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THE VALUE OF COMMUNITY-BASED MONITORING IN MARINE PROTECTED AREAS

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There is an increasing realisation of the importance of community or volunteer collected data for management programs that are otherwise limited by the availability of funds or resources. However, there are concerns regarding the reliability of scientific data collected by inexperienced people. We investigated the potential for community-based monitoring in Victoria’s newly established system of Marine Protected Areas. The main objectives for the study were to 1) develop a template for the scientific monitoring of marine habitats suitable for community groups, 2) assess data quality and data integrity collected by community volunteers and 3) determine a sustainable model for ongoing community participation in monitoring marine habitats. Three different habitats (subtidal, intertidal, and seagrass) were investigated and data collected by volunteers across these habitats was compared to that collected by scientists. Reliability of data collected by volunteers was dependent on habitat type and the type of measurement the volunteers were required to make. Qualitative estimates made by volunteers were highly variable across all three habitat sites, compared to quantitative data collection. Subtidal monitoring had the greatest inaccuracy for data collection, whereas intertidal reef monitoring was most reliable. Sustainability of community-based monitoring programs is dependent on adequate training for volunteers and the development of partnerships to foster greater community engagement.