O74. ON THE INTERANNUAL VARIATIONS OF JAPANESE COMMON SQUID (*TODARODES PACIFICUS*) RESOURCES IN THE JAPAN SEA

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Japanese common squid is one of important fishery resources to Japan, Korea and China. It has a clear life cycle: spawns from the shelf slope of East China Sea to southwestern area of Japan Sea; makes a feeding migration from its spawning area to Japan Sea or Pacific side of Japan; makes a spawning migration back to the East China Sea after growing up in the Japan Sea and Pacific side of Japan. In past several decades, its resources in the Japan Sea have large interannual variations. Although some studies paid attention on the influences of environmental conditions (mainly sea surface temperature) on its spawning area, there is still no quantitative argument on what is the most important factor controlling interannual variations of Japanese common squid (*Todarodes pacificus*) resources. In this study, we use a particle tracking model to simulate feeding migration of Japanese common squid larvae to the Japan Sea from 1992 to 2012. In our model, we consider the transport of larvae by ocean current and random walk, the survival condition of larvae by water temperature, and the influence of parent stock on larvae number. The parent stock is likely the most important factor controlling the interannual variation of Japanese common squid resources.