Recreational Fishery Monitoring Plan



Title: Redcliffe Peninsula Game & Sportfish Club Inc. – Moreton Bay and Turner Artificial Reef monitoring program.

Q1: What do you intend to monitor?

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

- 1. Aggregation patterns
- 2. Movement patterns
- 3. Population patterns
- 4. Post-capture survival rates.

Target Species :

Blackspotted Rockcod (estuary cod), *Epinephelus malabaricus* <u>http://fishesofaustralia.net.au/home/species/4675</u>

Grass Emperor, *Lethrinus laticaudis* http://fishesofaustralia.net.au/home/species/2461

Redthroat Emperor, *Lethrinus miniatus* http://fishesofaustralia.net.au/home/species/2753

Red Emperor, *Lutjanus sebae* http://fishesofaustralia.net.au/home/species/567

Spangled Emperor, *Lethrinus nebulosus* http://fishesofaustralia.net.au/home/species/2754

Mangrove Jack, Lutjanus argentimaculatus http://fishesofaustralia.net.au/home/species/548

Snapper, Chrysophrys auratus http://fishesofaustralia.net.au/home/species/678

Moses' Snapper, Lutjanus russellii http://fishesofaustralia.net.au/home/species/566

Mulloway, Argyrosomus japonicus http://fishesofaustralia.net.au/home/species/659

Barred Javelin, *Pomadasys kaakan* http://fishesofaustralia.net.au/home/species/465

Silver Javelin, *Pomadasys argenteus* http://fishesofaustralia.net.au/home/species/463

Dusky Flathead, *Platycephalus fuscus* http://fishesofaustralia.net.au/home/species/3359

Other species identified by Fisheries Queensland or third party researchers



Q2: Where will you monitor?

Primarily in the area of Turner Reef – grid W37, site 12 along with other natural and artificial reefs in Moreton Bay – grid W37

Other areas identified by Fisheries Queensland or third party researchers.

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

Turner Artificial Reef is located 1nm east of Scarborough in approximately 6m of water. The reef is named after former Sunfish Moreton Branch chairman Bill Turner, who campaigned for more than 20 years to have an artificial reef in the area.

The reef consists of six clusters of purpose-built concrete modules. Each cluster consists of one (1) Abitat[™] and sixteen (16) Apollo[™] modules.

The reef is expected to attract and sustain a wide diversity of marine life by providing protection from predators, shelter from ocean currents, breeding opportunities and a supply of rich food sources. The above species have been selected as these are the fish most commonly found at nearby natural and artificial reefs.

The reef was construction was completed in July 2015, and now 20 months later it is time to start collecting data on fishes diversity, movement, growth, population and compare it to other local reefs.

Q4: Who will use your data?

- 1. Redcliffe Peninsula Game & Sportfish Club Inc.
- 2. ANSA QLD
- 3. Wider community
- 4. Third Party Researchers
- 5. Sunfish

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Q5: How will the data be used?

Data will be quality checked, collated and archived to be available for ANSA members and third parties upon request.

On a regular basis Redcliffe Peninsula Game & Sportfish Club Inc. will use the activity and data to promote sustainable fishing and best practice fishing methods for the above species.



Q6: What data quality do you require?

The primary objective of this project is to allow anglers 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 patterns)

Although the primary focus of the program is citizen science based, 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.

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

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

The intent is to commence monitoring in the Moreton Bay region through out the year commencing on the1st of April 2017 as this will give good quality data collection over a long period of time. Monitoring from then will be ongoing with no end date set at this time

Redcliffe Peninsula Game & Sportfish Club will review the effort and results of the monitoring program on an annual basis with a view to learning and improvement, and assessment of whether resources could be better allocated to another priority.

Monitoring will primarily be opportunistic in nature (when members are fishing) noting that the club fishes at least once a month as part of routine club activities. Club activities usually occur on the weekend.

Members will be encouraged to participate in monitoring outside of scheduled club activities. Members fish a great deal more often than the average recreational angler, and usually with greater effectiveness. One could anticipate monitoring to occur fortnightly or even more frequently in the study area.

Q8: What methods will you use?

It is envisaged that the majority of fish will be captured with as little stress as possible, before careful measurement, tagging, and quick release.

- As part of normal recreational fishing activities, fish capture information as outlined in field of form: <u>http://www.ansaqld.com.au/awards/entry-form/</u> will be collected for the above mentioned species and other species identified by Fisheries Queensland or third party researchers.
- Fish destined for release will be released according to the ANSA Code of Practice for Releasing Fish (<u>http://www.ansaqld.com.au/code-of-practice-for-releasing-fish/</u>)



- Tagging will be conducted according to the AUSTAG Manual (<u>http://www.ansaqld.com.au/wp-content/uploads/2016/07/Austag-Manual-Complete-with-Work-Instructions.pdf</u>) noting that the manual will be updated during 2016-17. 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 (<u>https://www.business.qld.gov.au/industry/fisheries/commercial-fishing/monitoring-and-reporting/reporting-commercial-fishers/queensland-logbook-maps</u>)
- Fishes of Australia (<u>http://fishesofaustralia.net.au/</u>) is used to identify fish species

Pending advice and request from third party researchers (eg DAF and/or JCU) members may also be trained in the retrieval of otoliths. If required members will retain the large specimens to enable determination of both age and sex (identified as a key information gap).

Q9: Who will be involved and how?

Monitoring will be conducted by Redcliffe Peninsula Game & Sportfish Club Inc. members and other ANSA QLD members who visit the area of interest. Reporting of recaptures will be open to the general public.

ANSA QLD will provide fish capture database facility, tags and support to Redcliffe Peninsula Game & Sportfish Club Inc. members

Fisheries Queensland or third party researchers will be involved as interested or required to achieve the other objectives of the monitoring program.

Q10: How will the data be managed and reported?

- Data is added directly by members into the fish capture form.
- When submitted this is logged in the ANSA QLD MySQL database.
- Results will be reported online using a series of codes that query the database and then visualise this data. Data will also be provided to Fisheries Queensland and third party researchers to report
- Records are maintained on ANSA QLD server using MySQL database. Database is regularly backed up.

Version

Version 1.1

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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 will 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 (<u>http://www.ansaqld.com.au/wp-content/uploads/2016/07/Austag-Manual-Complete-with-Work-Instructions.pdf</u>) noting that the manual will be updated during 2016-17. 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 <u>www.ansaqld.org.au</u> instead of a phone number for submission of recaptured fish information.
- Tag and recapture information is generated online at <u>www.ansaqld.org.au</u> 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 (<u>https://www.business.qld.gov.au/industry/fisheries/commercial-fishing/monitoring-and-reporting/reporting-commercial-fishers/queensland-logbook-maps</u>)
- Fishes of Australia (<u>http://fishesofaustralia.net.au/</u>) is used to identify fish species