



SUNTAG

RESEARCH REPORT

infofish



Suntag Research Report 2007/08

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Cover design by All-Biz-Art. Front cover photographs: Saddletail Snapper on Bragmat, recapture of a tagged Red Emperor, tagged juvenile Barramundi - Back cover photographs: Giant Trevally, tagged Blackspot Tuskfish and recaptured Crimson Snapper.

Information in this publication is provided as general advice only. For application to specific circumstances, professional advice should be sought.

ANSA Qld and Infofish Services have taken all steps to ensure the information contained in this publication is accurate at the time of publication. Readers should ensure that they make the appropriate enquiries to determine whether new information is available on a particular subject matter.

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Acronyms Used in the Report

AFTA: Australian Fishing Trades Association
ANSA Qld: Australian National Sportfishing Association Qld Inc
ANSA: Australian National Sportfishing Association
Austag: ANSA Research Program
DAFF: Department of Agriculture, Fisheries and Forestry
DPI&F: Department of Primary Industries and Fisheries
FRDC: Fisheries Research and Development Corporation
GBRMP: Great Barrier Reef Marine Park
GBRMPA: Great Barrier Reef Marine Park Authority
NRW: Department of Natural Resources and Water
Recfish: Recfish Australia
RFCGP: Recreational Fishing Community Grants Programme
Suntag: ANSA Qld Research Program
TAA: Tagging Achievement Award
TEA: Tagging Excellence Award
BIAQ: Boating Industry Association of Queensland
MQ: Marine Queensland

Acknowledgements

The running of a data collection program to collect basic data on our fish species, and involvement in many research projects, is a major undertaking. The task is considerably greater and more difficult when that program is being undertaken by a recreational fishing organisation such as ANSA with most of the work being carried out voluntarily.

Without the efforts of a host of people that have contributed to the program and support from government and the corporate sector this would not have happened. It is important to acknowledge the efforts and support of those that have made this possible.

The support and cooperation of the following Government agencies, funders and research institutions to Suntag is acknowledged.

Queensland Department of Primary Industries and Fisheries
Fisheries Research and Development Corporation
DAFF Recreational Fishing Community Grants Program
Great Barrier Reef Marine Park Authority
Australian Institute of Marine Science
James Cook University
Fitzroy Basin Association
Australian Fishing Trades Association
Department of Defence



The support of businesses that contribute to Suntag is also acknowledged.

One Pixel
Infofish Services
Hallprint Pty Ltd
Platypus Fishing Lines
Lively Lures





The support of fishing organisations is acknowledged and Suntag partners with community monitoring programs.

Sunfish Queensland
Freshwater Fish Stocking Association of Queensland
CapReef
Holloways Beach Environment Education Centre



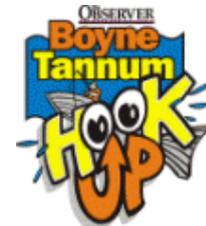
FFSAQ



Suntag works with and supports the following fishing competitions by tagging fish caught in these events.

Rocky Barra Bounty
Boyne Tannum Hookup
Bundaberg VMR fishing Competition
MQ Tinnie and Tackle Competition
BIAQ Brisbane Boat Show Competition

Rocky Barra Bounty



Suntag works with and supports monitoring undertaken by fish stocking groups and the following groups are acknowledged.

Mount Isa Fish Stocking Group
Gulf Barramundi Stocking Association
Richmond Fish Stocking Group
Cairns Area Fish Stocking Association
Burdekin Fish Restocking Association
Tablelands Fish Stocking Society
Twin Cities Fishing Stocking Society
Faust Dam Fish Stocking Association
Mackay Area Fish stocking Association
Mackenzie River Fish Stocking Group
Fitzroy River Fish Stocking Group
Moura Apex Fish Stocking Group
Callide Valley Native Fish Stocking Association
Baralaba Recreation and Fish Stocking Group
Lake MacDonald Freshwater Fishing Assoc

Taroom & District Fishing and Restocking Club
Borumba Fishing Club
Bundaberg Sportfishing Club Fish Stocking
Fraser Coast Fish Stocking Association
Australian Bass Association
Brisbane Valley Anglers Fish Stocking Assoc
Carpbusters
Charleville Fishing and Restocking Club
Oakey Freshwater Fish Stocking Association
Inglewood Fish Stocking Association
Surat Fishing and Restocking Club
Lake Coolmunda Restocking Group
Texas Fishing Club

The following ANSA Qld clubs are involved in Suntag and the continued efforts of taggers in these clubs are acknowledged.

Bribie Island Sportfishing Club
Brisbane Sportfishing Club
Brisbane Valley Anglers
Bundaberg Sportfishing Club
Burdekin Recreational Sportfishing Club
Cairns Sportfishing Club
Captag
Cardwell Sportfishing Club
Collinsville Sportfishing Club
Endeavour Sportfishing Club
Gladstone Sportfishing Club
Ipswich United Sportfishing Club
Keppel Bay Sportfishing Club
Kingaroy Sportfishing Club
Lavarack Sportfishing Club

Mactag
Maryborough Sportfishing Club
Mossman Sportfishing Club
North Brisbane Sportfishing Club
NQ Flyfishers
Queensland Sportfishers
Seqtar
Southern Brisbane Sportfishing Club
Sunshine Coast Sportfishing Club
Tag and Release Sportfishing Club
Townsville Saltwater Sportsmans Club
Townsville Sportfishing Club
Tully and District Sportfishing Club
Weipa Sportfishing Club

The following individuals provide support to Suntag and promoted it through the media.

Steve Morgan – Fishing Monthly magazines
Billy Stringer – Suntag tagger
Geoff Orr – Courier Mail

Dave Downie – Radio 4BC Fishing Show
Greg Seierup – Radio 4RO Fishing Show

1. Summary 2007/08

The most significant highlight for 2007/08 came at the end of 2007 when the number of fish tagged passed 500,000. Reaching a target like that was way beyond anyone's imagination when ANSA Qld took over the running of the Recreational Sportfish Tagging Program (now Suntag) from the Old Fisheries Service back in 1986. In 1985/86 there were just 1,500 fish tagged that year by keen ANSA members. If we had maintained that rate over the following years it would have taken around 333 years (around 2319) to reach that target. However in just on 21 years we reached that milestone.

Suntag tagging highlights for the year were:

- ❑ Over 8,000 taggers have now participated in Suntag and over 14,000 fishers have reported the recapture of a tagged fish
- ❑ Total tagged fish and crabs now exceeds 539,000 and 42,500 recaptures
- ❑ Barramundi is the most tagged species with over 161,000 tagged and over 9,900 recaptures
- ❑ Overall recapture rate for all fish species is 7.9% with a 6.3% recapture rate for the year
- ❑ The release rate of recaptured fish was over 60% for the 5th year in a row indicating a high proportion of fish caught being released
- ❑ Craig Slattery was the top individual tagger with 1,751 fish tagged for the year while Mick Dohnt has now tagged a total of 20,267.

The recapture rate of tagged fish in Suntag in Queensland is used as an approximate measure to monitor fishing effort, and in turn participation in recreational fishing. For the past 5 years the recapture rate has been below the overall recapture rate of 7.9% and suggests that fishing effort and participation has declined. This is consistent with the data from the RFish surveys undertaken by the Department of Primary Industries and Fisheries.

During 2007/08 funding was provided by the Department of Primary Industries and Fisheries to allow fish stocking groups to improve monitoring of stocked fish through tagging. The funding has enabled tags and tagging equipment to be provided free of charge to stocking groups or those targeting stocked fish.

Drafts of 2 reports on stocked fish have been produced. One is a summary of tagging of stocked fish covering 121,738 tagged fish with an overall recapture rate of 5.3%. Another report provides a summary of fish deaths following a very cold period during July 2007 which saw fish die in impoundments from Mount Isa to south east Queensland.

During the year there were 6 competitions that included tagging as part of the competition. Reports have been produced on 2 of the events. One is on the Rocky Barra Bounty held on the Fitzroy River and a CapReef report has been produced on the Boyne Tannum Hookup.

Catch rates for Suntag taggers are now available for 12 years. The average Suntag trip is 5.6 hours in duration with 1.7 fishers taking part in each trip. On each trip there is an average of 9.6 fish caught of which 1.0 (10.1%) fish are kept. In 2007/08 only 5.1% of fish caught were kept.

Suntag manages the data collected through the CapReef community based monitoring program in Central Queensland which was established in 2005/06. Fishing trip details have been obtained for 7,950 for 12 seasons from winter 2005 to autumn 2008. A number of reports have been produced by CapReef covering catch and effort as well as the effects of climate on catch rates and Barramundi use of 12 Mile Creek south of Rockhampton.

Deep hooking is recognised as a major contributor of fish mortality. Suntag has been collecting data on hooking locations since 2003/04 to assist in estimating fish survival from hooking. A total of 47,000 hooking locations have now been recorded. The overall level of deep hooking is 7.3% while for bait it is 11.5% and for lure it is 1.7%. There are a number of species where Suntag now has estimates of deep hooking. The deep hooking rate for Yellowfin Bream on bait is 12.5% and on lure is 0.5% while for Dusky Flathead on bait it is 32.5% and 2.5% on lure.

2. Introduction

Suntag commenced as the Sportfish Tagging Program in 1987 when the then Fisheries Management Branch of the Department of Primary Industries handed over responsibility of the program to ANSA Qld. The first annual report was produced in 1987/88.

In that year it was reported that 2,955 fish were tagged with 151 recaptures. The following is an extract from the summary in that report.

“By any measure the program has to be considered a success. More fish tagged, covering a limited number of species and more returns than in any other year of the program.

If that success is repeated in subsequent years it will provide a valuable addition to our fisheries knowledge which can identify where research effort should be directed and alert fisheries management to potential problems.”

The yardstick of achievement has been extended beyond anything that was imagined back then.

In 1993/94 a similar program was set up in Victoria as Victag and in 1994/95 Austag was established to provide a national umbrella for ANSA tagging programs. Over the next few years tagging was taken up by ANSA branches in each State as Westag, Toptag, Newtag, Tastag and Saftag. In Queensland the program continued as the Sportfish Tagging Program until 1997/98 when the name was changed to Suntag to fit in with the names of the other Austag programs.

In 1996/97 data collection was extended to include catch and effort for those involved in tagging and has continued and expanded since then. In 2000/01 the National strategy for the Survival of Released Fish commenced and data collection was again extended to collect data on hooking and barotrauma to provide information on fish survival.

The database was upgraded several times as Suntag developed. However it was originally focused on collecting data on tagging. As data collection was extended separate databases were added to collect the new data. This meant some duplication of effort and extracting data and providing reports was cumbersome. In 2006 a new web based database was developed to include all data being collected.

In 1996/97 the first Austag Sportfish Tagging Report was produced which covered all the Austag programs. The annual reports were produced as Austag reports through to 2005/06. From 2003/04 the report was produced as the Austag Research Report. For the first time no report was produced in 2006/07 due to a number of States not being able to provide reports.

So in 2007/08 we have gone full circle back to a Suntag report to ensure that an annual report is produced. However its title has been broadened to Suntag Research Report to reflect the current activities carried out under the Suntag banner.

In 1987/88 the goal was to provide a valuable addition to our fisheries knowledge. This report provides a summary of how far we have progressed since it all started.

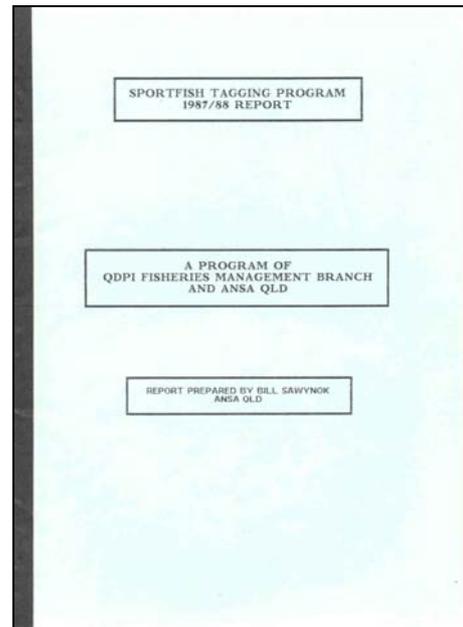


Figure 1: Cover of the 1987/88 Sportfish Tagging Program Report

3. How Suntag Works

Austag is an umbrella program that coordinates the collection of tagging, catch and effort and other data on fish caught by ANSA members and other organisations throughout Australia. Suntag is the Queensland program under Austag.

3.1 Austag Structure

Austag provides the framework and standards for the management and operation of separate programs in each State as outlined in *figure 2*.

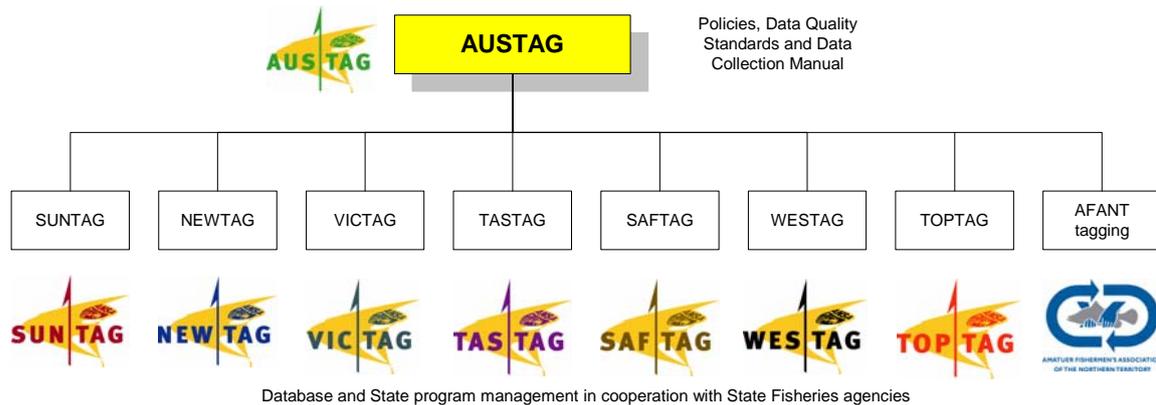


Figure 2: Relationship between Austag and the State tagging programs

The Austag Coordinator is responsible for the setting and maintenance of overall standards within which the State and subsidiary programs operate, providing support and guidance to the State programs and developing and refining operational aspects of data collection.

The subsidiary programs under Austag are where the data are collected and stored. While the State programs conform to the national standards they are managed and operated independently with State Tagging Coordinators responsible for the collection, storage and dissemination of tagging and catch and effort data in their own States.

3.2 Suntag Management and Structure

Suntag is a joint program between the Department of Primary Industries and Fisheries (DPI&F) and ANSA Qld. DPI&F provides an annual grant to ANSA Qld for the delivery of the program. For the past 5 years ANSA Qld has contracted Infofish Services to manage Suntag on their behalf.

Suntag is structured around collection, storage and analysis of data as well as the distribution of data and production of information products. *Figure 3* is a diagram of Suntag data flows from the initial collection of data to distribution through information products.

An Austag Manual is maintained which provides Work Instructions for use in all Austag programs, including Suntag. The manual is maintained within a section of the database and is also available from the website.

Suntag tagging is carried out through projects and the current list of projects is available from the website.



Figure 3: Diagram showing Suntag data flows from data collection to information products

3.3 Infotag 2006-Suntag database

In 2005/06 a community based monitoring program called CapReef was established to collect data on recreational fishing in Central Queensland. CapReef uses the Suntag database to store its data. As part of establishing CapReef it was proposed to upgrade the Suntag database to be more efficient in the collection and storage of data. Funding for the upgrade was provided by the Natural Heritage Trust through the Fitzroy Basin Association.

The Infotag 2000 database at the time comprised several linked Access databases which was reaching its maximum level of performance. A new web based Infotag 2006 database was developed and became operational in March 2006.

The new database (*figure 4*) significantly improves the collection of tag, catch and effort and other data and is located at <http://database.info-fish.net>. Access to the database is restricted to authorised users and access can be managed at a number of levels from access to personal records only to full access.

Along with the database development the etrip form was upgraded to allow data from the form to be directly loaded to the database. This is now completed by taggers and others and forwarded by email. Once the data is validated it is loaded direct to the database.

Details of recaptures can now be emailed direct from the database providing earlier advice of recaptures with a follow up certificate in the mail (*figure 7*).

Infotag 2006 has significantly improved data collection standards. With Infotag 2000 the standard to have data in the database was 60 days after a fishing trip. This has been

reduced to 20 days for data submitted electronically and 40 days for data still received manually. However with the increasing uptake of email around 80% of the data is received electronically. Loading fishing trip data using the etrip form has reduced the workload by over 50%.

Another improvement with Infofish 2006 is that the Austag Manual is now accessible from within the database.

It is proposed that a moderate upgrade will be made to the database in 2008/09 which will further improve performance.

Trip Code	Tag	Map	Location	Fisher	Species	Date	Action
CTMP247	R44892	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44893	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44894	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44895	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44896	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44897	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44898	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R44899	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247	R50401	KBY	PUMPKIN PASSAGE	POWELL M	RED EMPEROR	19/08/2006	View Delete
CTMP247	R50402	KBY	PUMPKIN PASSAGE	POWELL M	LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete
CTMP247		KBY	PUMPKIN PASSAGE		LONGFIN ROCKCOD	19/08/2006	View Delete

search retrieved : 21 [21 displayed]

Trip Code: Tag:
 Location: Map:
 Fisher: Species:
 Start Date: End Date:

Figure 4: Typical screen from Infofish 2006 showing fishing trip catch details

3.4 Suntag on the Infofish website

The Infofish website provides access to Suntag information products as well as other information. *Figure 5* shows the homepage for the website. The website provides access to all aspects of Suntag including tagging manual, projects, awards, news bulletins and reports. It also provides access to information on other programs linked to Suntag such as CapReef, Rocky Barra Bounty and Released Fish Survival.

Usage of the website continues to grow with downloads of documents for the past 18 months shown in *figure 6*. This includes all sections on the website as all of these are linked to Suntag at some level. Over the past 18 months downloads have risen from around 1,500-2,000 documents/month to 3,500-4,000 documents/month.

A complete revamp of the Infofish website is currently underway and should be completed by the end of 2008.



Figure 5: Infofish website homepage where all aspects of tagging can be accessed

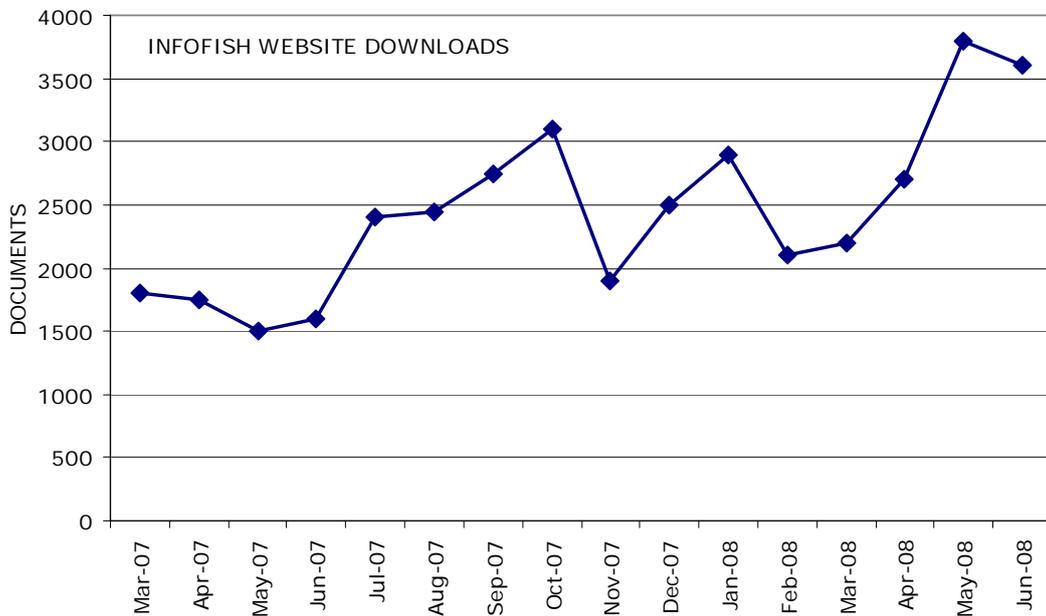


Figure 6: Downloads of documents from the Infofish website

3.5 Tag and Recapture Certificates

A very important aspect of Austag is providing feedback to fishers. One of the ways that is done is through providing a Tag and Recapture Certificate that records the full history of a recaptured fish including all recaptures if it has been recaptured more than once. A certificate, as shown in *figure 7*, is provided to both the person that recaptured the fish and the tagger.

The Australian Fishing Trades Association (AFTA) has been a long-term supporter of Austag and sponsor of our tag and recapture certificates. Over 30,000 certificates have been issued under Austag programs around Australia since 2001/02. We are grateful for the continuing support of AFTA and their sponsorship of the certificates. AFTA funded a new design and upgrade of the certificate in 2007/08.

Following the database upgrade to Infofish 2006 details of recaptures as shown on the certificates can be emailed to fishers and taggers that have email addresses. This provides earlier advice of recaptures than previously. Suntag then sends a follow up certificate in the mail.

Each year there are around 2,000 recaptures in Suntag and as a result around 4,000 certificates are issued.



Figure 7: Austag certificate used to provide feedback on recaptured fish

3.6 Tagging Equipment

Tags, applicators to apply the tags, and ancillary equipment are the specialised requirements of tagging and account for much of the expenditure in the program. A full range of tagging equipment is available from Infofish Services.



Figure 8: Tag wallet, tag applicators, Arrow tag gun, fold up measuring ruler and spare needles

Some of the products available are in *figure 8*. A brochure on the full range of tagging products available can be downloaded from www.info-fish.net or by contacting Infofish on telephone 07-4928-6133 or email shirleys@zbc.com.net.

3.7 Tags used in Suntag

Tags used in Suntag are Hallprint tags obtained from Hallprint Pty Ltd of South Australia. The support of David Hall of Hallprint for Suntag is acknowledged. The two types of tags most commonly used in Austag programs are the dart or spear tag and the anchor or gun tag (*figure 9*). Both these tags are used in a number of sizes.



Figure 9: Tags and tagging equipment used in Suntag

4. Scope of Suntag Research

Suntag is now extensively involved in collecting data to support research being carried out by researchers or is requested by ANSA Qld or recreational fishing groups. This involves collecting data on the fishing activities of our members and others and working collaboratively with government agencies, research bodies and community groups. There are now 8 broad areas that Suntag is involved in.

- Fish Tagging
- Tagging to Support Monitoring of Stocked Fish
- Fishing Competitions Involving Tagging
- Catch and Effort
- Community monitoring
- Released Fish Survival
- Support for Research Projects
- Historical Tagging Records

4.1 Fish Tagging

Suntag commenced in 1986/87 as a tagging program that allowed participation by ANSA Qld members. Tagging has mainly been used to obtain movement and growth of recreational species. Suntag is now viewed as the primary repository of tagging data in Queensland for tagging carried out by Suntag taggers, DPI&F researchers, fish stocking groups and some research institutions and universities.

Suntag tagging data has been used for a wide range of other purposes including for stock assessments and testing management options such as changes in bag and size limits.

4.2 Tagging to Support Monitoring of Stocked Fish

During the 1980s the Queensland Government introduced the Recreational Fishing Enhancement Program which saw the start of stocking of impoundments and waterways on a statewide scale. Tagging of stocked fish commenced shortly after and has been incorporated into the broader program for monitoring stocked fish.

Tagging commenced in the mid-late 1980s carried out by ANSA Qld members. Taggers began to target stocked fish when they had reached a size of around 200mm which was big enough for them to be tagged. Some stocking groups also commenced tagging of their stocked fish, in the same way as Suntag taggers, in the late 1980s. Over the following years tagging of stocked fish by both Suntag taggers and stocking groups grew to become a significant component of Suntag.

DPI&F staff also tagged fish during their monitoring, which in the 1980s and 1990s was mostly through netting surveys. During the 2000s electrofishing surveys commenced and fish have also been tagged during these surveys.

A small number of tagged broodstock used in hatcheries have also been released when they are no longer required by the hatchery.

In the late 1990s stocking of larger Barramundi around 200-300mm commenced and since then the practice has been adopted by a number of stocking groups with batches of up to several thousand tagged fish being released. As well as Barramundi this has been extended to Murray Cod.

In 2007/08 under the Government's Living the Queensland Lifestyle program funding of \$100,000 was provided for the tagging of stocked fish. The funding was to provide tags and tagging equipment free of charge to stocking groups and to provide a summary and analysis of tagging of stocked fish to date. Infotag Services has been contracted to manage the tagging under Suntag.

4.3 Fishing Competitions Involving Tagging

There is a growing trend in fishing competitions to include the tagging of fish. The Rocky Barra Bounty and Boyne Tannum Hookup competitions in Central Queensland have tagged fish over the past 10 years. Catch and effort data from these competitions has also been collected and incorporated into CapReef (*see section 9*).

More recently tagging of fish caught in the Bundaberg VMR Fishing Competition and the MQ Tinnie 'n' Tackle Competition has been undertaken. Also a number of competitions offer prizes for individual tagged fish. Suntag taggers have been involved in the tagging of these fish in most cases.

4.4 Catch and Effort

In 1996/97 ANSA NSW and ANSA Qld both commenced programs to collect catch and effort to obtain data on catch rates of its members. Data collected was extended to include all fish caught, kept and released, and the time spent fishing. The catch rates of ANSA members may not reflect catch rates of the average recreational fisher as their skill level is generally higher however the trend in catch rates of our members can be indicative of the trend in catch rates of the broader fishing population.

Many of the members providing catch and effort data are also those involved in tagging and it has been possible to get many of them to record the lengths of all fish caught. This has been useful in obtaining size composition data for their catches.

4.5 Community Monitoring

A new role for Suntag was developed during 2004/05 with the establishment of the CapReef program in Central Queensland. CapReef was set up to improve the community's ability to take part in management decision processes that affect them, following the introduction of zoning of the GBRMP that closed 33% of the marine park to fishing and the adoption of the Reef Line Fishery Management Plan.

CapReef was set up to collect data on the effect of this change on fishers and fish. Data has been collected for the past 3 years on catch and effort, fish movement through tagging, attitudes to the changes and changes in fisher behaviour. This has been through boat ramp surveys, fishing trip information, using Baited Remote Underwater Video (BRUV), specific fishing experiments and social surveys.

Suntag has also been working on a project examining the effects of environmental freshwater flows on estuaries. As part of that work the use of wetlands by juvenile Barramundi has been monitored for the past 7 years. This has helped understand the timing of fish using these wetlands and the level of recruitment each year compared with climatic conditions and water flows. ANSA members have provided valuable information by assisting with sampling and by reporting the incidental catch of small barramundi in bait nets. This work has now been incorporated into CapReef.

In 2007/08 CapReef was extended to Bundaberg and a similar program is being set up in Mackay. Interest in similar programs has been shown in Cairns and Port Douglas.

4.6 Released Fish Survival

In 2000/01 our Westag program became involved in a WA Fisheries research project to examine the survival of undersized reef fish. This project was the forerunner to the establishment of the National Strategy for the Survival of Released Line Caught Fish by the FRDC in 2001/02. That strategy involved a total investment of \$7.3 million in 20 projects by FRDC, State Fisheries agencies and other bodies from 2001 to 2007.

The strategy aim was to improve knowledge of the survival of line caught fish released by recreational fishers. As ANSA members have been at the forefront of releasing fish for several decades, involvement in the strategy was a natural progression. The ANSA code of

practice on releasing fish, adopted in 2002, was used as the basis for best practices in releasing fish and in 2004/05 Recfish Australia adopted a similar policy.

ANSA has assisted in the promotion of best practices and became involved in a number of the research projects through tagging providing data on long-term survival and extended data collection to locations where hooks are lodged in fish. Research has shown that deep hooking of fish is a significant cause of fish mortality so collecting data on hooking locations and the terminal gear used will provide valuable information that can be used in determining survival estimates.

4.7 Support for Research Projects

ANSA members have for many years been involved in collecting biological samples for researchers in support of research projects into important recreational species. There have also been projects where ANSA has provided logistic support and assisted with sampling during field data collection.

During 2007/08 James Cook University undertook a major tagging project in green zones around the Keppel Island in Central Queensland. This was carried out in conjunction with CapReef and involved members of Captag, Gladstone and Keppel Bay clubs.

Suntag has provided support to university students undertaking research work by assisting them with data collection on tagging where that is part of their research. This allows students to concentrate on data analysis and hypothesis testing rather than on routine data collection. Support has been provided to a number of projects tagging Sharks in south east Queensland.

Suntag has extended data collection to Mud Crabs in support of QDPI&F research and also to community-based projects collecting data on crabs.

4.8 Historical Tagging Data

Much of the tagging data that is collected is the responsibility of the individual researcher that has collected it. Once the data is used in the preparation of a technical or scientific paper it can often become 'lost' over time as researchers move on. While the data has served its primary purpose it can be used in the future with other data or can be re-analysed to answer new questions.

Suntag has been seeking old tagging datasets and incorporating them into its database. Bringing old data into the database provides a single dataset in a common format over a long timeline and makes further analysis of data much easier.

5. Suntag in 2007/08



5.1 Suntag Highlights for 2007/08

The most significant highlight for 2007/08 came at the end of 2007 when the number of fish tagged passed 500,000. Reaching a target like that was way beyond anyone's imagination when ANSA Qld took over the running of the Recreational Sportfish Tagging Program (now Suntag) from the Qld Fisheries Service back in 1986. In 1985/86 there were just 1,500 fish tagged that year by keen ANSA members. If we had maintained that rate over the following years it would have taken around 333 years (around 2319) to reach that target. However in just on 21 years we reached that milestone.

Suntag tagging highlights for the year were:

- ❑ Over 8,000 taggers have now participated in Suntag and over 14,000 fishers have reported the recapture of a tagged fish
- ❑ Total tagged fish and crabs in the database now exceeds 539,000 and 42,500 recaptures
- ❑ Barramundi is the most tagged species with over 161,000 tagged and over 9,900 recaptures
- ❑ Overall recapture rate for all fish species is 7.9% with a 6.3% recapture rate for the year.
- ❑ The release rate of recaptured fish was over 60% for the 5th year in a row indicating a high proportion of fish caught being released
- ❑ Five reports were published on data collected in Suntag projects and 12 Suntag News bulletins were sent out via email
- ❑ Craig Slattery was the top individual tagger with 1,751 fish tagged for the year while Mick Dohnt has now tagged a total of 20,267.

5.2 Suntag Participation

A total of over 8,000 taggers have now participated in Suntag having tagged fish since 1986/87. In 2007/08 there were 817 participating taggers that tagged at least one fish. For the past decade participation has varied between 800 and 1000 except in 2001/02 when there 1,165 participants. There has been a slight decline in the total numbers participating over that time.

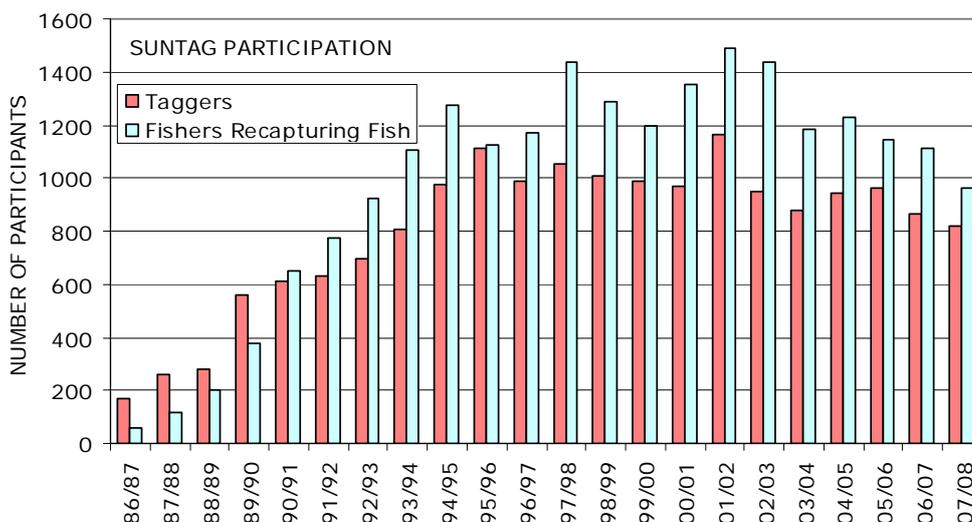


Figure 10: Summary of participation in Suntag from 1986/87 to 2006/07

A total of over 14,346 fishers have participated in Suntag through the capture of a tagged fish. In 2007/08 there were 964 fishers that reported the recapture of a tagged fish with many fishers recapturing more than one fish. *Figure 10* shows the numbers of fishers tagging and recapturing fish each year.

5.3 Suntag Fish Tagged and Recaptured

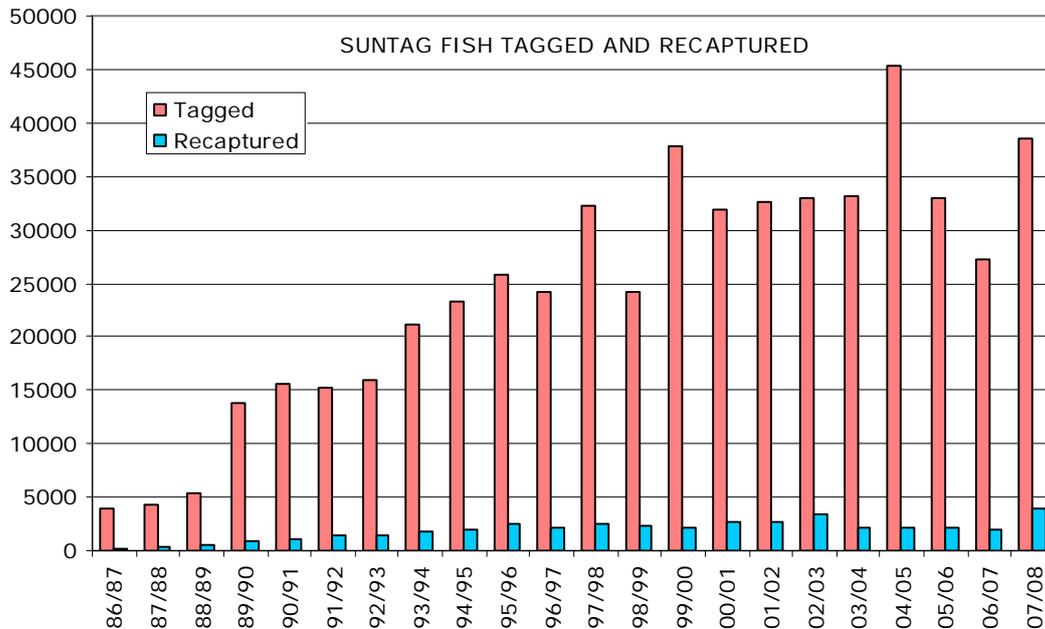


Figure 11: Suntag fish tagged and recaptured since 1986/87

The Suntag database now has over 539,000 tagged fish records. There have been over 42,500 recaptures over the same period. The overall recapture rate is 7.9% however is as high as 12.9% for some species (Red Emperor) and 23% for some locations (Barramundi in 12 Mile Creek). *Figure 11* shows the number of fish tagged and recaptured each year since 1986/87. In 2007/08 there were 38,558 fish tagged and 3,982 recaptures (including multiple recaptures) recorded.

Over the past 9 years there have been over 30,000 fish tagged each year except in 2006/07. This was due to some stocking groups not being able to source Barramundi around 200mm that they could tag and release in batches.

5.4 Suntag Key Species Tagged and Recapture Rates

Barramundi remain as the most tagged species and was the first species where over 100,000 fish have been tagged. The total number of Barramundi tagged is now 161,776 with 9,935 recaptures (11,147 including multiple recaptures). Numbers of Barramundi tagged have been significantly boosted since 2004/05 when large numbers of tagged Barramundi were released into stocked impoundments. The overall recapture rate for Barramundi is 6.1% however is as high as 20.1% in the Fitzroy River estuary in Central Queensland.

Australian Bass is the second most tagged species with 46,171 tagged and 3,687 recaptured and a recapture rate of 8.0%. *Figure 12* shows the number of key species tagged with the corresponding recapture rate.

While many fish are recaptures several times the recapture rate here is based only on a single recapture of each fish. Species with over 5,000 fish tagged that have recapture rates over 10% include Goldspotted Rockcod at 10.5%, Mud Crab at 17.4%, Blackspotted

Rockcod at 12.2% and Red Emperor at 12.9%. Species with recapture rates below 5% include Yellowfin Bream at 4.2%, Pikey Bream at 4.6%, Barred Javelin at 2.8%, School Mackerel at 1.9%, Speckled Javelin at 2.1% and Giant Trevally at 4.0%. Red Emperor has the highest recapture rate of any of the fish species tagged. The recapture rate for Mud Crab is high due to a lot of crabs being recaptured as part of research experiments.

Other species where the recapture rate is over 10% are Crimson Snapper (12.1%) and Saddletail Snapper (12.7%).

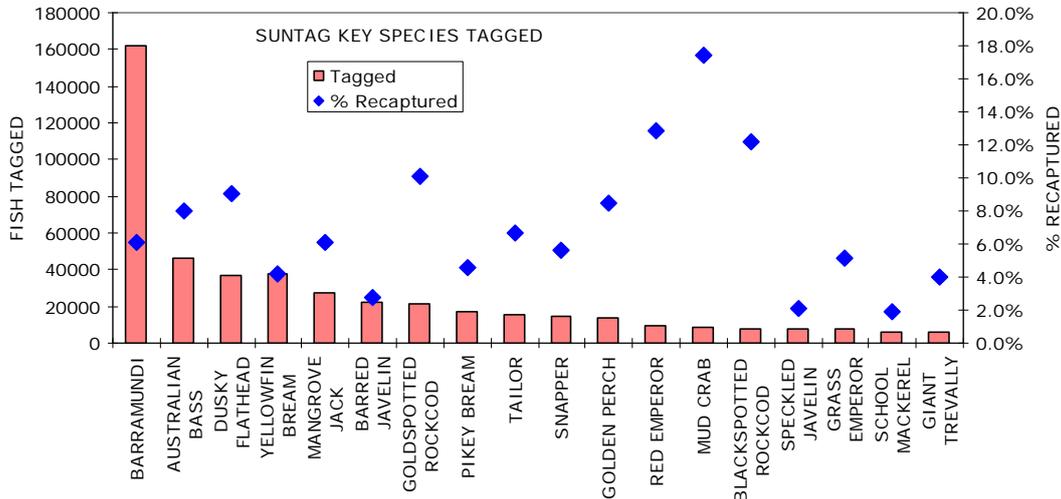


Figure 12: Total numbers of key species tagged and their recapture rate

5.5 Suntag Recapture Rate

The Suntag recapture rate has been used for a number of years as an indicator of fishing effort. While there are many factors that influence the recapture rate most of these are near constant from year to year or small in their effect on the recapture rate. The greatest variable is fishing effort and this can be demonstrated by comparing the recapture rate from heavily fished and remote lightly fished locations.

Figure 13 shows the overall and yearly recapture rates from 1985/86 to 2007/08 for all fish. The overall recapture rate is simply the total number of fish recaptured to that time compared with the total number tagged, while the rate each year is simply the number of recaptures for each year compared with the number tagged in that year. Data from fish tagged in no fishing zones in 2007/08 has been excluded.

The overall recapture rate for all fish species at the end of 2007/08 was 7.6% while the recapture rate for the year was 6.3%. In 2004/05 the low rate of 4.6% was influenced by the large number of small tagged Barramundi (around 200mm) released by stocking groups. That year the fish were generally below the size where these fish are caught and did not get start to get recaptured until 2005/06.

Recapture rates peaked in the mid 1990's and have declined since then. Figure 14 shows the participation rate in recreational fishing in Queensland obtained from the Rfish surveys undertaken by the DPI&F. Arrows on figure 13 show the recapture rates in the same year as the surveys and these show a similar trend. Based on the recapture rate it is likely that participation has remained at similar levels since 2004.

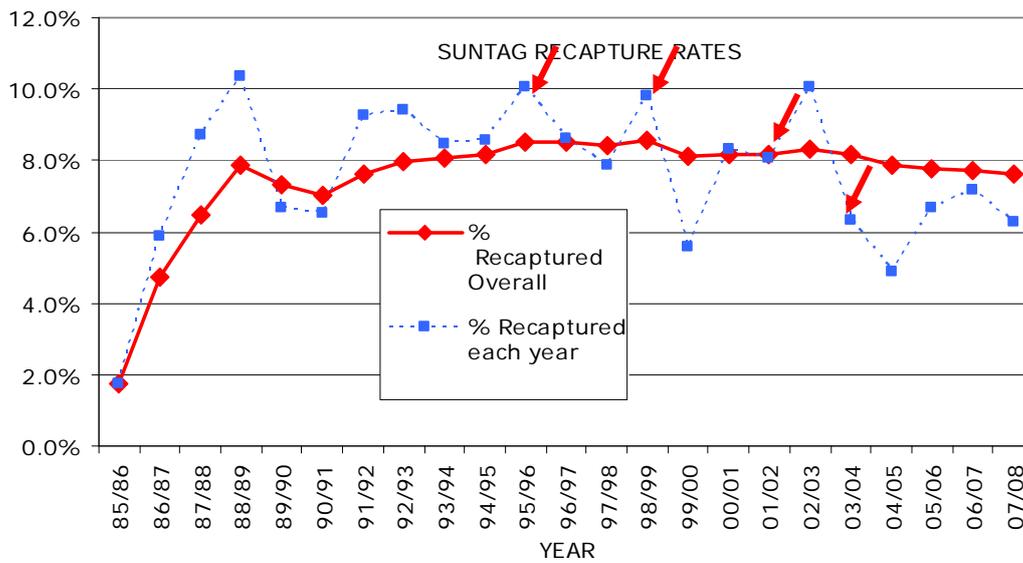


Figure 13: Recapture rate for all fish from 1985/86 to 2004/05

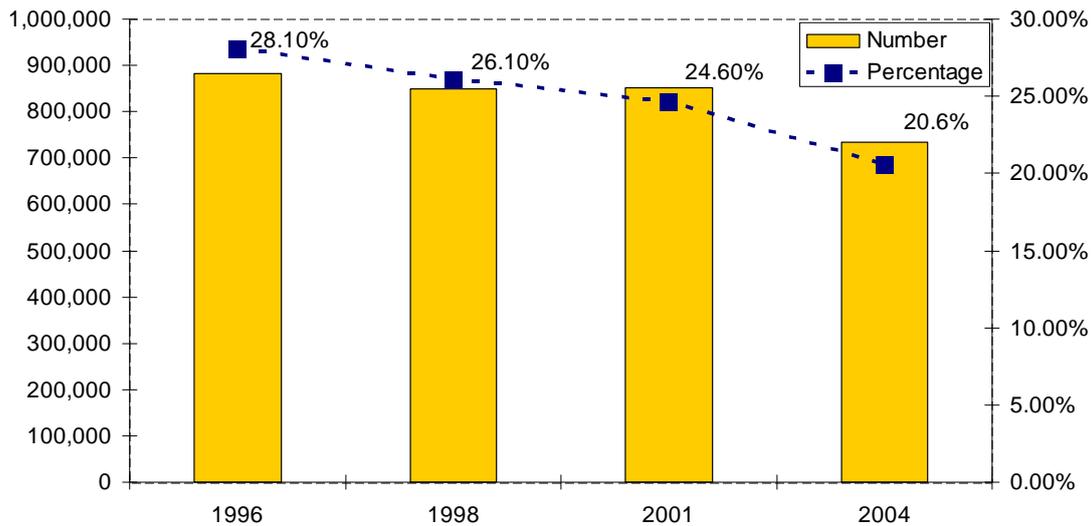


Figure 14: Participation rates in recreational fishing in Queensland from the DPI&F Rfish program

5.6 Suntag Released Fish Rate

The released fish rate has been calculated by comparing the number of recaptured tagged fish that are released to those that have been kept each year however the analysis does not take into account whether the fish was of legal size or not.

Figure 15 shows a comparison of the release rates for ANSA members, recreational fishers other than ANSA members and the combined rates. There is a clear trend among non-ANSA fishers towards releasing more fish with the overall release rate for the past 4 years at just over 60%. ANSA members have had a consistently high release rate of tagged fish of over 90% since 1990/91 however they are now catching fewer tagged fish than other recreational fishers.

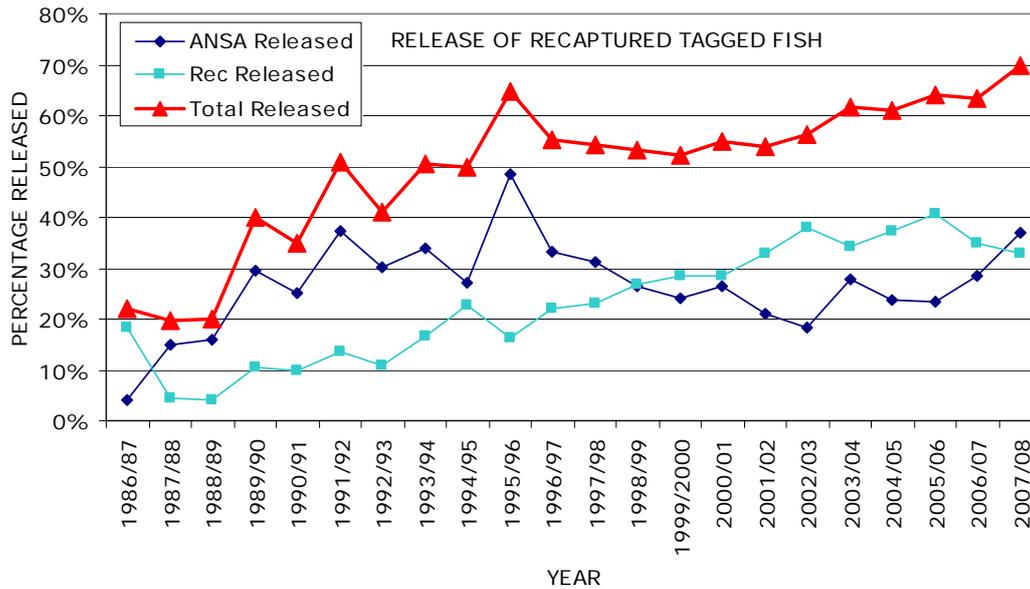


Figure 15: Percentage of recaptured tagged fish released by recreational fishers

5.7 Suntag Tagging Awards

Table 1 shows the taggers that qualified for Tagging Excellence Awards (TEA) during 2007/08. To qualify for the award a tagger must tag a minimum number of fish to reach 2,000 tagging points.

Tagging of 1,000 fish in total is required to qualify as a Frequent Tagger. To date 76 taggers have reached this milestone having tagged over 192,361 fish in total and that is around 35.7% of all fish tagged. This year there were 3 taggers that joined that group as shown in table 2.

Each year a special award is made to the person that tags the most fish. This award is a special shield provided by the QDPI&F. The Award is the Phil Brooks Memorial Award in memory of Phil Brooks who was an avid supporter of the tagging program. Mick Dohnt has been the top individual tagger each year since 1996/97 and has tagged more fish than anyone else with a total of 20,267 fish tagged. However for the first time another individual tagger has tagged the most fish for the year. This was Craig Slattery of Queensland Sportfishers who tagged 1,751 fish.

Details of all Suntag awards and recipients are available on the website www.info-fish.net.

Tagger	Species	TAA Year	TEA Year	Fish	Points
CRAIG SLATTERY	Australian Bass	2001/02	2007/08	819	2457
JOHN NEAL	Barramundi	2000/01	2007/08	880	2640
DAVID HILL	Barramundi	2003/04	2007/08	758	2274
STEPHEN PARKER	Barramundi	1996/97	2007/08	754	2262
CRAIG SLATTERY	Yellowfin Bream	2000/01	2007/08	1282	2564

Table 1: Suntag Tagging Excellence Awards 2007/08

Fisher	Club	Fish tagged
DAVID HILL	Gladstone Sportfishing Club	1215
JAMES BALOG	Captag	1130
JOHN NEAL	Gladstone Sportfishing Club	1094

Table 2: Suntag Frequent Taggers in 2007/08

5.8 Suntag Feedback

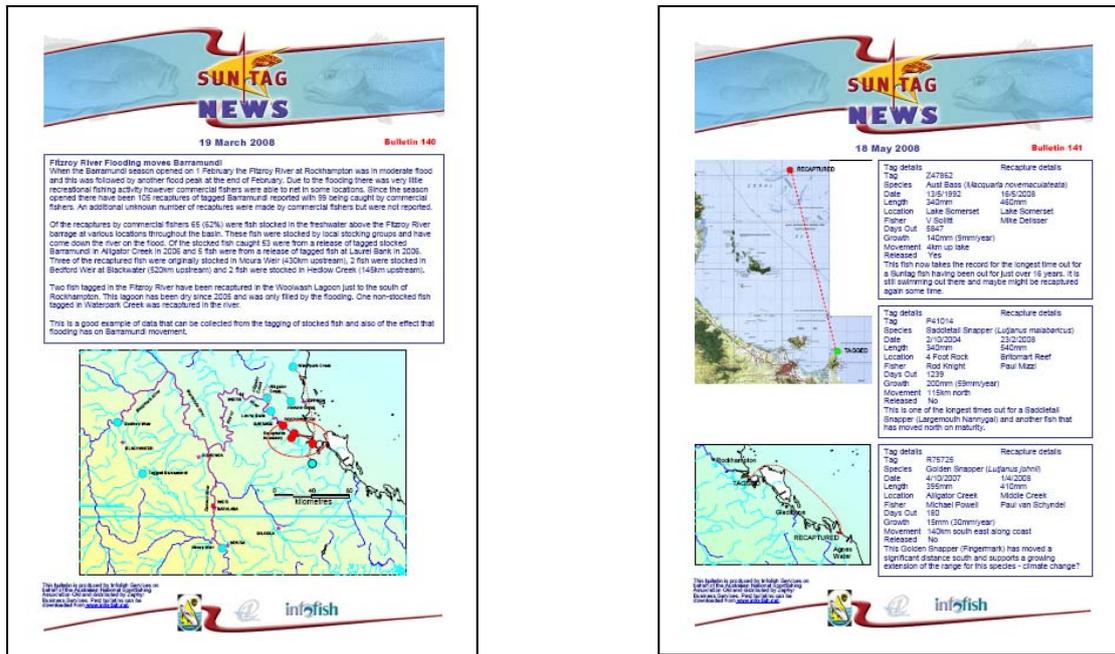


Figure 16: Suntag News bulletin used to provide feedback on interesting recaptures

A total of 4,121 recaptures were recorded in 2007/08. Of these there were 1,900 that were associated with a research project tagging fish in green zones around the Keppel Islands. Feedback on these fish was provided directly back to the research team. For other recaptures the normal feedback process was used.

With the Infotish 2006 database recapture details were able to be forwarded by email to all persons that recaptured a fish with an email address and to taggers with an email address. This allowed details to be forwarded almost immediately after the recapture was reported. Feedback on these recaptures was also provided through a tag and recapture certificate (figure 4), provided to both the fisher recapturing the fish and the tagger. In the past year around 4,000 certificates were sent out (an average of almost 11 per day).

Another form of feedback is through the Suntag News bulletins (figure 16). These are a single page covering interesting recaptures of tagged fish and other items of interest about Suntag. A further 9 News bulletins were sent out in 2007/08 bringing the total number of bulletins to 141. The bulletins are provided by email to over 800 subscribers. Clubs use material from these bulletins in their newsletters and fishing magazines, newspapers and radio fishing shows pick up items as well. Geoff Orr regularly used material from Suntag News in his weekly fishing column in the Courier Mail.

The other main form of feedback is provided through the Infotish-ANSA website which is at www.info-fish.net with the homepage shown in figure 5. Website usage is measured by downloads rather than hits as this provides a more reliable measure of usage. Over the past 18 months downloads have risen from around 1,500-2,000 documents/month to 3,500-4,000 documents/month (figure 6).

5.9 Suntag Project Reports

With the volume of data that is now in the Suntag database there are many significant datasets that are associated with specific projects. Over the past few years Suntag has published reports where there is sufficient data and information that is relevant to our understanding of fish. Many of those reports are now produced in conjunction with other programs such as CapReef (see section 9), reports on monitoring of stocked fish (see

section 6) and reports on fishing competitions such as the Rocky Barra Bounty and Boyne Tannum Hookup (see section 7).

6. Tagging to Support Monitoring of Stocked Fish

During 2007/08 funding of \$40,000 was provided to assist groups to tag stocked fish to increase monitoring of these fish. This funding became available in 2008 and will increase the level of tagging of stocked fish over the next few years. The funding has enabled tags and tagging equipment to be provided free of charge to stocking groups or those targeting stocked fish.

Also during 2007/08 Infofish Services was contracted by the DPI&F to produce 3 reports covering stocked fish impoundments. Two draft reports have been submitted to DPI&F and will be finalised in 2008/09.

One report is titled "Summary of tagging of stocked fish in impoundments and waterways of Queensland 1987-2007" (figure 17). A total of 121,738 fish have been tagged and 6,399 recaptured for an overall recapture rate of 5.3%. The other report is titled "Winter 2007 Fish Death Events: Impact on Stocked Fish" (figure 17). This report provides a summary of fish deaths following a very cold period in July 2007 which saw fish die in impoundments from Mount Isa to south east Queensland.

A further report providing an analysis of the tagging data will be completed in 2008/09.

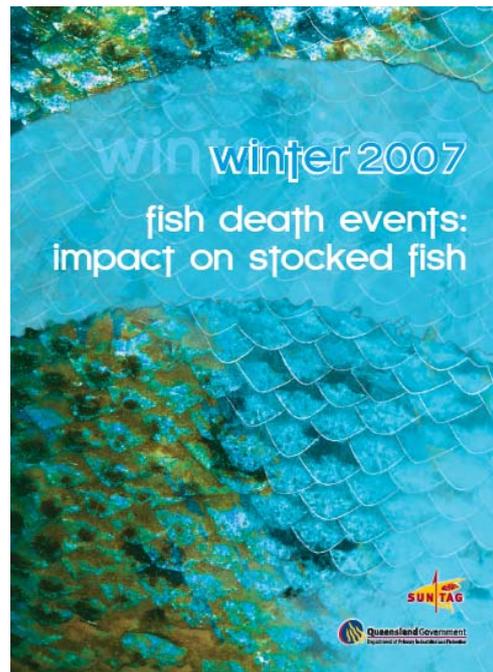
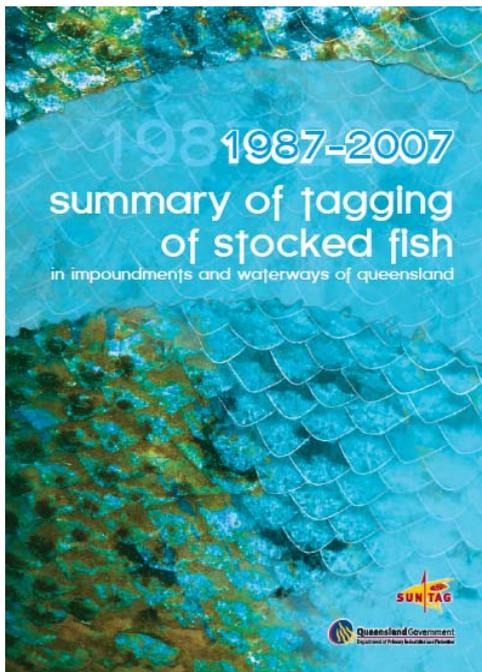


Figure 17: Draft reports on stocked fish tagging and fish death events

7. Fishing Competitions involving Tagging

During 2007/08 there were 6 fishing competitions that included tagging as part of the competition. These were:

- Rocky Barra Bounty in Fitzroy River
- Boyne Tannum Hookup at Boyne Island
- Bundaberg VMR at Burnett Heads
- Marine Old Tinnie 'n' Tackle Fishing Competition in Moreton Bay
- BIAQ Brisbane Boat Show Competition in Moreton Bay
- ANSA NQ championships at Cardwell

The Rocky Barra Bounty targets Barramundi in the Fitzroy River and is held in October each year. The event has been going for 9 years and is a tag and release only event with fish tagged and released where caught with a photograph providing evidence of the catch. Over the 9 years of the event there have been 1,151 Barramundi tagged and with other eligible species total fish tagged are 1,828. A report "Rocky Barra Bounty Results 1999-2007" (*figure 18*) is available from the Infofish website www.info-fish.net.

The Boyne Tannum Hookup is one of the largest fishing competitions in Australia with around 3,000 participants held in June each year. Since 2000 the Gladstone Sportfishing Club has managed a live weigh-in component for this event with these fish being tagged. A total of 2,321 fish have been tagged in that event since 2000. Since 2005 CapReef has also been collecting catch and effort data during the event and have collected details on 854 fishing trips. CapReef has produced a report on the event titled "Boyne Tannum Hookup – Do fishing competitions impact local fish stocks?" (*figure 18*) and a copy of that report is available from the Infofish website www.info-fish.net.



Figure 18: Suntag and CapReef reports on the Rocky Barra Bounty and Boyne Tannum Hookup

The Bundaberg VMR Fishing Competition held in June each year also has a live weigh-in section and for the last 2 years fish presented at the weigh-in have been tagged and released by the Bundaberg Sportfishing Club. A total of 123 fish have been tagged in the 2 events.

The Marine Old Tinnie 'n' Tackle Show is held in April and has a competition that is run in parallel with the show. Fish captured in the competition are put on display in a large tank during the show and then tagged and released after the show. The Bribie Island Sportfishing Club has carried out the tagging for this event over the past 2 years with 170 fish tagged.

The BIAQ Brisbane Boat Show competition follows the same format as the Tinnie 'n' Tackle event and is held in September. The Bribie Island Sportfishing Club also manages the tagging of fish following the show and in 2007 a total of 123 fish were tagged.

The NQ Championships is an ANSA event held at Cardwell each year in June. It is one of the longest running ANSA competitions and probably the first event to include a tagging component. Tagging is carried out where the fish are caught and the tagging records are submitted as part of the competition. Tagging details from the 2008 event are not yet available.

8. Catch and Effort

From 1996/97 Suntag extended its data collection to obtain complete details of fishing trips undertaken by taggers. This covers estuary, offshore and freshwater fishing and provides catch and effort data for those participating. From 2004/05 catch of effort of recreational fishers fishing offshore from Central Queensland has been collected under CapReef (see section 9). From 2007/08 this data collection was extended to estuaries. Data collected under CapReef includes Suntag taggers and these have not been included in the Suntag catches.

Effort is measured by the total time at or on the water, which includes travel time on the water and any time spent collecting bait or doing other things. This is considered to be the simplest means of collecting time and has proven to provide consistent data. This provides a lower catch rate than if fishing time only were used.

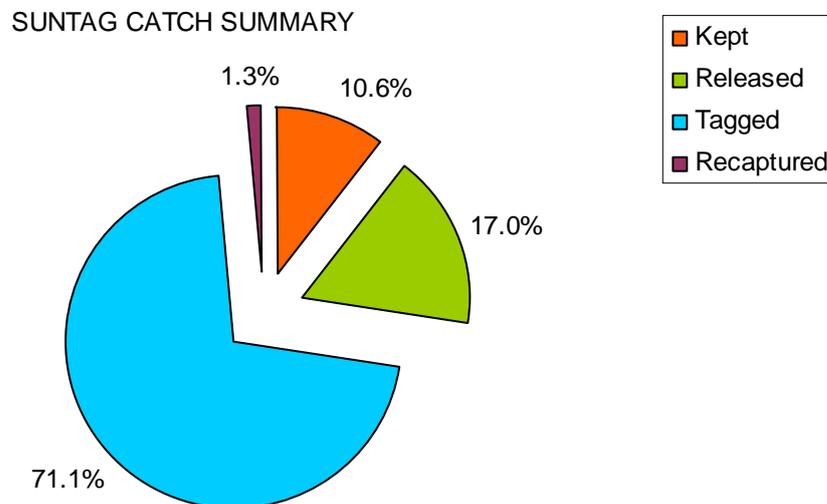


Figure 19: Summary of Suntag catch by fate of fish

A total of 12,390 trips have now been recorded for Suntag taggers providing trip details. The total time spent fishing is 116,016 hours for 119,843 fish caught or 1.03 fish per hour of effort.

The average Suntag tagger trip is 5.6 hours in duration with 1.7 fishers taking part in each trip. On each trip there is an average of 9.6 fish caught of which 1.0 fish are kept.

Figure 19 shows the fate of fish caught by Suntag taggers. On average 10.6% of fish caught by Suntag taggers are kept while 71.1% are tagged and 17.0% are released without tags. However in 2007/08 only 5.1% of fish caught were kept.

Figure 20 shows the total catch and kept catch for participating Suntag taggers each year while figure 21 shows the proportion of fish caught on bait and lures. The catch rate needs to be viewed in conjunction with the fishing method as catch rates are generally higher when using bait. Suntag taggers use lures more often than other recreational fishers.

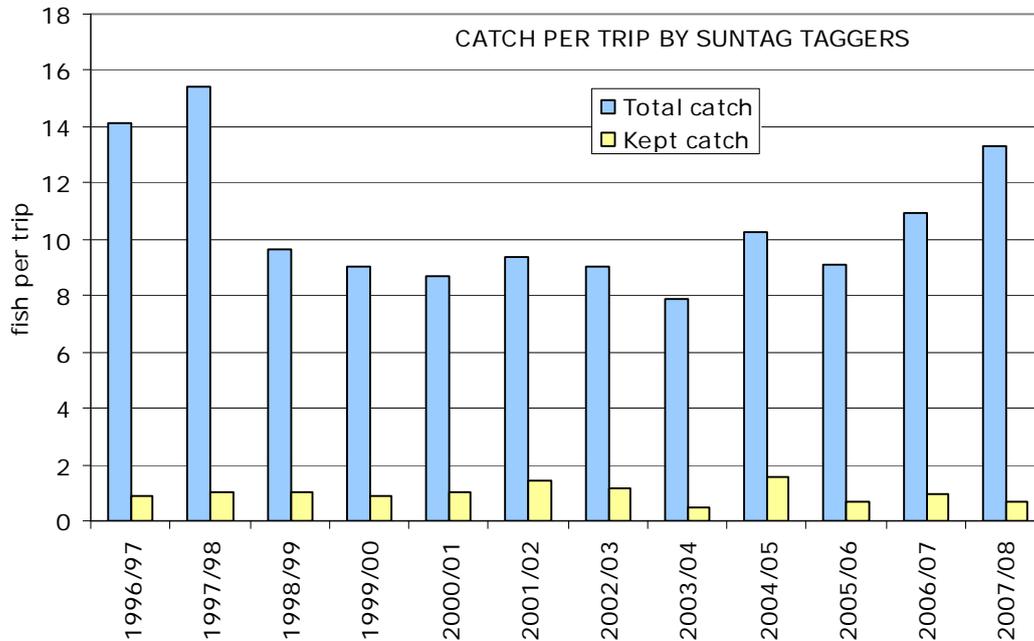


Figure 20: Fish caught and kept by Suntag taggers per Suntag trip

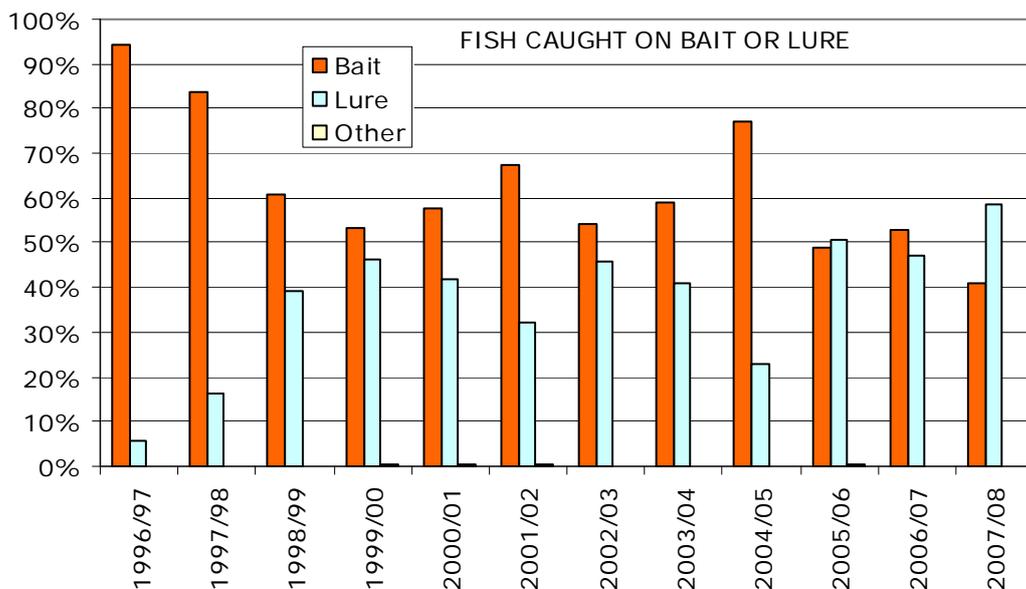


Figure 21: Comparison of fish caught on bait and lures for Suntag fishing trips

The total catch rate in 1996/97 and 1997/98 were higher than the following years. This may be because in those years most of the trips used bait fishing while since then there has been a balance between fish caught on bait and on lures. The rate in 2004/05 is also influenced by more fish caught on bait. Since 2003/04 there has been a steady increase in the total catch rate. The kept catch rate has remained consistently below 2 fish per trip over all years.

Suntag taggers catch rates have been compared with catch rate by CapReef (see section 9) fishers fishing in Central Queensland (figure 22). These catch rates are not directly comparable for 2005/06 and 2006/07 as Suntag rates cover all fishing environments while CapReef rates are for offshore fishing only (where catch rates are higher). However for 2007/08 CapReef data collection was extended to estuaries and freshwater so are more comparable. This indicates that Suntag taggers in 2007/08 caught about the same number of fish per trip as CapReef fishers but keep significantly fewer fish. This is understandable as Suntag taggers tag a large number of fish that they could keep.

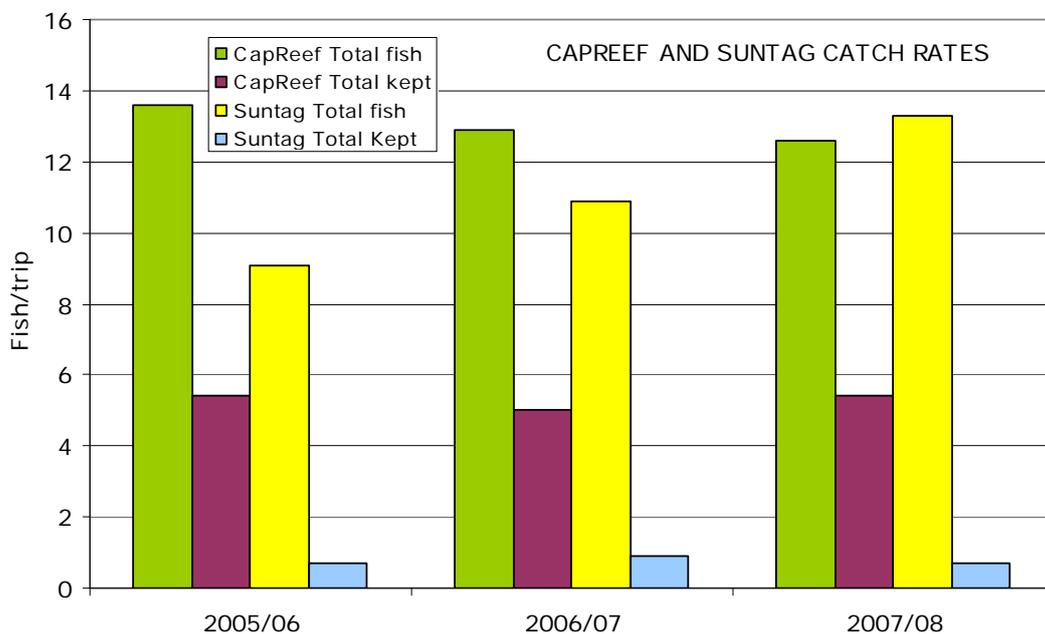


Figure 22: Comparison of Suntag and CapReef catch rates for the past 3 years

9. Community Monitoring - CapReef



This project was established in 2005/06 as a community monitoring program of recreational fishing following the rezoning of the Great Barrier Reef Marine Park and a new management plan for the Coral Reef Fin Fishery in 2004. This project involves all ANSA clubs, some deep sea clubs, other fishing clubs and other community groups in the area.

Data on recreational fishing including catch and effort, social impact of change and expenditure on recreational fishing have now been collected for 3 years to the end of 2007/08. Baited Remote Underwater Video (BRUV) has also been used to collect fishery independent data and this includes obtaining data in no fishing zones (under permit from GBRMPA).

A DVD "Under Capricorn" of some of the highlight footage has been produced and almost 400 copies have been distributed to those that have supported CapReef and others interested in the program.

Data collected through CapReef is maintained in the Suntag database. Fishing trip details have been obtained for 7,950 trips for 12 seasons from winter 2005 to autumn 2008. *Figure 23* shows the seasonal catch rates for offshore fishing trips in the CapReef area of Central Queensland.

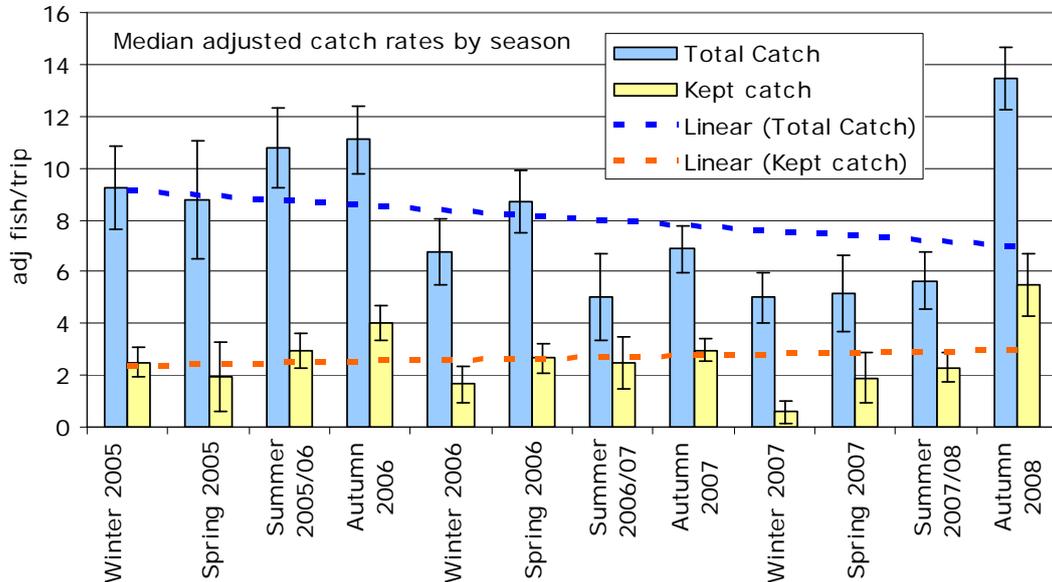


Figure 23: Median adjusted catch rates for offshore fishing in Central Queensland from winter 2005 to autumn 2008

A number of CapReef reports (*figure 24*) have been produced that provide details of the data collected. In 2007/08 these reports were:

- Shoalwater Bay: Fish stocks in southern creeks entering Shoalwater Bay Report 12
- Do river flows affect coastal and offshore catch rates?
- Use of 12 Mile Creek by Barramundi: Effects of Local Climate 1984-2007
- Is what is there what you catch? Update 2008
- Boyne Tannum Hookup – Do fishing competitions impact local fish stocks?
- What is the catch? 2005-08
- How much fishing effort is there? 2005-08

CapReef started out collecting data from Stanage bay in the north to Turkey Beach in the south however in 2007/08 data collection has been extended to Bundaberg. In the Mackay area a similar program called MackReef is being set up and there is interest from the Cairns and Port Douglas areas.

During 2007/08 James Cook University undertook a tagging program in 3 green zones around the Keppel Islands (under permit from GBRMPA) in conjunction with local ANSA clubs working with CapReef. Fish were conventionally tagged, had fin clips taken and were injected with a chemical marker that would allow the green zone they were tagged in to be identified. The aim of the project is to determine any “spillover” from the green zones. Adult fish movement will be obtained through conventional recaptures of tagged fish while larval spillover will be checked by collecting larvae after spawning. The chemical marker is passed from female fish to offspring.

More than 6,000 reef fish were tagged and released during the two fishing periods before and after Christmas. Over 1,900 of these fish were recaptured at least once during the two fishing periods, commonly in close vicinity to the original tagging location.

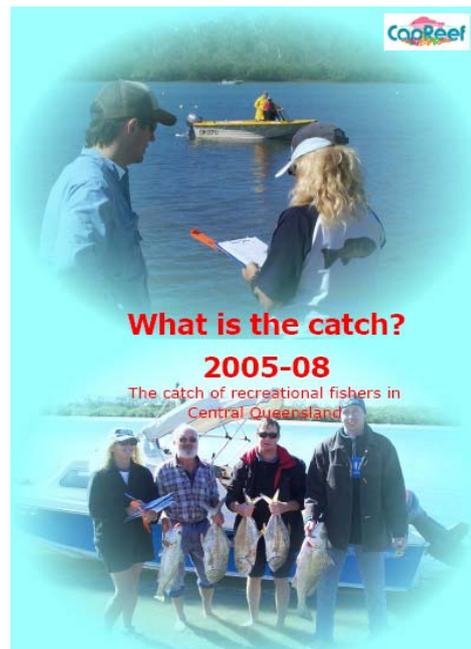
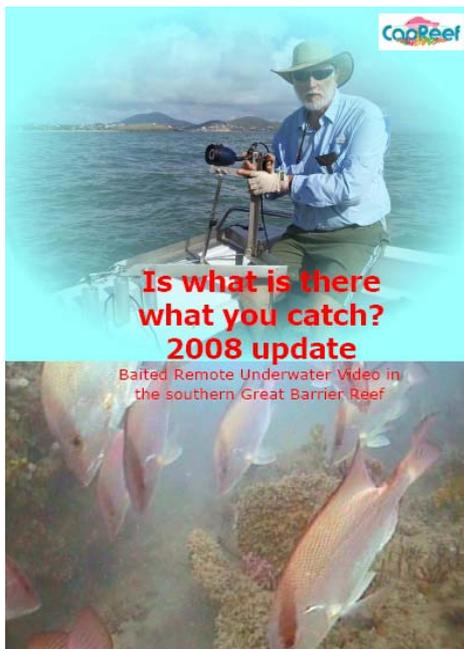


Figure 24: Some of the CapReef reports produced in 2007/08

10. Released Fish Survival

The National Strategy for the survival of released fish wound up at the end of 2007/08 however research into fish survival issues will continue to be promoted through Recfishing Research. Before the strategy there were 4 species (at left in *figure 25*) where the survival rate was known. Following the strategy there are now 19 species where the survival rate is known (*figure 25*). For a number of species survival rates have been determined by a number of different projects.

PERCENTAGE SURVIVAL RATES

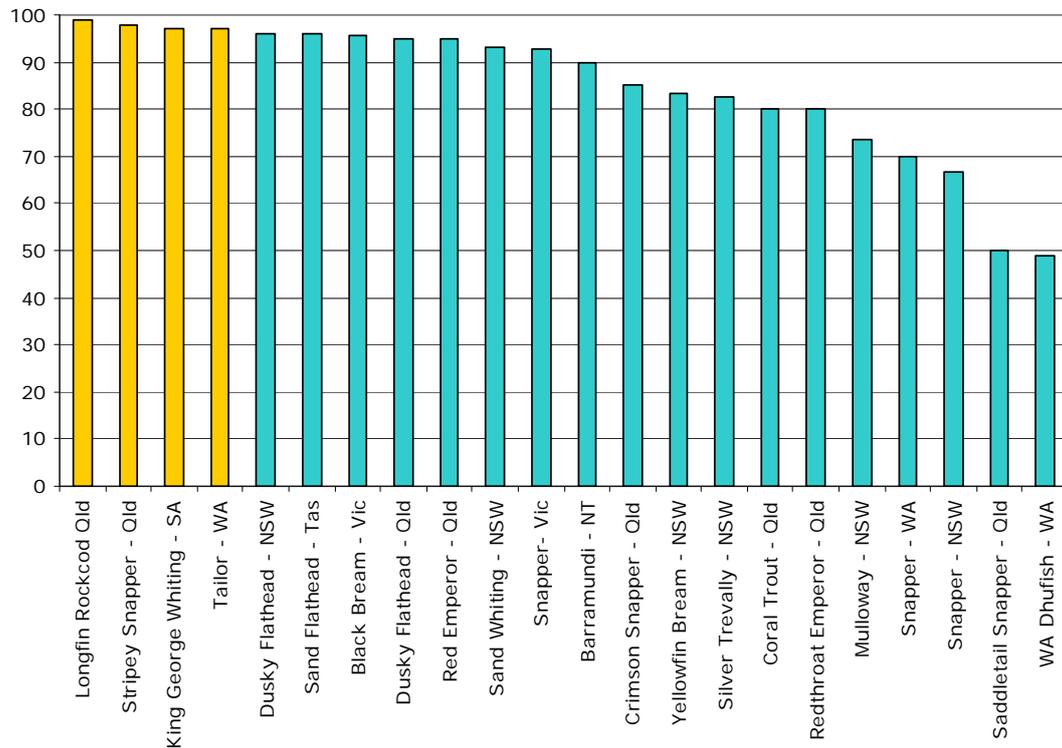


Figure 25: Survival rates from research for key Australian recreational fish species

Deep hooking has been recognised as a major contributor to mortality of fish. Since 2003/04, Suntag has been collecting data for its taggers on hooking locations to assess the level of deep hooking. *Figure 26* shows how hooking locations are categorised in Suntag. Deep hooking is where hooks are lodged in the throat (or gills) or gut.

A total of 47,400 hooking locations have been recorded by Suntag to 2007/08. *Figure 27* provides a summary of hooking locations for using bait or lure. The overall level of deep hooking is 7.3% while for bait it is 11.5% and for lure it is 1.7%. *Table 3* provides a summary of hooking locations for a range of popular species caught on both bait and lures.

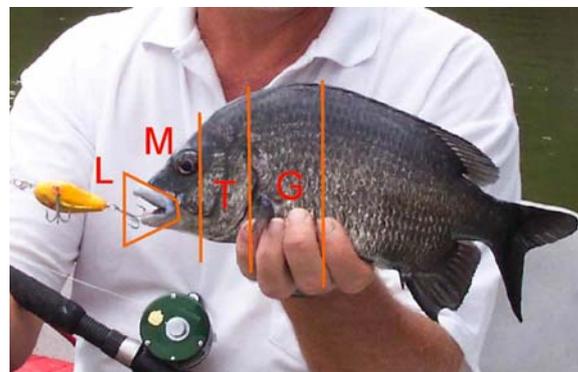


Figure 26: Recording of hook locations and where hooks are lodged in fish using bait and lure

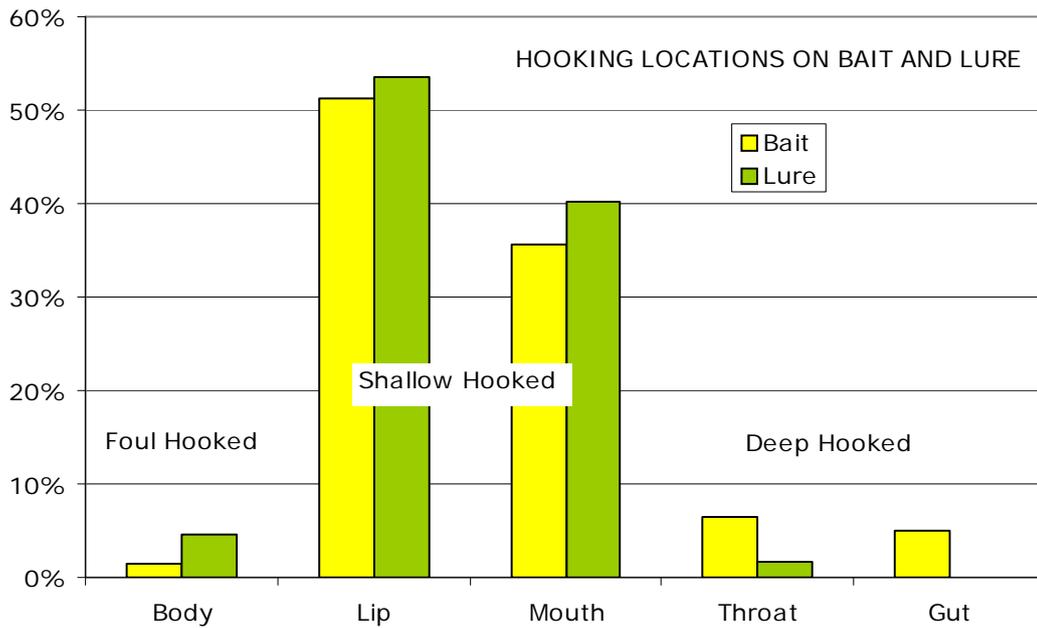


Figure 27 : Summary of hooking location using bait or lure recorded by Suntag

Species	Bait		Lure	
	No of Fish	Deep Hooked	No of Fish	Deep Hooked
Barramundi	523	13.6%	6060	1.7%
Yellowfin Bream	6871	12.5%	1279	0.5%
Dusky Flathead	452	32.5%	4475	2.5%
Red Emperor	1332	8.0%		
Goldspotted Rockcod	1031	17.1%	2016	1.8%

Table 3: Summary of deep hooking rates for a number of popular species

11. Support for Research Projects

As well as the projects already mentioned Suntag in Queensland provides support to a number of research projects. That support is generally in the form of collecting tag and recapture data, long term data storage, and in some projects assistance with the tagging.

In 2007/08 Suntag supported the following research and monitoring projects:

- Tropical reef fish survival being undertaken by DPI&F
- Mud Crab tag and recapture data in the Barron River by Holloways Beach Environment Education Centre
- Sawfish in the Gulf of Carpentaria by DPI&F
- Barramundi and Mangrove Jack in the Johnstone River by DPI&F
- Golden Perch in the Fitzroy Basin rivers by NRW
- Queensland Lungfish and other species being monitored in the Burnett River by DPI&F
- Stocked Bass in Lake Samsonvale at Brisbane by SEQ Water

In 2007/08 there were 7 scientific publications and technical reports (*table 4*) that were published or have been submitted for publication that used data from Suntag.

Paper	Authors	Publication
Anthropomorphism and "mental welfare" of fish	James D Rose	Diseases of Aquatic Organisms : 2007: 13: 130-154
Investigation of factors influencing post-release survival of line-caught coral reef fish using recreational tag-recapture data	Wayne Sumpton, Bill Sawynok, David Mayer, Ian Brown, Mark McLennan, Adam Butcher, John Kirkwood	Final draft
Environmental flows for sub-tropical estuaries: Understanding the freshwater needs of estuaries for sustainable fisheries production and assessing the impacts of water regulation	Compiled by Ian Halliday and Julie Robins	FRDC final report July 2007
FRDC project 2003/019: National Strategy for the Survival of Released Line Caught Fish: Tropical Reef Species	Ian Brown et al	FRDC final report May 2008
Small scale spatial movements of Blue Threadfin, <i>Eleutheronema tetradactylum</i> (Shaw 1804) on the Queensland east-coast.	M. T. Zischke, T. H. Cribb, D. J. Welch, W. Sawynok and R. J. G. Lester	Draft manuscript
Use of a fishery model (FAST) to explain declines in the stocked Barramundi (<i>Lates calcarifer</i>) (Bloch) fishery in Lake Tinaroo, Australia	Andrew J McDougall, Malcolm G Pearce and Mal MacKinnon	Lakes & Reservoirs: Research and Management 2008 13: 125-134
Effects of freshwater flows on the year-class strength of a non-diadromous estuarine finfish, King Threadfin (<i>Polydactylus macrochir</i>), in a dry-tropical estuary	IA Halliday, JB Robins, DG Meyer, J Staunton-Smith, MJ Sellin	Marine and Freshwater Research: 2008: 59: 157-164

Table 4: Scientific papers and technical publications using Suntag data in 2007/08

12. Historical Tagging Data

In 2003/04 as part of the stock assessment of Tailor old tag datasets were captured and incorporated into the Suntag database. This included tagging records from the late 1980's and also data from the 1970's. Data was uploaded to the Suntag database progressively from 2004/05. This provides a single tagging dataset for Tailor that can be interrogated.

During 2007/08, as part of providing a summary of tagging of stocked fish, tagging data collected by the Gladstone Area Water Board from Lake Awoonga since 1996 was incorporated into the Suntag database. This included 14,600 tag records and 225 recaptures.

13. Where to in 2008/09?

The next year will mostly involve a continuation of projects that are currently underway. It is expected that tagging activity in impoundments and stocked waterways will increase significantly as the stocking season commences after winter. The report analysing the tagging data of stocked fish is expected to be completed by the end of 2008.

An application has been submitted to DPI&F to produce a DVD showing the correct tagging procedures. This has been proposed as many stocking groups that are taking up tagging have no experience in tagging and it will be an important training aid. If this is accepted it is expected that the DVD will be available in early 2009.

There will be a moderate upgrade of the Infofish 2006 database to Infofish 2008 to improve database performance. The Infofish website will undergo a major upgrade which will involve a total reconstruction and rebuild of the website. Both these activities are expected to be completed before the end of 2008.

The Infofish website will undergo a major upgrade and feature new services such as online entry of fishing trips.

Two applications to Coastcare have been submitted covering CapReef. If these are successful one of the enhancements proposed is the linking of the database to Google Earth to provide improvements in how data can be displayed and provide feedback on Suntag and CapReef. If funding is received this will be completed mid 2009.

A paper has been accepted for presentation at the 5th World Recreational Fishing Conference to be held in Florida USA in November 2008. The paper is titled "Effects of Climate Change on Fisheries in Central Queensland Australia".



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