Development of a marine forecasting system for use in fisheries

Joon-Soo Lee, Changsin Kim, In-Seong Han
National Institute of Fisheries Science, Ministry of Oceans and Fisheries, Republic of Korea
(e-mail: leejoonsoo@korea.kr)

The National Institute of Fisheries Science (NIFS) has been promoting the development and operation of forecast systems to cope with climate change and minimize damage from fisheries disasters. Currently, we are operating a marine forecast system on occurence of cold water mass along the eastern coast of Korea and high-resolution forecast systems for the eastern, western, and southern seas respectively. Based on these forecast systems, NIFS issues anomalous sea water temperature warnings and provides daily information. We operate a tracking system for mass occurrence of marine harmful organsims such as red tide and jellyfish, and are developing on a seamless forecasting system for changes in fishery resources based on the ocean models and marine ecosystem models. In addition, research is being conducted to analyze the impact of future climate change on the fisheries by dynamical downscaling of the CMIP6 global climate models based on IPCC scenarios.