WAMSI NODE 4 MILESTONE PROGRESS REPORT (MPR)

Project Details

Project No. and Title	4.2 Assessment of marine communities and the impact of anthropogenic influences.
Node Leader	Rick Fletcher
Project Leader	Euan Harvey
SubProject No. and Title	4.2.2a Indicator regions
Project Start Date	1/1/08
Project End Date	30/6/11
Due Date for this Milestone	30/6/09
Milestone Description	Review of potential indicators identified for mobile invertebrates. Workshops held for fish / mobile invertebrate indicators and for habitat / SB indicators. Workshop report completed.

1. Executive Summary

- A review of the application of mobile invertebrates as ecological indicators highlighted their diverse and ubiquitous use in many systems. Subsets of species of mobile invertebrates have also been successfully employed as surrogates for the diversity of entire benthic assemblages (MPR 4.2.2a June 2008).
- With regard to WA, there are very few extensive data sets on the distribution and abundance of mobile invertebrates, which hinders assessments of their usefulness as surrogates or indicators. The studies that have been conducted show that mobile invertebrates are generally low in abundance and exhibit high spatial variability between proximal reefs and are also naturally highly variable through time. This, combined with the fact that they are often cryptic and difficult to sample, would suggest that they would not make cost-effective ecological indicators in their own right. However, due to the ecological importance of such fauna, as shown by numerous investigations on other systems, they should be incorporated into a community-level approach. Monitoring the recruitment of mobile invertebrates onto artificial substrata may be a useful approach and warrants further research.
- The findings of an extensive literature review on ecological indicators in marine systems were presented at a workshop held at Department of Fisheries WA. Discussions and feedback resulted in a much-improved manuscript and agreement on priorities for future research.