STOCK DYNAMICS OF WALLEYE POLLOCK IN THE SEA OF OKHOTSK

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Walleye pollock *(Theragra chalcogramma)* is an important target of fishery for the Sea of Okhotsk. Considering the 45-year history of the pollock fishery in this area, we could note the following maxima of landings:1,320,000 tons (1975), 1,619,000 tons (1986), and 2,228,000 tons (1996). In last years, after a decrease in the pollock landings down to 393,000 tons (2004), the landings grew up to 632,000 tons again in 2008. Thus, the landing maxima show a periodicity which equals ≈10 years. Fishery statistics data and the mathematic modeling have allowed to assess the pollock fishable and spawning stock biomass (FSB, SSB) off the western Kamchatka for the period of 1974-2003 (Babayan et al., 2006) which had three maxima, i.e. in 1974, 1984, and 1994. In all the cases, the stock attained or even exceeded the level of 4,400,000 tons. The minimum biomass levels marked in 1978, 1990, and 2000. Ichthyoplankton surveys made by scientists from the TINRO-center in 1983-2007 showed that SSB attained its maximum in 1984-1987, in 1994-1995, and in 2006-2007, while the minimum values characterized the year of 1991 and the period of 2000-2001. Thus, the maximum and minimum levels of SSB and FSB revealed a periodicity 10-12 years. It is known that the reproduction success and the generation number are to a great extent dependent on the water temperature. As a rule, the weak year-classes of pollock occur in cold years and cause a decrease in the fish stock. The decrease in temperature which has been registered in the Northern Pacific in recent years could have a negative impact on the pollock reproduction success and consequently lead to decline and another minimum FSB in 2010-2011.