



## DEPARTMENT OF THE INTERIOR

### INFORMATION SERVICE

UNITED STATES FISH AND WILDLIFE SERVICE

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#### TAGGED YELLOWFIN TUNA HINTS "VERTICAL" MIGRATION PATTERN

Department of the Interior fishery research has disclosed that in at least one instance a yellowfin tuna--normally found near the surface--has taken to deep-water swimming in the open sea.

Late in 1955, a Fish and Wildlife Service research vessel tagged and released a troll-caught yellowfin tuna near Christmas Island in the mid-Pacific. Thirteen months later the same fish was recaptured by a Japanese fishing boat some 700 miles to the east and deep down in the ocean.

According to Fish and Wildlife Service officials, this is the first time a "surface-schooling" yellowfin has been known to have been taken as a deep-swimming fish in the open sea. The fish had grown considerably in the 13-month interval--from 55 pounds to 95 pounds.

The finding of this one yellowfin as a deep swimmer is not a conclusive item, fishery biologists say, but it does indicate a "vertical pattern of migration" not hitherto known.

Data relative to horizontal migration habits of the various tuna varieties is being slowly accumulated. Last year, an albacore was taken--15 months after tagging--2,670 miles away. It had gained 40 pounds in weight. Another one traveled more than 2,000 miles. Bigeye tuna have been known to migrate as much as 800 miles. Still another variety, the skipjack, has a much less pretentious travel record, one being caught only 30 miles away after 252 days while another went 40 miles in six days. Others just "hung around" and were taken weeks later near the point of tagging.

Man's knowledge of sea dwellers is far short of his knowledge of land animals. For many reasons the migration patterns of fish are important not only to the biologist but to the fishing industry. But getting the migration pattern has been, and still is, a monumental task. In the first place it took a long time to develop tagging techniques which were not fatal to a high percentage of the fish tagged. It also took time to develop the type of tags which would withstand the rigors of many months in the ocean water. Then, too, the ocean is wide and fish are numbered by the millions, and the odds of recapturing a tagged fish are not too high.

Tags and tagging techniques are improving and as more fish are tagged the odds of retaking some of them are better. Thus, little by little, fishery biologists are learning more about the ocean and the fish that dwell in it--and the recapturing of the surface-schooling yellowfin as a deep-swimming fish is another bit to be added to the information about the species, information which will be of value to those who seek these fish for the American table.

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