

# **Developing a monitoring tool for Marine National Parks of Western Port, Victoria, Australia**

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The Marine National Parks (MNPs) in Western Port, Victoria, Australia were established in 2002 to protect the unique soft-sediment environments (mudflats), salt marsh and mangrove areas, and seagrass beds. With their establishment came the need to build our understanding of the organisms and processes that occur in these MNPs. It is also essential to assess the effectiveness of MNPs through monitoring. In the current study, the mudflats of the three MNPs of Western Port, Churchill Marine National Park, French Island Marine National Park and Yaringa Marine National Park, were sampled for macroinvertebrates and sediment properties to compare these variables with sites external to the Marine National Parks in Western Port. This was done to see if the protection of areas of mudflat with Marine National Park status was correlated to increases or changes in the number and type of species present, thus giving evidence to the success of the MNPs as a management tool for mudflat communities. Differences between MNPs and sites external to MNPs were found in both macroinvertebrate communities and sediment properties and a subset of key variables that reflected these differences were identified. The use of the subset of key variables for monitoring is discussed, particularly as a starting point for developing long term monitoring programs for the three MNPs in Western Port.