ per 100 pounds	14.80	+2.0	+10.0
Herring, pickled, N. Y.	¢ per pound	12.0	0	0
Salmon, Alaska, smoked, N. Y.	do	35.0	0	0
Retail: (1935 = 100)		Dec. 15, 1946	Nov. 15, 1946	Dec. 15, 1945
All foods	Index No.	185.9	-1.0	+31.5
Fish:				
Fresh and canned	do	267.6	+1.0	+20.7
Fresh and frozen	¢ per pound	43.2	-0.8	+16.2
Canned salmon:				
Pink	¢ per pound can	0*	+6.8	+34.7
Red	do	0*	+9.0	+38.9

*Inadequate information

rose 1.0 percent, while that for fresh and frozen fish declined 0.8 percent during the period. Although sufficient information was not available from which to compute reliable average retail prices for canned pink and red salmon, percentage change figures were computed, based on the index, to show the trend and movement of these canned items.

MAINE'S BLOODWORM AND SANDWORM BAIT INDUSTRY

"The digging of salt water live bait ranks high as Maine's most unique industry. Yearly about 200 diggers are busy from March to December in procuring an average of 10,000,000 sandworms and bloodworms. They are sold to salt water sports fishermen from Connecticut to Washington, D.C. At the present time fishermen pay as high as 5 to 6 cents apiece for these worms. The sale of these worms bring a yearly income to the industry of nearly a quarter million dollars. Although bloodworms are sometimes used to catch weakfish and striped bass, many fishermen claim that the sandworm is a superior bait. The bloodworm is a favorite for flounders, eels, and other small fish that are caught from piers and rowboats close to shore.



"The journey of the Maine bloodworm or sandworm from the mudflat to the fisherman's hook is a long and tedious one. First, the digger searches him out of his burrow in the mud and sells him to a shipper who supplies a New York wholesaler. A retail dealer, who may operate a fishing tackle business, an auto service station, or rents rowboats, buys the worms in lots of 100 from the New York wholesaler and sells them to the fishermen.

"For shipment, the worms are packed in baskets or boxes of rock weed and most of them are sent by railway express. Occasionally a shipment is made by air express."

--Bulletin of the Department of Sea and Shore Fisheries