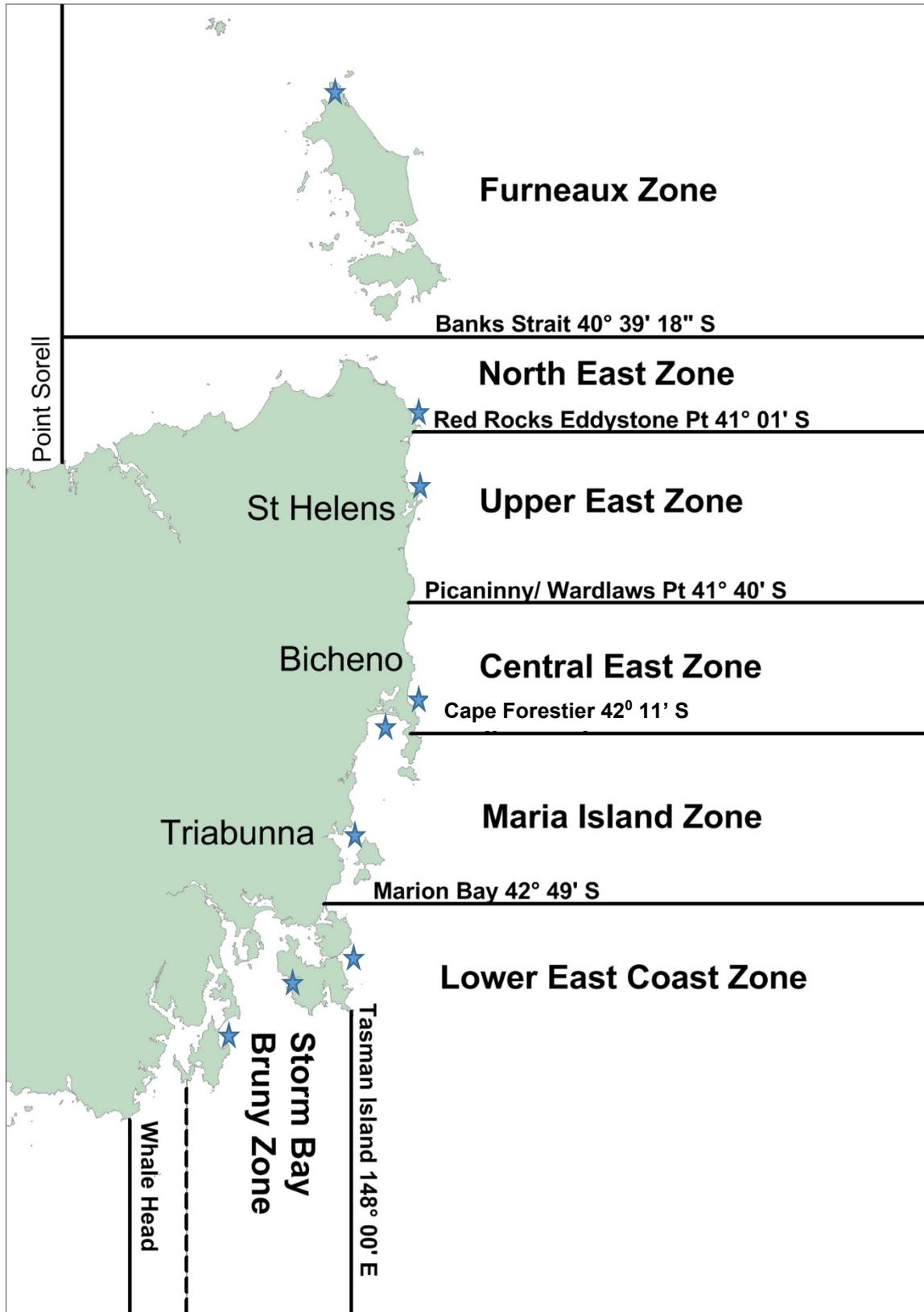


Rock Lobster Biotoxin monitoring program and decision protocols 2018

August 2018



★ Sentinel mussel sampling sites 2018

Sentinel mussel sample sites – 2018

Zone	Location	Description
Furneaux	Palana	Fixed mussel line
North East	Georges Rocks	Fixed mussel line
Upper East	Binalong Bay	Fixed mussel line
Central East	Bicheno	Fixed mussel line
Maria Island	Great Oyster Bay Spring Bay	Shellfish Farm (Mussel) Shellfish Farm (Mussel)
Lower East	Pirates Bay	Marine Infrastructure
Storm Bay/ Bruny	White Beach (east Storm Bay) Adventure Bay (Bruny is)	Marine Infrastructure Marine Infrastructure

Rock Lobster Sample sites

Rock lobster sampling will be targeted on appropriate rocky reef habitat that is in general proximity to the sentinel mussel sampling site wherever possible.

Summary Sampling Strategy

Mussel samples (pooled sample ~ 15 mussels) to be collected fortnightly from each site 1 June - December (or longer if HAB event is established during this period).

Sample frequency to be increased if there is data indicated increased HAB risk.

If sampling of rock lobster is triggered in a zone, the zone will be closed and 5 rock lobster collected for individual PST analysis (hepatopancreas). The highest individual lobster PST result will be used to determine the open / closed status of the biotoxin zone in line with the decision protocols.

Rock Lobster Fishery Seasonal Closures 2018

Commercial Fishery:

- St Helens Point (east coast) south to Sandy Cape (west coast) from 1 September.
- Sandy Cape (west coast) north to St Helens Point (east coast) from 1 October.

Recreational Fishery: Eastern Region from 1 May. Western Region from 1 September.
Re open dates yet to be determined by Minister, previously have been early - late November.

Policy and decision matrix

Decisions on if and when an area will be sampled and subsequent processes and decisions from that point will be conducted within a decision tree as is detailed below. That is, the decision matrix applies to each PST biotoxin zone.

The decision matrix includes a 2 tier “early warning” alarm system of bloom activity from sentinel bivalve shellfish meat PST data.

This plan is based on a conclusion that any rock lobster fishing occurring in a biotoxin zone must cease in that zone on the day that a **rock lobster** sample is taken for PST testing from that biotoxin zone. The risk of non-compliant lobster entering the market chain of supply is considered unacceptable at this time.

When a decision to sample rock lobster is made, a process to statutorily close the fishery, inform fishers, allow boats fishing the area with pots in the water to leave the area and ensure all activity has ceased by sampling day, will be expedited. It is envisaged that a period around 3 -5 days will be required to facilitate this outcome so that sampling can proceed with no risk of any catches after that date and possibly non-compliant lobster being in the chain of supply.

Marine Resources will oversee the matrix, monitor information and task the collection of samples as required to the TRLFA or IMAS. The closures and openings of management units will be achieved – at this time - through statutory instruments under the provisions of the *Living Marine Resources Management Act 1995*. Such processes provide statutory rigour to closures, however, may require additional time to implement the necessary instruments and may incur publication costs. Opportunities for more cost efficient processes will be considered wherever possible.

It also needs to be recognised that the decision matrix provides decision rules for a range of scenarios, however, not all outcomes and contingencies can be foreseen. As such, some outcomes might not fall neatly into the decision matrix and decisions will need to be made in a manner that is complementary to the rationale behind the explicit management rules. For example, in particular in cases when sentinel information or lobster results are trending consistently in an upwards direction, decisions may be made to sample earlier if it is clear that the bloom and PST results are increasing. Such decisions will be taken in consultation with the TRLFA.

The decision making process to re-open a biotoxin zone will also give consideration to any fisheries management issues, particularly adverse stock implications that could arise on reopening, if there is a risk of an extended period of localised concentration of fishing effort. This means biotoxin zones may remain closed for fisheries management reasons even when the lobsters PST results would allow the zone to open under the decision matrix.

The decision matrix is as follows:

- 1) Monitor the general status of algal bloom activity throughout the year through sentinel data, from the TSQAP bivalve shellfish meat sampling (including wild scallop PST data) and water sampling program. Noting that the geographical distribution of shellfish farms is concentrated in lower east and south east regions.

If there is evidence of bloom activity **outside** high risk period (June – December inc), initiate wild sentinel sampling under protocol 2.

- 2) **Monitor the status of algal bloom activity in each biotoxin zone from June** (start of the high risk period) onwards through the meat PST results from sentinel data collected specifically to inform this plan i.e wild mussels, scallop or other species. The frequency of wild sentinel sampling (weekly, fortnightly or monthly) will be determined on a risk based approach by Marine Resources. At this time, the only zone to be specifically monitored using sentinel data from the TSQAP bivalve shell fish program is the Maria Island zone, using data from shellfish farms located in the vicinity of Spring Bay and Gt Oyster Bay.

3) Monitor sentinel meat PST results collected under (2) –

- a) if below 0.4mg/kg – no response/action taken other than continued monitoring of sentinel trends through fortnightly sampling.
- b) If 0.4mg/kg + (but below 0.8mg/kg) – increase frequency of sentinel monitoring to weekly in affected biotoxin zone and adjacent zones. Notify peak bodies and DHSS that the biotoxin risk has increased through increased level of bloom activity. Continue to monitor sentinel data.
- c) Sentinel meat results drop below 0.4mg/kg for 2 consecutive weekly sampling episodes reduce sentinel monitoring frequency to fortnightly. Notify peak bodies and DHSS.
- d) Sentinel meat result 0.8 mg/kg or greater - increase monitoring frequency to weekly in that zone and adjacent zones. Notify peak bodies and DHSS of increased HAB activity and associated rock lobster biotoxin risk.

- 4) **If 2 consecutive weekly sentinel meat results collected under (2) are 0.8 mg/kg or greater, consider triggering rock lobster sampling in affected zone,** - risk based approach taking into account evidence about the toxin level in the mussels, algal counts, the rate that the bloom is intensifying and/or other information.

- a) If additional sentinel data is required to confirm extent / intensity of the HAB, initiate further sentinel sampling asap and aim to fast track sample analysis in consultation with laboratory staff. Notify rock lobster fishers and processors that sentinel PST levels are approaching levels that may trigger lobster sampling. Notify peak bodies, DHHS and DAG.

- b) If a decision to sample rock lobster is taken - notify rock lobster fishers and processors that sentinel levels exceed threshold trigger levels and the fishery will be closed in the affected zone on a specific date to allow the collection of rock **lobster samples for PST testing**. Notify peak bodies, TSQAP, DHHS and DAG.

Fishery in biotoxin zones to be sampled closed by DMR.

Samples of rock lobster collected from biotoxin zones and assigned to laboratory for analysis.

Continue to collect weekly sentinel data from zone and adjacent zones

5) All Rock lobster samples return below 0.5 mg/kg

Fishery in that management zone reopened unless there is sentinel data indicating that the bloom activity has intensified significantly during the period between lobster sampling and receiving the results or there are relevant fisheries management implications that necessitate the zone staying closed. If zone is re-opened revert back to monitoring sentinel data. If zone stays shut schedule next round of lobster sampling. Notify fishers, processors, peak bodies, TSQAP, DHHS and DAG.

6) Any Rock lobster samples return above 0.5 mg/kg but below 0.8 mg/kg.

Evaluate sentinel data or other data to assess trends in algal bloom activity (increasing or decreasing) and use a risk based approach to determine whether the zone remains closed or can reopen. Given the average time lag (~10 days) between the date of sampling and assessment of the results, the risk based approach will focus on the likely hood that lobster PST levels may be increasing during this period. The risk assessment will consider the latest sentinel data, data on uptake and depuration rates from previous blooms and data from research projects and if applicable previous lobster PST data for that zone. The zone will remain closed unless the risk of lobster PST levels increasing is assessed to be low.

Assess fishery management implications associated with re opening. If zone is to re-open revert back to monitoring sentinel data. If zone stays closed, continue to monitor sentinel data and schedule next round of lobster sampling. Notify fishers, processors, peak bodies, TSQAP, DHHS and DAG.

7) Any Rock lobster samples return 0.8 mg/kg or above.

Zone continues to be closed to rock lobster fishing. Continue to monitor sentinel data to assess trends in bloom activity and schedule next round of lobster sampling. Assess risk in adjacent zones based this data and sentinel data from each zone. Trigger additional sentinel sampling or lobster sampling in adjacent zones if warranted. Notify fishers, processors, peak bodies, TSQAP, DHHS and DAG.

Further rock lobster samples collected. Timing of resampling to be determined by Marine Resources, based on evidence that bloom is abating or to check actual trend in lobster PST levels.

Lobster PST Results from further sampling – go to protocols 5, 6 or 7 as appropriate.

When all biotoxins zone that have been closed are re-open, discontinue specific sentinel monitoring under (2) and revert to high level monitoring under (1)

Rock Lobster sampling may also be triggered prior to the start of a new open season in November / December based on a risk assessment of the impact of any HAB activity in a zone during the closed season.