

## Stock-Specific Distribution and Migration of Juvenile Chum Salmon along the Eastern Bering Sea Shelf

Edward V. Farley, Jr., Christine M. Kondzela, James M. Murphy, and Angela Middleton

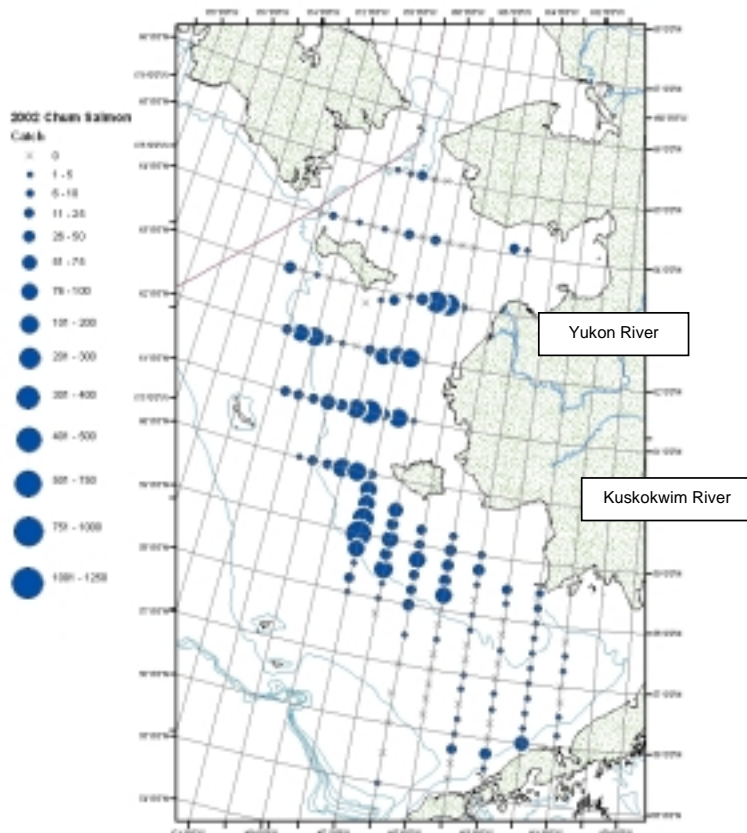
U.S. Department of Commerce, NOAA, NMFS,  
Alaska Fisheries Science Center, Auke Bay Laboratory,  
11305 Glacier Hwy., Juneau, AK 99801-8626, USA



Keywords: Genetic analyses, western Alaska, juvenile chum salmon, stock-specific migration

Genetic stock identification techniques were used to identify the origin and provide stock-specific migration and distribution patterns of juvenile chum (*Oncorhynchus keta*) salmon caught during annual fall surveys (2002) along the eastern Bering Sea (Fig. 1). Preliminary results indicate that: 1) Yukon River Fall chum salmon are widely distributed from offshore of the Yukon River, eastward to 62°N, 172°W, and as far south as Nunivak Island (60°N), suggesting a southwesterly migration pathway along the Bering Sea shelf; 2) juvenile chum salmon from the Kuskokwim River are narrowly distributed south of Nunivak Island from the mouth of the Kuskokwim River, south to 58°N, and as far west as 168°W, suggesting a westerly migration pathway along the Bering Sea shelf; and 3) northern Russia juvenile chum salmon stocks (mainly stocks from rivers draining into the Gulf of Anadyr) are distributed as far east as 62°N, 171°W (Fig. 2). These results are unique in that they represent the first attempt to identify early marine distribution and migration of juvenile chum salmon stocks on the eastern Bering Sea shelf.

**Fig. 1.** Station locations and juvenile chum salmon catch per unit effort (catch during a 30 minute trawl) during the Ocean Carrying Capacity August–October 2002 Bering-Aleutian Salmon International Survey (BASIS).



**Fig. 2.** Percent of Fall Yukon (FYukon), Northern Russia (NRussia), and other western Alaska juvenile chum salmon stocks during the Ocean Carrying Capacity, August–October 2002 Bering-Aleutian Salmon International Survey (BASIS).

