

2001 archive

19 December 2001

QPWS staff inspected the Eastern Banks and Horseshoe Bay at Peel Island on 13 & 19 December 2001 to determine any changes in the *Lyngbya* Status. Deception Bay was inspected on 18 December 2001.

Deception Bay

Shallow areas between 0.7m and 1.4m (mid / high tide) in northern Deception Bay were inspected and no *Lyngbya* was found. There has been a noticeable reduction in the amount of brown algae (Monkey feathers) growing in these areas. Poor visibility inhibited inspection of deeper areas.

Peel Island

The *Lyngbya* bloom in Horseshoe Bay appears to have subsided. Seagrass and sand areas in depths of up to 2m (mid tide) were inspected throughout Horseshoe Bay and no *Lyngbya* was found growing in these areas. Also, detached pieces of *Lyngbya* were rarely observed.

Moreton Banks

There has been a significant increase in the amount of *Lyngbya* growing in the western section of the Moreton Banks. *Lyngbya* was present in large areas on seagrass beds west of Crab Island to Fishermans Gutter, with coverage varying from light to thick. *Lyngbya* was also observed on many patches of sand (amongst seagrass beds) but was partially detached from the sediment surface. Many patches of brown algae (Monkey feathers) were also present in some of these areas. Many detached pieces of *Lyngbya*, mixed with seagrass, were observed west of Crab Is.

Large mats of *Lyngbya* were frequently observed south-west of Crab Is on 13 December, but had reduced to smaller patches when inspected on 19 December. The general area containing the bloom, however, remained similar.

Amity Banks

The eastern section of the Amity Banks was inspected. There has been a substantial decrease in the amount of *Lyngbya* growing in these areas. *Lyngbya* has noticeably reduced in areas previously reported (October/November 2001) to have clumps of fresh *Lyngbya* growth - several seagrass beds and sandy patches in Coolooloo, Fingue and northern Dialba Passage were inspected and no *Lyngbya* was found. Mats of *Lyngbya*, however, remain at the southern entrance to Dialba Passage. Detached pieces of *Lyngbya* were rarely observed on the Amity Banks.



21 November 2001

Horseshoe Bay at Peel Island

There has been no significant change, with *Lyngbya* still growing in a patchy, light to medium coverage over seagrasses, particularly in the centre of Horseshoe Bay. Small amounts of detached tissue are continuing to wash ashore onto the beach. Small floating aggregations the size of a football were observed within Horseshoe Bay yesterday. As the situation has remained largely unchanged (slightly reduced) for the past two weeks, surveys of Peel Island will be dropped back from daily to twice per week. The Amity and Moreton Banks will be surveyed tomorrow, and Deception Bay on the weekend. Further updates will follow these surveys.

17, 18 and 19 November 2001

Horseshoe Bay

The intensity and distribution of the bloom has continued to decline over the weekend, with only small amounts of *Lyngbya* observed washed ashore on the high water mark. A noticeable reduction in the density of *Lyngbya* tissue on seagrass has also been noted in recent days. The Moreton Banks has some scattered areas of patchy *Lyngbya* growth with a very dense patch growing on *Zostera* seagrass approximately 1 km north of the Fisherman's Gutter. Further inspections of this area and the remaining Eastern Banks will be undertaken in the next few days.

23 November 2001

Eastern Banks and Horseshoe Bay at Peel Island

Peel Island

The situation at Horseshoe Bay remains unchanged, with *Lyngbya* tissue observed in a light cover on seagrass in most areas of the central Horseshoe Bay. A few small areas of medium cover over the seagrass were also observed. Very small amounts of *Lyngbya* continue to wash ashore on the adjacent beach. Some small floating aggregations of *Lyngbya* were also observed approximately 1 km from Cleveland, between Toondah Harbour and Coochiemudlo Island. The source of these fragments is unknown.

Eastern Banks

There has been a significant increase in the distribution and density of *Lyngbya* on the Eastern Banks in recent weeks. *Lyngbya* was observed growing on seagrass in large patches of light to medium thickness at Dialba Passage, Coolooloo Passage, Fingue Passage, Maroom Hole (Amity Banks) and around Brown's Gutter (Moreton Banks). The thickest patches of growth were observed at the southern entrance of the Dialba Passage and in the Fingue Passage, southwest of the Welsby Light. No floating rafts were observed. A map of the areas where *Lyngbya* was found is attached.

Areas adjacent to the Eastern Banks including the Myora Reef, Peel Island Reef and the Wangawallen Bank were inspected and no *Lyngbya* was found.

Deception Bay

All intertidal areas of northern Deception Bay were inspected and no *Lyngbya* was observed. Weather and tides prohibited an inspection of subtidal areas.



16 November 2001

QPWS staff inspected Horseshoe Bay at Peel Island today to determine any changes in the *Lyngbya* status.

The situation is largely unchanged from our last report, with scattered *Lyngbya* growth still present, mainly throughout the central parts of Horseshoe Bay. A large number of very small floating rafts were observed this morning each up to 2 sq. m in area, mainly at the eastern end of Horseshoe Bay. The strong southeast winds experienced over the past two days appear to have dislodged this *Lyngbya* from the seagrass below.

Despite the increase in floating rafts, the amount of *Lyngbya* actually washed ashore has decreased slightly during the past few days and is much less than two weeks ago.

15 November 2001

QPWS staff inspected Horseshoe Bay at Peel Island to determine any changes in the *Lyngbya* status. Due to adverse weather conditions inspections were not carried out yesterday.

The intensity of the bloom continues to subside, with areas of seagrass beds either free of *Lyngbya* or with a thin, patchy coverage. Patches of healthy *Lyngbya*, however, do remain on some seagrass beds and sandy areas, particularly at the middle to western section of Horseshoe Bay. A few coral areas in Horseshoe Bay were also inspected and found not to have *Lyngbya*.

Detached pieces of *Lyngbya* were observed floating in the water column, close to shore. A thin layer of seagrass and algae, mixed with small amounts of *Lyngbya*, was observed along the forshore of Horseshoe Bay.

Surveys of eastern Moreton Bay will be done as soon as weather permits, and will include inspections of coral reefs and seagrass beds in the vicinity of Peel Is and eastern Moreton Bay.

13 November 2001

QPWS staff inspected Horseshoe Bay Peel Island and northern Deception Bay today to determine any changes in the *Lyngbya* status.

At Horseshoe Bay, the intensity of the bloom has reduced slightly over the past week. Only very small amounts of *Lyngbya* tissue were observed washed ashore amongst other marine algae. Mats of *Lyngbya* growing on the sand and seagrass are less dense than observed last week.

At Deception Bay, Greg Savige (local fisherman) reported some *Lyngbya* attached to one of his nets while working 500 m off Pebble Beach yesterday. Subsequent inspections of the site by Greg and of the entire northern Deception Bay by staff of QPWS today could find no evidence of *Lyngbya* growth in the region. The exception was one small clump 10 cm long which was observed floating on the surface off Pebble Beach by QPWS staff. Greg suspects that the *Lyngbya* he encountered yesterday may have been very localised and growing underneath a thin blanket of brown algae, which is still present across much of northern Deception Bay and has been since early winter. It is therefore likely that some very small patches of fresh *Lyngbya* are growing off Pebble Beach or in the surrounding region. If present, these patches must be very localised and a mix of several algal species.

8 November 2001

Update on *Lyngbya* inspections of Horseshoe Bay, Peel Island
QPWS are continuing to inspect Horseshoe Bay on a daily basis to determine any changes in the *Lyngbya* status.

The area of Horseshoe Bay affected by *Lyngbya* is similar to that reported in the last update (6 Nov 2001), with *Lyngbya* growing on seagrass patches at the western, middle and eastern parts of the beach. Small amounts of *Lyngbya* continue to wash ashore amongst a mix of predominantly seagrass and marine algae.

QPWS has installed additional signs on the beach and at boat ramps warning the public of the presence of *Lyngbya*.

Further inspections of Peel Island, the Amity Banks and Moreton Banks will be undertaken on 9 November 2001. Surveys of other areas are also planned, which will include inspections of seagrass beds and coral reefs in the vicinity of Peel Is and eastern Moreton Bay.

6 November 2001

QPWS are presently inspecting Horseshoe Bay on a daily basis to determine any changes in the *Lyngbya* status.

The area of Horseshoe Bay affected by *Lyngbya* has increased slightly over the past couple of days. Healthy *Lyngbya* is now growing in patches at the western, middle and eastern parts of the beach, with small amounts washing ashore amongst a mix of predominantly seagrass and marine algae. Small floating rafts have been observed at the site.

QPWS has installed 5 signs on the beach warning the public of the presence of *Lyngbya*. Contingencies have been put in place should the mechanical removal of *Lyngbya* be necessary.

Further inspections of Peel Island, the Amity Banks and Moreton Banks will be undertaken on 8 and 9 November 2001.

31 October 2001

Amity and Moreton Banks

Marine Park rangers inspected areas of the Moreton and Amity banks on 29 October 2001 to determine any change in the *Lyngbya* status. Fresh growth of new *Lyngbya* was found within the Dialba Passage, Coolooloo Passage (Amity Banks), Fisherman's Gutter and south of Browns Gutter (Moreton Banks). In these areas, *Lyngbya* growth was patchy and healthy, occasionally forming mats on sand and seagrass. In addition, an extensive stretch of new *Lyngbya* growth was observed in Horseshoe Bay on the southern side of Peel Island. The area affected covered approximately 5 hectares, from the intertidal zone to a depth of approximately 1 m at low tide. This is the first record of significant *Lyngbya* growth occurring within Horseshoe Bay during recent years. Deception Bay remains unaffected.

29 October 2001

Amity and Moreton Banks

QPWS staff inspected Deception Bay and the Amity Banks on 26 October 2001 to determine any changes in the *Lyngbya* bloom status. There was no *Lyngbya* found

within Deception Bay. A light to medium cover of fresh *Lyngbya* growth was found within the Coolooloo Passage on the Amity Banks. This is the location where *Lyngbya* finally receded to over the winter months (as inspected by stakeholders at the *Lyngbya* workshop at Stradbroke Island). The commencement of fresh growth within the Coolooloo Passage may be the initial commencement of a bloom on the Amity Banks. Further inspections are planned for this week to confirm the status elsewhere, including the Moreton Banks.

19 July 2001

Amity and Moreton Banks

Marine Park rangers inspected the Amity and Moreton Banks on 19 July 2001 to determine any changes in the distribution and abundance of *Lyngbya*.

Despite the cooler water temperatures, *Lyngbya* has persisted in some small patches of the western Amity Banks. In such areas, *Lyngbya* cover is very thin, but up to 80% coverage over seagrass was observed in some areas. The formation of dense mats was not observed.

Areas affected include the southern entrance of Dialba Passage, the Coolooloo Passage and south of the Fingue Passage entrance.

No floating rafts were observed.

30 May 2001

Amity and Moreton Banks

Marine Park rangers inspected parts of the Amity and Moreton Banks on 30 May 2001 to determine any changes in the distribution and abundance of *Lyngbya*.

Lyngbya is very slowly becoming more patchy and less dense over most of the areas affected, as water temperatures continue to drop. Very small clumps have been seen in most areas of the Amity and Moreton Banks at some stage over the past couple of weeks. However these are very patchy and usually isolated, separated by beds of unaffected seagrass.

Areas of thicker cover where mats of *Lyngbya* growth were observed include the Coolooloo Passage, parts of the Dialba Passage and north of Fisherman's Gutter.

30 May 2001

Deception Bay

The situation at Deception Bay remains unchanged, with little to no *Lyngbya* growth.

11 May 2001

Amity and Moreton Banks

Marine Park rangers inspected the Amity and Moreton Banks on 11 May 2001 to determine any changes in the distribution and abundance of *Lyngbya*.

The broad-scale distribution of *Lyngbya* has reduced slightly over the past two weeks, although some patches of very thick growth still remain. Areas of very light *Lyngbya* cover are extremely patchy and in some cases on the Moreton Banks, quite widespread.

Thickest cover was observed on the Moreton Banks west of Browns Gutter and on the inner parts of the Coolooloo Passage on the Amity Banks.

11 May 2001

Deception Bay

Lyngbya has stopped growing completely at Deception Bay, although the foreshore at Godwin Beach still has some *Lyngbya* washed ashore in an advanced state of decay.

27 April 2001

Amity and Moreton Banks

Marine Park rangers inspected the Moreton Banks on Friday 27 April 2001 to determine any changes in the distribution of the *Lyngbya* bloom.

There are still some patches of thick *Lyngbya* growth at around 60% cover over seagrass and sand banks in the area. These are located predominantly west of Browns Gutter. Also, a light but widely distributed cover of *Lyngbya* is present throughout the band of seagrass grazed commonly by dugong and turtle on the western parts of the Moreton Banks. *Lyngbya* growth in most areas is still very patchy.

Parts of the Amity Banks still remain affected. *Lyngbya* has been observed recently in the Dialba Passage, Coolooloo Passage, Fingue Passage and around the Maroom Hole. Small floating aggregations of *Lyngbya* are still present throughout the area in low to medium densities.

21 and 22 April 2001

Deception Bay

In Deception Bay, *Lyngbya* growth has reduced significantly to almost nothing. Only one small piece of *Lyngbya* was found growing 300 m west of Cook's Rock. No trace of any other *Lyngbya* could be identified at over 200 sites throughout the Deception Bay area, despite excellent visibility. Rotting *Lyngbya* washed ashore is still present at parts of the Godwin Beach foreshore.

21 and 22 April 2001

Amity and Moreton Banks

At the Amity and Moreton Banks, there has been a general reduction in *Lyngbya* density in most areas. Growth is still extremely patchy, with *Lyngbya* commonly observed growing adjacent to unaffected seagrass beds. Areas where *Lyngbya* has been positively identified in the past few days include banks around the Dialba Passage, Fingue Passage, Coolooloo Passage, Maroom Bank (Amity Banks), Fisherman's Gutter, Browns Gutter and the western fringe of the Moreton Banks.

Thickest *Lyngbya* growth was observed between the Maroom Hole and the Coolooloo Passage on the Amity Banks. The entire fringe of the western Moreton Banks where dugong and turtle commonly feed was observed to have a light cover of *Lyngbya* around 5%.

There has been an increase in the amount of floating *Lyngbya* observed in the vicinity of the Amity and Moreton Banks. Floating rafts of *Lyngbya* were observed north of Raby Bay, South of Peel Island and west of Browns Gutter.

11 April 2001

Amity and Moreton Banks

Marine Park rangers today inspected the Amity and Moreton Banks to determine any changes in the distribution and abundance of *Lyngbya*. Despite the recent strong southeast winds and drop in temperature, there has been another significant increase in the extent and severity of the bloom. Areas on the Amity Banks affected include the Maroom Bank, Dialba Passage and adjacent banks, Coolooloo Passage and areas south of the Fingue Passage. Recent *Lyngbya* growth has been most active on the Moreton Banks, particularly around the Fishermans Gutter, Browns Gutter and west of Crab Island. In some places, 100% cover on seagrass was observed at around 10 cm thickness. No large floating rafts have been observed in the area, although several small floating pieces of *Lyngbya* are present.

2 April 2001

Deception Bay

Marine Park rangers inspected areas of Deception Bay and the Amity Banks over the weekend to determine any changes in the distribution and abundance of *Lyngbya*. In Deception Bay, the situation is unchanged from last week, with a small bloom continuing in seagrass habitats between Godwin Beach and Cooks Rock. The percent cover of *Lyngbya* growth in this area has decreased slightly to approximately 15%. Areas east of Cooks Rock including seagrass banks off Pebble Beach are completely devoid of *Lyngbya*.

2 April 2001

Amity and Moreton Banks

On the Amity and Moreton Banks, the patchy distribution of *Lyngbya* has increased over the past week. Areas now affected include the Maroom Bank, Dialba Passage, Coolooloo Passage, Fingue Passage, Browns Gutter and small parts of the Moreton Banks. The density of *Lyngbya* growth is up to 50% cover in some areas such as the Maroom Bank. This is likely to increase further if the current rough weather subsides.

21 March 2001

Deception Bay

In Deception Bay the bloom has reduced significantly in density and distribution, although some very small patches of growth were found in most areas previously heavily affected. By far the thickest cover of *Lyngbya* at around 80% cover was found in the small bay located between Pebble Beach and Godwin Beach, just west of Cooks Rock. *Lyngbya* growth in this area was up to 5 cm thick on seagrass and covered approximately 1 sq. km. Very small floating aggregations of *Lyngbya* were observed throughout Deception Bay. The foreshore of Godwin Beach is badly affected by rotting *Lyngbya*, particularly within mangrove communities. Hundreds of mangrove seedlings have been smothered by *Lyngbya* tissue in this area.

22 March 2001

Amity and Moreton Banks

On the Amity and Moreton Banks, the patchy and sparse growth of *Lyngbya* in a few small areas is continuing. The thickest patch of *Lyngbya* growth observed was located 2 km west of the southern tip of Crab Island on the Moreton Banks. More isolated

patches were also found on the Moreton Banks within Browns Gutter. On the Amity Banks, patchy *Lyngbya* growth was found in the Fingue Passage (west of the Welsby Light), south of the Fingue Passage, within the Coolooloo Passage and scattered around the Dialba Passage. The area between the Coolooloo Passage and Fingue Passage was worst affected. Small floating aggregations of *Lyngbya* have been observed in the South Passage area for the past week, including waters south of Peel Island.

27 February 2001

Deception Bay

There has been a decline in *Lyngbya* density in most areas affected by the bloom, particularly in the eastern sections adjacent to Sandstone Point. The most significant decline has occurred over an area of approximately 3 sq. km east of Cooks Rocks where four dugong were observed feeding during the inspection.

Seagrass beds off Pebble Beach continue to support *Lyngbya* growth, but only at approximately 15% cover. Seagrass beds off Godwin Beach are presently the worst affected in the area, with approximately 2 sq. km of seagrass habitat supporting *Lyngbya* growth up to 60% cover. The western extent of the bloom has contracted slightly east (1km) towards Godwin Beach, with 15% cover observed in most areas.

Marine Park rangers are presently inspecting the Amity and Moreton Banks. They have advised that *Lyngbya* growth has returned to some parts of this area. Thick *Lyngbya* growth is present on the Moreton Banks between Browns Gutter and Crab Island.

On the Amity Banks, seagrass beds surrounding the Fingue Passage and the Coolooloo Passage are also affected. A filamentous green algae resembling *Lyngbya* is also growing on seagrass in this area. This has a strikingly different colouration to the usual growth form observed, but is similar in all other respects. *Lyngbya* cover in these areas is patchy but quite widespread.

The Amity and Moreton Banks were devoid of *Lyngbya* growth this time last week.

14 February 2001

Moreton Bay Marine Park

A significant reduction in *Lyngbya* biomass has occurred in Deception Bay over the past week across the entire area affected (between 8 and 10 sq. km). Areas of seagrass previously completely covered with mats of *Lyngbya* up to 50 cm thick are now partially exposed with patchy aggregations of *Lyngbya* scattered throughout most seagrass beds in the area.

The total area of seagrass habitat affected by the bloom has not been significantly reduced. Only small amounts of *Lyngbya* have been washing up on foreshores adjacent to Deception Bay. The biomass coincided with an increase in freshwater discharge to the area associated with heavy rain and an increase in water turbidity.

Rangers have also noted a dramatic increase in the abundance of a small white gastropod mollusc within areas affected by the bloom. This information has been passed on to Dr Ian Tibbetts' research team who are investigating biotic interactions with *Lyngbya*.

The situation on the Amity Banks remains unchanged with no significant blooms of *Lyngbya* to report.

6 February 2001

Moreton Bay Marine Park

Marine Park rangers inspected the Amity and Moreton Banks to determine any changes in the distribution and abundance of the *Lyngbya* bloom. The area remains largely devoid of *Lyngbya* growth, with no significant patches observed during an inspection of Day's Gutter, Moreton Banks, Browns Gutter and Amity Banks, including Fingue, Coolooloo and Dialba Passages.

Some small floating aggregations of *Lyngbya* were observed north of Crab Island on the Moreton Banks. However, the source of these small rafts could not be identified. In contrast, the bloom at Deception Bay is remaining stable, with most of the *Lyngbya* biomass continuing to stay attached to seagrass. In the past few days there have been some small aggregations of *Lyngbya* beginning to wash up on the foreshores at Beachmere, Godwin Beach and Pebble Beach.

23 January 2001

Moreton Bay Marine Park

Rangers from Cleveland inspected areas west and south of Crab Island including Moreton Banks, Coonungai Banks and Brown's Gutter. Throughout this area there was no evidence of any *Lyngbya*.

Areas south of Amity Point were also inspected including the Finuge, Coolooloo and Dialba Passages. On the northern side of the Finuge Passage two small (approximately 15cm diameter) patches of algae which appeared to be *Lyngbya* were found. Both of these were growing directly from the substrate but were located within seagrass areas. No evidence of any *Lyngbya* was found on the southern banks of Finuge Passage. No *Lyngbya* was found at either Coolooloo and Dialba Passages.

There was also no evidence of any *Lyngbya* floating on the water surface throughout the areas visited.

17 January 2001

Deception Bay

There has been another significant increase in the distribution and density of *Lyngbya* at the northern end of Deception Bay.

A general expansion of the bloom has occurred in a southerly direction to the 2.5m depth contour. Also, the previous western boundary of *Lyngbya* growth has extended a further 800metres to a point adjacent to Bayside Drive, Beachmere. *Lyngbya* has also extended north to a point only 100 metres south of the Bribie Island bridge. A significant increase in the density of *Lyngbya* cover has also been observed. Thickest areas of 90-100% cover are present in the vicinity of Cooks Rocks, off Pebble Beach. Floating *Lyngbya* has been observed within Pumicestone Passage as far north as Mission Point on Bribie Island. The incidence of floating rafts in Deception Bay is also increasing. The total area covered is estimated to be approximately 8 sq. km.

The area will continue to be monitored over the summer months. For more information

call 3821 9022.

8 January 2001

Amity and Moreton Banks

There has been a general decline in the abundance and distribution of *Lyngbya* on the Amity and Moreton Banks over the past few weeks.

On 6 & 7 January 2001, Marine Park rangers inspected 13 points on the Amity and Moreton Banks where *Lyngbya* has previously been found in November 2000. However, *Lyngbya* was not observed at any of these locations. There has also been an observable reduction in the number of floating *Lyngbya* rafts in the area, with only a few small clumps found over the weekend.

Remaining parts of the Amity and Moreton Banks will be inspected later this week should weather conditions improve.

4 January 2001

Deception Bay

Marine Park rangers inspected Deception Bay and Pumicestone Passage to determine any change in the distribution and abundance of *Lyngbya*.

A general expansion of the bloom, particularly in a southeasterly direction from Pebble Beach has occurred in the past week. The density of *Lyngbya* cover has also increased significantly during this time with some areas of 80% cover noted growing on seagrass beds.

The area affected extends from immediately east of Pebble Beach in a south and easterly direction along the 2 m depth contour and then around in a westerly direction to Godwin Beach.

Several floating pieces of *Lyngbya* were observed in the southern part of Pumicestone Passage, approximately 600 m north of Dux Creek in the vicinity of the Avon Wreck.

Lyngbya growth in Deception Bay is increasing rapidly and will continue to be monitored by Marine Park rangers