

Report on the Korean Trial Fishing for Walleye Pollock in the Convention Area of the Bering Sea in 2007

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The trial fishing in the convention area of the Bering Sea (Donut hole) was conducted by two Korean commercial fishing vessels, NAMBUK-HO (5,549.02 G/T) (Fig. 1) and JOONSUNG-HO (2,866.0 G/T) (Fig. 2) in the convention area during 20 days (Jul. 26-Aug. 14, 2007). The main purposes of the trial fishing were to determine the geographical distribution of walleye pollock in the convention area and to collect biological data of walleye pollock.

Figs. 3 and 4 illustrate the hydroacoustic track lines and haul positions during the Korean trial fishing.

NAMBUK-HO conducted 20 hauls (by) using the midwater trawl net (codend mesh size 120mm; height of gear 44-55 m). The fishing depths were varied between 150-330 m. The mean hauling time was 6 hours (2-9 hours). Mean towing speed was 3.6 kt. In 2007, total catch was 1,914 individuals with 2,325.7 kg (walleye pollock 1 individual (0.05%), 1.7 kg (0.07%); cuttlefish 229 individuals (11.97%), 60.24 kg (2.59%); smooth lumpsucker 1,680 individuals (87.78%), 2,226.6 kg (95.74%); coho salmon 2 individuals (0.1%), 8.0 kg (0.34%); velvet dogfish 1 individual (0.05%), 29.0 kg (1.25%); arctic lamprey 1 individual (0.05%), 0.2 kg (0.01%)) (Table 1).

JOONSUNG-HO conducted 21 hauls (by) using the midwater trawl net (codend mesh size 120mm; height of gear: 50 m). The fishing depth were varied between 100-230 m. The mean hauling time was 8 hours (2-13 hours). Mean towing speed was 3.8 kt. Total catch was 4,383 individuals with 3,397.1 kg (walleye pollock 1 individual, 2.3 kg; Pacific herring 1 individual, 0.1 kg; coho salmon 2 individuals, 7 kg; dogfish 2 individuals, 16.3 kg; flying squid 174 individuals, 38.1 kg; smooth lumpsucker 4,200 individuals, 3,332.2 kg; Wakiya's rockfish 1 individual, 0.5 kg; flat needle fish 1 individual, 0.4 kg; Octopodidae 1 individual, 0.2 kg) (Table 2).

Only 2 walleye pollocks (4.0kg) were caught by two trial fishing vessels during Korean trial fishing in the convention area of the Bering Sea (Donut hole) in 2007 (Table 3).



Fig. 1. NAMBUK-HO (5,549.02 G/T)



Fig. 2. JOONSUNG-HO (2,866.0 G/T)

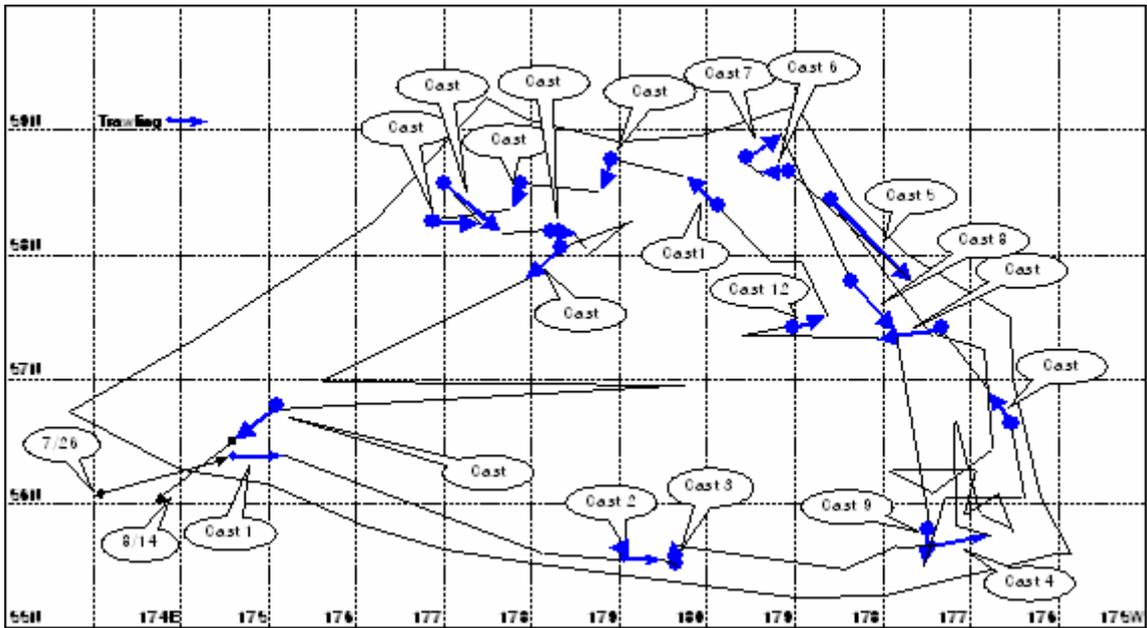


Fig. 3. Hydroacoustic trackline and haul positions (bold line) of NAMBUK-HO in convention area during Jul. 26–Aug. 14, 2007.

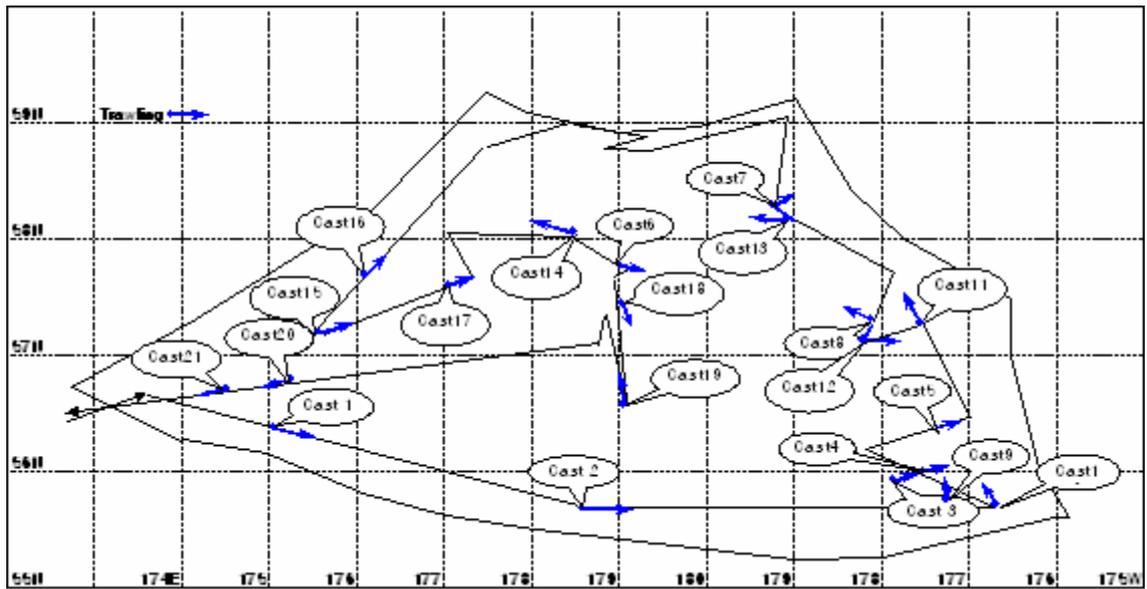


Fig. 4. Hydroacoustic trackline and haul positions (bold line) of JOONSUNG-HO in convention area during Jul. 26–Aug. 14, 2007.

Table 1. Species composition of fish caught by NAMBUK-HO during the Korean trial fishing in the convention area in 2007

Species		Catch				CPUE	
		Number		Weight		Individual/ haul	Weight/ haul
English name	Scientific name	Individual	%	kg	%		
Walleye pollock	<i>Theragra chalcogramma</i>	1	0.05	1.7	0.07	0.05	0.085
Japanese flying squid	<i>Todarodes pacificus</i>	229	11.97	60.24	2.59	11.45	3.012
Smooth lumpsucker	<i>Aptocyclus ventricosun</i>	1,680	87.78	2226.6	95.74	84	111.33
Coho Salmon	<i>Oncorhynchus kisutch</i>	2	0.1	8.0	0.34	0.1	0.4
Velvet dogfish	<i>Isistius brasiliensis</i>	1	0.05	29.0	1.25	0.05	1.45
Arctic lamprey	<i>Lampetra japonica</i>	1	0.05	0.2	0.01	0.05	0.01
Total		1,914	100.0	2,325.74	100.0	95.7	116.29

Table 2. Species composition of fish caught by JOONSUNG-HO during the Korean trial fishing in the convention area in 2007

Species		Catch				CPUE	
		Number		Weight		Individual/haul	Weight/haul
English name	Scientific name	Individual	%	kg	%		
Walleye pollock	<i>Theragra chalcogramma</i>	1	0.02	2.3	0.07	0.05	0.11
Pacific herring	<i>Clupea pallasii valenciennes</i>	1	0.02	0.1	0	0.05	0
Smooth lumpsucker	<i>Aptocyclus ventricosun</i>	4,200	95.82	3,332.2	98.09	200.0	158.68
Coho salmon	<i>Oncorhynchus kisutch</i>	2	0.05	7.0	0.21	0.1	0.33
Wakiya's rockfish	<i>Sebastes zonatus</i>	1	0.02	0.5	0.01	0.05	0.02
Flat needle fish	<i>Ablennes hians</i>	1	0.02	0.4	0.01	0.05	0.02
Velvet dogfish	<i>Isistius brasiliensis</i>	2	0.05	16.3	0.48	0.1	0.78
Japanese flying squid	<i>Todarodes pacificus</i>	174	3.97	38.1	1.12	8.29	1.81
Octopodidae	<i>Octopodidae</i>	1	0.02	0.2	0.01	0.05	0.01
Total		4383	100.0	3397.1	100.0	208.71	161.77

Table 3. Catch information of walleye pollock caught by Korean trial fishing in the convention area in 2007

Vessel	Date	Set position	Hauling position	Towing time	Towing speed (knot)	Fishing depth (m)	height of gear	Walleye pollock	Fork length (cm)
NAMBUK-HO	2 Aug.	57° 29' N 178° 16' W	57° 19' N 177° 43' W	05:30	3.7	150	47	1 fish. 1.7 kg	67.0
JOONSUNG-HO	28 Jul.	55° 42' N 176° 40' W	55° 44' N 176° 41' W	07:10	4.0	110	50	1 fish, 2.3 kg	61.0

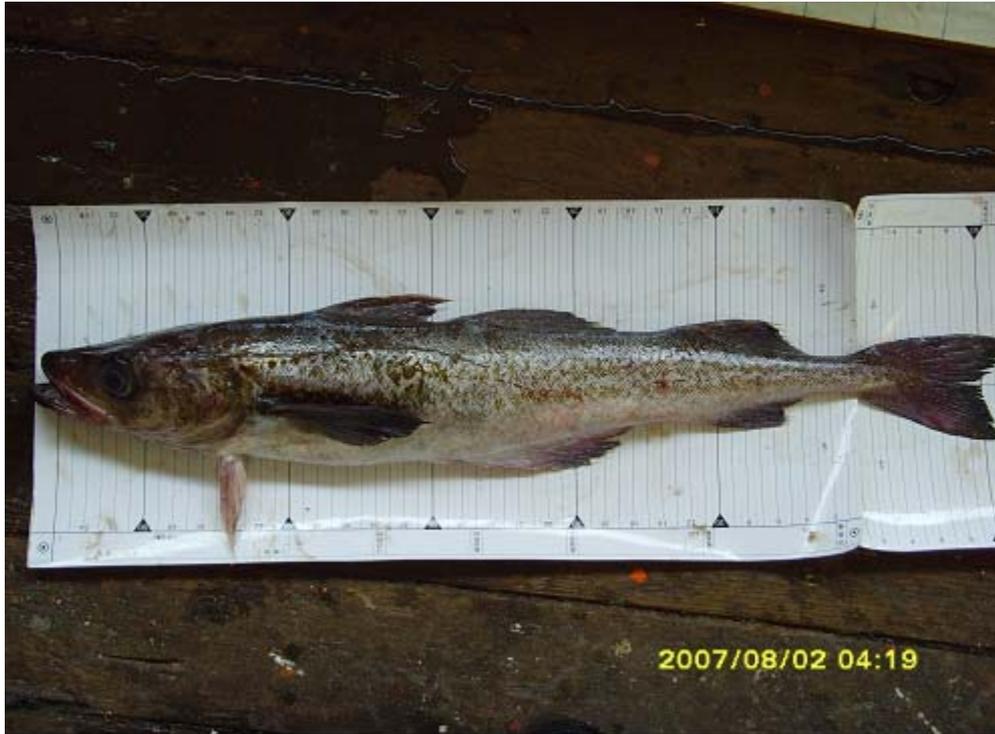


Photo 1. Walleye Pollock



Photo 2. Smooth lumpsucker



Photo 3. Wakiya's rockfish



Photo 4. Arctic lamprey



Photo 5. Coho salmon



Photo 6. Velvet dogfish



Photo 7. Japanese flying squid



Photo 8. Pacific herring