

**U. S. Commercial Fisheries for Tunas and Billfish in the Central-Western
Pacific, 1992-1996**

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INTRODUCTION

U.S. commercial fisheries for tunas and billfish in the central-western Pacific are classified by gear: distant-water purse seine fishery that operates in the southwestern Pacific, longline fisheries in the North and South Pacific, pole-and-line fishery off Hawaii, troll and handline fisheries off Hawaii, and troll fisheries off Guam, American Samoa and the Northern Mariana Islands. Statistics from these fisheries and the U.S. distant-water albacore (*Thunnus alalunga*) troll fishery that operates in the central-south Pacific are reviewed in this report. While albacore are caught by longline, troll and handline fisheries in the North Pacific, those statistics are not included in this report.

PURSE SEINE FISHERY

The distant-water purse seine fishery is the largest U.S. fishery in the central-western Pacific. It landed an average (1992-1996) of 180,900 t consisting mainly of skipjack tuna (*Katsuwonus pelamis*) with lesser quantities of yellowfin (*Thunnus albacares*) and bigeye (*T. obesus*) tunas. The fleet in 1996 consisted of 40 vessels. Total catches decreased to 126,090 t in 1996 from 167,553 t in 1995 (Table 1). Yellowfin tuna catches recorded a marked decrease, 72% since 1994, followed by skipjack tuna with a 33% decrease. In contrast, bigeye tuna catches recorded a record high of 9,075 t in 1996.

CPUE and average sizes of yellowfin and skipjack tunas also decreased. Since 1994, skipjack tuna CPUE dropped 31% and yellowfin tuna CPUE dropped 55%. Since 1994, skipjack average size decreased from 55 cm to 51 cm and yellowfin tuna, from 81 cm to 64 cm.

Most of the 1996 U.S. purse seine catch was landed or transhipped to American Samoa (94%) where it was either canned as light-meat tuna or transshipped to other canneries. Other locations receiving landings included Papua New Guinea (4%), Guam/Northern Mariana Islands (1%), Solomon Islands (1%) and New Zealand (0.1%). While 85% of the 1996 landings were utilized by canneries in American Samoa, other destinations of landings included Thailand, Puerto Rico and Turkey.

The fishery was affected by many events in 1996 and recorded one of its poorest seasons. The most significant event was the withdrawal of 11 vessels from the fleet as a major large tuna fishing enterprise suffered a financial collapse. The closure of a major cold storage facility in Tinian

accompanied this event. Other events included decreasing catches, CPUE, and a change in fishing procedures, such as the use of FADs.

The future for the fishery hinges on the favorable correction of adverse events of 1996. If the decreased catches and CPUE are caused by environmental changes and these changes are cyclic, then there is hope for increased catches and CPUE in future years. However, if the decreases are due to reduced availability of fish due to excessive fishing pressure, reduced fishing and production may be required to improve fishery prospects for the future.

POLE-AND-LINE FISHERY

The U.S. pole-and-line fishery in the central-western Pacific operates out of Hawaii and targets skipjack tuna, but also catches small quantities of yellowfin tuna. The fleet consisted of 42 vessels in 1996. The fishery caught an average of 718 t of skipjack tuna during the 1992-1996 period. The 1996 skipjack tuna catch of 780 t represents a 37% increase over that reported in 1995 (Table 2). The fleet lands all fish in Hawaii and the fish are sold to local markets.

LONGLINE FISHERIES

There are three U.S. fleets utilizing longline gear in the central-western Pacific. The largest and oldest is the Hawaii-based longline fleet. The fleet, consisting of 103 vessels in 1996, operates throughout the North Pacific and targets bigeye and yellowfin tuna or swordfish (*Xiphias gladius*). Other species caught include blue marlin (*Makaira nigricans*) and striped marlin (*Tetrapturus audax*). The Hawaii-based longline fleet average (1992-1996) catch of all species is 8,363 t. The second largest longline fleet has been operating in the central-southern Pacific out of the Marshall Islands, Guam, Fiji and the Federated States of Micronesia (FSM) since 1991. The fleet of 12 vessels in 1996, targets mainly yellowfin and bigeye tunas (over 75% of the catch). Its average (1992-1996) catch of all species is 253 t. The smallest and newest fleet is the developing American Samoa albacore longline fleet. The fleet started operations in 1995 with 6 vessels and increased to 13 vessels in 1996. The fishery targets albacore mainly in areas around American Samoa and also catches small quantities of yellowfin tuna, blue marlin and other species. Its average (1995-1996) catch of all species is 83 t.

Total 1996 longline catches were: 2,659 t swordfish, 2,331 t bigeye tuna, 2,032 t unclassified sharks, 937 t yellowfin tuna, 486 t blue marlin and 417 t striped marlin (Table 1). The grand total of 9,212 t was slightly less than in 1995. Swordfish catches however, declined for the third consecutive year from a high of 5,897 t in 1993 to 2,659 t in 1996. Much of this decline is attributed to decreased participation in the Hawaii-based longline fishery and a marked shift in the fishery from targeting swordfish to targeting large tunas. Species showing increases in catch in 1996 include albacore (118%), sharks (28%) and bigeye tuna (6%).

Most of the U.S. longline fleets land at local ports in Hawaii, American Samoa, Guam, Fiji and FSM. Their catches are sold to local dealers or canneries.

TROLL AND HANDLINE FISHERIES

U.S. fisheries using troll and handline gear operate in both the North and South Pacific and target large pelagics, especially yellowfin and bigeye tunas or albacore. The largest troll and handline fishery (over 1,500 licenses) is based in Hawaii and targets large pelagics. Its average (1992-1996) total catch of all species is 2,166 t of which 1,100 t is yellowfin tuna. Other species caught include blue marlin (17%), mahi mahi (*Coryphaena hippurus*, 10%), skipjack tuna (10%), wahoo (*Acanthocybium solandri*, 8%) and bigeye tuna (7%). The second largest fishery is the U.S. distant-water albacore troll fishery in the South Pacific. The fishery usually starts in December of one year and runs until April of the next. The fishing area is south of French Polynesia and east of New Zealand. The fleet consisted of 50 vessels in the 1995-96 season and the average 1992-1996 albacore catch was 1,766 t. The smallest fisheries are the local troll fisheries of Guam, American Samoa and Northern Mariana Islands. These fisheries employed a total of 637 vessels in 1996 and caught skipjack tuna (35%), mahi mahi (28%) and yellowfin tunas (16%). The average (1992-1996) total catch of all species by these fisheries is 483 t.

Total catches from all U.S. troll and handline fisheries have fluctuated from a high of 5,342 t in 1992 to 3,296 t in 1994, almost entirely due to fluctuations in catches from the U.S. distant-water albacore troll fishery. In 1996, troll and handline catches included 2,186 t albacore, 1,086 t yellowfin tuna, 160 t bigeye tuna, 406 t of skipjack tuna, 411 t of blue marlin, 369 t mahi mahi and 249 t wahoo (Table 4). 1996 total catches were almost identical to total catches in 1995.

Most of the catch from U.S. troll and handline fisheries is landed at local ports and sold to local markets. Albacore caught by the distant-water troll fishery is landed in American Samoa or transshipped at-sea to American Samoa. At times, small quantities are also unloaded in Fiji, French Polynesia and New Zealand.

SUMMARY

U.S. commercial tuna fisheries in the central-western Pacific are classified by gear type. The largest is the distant-water purse seine fishery which was responsible for 89% of the U.S. central-western Pacific catch of all species in 1996. The other fisheries consist of longline (7%), troll and handline (3%) and pole-and-line (1%). Catches from all fisheries should remain at or close to 1996 levels as substantial increases in fishing effort are not predicted. However, recent decreases in the distant-water purse seine catches and catch rates have led to increased concern over the status of the skipjack and yellowfin stocks in the central-western Pacific. Studies are needed to address this concern.

Table 1. U.S. central-western Pacific purse seine fishery catches, 1992-1996.

YEAR	SKIPJACK	YELLOWFIN	BIGEYE	TOTAL
1995	155,898	43,693	3,480	203,071
1993	148,419	46,011	3,731	198,161
1994	151,486	56,426	1,711	209,623
1995	132,518	31,845	3,190	167,553
1996	100,945	16,070	9,075	126,090

Table 2. U.S. central-western Pacific pole-and-line catches, 1992-1996.

YEAR	SKIPJACK	YELLOWFIN	TOTAL
1992	763	16	779
1993	962	4	966
1994	514	9	523
1995	570	15	585
1996	780	1	781

Table 3. U.S. central-western Pacific longline catches, 1992-1996

YEAR	ALBACORE ¹	YELLOWFIN	BIGEYE	MAHI MAHI	SHARKS	SWORDFISH	BLUE MARLIN	STRIPED MARLIN	OTHER	TOTAL
1992	0	456	1,582	0	0	5,715	318	499	0	8,570
1993	0	712	2,207	0	0	5,897	318	499	0	9,633
1994	78	762	1,859	0	0	3,130	363	363	0	6,555
1995	54	1,204	2,188	258	1,583	2,726	580	544	141	9,278
1996	118	937	2,331	107	2,032	2,659	486	417	125	9,212

Table 4. U.S. central-western Pacific troll and handline catches, 1992-1996

YEAR	ALBACORE ¹	SKIPJACK	YELLOWFIN	BIGEYE	MAHI MAHI	WAHOO	BLUE MARLIN	OTHER	TOTAL
1992	3,016	292	1,085	83	307	194	324	41	5,342
1993	1,028	269	1,179	44	438	197	362	83	3,600
1994	530	342	1,323	164	367	164	362	44	3,296
1995	2,072	373	1,331	66	379	156	377	64	4,918
1996	2,186	406	1,086	160	369	149	411	55	4,922

¹ Albacore catches are for the South Pacific only.