

The 2004 Canadian North Pacific Albacore Troll Fishery¹

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INTRODUCTION

The Canadian fishery for albacore tuna (*Thunnus alalunga*) in the North Pacific is a troll fishery using tuna jigs. Canadian fishermen have been fishing albacore since the mid-1930s. The fishery started in the coastal waters off British Columbia, and has now developed into four fleet types, BC coastal, BC/US coastal, highseas north Pacific and highseas south Pacific. The coastal fleets contain the majority of the vessels. Many of the smaller Canadian vessels have been following the tuna concentrations offshore, thus extending their traditional fishing range to include the highseas. Results of the Canadian highseas south Pacific fishery have been presented at the Fifteenth (Shaw and Stocker, 2002a), Sixteenth (Stocker and Shaw, 2003) and Seventeenth (Stocker and Shaw, 2004a) meeting of the Standing Committee on Tuna and Billfish.

Canada was a full participant at the Seventh and final Multilateral High-Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Central and Western Pacific (MHLC7). Representatives from the Canadian Department of Fisheries and Oceans (DFO) and the Department of Foreign Affairs and International Trade attended the MHLC7 in Honolulu, Hawaii in September 2000. Canadian tuna fishing industry representatives also attended. Canada has been a full participant at all PrepCon meetings and was an observer at the first meeting of the Western and Central Pacific Fisheries Commission (WCPFC) held in Pohnpei, FSM, in December 2004.

Canada is committed to providing detailed catch and effort statistics, logbook data, and fishing vessel information, as is required under the new Highly Migratory Species Convention. This report presents summaries of catch, effort and catch per unit of effort (CPUE) data for the Canadian north Pacific albacore tuna fishery in 2004. Shaw (1997, 1999), Shaw and Argue (1999 and 2000), Shaw and Stocker (2002b) and Stocker and Shaw (2004b and 2004c) present similar information for earlier years.

DATA SOURCES

FISHERY STATISTICS

All Canadian vessels must carry logbooks while fishing for highly migratory species in any waters. Daily catch and effort data are obtained from completed copies of the *Canadian Albacore Logbook* submitted by fishermen. A full description of the type of information recorded in the logbooks is presented in Shaw and Argue (1999). Logbooks, sales slips and at-sea trans-shipment slips, completed at the time fish are landed and sold, must be returned to Fisheries and Oceans Canada (DFO) for entry into the albacore catch database (Argue et al. 1999).

Sales slip records are the source of historical northern albacore catches dating back to 1945 (Ware and Yamanaka, 1991). In March 1999, DFO embarked on a program to reconcile past estimates of total Canadian catches of albacore from logbook, sales slip, phone-in and transshipment data. During the process updates, based on new logbook and

sales slip information, were made to catches and number of vessels as reported in earlier reports (Shaw and Argue 1999, Argue and Shaw 2000 and Argue et al. 1999). The catch data up to 2003 are considered our best estimates. The data for 2004 are considered to be preliminary.

Catch

The total north Pacific albacore tuna catch from 1995 to 2004 by the Canadian tuna fleet is presented in Table 1. The catches range from 1,720 t in 1995 to 7,796 t in 2004. The average catch for the period 1995 to 2004 was 4,358 t.

Table 2 shows the distribution of catches by FAO statistical areas from 2001 to 2004. The majority of the catches were from FAO statistical area 67. These catches include catches made by the Canadian fleet in the US and Canadian EEZ under the bilateral albacore tuna treaty.

Effort

In 2004, 218 Canadian vessels were operating in the north Pacific ocean (Table 1). The fleet size ranged from a low of 193 vessels in 2003 to a high of 292 vessels in 1996. From 1995 to 2004 the average number of Canadian vessels fishing for albacore in the north Pacific ocean was 234. Fishing effort in the tuna fishery is measured in number of vessel fishing days (v-d). Fishing vessel days ranged from 4,637 in 1997 to 9,826 in 2001. The 2004 estimate of 9,728 v-d is higher than the 1995-2004 average of 7,731 v-d (Table 1).

CPUE

The CPUE ranged from a low of 291 kg/v-d in 1995 to a high of 810 kg/v-d in 2003 (Table 1). The average CPUE for the period 1995-2004 was 553 kg/v-d. Both catch and CPUE follow an increasing trend over the period 1995-2004 (Figure 1).

Distribution of Catch, Effort and CPUE

The distribution of northern albacore catch (numbers of fish), fishing effort (days fishing) and CPUE (numbers of fish per day fishing) for 2004 is presented by one degree square in Figures 2 to 4. The pattern of distribution of catch was similar to previous years (Shaw and Stocker, 2002b; Stocker and Shaw, 2004b) with higher catches occurring near the North American coast. This pattern was similar for effort and CPUE.

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Table 1. Fishery statistics for the Canadian north Pacific albacore tuna fishery.

Fishing Season	Total Catch (t)	Effort (v-d)	Total Vessels	Cpue (kg/v-d)
1995	1,720	5,909	284	291.1
1996	3,591	9,164	292	391.9
1997	2,433	4,637	197	524.7
1998	4,188	6,032	213	694.3
1999	2,641	6,776	233	389.8
2000	4,465	8,691	238	513.7
2001	4,985	9,826	244	507.3
2002	5,022	8,235	229	609.8
2003	6,735	8,315	193	810.0
2004	7,796	9,728	218	801.4

Table 2. Canadian total catch (t) of north Pacific albacore tuna by FAO statistical area.

FAO Statistical Area	2001	2002	2003	2004
Northeast Pacific, Area 67	4,674	4,731	6,315	7,621
Northwest Pacific, Area 61	159	131	330	43
Eastern Central Pacific, Area 77 ²	152	160	91	132
TOTALS	4,985	5,022	6,736	7,796

² Excludes catch data from below the equator.

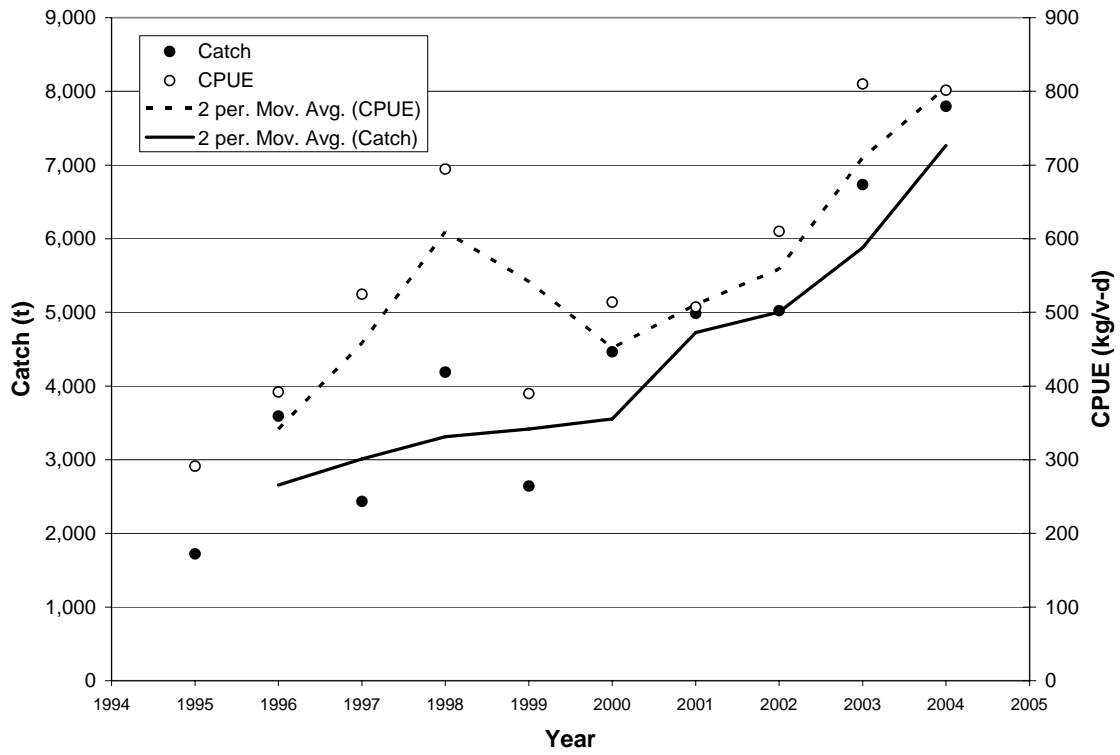


Figure 1. Canadian North Pacific albacore tuna catch and CPUE from 1995 to 2004.

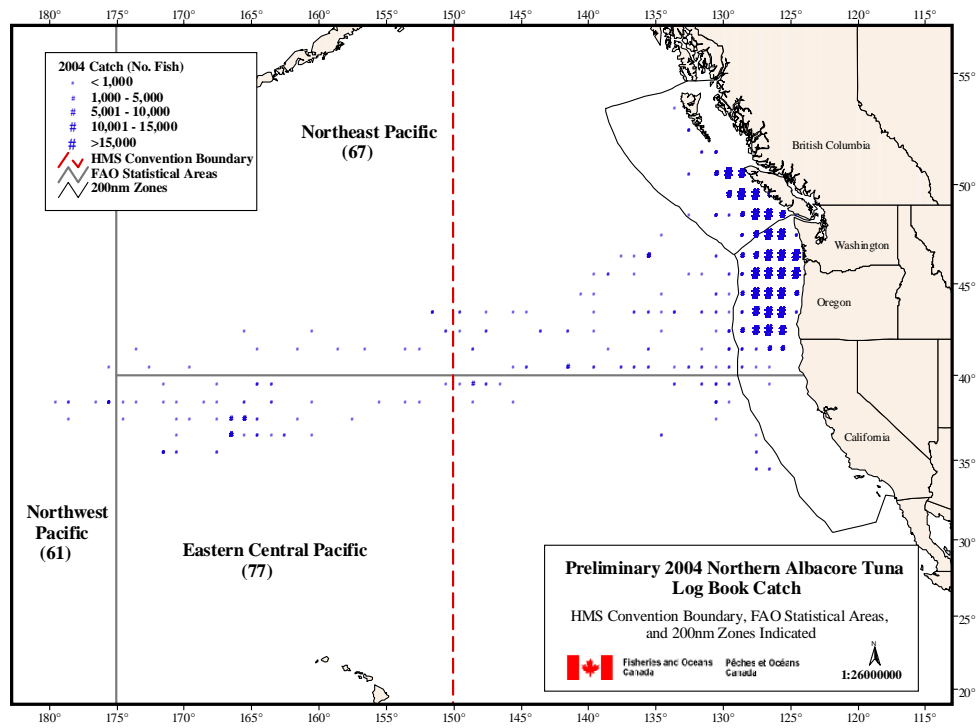


Figure 2. Canadian North Pacific albacore tuna catch in 2004.

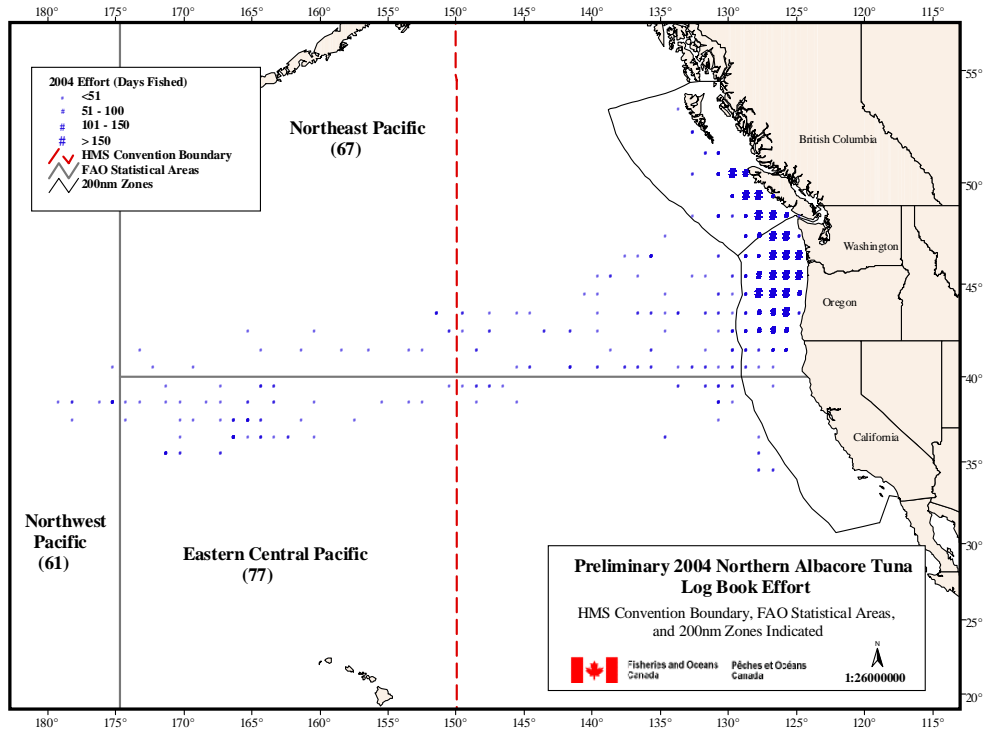


Figure 3. Canadian North Pacific albacore tuna effort in 2004.

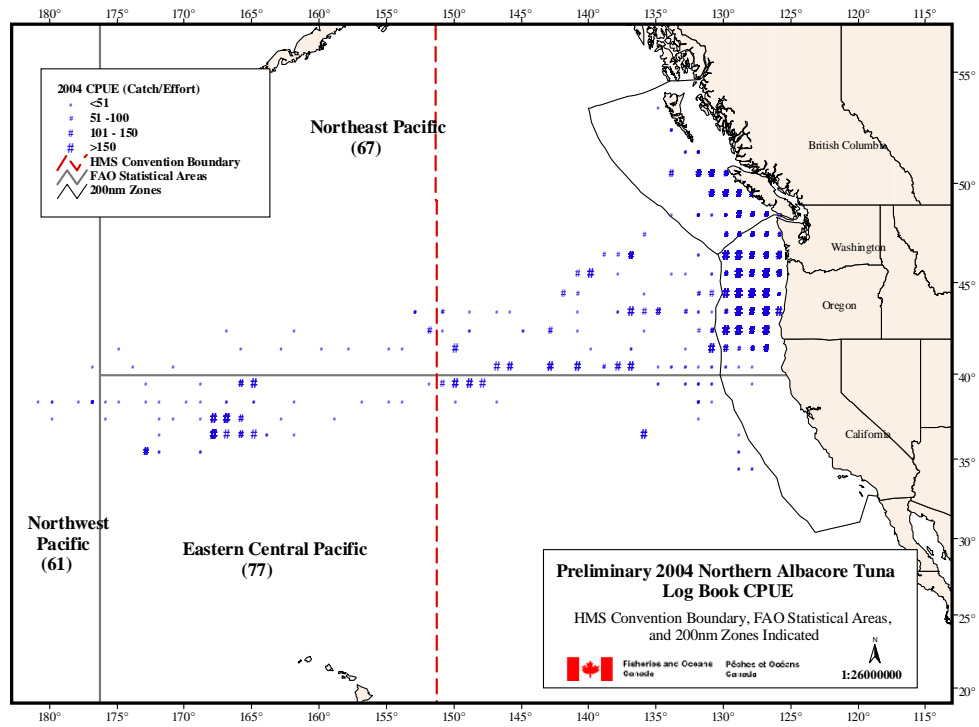


Figure 4. Canadian North Pacific albacore tuna CPUE in 2004.