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Oceanic Conditions in the Best Fishing Grounds of Squid in the Korean Coastal Sea Water in the East Sea during 1990-1999

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Oceanic conditions in the best fishing grounds of squid in the Korean Coastal Sea Water (KCSW) in the East Sea are examined by using routinely observed oceanographic data and catch data of squid from National Fisheries Development and Research Institute during 1990-1999. In this period, six sectors (1°?1°) in the offshore seas between Ulsan and Jukbyon in the KCSW lead the best fishing grounds, occupy 42% and 62%of the total catches and the CPUE of squid, respectively, and reveal the maximum catches in November. In particular, the sector No 76 and 87 of them occupied about 40% of the total catches in the six sectors.Analysis of the oceanographic data shows that a latitudinal thermal front within the six sectors was often formed, and was seasonally fluctuated, i.e. weak in winter season (December to February) and relatively strong in April to October, implying that it is closely related to the North Korean Cold Current(NKCC) and the East Korean Warm Current (EKWC). In the best fishing season (October to November), a thermal front at 50m within the six sectors was formed between isotherms 10 and 15?, when the NKCC based on 10? isotherm started to be weakened, but the EKWC based on 15? was the strongest in the same depth. This paper suggests that a relationship between the NKCC and the EKWC influences greatlythe best catches of squid within the six sectors in the KCSW in the East Sea.