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## DEPARTMENT OF THE INTERIOR

### INFORMATION SERVICE

#### FISH AND WILDLIFE SERVICE

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The nation is producing only a little more than half as much vitamin A as it did two years ago, the output of U.S. producers and pharmaceutical houses having fallen from 39.3 trillion units during the first five months of 1943 to only 21.6 trillion units for the comparable period of 1945, Charles E. Jackson, Assistant Director of the Fish and Wildlife Service, reported today to Secretary of the Interior Harold L. Ickes.

The only commercial source of vitamin A is the livers and other viscera of fish, with various species of sharks furnishing about 75 per cent of the total output. Early in 1944 a decline in the production of the valuable soupfin shark began to be apparent, Mr. Jackson said, and so far this year the yield of Vitamin A from this source has been only 7.7 trillion units, compared with 15.9 trillion units during the first five months of 1943.

The soupfin is a small shark seldom exceeding six feet in length, found on the Pacific coast from northern Mexico to Alaska. Its livers is large in proportion to the total size of the shark and the liver oil is of exceptionally high potency.

The decline in the catch of soupfin sharks has been partially offset by a great increase in the fishery for dogfish, another small shark of wide distribution on both coasts, although only the Pacific fisheries have been developed on a large scale. The dogfish supplied 2.2 trillion units of Vitamin A in the first five months of 1943; 6.2 trillion units in the similar period of 1944, and 5.7 trillion units in 1945.

Dogfish liver oil is of much lower potency than that obtained from the soupfin shark, however - averaging 13,000 U.S.P. units per gram compared with an average of 110,000 units from soupfin - so that a much larger catch is required to provide an equivalent amount of vitamin A.

Halibut, ling cod, sablefish, tuna, and cod together contribute about a tenth of the total production of vitamin A, remaining sources about 15 per cent.

Halibut is a fairly steady producer because the fishery, which is carried on by both United States and Canadian fishermen, is controlled by the International Fisheries Commission and the poundage of halibut that may be caught in any year is determined by regulation.

Cod, once the mainstay of the vitamin industry, now contributes only about one per cent of the output of vitamin A by U. S. manufacturers. The decline of cod as a source of vitamin A oils and the elevation of the shark to first place in this field was in part the result of the interruption of imports from Europe - chiefly Norway - by war conditions, but was also due to the discovery that oils produced from sharks and several other species have a much higher vitamin A potency, Mr. Jackson said.

Domestic production of vitamin A is being supplemented to some extent by imports of oil from the Argentine and Mexico, Mr. Jackson pointed out, so that available supplies have not declined in proportion to the dwindling output of the U. S. industry.

Because of the developing shortage of domestically produced vitamin A, studies should be made at sea to learn whether the decline of the important soupfin shark fishery is due to overfishing which has depleted the resource, or whether migrations or some other cause may be responsible, Mr. Jackson said. Studies are also needed to determine more precisely how the vitamin A content, known to be subject to wide variations, is affected by the sex and size of the sharks and by seasonal changes. At present the Fish and Wildlife Service has no research vessel from which to conduct such studies.

Mr. Jackson pointed out that exploratory fishing by a research vessel might result in the discovery of new resources of sharks in waters at present unexploited, especially in Bristol Bay, in waters off northern California, southern Oregon, along the South Atlantic coast, and in the Gulf of Mexico. The fisheries for sharks and other species that might yield vitamin oils are as yet little developed on the Atlantic coast.

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