Asian Hub (DOM)

Fri. Nov 13, 2026 9:00 AM - 10:30 AM JST | Fri. Nov 13, 2026 12:00 AM - 1:30 AM UTC | Room B (Kujaku) (2F)

Oral B4 - Asian Hub

Chair: Yushi Morioka

9:29 AM - 9:41 AM JST | 12:29 AM - 12:41 AM UTC

[hIaLijy4-04] Mutual benefits between fisher observations and ocean forecasting in coastal waters

*Naoki Hirose[1] (1. RIAM, Kyushu University (Japan))

Subsurface observations in coastal and shelf seas remain insufficient compared to profiling measurements in open oceans. To address this gap, we have developed a system that involves coastal fishermen in conducting in-situ measurements. By assimilating this observation data in real-time, we can provide valuable feedback on ocean predictions to support their fishing activities. We adapted the traditional full-scale conductivity-temperature-depth (CTD) instrument into a more conventional model dedicated to small-scale fisheries. This simple and smart CTD device allows Bluetooth communication with Android devices. Although its accuracy and pressure resistance were reduced to make it affordable, it remains effective for our data assimilation purpose. Along with acoustic current data, the accuracy of coastal ocean prediction models, particularly for velocity components, can be significantly increased. Using the intuitive and user-friendly forecasting app, cooperating fishermen have been able to reduce fuel usage, working hours, and gear damages, thereby improving profitability and working conditions. This app has become an indispensable operational tool for Japanese coastal fishermen, motivating them to actively participate in ocean observations. The Smart Fisheries Network (SFiN) has grown remarkably through these efforts. Today, it encompasses more than 30 participating organizations and over 340 collaborating fishing vessels, spanning Japan from Okinawa to Hokkaido.

© 2026 DITTO Summit Local Organising Committee. All rights reserved.