



ABSTRACT SUBMISSION

Title: The MBARI Deep-Sea Guide: A Model for Establishing Biodiversity Baselines Using Monterey Canyon

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Abstract

Monterey Bay Aquarium Research Institute's (MBARI) remotely operated vehicles have been collecting video of the ocean in the Monterey Bay region since 1988. Approximately 16,000 hours of video have been annotated using MBARI's Video Annotation and Reference System (VARS). These annotations (> 3.4 million) present a perspective into the biodiversity of the deep sea that no other dataset can rival. In 2010, MBARI began a project to systematically apply standard analysis across the video annotations in order to provide researchers with an established baseline for biodiversity research.

In order to provide access to the data products, MBARI is creating a web-based interface called the Deep Sea Guide. A consistent and organized approach to annotating the video has been the key to successfully applying the annotations to a variety of important scientific questions. Consistency is enforced by the VARS Knowledgebase; a lexicon defining the terms, or concepts, used to create annotations. The VARS Knowledgebase provides an excellent structure for the Deep Sea Guide to associate and aggregate the data products. In addition, the Deep Sea Guide has been used as an identification guide by internal researchers and in the future will provide an excellent tool for educational outreach.

Supporting info

Relevance to marine biodiversity

The Deep-Sea Guide is a web based application that allows researchers to search for and retrieve data products derived from video annotations. The data can be used to assist with establishing biodiversity baselines.

habitat type, water depth

The data MBARI collects is primarily focused on the deep sea (0-4000m) including both pelagic and benthic observations. The vast majority of the data that MBARI collects is in and around Monterey Bay which is located on the central coast of California, USA.

Approval Confirm

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Registration Confirm

Categories Bioinformatics and Data Delivery

Presentation Either

Biography Brian is a software engineer at the Monterey Bay Aquarium Research Institute in Moss Landing, CA. He specializes in data systems and is the author of MBARI's Video Annotation and Reference System as well as MBARI's Deep Sea Guide.

Author type Established Researcher

Contact us if you have a problem or wish to withdraw a submission: marine-biodiversity@abdn.ac.uk