

# SKIPJACK TUNA (*KATSUWONUS PELAMIS*) RESOURCES OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS

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## ABSTRACT

Prewar catches of skipjack tuna (*Katsuwonus pelamis*) in the Trust Territory of the Pacific Islands provide an index of potential harvests of this species from the Territory region. Data on prewar catches are presented along with a description of the recommending tuna fisheries in the Palau Islands.

The Trust Territory of the Pacific Islands (fig. 1) has been under the trusteeship of the United States of America since July 18, 1947. It is a vast area of 3 million square miles dotted with the 2,100 islands of the Mariana, Palau, Yap, Truk, Ponape, and Marshall Islands Districts. The total land area of these islands is only 700 square miles. This large ocean-to-land ratio immediately suggests the present and potential importance of oceanic resources to the peoples of the Trust Territory.

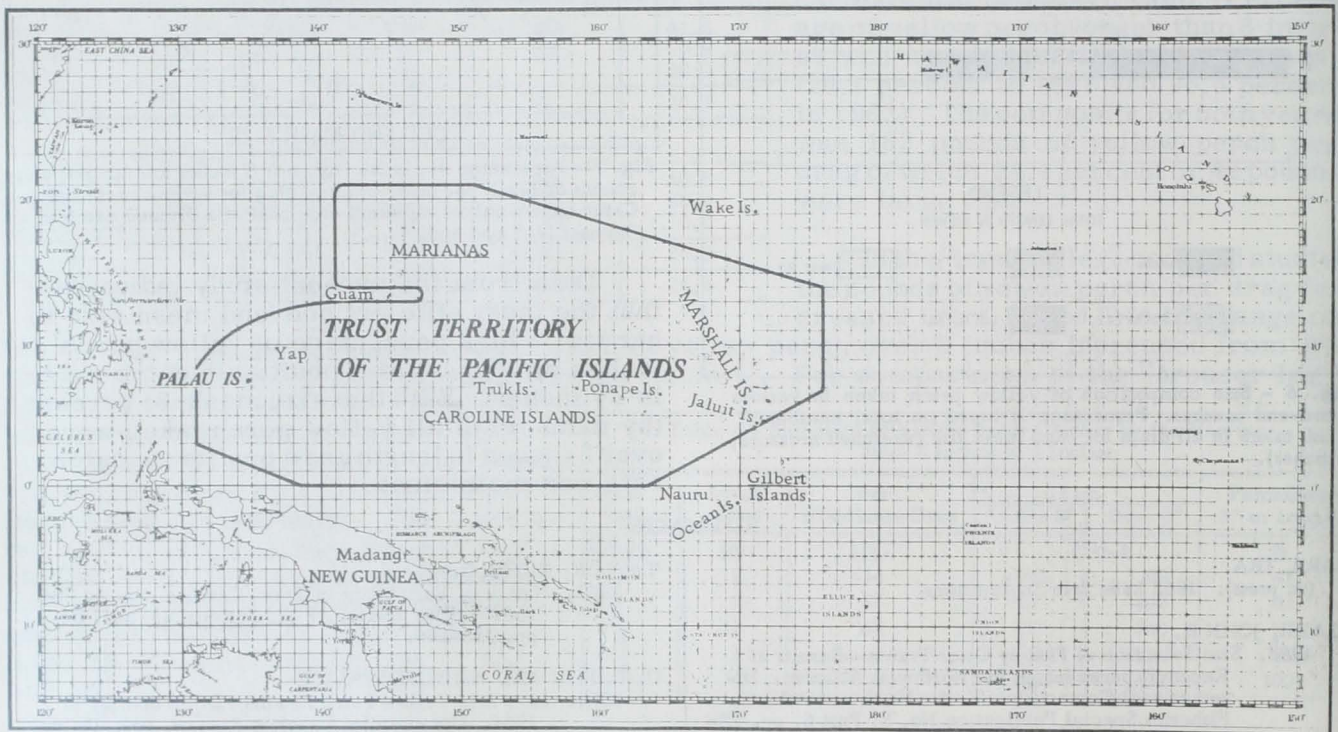


Fig. 1 - Trust Territory of the Pacific Islands.

## HISTORICAL

Before the Second World War, the Trust Territory (then the Japanese-mandated islands) supported substantial fisheries for tuna which were not only taken in Trust Territory waters but also landed at its ports. The prewar fishery used pole-and-line gear for surface-swimming skipjack and long-line gear for the deep-swimming tuna, marlin, and shark. Commercial-scale tuna fishing was halted by the war. After the war long-line fishing was resumed, but the pole-and-line resources have not been harvested on a commercial scale until recently.

An index to the skipjack tuna potentials of the Trust Territory can be obtained from data on catches at maximum historical fishing intensities. Fishing intensity was highest prior to

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U. S. DEPARTMENT OF THE INTERIOR  
Fish and Wildlife Service  
Sep. No. 753



the war by pole-and-line fishing. In 1937 the total Trust Territory catch of skipjack tuna was 33,000 metric tons; other annual catches between 1935 and 1940 ranged between 11,000 and 18,000 metric tons (see table).

CURRENT STATUS OF FISHERIES AT PALAU

At present the only fishery resource being actively developed by U. S. interests in the Trust Territory is a pole-and-line fishery for skipjack and small yellowfin at Palau.

Here, a Trust Territory management biologist is engaged in improving the type of boat used for the fishery (figs. 2 and 3) and an American company has begun a fisheries operation. A detailed discussion of fishery development in the Palau Islands may be found in Wilson (1965).

Skipjack Tuna Catch Landed in the Former Japanese-Mandated Islands, 1922-40.							
Year	Saipan	Yap	Palau	Truk	Ponape	Jaluit	Total
..... (Metric Tons) .....							
1940	3,379.05	3.64	6,047.38	7,217.09	1,586.30	0.51	18,233.97
1939	2,086.99	36.06	3,548.77	7,639.63	3,707.75	ND	17,019.20
1938	2,392.03	149.28	3,420.21	5,294.78	1,495.58	6.71	12,758.59
1937	2,697.30	ND	13,774.70	12,433.53	4,063.96	91.30	33,060.79
1936	1,696.01	ND	3,835.97	5,870.23	2,695.84	167.73	14,265.78
1935	1,785.98	ND	5,390.99	3,002.43	1,313.12	229.78	11,722.30
1934	2,516.00	4.19	3,778.65	1,199.98	1,202.46	255.13	8,956.41
1933	1,762.30	ND	2,144.46	1,883.36	926.85	172.43	6,889.40
1932	1,309.73	ND	1,592.33	810.26	534.18	614.76	4,861.26
1931	564.26	0.44	548.12	1,097.13	525.24	81.26	2,816.45
1930	258.00	0.90	157.06	913.39	6.38	ND	1,335.75
1929	24.69	0.89	228.90	214.50	0.53	ND	469.51
1928	26.49	1.13	131.45	4.50	0.15	ND	163.72
1927	28.11	0.73	14.77	7.50	1.62	0.22	52.95
1926	44.84	2.16	42.41	2.76	0.11	ND	92.28
1925	14.81	1.99	8.53	6.05	4.95	ND	36.33
1924	9.10	1.76	1.56	5.21	0.11	ND	17.74
1923	2.81	1.46	ND	3.04	ND	ND	7.31
1922	2.36	ND	ND	3.60	3.75	ND	9.71

ND: No data available.

Note: These data are taken from S. Shapiro's "The Japanese Tuna Fisheries," U.S. Fish and Wildlife Service Fishery Leaflet 297, 1948. Shapiro used the Statistical Yearbook of the South Sea Islands as a source.

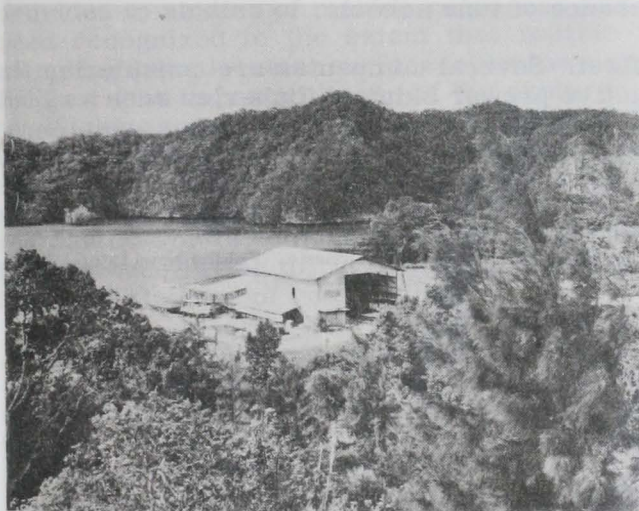


Fig. 2 - A view of the Palau shipyard now operated by the Trust Territory government.

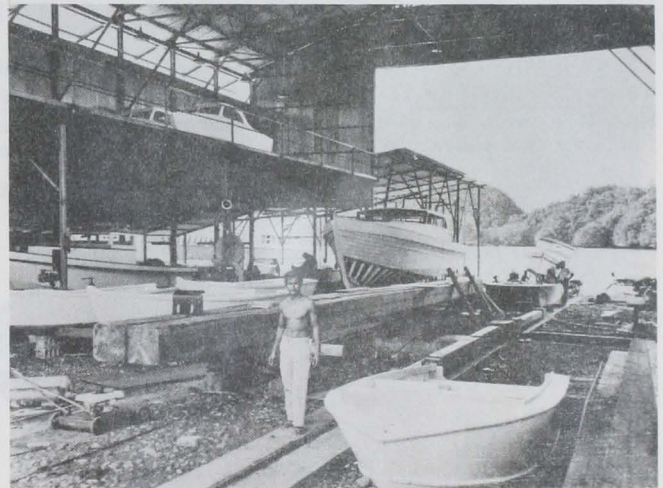


Fig. 3 - Interior view of Palau shipyard, showing keel members for a 75-foot Hawaiian-style tuna sampan being constructed under the direction of the Territory fishery management biologist.

Arrangements to begin the Palau Islands operation were made in 1963 when the Trust Territory administration signed an agreement with the Van Camp Sea Food Co., which enabled the company to locate a fleet and shoreside facility, including a 1,500-ton freezer-storage plant at Malakal Harbor in the Palau Islands (fig. 4). Actual fishing began in the summer of 1964 when the firm began receiving catches from six fishing vessels of the Okinawan type weighing 25 tons each. During the early months of the fishery, monthly catches of skipjack ranged between 200,000 and 750,000 pounds.

The vessels used in this fishery were built in Okinawa and are of a design typical of bait-fishing vessels used for tuna throughout the western Pacific Ocean (fig. 5). They are 65 feet long, not including the catwalk bow. The beam is 15 feet. Forward of the bridge are two bait-wells, four ice holds, and a fish hold. Each baitwell can contain 30 buckets of bait. The vessels are powered with 6-cylinder, 90-horsepower engines and have a maximum speed of about 7 knots. Each vessel is manned by 12 skilled Okinawans and 8 Micronesian trainees. When



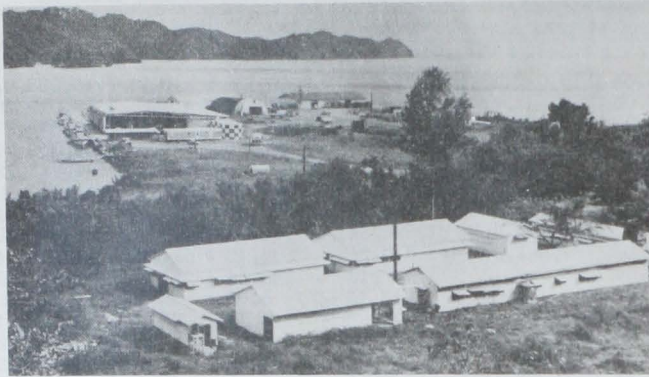


Fig. 4 - View of fishery facilities at Malakal Harbor, Palau. The buildings in the foreground are fishermen's quarters. The freezing plant is the large building in the left background. Three of the fishing vessels are tied up at the dock.



Fig. 5 - One of the tuna vessels based at Palau. Pole-and-line gear and live bait are used to catch surface schools of skipjack and yellowfin tuna.

the Micronesians become more adept at fishing, they will eventually replace the Okinawans.

Several bait species are used in the fishery. A small anchovy-like fish appears to be the most important. The bait is taken at night with the aid of a light to attract the fish. The bait fish are held in floating bait receivers, which consist of netting supported by bamboo frames. When the fishing vessel is ready to proceed from the bait area to the fishing ground, the bait is loaded in the baitwells. On the fishing ground, fish schools are sighted by scouting for bird flocks or floating logs, both indicators of the presence of tuna schools.

Plans are under way to expand the Palauan fleet. Several companies are considering the establishment of fishing bases at sites of other active prewar skipjack fisheries such as Truk.

Note: The cooperation of Peter T. Wilson and various other officials of the Government of the Trust Territory of the Pacific Islands is sincerely appreciated. John Liversey, Trust Territory Public Information Officer, kindly supplied figures 2, 3, 4, and 5.

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#### THREE WHALE HEARTS WITH A COMBINED WEIGHT OF 1,200 POUNDS DONATED TO SCIENCE

A firm in Chicago, Ill., is using whale hearts in a research project aimed at analyzing cytochrome c, one of many proteins found in every cell of the body.

The firm had previously worked on the hearts of a number of subjects, ranging from man to moths, but had never studied whale hearts. So company scientists asked a Norwegian whaling fleet operator if he would donate about 160 pounds of heart muscle from a whale. Instead, the Norwegian presented them with eight times that much--three entire whale hearts with a combined weight of more than 1,200 pounds.

The Norwegian whaler, it seems, has a big heart, too. (Oil, Paint, and Drug Reporter, August 2, 1965.)