

BOYNE TANNUM HOOKUP

2010-2019



INTRODUCTION

The Boyne Tannum Hook Up (BTHU) is the largest family fishing competition in Australia with around 3,000 adult entrants and many more juniors. It is held over 3 days in the May-Jun period each year with headquarters at Bray Park on the Boyne River south of Gladstone. The event is managed by the Boyne Tannum HookUp Management Committee and is a huge undertaking. The committee is congratulated on the success of the event.

The committee has placed a particular emphasis on the sustainability of the event and the fish stocks on which it relies. To that end the committee has funded Infofish Australia to continue data collection at the BTHU.

Infofish has collected tag data since 2000 in conjunction with the Gladstone Sportfishing Club that manage the live weigh-in section of the event. Since 2005 Infofish has undertaken boat ramp surveys at Bray Park to obtain catch details and assess trends in fish stocks and fishing. From 2005-2008 the focus was on offshore trips as part of the CapReef project following the rezoning of the Great Barrier Reef Marine Park. From 2010-2014 the focus shifted to estuary trips as part of the Gladfish project monitoring fish stocks in Gladstone Harbour and adjacent waterways. In 2018 the focus included both estuary and offshore trips as part of Crystal Bowl for the Great Barrier Reef and that focus has continued in 2019.

Cover Photos:

Top – Boyne River looking upstream from Bray Park

Bottom – BTHU headquarters at Bray Park

May 2019



BOYNE TANNUM HOOKUP 2010-2019

SUMMARY

This report has been prepared by Infofish Australia Pty Ltd for the Boyne Tannum HookUp Committee – May 2019.

The following observations are based on the data collected in the BTHU in 2019 (3-5/5/2019) and over the past decade from 2010-2019.

- ✦ Fishers from Gladstone and surrounds from Boyne Island to Mount Larcom accounted for 66.9% of trips and 42.2% of trips were to the Boyne River and South Trees Inlet
- ✦ There were details of 241 trips (197 estuary, 32 inshore and 12 offshore trips) collected through boat ramp surveys and at the live-weigh-in station in 2019 and this was 22.9% of the estimated 1,052 +/- 20% BTHU trips
- ✦ Catch rates for estuary fish caught and for Bream caught have trended upwards over the last decade while the catch rate for kept fish and kept Bream has trended downwards reflecting more fish being presented at the live weigh-in
- ✦ The estuary catch rate was a low of 1.8 fish/fisher/trip in 2011 (during the period of fish health concerns in Gladstone) and a high of 4.1 in 2016 with a rate of 3.7 in 2019
- ✦ The estuary kept catch rate was a high of 0.50 fish/fisher/trip in 2012 to a low of 0.05 in 2019
- ✦ The catch rate for Bream was a low of 0.7 fish/fisher/trip in 2010 and a high of 1.7 in 2016 and 1.7 in 2019
- ✦ There was a total of 423 fish presented at the live weigh-in and tagged including 167 Yellowfin Bream, 41 Dusky Flathead and 69 Pikey Bream
- ✦ For live weigh-in fish tagged and released the average recapture rate for fish released each year ranged from a low of 3.6% in 2010 to a high of 6.3% in 2014 however recapture rates will continue to rise for fish tagged in the past few years as more fish are recaptured in the future
- ✦ For tagged fish released at Bray Park 52.9% were recaptured within 3 months, 76.5% within 10km and 99.0% within 25km
- ✦ There has been a downward trend in the percentage of trophy Yellowfin Bream (over 350mm) and Dusky Flathead (700-750mm) in the catch over the past decade while the percentage of trophy Pikey Bream has been steady overall
- ✦ Inshore and offshore catch rates are indicative only due to low numbers of trips recorded in most years
- ✦ In 2019 for inshore and offshore trips only the kept catch was recorded as historically the estimates of released fish were “guesstimates” and were considered as being unreliable
- ✦ The inshore kept catch rate was a low of 0.7 fish/fisher/trip in 2011 and a high of 2.1 in 2019
- ✦ The offshore kept catch rate was a low of 3.7 fish/fisher/trip in 2010 and a high of 7.1 in 2019
- ✦ There were no offshore trips that reached the individual bag limit of 20 fish while 1 trip reached the individual bag limit of 8 for Redthroat Emperor

SCOPE

This report examines the data collected during the 2019 HookUp (3-5/5/2019) and historical data collected from the past 10 years from 2010-2019. This year analysis included both estuary and offshore trips:

- ✦ Number of surveys compared with estimated trips over the event
- ✦ Estuary catch rates in 2019 and catch rates from 2010-2019
- ✦ Inshore and offshore catch rates in 2019 and catch rates from 2010-2019
- ✦ Key species composition of the catch
- ✦ Home town of fishers
- ✦ Tagged fish and recapture rates
- ✦ Dispersal of tagged fish released from the live weigh-in
- ✦ Size composition of fish tagged at the live weigh-in

BACKGROUND

The Boyne Tannum HookUp was in its 24th year in 2019. It has grown to be the largest fishing competition in Australia with around 3,000 adult entrants. The event has its headquarters at Bray Park near the mouth of the Boyne River. While there are no fishing boundaries most of the estuary fishing occurs from the Narrows in the north to Rodds Harbour (Turkey Beach) in the south while the offshore fishing is mostly off Gladstone.

There are a number of fishing categories including a live weigh-in section that is managed by the Gladstone Sportfishing Club which commenced in 2000. There is also a traditional weigh-in section of gilled and gutted fish.

The BTHU management committee recognises the value and importance of understanding the impact of the event on fish stocks. To that end they have provided Infofish with funding to undertake boat ramp surveys. This year Infofish was also provided funding by the Gladstone Healthy Harbour Partnership to collect data on fish health at the BTHU. This will be reported on separately.

In 2018 a comprehensive report Boyne Tannum HookUp 2005-2018 was prepared by Infofish and is available from the BTHU website at <https://boynetannumhookup.com.au>. This year's report provides data from the past 10 years.

METHODS

Boat ramp surveys were undertaken at the Bray Park ramp and historically at other key boat ramps in the Gladstone area to obtain details of catch and effort. Surveys were also conducted at the live weigh-in station at Bray Park as that provided data from all over the fishing area.

Boat ramp surveys collected the following details:

- ✦ Number of trailers at key boat ramps
- ✦ Date of trip
- ✦ Start and finish times of the trip (time leaving boat ramp and return)
- ✦ For landbased trips the fishing time was recorded
- ✦ Species by number kept and number released for estuary trips
- ✦ Species by numbers kept for offshore trips
- ✦ Lengths were recorded for fish presented at the live weigh-in
- ✦ Home town of fishers

To determine the overall fishing effort during the BTHU total trips in the Gladstone area were estimated. Trailer counts were undertaken at key boat ramps each day and then corrected to total trips per day using a correction factor calculated during the Gladfish project. For other ramps from Ramsay Crossing at the Narrow in the north to Turkey Beach in the south the number of trips recorded from those ramps during boat ramp surveys were used.

Not all trips from boat ramps were taking part in the BTHU. An estimate was made of the percentage of those trips that were associated with the BTHU based on historic boat ramp surveys. Landbased trips were also estimated and corrected to total trips per day using a correction factor calculated during the Gladfish project.

For offshore trips only the fish kept were recorded. In previous years an estimate was also made of the fish released by species. However, it was considered that these estimates were unreliable as they were mostly “guesstimates” and resulted in a high level of inaccuracy and were generally an overestimate. The kept catch was able to be verified by fish counts.

Locations were recorded based on river, creek, harbour or reef etc so that an assessment of locations fished could be made. The species composition of the catch from boat ramp surveys in 2019 was assessed to determine the most caught and kept species.

Data collected at boat ramps surveys included the home town of fishers undertaking fishing trips. Where fishers came from different towns the home town of the boat owner/skipper was recorded. It was noted that in many instances the boat owner/skipper was a local with family members or friends from other centres. As trips were recorded over 3 days many fishers were surveyed more than once so that the home town for trips reflects the number of trips by fishers from those centres.

Data from boat ramp surveys were analysed to determine the catch rate for estuary trips, inshore and offshore trips each year. Catch details were collected as fish kept and fish released for each year's event. Catch rates were then calculated based on fish/fisher/trip.

In previous years the catch rates were calculated based on a standard trip which was the average length of a trip x average number of fishers. However, this approach resulted in a higher estimate than fish/fisher/trip, particularly for estuary trips, as many were of very short

duration that provided an artificial catch at the standard trip level. It is considered that fish/fisher/trip (or day) provides a better estimate of catch rates.

For catch rates data were aggregated to species groups as many fishers were not able to distinguish species accurately. The aggregated Bream data included Yellowfin Bream, Pikey Bream and Tarwhine. The aggregated data for Flathead included Dusky Flathead, Bartail Flathead, Rock Flathead and other Flathead (not specified). The aggregated data for Whiting included Sand Whiting, Goldenline Whiting, Northern Whiting, Winter Whiting and Whiting (not specified).

As Bream recruitment has been adopted for the Gladstone Healthy Harbor Partnership for the Report Card on the health of Gladstone Harbour and surrounds catch rates for Bream over the data collection period were also calculated.

The live weigh-in section involves legal size being brought in alive to the headquarters at Bray Park where they are measured, weighed, tagged and photographed. They were then placed in display tanks where their recovery could be monitored. They were then released at the Bray Park boat ramp periodically during the event. Recaptures of these fish are then recorded to determine dispersal of fish from the release site.

Fish lengths were obtained from tag records and an analysis of size range of fish was undertaken for Bream. The average length of fish of each species was calculated for each year along with the shortest and longest fish recorded.

KEY FISHING AREA

There are no fishing boundaries for fishing in the BTHU however much of the fishing is carried out from the Narrows in north to Rodds Harbour in the south. *Figure 1* shows the key fishing areas around Gladstone where most fishers fished in the BTHU. This year data was collected on inshore and offshore trips as well as estuary trips.



Figure 1: Main fishing area fished in the BTHU in 2019

NUMBER OF BOAT RAMP SURVEYS

Table 1 and figure 2 shows the numbers of surveys each year in the BTHU from 2010-2019. The number of surveys ranged from a low of 201 in 2011 to a high of 519 in 2013 with 241 in 2019. The low number of trips in 2011 reflected the concern for fish health issues at the time. Inshore and offshore trip numbers in 2019 were affected by unfavourable wind conditions, particularly on Friday and Sunday.

Table 1: Numbers of boat ramp surveys from 2010-2019

YEAR	2010	2011	2012	2013	2014
SURVEYS	318	201	348	519	473
ESTUARY TRIPS	167	153	329	441	428
INSHORE TRIPS	134	35	17	52	34
OFFSHORE TRIPS	17	13	2	26	11
YEAR	2015	2016	2017	2018	2019
SURVEYS		316	296	284	241
ESTUARY TRIPS		316	271	200	197
INSHORE TRIPS		0	20	60	32
OFFSHORE TRIPS		0	5	24	12

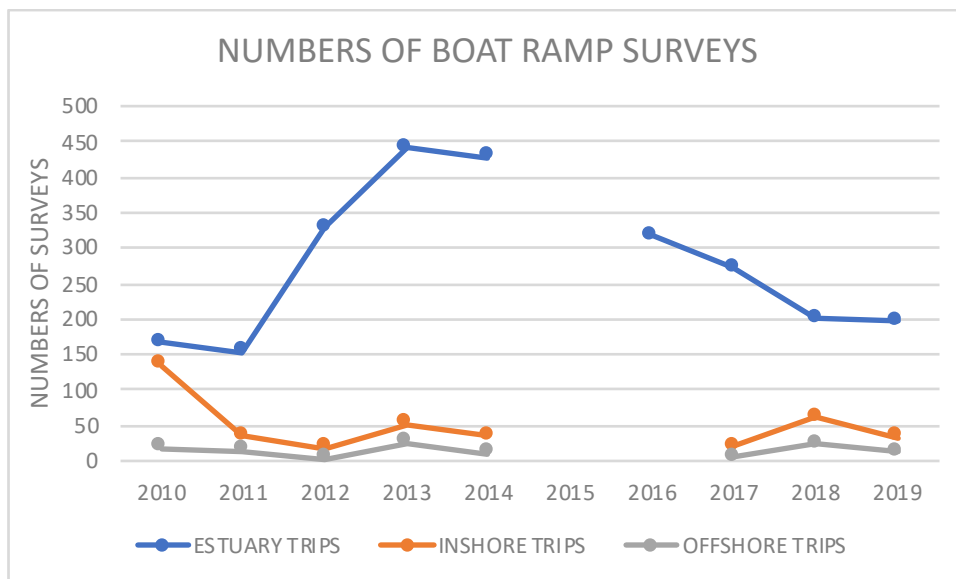


Figure 2: Numbers of boat ramp surveys from 2010-2019

FISHING TRIPS AND SURVEYS 2019

There are 17 boat ramps from Ramsay Crossing at the Narrows in the north to Turkey Beach in the south that were primarily used during the BTHU. For each day the total number of fishing trips in the BTHU, both boat and landbased, were estimated. Figure 3 shows the estimated number of trips each day and overall. The estimated number of trips for the 3 days was 1,052 \pm 20%. The total number of surveys was 241 which was 22.9% of the estimated total number of trips.

Locations fished from boat ramp surveys are shown in *figure 4*. Trips to Boyne River and South Trees inlet were 42.2% of the trips from surveys with 21.5% to inshore locations and 8.1% to offshore locations.

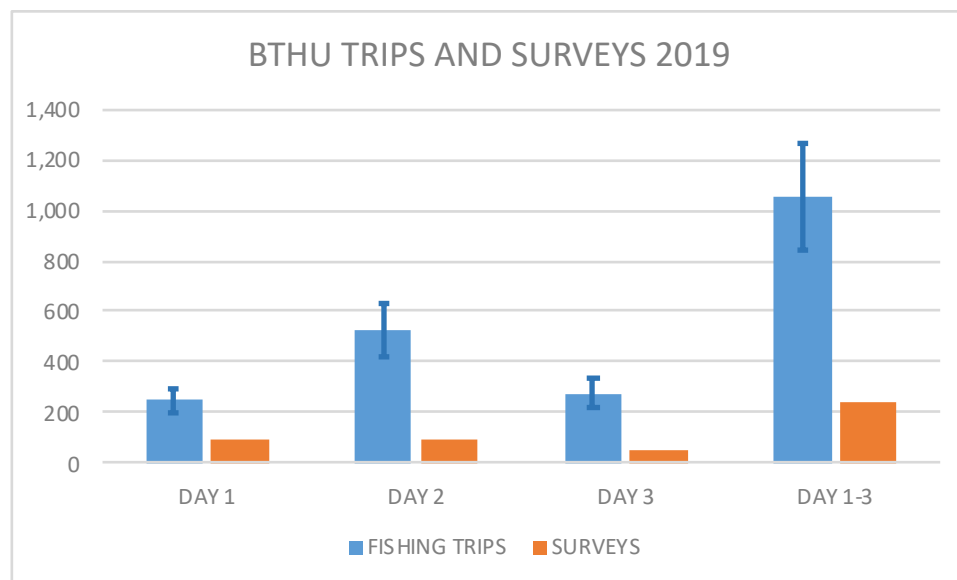


Figure 3: Estimated number of BTHU trips (bars +/-20% of estimate) and boat ramp surveys in 2019

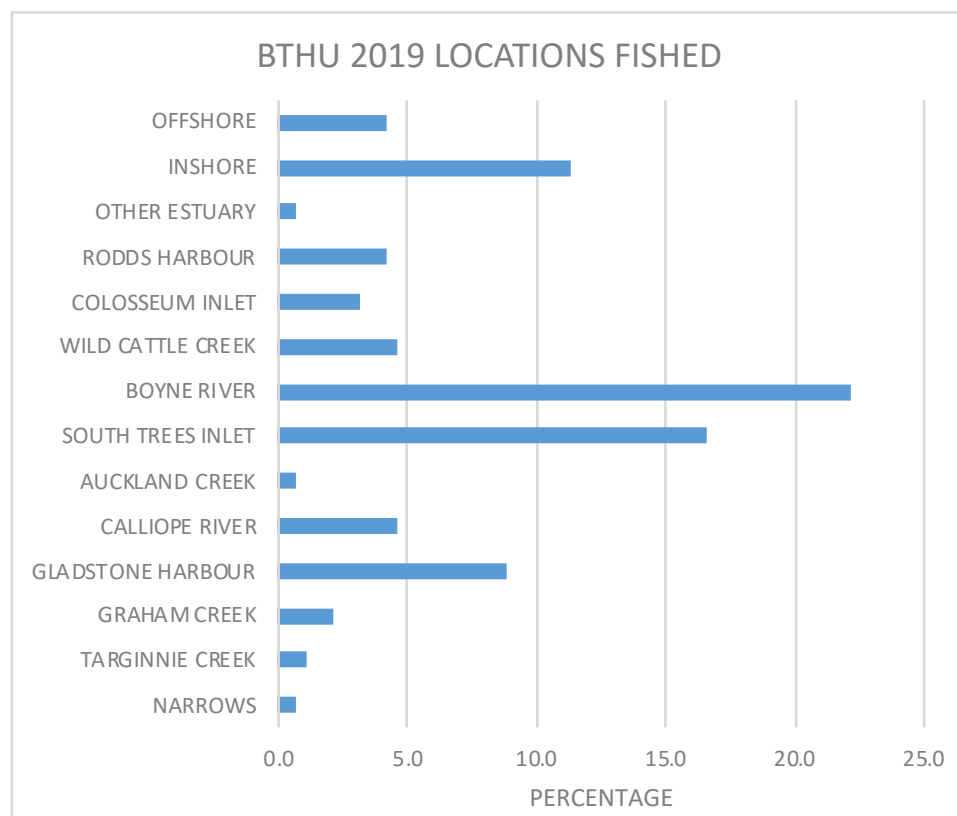


Figure 4: Locations fished from boat ramp surveys in 2019

HOME TOWN OF FISHERS 2019

For 2019 trips the home town of the boat owner/skipper was recorded. *Figure 5* shows the breakdown of the home centre of fishers. The highest number of trips were undertaken by those from Boyne Island/Tannum Sands with 34.9% of trips. For Gladstone and surrounds from Wurdong Heights to Benaraby to Calliope to Mount Larcum the percentage of trips was 32.0%. Total “local” fishers were 66.9%.

While the level of local fishers was high it was fairly common for other fishers in a fishing party to be family members or friends from other locations. Fishers came from as far afield as Mackay in the north to Ballarat in Victoria in the south and Blackwater to the west.

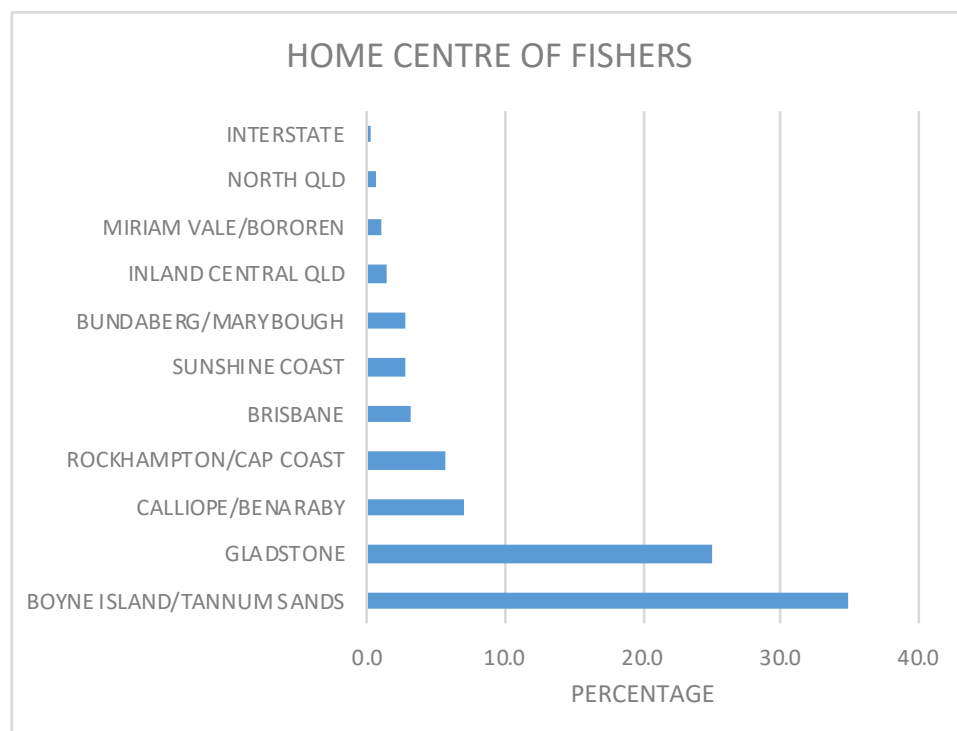


Figure 5: Home centre of fishers fishing in 2019

ESTUARY CATCH RATES 2010-2019

The overall estuary catch rate for 2019 was 3.7 fish/fisher/trip. From 2010-2019 there has been a steady increase in the catch rate ranging from a low of 1.8 in 2011 to a high of 4.1 fish/fisher/day in 2016. The kept fish catch rate for 2019 was 0.05 fish/fisher/trip with just 23 fish kept in 197 trips and the lowest in the past 10 years. *Figure 6* shows the overall catch rates each year from 2010-2019 while *figure 7* shows the kept fish catch rate.

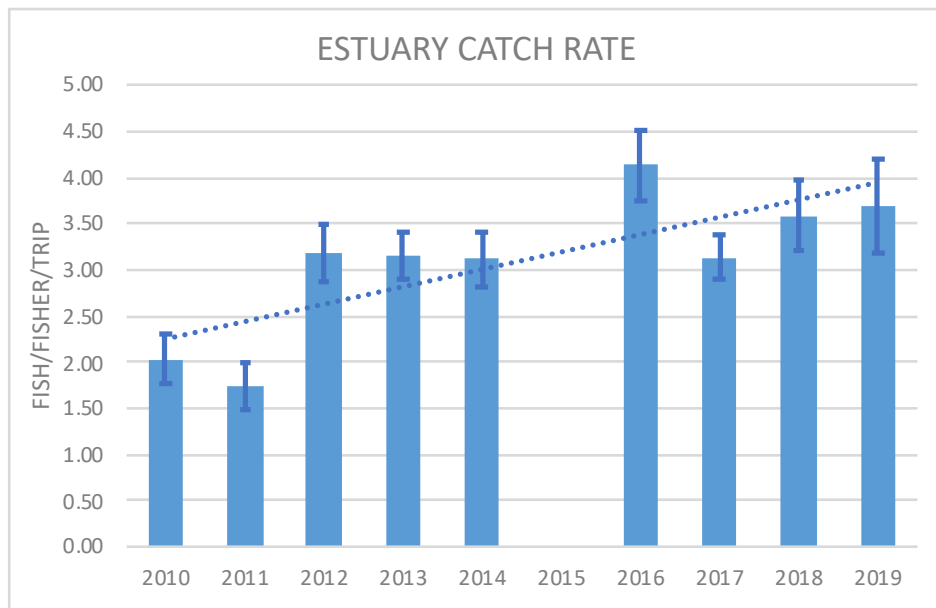


Figure 6: BTHU estuary catch rates from 2010-2019 (bars 95% confidence)

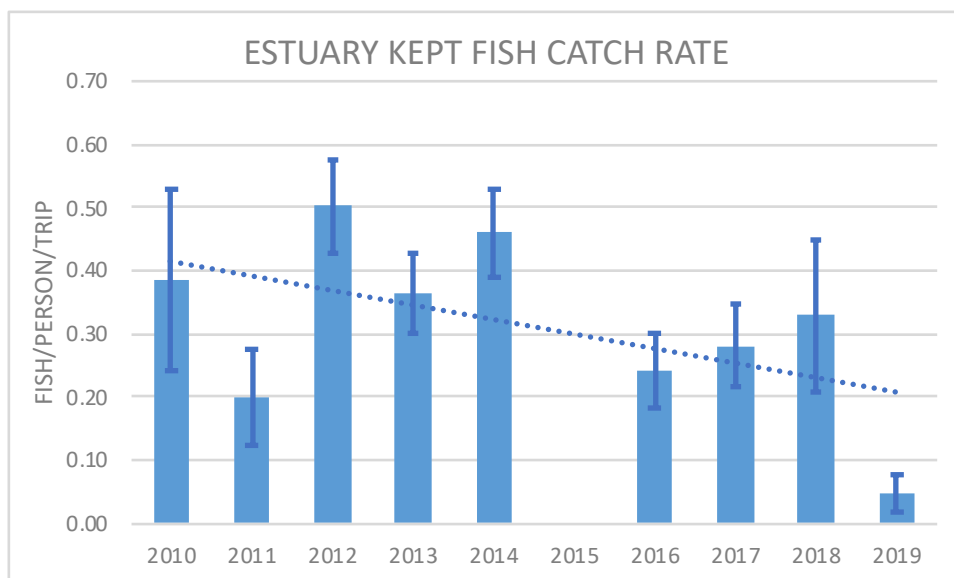


Figure 7: BTHU estuary catch rates for kept fish from 2010-2019 (bars 95% confidence)

It should be noted that 2011 was the height of the fish health issues in Gladstone and fishers were discouraged from keeping fish. There has been a steady decline in the catch rate of fish kept. This has been mainly due to the increased popularity of the live weigh-in over time. In 2019 it was reported that many fishers released fish that were over legal size.

With Bream now being monitored for the report card on the health of Gladstone Harbour the data for Bream were examined in more detail. *Figure 8* shows the catch rate for Bream (all species combined) from 2010-2019. Bream catch rates ranged from a low of 0.7 fish/fisher/trip in 2010 to a high of 1.7 in 2016. The catch rate for 2019 was 1.7 and marginally lower than the 2016 catch rate.

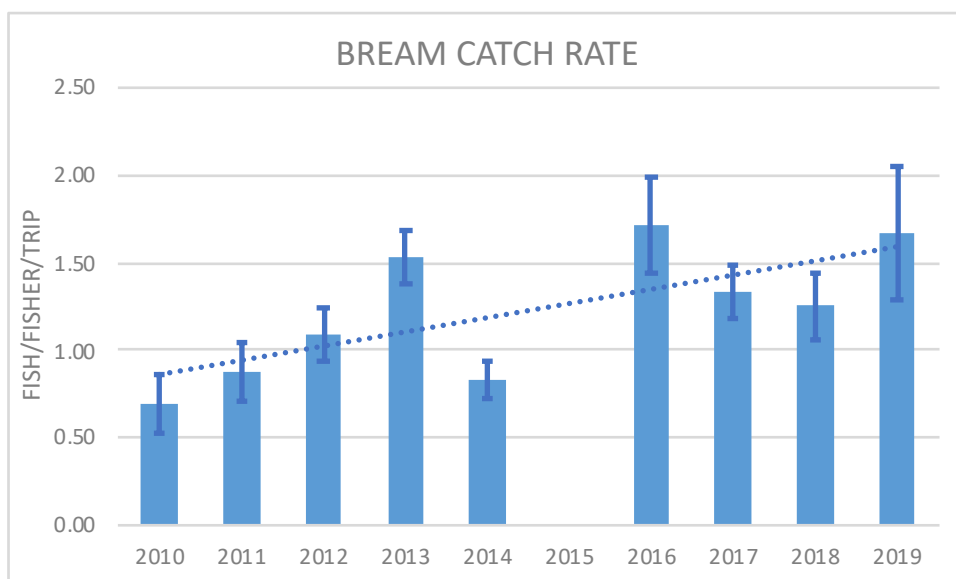


Figure 8: BTHU Bream catch rates from 2010-2019 (bars 95% confidence)

There was a total of 812 Bream (all species) recorded through the boat ramp surveys. Of these there were 183 legal size fish presented for live weigh-in so that at least 22.5% of the Bream recorded were legal. Fishers also reported releasing more legal fish that would increase the percentage of legal fish however the level of that was unknown.

FISH TAGGED AND RECAPTURED 2010-2019

Since 2000 there has been a live weigh-in section managed by the Gladstone Sportfishing Club. From 2010-2019 the number of fish tagged ranged from a low of 248 in 2010 to a high of 672 in 2017 with 423 in 2019. *Figure 9* shows the number of fish tagged each year and the recapture rate for fish tagged in each year. The average recapture rate 2010-2018 was 4.9% and ranged from a low of 3.6% in 2010 to a high of 6.3% in 2014. The recapture rates for the last few years will continue to increase as more recaptures are made.

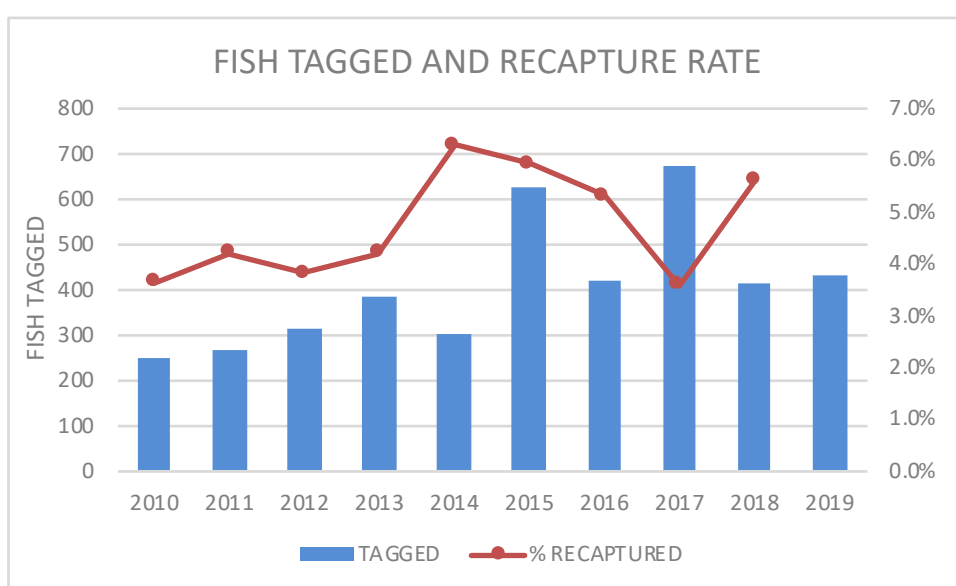


Figure 9: Fish tagged and recapture rates 2010-2019

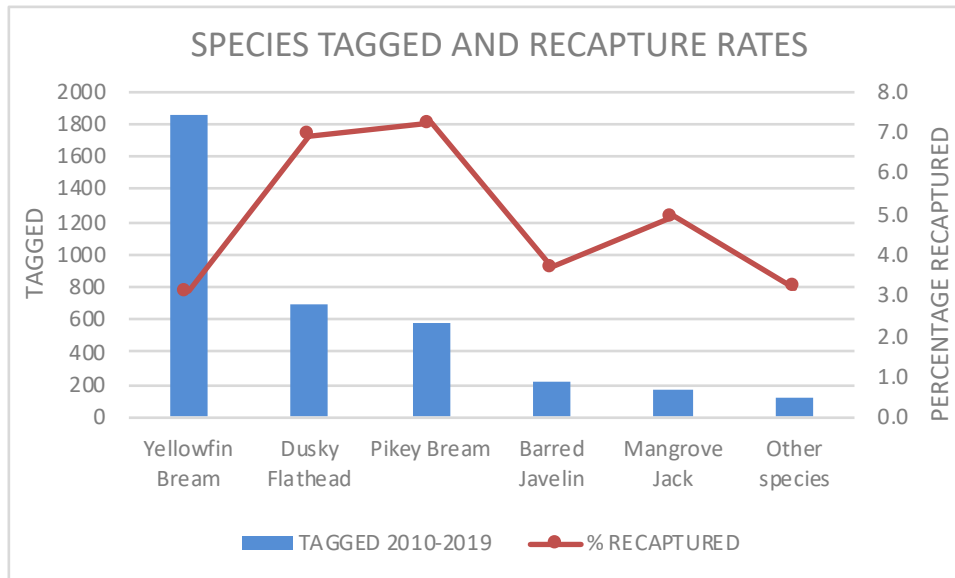


Figure 10: Species tagged and recapture rates 2010-2019

Figure 10 shows the number of fish tagged from 2010-2019 for each key species and the recapture rate. The most tagged species was Yellowfin Bream at 1,855 fish with a recapture rate of 3.1%. The highest recapture rate was for Dusky Flathead at 7.2%. These rates will change as more fish are recaptured from recent year's fish.

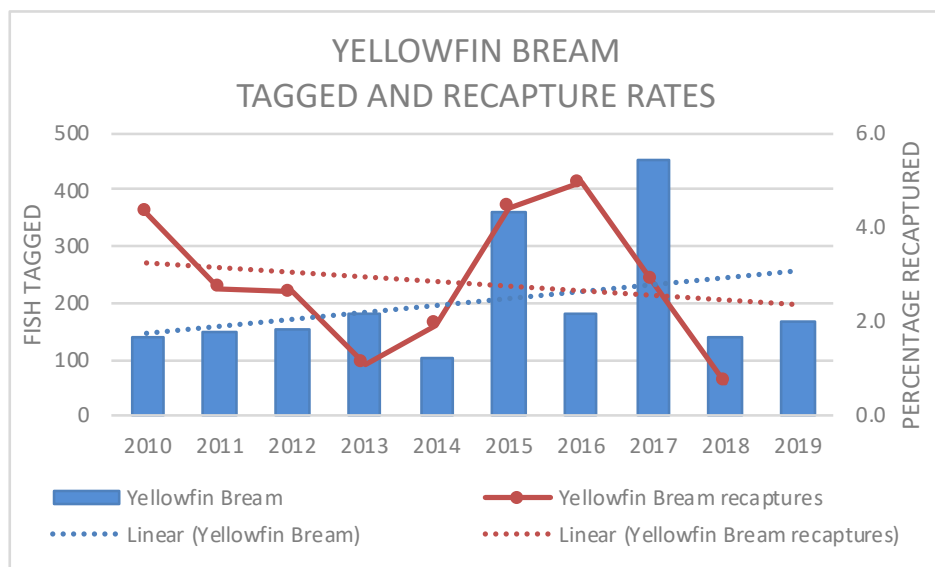


Figure 11: Yellowfin Bream tagged and recapture rates 2010-2019

Figure 11 shows the number of Yellowfin Bream tagged each year and the recapture rate. The most fish were tagged in 2017 at 452 with 167 in 2019. The highest recapture rate was for 2016 fish at 4.9% while it was lowest for 2018 fish at 0.7%. Rates from tagging in recent years will continue to rise.

Figure 12 shows the number of Dusky Flathead tagged each year and the recapture rate. The most fish were tagged in 2015 at 131 with the lowest being 41 in 2019. The highest recapture

rate was for 2018 fish at 12.8% while it was lowest for 2010 fish at 1.8%. Rates from tagging in recent years will continue to rise as more fish are recaptured. There has been a steady increase in the recapture rate for Dusky Flathead over the past decade.

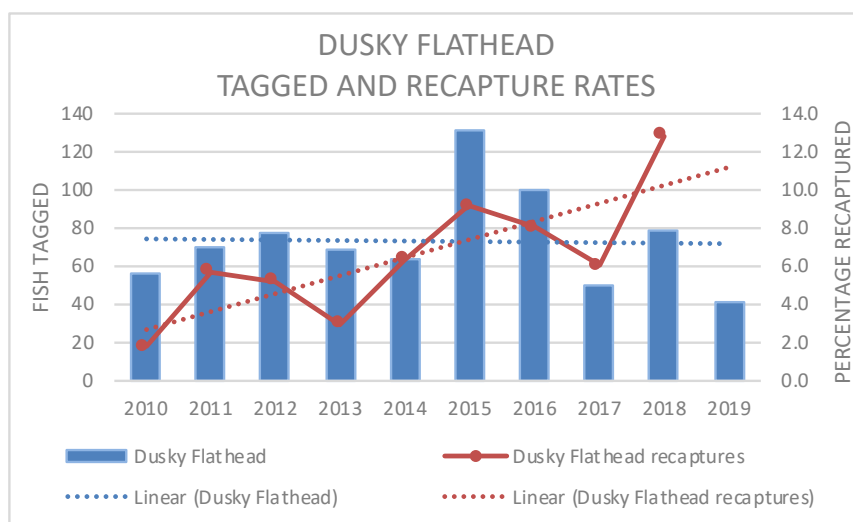


Figure 12: Dusky Flathead tagged and recapture rates 2010-2019

Figure 13 shows the number of Pikey Bream tagged each year and the recapture rate. The most fish were tagged in 2018 at 100 with 69 in 2019. The highest recapture rate was for 2013 fish at 13.6% while it was lowest in 2017 at 2.3%. Recapture rates from tagging in recent years will continue to rise.

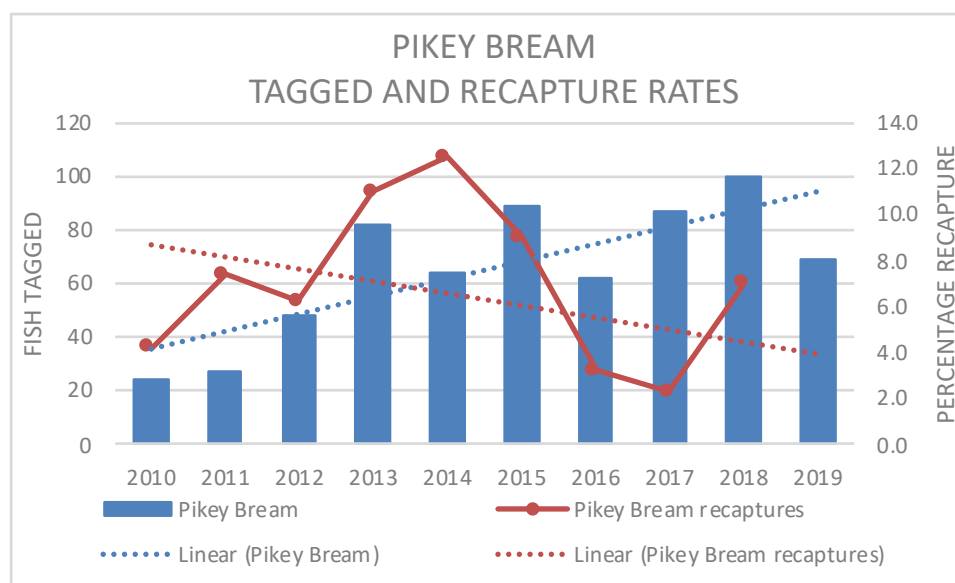


Figure 13: Pikey Bream tagged and recapture rates 2010-2019

DAYS OUT AND DISTANCE MOVED

Since 2000 all tagged fish were released at the Bray Park boat ramp at Suntag map grid BRG M24. From 2010-2018 there were a total of 171 recaptures. Figure 14 shows the days out between tagging and recapture. Of the recaptures 54.6% were recaptured within 90 days (3

months) and 92.0% within 365 days (1 year). Of the recaptures 77.9% were recaptured within 10km and 97.0% were recaptured within 20km of where released as shown in *figure 15*.

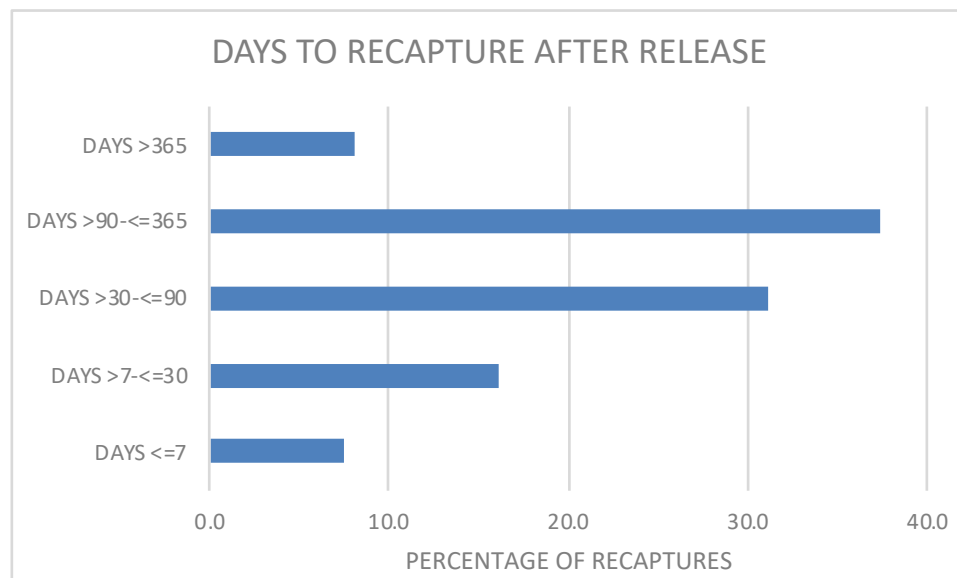


Figure 14: Days out of fish between tagging and recapture

The longest time out was for a Dusky Flathead that was recaptured 762 days (2.1 years) after release. That fish also moved the greater distance that was 70km south to Round Hill Creek.

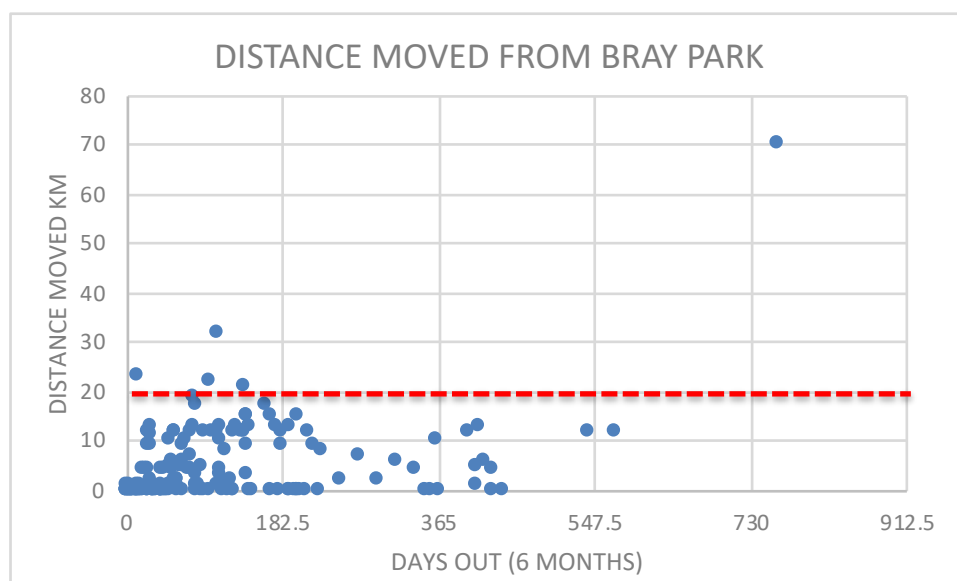


Figure 15: Distance moved compared with days out (red line is 20km)

TAGGED FISH LENGTHS

Average lengths of tagged fish from 2010-2019 were assessed for the top 3 species Yellowfin Bream, Dusky Flathead and Pikey Bream.

For Yellowfin Bream the average length ranged from a high of 313mm in 2015 to a low of 288mm in 2018. *Figure 16* shows the average length of Yellowfin Bream with bars showing

the shortest and longest fish each year. The longest Yellowfin Bream was 465mm in 2010. Bream over 350mm are considered to be trophy sized fish. *Figure 17* shows the percentage of trophy Yellowfin Bream in the catch each year with 19.1% in 2015 and 12.0% in 2019.

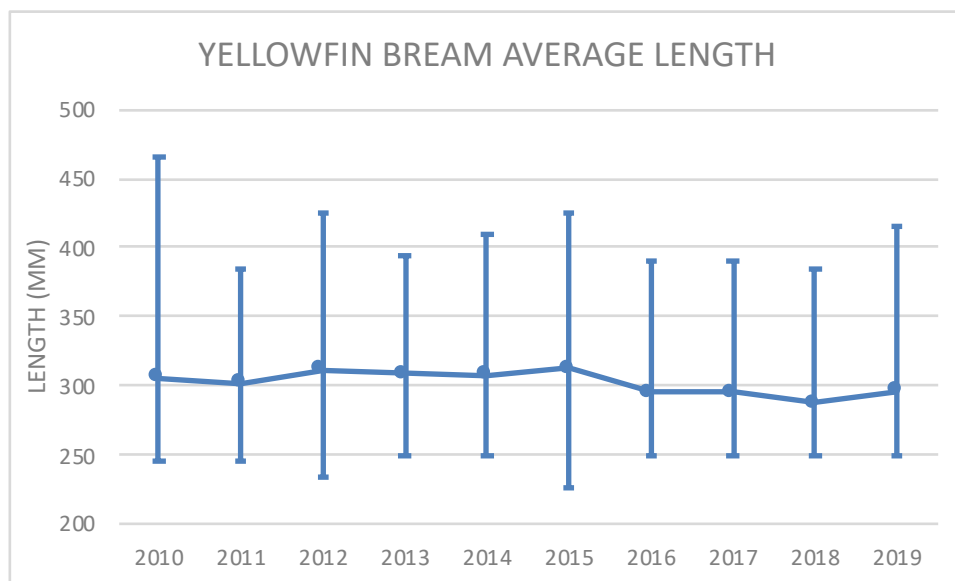


Figure 16: Average length of Yellowfin Bream 2010-2019 (bars shortest-longest fish)

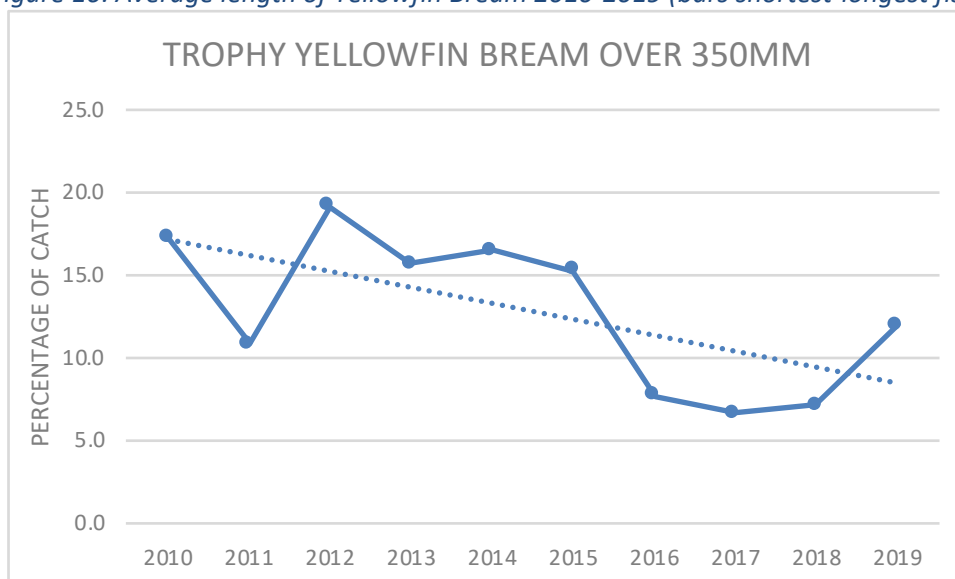


Figure 17: Percentage of trophy size Yellowfin Bream in catch 2010-2019

For Dusky Flathead there is a slot limit for legal fish of 400-750mm so only fish between those lengths were able to be recorded.

For Dusky Flathead the average length ranged from a high of 554mm in 2010 to a low of 509mm in 2019. The average length has declined slightly from 2016-2019. *Figure 18* shows the average length of Dusky Flathead with bars showing the shortest and longest fish each year. The longest Dusky Flathead was 750mm in 2016. Dusky Flathead over 700mm are considered to be trophy sized fish. *Figure 19* shows the percentage of trophy Dusky Flathead in the catch each year with 14.3% recorded in 2010 and 0% in 2019. However, the 42 Dusky Flathead recorded in 2019 was the lowest in the past decade.

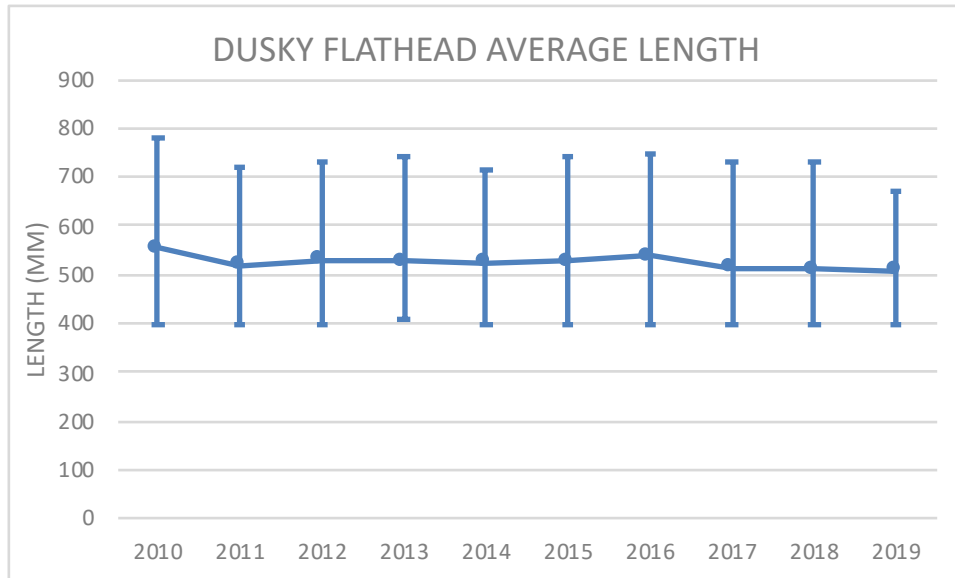


Figure 18: Average length of Dusky Flathead 2010-2019 (bars shortest-longest fish)

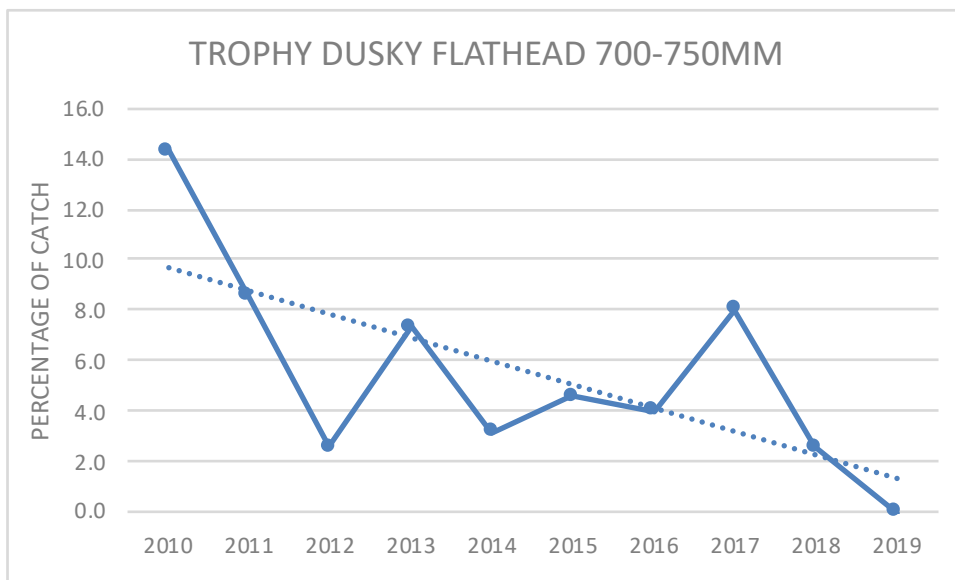


Figure 19: Percentage of trophy size Dusky Flathead in catch 2010-2019

For Pikey Bream the average length ranges from a high of 298mm in 2015 to a low of 281mm in 2018. There has been a decline in the average length from 2015 to 2018. *Figure 20* shows the average length of Pikey Bream with bars showing the shortest and longest fish each year. The longest Pikey Bream was 385mm in 2012.

Bream over 350mm are considered to be trophy sized fish. *Figure 21* shows the numbers of trophy Pikey Bream each year with 7 recorded in 2015 and 5 in 2018.

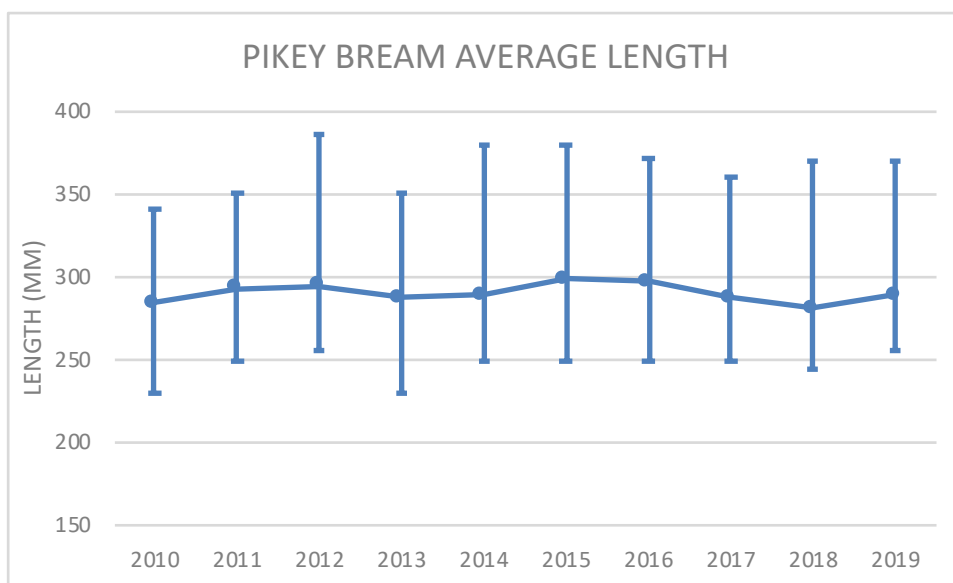


Figure 20: Average length of Pikey Bream 2010-2019 (bars shortest-longest fish)

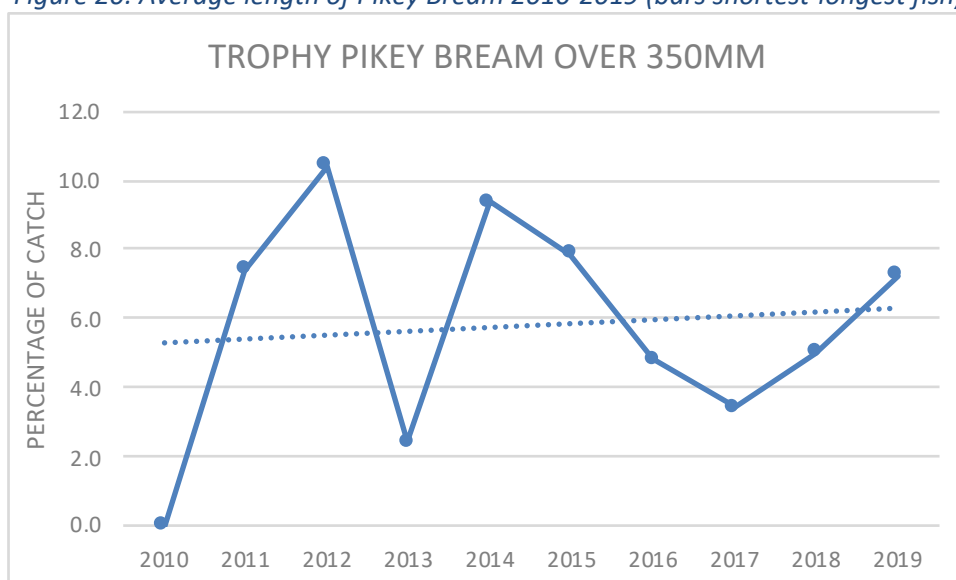


Figure 21: Percentage of trophy size Pikey Bream in catch 2010-2019

Figure 22 shows the percentage of Yellowfin and Pikey Bream in each 2cm size range in 2019. For both Yellowfin and Pikey Bream, the largest proportion of fish were in the 260:279mm size range with 31.1% of Yellowfin and 33.3% of Pikey in that range.

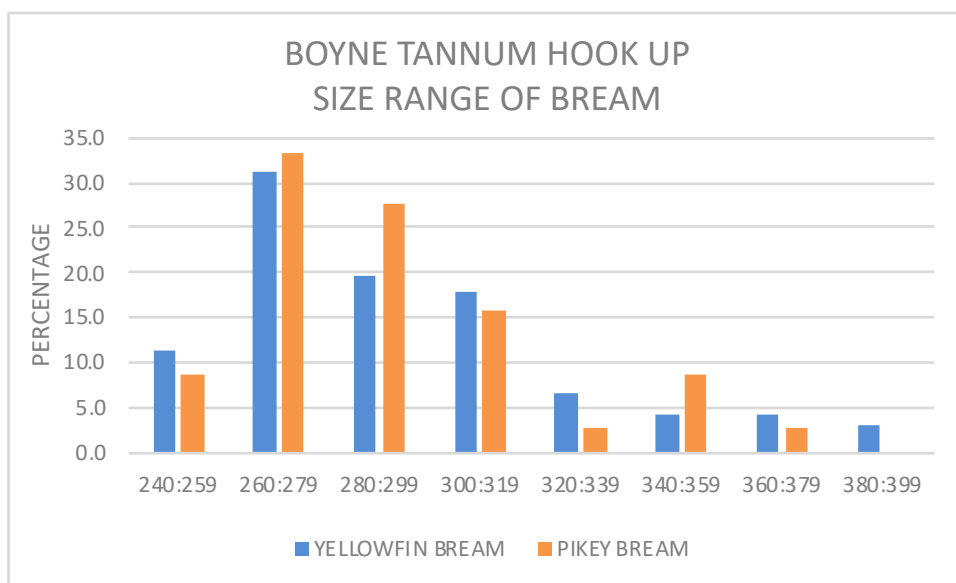


Figure 22: Yellowfin and Pikey Bream in each size range in 2019

OFFSHORE CATCH RATES 2010-2019

Data on offshore trips was previously collected through CapReef, Gladfish and the Crystal Bowl for the GBR projects and continued this year. The number of offshore trips is highly dependent on wind condition. Wind strength on day 1 and day 3 limited the number of offshore trips.

Trips were separated into inshore and offshore trips as shown in *figure 1*. In previous years both the kept catch and estimated release catch were recorded. However, this year only the kept catch was recorded as the estimated released catch was considered to be unreliable.

Figure 23 shows the number of inshore and offshore boat ramp surveys obtained from 2010-2019. In 2019 details were obtained from 32 inshore trips and 12 offshore trips. Due to the low number of trips the catch rates are considered to be indicative only.

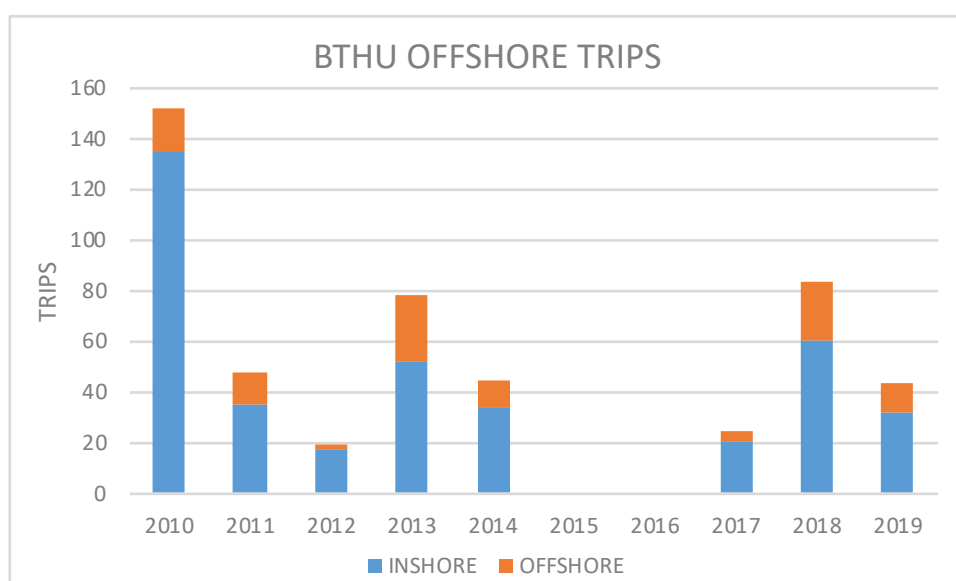


Figure 23: Numbers of inshore and offshore trips surveyed 2010-2019

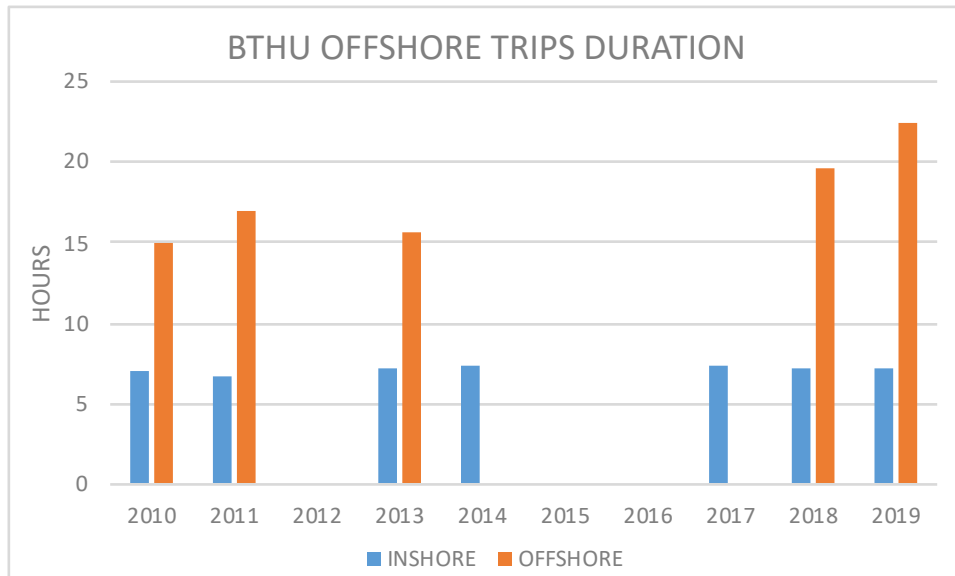


Figure 24: Duration of inshore and offshore fishing trips 2010-2019

Figure 24 shows the average length of inshore trips ranged from 6.2 hours in 2006 to 7.3 in 2014 and was 7.2 in 2019. The average length of offshore trips ranged from 15.1 hours in 2010 to 22.4 hours in 2019 with many trips involving overnight stays around the islands and reefs.

Figures 25 show the kept catch rates for both inshore and offshore trips. Catch rates are limited to the kept catch where numbers were more reliable. The kept catch rate for inshore trips ranged from 0.7 in 2011 to 2.8 fish/fisher/trip in 2017 and was 2.1 in 2019. The kept catch rate for offshore trips ranged from 3.7 in 2010 to 7.1 fish/fisher/trip in 2019. The catch rate for offshore trips in particular should be treated with caution.

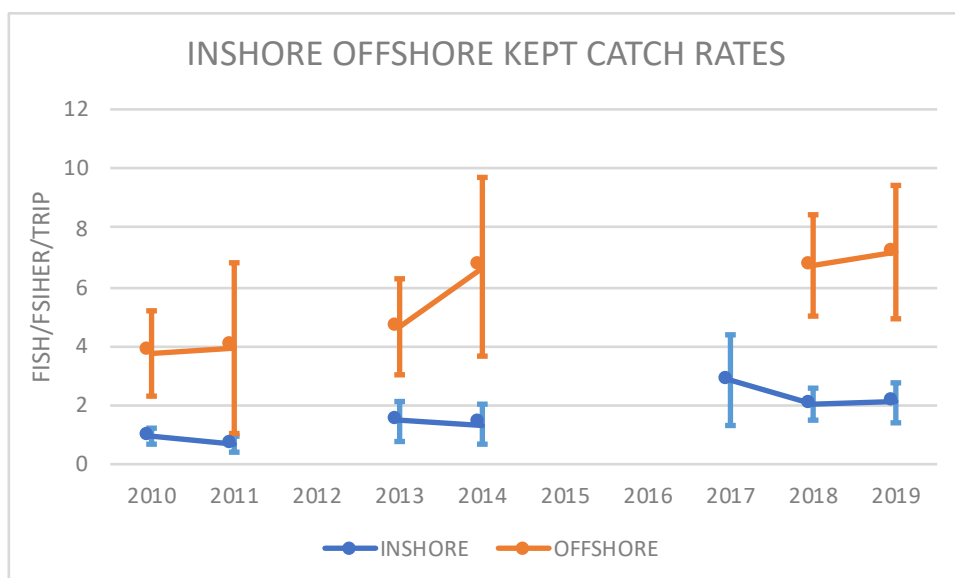


Figure 25: Catch rate and kept catch rate for inshore trips from 2005-2018

The top 3 species for inshore trips were Venus Tuskfish (VT), Grass Emperor (GE) and Redthroat Emperor (RTE) and ranged from 28.9% in 2017 to 54.2% in 2011 and were 43.6% in

2019. The top 3 species in offshore trips were Redthroat Emperor, Venus Tuskfish and Coral Trout (all species) (CT) and ranged from 44.8% in 2013 and 2014 to 68.0% in 2018 and were 64.5% in 2019. *Figures 26 and 27* show the percentage of the top 3 species in the inshore and offshore catch.

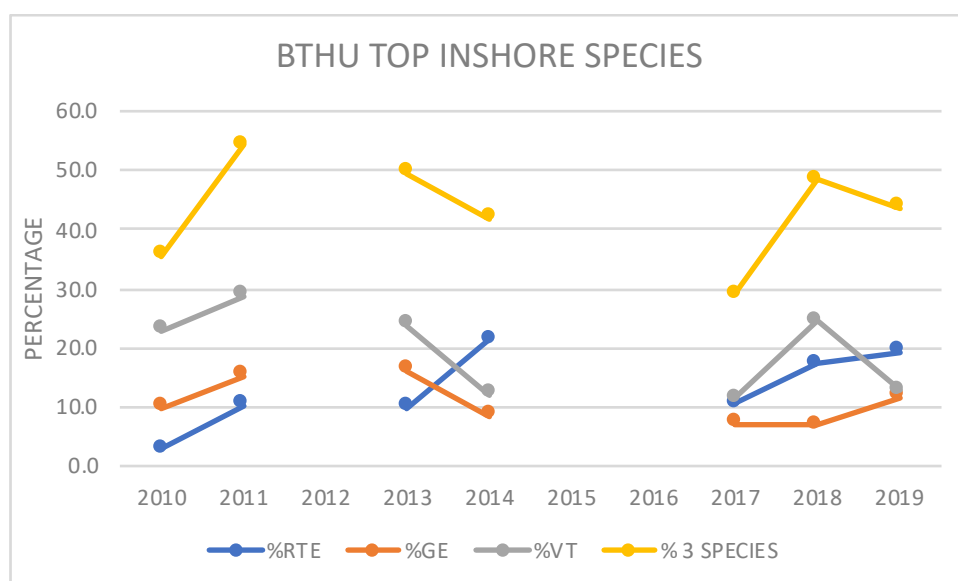


Figure 26: Top 3 species caught in inshore trips from 2010-2019

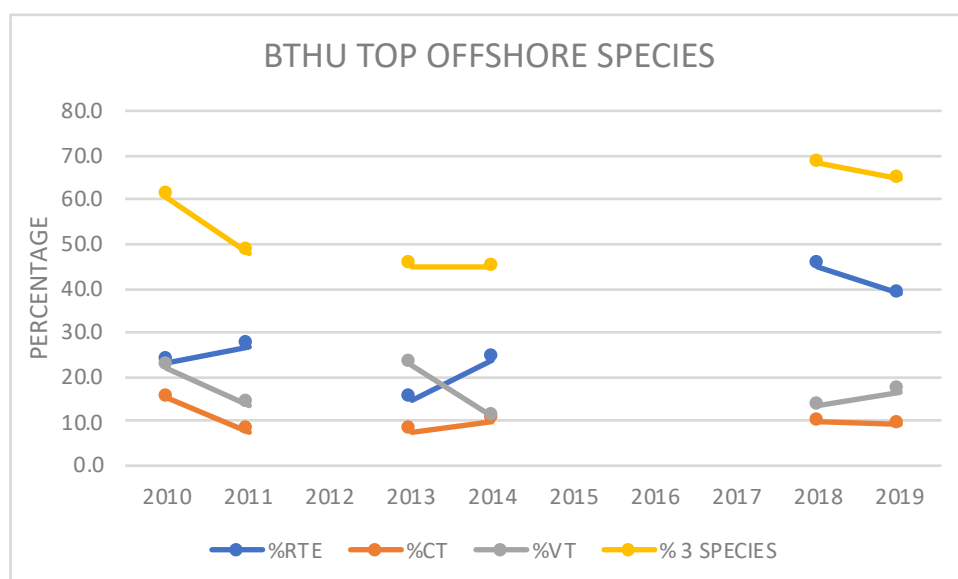


Figure 27: Top 3 species in offshore trips from 2010-2019

For offshore trips in 2019 no trip reached the bag limit of 20 fish/fisher. In 2019 for Redthroat Emperor 1 trip (8.3%) reached the bag limit of 8. Historically Redthroat Emperor were the only species where the bag limit was reached in most years. *Figures 28 and 29* show the kept fish compared to the bag limit for total catch and for Redthroat Emperor.

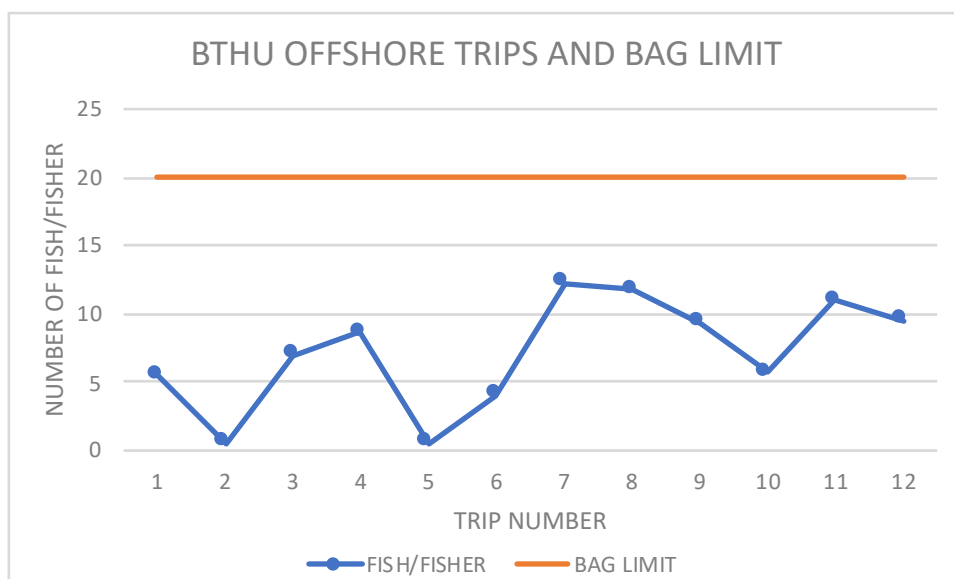


Figure 28: Numbers of fish kept/fisher compared with individual bag limit of 20 fish in 2019

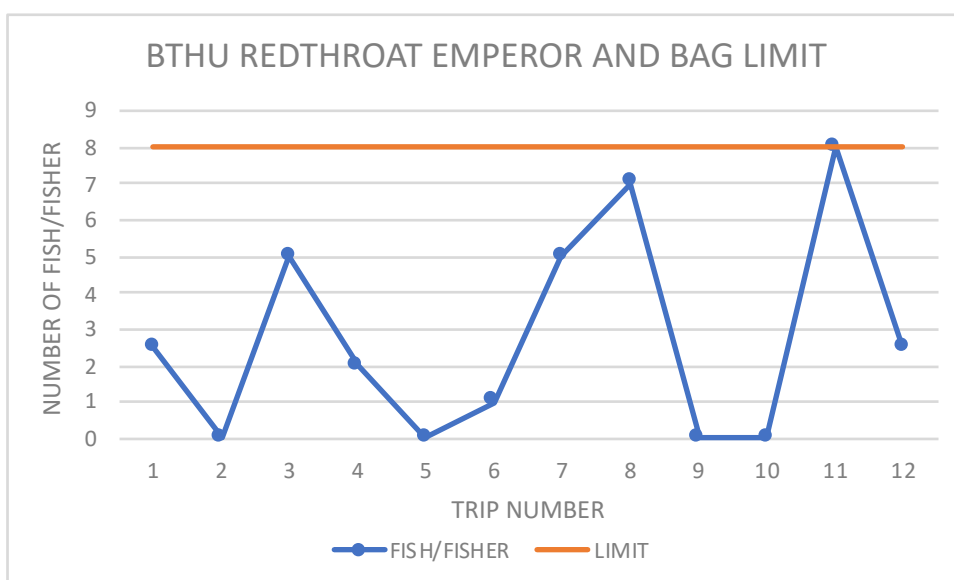


Figure 29: Numbers of Redthroat Emperor kept/fisher compared with bag limit in 2019

DISCUSSION

The BTHU provides an important annual snapshot of the recreational fishery in the Gladstone area. The catch and effort data allows an assessment of trends in catch rates. Catch rates for estuary fish caught and for Bream caught are both trending upwards over the past decade while the catch rate for fish kept has trended downwards. This year the kept catch rate for Bream was particularly low. This has been an ongoing trend over the past decade with more and more fishers presenting Bream for the live weigh-in section.

This may also be a reflection of fewer legal fish but based on conversations with fishers during boat ramp surveys it suggests that more fishers are releasing legal sized fish. This is supported by having 236 legal Bream brought to the live weigh-in this year and released while just 0.05% of Bream caught were kept from the trip surveys.

There has been a downward trend in the percentage of trophy Yellowfin Bream and Dusky Flathead in the catch of those species over the past decade while there has been little change in the percentage of trophy Pikey Bream.

While there are gaps in data collected for inshore and offshore trips and the numbers of trips where catch rates were available the kept catch rates for both inshore and offshore appear to have remained steady over the past decade. This year only details of the kept catch were recorded due to poor estimation of released fish. No offshore trips reached the individual bag limit of 20 fish/fisher while 1 trip reached the individual bag limit for Redthroat Emperor of 8 fish/fisher.

With long term data now being available from the BTHU it is important that data continue to be collected, as this is a cost effective means of obtaining an annual snapshot of the Gladstone fishery. It is also important to obtain data from as many sources as possible to provide a fuller understanding of different elements of the fishery.

DATA SOURCES

Data collected at the Boyne Tannum Hook Up:

- ✦ Catch and effort boat ramp surveys for fishing trips by Infofish Australia from 2005-2019
- ✦ Tagging data from live weigh-in by Gladstone Sportfishing Club from 2005-2019
- ✦ Catch details collected by Infofish Australia for the Gladstone Healthy Harbour Partnership fish health monitoring project
- ✦ Data are stored in the Infofish Australia database at <http://qld.info-fish.net>.