Collaborative Curation in Marine Biodiversity Informatics

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ABSTRACT

Biodiversity data is complex with different levels of data standard and quality. It also exists in non discrete data boundaries over a wide spectrum, from variation in genes to diversity of species within an ecosystem. Data sources and collections are also very diverse as it is a mix of analogous legacy data and mostly digitized real time observations. Making biodiversity data visible, accessible and usable has always been a challenge, ever more now as the increasing awareness of the importance of biodiversity has widened the audience to non specialist stakeholders. Hence, this motivated us to develop a marine biodiversity management system (MBMS) to enable collaborative curation of marine biodiversity data. It is available as an easy Web based intuitive interface that is suited to collaborative real time curation by multiple researchers from different ecological and biodiversity research groups typified in Malaysian research community. The MBMS has an interactive visualization interface designed for marine data variables such as depth and current flow that provides an effective way of presenting large amounts of complex information to a wide audience using visual cues that are more intuitive than those of a conventional map. It is also designed to incorporate different layers of knowledge to allow selective viewing to protect sensitive indigenous biodiversity data.