2000 archive

19 December 2000

Amity and Moreton Banks
On Moreton Banks no *Lyngbya* was recorded immediately south of Mud Island. Very little change was recorded south west of Mud Island with *Lyngbya* still present in similar concentrations to those previously recorded in the area. However, further north and to the west of Crab Island, the *Lyngbya* has increased in density with longer, thicker filaments evident. This *Lyngbya* is still present in windrows/furrows lying northeast/southwest along the banks.

Interestingly, turtles, dolphins and a range of fish species were observed swimming among the *Lyngbya* at Moreton Banks, apparently unaffected.

8 December 2000

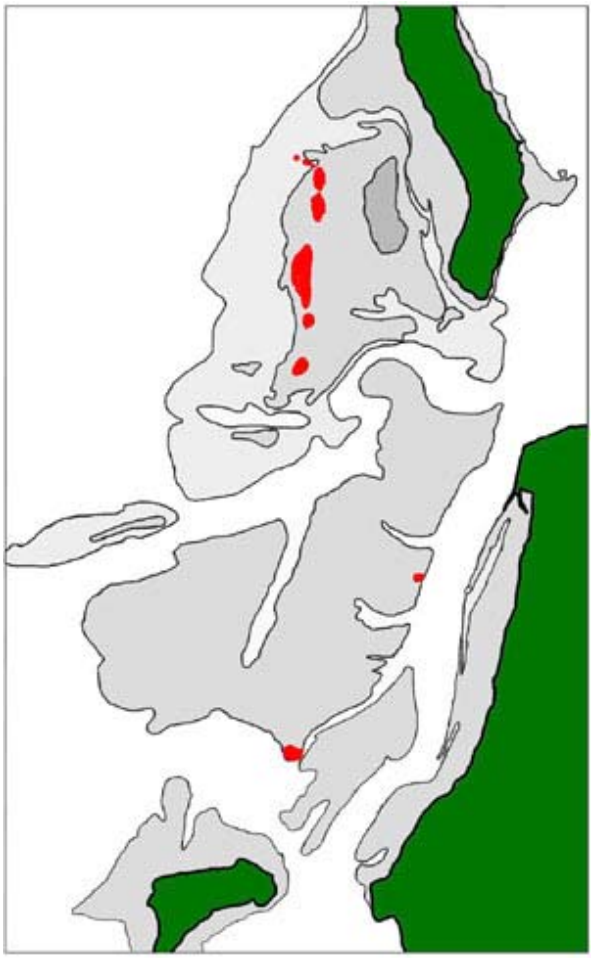
Marine Parks staff inspected the Amity and Moreton Banks area on 8 December 2000 to determine any increases in the distribution and density of the *Lyngbya* bloom.

Lyngbya growth is present in isolated patches throughout parts of Amity and Moreton Banks. The density and coverage is extremely variable among the locations. In most areas *Lyngbya* growth is largely absent or consists of small tufts of filaments, making up around 5 percent cover over the sandy and seagrass substratum. Areas where such growth has been observed include Dialba Passage, Coolooloo Passage, Fingue Passage, Maroom Bank, Days Gutter, Fisherman's Gutter and northern sections of Moreton Banks.

Two patches of dense *Lyngbya* cover have been identified, one west of Dialba Passage (Amity Banks) and one west of Browns Gutter (Moreton Banks). At these locations *Lyngbya* is growing over sand and seagrass, varying in coverage from 40 to 100 percent.

In northern Deception Bay, a small area of *Lyngbya* has been identified due east of Sandstone Point. This is the same area where the bloom commenced last year. Approximately 1 km2 of seagrass habitat has been affected.

It should be noted that the present density, coverage and distribution of *Lyngbya* is far less than was observed during the height of the blooms last February and March. The current volume of *Lyngbya* tissue present on Amity and Moreton Banks would most likely be less than 5 percent of that present during March this year.



Latest scientific task force news

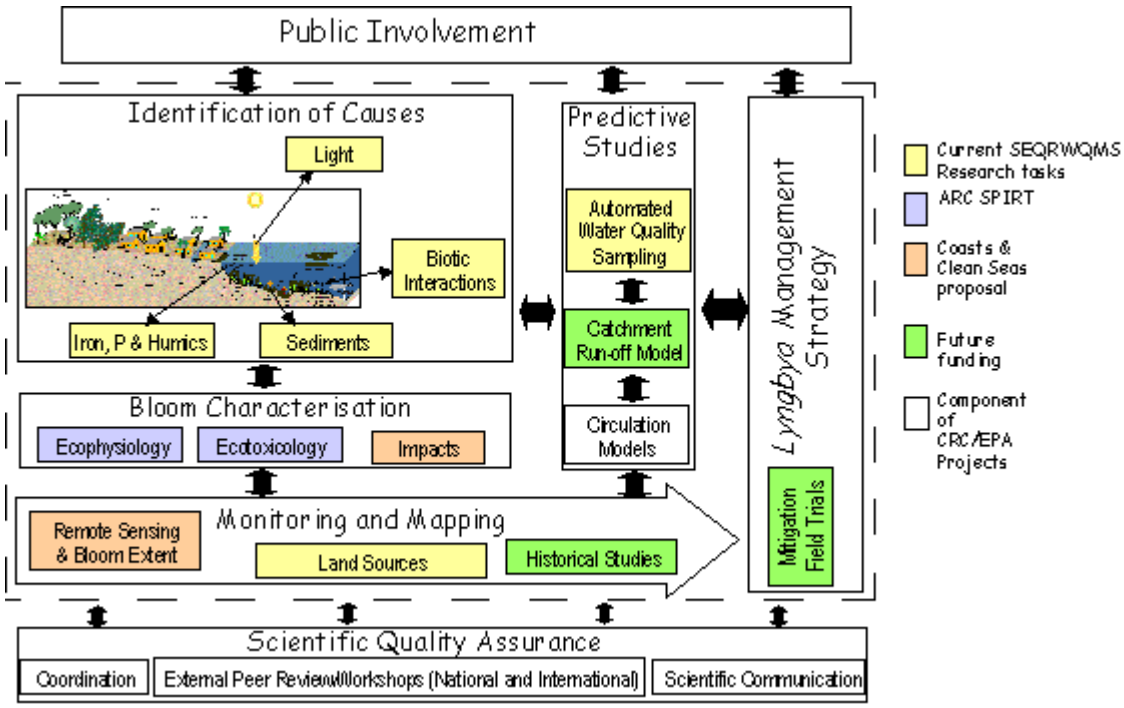
18 November 2000

Research is currently underway to identify the causal factors contributing to *Lyngbya* blooms in Moreton Bay. Tasks have been prioritised primarily to concentrate on identifying causes of blooms. These particular tasks have been funded through the councils of south-east Queensland as well as the Environmental Protection Agency, Department of Natural Resources, Department of Primary Industries and Queensland Health. These research tasks will provide information that may ultimately lead to management of future blooms. A *Lyngbya* task architecture has been developed, outlining key tasks necessary to test the conceptual model (see Science Update).

The specific tasks are:

- Light Interactions- understanding the role of light quantity and quality in *Lyngbya* bloom formation and proliferation
- Sediment Interactions- identifying the role of sediments in bloom formation and proliferation, specifically nutrient regeneration
- Biotic Interactions- focussing on the role of natural biotic interactions and their role in bloom maintenance and control
- Water Quality Interactions- characterising the role of iron, phosphorus and dissolved organic carbon (DOC) in the stimulation and proliferation of *Lyngbya* blooms
- Land Sources- establishing a broad understanding of the processes that lead to DOC, phosphorus and iron being discharged into Deception Bay and Pumicestone Passage
- Automated & Response Sampling- identifying conditions leading to bloom formation and result in the development of an early warning system

See below for a model:


Public Involvement
Identification of Causes
Light
Biotic Interactions
Iron, P & Humics
Sediments
Predictive Studies
Automated Water Quality Sampling
Catchment Run-off Model
Circulation Models
Lyngbya Management Strategy
Mitigation Field Trials
Bloom Characterisation
Ecophysiology
Ecotoxicology
Impacts
Monitoring and Mapping
Remote Sensing & Bloom Extent
Land Sources
Historical Studies
Scientific Quality Assurance
Coordination
External Peer Review/Workshops (National and International)
Scientific Communication
Current SEQRWQMS Research tasks
ARC SPIRT
Coasts & Clean Seas proposal
Future funding
Component of CRC/EPA Projects