Fish Larvae Around the Ninety East Ridge and Neighborhood in the Eastern Indian Ocean

Tirabhorn Yothakong[1]* Pattira Lirdwitayaprasit[1] Jidapa Taweteekul[2] And Eakapol Rattanapun[3]

[1]Deep Sea Fishery Technology Research and Development Institute

[2]Marine Fisheries Research and Development Division

[3]Surat ThaniProvincialFisheries Office

Abstract

Fish larvae species composition and distribution were studied during a survey around the Ninety East Ridge and neighborhood in the Eastern Indian Ocean. Samples were obtained from 2 cruises in 22 stations during February to May 2011 and March to May 2012. The results showed that there were 45 families, average 85.99 ind/1,000 m^3 of sea water of fish larvae in both years. There were found 31 families in 2011 (area A) which the dominant group of Engraulidae (19.09%) followed by Clupeidae (11.79%), Scombridae (10.16%), Myctophidae (7.60%), Carangidae (7.09%), Gobiidae (4.31%) and Sillaginidae (2.11%). In 2012, there were 18 families. The dominant group was Myctophidae (39.26%) followed by Sternoptychidae (20.06%), Gonostomatidae (18.14%), Carangidae (1.35%), Paralepididae (1.14%), Bregmacerotidae (0.67%) and Synodontidae (0.62%).In area B, there were 11 families. The dominant group was Myctophidae (31.64%) followed by Sternoptychidae (30.75%), Gonostomatidae (18.28%), Bregmacerotidae (3.50%), Scopelarchidae (1.78%), Trachipteridae (1.42%) and Paralepididae (1.00%). In area A, Station 9 was the highest total fish larvae abundance and distribution in2011 as 201.16 ind/1,000 m^3 of sea water whereas in 2012, was found at station 19 as 155.48 ind/1,000 m^3 of sea water. In area B, the highest total fish larvae was found at station 12 as 118.08 ind/1,000 m^3 of sea water. The water temperature was negatively related to fish larvae abundance in family Scombridae ($P<0.01$), Engraulidae and Clupeidae ($P<0.05$) whereas positively related to fish larvae abundance in family Sternoptychidae ($P<0.05$). The water salinity was negatively related to fish larvae abundance in family Myctophidae, Sternoptychidae and Gonostomatidae ($P<0.01$) but positively related to fish larvae abundance in family Engraulidae, Clupeidae ($P<0.01$) and Scombridae ($P<0.05$).

Key words : fish larvae, abundance, Eastern Indian Ocean

*Corresponding Author : Srisamut Rd., Paknam, Muang, Samut Prakan 10270 Tel. 0 2395 0222

e-mail : kealex27@hotmail.com