

3-1. Migration and Distribution of Salmon (Poster-9)

Distribution of Otolith-Marked Chum Salmon in the Bering Sea and North Pacific Ocean in 2006 and 2007

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The techniques of otolith marking were used to determine the stock origins of chum salmon caught in the Bering Sea and North Pacific Ocean during the spring and summer. In the spring of 2006, 2,222 otolith samples were collected from chum salmon caught in the North Pacific Ocean (41°00'-54°00'N, 155°00'E-160°00'W) and Bering Sea (51°50'-55°50'N, 175°00'E-170°00'W) by surface trawl operations of *R/V Kaiyo maru*. In the summer of 2006, 949 otolith samples were collected from chum salmon caught in the central North Pacific Ocean (41°00'-47°30'N, 180°00') and Bering Sea (55°30'-58°30'N, 180°00') by gillnet operations of *R/V Wakatake maru*. In the summer of 2007, 5,175 otolith samples were collected from chum salmon caught in the central North Pacific Ocean (41°00'-47°30'N, 180°00') and Bering Sea (52°38'-59°23'N, 174°55'E-170°11'W) by *R/V Wakatake maru* (gillnet) and *Hokko maru* (surface trawl). The collected otolith samples were mounted on glass slides and ground to expose the primordia. Otolith microstructure patterns were compared to the mark patterns of voucher specimen deposited in the NPAFC website (<http://npafc.taglab.org>). In the spring of 2006, 12 otolith-marked chum salmon (0.64% of fish examined) and five otolith-marked chum salmon (1.49% of fish examined) were found in the North Pacific Ocean and southern Bering Sea, respectively. Eleven otolith-marked salmon (1.30% of fish examined) were collected in the central Bering Sea in the summer of 2006. In the summer of 2007, 154 otolith-marked chum salmon (3.12% of fish examined) were found in the Bering Sea. No otolith-marked chum salmon were collected in the central North Pacific Ocean in the summer of 2006 and 2007. Approximately 90% of these marked salmon were released from Japanese hatcheries. Other marked fish were originated from hatcheries in Alaska, Russia, and the Republic of Korea.