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**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

WCPFC-SC5-AR/CCM-02

CANADA

**2009 Annual Report to the
Western and Central Pacific Fisheries Commission**

Canada

**PART I. INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS
For 2008**

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Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2009	YES
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Summary

Catch, effort and catch per unit of effort (CPUE) data for the Canadian albacore (*Thunnus alalunga*) fishery in the WCPFC Convention Area for 2008 are summarized in this document. The Canadian tuna fishery is a troll fishery that uses tuna jigs and targets albacore exclusively. The Canadian fishery was inactive within the WCPFC convention area in 2008, with no effort or catch reported in statistical areas in either the North or South Pacific Oceans. The total Pacific albacore tuna catch from 2002–2007 by the Canadian albacore troll fishery within the convention area has ranged from 83 mt in 2005 to 453 mt in 2003 and effort has ranged from 56 v-d in 2007 to 408 v-d in 2002. Both catch and effort by the Canadian fleet in the WCPFC convention area have been declining since 2002. Canada participated in two ISC-Albacore Working Group workshop meetings in 2008 and began a voluntary program to record daily catch size composition data.

2009 Annual Report to the Western and Central Pacific Fisheries Commission

Canada

PART I. INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS (For 2008)

Canadian fishermen have been fishing for albacore tuna (*Thunnus alalunga*) since the mid-1930s. The Canadian fishery started in the coastal waters off British Columbia and is a troll fishery using jigs to target albacore tuna in the surface waters of four areas of the Pacific Ocean in which the fleet operates: (1) British Columbia coastal, (2) British Columbia/United States coastal, (3) high seas north Pacific ocean, and (4) high seas south Pacific ocean. Although the Canadian fleet will follow albacore tuna concentrations into offshore waters, in recent years the majority of effort and catch has occurred in the coastal waters of Canada and the United States and this trend continued in 2008. Access by Canadian vessels to waters in the U.S. Exclusive Economic Zone (EEZ) is governed by a bilateral Canada-United States albacore tuna treaty, which enables Canadian and U.S. fishers to catch north Pacific albacore in each other's EEZ, and land albacore tuna at designated ports in Canada and the United States.

Canada is committed to providing detailed catch and effort statistics, logbook data, and fishing vessel information, as is required under the Highly Migratory Species Convention. Management regulations for Canadian vessels fishing albacore tuna in 2007 are documented in the *Pacific Region Integrated Fisheries Management Plan: Tuna - April 1, 2008 to March 31, 2009*, which is available electronically at: http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/MPLANS/plans08/2008_IFMP-Tuna_complete.pdf. These regulations specify that Canadian fishers must obtain a licence to fish for albacore tuna and that they must maintain accurate records of daily harvest operations in the *Canadian Pacific Albacore Tuna Logbook*. Logbooks are purchased from the Canadian Highly Migratory Species Foundation and fishers are required to submit their logbooks within 7 days of their final landing or mid-November, whichever is first. The Canadian tuna fishery in the coastal and high seas waters of the Pacific Ocean was open from 01 April 1 2008 to 31 March 2009, but all catch and effort occurred between June and October 2008.

This report presents summaries of catch, effort and catch per unit of effort (CPUE) data for the Canadian albacore tuna troll fishery in the WCPFC Convention Area in 2008.

1.1 Annual Fisheries Information

Data on albacore tuna catch and effort are compiled from hailing records, logbooks, and sales slips from processing plants and stored in the *Canadian Albacore Tuna Catch and Effort Relational Database* (Stocker et al. 2007). This database contains all fishery-related scientific data from 1995 to the present and provides the best estimate of total annual catch and effort by vessel and geographic area. All fishing vessels are required to hail out when they intend to start

fishing and hail in when fishing ceases. Hail data from vessels fishing in Canadian waters are obtained from Marine Communications and Traffic Services, Canadian Coast Guard, and hail data for vessels fishing in U.S. waters are obtained from Ship.com. The hail data are used to estimate total vessels fishing (Stocker et al. 2007). Canadian vessels must also carry logbooks while fishing for highly migratory species in any waters of the Pacific Ocean. Daily catch and effort data at the highest temporal and spatial scales are obtained from completed copies of the logbooks submitted at the end of the fishing season. A full description of the type of information recorded in the logbooks is provided by Stocker et al. (2007). Sales slips records of landings provide the most accurate estimates of albacore landings (weight), although they underestimate total annual landings because they do not fully account for international sales, domestic public sales or take-home totals (Stocker et al. 2007). 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; Stocker et al. 2007). Canada does not currently have a domestic program to collect biological data (lengths, weights, sex) from catch landed in Canadian ports.

The data presented in this report were obtained using codebase Version 09.06.02 to query and compile the data from Version 09.05.07 of the *Canadian Albacore Tuna Catch and Effort Relational Database*. The 2008 data presented in this report are considered preliminary while the data from 2002 to 2007 are definitive. Similar summaries of data from 2002 to 2007 are provided by Stocker and Shaw (2003, 2004, 2005), Stocker (2006, 2007), and Holmes (2008).

1.1.1 Annual Catch in the WCPFC Convention Area

Canadian catch of albacore tuna within the WCPFC convention area has averaged 216 t since 2002, but has declined to 0 t in 2008 because the Canadian fleet was inactive within the convention area (Figure 1; Table 1). All catches of albacore tuna in the North Pacific reported by the Canadian troll fleet in 2008 (Table 1) occurred within the Inter-American Tropical Tuna Commission (IATTC) convention area east of 150° W.

1.1.2 Annual Effort in the WCPFC Convention Area

The number of Canadian vessels operating in the convention area has declined from a peak of 16 in 2003 to zero vessels in 2008 (Table 1) and similarly, fishing effort (measured as the number of vessel fishing days (v-d)) has declined from 408 v-d in 2002 to 56 v-d in 2007. Seven vessels accounted for 224 v-d of effort annually on average during the 2002-2007 period.

1.1.3 Annual CPUE in the WCPFC Convention Area

Catch-per-unit-effort (CPUE) has ranged from a low of 494 kg/v-d in 2005 to a high of 1,286 kg/v-d in 2006, with an average of 907 kg/v-d between 2002 and 2007 (Table 1).

1.1.4 Interactions with other Species in the WCPFC Convention Area

There were no reported interactions or bycatch of sharks, seabirds, or sea turtles by the Canadian fishery in the WCPFC convention area in 2008.

1.2 Research and Statistics

1.2.1 Stock assessment studies

Canada participated in two ISC Albacore Working Group (ISC-ALBWG) workshops in 2008. Results of the workshop, including scientific advice, are contained in Annexes 6 and 9 of the “Report of the Eighth Meeting of the International Committee for Tuna and Tuna-like Species in the North Pacific Ocean”, which is available electronically at: <http://isc.ac.affrc.go.jp/isc8/ISC8rep.html>.

1.2.2 Size Sampling of the Catch

Canada did not have a formal domestic sampling program to obtain biological data from albacore tuna harvested by the Canadian fleet in 2008. Fishers with measuring boards from previous programs were asked to measure and record the lengths of the first 10 fish landed daily in their logbooks during the 2008 season. Beginning with the 2009 fishery, a domestic sampling program is being implemented to obtain size composition data from the Canadian catch of albacore. Canadian fishers were provided with a measuring board design and have been asked to voluntarily measure and report the lengths of the first 10 fish landed daily. The database used to track albacore catch and effort data (Stocker et al. 2007) was modified to accept and record daily length measurements reported in logbooks. These measurements are linked to daily positions (latitude and longitude) and temperature recorded in logbooks so that future analysis will be able to assess the size composition of catch in coastal and highseas areas. About 30% of the fleet are expected to take on this task of making and report length measurements for size composition analysis.

1.2.3 ISC Biological Research Task Force

During the Eighth Meeting of the ISC in Takamatsu, Japan, a half-day session was held to discuss biological research needs that would improve stock assessments conducted by each Working Group (Albacore, Pacific bluefin, Billfish). The two highest priority needs identified during this seminar were: (1) age and growth data (e.g., length and weight by sex, age using otoliths, fin rays, etc.), and (2) maturity data (e.g., fecundity, maturity schedules). A Biological Research Task Force (BRTF) was established and tasked with designing a multispecies and large-scale biological sampling program to obtain the data needed for both age and growth and maturity studies. The BRTF, which is led by Eric Chang (Chinese-Taipei) and assisted by John Holmes (Canada), met in Busan, Korea (28-30 May 2009) to compile sampling requirements from all ISC Working Groups. The BRTF reported its findings and presented a proposal for a multi-national, multi-species sampling program in the North Pacific Ocean to the Ninth ISC Meeting in Kaohsiung, Taiwan, 8-20 July 2009.

References

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Table 1. Fisheries statistics for the Canadian fleet operating in the WCPFC convention area, 2002 to 2008.

Year	Catch (t)	Effort (v-d)	Vessels (#)	CPUE (kg/v-d)
2002	403	408	11	988
2003	453	393	16	1,153
2004	186	214	6	869
2005	83	168	3	494
2006	135	105	2	1,286
2007	36.5	56	1	652
2008 ^A	0	0	0	N/A

^A Preliminary data obtained from database Ver. 09.05.07.

Table 2. Aggregated Canadian albacore tuna catch and effort data in the Pacific Ocean for 2008.

Area	Catch (t)	Effort (vessel-days)
1. North Pacific Ocean	5,478	5,881
2. South Pacific Ocean	0	0
3. WCPFC Statistical Area N	0	0
4. WCPFC Statistical Area S	0	0
5. WCPFC Statistical Area E of 150°W	0	0
6. IATTC E of 130°W	0	0

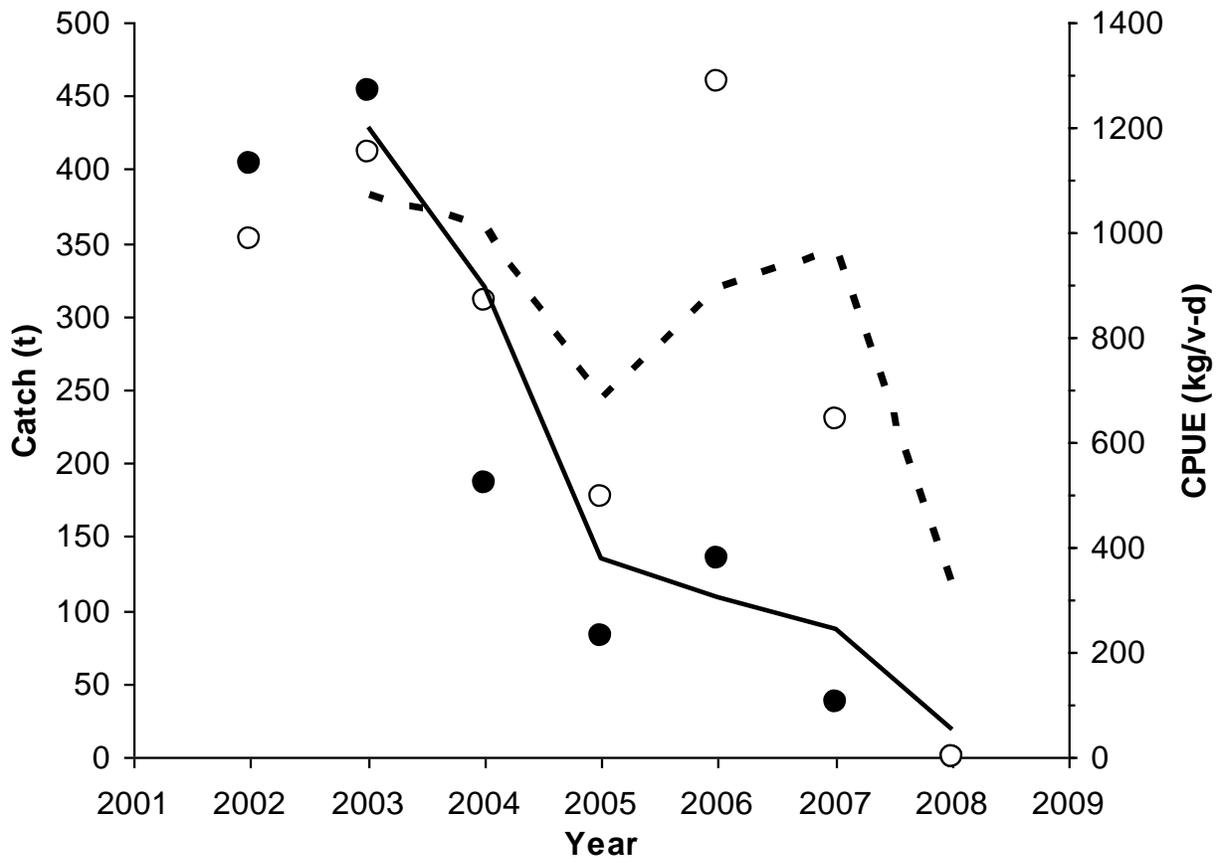


Figure 1. Canadian south Pacific albacore tuna catch (●) and catch-per-unit-effort (kg/v-d), CPUE (○), in the WCPFC convention area, 2002-2008. Lines are two-year running averages of catch (solid) and CPUE (dashed).

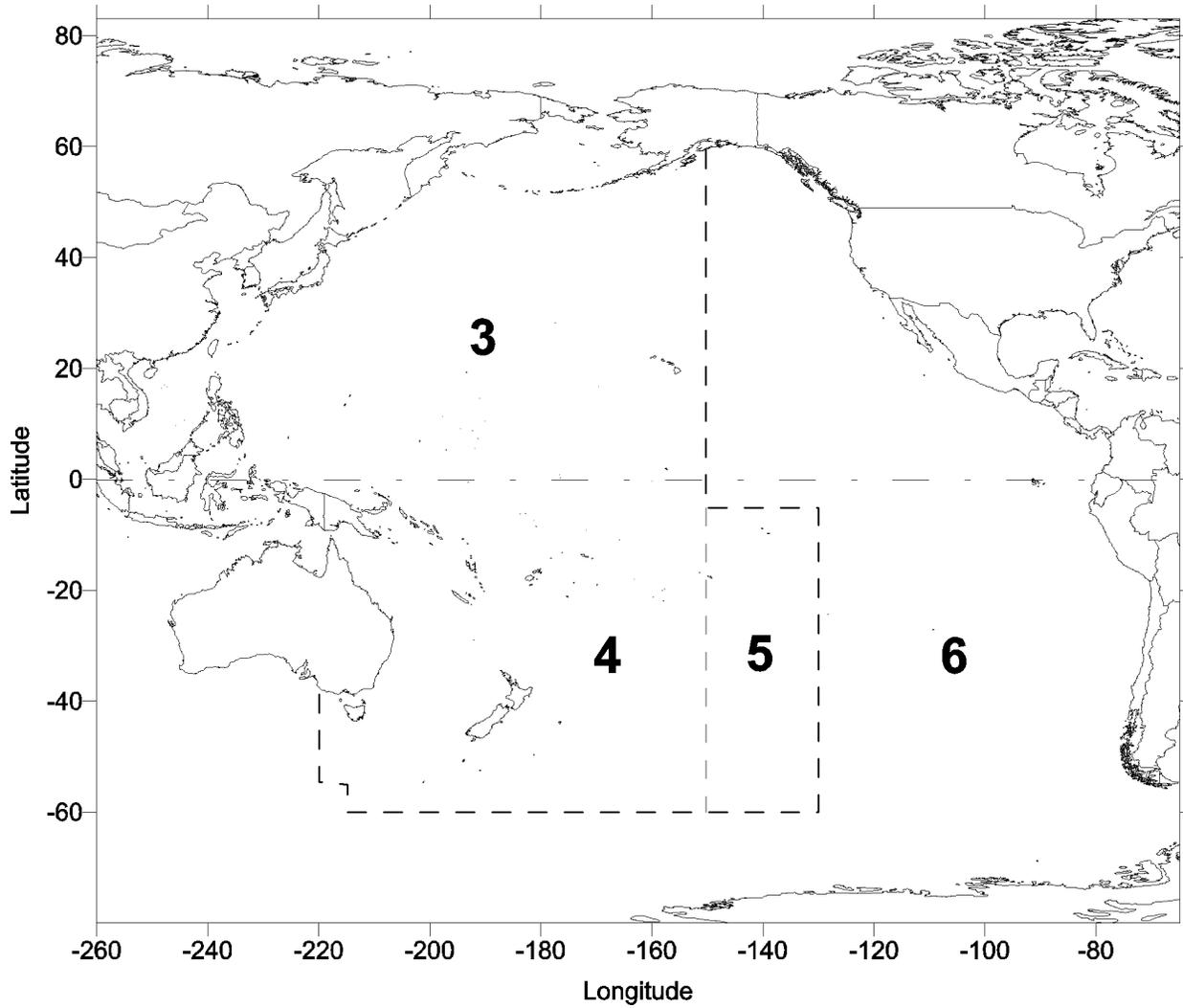


Figure 2. Statistical areas used for reporting of albacore tuna aggregated catch and effort data in the WCPFC convention area. Numbers refer to area catches and efforts shown in Table 2