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**The 2004 Canadian North Pacific Albacore
Troll Fishery**

Max Stocker

Fisheries and Oceans Canada
Science Branch
Pacific Biological Station
3190 Hammond Bay Road
Nanaimo, B.C., Canada V9T 6N7

and

William Shaw

Fisheries and Oceans Canada
Fisheries Management Branch
South Coast Division
3225 Stephenson Point Road
Nanaimo, B.C., Canada V9T 1K3

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Max Stocker¹ and William Shaw²

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 over the years developed into four fleet types, BC coastal, BC/US coastal, high seas 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 high seas.

Canada is committed to providing detailed catch and effort statistics, logbook data, and fishing vessel information, as required by the Canada-U.S. Albacore Treaty, the Inter-American Tropical Tuna Commission resolutions on data provision, and the 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 (2002) and Stocker and Shaw (2004a and 2004b) 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).

In 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

¹ Fisheries and Oceans Canada, Pacific Biological Station, 3190 Hammond Bay Road, Nanaimo, B.C., Canada V9T 6N7

² Fisheries and Oceans Canada, Fisheries Management Branch, South Coast Division, 3225 Stephenson Point Road, Nanaimo, B.C., Canada V9T 1K3

Shaw 2000 and Argue et al. 1999). The catch data up to 2003 are considered our best estimates. The 2004 catch estimates are still considered 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. The catch summarized by FAO statistical areas from 2002 to 2004 is shown in Table 2. The majority of the catches are from FAO statistical area 67.

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, 2002; Stocker and Shaw, 2004a and 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 ¹	7,796	9,728	218	801.4

¹ 2004 data are preliminary.

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

FAO Statistical Area	2002	2003	2004
Northeast Pacific, Area 67	4,731	6,314	7,620
Northwest Pacific, Area 61	131	330	44
Eastern Central Pacific, Area 77 ¹	160	91	132
TOTALS	5,022	6,735	7,796

¹ Excludes catch data from below the equator

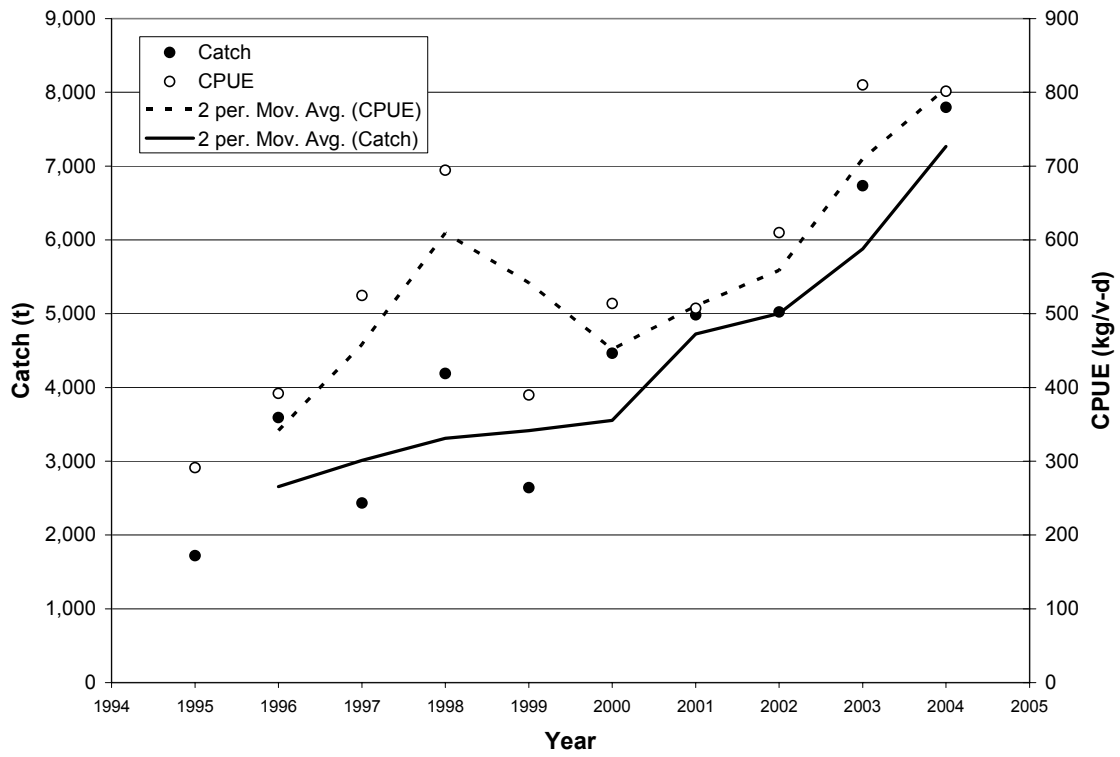


Figure 1. Canadian North Pacific albacore tuna catch and CPUE from 1995 to 2004.

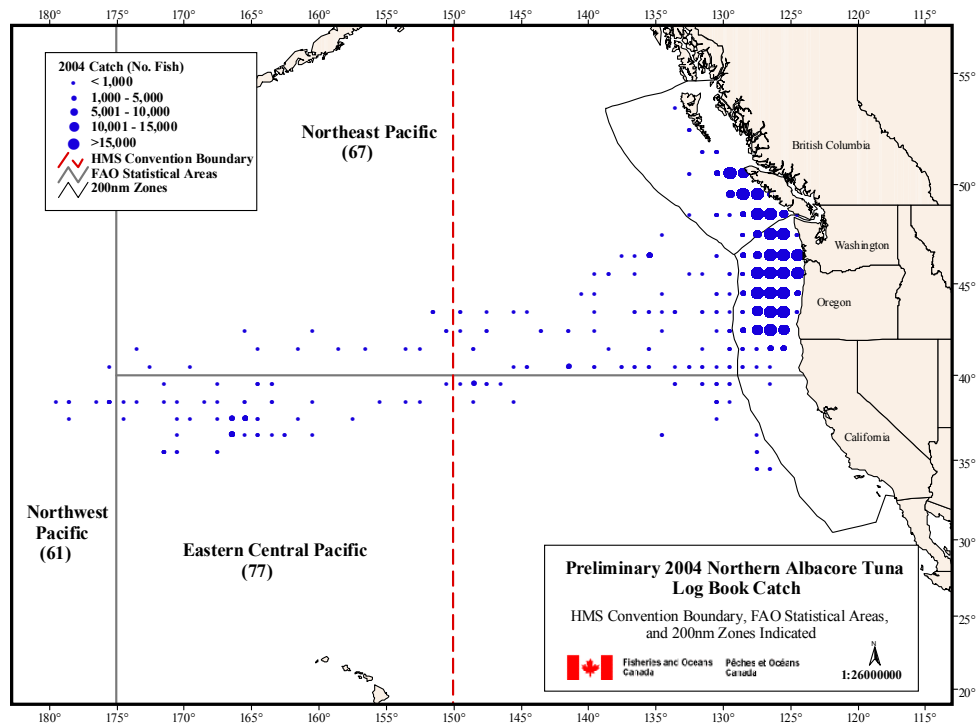


Figure 2. Canadian North Pacific albacore tuna catch in 2004.

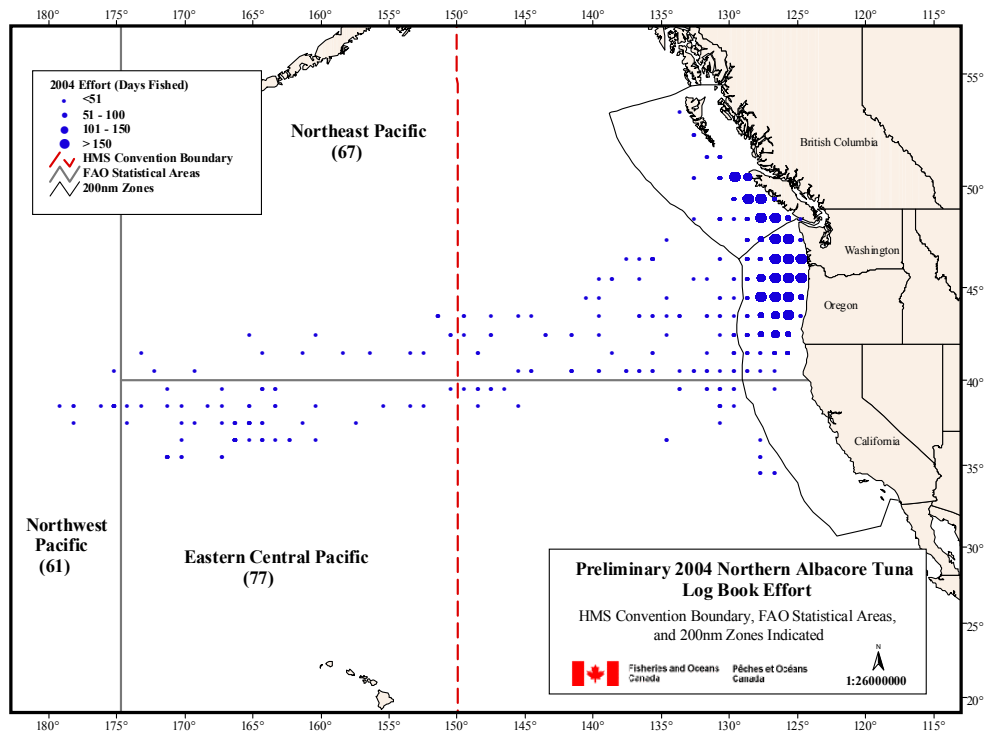


Figure 3. Canadian North Pacific albacore tuna effort in 2004.

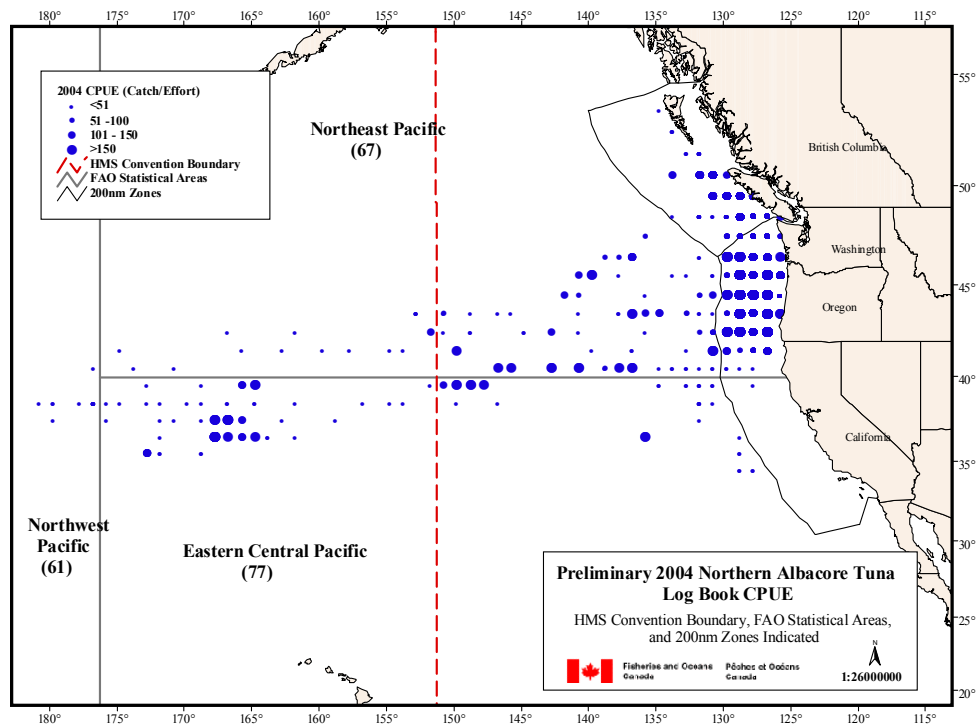


Figure 4. Canadian North Pacific albacore tuna CPUE in 2004.