AFSC/ABL: Origins of sockeye and chum salmon seized from the F/V Ying Fa

Chris Kondzela

Samples of chum (*Oncorhynchus keta*) and sockeye (*O. nerka*) salmon seized from the stateless fishing vessel Ying Fa were analyzed to determine their region of origin using genetic stock identification (GSI), otolith marks, parasite analysis, and scale data. Based on GSI, the chum salmon samples originated in Russia, 86%; Japan, 2%; western Alaska, 2%; Alaska Peninsula and Kodiak, 8%; and British Columbia, 2%. Origins of the sockeye salmon sample were not so clear because there was some disagreement between the parasite data and the GSI and scale data. Results of parasite analysis suggested the sample was nearly all of Alaskan origin, with at least 15% coming from Bristol Bay. The GSI analysis indicated that 30% of the sockeye salmon originated in Russia and 70% in North America. The scale analysis showed that 97% of the sockeye salmon sample were ocean age 3, whereas the return to Bristol Bay in 1999 was approximately 70% ocean age 2 fish.