



5th Western Australian State

COASTAL CONFERENCE 2009

*Whose Coast Is It?
adapting for the future*

11B:

South West
Projects:
1.55–2.25pm
Friday 9th
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Pleiades Room

Salt Water Treasures: A Community Marine Monitoring Program

PRESENTER:

Ms Sheryn Prior

South Coast NRM Inc.

CONTACT DETAILS:

Phone: +61 (8) 9845 8508

Email: sherynp@southcoastnrm.com.au

Postal Address: 39 Mercer Rd, Albany WA 6330

CO-AUTHORS:

Craig Carter

Green Skills Inc.

Background

The Salt Water Treasures Marine Monitoring Program was established by South Coast NRM Inc. through funding from the Natural Heritage Trust to:

- Educate and raise the awareness of the local community about the South Coast's marine habitat and biodiversity values;
- Engender stewardship in local communities for the conservation and protection of South Coast marine biodiversity values; and
- Gather and disseminate quality information on the status of the South Coast marine environment.

A number of groups and passionate individuals have assisted professional research projects and undertaken marine monitoring activities along the South Coast over the years. The opportunity arose to provide resources and support to groups to monitor different sites, with the aim of gathering data to measure change over time.

Piloting Salt Water Treasures

A pilot group of interested volunteers was established at Greens Pool, a sheltered bay west of Denmark, in late 2007. Following consultation with other community marine monitoring programs across temperate Australian waters and discussion with scientists in WA, we decided to trial a local version of Reef Watch South Australia's Fish Survey. This meant recording fish species and their abundance over two passes of a belt transect of 50m x 5m, and was a suitable method for snorkellers in shallow water with variable marine monitoring skills and experience.

We designated three transect lines covering different habitats between fortuitously located rocks in Greens Pool. As a datasheet we used the Fish Slate v4 from South Australia (all species are also found along the South Coast of WA), with a minor change of Western King Wrasse replacing the less common Blue-throated Wrasse. Monitoring events were generally held on weekend mornings and followed up by hot drinks in the Ranger's hut as we discussed and transcribed the data.

The marine monitoring activities were coordinated and supervised by qualified staff who supplied resources and equipment, and provided training in methodology and identification. Insurance for volunteers was covered by South Coast NRM Inc. Targeted training via a marine life identification workshop provided immediate benefits at the next monitoring event, as all participants were heard proudly spluttering about their success in identifying something they had not been able to do so before. These identification skills have been consolidated with further experience.

Overall results from a 16 month period covering the three transects within Green Pool show a consistent trend—more fish species and/or species clusters are recorded at each event in the 'Near' transect than those starting at 'Bombie' and 'Far' on the inside of the outer rocks. Presumably the variety of habitat in the 'Near' transect contributes to the diversity of fish encountered, and it was interesting to note the occasional presence of a range of small juvenile fish in the warm rocky shallow area too. The most abundant fishes were generally seen sporadically in schools or were consistently recorded in lower numbers across all three transects. We also wondered if seasonal timing and/or rougher weather conditions contributed to higher abundances of fish inshore, but the data did not reflect this clearly.

In total, 26 individuals were involved in 13 monitoring events and a workshop over the 16 month period, however, a strong core group contributed the majority of volunteer hours. Ongoing retention of volunteers has been a concern of marine monitoring programs, and we too have had more people come along once or twice with intentions to contribute, and then fail to turn up again. Availability of interested volunteers to monitor this site is helped by the fact Greens Pool is a popular sheltered embayment on a rough coast, and is heavily frequented by locals who have strong connections with this magic place. The social aspect of monitoring events is highlighted as contributing to the success of the program, and as one participant said, 'We don't do anything unless it's fun!'

Those involved in the Salt Water Treasures program have improved their snorkelling technique, wardrobes, and data collection and species identification skills, and more importantly, had a great time doing so! We now have a better understanding of the marine life in this local area, and have recorded useful baseline data from which to examine trends and measure change over time.

Beyond Greens Pool: expanding the program

The improved skills, capacity and confidence of the pilot group highlights potential outcomes from community involvement in marine monitoring activities, in addition to increasing local awareness and stewardship for the coastal and marine environment. Future program work could be directed to other interested groups that have been limited by resources, support officer availability and insurance. The development of a website with data entry and immediate reporting capability, as suggested by the diving community, is being progressed and will allow self-directed monitoring to occur.