

3-1. Migration and Distribution of Salmon (Poster-8)

Some Aspects and Results of Hydroacoustic Researches of Pacific Salmon in the Bering Sea (Russian EEZ) in Summer–Autumn 2003-2007

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The structure of vertical and horizontal distribution of salmon in upper (epipelagic) layer of the western Bering Sea (Russian EEZ) and adjacent Pacific Ocean by data of acoustic measurements in summer and autumn, 2003, 2004, 2005 and 2007 are presented. Advantage of acoustic sounding in are registration of salmon echosigns during trawl survey and comparison with trawl survey data of their vertical distribution. The calibrated quantitative Simrad EK500/EK60 echosounding system with two split-beam transducers 38 and 120 kHz and FAMAS (TINRO-Center) has been used for registration and processing of acoustic data. The range of vertical distribution and migrations of most salmon were limited by layer of termocline according to acoustic measurements. The average of salmon habits depths by latitude good related with latitudinal distribution of termocline layer in the survey area. The salmon are moving in upper layer at night time and vertical distribution at day time wider. Vertical distribution of salmon in autumn time is increasing compare summer according of vertical extension of termocline layer. The distribution of young immature pink, chum, and sockeye salmon on near-surface layer are observed. The maximum range of vertical migrations have mature chum salmon, pink salmon in summer period and young pink salmon in autumn. The sockeye salmon have not significant vertical migrations in day time.