



# Seagrass-Watch Information Workshop: Whitsundays

**June 2000**

*Presented by*  
Warren Lee Long & Stuart Campbell  
Marine Plant Ecology Group  
Northern Fisheries Centre  
Department of Primary Industries, Queensland  
PO Box 5396 Cairns Qld 4870



## Objectives of workshops

After discussions with the community volunteers, it was considered that holding a workshop was the most appropriate way to present the preliminary results of ongoing monitoring at Key Sites and give the community volunteers an opportunity to contribute to the final interpretation of the data. Unfortunately, holding a workshop where all volunteers can attend is often impractical in the Whitsundays, as volunteers are widely dispersed across the region. Hence, the workshop provided an opportunity for volunteers in Airlie Beach to

- review any data collection problems (common errors filling in data sheets, how to take a good photo, etc).
- address any concerns volunteers are having in terms of recording information (eg. confusion with % epiphyte and % algae), and
- conduct a brief lab session to cover seagrass identification.

Analysis of the data in greater detail (taking any issues raised in the workshop into consideration) and present in the draft final report is due in May 2001.

## Results & outcomes of workshop

### Location of workshop

The workshop was held at QPWS Offices, Whitsundays, Monday 26<sup>th</sup> June 2000, 6:00-9:00pm

*Attended by 42 participants (including Whitsunday volunteers, Order of Underwater Coral Heroes, and QPWS rangers)*

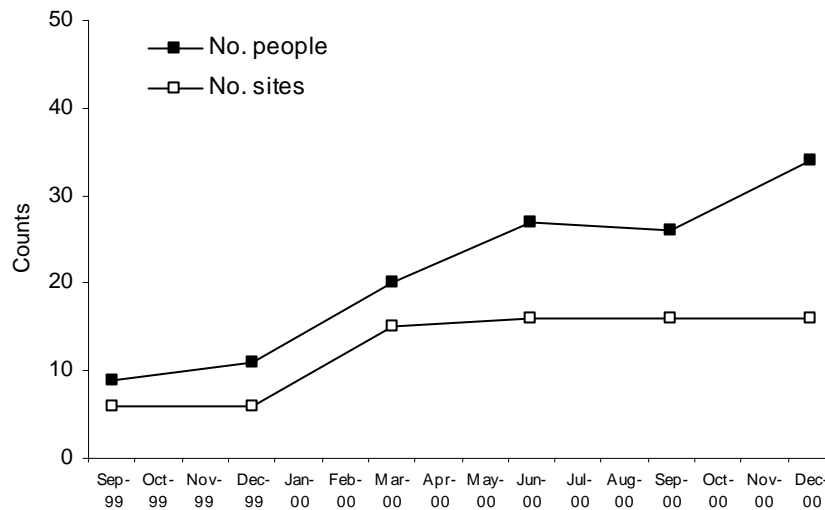
### Workshop agenda

- 1 Background to seagrass ecology and management of seagrass resources
  - Warren Lee Long presented background information on seagrass ecology and the issues that impacted seagrass meadows. The purpose was to inform potential new volunteers of the importance of these critical habitats.
- 2 Status of program to date
  - Stuart Campbell outlined the Seagrass-Watch project in the Whitsundays. Options were discussed for Seagrass-Watch post CCS funding and there was a general consensus for continued scientific support.
  - Stuart discussed how results of the program were being directly used to assist coastal management by government agencies such as the DPI and QPWS. Maps of seagrass meadows have been used in the development of coastal management plans. Data on the trends in seagrass abundance has provided the only scientifically reliable baseline against which impacts associated with dredging and coastal development have been assessed (eg. *Shute Harbour dredging proposal, Laguna Quays Airport development, etc*).

- Stuart suggested that one approach for continued funding was to lobby the government departments/agencies/local authorities that are using the results of the monitoring to assist coastal management.

### 3 Community participation

- Stuart discussed how the rates of community volunteer participation have continued to increase, although the number of established monitoring sites is currently enough to adequately cover the region. In June 2000, there were 14 intertidal and 2 subtidal sites being monitored using traditional transect methods. The seagrass meadow at Cid Harbour is being monitored in a different manner as volunteers are trying to capture the change in a large area of seagrass meadow frequently used by turtle and dugong (~2km x 3km). At this site 15 areas are examined for changes in seagrass composition and abundance, although it is considered as 1 site.



#### **Numbers of volunteers and sites monitored as part of Seagrass-Watch from September 1999-December 2000.**

### 4 The Monitoring process

#### a) *Data sheets*

- Common errors in completing data sheets were discussed.
- The recording of anecdotal observations (eg. changes in seagrass abundance, dugong sightings, seagrass and algal deposition on beaches, rainfall events) on the Seagrass-Watch calendar was discussed. Participants were encouraged to use the calendar or other means to record these.

#### b) *Algae vs epiphytes*

- Volunteers required clarification on measuring algal epiphytes versus unattached algal abundance.

#### c) *Taking a photo*

- The importance of taking a photograph of a monitoring quadrat and how this information is used was discussed.

#### d) *Seed sampling*

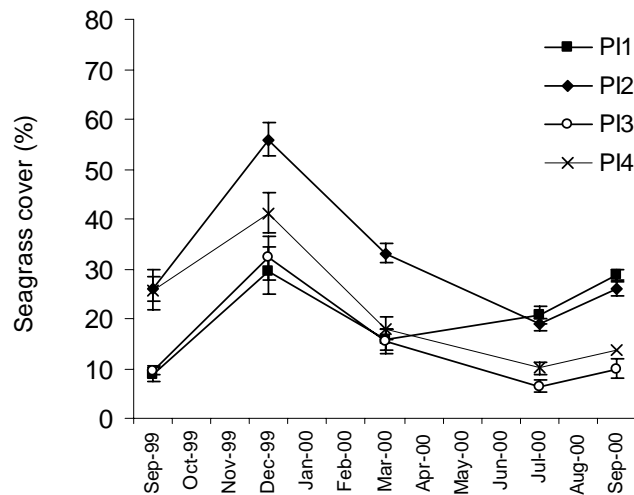
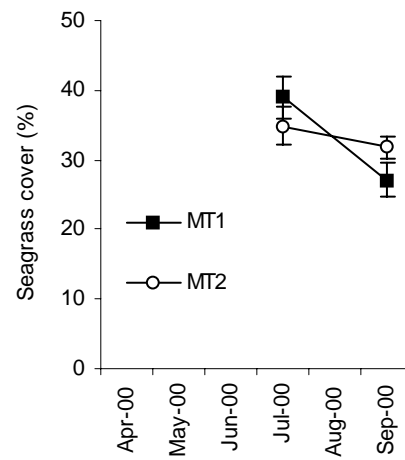
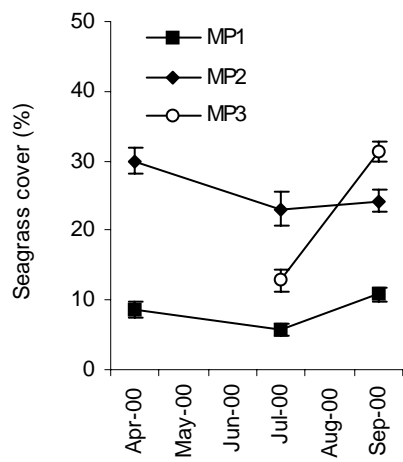
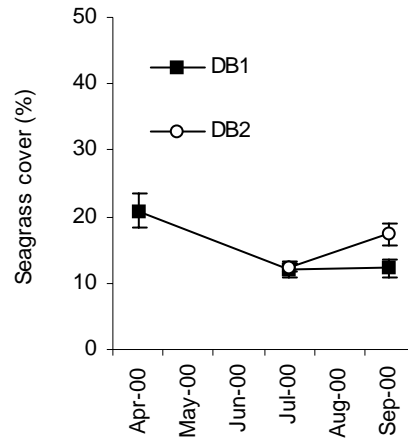
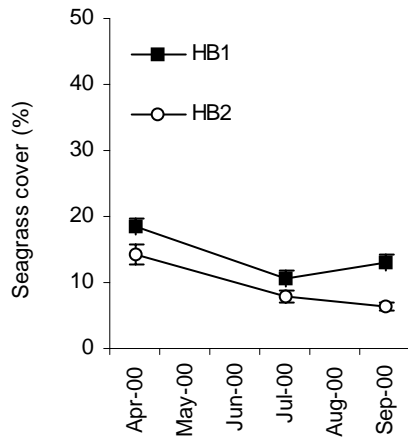
- Methods of seed collecting were discussed.

## 5 Analysis of the data (*Report card*)

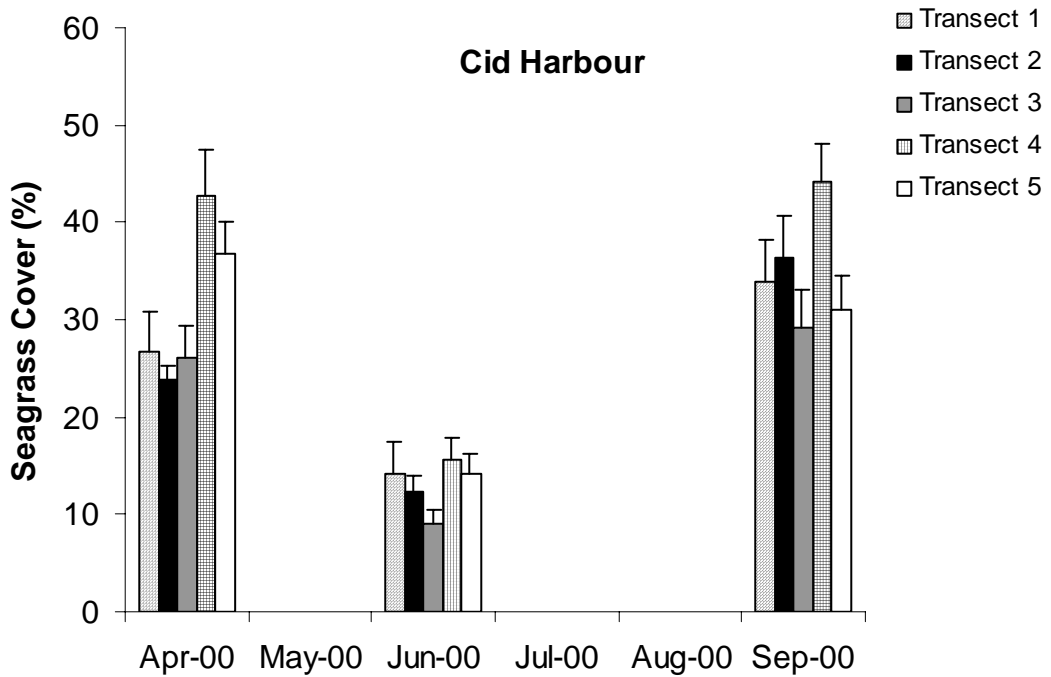
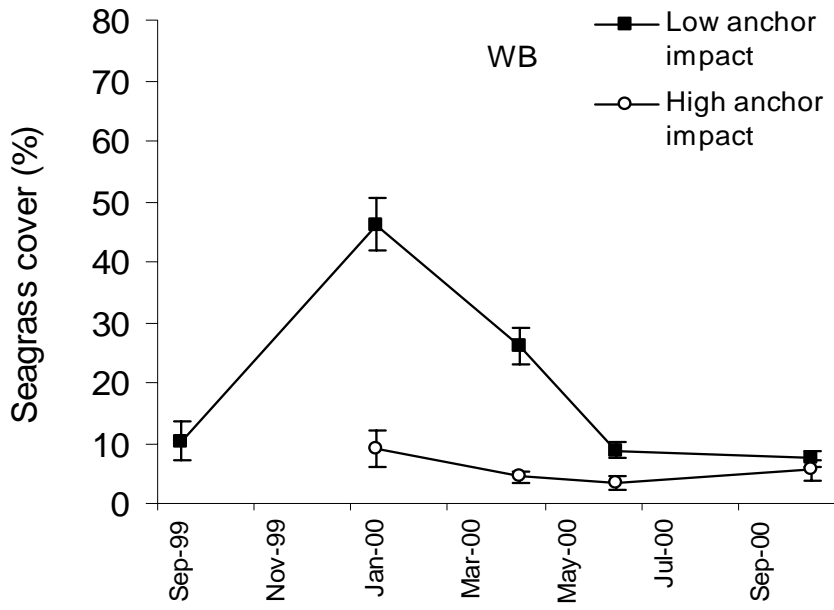
- Stuart discussed how the scientists will use the information collected from the ongoing long-term monitoring to give a qualitative report card (evaluation or state) on each locality monitored.
- Stuart discussed the categories used (eg trend in seagrass abundance, species composition, physical disturbance, *etc*) to develop the report card.
- Participants discussed indicators of seagrass decline, such as sewage and nutrient loads, over grazing, sediment movement, low salinity exposure and high temperatures.

## 6 Results to date (*Locality by locality feedback*)

- Stuart presented the preliminary results until June 2000 of trends in monitoring seagrass abundance and composition for each of the monitoring localities, and participants contributed to the interpretation of the results. These results are presented in graphs below, and include additional September 2000 results.
- Participants focussed on the interpretation of seasonal trends (baseline) in seagrass abundance and indicators of seagrass decline and impact. Discussion focussed on impacts such as dugong feeding, sediment movement and nutrient exposure in relation to observed seagrass trends.
- Volunteers suggested that persistent filamentous algal abundance and low seagrass abundance at some sites at Pioneer Bay might be related to sewage overflows. Margaret Parr to contact local Water Authority to clarify issue.
- The possible impacts of Laguna Quays development on near-shore marine plant habitats was discussed. Jacquie Shiels is currently liaising with McKay Environment Conservation Council.
- Monitoring by OUCH suggests that impact of anchoring on seagrass meadows is persistent and leads to a 40-80% reduction in seagrass abundance.
- The effects of commercial trawling on seagrass communities were discussed, however it was inconclusive as to whether major impacts were occurring and no Seagrass-Watch data could support this contention.
- Stuart also highlighted the importance of regular monitoring and how missing data can make interpretation of results difficult.



**Whitsundays: Percentage seagrass cover at intertidal sites from August 1999 – September 2000.** (HB = Hydeaway Bay, DB = Dingo Beach, MP = Midge Point, MT = Midgeton, PI = Pigeon Island (Pioneer Bay))



**Whitsundays: Percentage seagrass cover at subtidal sites from August 1999 – September 2000. (WB= Whitehaven Beach, CH = Cid Harbour)**

## 7 Seagrass ID

- Specimens (press and fresh) of several seagrass species were provided for participants to examine with a monocular eye pieces to assist with their field identifications.

### **Future considerations**

Community volunteers did not consider that another workshop in March 2001 would be useful at this stage as most questions are being adequately answered during site visits. Holding a workshop where all volunteers can attend is often impractical as they are widely dispersed across the region. In talks with volunteers they suggested that on site feedback on a “one to one” basis is the most useful method of “refreshing” concepts, methods and providing interpretation of their data. Further pre-monitoring face to face discussions of results are planned for March 2001 when quarterly monitoring is conducted across the Whitsundays region.