Application of deep-sea videos/photos distribution site for educational fields

*Hideaki Saito[1], Syuko Azuma[2], Anri Nagayama[2], Syoko Matsuda[2], Moritaka Ogido[2], Yasunori Hanafusa[1]

1.Japan Agency for Marine-Earth Science and Technology, 2.Marine Works Japan, Ltd.

The Japan Agency for Marine-Earth Science and Technology (JAMSTEC) manages the numerous deep-sea research videos and photos obtained by JAMSTEC's manned and unmanned submersibles, e.g. "SHINKAI6500" and "HYPER-DOLPHIN". The web site "JAMSTEC E-library of Deep-sea Images (J-EDI)" has made these videos and photos available to the public via the Internet. J-EDI also provides users with detailed information including research location, contents (ex. living organism or phenomena), etc.

In this year, we developed a new integrated display function which enables users to see videos with associated data and information obtained from a deep-sea research activity and will renew the page design and the site structure. The function to display dive information visualizes a dive track in 3-dimentional virtual space with deep-sea environmental data. Users can see deep-sea videos recorded at corresponding positions on a dive track. In addition, users can know the state of various dive research activities by taking a tour tracing a submersible's track. Each new screen changes a layout for easy to access to videos and photos, and improves usability for using mobile devices because of seeing videos and photos at various scenes of use.

Logged-in users can download these videos and photos from J-EDI and can use them in free of charge for nonprofit scientific or educational purposes. In addition, it makes easy for users to access their selected videos and photos by adding to the "My Library" function. Users can register materials for using in lectures and educational activities to "My Library".

J-EDI operating staffs watch all of the videos and photos and split them into scenes. Furthermore, they classify living organisms and geological/environmental features and add comments to them based on related literature, cruise reports, etc. Therefore, users can search for videos and photos by keywords, easy-to-understand icons and dive information at J-EDI.

Because comments with videos and photos also include Japanese name of marine organisms, users without scientists are also easy to search for videos and photos. Users can also watch deep-sea videos distributed from J-EDI with biological information on the marine biodiversity database of JAMSTEC, "Biological information system for marine life (BISMaL)".

Video and photos are visually easy to understand various scientific events. These functions of video distributing will support the use of video and photos in lectures and educational activities.

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