

CMFRI launches App to map India's deep sea biodiversity

Kochi, July 23 (IANS) In a major step towards strengthening marine biodiversity documentation and citizen-led scientific research, the ICAR-Central Marine Fisheries Research Institute (CMFRI) has launched DeepDATA, a mobile application that enables users to access scientifically verified information on deep sea fishes while also contributing field observations to build a national digital repository.

The application, now available on the Google Play Store, has been developed under the Deep Ocean Mission with funding support from the Ministry of Earth Sciences. It is expected to significantly enhance research on India's largely unexplored deep sea ecosystems by combining expert scientific validation with real time observations from the field.

Designed as both a learning and documentation platform, DeepDATA allows students, researchers, fishermen and marine enthusiasts to browse photographs and detailed information on deep-sea fish species, including their taxonomy, identifying characteristics, geographical distribution and conservation status. The platform aims to make scientific knowledge on India's deep-sea biodiversity more accessible while encouraging wider public participation in marine conservation.

Users can upload photographs and observations of deep-sea fishes encountered during fishing expeditions, research cruises or coastal visits. Every submission will be scrutinised and authenticated by CMFRI scientists before being added to the national database, ensuring scientific accuracy and credibility.

CMFRI Director Dr. Grinson George said the initiative would strengthen biodiversity mapping by drawing upon the vast field experience of fishermen, who regularly operate in offshore and deep-sea fishing grounds. "Fishermen frequently come across species that are rarely documented through conventional scientific surveys. Their observations can provide valuable insights into species distribution, the occurrence of rare fishes and long-term changes in marine biodiversity, ultimately supporting conservation and sustainable management of India's deep-sea resources," he said.

According to Dr. Eldho Varghese, In-charge of the CMFRI IT Unit and lead developer of the application, DeepDATA brings together scientific knowledge and field observations on a single digital platform, making information on deep sea biodiversity readily available while improving documentation of India's marine wealth. Principal Scientist Dr. Rekha J. Nair, who leads the Deep Ocean Mission project at CMFRI, said the app bridges the gap between classroom learning and real world marine research. Beyond serving as an educational resource, she said, DeepDATA is expected to strengthen biodiversity assessments, support conservation planning and expand scientific understanding of India's vast but still largely unexplored deep-sea ecosystems through collaborative public participation.