

## **SEASONAL VARIABILITY OF PRIMARY PRODUCTION OFF ABASHIRI, THE SOUTHERN OKHOTSK SEA**

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Since 2000, the oceanographic surveys on primary productivity during non-iced season (April-October) have been conducted in the area off Abashiri, the southern Okhotsk Sea. Based on T-S characteristics, the studied area could be classified to two regions; the coastal region under the influence of Soya Warm Current and the offshore region with the Intermediate Cool Water in the subsurface layer. In the offshore region, the surface water with low salinity lays always on the Intermediate Cool Water. Temperature in the surface layer increased with season, and the strong thermocline was formed in summer and autumn. The maximum concentration of chlorophyll a in the Offshore region was found in the surface layer in spring, and moved to the layer around 20 m depth in summer and autumn, forming the subsurface chlorophyll a maximum (SCM). It is suggested that this SCM was caused by the development of pycnocline between the low-salinity surface water and the subsurface Intermediate Cool Water. Vertical profile of primary production resembled that of chlorophyll a, forming the subsurface maximum after summer in the offshore region. Seasonal variability of integrated primary production within the euphotic layer was small through the studied period, generally constant production around 500 mgC m<sup>-2</sup> day<sup>-1</sup> was obtained. Relatively high primary production during post- bloom season may support high fisheries production in the southern Okhotsk Sea.