12. Update on High Seas CWT Sampling and Recovery Program for Years 2008, 2009 (Adrian Celewycz, NMFS-AK)

U.S. Domestic Groundfish Trawl Fisheries: In 2008, observers on US groundfish vessels sampled adipose fin-clipped salmon from three domestic high seas trawl fisheries: the at-sea hake fishery in the North Pacific Ocean off Washington-Oregon-California, the Pollock fishery in the Gulf of Alaska, and the Pollock fishery in the Bering Sea. Salmon are considered prohibited species in these high seas trawl fisheries and are harvested only as bycatch. From a total of over 10,000 salmonids examined, 48 CWTs were recovered, all from Chinook salmon.

1) Gulf of Alaska: In the 2008 trawl fishery in the Gulf of Alaska (GOA), a total of 1603 salmonids were sampled by the Alaska Fishery Science Center (AFSC) Observer Program, 84% Chinook salmon and 16% chum salmon. Chinook salmon was the only species with CWT recoveries. Of the 1347 Chinook salmon examined, 2 CWTs were recovered. The total estimated contribution of CWT Chinook salmon in the GOA was 25 fish. Total estimated contribution was calculated by 1) Applying a sampling expansion factor to all the tags recovered in the fishery based on the proportion of the total catch examined for tags by observers and 2) Applying a marking expansion factor based on the ratio of tagged/untagged fish released for each tag code recovered in the bycatch. Another 12 CWT Chinook salmon were recovered outside the sample; these fish did not contribute to the calculation of total estimated contribution. The total bycatch of Chinook salmon in the GOA in 2008 was 15,939 fish.

2) Bering Sea-Aleutian Islands: In the 2008 trawl fishery in the Bering Sea-Aleutian Islands (BSAI), no CWT salmon were recovered from the 8835 Chinook salmon and 7764 chum salmon sampled by the AFSC Observer Program. The total bycatch of Chinook salmon in the BSAI in 2008 was 20,559 fish.

3) North Pacific Ocean: In the 2008 trawl fishery targeting hake in the North Pacific Ocean off Washington-Oregon-California, over 448 salmon were examined for CWTs: 88% Chinook salmon, with coho salmon, pink salmon, and chum salmon comprising the other 12%. Chinook salmon was the only species with CWT recoveries. Of the 394 Chinook salmon examined, 24 CWTs were recovered. The total estimated contribution of CWT Chinook salmon in this 2008 trawl fishery was 751 fish. The total bycatch of Chinook salmon in this trawl fishery in 2008 was 896 fish.

Graphs of historical occurrence of particular stocks in the three high seas trawl fisheries were shown. Maps showing historical ocean distribution of particular stocks of CWT salmon were also shown.

High Seas Research Programs: Recovery of CWTs in high seas research programs was also described. First, in US trawl research, three adipose fin-clipped Chinook salmon were captured in the northern Bering Sea near the Bering Strait, the entrance to the Chukchi Sea and the Arctic Ocean. Upon dissection of the snouts, however, all three of the recovered tags were found to be agency 18 blank wire tags or pseudo-tags. Pseudo-

tags are not CWTs and do not get reported into the RMPC database. So unfortunately, these furthest-north recoveries of tagged salmon provide no definitive information other than the fact that they were released by agency 18 (CDFO) and were possibly Yukon River stock.

Second, in Fisheries Agency of Japan high seas research; 1 CWT steelhead (originating from Dworshak Hatchery, Idaho) was recovered from the 21 adipose fin-clipped steelhead that were captured and examined for tags.

Magnuson-Stevens Act (MSA) Reauthorization: Under the MSA Reauthorization (2007), all observer data are considered confidential. Confidential data are data that could be identifiable with any person. Confidential data are prohibited by law from being disclosed. Identifying CWT recoveries with exact dates and exact locations may reveal confidential and proprietary information. So for CWT data originating from the Observer Program and being reported into RMIS starting in 2007, 1) Recovery locations will be reported only to the nearest degree (no minutes), 2) Recovery dates will be reported with only Year and Month if <3 vessels fished in a particular location on a particular day, and 3) Recovery dates will only be reported with Year, Month, Day if 3 or more vessels fished in a particular location on a particular day.

For more specific information on high seas CWT recoveries, see:

Celewycz, A. G., J. D. Berger, J. Cusick, N. D. Davis, M. Fukuwaka and P. W. Malecha. 2009. High seas salmonid coded-wire tag recovery data, 2009. NPAFC Doc. 1179. 22 p. (Available at http://www.npafc.org)..