

## 3-1. Migration and Distribution of Salmon (Oral-3)

**Summer and Fall Migrations of Pink Salmon in the Western Bering Sea in 2002-2006**

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The features of migrations of pink salmon in the western Bering Sea in summer and fall 2002-2006 are considered. For the first time the migrations of pink salmon of Chukchi and Koryak stocks were elucidated. Comparative analysis of juvenile pink salmon abundance during autumn period and escapement of same generation during the next year has elucidated approximate marine mortality rates of eastern Kamchatka pink salmon in early 2000-s. Whereas marine mortality of Okhotsk Sea pink salmon averaged 89 % (for October – July-August period), the respective values for eastern Kamchatka pink salmon were lower. In 2000-s the major migratory pathways of pink salmon were shifted somewhat northward as compared to 1990-s. The other distinctive feature of pink salmon migrations during the recent years is their rapid character. The major explanation of distinctiveness of 2000-s summer period mature pink salmon summer migration may be the favorable foraging and maturation conditions during the relatively “warm” period of 2002-2006 in the Bering Sea. Favorable feeding conditions may be indirectly implied by average length characteristics for June-July period. In 2000-s despite of high abundance, the average length and weight of mature pink salmon in south-eastern Bering Sea was significantly higher compared to 1990-s. The coastal catches statistics also implies tendency in growth of both abundance and size of mature pink salmon during recent years. Both for even and odd-year generations, correlation analysis revealed no statistically significant relationship between overall escapement and average body size. These results imply that growth of eastern Kamchatka pink salmon abundance, which started in 1970-s and was particularly noticeable in 1990-2000-s, did not result in lowered length characteristics due to density-dependence mechanisms. The results described above may testify for relatively favorable foraging environment of eastern Kamchatka pink salmon during 1990-s and particularly 2000-s.