SCTB15 Working Paper

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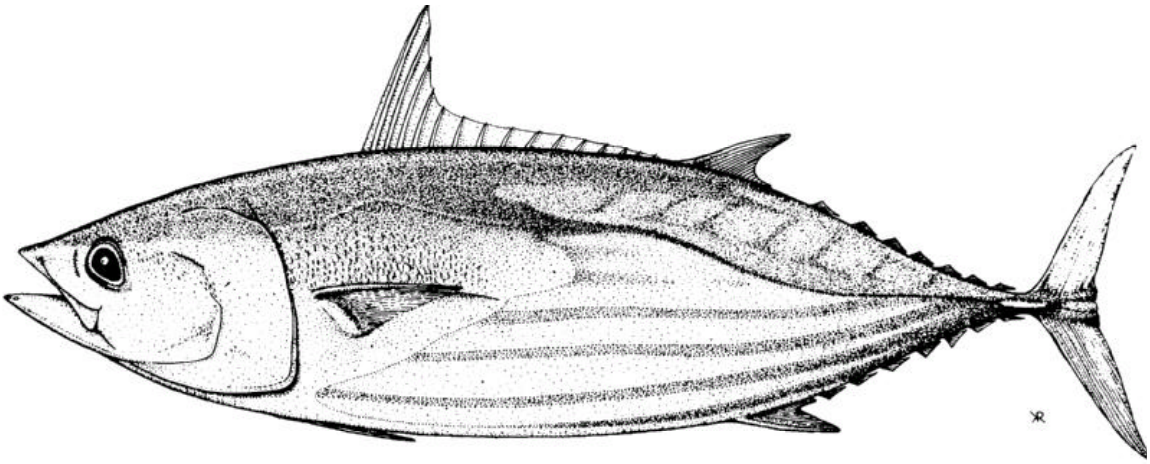
An update for Canadian tuna fisheries in the north and south Pacific Ocean for 2001



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An Update for Canadian Tuna Fisheries in the North and South Pacific Ocean for 2001[1]

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[1] Canadian National Fishery Report for the 15th meeting of the Standing Committee on Tuna and Billfish (SCTB15) in Honolulu, Hawaii, July 18-27, 2002. Document not to be cited without permission of the authors.

INTRODUCTION

Canadians began fishing albacore tuna (*Thunnus alalunga)* in the north Pacific with troll vessels using tuna jigs in the mid 1930s. Canadian trollers began fishing albacore in the south Pacific in the mid 1980s. In the last two decades, larger vessels in the Canadian troll fleet have increasingly expanded their albacore fishing from the North American coast westward past the dateline and southward to the southern tropical convergence zone.

Increased fishing interests on the high seas formed the basis for Canada's entry into the multilateral negotiations for a new, Pacific Ocean wide, Convention on the Conservation and Management of Highly Migratory Fish Stocks (HMS) in the Western and Central Pacific Ocean. Canada was a full participant at the Multilateral High-Level Conference on the Conservation and Management of HMS in the Central and Western Pacific (MHLC). The Convention was adopted on September 4, 2000 during the seventh and final MHLC session in Honolulu, Hawaii. Representatives from the Fisheries and Oceans Canada (DFO) and the Canadian Department of Foreign Affairs and International Trade were in attendance. Canada signed the Convention in May 2001.

Canada is committed to providing detailed catch and effort statistics, logbook data and fishing vessel information, as will be required under the new HMS Convention. This report provides brief descriptions of Canada's fisheries in the north and south Pacific over the last two years, and recent Canadian fishery statistics and logbook information. Similar reports were prepared for SCTB12, (Argue et al. 1999), SCTB13 (Argue and Shaw, 2000), and SCTB14 (Shaw, 2001).

DESCRIPTION OF THE CANADIAN ALBACORE TUNA FISHERIES

North Pacific Jig Fishery

The Canadian jig fishery is comprised of two fleets. The coastal fleet operates within and near the Canadian and United States fishing zones in accordance with zone and port access privileges under the Canada/U.S. Albacore Tuna Treaty. Vessels in this fleet, mostly 35 to 60 feet in length, concentrate their fishing effort primarily from the southern California coast to the northern tip of Vancouver Island and, in some years, as far north as off the west coast of the Queen Charlotte Islands. Ocean conditions, the availability of albacore, and abundance and distribution of Pacific salmon all influence the size and distribution of the Canadian tuna fleet in any particular year. Effort in the coastal fishery normally starts in June and peaks in September, after the salmon season for trollers has wound down. The catch is primarily bled and blast frozen with some vessels holding fresh caught fish in ice or frozen brine. The catch from the coastal fleet is sold either into U.S. or Canadian plants where the fish are sold in the canned tuna market or the fresh-frozen sashimi market.

The Canadian high seas fleet is comprised of larger jig vessels (most greater than 60 feet) with crews typically of two to four fishermen that remain at sea for trips of several months. These vessels, most of which are equipped with large freezers, operate primarily from west of the dateline to the Canadian zone in the north Pacific. Offshore fishing in the north Pacific on the Midway and Wake Islands grounds usually starts in late May or June and, weather and tuna abundance permitting, lasts through late fall as the vessels follow albacore towards the North American coast. Offshore vessel catches are also sold into the canned market, although the majority is bled and blast frozen then sold into the fresh-frozen sashimi market. There are a number of small processors that have established special niche markets for albacore. The product is either smoked (hot or cold) or loined and sold directly to consumers.

In the last five years in excess of 400 Canadian vessels have fished at least once for albacore. During this period the Canadian fleet ranged from approximately 150 to 250 vessels each year, with some 40 to 60 vessels fishing on the high seas in the north Pacific.

South Pacific Jig Fishery

Since the mid 1980s a smaller fleet has fished south Pacific albacore between the New Zealand zone and 140°W and 30°S to 45°S. After the end of the north Pacific albacore season (sometime in October), Canadian vessels fish in the southern albacore fishery during the austral summer months (December to April). Between two and five vessels fish in the south Pacific. These vessels range between 70 and 90 feet and have a crew of four. The majority of the fish are bled and blast frozen with a few vessels using brine. Some of the vessels will tranship their catch to carrier vessels at sea in order to continue fishing operations on migrating schools of tuna. However, in most cases the catch is sold to American Samoa, Fiji, French Polynesia (Papeete) and Canada. The Canadian markets are the same as for the north Pacific fishery.

ANNUAL FISHERY STATISTICS

Prior to departing for the fishing grounds, Canadian tuna fishermen are requested to notify DFO of their intent to fish albacore tuna, and under the Canada/U.S. Albacore Tuna Treaty must indicate to DFO at least 48 hours in advance whether they intend to fish in the U.S. zone (Shaw 1997, 1999). The reporting information includes vessel name, homeport, CFV #, registration #, radio call sign, and Captain/operator name. All Canadian vessels must carry logbooks while fishing for highly migratory species in any waters. Logbook information consists of daily catch and bycatch (numbers of fish), effort (numbers of jigs, hours fished), position (Lat/Long), average fish weight, and SST. Logbooks and sales slips must be returned to DFO for entry into DFO's relational database (Argue et al. 1999).

North Pacific Albacore

Below, for FAO Statistical Areas (Chart 1), are the revised *preliminary* estimates of the 2000 and 2001 northern albacore catch by Canadian jig boats.

FAO STATISTICAL AREA	ESTIMATED TOTAL 2000 CATCH (mt)	ESTIMATED TOTAL 2001 CATCH (mt)
Northeast Pacific, Area 67	4,116	5,988
Northwest Pacific, Area 61	384	314
Eastern Central Pacific, Area 77[2]	144	136
TOTALS	4,644	6,438

The distribution of total catch between FAO Statistical Areas was based on the distribution of reported catch from logbooks. Logbooks have been received from 63% of an estimated fleet of 219 vessels that were fishing in 2000, and 88% of an estimated fleet of 240 vessels that were fishing in 2001.

The total estimated Canadian catch for 2001 was 6,438 mt, substantially higher than in 2000. Most of this catch was taken in FAO Area 67. Catches in the other FAO areas in 2001 were similar to 2000. The Canadian fleet off the North American coast caught fish from southern California to the northern tip of Vancouver Island.

South Pacific Albacore

In recent years, between two and five Canadian flag vessels have fished southern albacore stocks below the equator during the November to March seasons. These vessels fished primarily in an area that extends from 130°W to 165°W and 30°S to 45°S. They have landed their catch at ports in American Samoa, Fiji, French Polynesia (Papeete) and Canada. Based on analyses of transhipment records and discussions with skippers, Canadian landings in this fishery from its inception in 1987/88 to 1994/95 are estimated to have ranged from 134 to 335 mt per season. Based on log book, sales slips, transhipment data, and fisherman interviews, the preliminary 1995/96 to 2000/2001 catch of southern albacore by Canadian registered vessels was:

FISHING SEASON	ESTIMATED TOTAL CATCH (mt)
1995/96	136
1996/97	149
1997/98	167
1998/99	253
1999/2000	351
2000/2001	206

[2] Excludes catch data from below the equator.

Charts 2 to 4 show the distribution, by one degree square, of the 2001 southern albacore catch (numbers of fish), fishing effort (days fishing) and CPUE (numbers of fish per day fishing), respectively.

REFERENCES

Argue, A.W. and W. Shaw. 2000 MS. An update for Canadian albacore fisheries in the north and south Pacific Ocean. Report prepared for the 13th meeting of the Standing Committee on Tuna and Billfish in Tahiti, French Polynesia, July 5-12, 2000.

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Shaw, W. 1997 MS. The Canadian albacore fishery off the west coast of British Columbia, 1996-97. 15 pp. Document submitted by DFO to the Fifteenth Meeting of the North Pacific Albacore Workshop, Nanaimo, B.C., December 1997.

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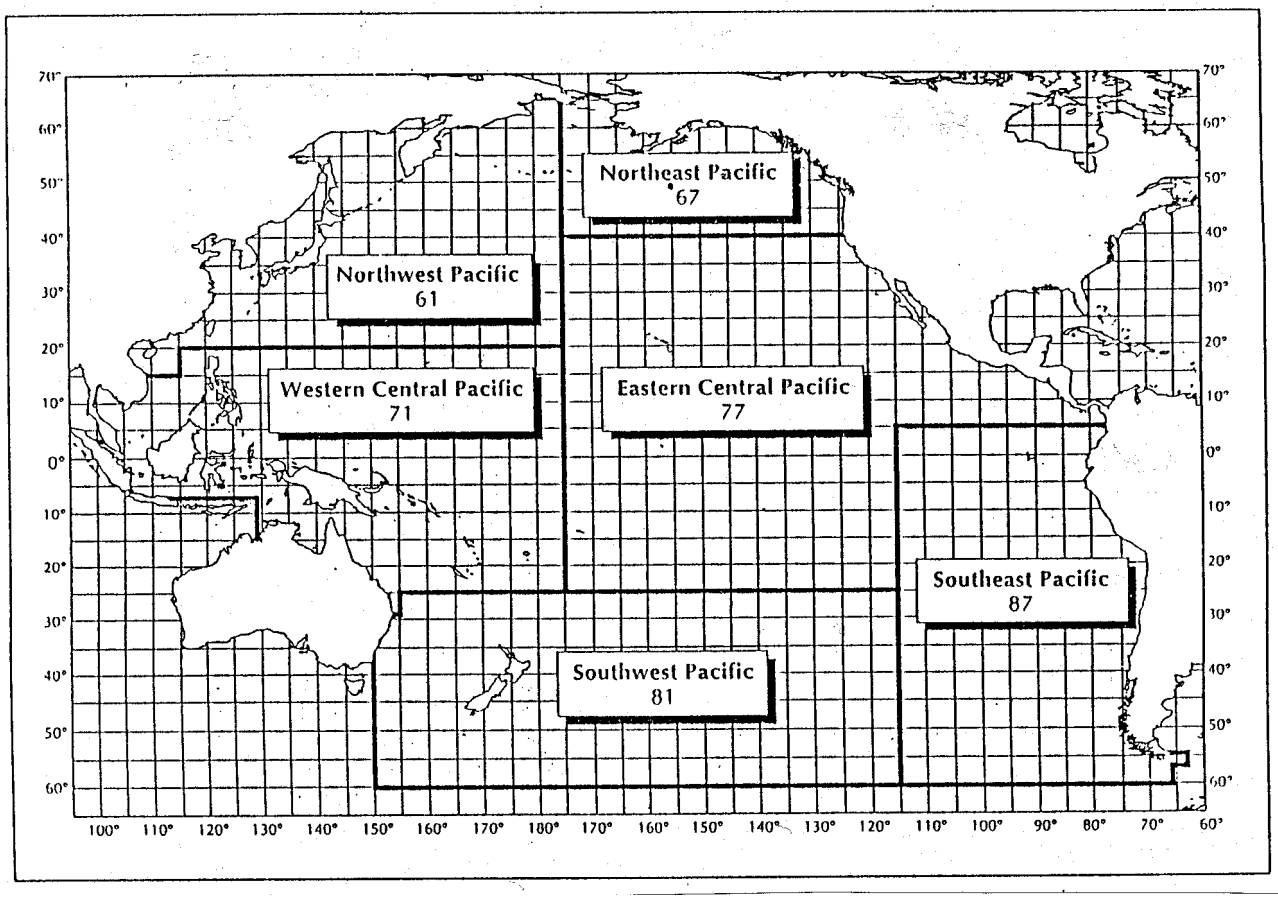

Chart 1. Food and Agricultural Organization fishing areas for statistical purposes.

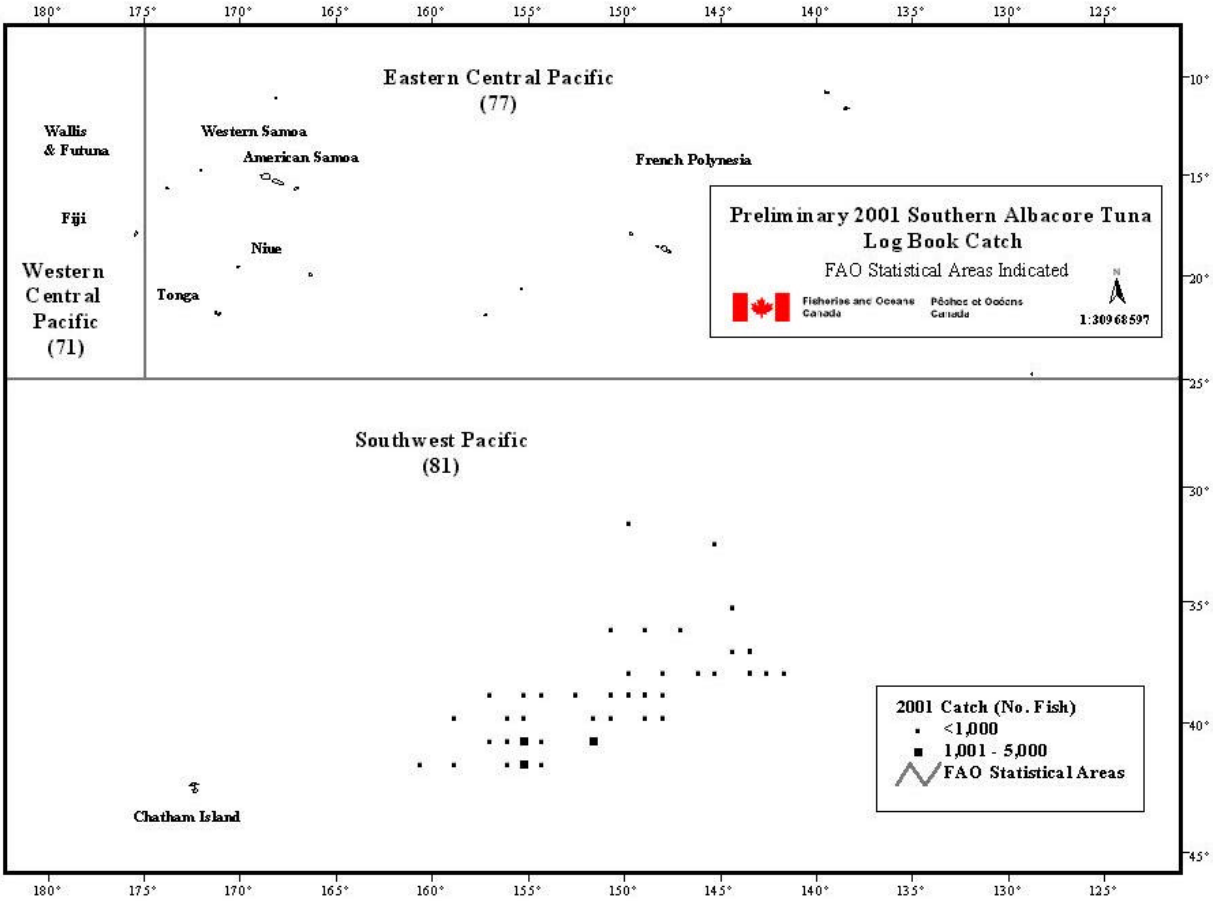
Eastern Central Pacific
(77)
Wallis
& Futuna
Western Samoa
American Samoa
French Polynesia
Fiji
Niue
Tonga
Western
Central
Pacific
(71)
Preliminary 2001 Southern Albacore Tuna
Log Book Catch
FAO Statistical Areas Indicated
Fisheries and Oceans
Canada
Pêches et Océans
Canada
1:30968597
Southwest Pacific
(81)
Chatham Island
2001 Catch (No. Fish)
<1,000
1,001 - 5,000
FAO Statistical Areas

Chart 2.

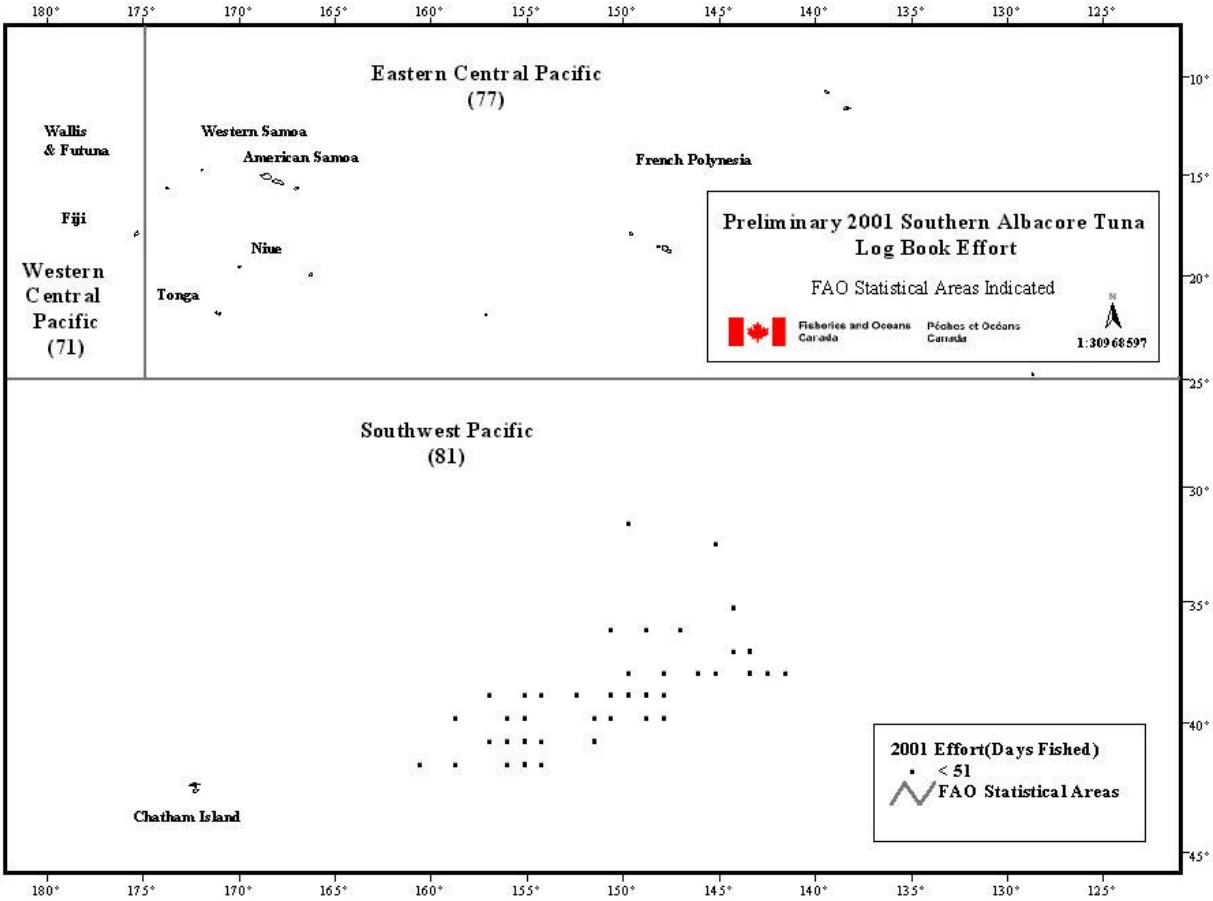
Eastern Central Pacific
(77)
Wallis
& Futuna
Western Samoa
American Samoa
French Polynesia
Fiji
Niue
Western
Central
Pacific
(71)
Tonga
Preliminary 2001 Southern Albacore Tuna
Log Book Effort
FAO Statistical Areas Indicated
Fisheries and Oceans
Canada
Pêches et Océans
Canada
1:30968597
Southwest Pacific
(81)
Chatham Island
2001 Effort(Days Fished)
< 51
FAO Statistical Areas

Chart 3.

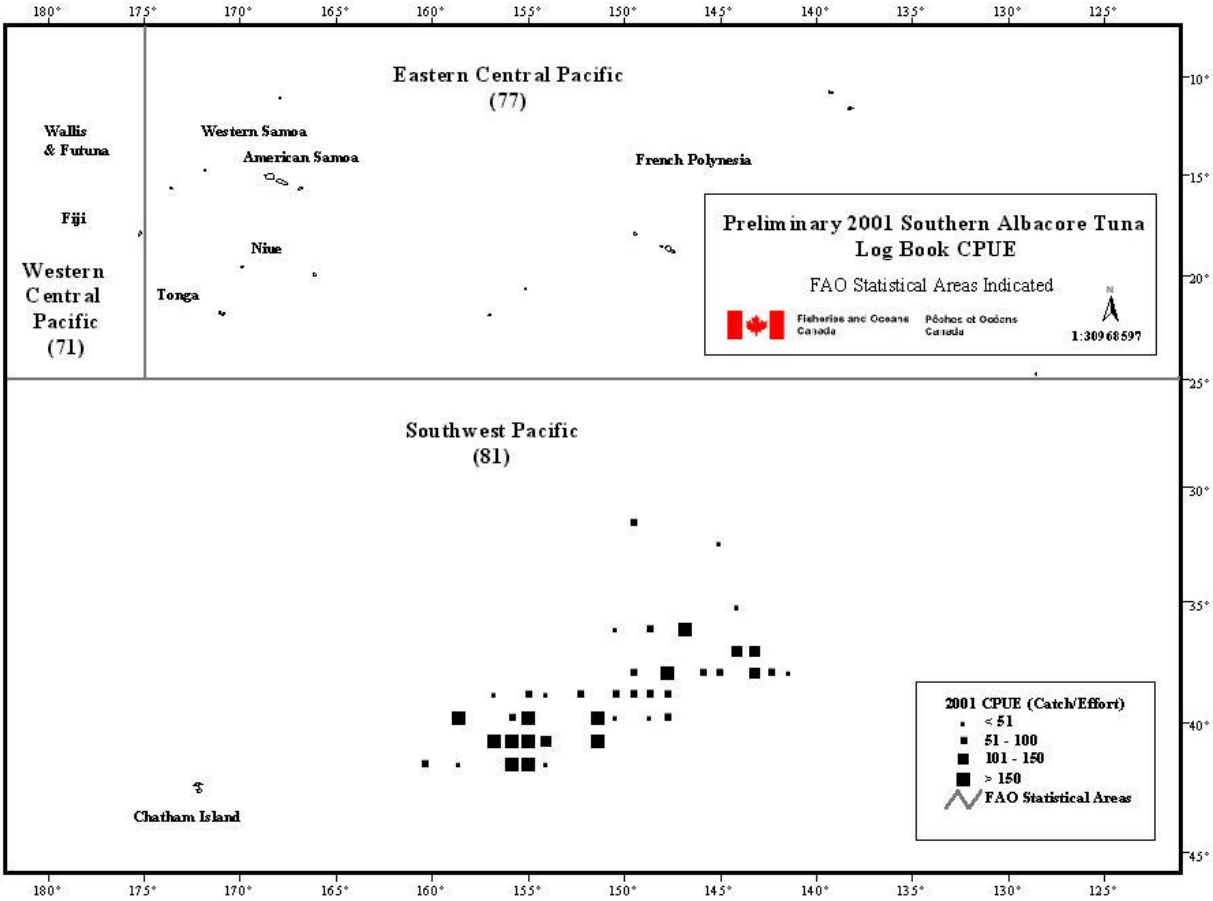
Eastern Central Pacific
(77)
Wallis
& Futuna
Western Samoa
American Samoa
French Polynesia
Fiji
Niue
Tonga
Western
Central
Pacific
(71)
Preliminary 2001 Southern Albacore Tuna
Log Book CPUE
FAO Statistical Areas Indicated
Fisheries and Oceans Canada
Pêches et Océans Canada
1:30968597
Southwest Pacific
(81)
Chatham Island
2001 CPUE (Catch/Effort)
< 51
51 - 100
101 - 150
> 150
FAO Statistical Areas
180°
175°
170°
165°
160°
155°
150°
145°
140°
135°
130°
125°
10°
15°
20°
25°
30°
35°
40°
45°

Chart 4.