

Studies on the genetic diversity assessment of *Sardinella longiceps* Valenciennes, 1847 of Tamil Nadu and Kerala coast employing RAPD technique

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The Indian oil sardine, *Sardinella longiceps* Val. (Clupeidae), is an important species contributing nearly one third of the total marine fish production of India. Oil Sardines forms a bulk of the catch in Kerala for decades; but has extended its feeding ground to Tamil Nadu over the last decade. In this prelude, an attempt has been made in the present study to understand the genetic diversity assessment of *S. longiceps* of Tamil Nadu and Kerala coast employing RAPD technique. Specimens at size range of 18±2 cm were collected from four stations namely, Kozhikode (Station I), Kollam (Station II) (Kerala), Nagapattinam (Station III) and Chennai (Station IV) (Tamil Nadu). The morphometric characteristics did not show any pronounced variations between the stations. The RAPD profile of bands obtained separately for respective primers. The UPGMA dendrogram was prepared

based on genetic distance indicating the segregation of *S. longiceps* populations collected from the four different stations. Station II and Station III clubbed together with highest similarity, with minimal dissimilarity coefficient of 0.105. Station I was linked to this group at next successive levels, followed by station IV. Thus, intra-specific genetic similarity was comparatively higher between stations II and III followed by station I and station IV that showed less genetic similarity at higher levels. Similarly, station IV (Chennai) and station III (Nagapattinam) which has short geographic distance, but the specimens/populations were found to show less similarity. The result generated out of this study stand as a baseline reference for more in-depth studies pertains to genetic diversity of *S. longiceps* of our waters.

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