

State of California
DEPARTMENT OF FISH AND GAME

BUREAU OF MARINE FISHERIES - M V N.B.SCOFIELD
Cruise Report

Cruise: Cruise 2 of the N.B.SCOFIELD for 1952. 52-S-2
Sailed: February 15, 1952 from Los Angeles Harbor
Returned: March 13, 1952 to Los Angeles Harbor

Locality: West Coast of Baja California and Mexico as far south as Tartar Shoals in position 16°18' N., 98°36'W. The approximate distance covered was 3,350 miles.

Purpose: To tag yellowfin tuna and skipjack with experimental type tags.
 (1) To use various type tags in testing the ease of application and effect upon tuna.
 (2) To collect specimens of other species incidental to live bait fishing, trolling, and with a night light.
 (3) To increase the experience of all crew members in live bait fishing.

Report: Sardines were obtained at Turtle Bay, Lower California, February 18 for use as live bait. A regular bait net about 150 feet long and 8 fathoms deep with $\frac{1}{2}$ " mesh in the bag was used. Sardines were plentiful and 270 scoops, 8-10 pounds per scoop, were taken aboard and placed in three bait wells and one deck tank. Upon leaving Turtle Bay the vessel trolled over Uncle Sam Bank and Thetis Bank toward Cape San Lucas, thence to Las Tres Marias Islands and into Chamela Bay, using trolling lines and live bait. Additional bait was sought in Chamela Bay but not found. From Chamela Bay we proceeded southward working in and offshore to Tartar Shoals. Seventy yellowfin tuna, 1 skipjack, and 1 black skipjack had been tagged by March 2 when all bait had been expended. After calling at Acapulco, Mexico the vessel's course was generally northward and 44 more yellowfin tuna were tagged. Dates and location of the fish tagged are as follows:

<u>Date</u>	<u>Species</u>	<u>Number Tagged</u>	<u>Location</u>
2-20-52	Black Skipjack	1	5 miles off Santa Maria Bay
2-21-52	Yellowfin Tuna	2	22°02'N., 108°29'W.
2-21-52	Skipjack	1	" " " "
2-23-52	Yellowfin Tuna	1	10°25'N., 106°33'W.
2-26-52	Yellowfin Tuna	5	18°17'N., 104°18'W.
2-26-52	Yellowfin Tuna	2	18°12'N., 104°00'W.
2-27-52	Yellowfin Tuna	16	17°28'N., 102°47'W. Within 10 mile radius
2-28-52	Yellowfin Tuna	1	17°11'N., 102°18' W.

<u>Date</u>	<u>Species</u>	<u>Number Tagged</u>	<u>Location</u>
2-29-52	Yellowfin Tuna	1	16°14'N., 100°15' W.
3-1-52	Yellowfin Tuna	8	16°28'N., 99°19' W. Within 5 mile radius
3-2-52	Yellowfin Tuna	32	16°20'N., 99°12' W., Within 12 mile radius
3-6-52	Yellowfin Tuna	2	17°31'N., 103°28' W.
3-6-52	Yellowfin Tuna	2	17°36'N., 103°43' W.
3-6-52	Yellowfin Tuna	4	17°53'N., 103°56' W.
3-7-52	Yellowfin Tuna	3	19°09'N., 105°50'W.
3-7-52	Yellowfin Tuna	23	19°20'N., 105°55'W. Within 5 mile radius
3-8-52	Yellowfin Tuna	10	21°07'N., 108°19'W. Within 6 mile radius

Total 114 Tagged

Four different types of tags were tried.

Type A. A red enameled strap was used to tag two fish on the pre-opercle. Its use was temporarily discontinued after several unsuccessful attempts to affix it. The fault lay in the present design of the pliers and modification of the existing pliers is necessary for improved results.

Type B. A hollow vinylite tube, yellow or blue in color with a nylon line running through was attached to the fish below and slightly posterior to the second dorsal. A small piece of paper, giving pertinent information, was inserted into the center of the tube. To place the tag on the fish a stainless steel wire with a sharp arrow point was placed inside the tube. The arrow and tube was then forced through the flesh, the arrow removed and the nylon line running through the plastic tube was tied by two square knots one over the other. Thirty-eight fish were tagged by this method.

Type C. The same type tubing method of application was used as described in B except that stainless steel wire instead of nylon line was passed through the center. Only 3 fish were tagged with this method because of difficulty in application. Necessary modifications are being considered.

Type D. This was a streamer design which proved to be the most easily applied. Seventy-one fish were tagged with this type. It consisted of a 2½ cm plastic tube, with the legend and nylon line enclosed. A figure eight knot was placed on the end of the line to prevent the tube from sliding off. The entire end was dipped in liquid plastic that dried, hardened, and sealed it into one unit. A loop was formed in the other end of the line, this was passed through the flesh by means of a modified sail makers needle. The legend end was then passed through the loop and allowed to dangle.

Scientific Personnel: E. C. Greenhood, Biologist in Charge
William L. Craig, Assistant

**N.B. SCOFIELD TUNA TAGGING TRIP
FEB. 15 - MAR. 13, 1952**

LEGEND

- SOUTHWARD COURSE
- RETURN COURSE

