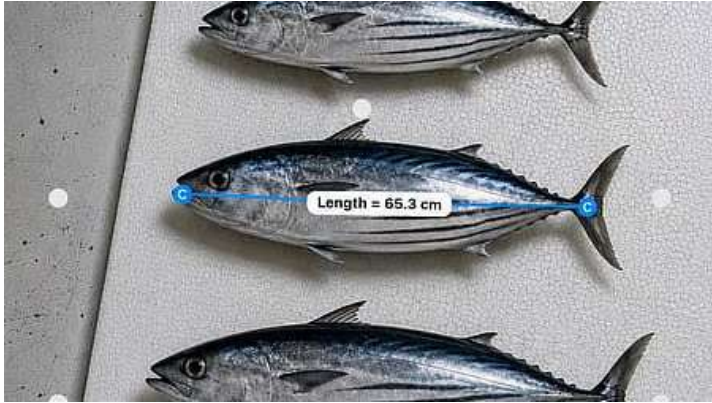


CMFRI scientists build MatsyaMetri app to measure fish length and width using smartphone cameras



Kochi, Sep 7 (IANS): Measuring the dimensions of a fish could soon become as simple as pointing a smartphone camera at it. Scientists at the ICAR-Central Marine Fisheries Research Institute (CMFRI) have developed a new mobile application that can measure the length and width of a fish without physically handling it. The app, called MatsyaMetri, uses the smartphone camera to take an image of a fish and estimate its size. The measurements are then recorded automatically.

The technology could make the collection of fish data much easier for scientists and field teams. At present, collecting such data often involves measuring fish manually. This can be time-consuming, especially when large numbers of fish have to be studied. MatsyaMetri is designed to reduce this work. It can measure several fish of the same species during a single sampling session. The app can also prepare length-frequency

data, which helps scientists understand the size and population structure of fish in a particular area. The data has an important role in fisheries research. Scientists use length-frequency information for stock assessment, population studies and monitoring fish resources. The app also stores the photographs and measurements taken during each sampling session. The data can later be exported as a CSV file for further analysis.

Senior CMFRI scientist and ICAR-National Fellow Dr Eldho Varghese, who developed the application, said the aim was to make biological data collection simpler and help generate fisheries data in a more systematic manner. Using the app is also relatively simple. The user first creates a sampling session and points the smartphone camera at a flat surface. The fish is then placed within the camera view. The app detects the surface and provides an on-screen measuring guide. It then estimates the length and width of the fish from the image. The application has been developed for Android smartphones that support ARCore technology.

CMFRI Director Dr Grinson George said the app simplifies biological data collection by automatically recording measurements and creating datasets. It is intended mainly for scientists, researchers and field survey teams. The application was developed as part of a project on the automated measurement of aquatic resources and generation of standardised length-frequency data for fisheries stock assessment. The project is supported by ICAR under the Department of Agricultural Research and Education through the ICAR-National Fellow Project. The new technology could help researchers collect large amounts of fish data faster, with less manual work and without repeatedly handling the fish.