



Title: Hinchinbrook Coastal Lagoon Monitoring Program (Hinchinbrook Sportfishing Club)

Q1: What do you intend to monitor?

Within the listed target species below, monitoring will primarily include, but not be limited to;

- aggregation patterns
- movement patterns
- population patterns
- growth patterns
- post-capture survival rates

Target species

| | | |
|---------------------|-------------------------------------|---|
| Coral trout | <i>ALL spp.</i> | |
| Goldspotted rockcod | <i>Epinephelus coioides</i> | http://fishesofaustralia.net.au/home/species/4512 |
| Grass emperor | <i>Lethrinus laticaudis</i> | http://fishesofaustralia.net.au/home/species/2461 |
| Red emperor | <i>Lutjanus sebae</i> | http://fishesofaustralia.net.au/home/species/567 |
| Crimson snapper | <i>Lutjanus erythropterus</i> | http://fishesofaustralia.net.au/home/species/1241 |
| Saddletail snapper | <i>Lutjanus malabaricus</i> | http://fishesofaustralia.net.au/home/species/561 |
| Grey mackerel | <i>Scomberomorus semifasciatus</i> | http://fishesofaustralia.net.au/home/species/729 |
| School mackerel | <i>Scomberomorus queenslandicus</i> | http://fishesofaustralia.net.au/home/species/2544 |
| Spanish mackerel | <i>Scomberomorus commerson</i> | http://fishesofaustralia.net.au/home/species/728 |
| Spotted mackerel | <i>Scomberomorus munroi</i> | http://fishesofaustralia.net.au/home/species/2543 |

Q2: Where will you monitor?

Hinchinbrook Region, North Queensland

Grid references:

I19, J19, I20, J20

Boundaries

| | |
|-----------|---|
| Northern: | Within 500m of the northern most point of Hinchinbrook Island |
| Southern: | Within 500m of the southern bank of Crystal Creek (Halifax Bay) |
| Eastern: | Within 500m of the eastern most point of Great Palm Island |
| Western: | Nil |

Q3: Why is this species and area a priority for monitoring?

The waters that lay within the Hinchinbrook coastal lagoon area offer a diversity of fishing options and the opportunity for recreational fishers to target an array of species. A large proportion of these waters are protected by the Palm Island group, which lay approximately 20km offshore, and as such can often be accessed by small boats. The combination of easy access, protected waters and diversity of fishing options makes this area popular with both local and visiting fishers.

The waters of the Hinchinbrook coastal lagoon also play an important role as nursery grounds for juvenile reef and pelagic species, as well as feeding grounds for adult pelagic species. The importance of these waters

Recreational Fishery Monitoring Plan



as a nursery and recruitment area for surrounding waters is assumed to be of some value but there is limited or no scientific evidence.

This project aims to assist with the monitoring of both the current and future status of key fish stocks and in doing so capture potential changes in the ecosystems they inhabit. Whether it be changes associated with recreational fishing, commercial fishing, coastal development or other natural and man-induced impacts, the Hinchinbrook Sportfishing club proposes to monitor ten (10) key recreationally targeted species to achieve these aims (see Q1 for list of target species).

Q4: Who will use your data?

1. Hinchinbrook Sportfishing Club (HSFC)
2. Australian National Sportfishing Association Queensland (ANSA Qld)
3. Great Barrier Reef Marine Park Authority (GBRMPA)
4. Third Parties as approved by all key partners (HSFC, ANSA Qld, GBRMPA)
5. Wider Community (via educational materials and learnings)

Q5: How will the data be used?

Data will be quality checked, collated and archived to be available for key partners and approved third parties upon request.

Key partners will use the monitoring program and the data collected to,

- monitor populations, movement patterns and growth rates of the target species to gain an understanding of the impacts of recreational fishing, commercial fishing, coastal development, climate change and other potential impacts
- monitor survival rates of each of the listed target species through tagging & recapture
- promote sustainable fishing on a local, regional and state level
- assess the level of “spill-over” of target species into surrounding areas

Q6: What data quality do you require?

An objective of this project is to allow approved fishers the opportunity to collect fishery data as a means of citizen science participation. The idea is to value add to the fishing experience and in doing so, create greater awareness of the study species (population, growth, movement and post-capture survival patterns)

Although data will be collected using a citizen science-based approach, data collection methods will be as robust as possible to ensure data quality is as high as possible to allow for as many potential end uses as possible. Data quality will be set at a level where the complexity of collection and data entry methods does not greatly inhibit participation.

Hinchinbrook SFC members who choose to partake in tagging of fish from the target species list will be required to be approved taggers under the ANSA Qld guidelines.

The quality of data is likely to be of indicative quality (better than demonstrative but not analytical)

Recreational Fishery Monitoring Plan



Q7: What is the proposed period of monitoring? When and how often will you monitor?

Monitoring is scheduled to commence after June 1st 2018.

No end date has been set.

Regular monitoring by Hinchinbrook SFC club members will take place during both official and unofficial club outings on an “opportunistic” basis. This monitoring plan will be reviewed by the Hinchinbrook SFC, typically on an annual basis, to ensure resources are being allocated to achieve the best possible outcome/s.

Q8: What methods will you use?

- All target and non-target species captured will be handled so as to cause as little stress as possible.
- Target species will be measured, tagged and released as quickly as possible so as to maximise the chances of survival.
- Fish capture information as outlined in field of form: <http://www.ansaqld.com.au/awards/entry-form/> will be collected for target species along with any other data that meets the objectives.
- Members will fish according to the ANSA QLD code of Ethics (<http://www.ansaqld.com.au/code-of-ethics/>) and the National Code of Practice (http://www.ansaqld.com.au/wp-content/uploads/2014/06/recfish_australia_ncop_brochure.pdf) adopted by ANSA QLD.
- Fish destined for release will be released according to the ANSA Code of Practice for Releasing Fish (<http://www.ansaqld.com.au/code-of-practice-for-releasing-fish/>)
- Tagging will be conducted according to the AUSTAG Manual (<http://www.ansaqld.com.au/wp-content/uploads/2016/07/Austag-Manual-Complete-with-Work-Instructions.pdf>) until ANSA Qld have developed an update manual. Tagging data is added directly by members who tag a part of the fish capture form. Any field sheets used reflect fields in this web-form.
- Location of fish will be recorded using Queensland Government Logbook Maps (<https://www.business.qld.gov.au/industry/fisheries/commercial-fishing/monitoring-and-reporting/reporting-commercial-fishers/queensland-logbook-maps>); as well as by GPS location where possible
- Fishes of Australia (<http://fishesofaustralia.net.au/>) is used to identify fish species

Q9: Who will be involved and how?

Monitoring will be conducted primarily by members of the Hinchinbrook SFC. Reporting of recaptures will be open to the general public.

ANSA QLD will provide fish capture database facility, tags and support to the Hinchinbrook SFC.

Third party researchers may be involved providing their involvement is in line with assisting to achieve the objectives of this monitoring program.

Q10: How will the data be managed and reported?

Data will be added directly by approved Hinchinbrook SFC members into the fish capture form; or via a multi-capture upload file. When submitted this is logged in the ANSA QLD MySQL database.

The results will be reported online via the ANSA Qld website and data will also be provided to approved third party researchers to report as required.

Records are maintained on ANSA QLD server using MySQL database (regularly backed up).

Recreational Fishery Monitoring Plan



Version

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Background

Why do we need a plan like this?

ANSA Qld and our members have limited resources (money and time) to contribute to monitoring, so we need to make sure we are doing it for good reasons.

The plan is simply to help you think about why and where you want to direct your efforts. We should make sure that we are contributing to highest priority issues, not just tagging as many fish as we can. For this reason, the ANSA Qld executive committee may seek input from Fisheries Queensland and other research institutions into highest priority species and locations to help refine monitoring effort.

It also demonstrates to others that we are professional in our approach to monitoring.

How is the revised ANSA Qld tagging program different to what we have previously done under Suntag?

Tagging will be conducted according to the AUSTAG Manual (<http://www.ansaqld.com.au/wp-content/uploads/2016/07/Austag-Manual-Complete-with-Work-Instructions.pdf>) noting that ANSA Qld will in future develop an updated manual of their own.. Specific revisions include:

- *ANSA QLD Tagging is now the name of our state program for Queensland*
- *Tagging data is added directly by members who tag as part of the fish capture form. Any field sheets used reflect fields in this web-form.*
- *Tags use the web address www.ansaqld.org.au instead of a phone number for submission of recaptured fish information.*
- *Tag and recapture information is generated online at www.ansaqld.org.au and replaces letters and certificates. Recapture certificates will be emailed to anglers in the future when an automated facility for this function is developed*
- *Records are maintained on ANSA QLD server using MySQL database. Database is regularly backed up.*
- *Recreational Fishery Monitoring Plans are required for all ANSA QLD Research and Tagging projects. These documents provide detail on target species and other project related matters*
- *Tag purchase is currently through Floytag. ANSA QLD reserves the right to select any supplier based on access, price and customer service.*
- *Tag Register and Audit will be maintained on ANSA QLD server using MySQL database. Database is regularly backed up.*
- *Location of fish will be recorded using Queensland Government Logbook Maps (<https://www.business.qld.gov.au/industry/fisheries/commercial-fishing/monitoring-and-reporting/reporting-commercial-fishers/queensland-logbook-maps>)*
- *Fishes of Australia (<http://fishesofaustralia.net.au/>) is used to identify fish species*