



# Northern Prawn Fishery Data Summary 2017

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NPF Industry Pty Ltd on behalf of the Australian Fisheries Management Authority (AFMA)

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April 2018

AFMA

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# Northern Prawn Fishery Data Summary 2017

## Preface

### Scope of the Report

This document summarises catch and effort information for the Northern Prawn Fishery (NPF) in 2017, including data relating to interactions with threatened, endangered and protected (TEP) species. The data summary provides an important mechanism for providing feedback to stakeholders on logbook data received by AFMA. In addition, the process of data extraction and analysis assists in identifying data quality issues where they exist and also assists in ensuring that data needs for fisheries management continue to be met.

AFMA has produced data summary reports for the NPF on an annual basis since 1999. As part of the AFMA/NPF co-management arrangements in the NPF, this is the ninth year NPF Industry Pty Ltd has been responsible for development of the data summary.

### Acknowledgements

Production of this report was made possible through the efforts of the skippers, vessel owners and Crew Member Observers of the NPF. Skippers supplied daily logbook information and vessel owners completed Season Landing Returns. Crew Member Observers supplied information on a voluntary basis whilst undertaking their daily duties, on interactions with TEP species and species identified as 'At-Risk' through the Ecological Risk Assessment process. Thanks to staff from Datafix Canberra for processing of log sheets and Season Landing Returns. Thanks also to staff from AFMA's Data Management section for their review and assistance with data management activities.

If you have any comments or queries on this, or any other data summaries, please do not hesitate to contact:

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Also note that this Data Summary is available on AFMA's website at  
<http://www.afma.gov.au/fisheries/northern-prawn-fishery/data-summaries/>.

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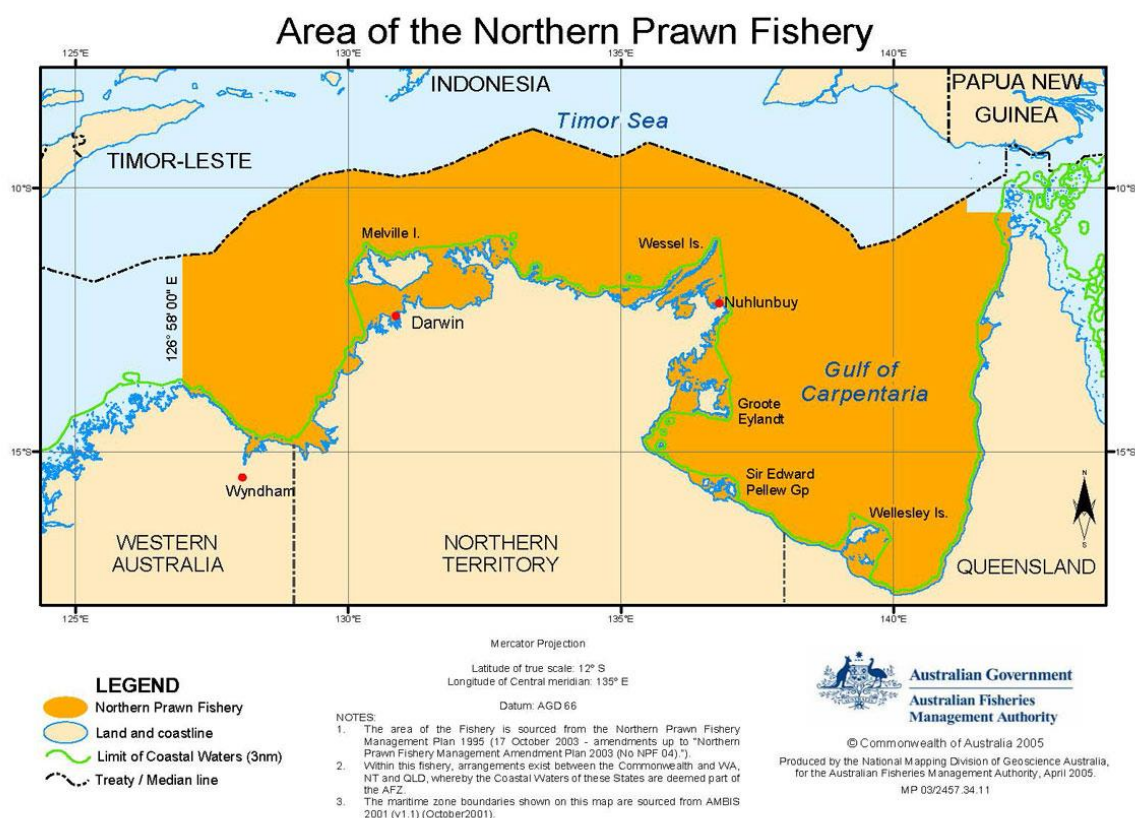
## Introduction

The Northern Prawn Fishery Data Summary 2017 contains catch and effort statistics by prawn species, area, time and fishery. Comprehensive byproduct information is also included for the information of stakeholders and to meet AFMA's obligations under Offshore Constitutional Settlement agreements with Queensland, the Northern Territory and Western Australia. Interactions with threatened, endangered and protected (TEP) species are also reported.

## Description of the Northern Prawn Fishery

### Area of Fishery

The Northern Prawn Fishery (NPF) is located off Australia's northern coast, and extends from the low water mark to the outer edge of the Australian Fishing Zone (AFZ) in the area between Cape York in Queensland and Cape Londonderry in Western Australia (Figure 1).



**Figure 1:** Northern Prawn Fishery Management Area.

### Fishing Methods

Prawn trawling is an active fishing method which involves towing a conical-shaped net spread open by two or four steel or timber otter boards over the seabed, commonly called otter trawling. Ground chains are also used on the nets to stimulate prawns into the trawl mouth. Vessels in the NPF may tow a range of nets in a variety of configurations. These are regulated by the *Northern Prawn Fishery Management Plan 1995* (the Management Plan) and relevant Determinations and Directions. In addition to the main nets, a small 'try-



net' is also used to test the potential catches for a given area. All trawl nets in the NPF (other than try-nets) are required to be fitted with approved Turtle Excluder Devices (TEDs) and Bycatch Reduction Devices (BRDs), however TEDs are not required if operators are fishing in waters deeper than 200m.

Most of the vessels in the NPF are purpose built from steel and range in length from 17 m to 28 m. All NPF boats have modern and sophisticated catch handling, packing and freezing capabilities as well as wet (brine) holding facilities. All vessels use electronic aids such as colour echo sounders, Global Positioning Systems (GPS) and plotters. Satellite phones and fax equipment are used by most vessels and most have introduced on-board computing facilities, electronic log books and Wi-Fi. All vessels are required to have a Vessel Monitoring System (VMS) installed.

### **Management Information**

The NPF is managed through a combination of input controls (limited entry, seasonal closures, permanent area closures, gear restrictions and operational controls) that are implemented under the *NPF Management Plan 1995*.

The Management Plan provides for the granting of fully transferable Statutory Fishing Rights (SFRs) that determine the number of trawlers that may operate (Class B SFRs) and the amount of gear (gear SFRs) used in the Fishery. In 2001, the Management Plan was amended to allow the total gear pool to be set by a Determination. The gear SFR is set as an amount of headrope length, which can be varied depending on the stock status and economic indicators.

In 2002, measures were introduced to reduce effort by 40% on tiger prawn stocks. This was achieved by shortening the fishing seasons and a 15% reduction in the value (in centimetres) of a gear SFR. An additional 25% reduction in gear SFR value occurred in 2005, reducing the total number of Class B SFRs to 94.

In 2006/07, 43 Class B SFRs and 18,365 Gear SFRs (approximately 34% of the effective effort) were removed from the NPF through the Commonwealth Government's Structural Adjustment Package. The fishery is now comprised of 52 vessels - the optimal number estimated by the Australian Bureau of Agricultural and Resource Economics and Science (ABARES) to achieve Maximum Economic Yield (MEY) in the NPF.

In 2007, the industry formed 'NPF Industry Pty Ltd' (NPFIL), an industry representative body that incorporates approximately 95% of NPF SFR holders.

An 8% increase in effort was implemented in the 2008 tiger prawn season as recommended by the Northern Prawn Fishery Management Advisory Committee (NORMAC) in response to the smaller fleet size. This was effected by increasing the value of NPF gear SFRs from 5.625 cm to 7.481 cm and permitting concession holders to use quad gear (with a 10% penalty applied).

In 2009, the tiger prawn season was increased by four weeks based on the outputs of the 2008 tiger prawn stock assessment, resulting in the season commencing on 25 July and closing on 19 December. This was the first time since the introduction of the mid-year closure in 1987 that the tiger prawn season commenced prior to 1 August.

In 2011, the banana prawn season was extended by two weeks to enable industry to make optimal use of an expected large available biomass of banana prawns resulting from favorable environmental conditions. Due to improvements in the tiger prawn stock assessment, it was also agreed that tiger prawns could be targeted in the banana prawn season from 1 May. An on-going decision rule was put in place to close banana

fishing west of 138° and to prevent daylight trawling east of this location to protect banana prawns if average daily catches did not meet a trigger of 500 kg per boat/day during the two week reporting period. The tiger prawn season commenced on 1 August and concluded one week early on 20 November due to tiger prawn catch trigger limits not being met. The early tiger prawn season closure was implemented to protect stocks and prevent economic losses in the tiger prawn fishery.

In 2012, 2013, 2014 and 2015 the banana prawn season was open from 1<sup>st</sup> April to 15<sup>th</sup> June, and the tiger prawn season was open from 1st August to 30th November.

A Maximum Economic Yield (MEY) banana prawn catch trigger was implemented in 2014 as part of the future management regime for the banana prawn fishery. The decision rule closes the fishery west of 138°, and prohibits daylight trawling east of 138° if catches fall below the MEY trigger value which is calculated in-season based on catch, cost and price information provided by industry. There is also restriction placed on the trigger value to minimise large change in allowable effort, with a minimum MEY catch trigger of 425 kgs (per boat per day) in any two week catch reporting period.

In 2016, the MEY banana prawn catch trigger was not met in the third reporting period of the banana prawn season and the fishery was closed west of 138° from 9 June to protect the remaining banana prawn stocks. A daylight trawl ban east of 138° was also implemented until 15 June (when the season ended) to allow for night tiger prawn fishing. The MEY banana prawn catch trigger was exceeded in all reporting periods in the 2017 banana prawn season and the fishery closed on the scheduled date of 15<sup>th</sup> June.

In both years, the tiger prawn season operated from 1 August to 20 November, closing earlier than previous years due to lower catches and the early closure decision rule being triggered. There were 76 fishing days available during the first season in 2016 and 2017, and 112 days available during the second season (a total of 188 each year).

## Species

The NPF targets seven commercial species of prawns including white banana (*Penaeus merguensis*), red-legged banana (*P. indicus*), brown tiger (*P. esculentus*), grooved tiger (*P. semisulcatus*) (Ma *et al.* 2011), blue endeavour (*Metapenaeus endeavouri*), red endeavour (*M. ensis*) and king prawns (*Melicertus* sp.). Leader Prawns or Black Tigers (*P. monodon*), scampi, squid, scallops and bugs are also taken.

## Data Collection Program

NPF operators are required to complete the 'Northern and Torres Strait Prawn Fisheries Daily Fishing Log' (NP16) paper log books or electronic logs (e-logs) on a daily basis. In 2017, 92% (48 operators) used e-logs in both fishing seasons. Both paper logbook and e-log data is included in this data summary.

## Methods Used For Preparing Data Summary

The data used to prepare the Northern Prawn Fishery Data Summary is comprised of logbook information (NP16 and e-log) submitted by NPF skippers and the Seasonal Landing Returns (SLR-T01) completed by SFR holders. This information is stored by AFMA on the Northern Prawn, Kimberley Prawn and Torres Strait Prawn database.

The data used in this summary was extracted during January 2018 after making every effort to reconcile the data provided by skippers with that obtained from vessel owners. This was to ensure that the logbook data and the landings figures approximated each other as closely as possible.



On average logbook catches of banana prawns were overestimated by 1% when compared to Seasonal Landing Returns (SLR) for the banana prawn season, with the greatest discrepancy being 13% (one vessel) for the banana prawn season. On average the tiger prawn catches were within 0.63% of catches recorded in the SLR for the tiger prawn season, with the greatest discrepancy being a 10% underestimate (one vessel) in the logbook data for the tiger prawn season.

The catch and effort estimates in Table 1 and Figure 2 were derived from a combination of logbook and SLR figures. The remainder of the tables and figures in the Summary represent logbook data only. This may cause discrepancies between totals. Minor discrepancies may also occur due to rounding of values. Catch per Unit Effort (CPUE) is calculated by catch per day fishing (as reported by a skipper in the logbook) and does not include searching.

### Banana and Tiger Prawn Fishery Components

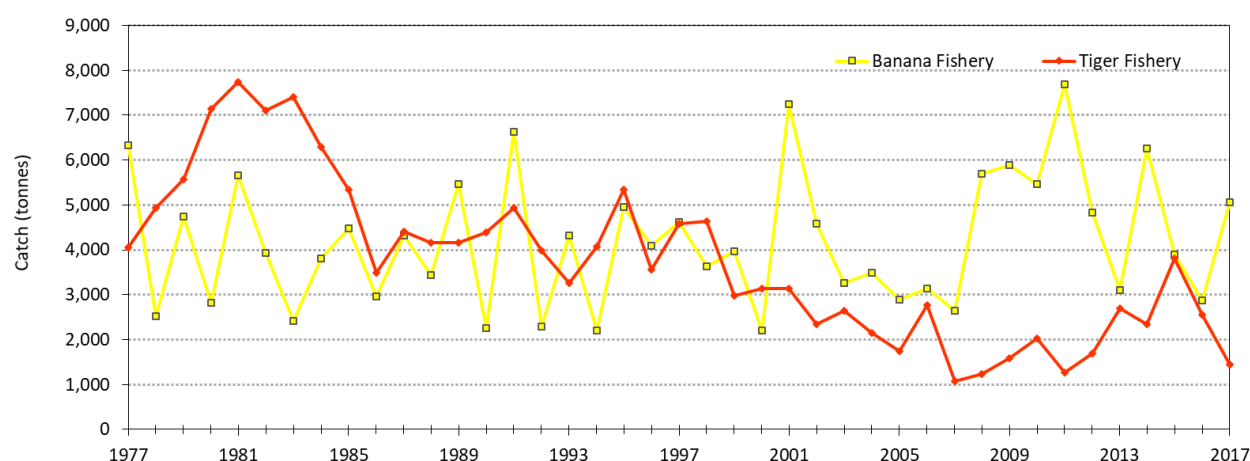
Fishery statistics have been split into banana and tiger prawn fishery components according to the composition of the catch in logbook records. If half or more of a vessel's daily catch was banana prawns or there was no prawn catch and the vessel was fishing, the vessel was defined as operating in the banana prawn fishery on that day; otherwise it was defined as operating in the tiger prawn fishery.

Banana prawn fishery catch is the catch of all species (bananas + tigers + endeavours + kings) when a vessel is defined as fishing in the banana prawn fishery. Likewise, tiger prawn fishery catch is the catch of all species when a vessel is defined as operating in the tiger prawn fishery.

## Catch and Effort Data for the Northern Prawn Fishery

### Catch

The total NPF prawn catch for 2017 6,545 t compared to 5,468 t in 2016 (Table 1). The total catch of banana prawns in 2017 increased 74% from 2,904 t in 2016 to 5,069 t (Figure 2, Table 1). The catch of tiger prawns decreased 50% from 2,158 t in 2016 to 1,087 t (Figure 2, Table 1). Catches of endeavour prawns increased by 2% from 374 t in 2016 to 382 t in 2017 (Figure 2, Table 1). Catches of king prawns decreased from 32 t to 7 t in 2017.



**Figure 2:** Catch in the banana and tiger prawn fisheries between 1977 and 2017.

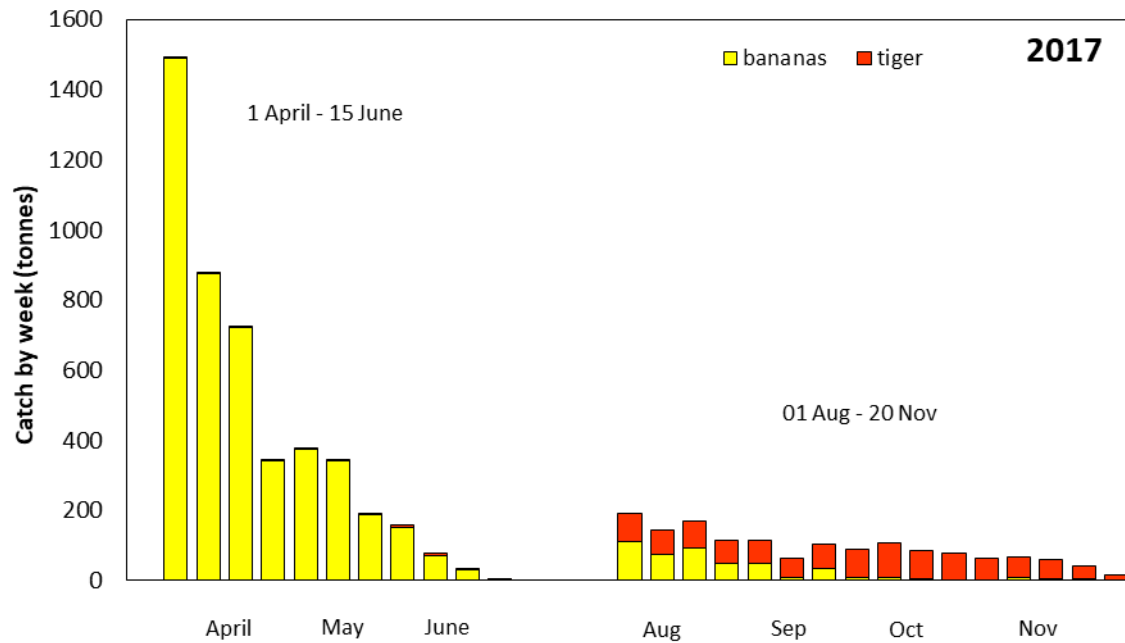
**Table 1:** Annual reconciled landings, effort and vessel number in the NPF from 1970 to 2017.

| Year            | Banana (t) | Tiger (t) | Endeavour (t) | King (t) | Total Catch (t) | No. of Vessels | Banana Fishery<br>Effort (days) | Tiger Fishery<br>Effort (days) |
|-----------------|------------|-----------|---------------|----------|-----------------|----------------|---------------------------------|--------------------------------|
| 1970            | 1,702      | 1,138     | 417           | 0        | 3,257           | 191            | 2,041                           | 5,818                          |
| 1971            | 7,364      | 1,183     | 400           | 0        | 8,948           | 169            | 5,571                           | 6,057                          |
| 1972            | 4,801      | 1,380     | 472           | 0        | 6,654           | 180            | 4,327                           | 7,380                          |
| 1973            | 4,226      | 1,672     | 594           | 0        | 6,492           | 217            | 4,917                           | 7,362                          |
| 1974            | 12,711     | 666       | 434           | 4        | 13,815          | 196            | 7,537                           | 3,439                          |
| 1975            | 3,160      | 973       | 444           | 6        | 4,583           | 107            | 5,361                           | 6,010                          |
| 1976            | 4,519      | 1,118     | 675           | 5        | 6,319           | 145            | 7,238                           | 6,660                          |
| 1977            | 6,345      | 2,900     | 1,125         | 28       | 10,398          | 193            | 7,257                           | 11,673                         |
| 1978            | 2,535      | 3,599     | 1,240         | 82       | 7,456           | 237            | 5,569                           | 18,749                         |
| 1979            | 4,775      | 4,218     | 1,213         | 94       | 10,300          | 240            | 7,328                           | 17,791                         |
| 1970-'79average | 5,214      | 1,885     | 701           | 22       | 7,822           | 188            | 5,715                           | 9,094                          |
| 1980            | 2,835      | 5,124     | 1,891         | 111      | 9,964           | 269            | 8,391                           | 30,594                         |
| 1981            | 5,672      | 5,559     | 2,073         | 95       | 13,400          | 286            | 11,524                          | 31,895                         |
| 1982            | 3,875      | 4,891     | 2,124         | 144      | 11,036          | 271            | 8,751                           | 32,956                         |
| 1983            | 2,382      | 5,751     | 1,488         | 207      | 9,831           | 254            | 6,856                           | 34,551                         |
| 1984            | 3,770      | 4,525     | 1,714         | 83       | 10,095          | 252            | 5,932                           | 32,447                         |
| 1985            | 4,469      | 3,592     | 1,671         | 77       | 9,811           | 231            | 6,946                           | 26,516                         |
| 1986            | 2,935      | 2,682     | 748           | 85       | 6,451           | 238            | 7,132                           | 26,669                         |
| 1987            | 4,257      | 3,617     | 772           | 65       | 8,713           | 234            | 7,954                           | 22,478                         |
| 1988            | 3,381      | 3,458     | 669           | 81       | 7,591           | 222            | 6,655                           | 26,264                         |
| 1989            | 5,466      | 3,173     | 909           | 85       | 9,636           | 223            | 7,439                           | 27,036                         |
| 1980-'89average | 3,904      | 4,237     | 1,406         | 103      | 9,653           | 248            | 7,758                           | 29,141                         |
| 1990            | 2,221      | 3,550     | 735           | 128      | 6,636           | 200            | 5,044                           | 25,525                         |
| 1991            | 6,605      | 3,987     | 879           | 81       | 11,554          | 172            | 6,515                           | 20,744                         |
| 1992            | 2,254      | 3,084     | 880           | 47       | 6,267           | 170            | 5,132                           | 21,789                         |
| 1993            | 4,292      | 2,515     | 733           | 35       | 7,572           | 127            | 6,299                           | 16,019                         |
| 1994            | 2,157      | 3,162     | 872           | 72       | 6,263           | 128            | 4,955                           | 18,592                         |
| 1995            | 4,961      | 4,125     | 1,150         | 58       | 10,294          | 125            | 4,880                           | 16,834                         |
| 1996            | 4,078      | 2,311     | 1,235         | 41       | 7,665           | 127            | 5,525                           | 16,635                         |
| 1997            | 4,587      | 2,694     | 1,870         | 51       | 9,202           | 129            | 5,476                           | 15,385                         |
| 1998            | 3,569      | 3,218     | 1,322         | 20       | 8,123           | 130            | 5,301                           | 18,003                         |
| 1999            | 3,904      | 2,136     | 885           | 21       | 6,947           | 129            | 5,639                           | 12,675                         |
| 1990-'99average | 3,863      | 3,078     | 1,056         | 55       | 8,052           | 144            | 5,477                           | 18,220                         |
| 2000            | 2,195      | 2,190     | 958           | 13       | 5,335           | 121            | 3,697                           | 12,736                         |
| 2001            | 7,245      | 1,983     | 1,157         | 4        | 10,389          | 118            | 6,247                           | 10,440                         |
| 2002            | 4,577      | 1,943     | 411           | 5        | 6,936           | 114            | 4,148                           | 8,718                          |
| 2003            | 3,238      | 2,222     | 435           | 4        | 5,898           | 97             | 4,114                           | 8,503                          |
| 2004            | 3,520      | 1,767     | 396           | 3        | 5,686           | 96             | 3,985                           | 7,793                          |
| 2005            | 2,901      | 1,744     | 281           | 20       | 4,946           | 89             | 3,364                           | 7,967                          |
| 2006            | 3,117      | 1,802     | 363           | 28       | 5,310           | 77             | 3,283                           | 6,983                          |
| 2007            | 2,902      | 1,192     | 196           | 20       | 4,310           | 51             | 2,696                           | 4,829                          |
| 2008            | 5,816      | 1,021     | 213           | 7        | 7,058           | 53             | 3,347                           | 4,556                          |
| 2009            | 5,881      | 1,250     | 346           | 7        | 7,483           | 55             | 3,095                           | 4,889                          |
| 2000-'09average | 4,139      | 1,711     | 476           | 11       | 6,335           | 87             | 3,798                           | 7,741                          |
| 2010            | 5,642      | 1,628     | 429           | 12       | 7,711           | 52             | 3,146                           | 4,898                          |
| 2011            | 7,141      | 749       | 437           | 8        | 8,335           | 55             | 3,440                           | 4,143                          |
| 2012            | 4,901      | 1,203     | 487           | 11       | 6,601           | 52             | 2,526                           | 5,521                          |
| 2013            | 3,050      | 2,215     | 508           | 29       | 5,802           | 52             | 2,005                           | 5,908                          |
| 2014            | 6,330      | 1,708     | 675           | 12       | 8,725           | 52             | 3,100                           | 5,045                          |
| 2015            | 3,852      | 3,186     | 554           | 38       | 7,630           | 52             | 2,197                           | 6,036                          |
| 2016            | 2,904      | 2,158     | 374           | 32       | 5,468           | 52             | 1,980                           | 5,900                          |
| 2017            | 5,069      | 1,087     | 382           | 7        | 6,545           | 52             | 2,702                           | 4,716                          |

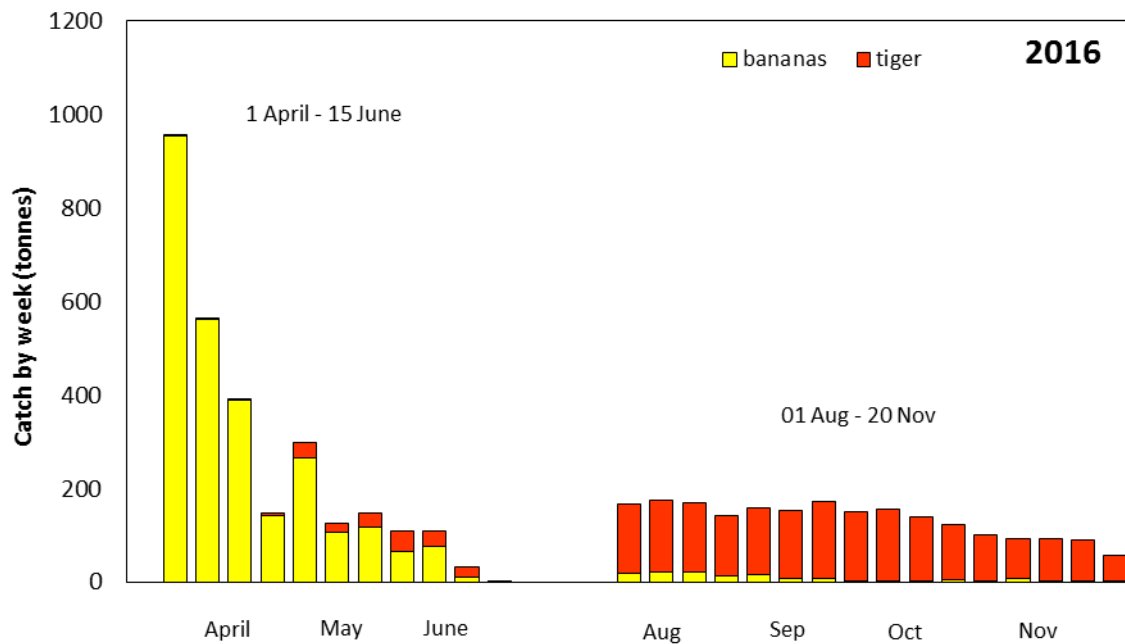
\* Note: Catch data is extracted from Seasonal Landing Returns (SLRs).

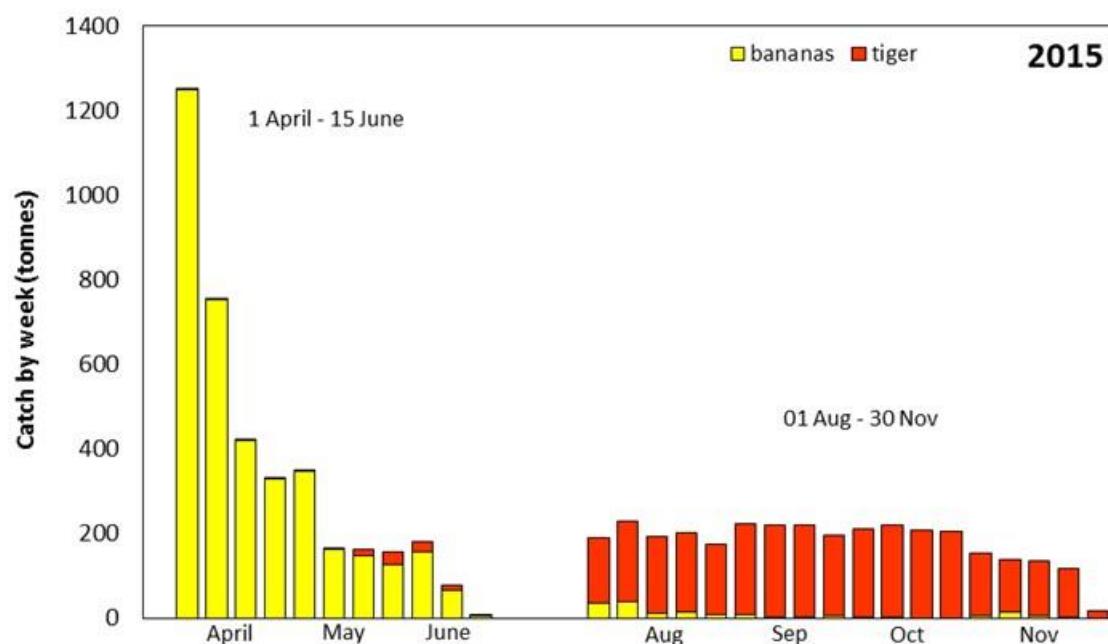
### Catch by week

Figures 3 (a), (b) and (c) show the catch of banana and tiger prawns by week during 2017, 2016 and 2015. Highest banana prawn catches were recorded in the first week of 2017 with 1,489 t. Banana prawn catches in the first fishing season of 2017 ('banana prawn season') experienced a steady decline over the 11 weeks, with the exception of an increase in week 5. Catches of tiger prawns in the second fishing season ('tiger prawn season') fluctuated, steadily declining from week 9. Tiger prawn catches peaked at 100 t in week 9.



**Figure 3a:** Weekly catches of banana and tiger prawns (t) in the NPF in 2017.



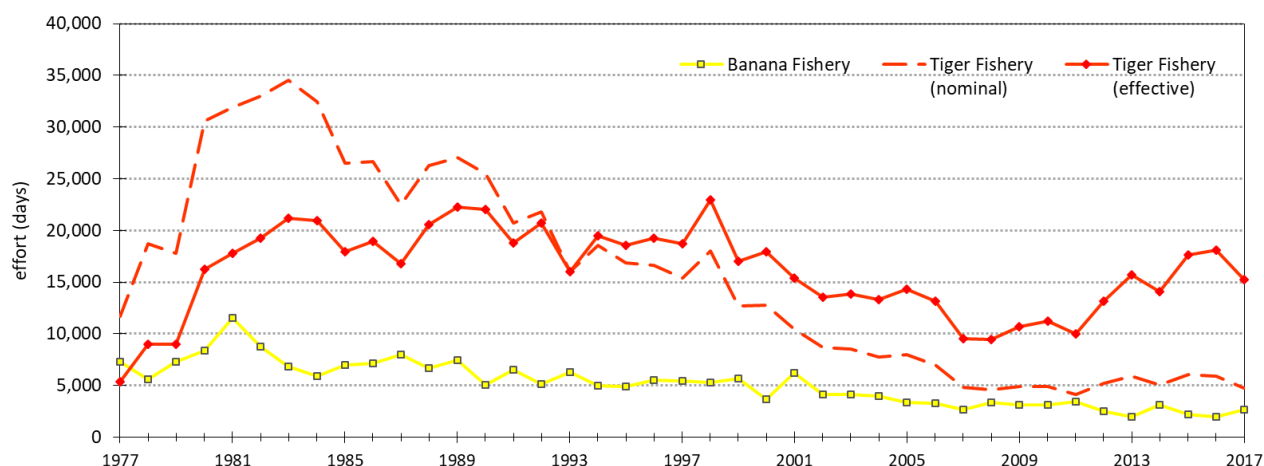


**Figure 3c:** Weekly catches of banana and tiger prawns (t) in the NPF in 2015.

## Effort

### Nominal and effective effort

Nominal effort is the number of days recorded by skippers in their logbooks. Effective effort applies only to the tiger prawn fishery and is based on the assumption that there has been an 'effort creep' (an increase in effectiveness of the gear utilised and fishing operations). A number of different approaches are being used by the Northern Prawn Fishery Resource Assessment Group (NPRAG) to account for effort creep, including using an average 5% increase per year on nominal effort to determine effective effort, as well as variable effort creep. As in previous years, for the purpose of preparing this report we have used 5%. Nominal effort in the banana prawn fishery increased by 722 days (33%) in 2017 compared to 2016 (Figure 4). In the tiger prawn fishery, nominal effort decreased by 1,184 days (20%) in 2017 compared to 2016. Effective effort in the tiger prawn fishery decreased by 2,912 days (16%) compared to 2016 (Figure 4).

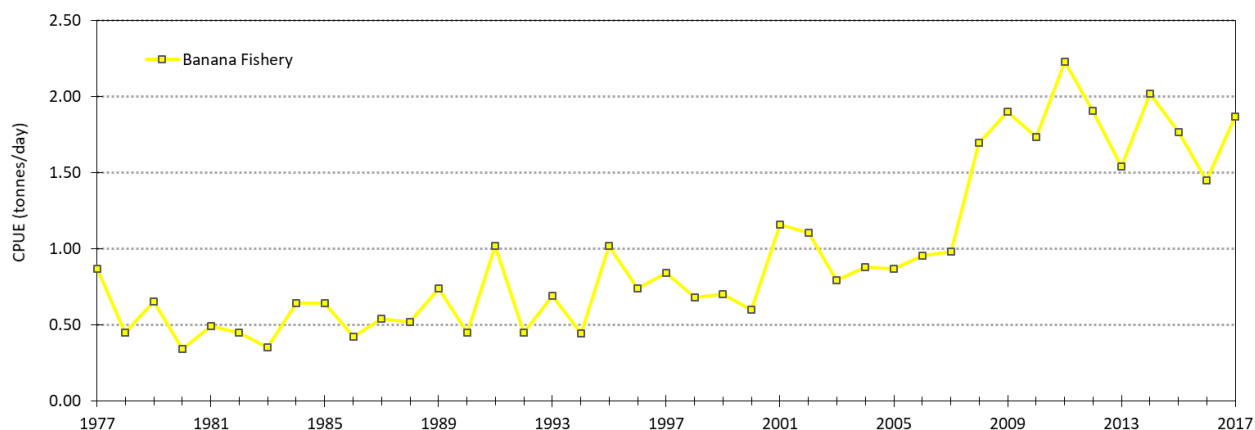


**Figure 4:** Effort in the banana and tiger prawn fisheries in the NPF between 1977 and 2017.

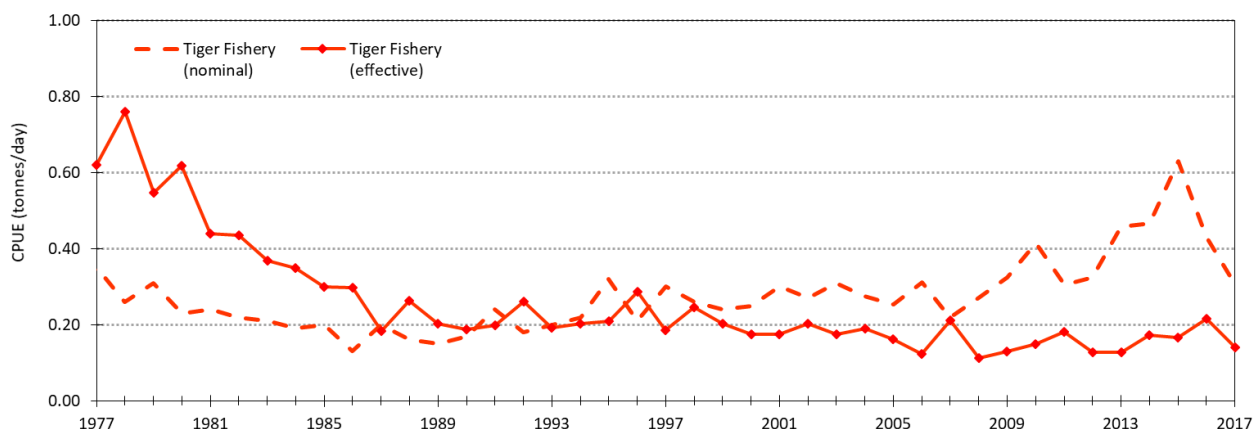
## Catch Rate

It is worth noting that there have been a number of changes to headrope length implemented in the NPF over time. A reduction in headrope length of 25% came into effect at the start of the first fishing season in 2005. In 2008, an 8% increase in headrope length was implemented in the tiger prawn season. As a result “catch rate”, measured in terms of Catch per Unit Effort (CPUE) (tonnes per fishing day), may be affected. It is also important to note that trends in CPUE don’t necessarily reflect trends in stock abundance.

The banana prawn fishery CPUE increased from a daily rate of 1.447 t in 2016 to 1.871 t in 2017 (Figure 5a). The nominal CPUE for the tiger prawn fishery decreased from 0.433 t per day in 2016 to 0.308 t in 2017 and the effective CPUE also decreased from 0.141 t per day in 2016 to 0.095 t in 2017 (Figure 5b).



**Figure 5a:** Catch rate in the banana prawn fishery between 1977 and 2017.



**Figure 5a:** Nominal and effective catch rate in the tiger prawn fishery between 1977 and 2017.

## Catch, effort and catch rate by month

The highest total prawn catches during the 2017 banana prawn season were obtained during April, whilst the highest total prawn catches during the 2017 tiger prawn season were obtained during August (Table 2).

Table 3 shows effort by month in the banana and tiger prawn seasons for 2017. Effort in the banana prawn season (1 April to 15 June) was highest in April and lowest in June. Tiger prawn season (1 August to 20 November) effort was highest in October and lowest in November (Table 3).

Monthly CPUE (tonnes/day) for banana prawns was highest in April during the banana prawn season (Table 4). Monthly CPUE for both nominal and effective effort for tiger prawns was highest in August.

**Table 2:** Monthly catch by species in 2017.

| Catch (t)    | April        | May          | June      | Aug        | Sep        | Oct        | Nov        | Total        |
|--------------|--------------|--------------|-----------|------------|------------|------------|------------|--------------|
| Banana       | 3,493        | 1,045        | 47        | 361        | 68         | 20         | 11         | 5,045        |
| Tiger        | 1            | 21           | 7         | 319        | 315        | 321        | 95         | 1,079        |
| Endeavour    | 1            | 4            | 1         | 138        | 89         | 96         | 51         | 380          |
| King         | 0            | 0            | 0         | 3          | 0          | 0          | 0          | 3            |
| <b>Total</b> | <b>3,494</b> | <b>1,069</b> | <b>56</b> | <b>821</b> | <b>472</b> | <b>438</b> | <b>157</b> | <b>6,508</b> |

**Table 3:** Monthly effort in the banana and tiger prawn seasons in 2017.

| Effort (days)             | April | May | June | Aug   | Sep   | Oct   | Nov   | Total  |
|---------------------------|-------|-----|------|-------|-------|-------|-------|--------|
| Banana Fishery            | 1,156 | 929 | 67   | 394   | 107   | 20    | 28    | 2,701  |
| Tiger Fishery (nominal)   | 4     | 101 | 40   | 1,080 | 1,325 | 1,505 | 661   | 4,716  |
| Tiger Fishery (effective) | 13    | 326 | 129  | 3,483 | 4,273 | 4,854 | 2,132 | 15,210 |

**Table 4:** Monthly catch rate for all species in the banana and tiger prawn seasons in 2017.

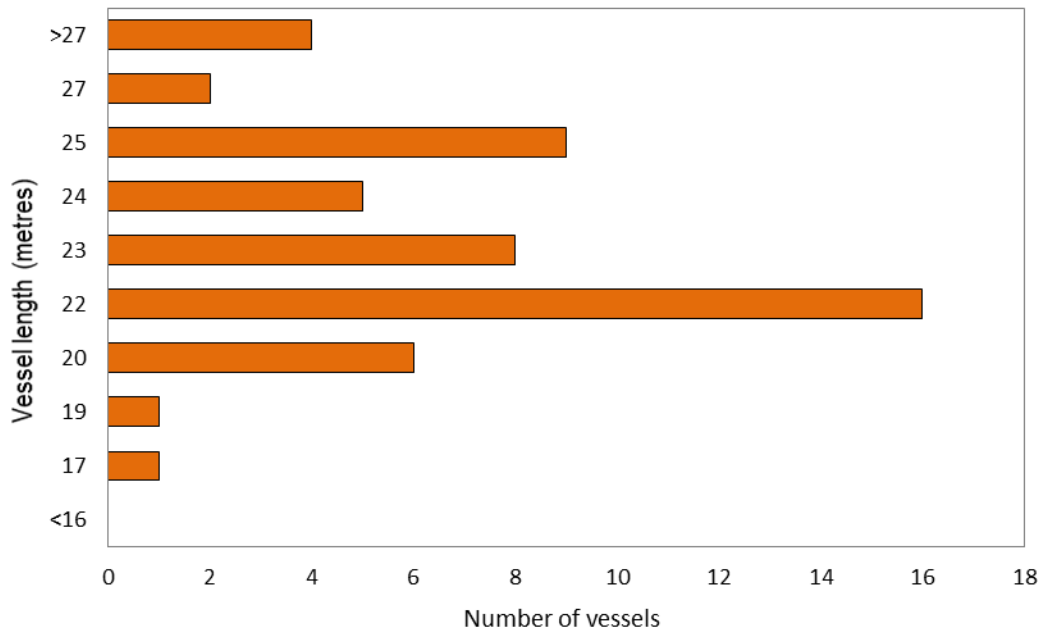
| CPUE (t/day)              | Apr   | May   | Jun   | Aug   | Sep   | Oct   | Nov   | Total |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Banana Fishery            | 3.023 | 1.128 | 0.699 | 0.960 | 0.609 | 0.720 | 0.315 | 7.45  |
| Tiger Fishery (nominal)   | 0.103 | 0.212 | 0.217 | 0.410 | 0.307 | 0.281 | 0.225 | 1.75  |
| Tiger Fishery (effective) | 0.032 | 0.066 | 0.067 | 0.127 | 0.095 | 0.087 | 0.070 | 0.54  |

## Vessel and gear information

### Vessel length

A maximum of 52 vessels can fish at any one time in the NPF. A total of 52 different vessels fished in 2017. As in 2016, the most common NPF vessel length in 2017 was between 22.0-22.9 m (Figure 6).



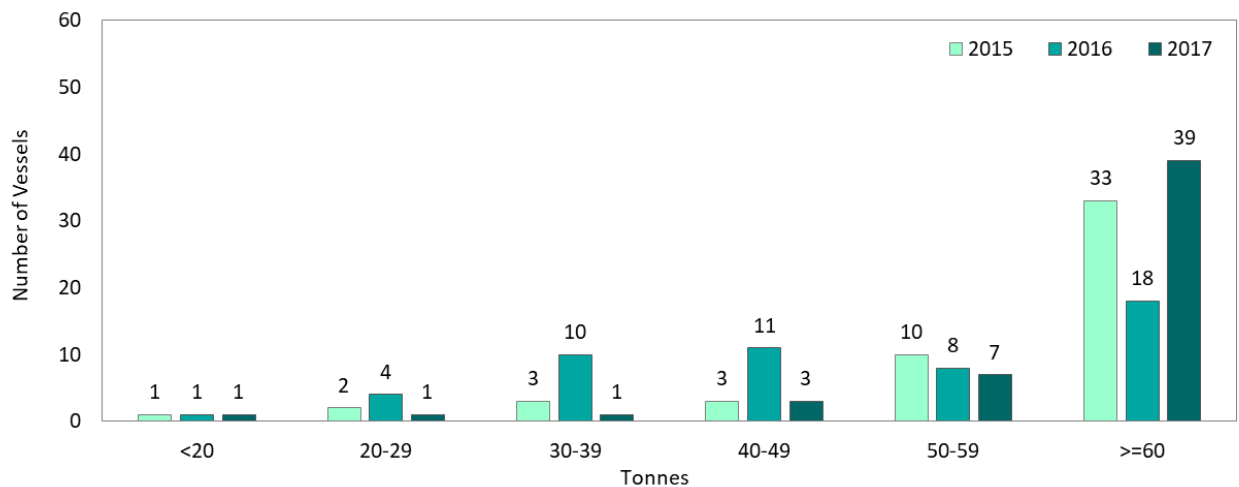


**Figure 6:** Frequency of vessel lengths in the NPF fleet in 2017.

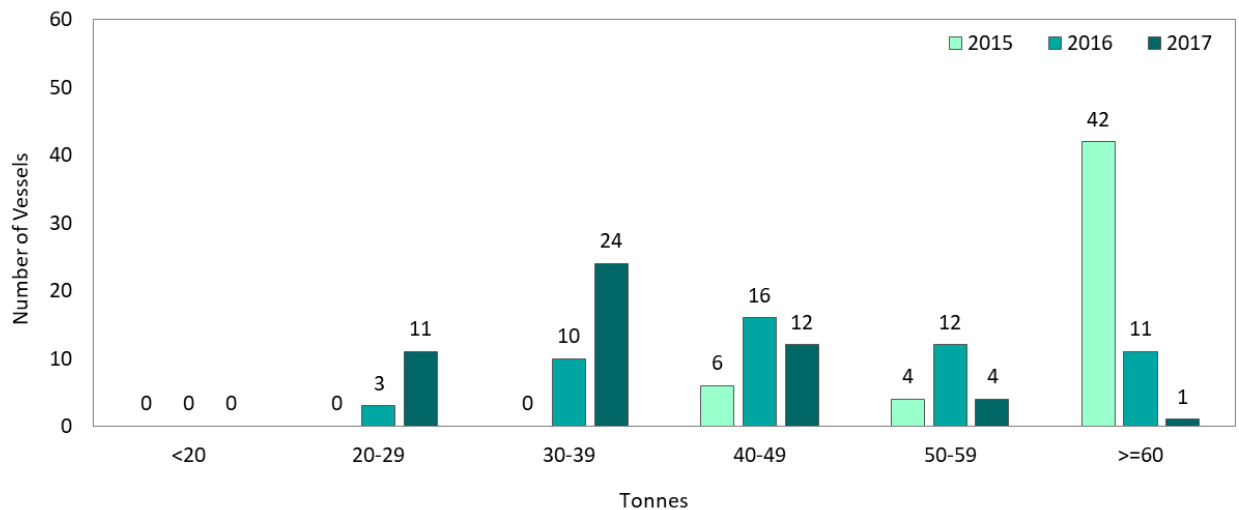
#### Distribution of catch by vessel

In the 2017 banana prawn season, 39 vessels (75%) caught over 60 t (up from 18 vessels in 2016). Seven vessels (13%) caught 50-59t, 4 (8%) caught between 30 and 49 t and 2 (4%) caught less than 29 t (Figure 7a).

In the 2017 tiger prawn season the number of vessels with a total catch over 60 t decreased from 11 (21%) in 2016 to just one in 2017. Sixteen vessels (31%) caught between 40 and 59 t, 24 (46%) caught 30-39 t and 11 (21%) caught 20-29 t (Figure 7b).



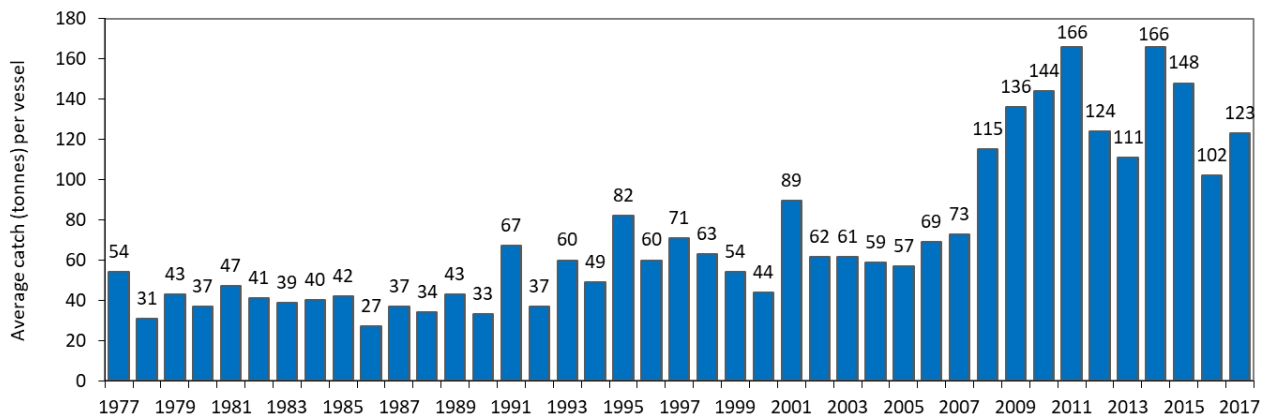
**Figure 7a:** Distribution of total catch in the banana prawn season, 2015-2017.



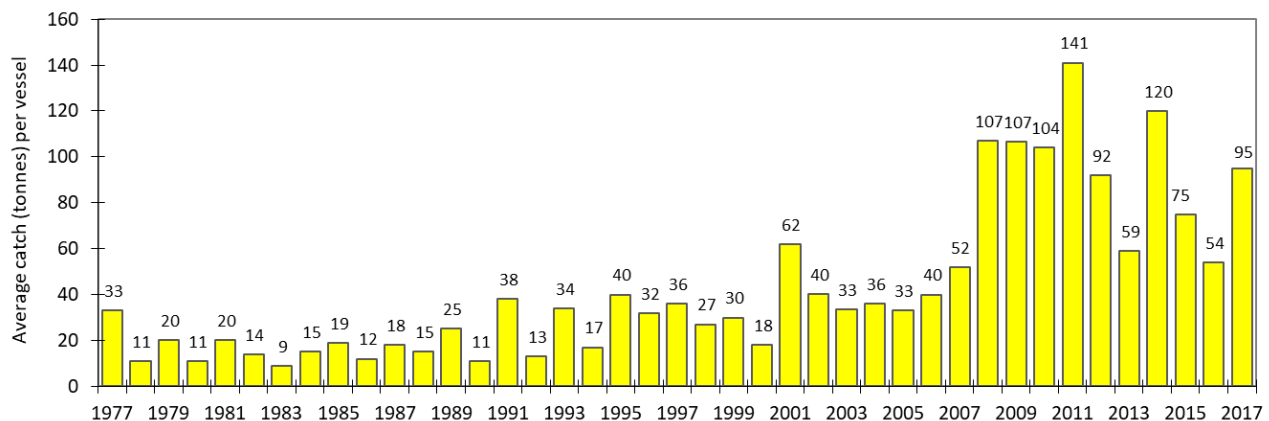
**Figure 7b:** Distribution of total catch in the tiger prawn season, 2015-2017.

### Average catch per vessel

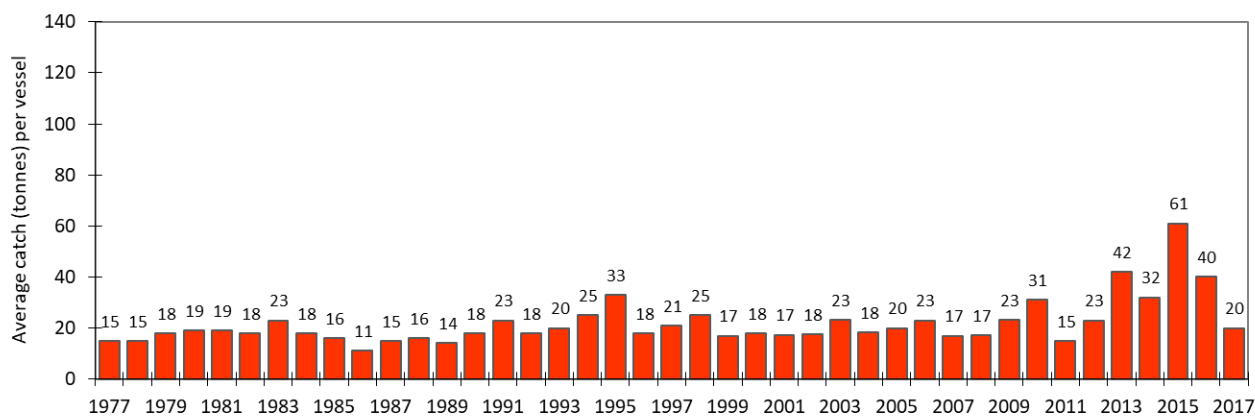
Average total prawn catch per vessel increased from 102 t per vessel in 2016 to 123 t per vessel in 2017 (Figure 8a). The average catch per vessel for banana prawns increased from 54 t per vessel in 2016 to 95 t per vessel in 2017 (Figure 8b). Average catch of tiger prawns per vessel decreased from 40 t per vessel in 2016 to 20 t per vessel in 2017 (Figure 8c).



**Figure 8a:** Average total catch of all prawns per vessel in the NPF from 1977 to 2017.



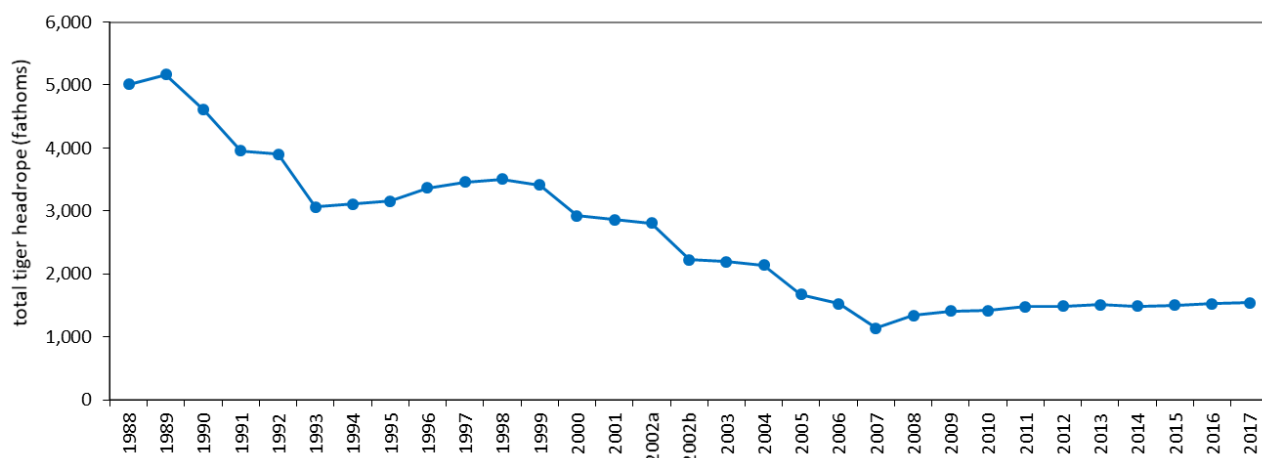
**Figure 8b:** Average total catch of banana prawns per vessel in the NPF from 1977 to 2017.



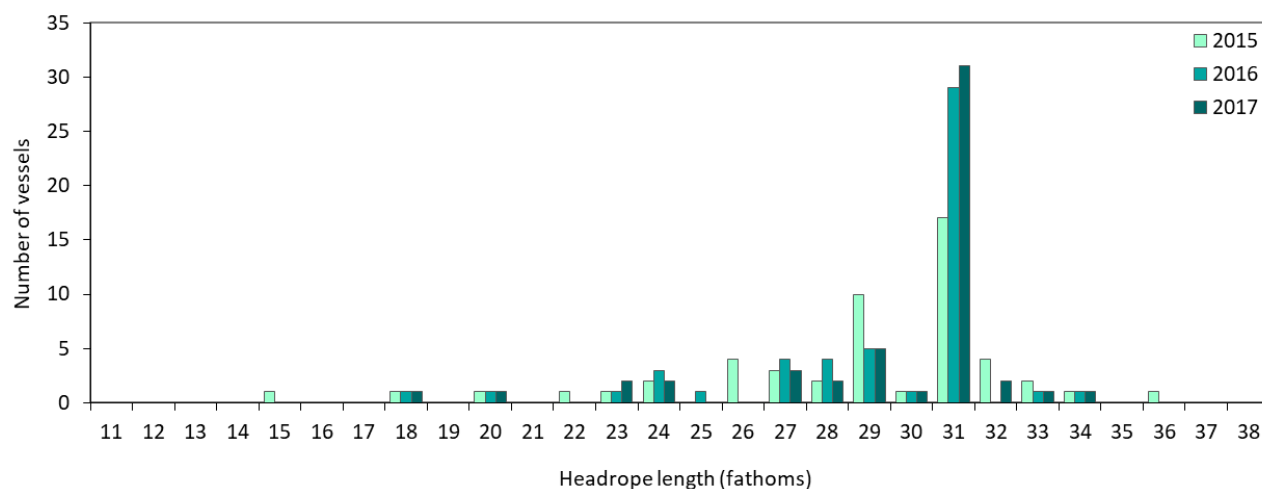
**Figure 8c:** Average total catch of tiger prawns per vessel in the NPF from 1977 to 2017.

### Fishing Gear

Total tiger prawn headrope increased slightly from 1524.17 fathoms (2.79km ) in 2016 to 1542.36 fathoms (2.82km) in 2017 (Figure 9). The mean headrope length in 2017 was 29.66 fathoms (54.2 m) compared with 29.31 fathoms (53.6 m) in 2016 and 31 fathoms (56.7m) the most common headrope length in 2017 (Figure 10).



**Figure 9:** Total tiger prawn season headrope length in the NPF from 1988 to 2017.

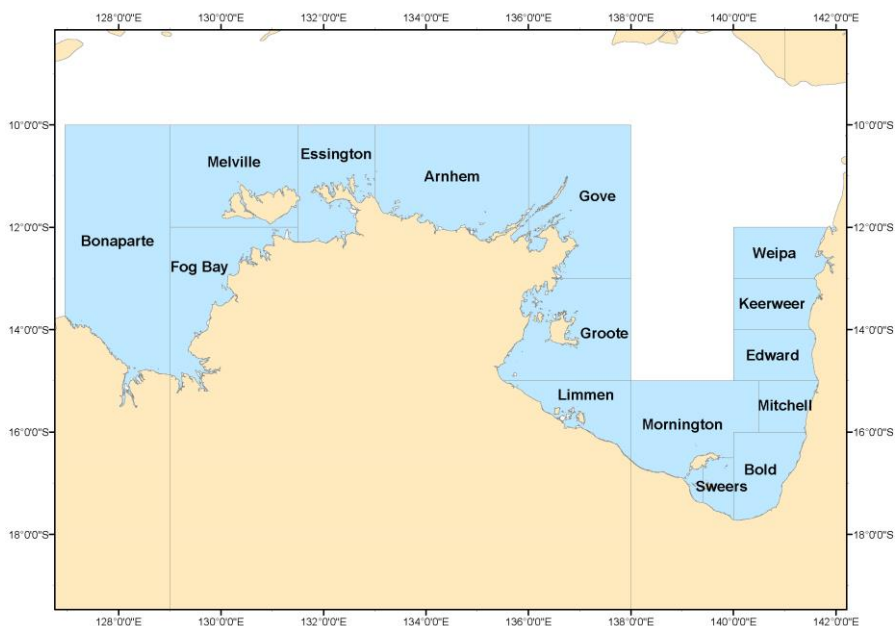


**Figure 10:** Frequency of headrope length for the tiger prawn season in the NPF from 2015 to 2017.

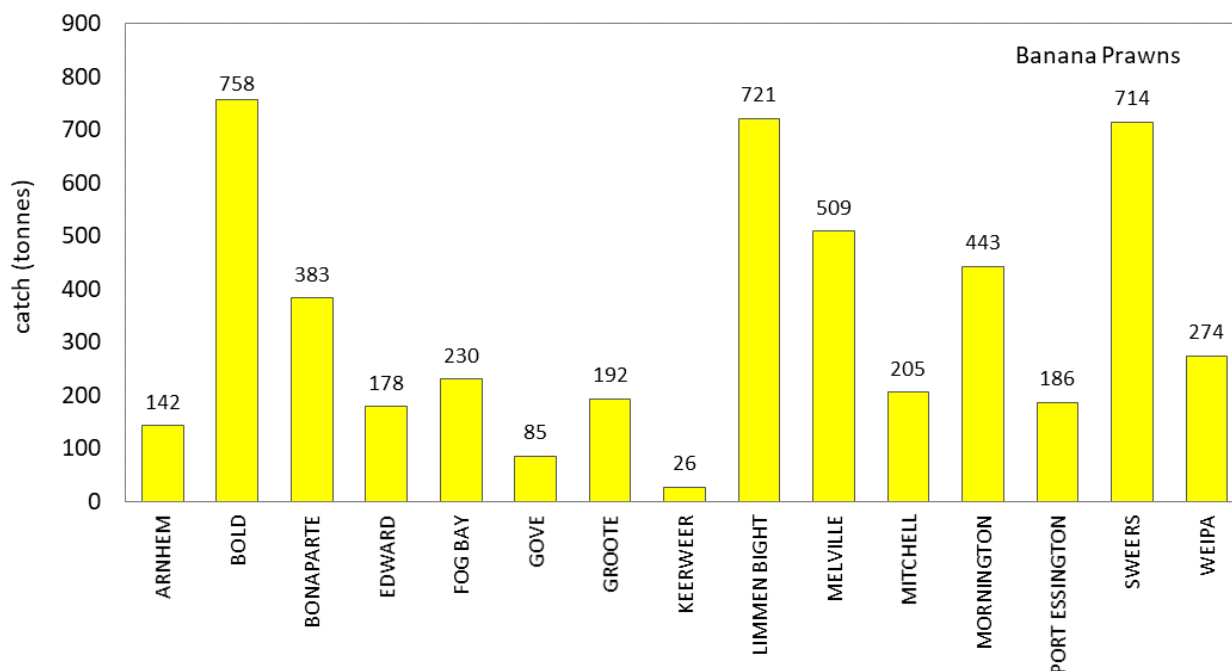
## Catch and effort by statistical area in the Northern Prawn Fishery

### All areas

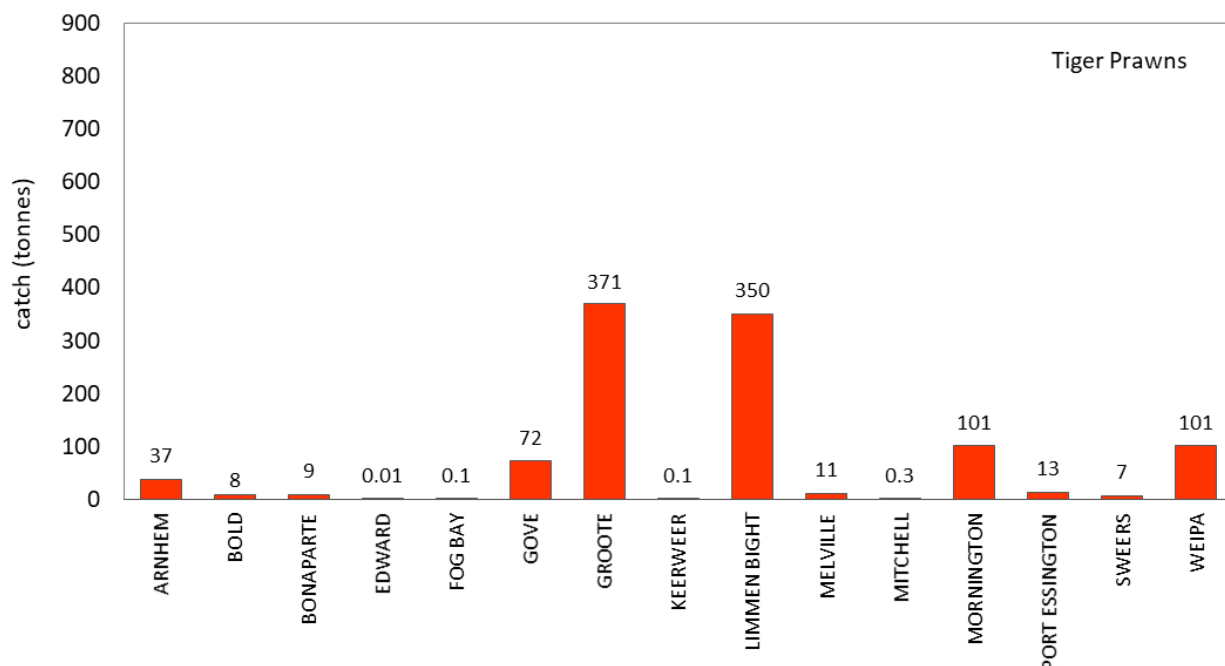
Catch and effort has been partitioned into the 15 statistical areas illustrated below (Figure 11) and is detailed on the following pages for the years 2000 – 2017 (for the entire historical catch and effort of each area see Appendix 1). The highest banana prawn catches were recorded in the Bold area with 758 t (Figure 12), which was also the highest area for banana prawn catches in 2016 (743 t). As in previous years, the highest catches of tiger prawns were recorded in the Groote area with 371 t caught (Figure 13), a substantial decrease from 597 t in 2016.



**Figure 11:** Statistical areas of the NPF.



**Figure 12:** Total catch of banana prawns for each statistical area of the NPF in 2017.

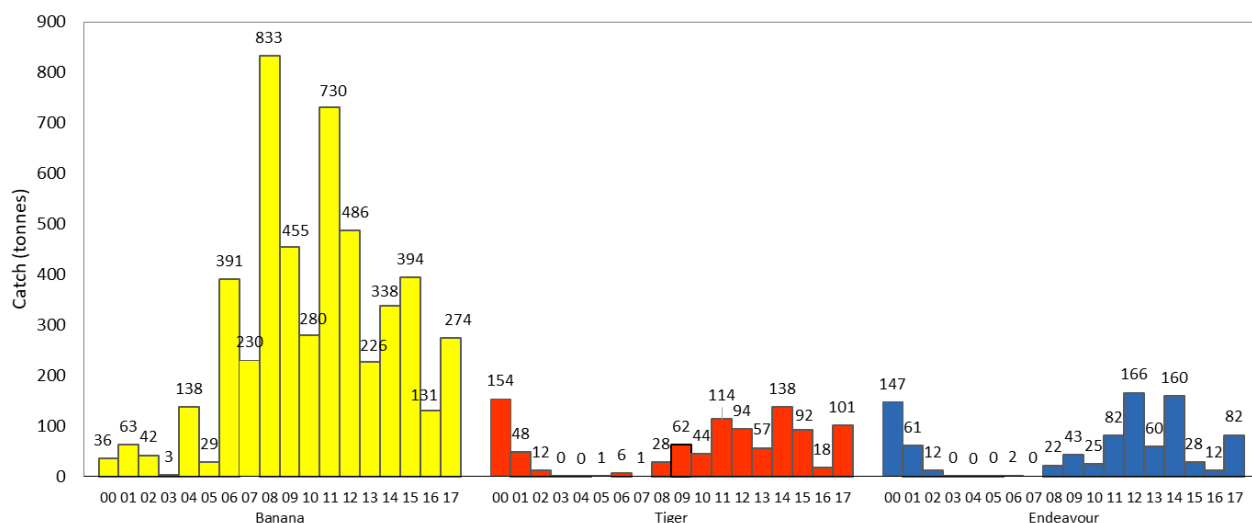


**Figure 13:** Total catch of tiger prawns for each statistical area of the NPF in 2017.

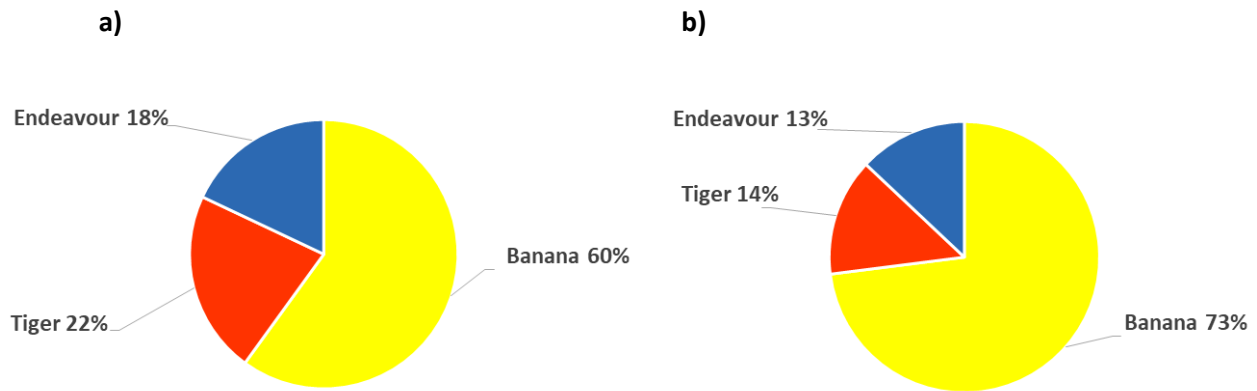
### Weipa

Banana prawn catches in Weipa increased from 131 t in 2016 to 274 t in 2017. Tiger prawn catches increased from 18 t in 2016 to 101 t in 2017 and catches of endeavour prawns also increased from 12 t in 2016 to 82 t in 2017 (Figure 14). Banana prawns again dominated the catches in Weipa during 2017, comprising 60%, with tiger prawns making up 22% and endeavor prawns 18% (Figure 15).

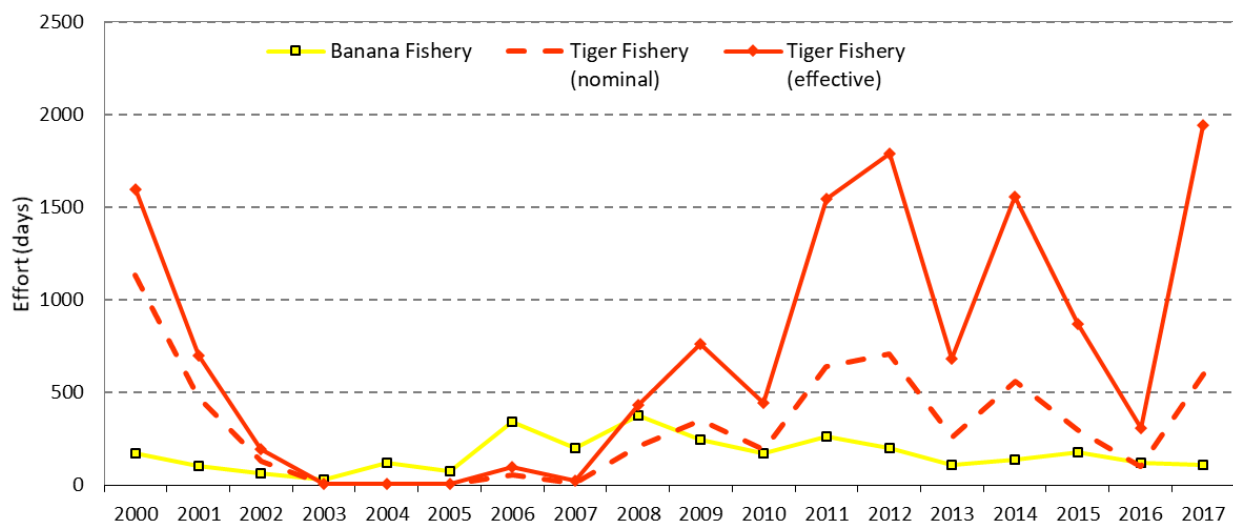
Effort in the banana prawn fishery decreased from 122 days in 2016 to 110 days in 2017 (Figure 16a). CPUE of banana prawns increased from 1.08 t per day in 2016 to 2.48 t per day in 2017 (Figure 16b). Effort in the tiger prawn fishery increased from 101 days in 2016 to 603 days in 2017 (Figure 16a). Nominal CPUE of tiger prawns increased from 0.301 t per day in 2016 to 0.307 t per day in 2017 and effective CPUE decreased slightly from 0.096 t per day in 2016 to 0.095 t per day in 2017 (Figure 16c).



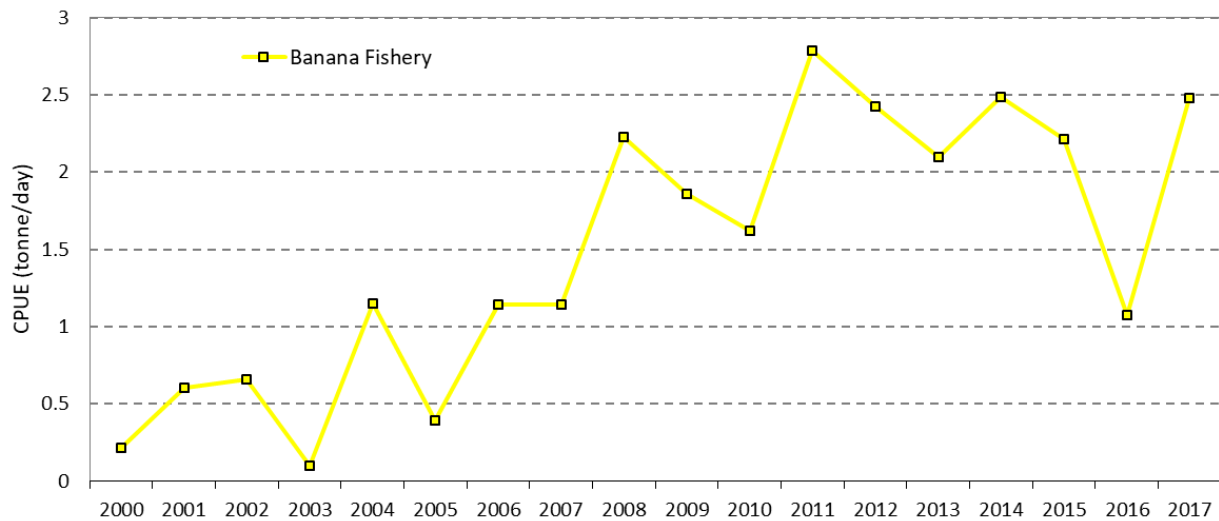
**Figure 14:** Catch by species in the Weipa area - 2000 to 2017.



**Figure 15:** (a) Percentage catch of prawn species in the Weipa area during 2017, and (b) percentage catch of prawn species in the Weipa area – 2000 to 2017.

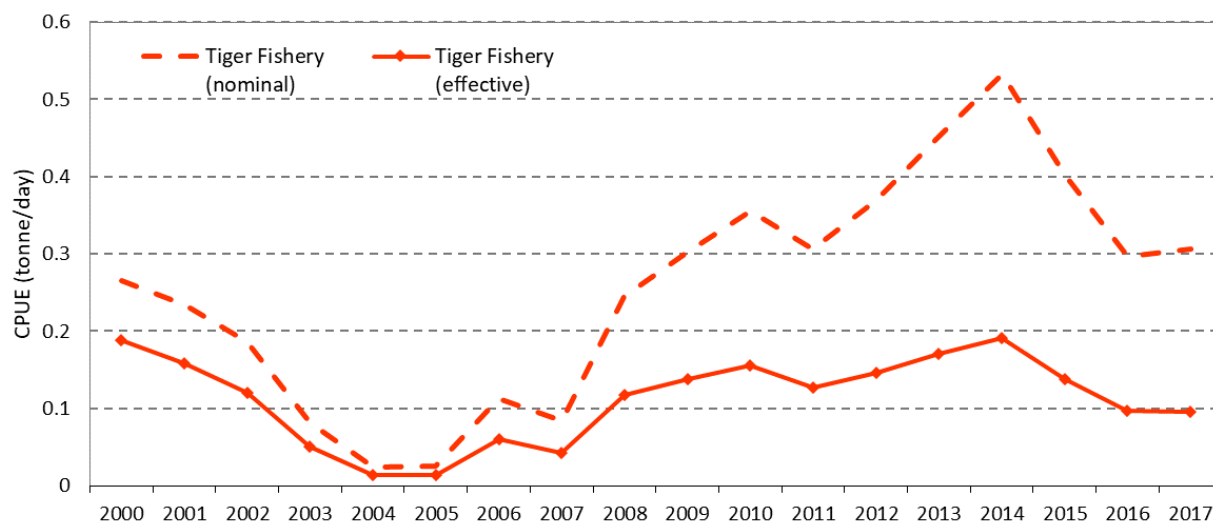


**Figure 16a:** Effort for the banana and tiger prawn fisheries in the Weipa area - 2000 to 2017.



**Figure 16b:** Catch rate for the banana prawn fishery in the Weipa area - 2000 to 2017.



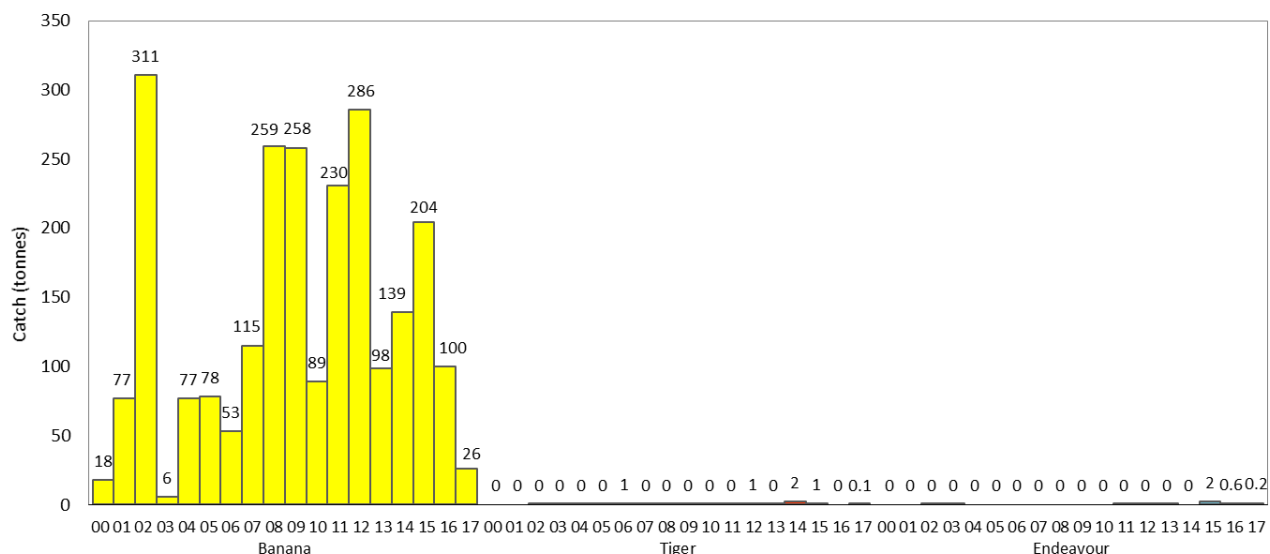


**Figure 16c:** Nominal and effective catch rate for the tiger prawn fishery in the Weipa area - 2000 to 2017.

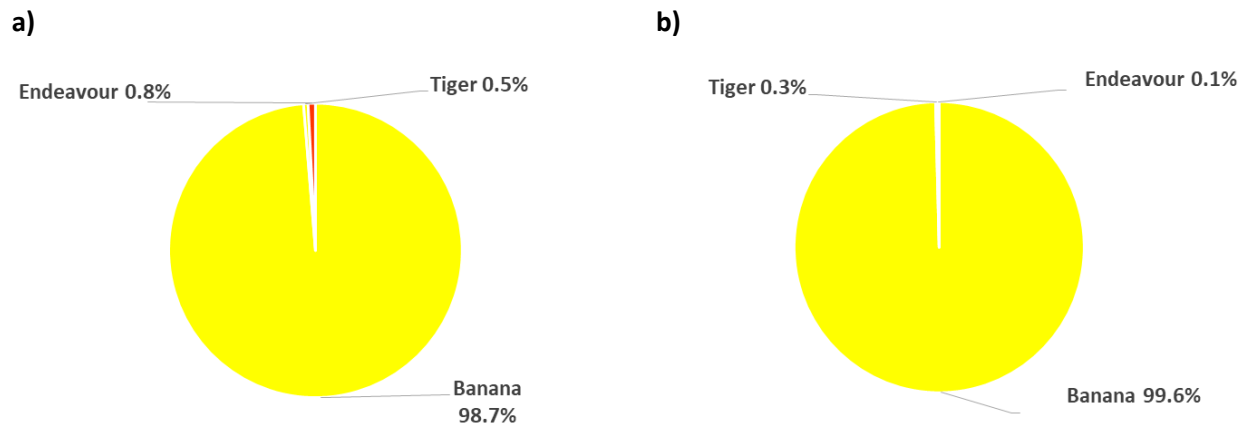
### Keerweer

Banana prawn catches in the Keerweer region decreased from 100 t in 2016 to 26 t in 2017 (Figure 17). Catches of tiger and endeavor prawns were both <2 t in 2017 (Figure 17). Banana prawns comprised 98.7% of the catch in 2017 (Figure 18).

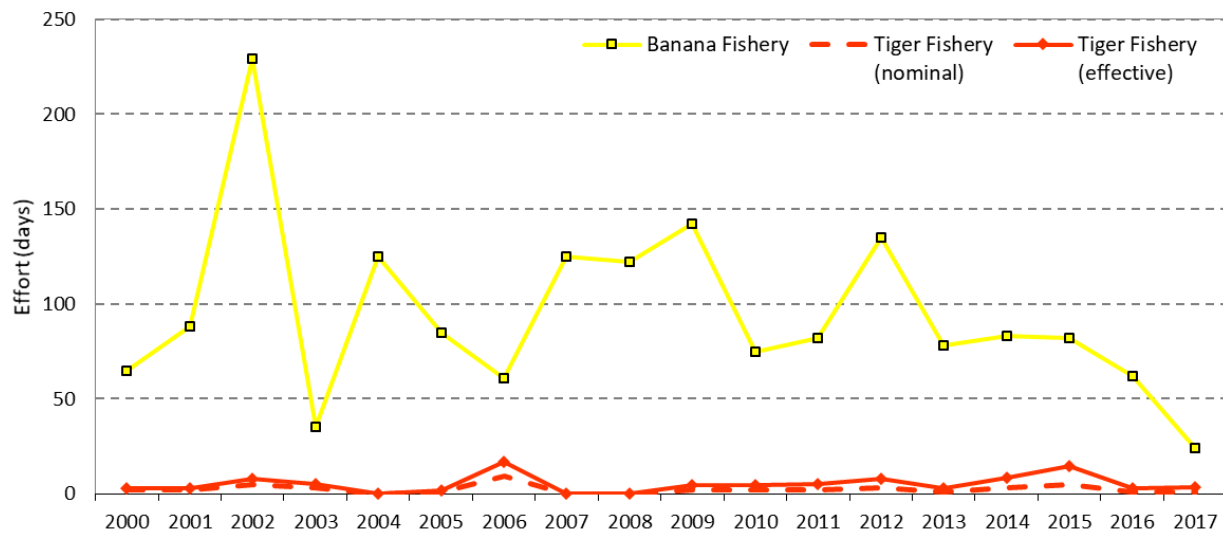
Effort in the banana prawn fishery decreased from 62 days in 2016 to 24 days in 2017 (Figure 19a). CPUE for banana prawns also decreased from 1.61 t per day in 2016 to 1.08 t per day in 2017 (Figure 19b). Effort in the tiger prawn fishery remained the same as 2016 with 1 day in 2017 (Figure 19a). Nominal and effective CPUE of tiger prawns decreased from 0.590 and 0.192 t per day, respectively, in 2016 to 0.300 and 0.093 t per day in 2017 (Figure 19c).



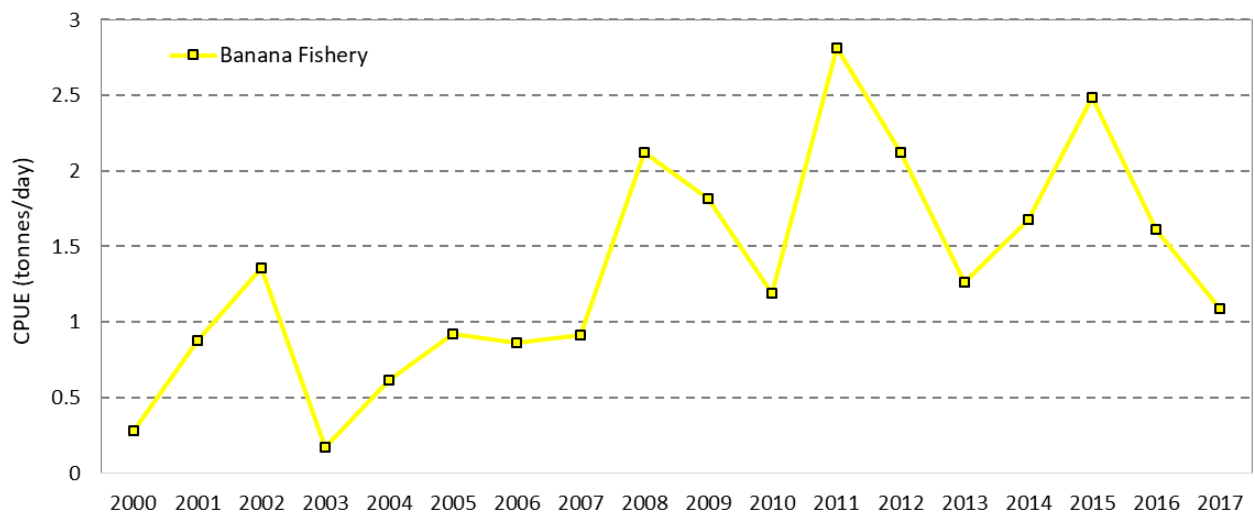
**Figure 17:** Catch by species in the Keerweer area - 2000 to 2017.



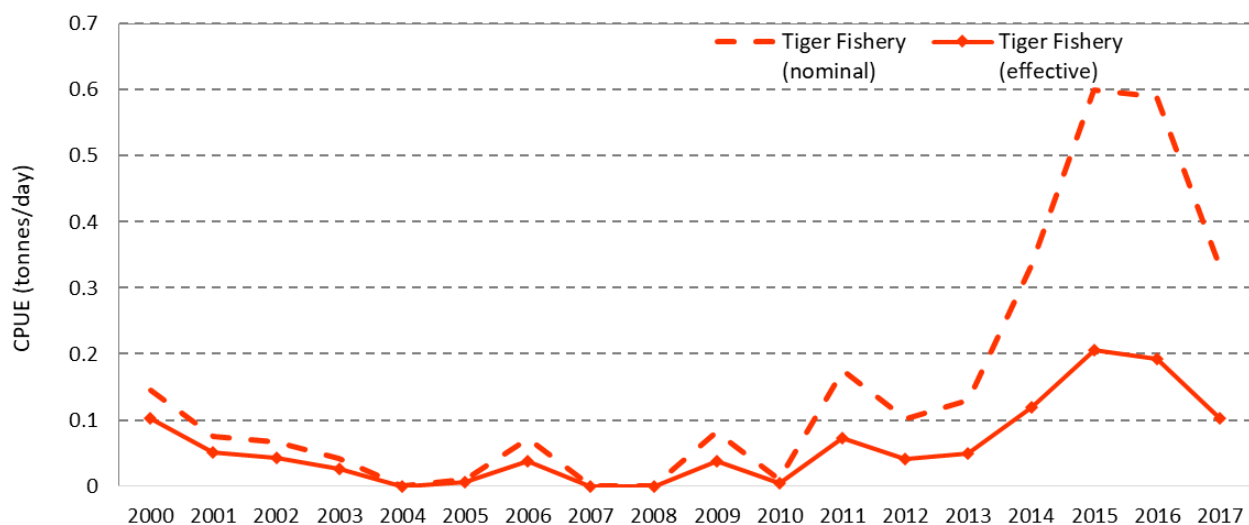
**Figure 18:** (a) Percentage catch of prawn species in the Keerweer area during 2016 and (b) percentage catch of prawn species in the Keerweer area - 2000 to 2017.



**Figure 19a:** Effort for the banana and tiger prawn fisheries in the Keerweer area – 2000 to 2017.



**Figure 19b:** Catch rate for the banana prawn fishery in the Keerweer area - 2000 to 2017.

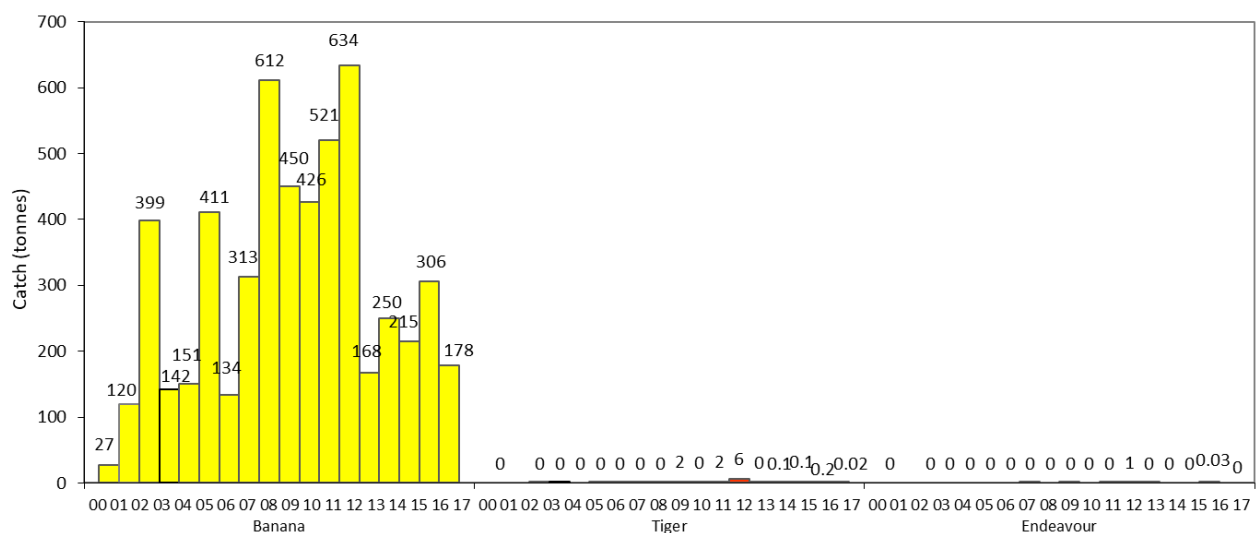


**Figure 19c:** Nominal and effective catch rate for the tiger prawn fishery in the Keerweer area - 2000 to 2017.

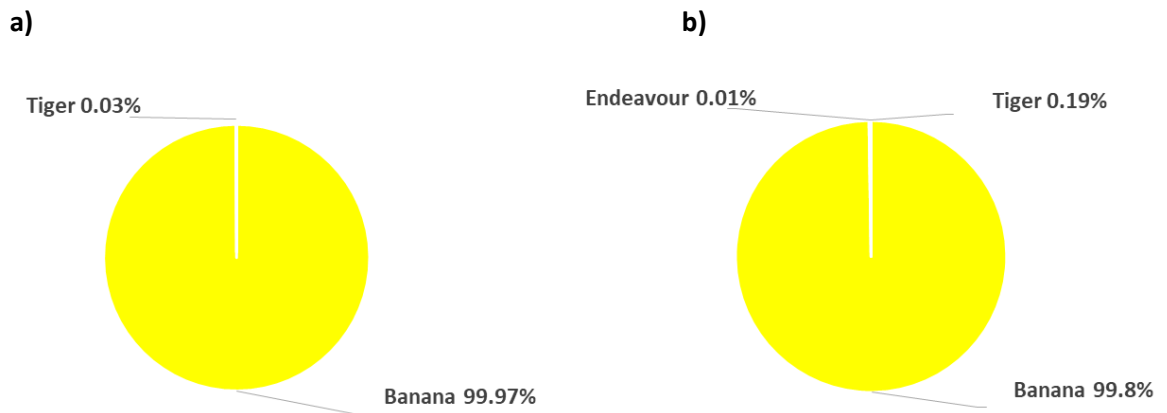
### Edward

Banana prawn catches in the Edward area decreased from 306 t in 2016 to 178 t in 2017 (Figure 20). Catches of tiger and endeavour prawns were less than 1 t in 2017. Banana prawns comprised 99.97% of the catch in 2017 (Figure 21).

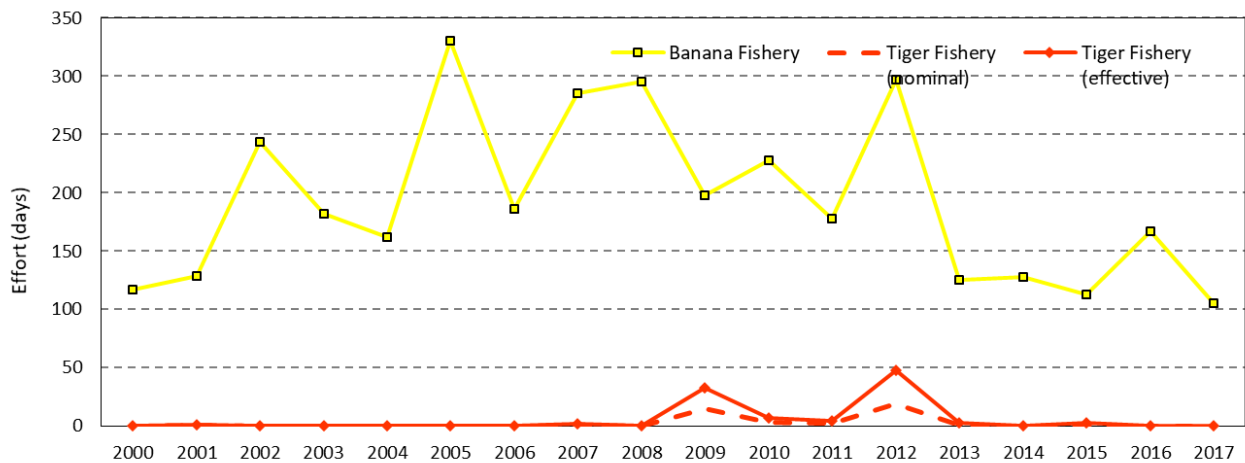
Effort in the banana prawn fishery decreased from 167 days in 2016 to 105 days in 2017 (Figure 22a). CPUE of banana prawns decreased from 1.83 t per day in 2016 to 1.69 t per day in 2017 (Figure 22b). Nominal and effective CPUE of tiger prawns were both zero for 2017 (Figure 22a, c).



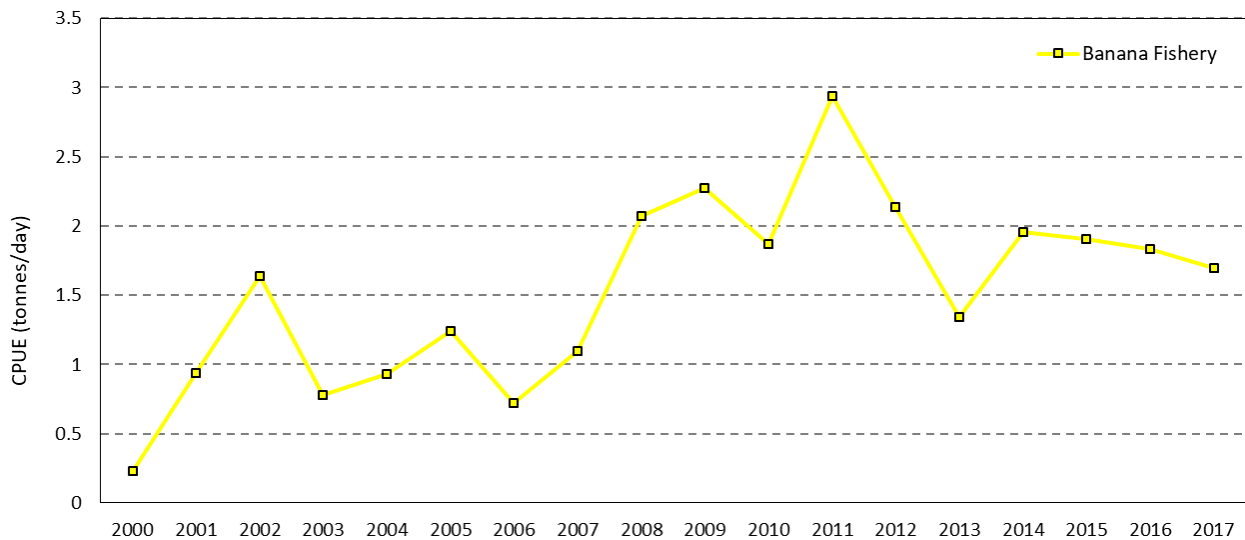
**Figure 20:** Catch by species in the Edward area - 2000 to 2017.



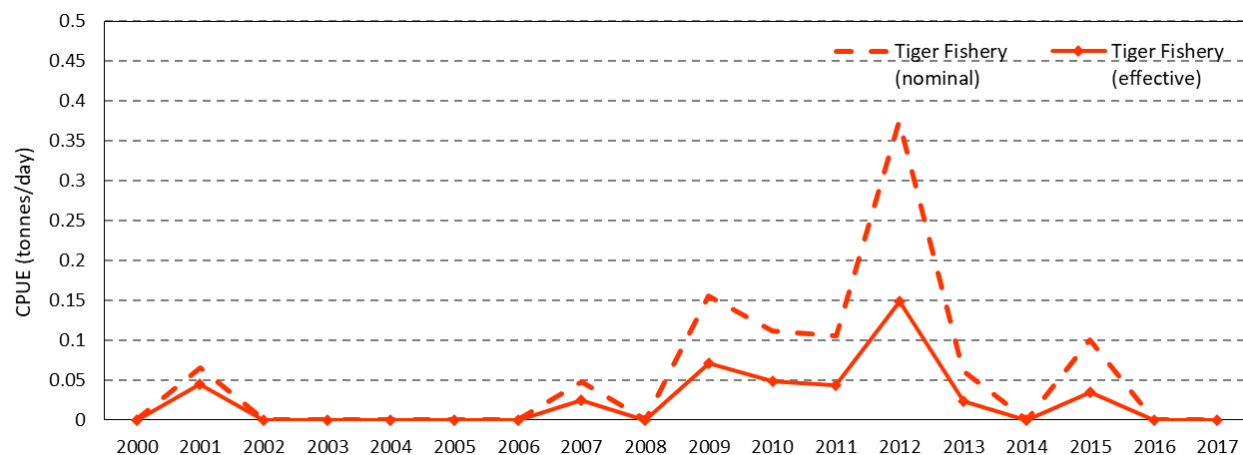
**Figure 21:** (a) Percentage catch of prawn species in the Edward area during 2017 and (b) percentage catch of prawn species in the Edward area - 2000 to 2017.



**Figure 22a:** Effort for the banana and tiger prawn fisheries in the Edward area - 2000 to 2017.



**Figure 22b:** Catch rate for the banana prawn fishery in the Edward area - 2000 to 2017.

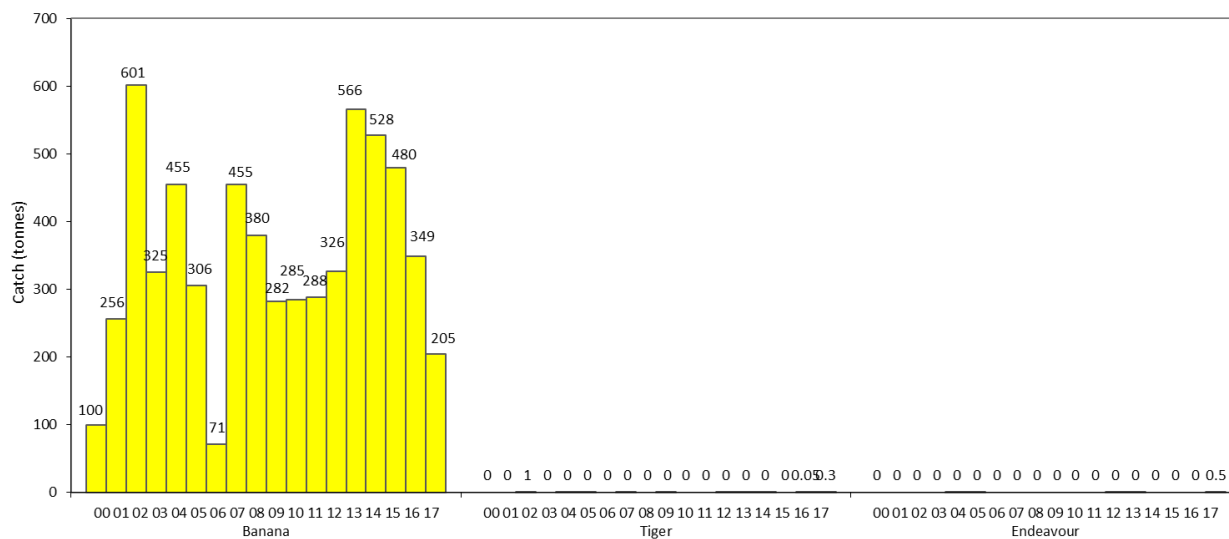


**Figure 22c:** Nominal and effective catch rate for the tiger prawn fishery in the Edward area – 2000 to 2017.

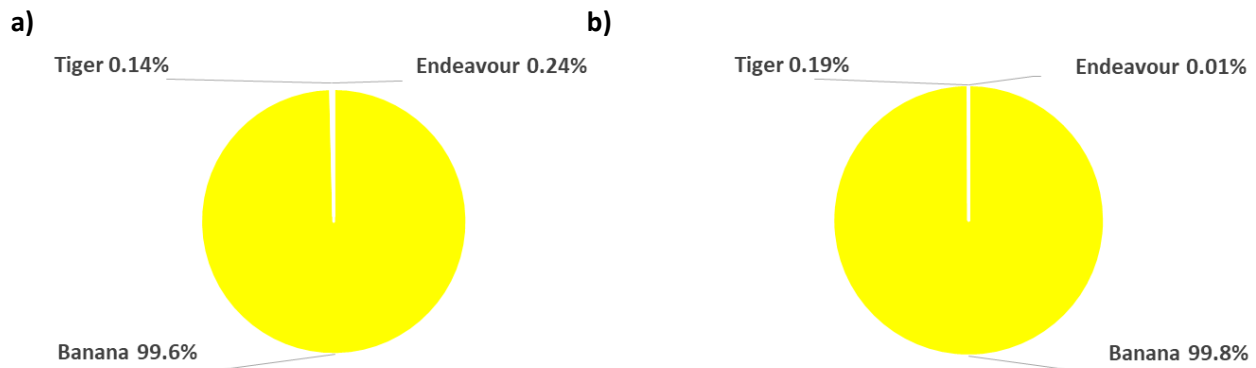
### Mitchell

Banana prawn catches in the Mitchell area decreased from 349 t in 2016 to 205 t in 2017 (Figure 23). Tiger and Endeavour prawn catches were both less than 1 t in 2017, a slight increase from previous years. Banana prawns comprised 99.6% of the catch, tiger prawns 0.14% and endeavour prawns 0.24% in 2017 (Figure 24).

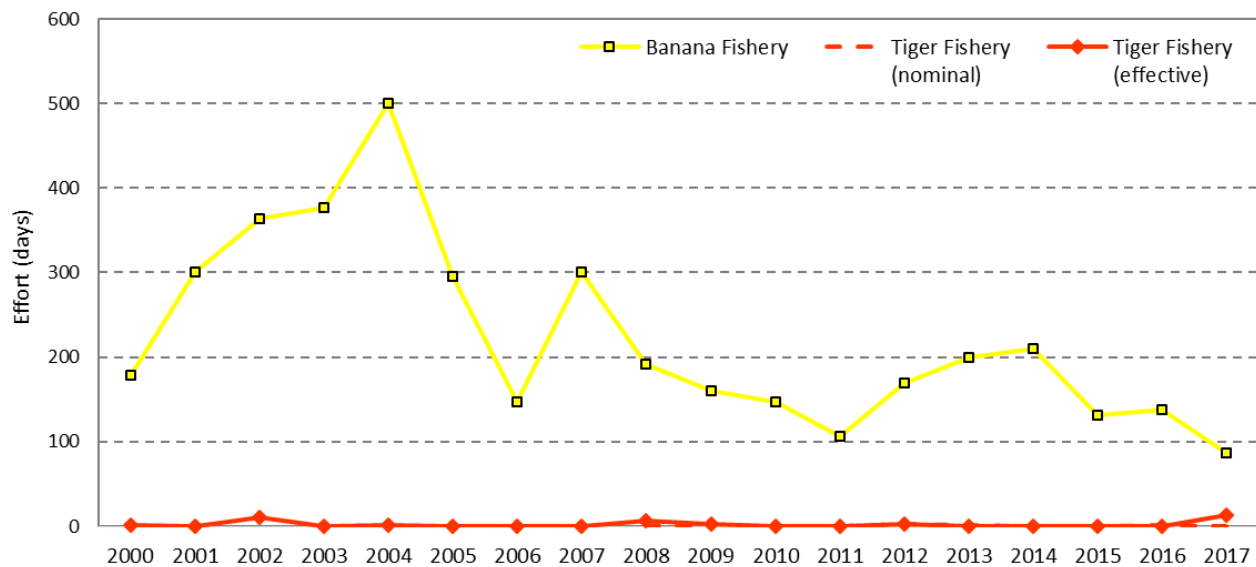
Effort in the banana prawn fishery decreased from 138 days in 2016 to 87 days in 2017 (Figure 25a). CPUE of banana prawns decreased from 2.532 t per day in 2016 to 2.353 t per day in 2017 (Figure 25b). Nominal and effective CPUE of tiger prawns increased from zero in 2016 to 0.199 and 0.062 t per day, respectively, in 2017 (Figure 25a, c).



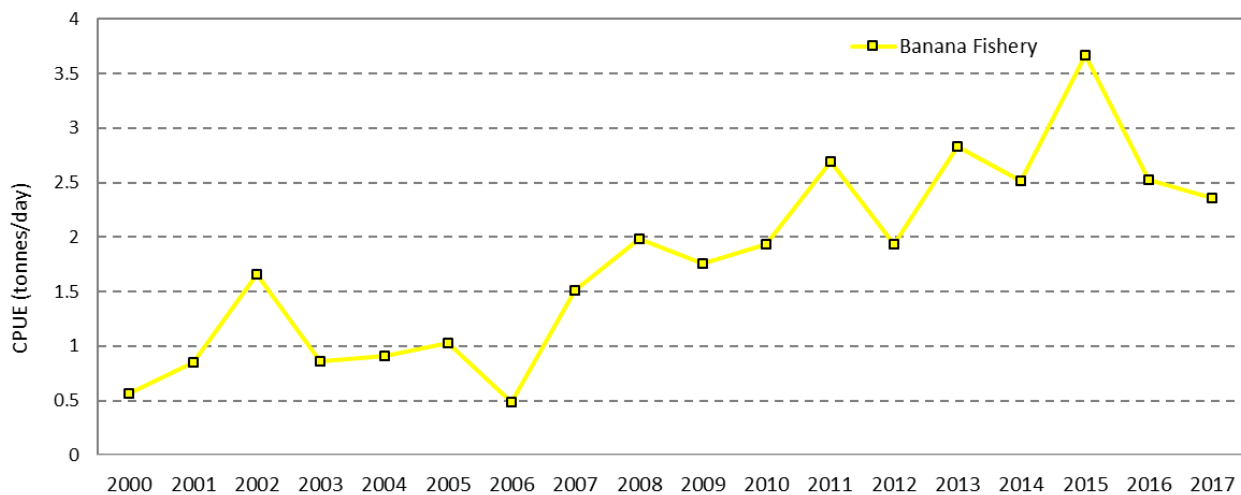
**Figure 23:** Catch by species in the Mitchell area - 2000 to 2017.



**Figure 24:** (a) Percentage catch of prawn species in the Mitchell area during 2017 and (b) percentage catch of prawn species in the Mitchell area - 2000 to 2017.

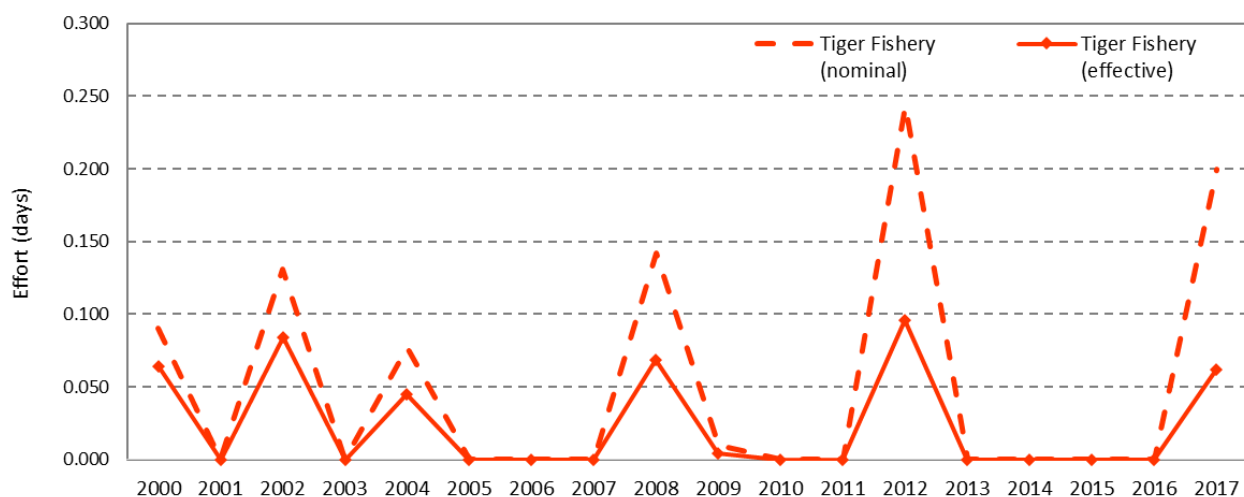


**Figure 25a:** Effort for the banana and tiger prawn fisheries in the Mitchell area - 2000 to 2017.



**Figure 25b:** Catch rate for the banana prawn fishery in the Mitchell area - 2000 to 2017.



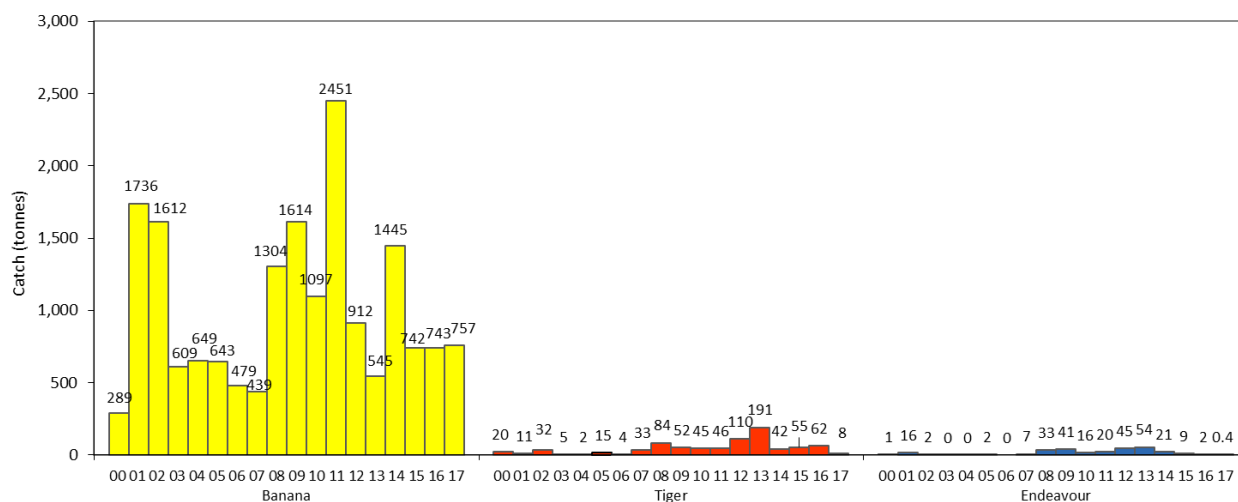


**Figure 25c:** Nominal and effective catch rate for the tiger prawn fishery in the Mitchell area - 2000 to 2017.

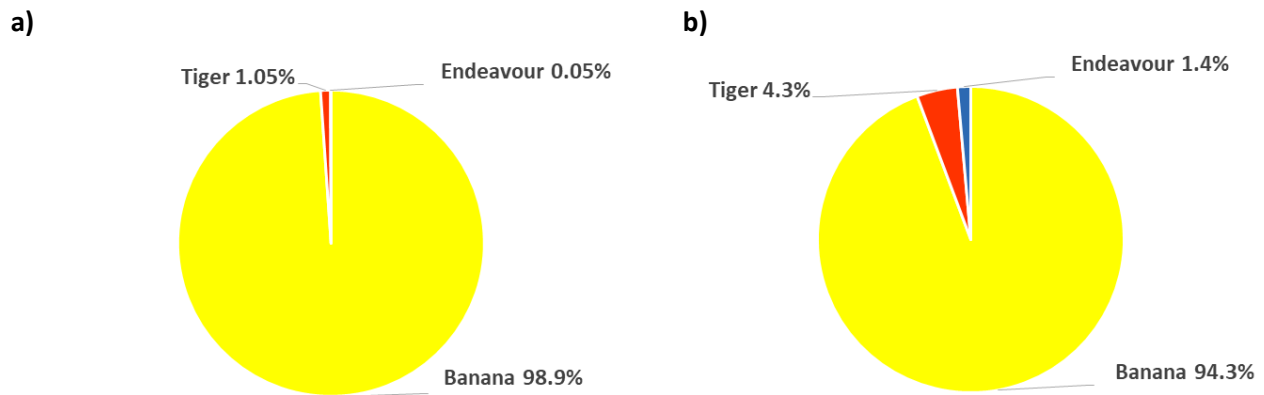
### Bold

Banana prawn catches in the Bold area increased slightly from 743 t in 2016 to 757 t in 2017 (Figure 26). Catches of tiger prawns decreased from 62 t in 2016 to 8 t in 2017. Endeavour prawn catches decreased from 2 t in 2016 to 0.4 t in 2017. Banana prawns dominated the catch in this area in 2016, comprising 92% of the catch, with tiger prawns (7.7%) and endeavour prawns (0.3%) making up the remainder (Figure 27a).

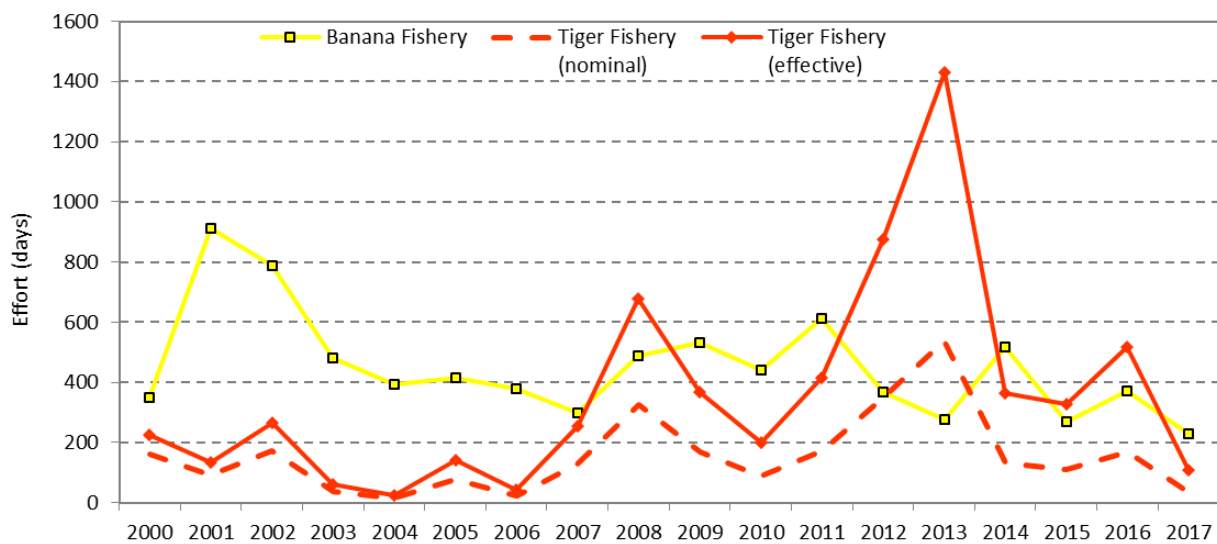
Effort in the banana prawn fishery decreased from 373 days in 2016 to 229 days in 2017 (Figure 28a). CPUE of banana prawns increased from 1.99 t per day in 2016 to 3.31 t per day in 2017 (Figure 28b). Effort in the tiger prawn fishery decreased from 168 days in 2016 to 34 days in 2017 (Figure 28a). Nominal and effective CPUE of tiger prawns decreased from 0.384 and 0.125 t per day, respectively, in 2016 to 0.265 and 0.082 t per day in 2017 (Figure 28c).



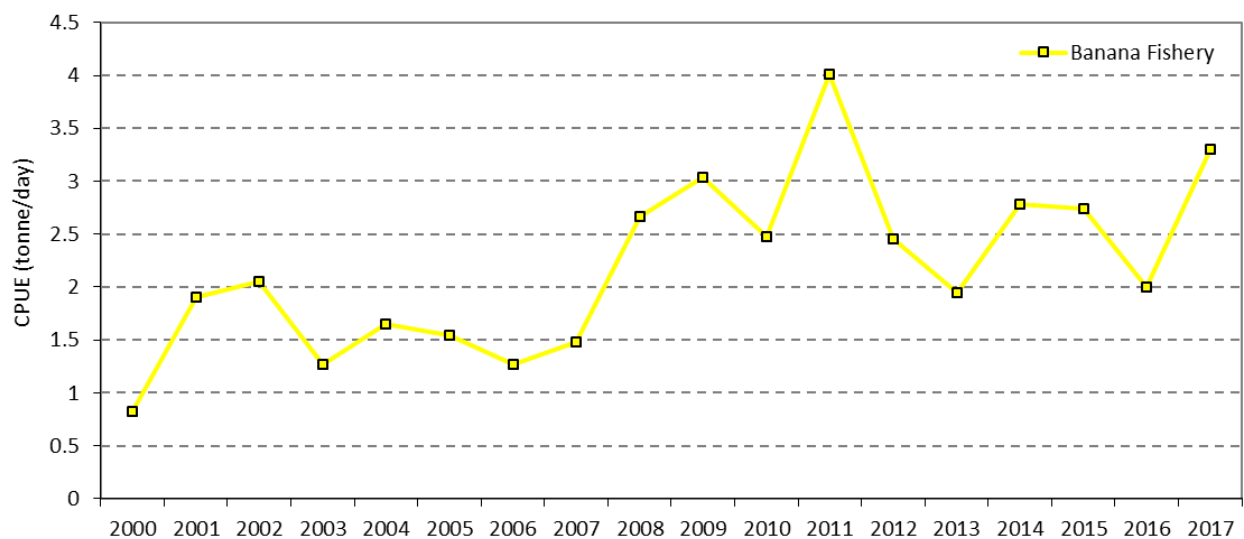
**Figure 26:** Catch by species in the Bold area – 2000 to 2017.



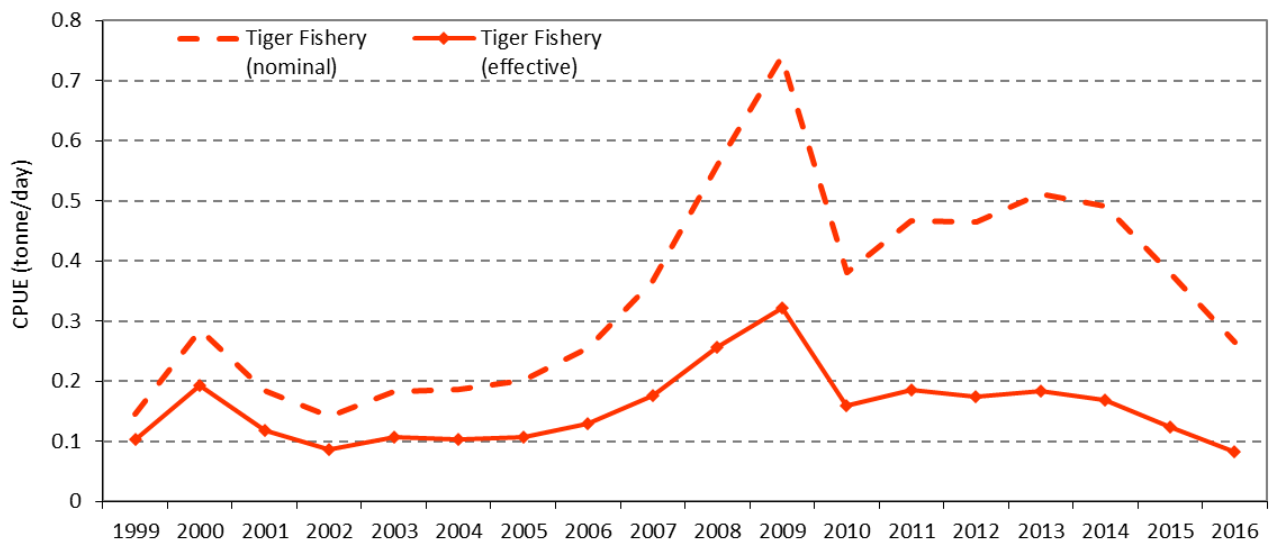
**Figure 27:** (a) Percentage catch of prawn species in the Bold area during 2017 and (b) catch of prawn species in the Bold area - 2000 to 2017.



**Figure 28a:** Effort for the banana and tiger prawn fisheries in the Bold area - 2000 to 2017.



**Figure 28b:** Catch rate for the banana prawn fishery in the Bold area - 2000 to 2017.

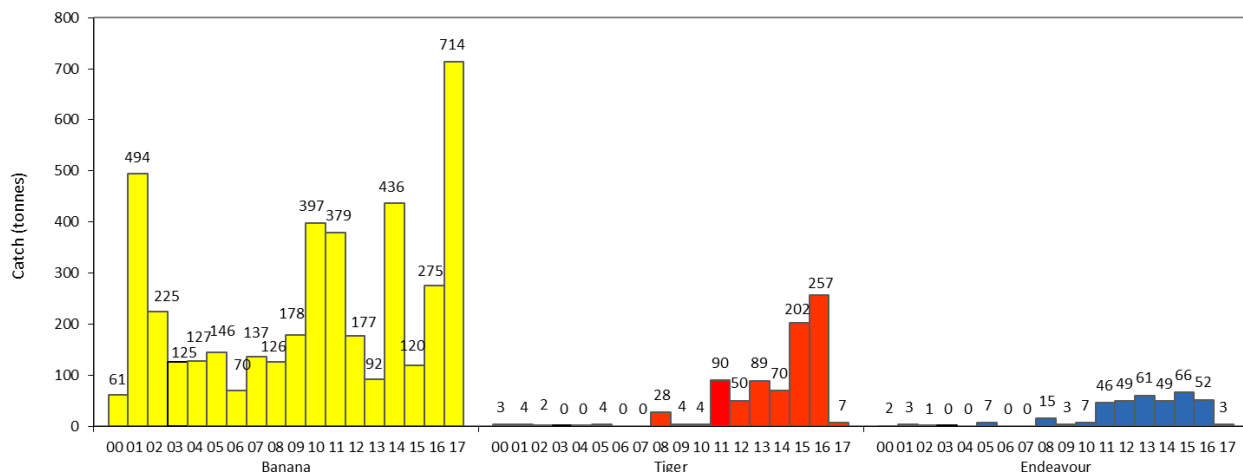


**Figure 28c:** Nominal and effective catch rate for the tiger prawn fishery in the Bold area - 2000 to 2017.

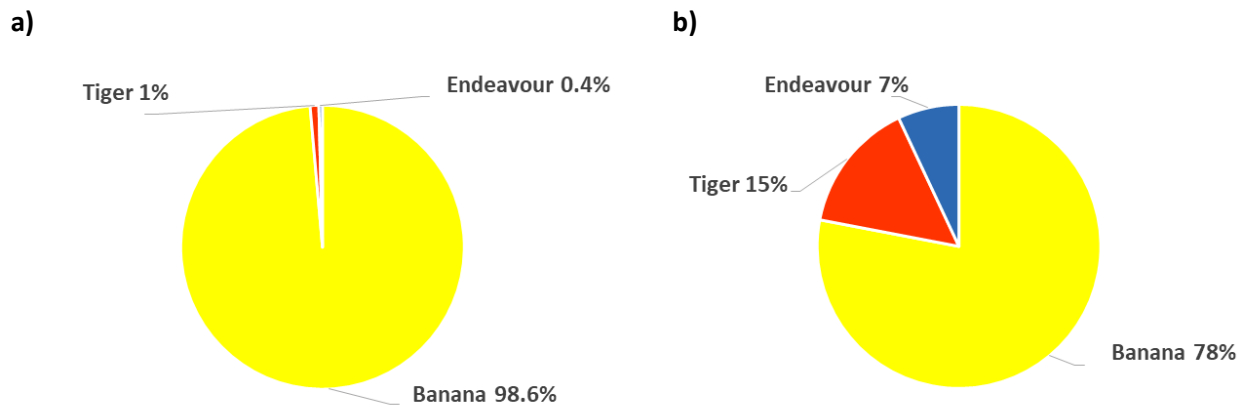
### Sweers

Banana prawn catches in the Sweers area increased from 275 t in 2016 to 714 t in 2017 (Figure 29). Catches of tiger prawns decreased from 257 t in 2016 to 7 t in 2017. Endeavour prawns decreased from 52 t in 2016 to 3 t in 2017. Banana prawns comprised 98.6% of the catch in 2017 compared to 47% in 2016. Tiger and endeavor prawns comprising 1% and 0.4%, respectively, compared to 44% and 9% in 2016 (Figure 30a).

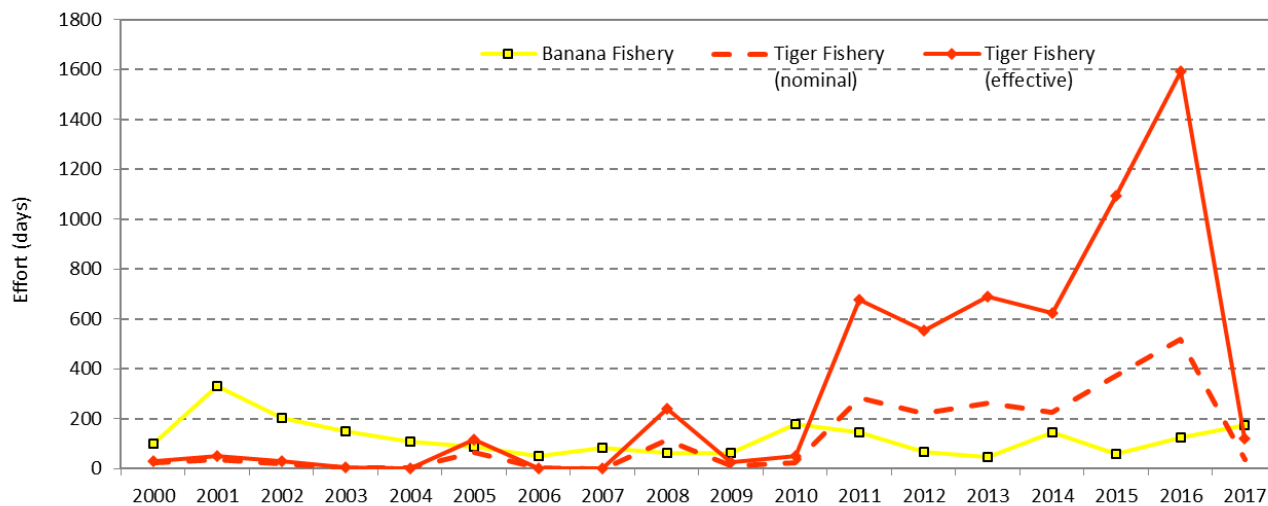
Effort in the banana prawn fishery increased from 122 days in 2016 to 172 days in 2017 (Figure 31a). CPUE of banana prawns increased from 2.17 to per day in 2016 to 4.16 t per day in 2017 (Figure 31b). Effort in the tiger prawn fishery decreased from 518 days in 2016 to 37 days in 2017 (Figure 31a). Nominal and effective CPUE of tiger prawns decreased from 0.633 and 0.206 t per day, respectively, in 2016 to 0.243 and 0.075 t per day in 2017 (Figure 31c).



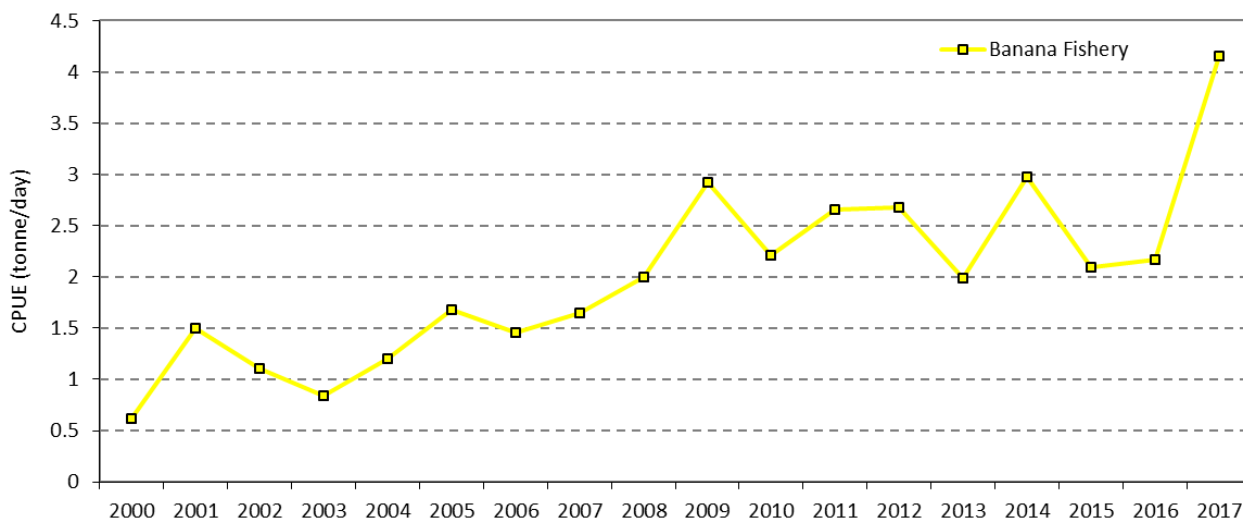
**Figure 29:** Catch by species in the Sweers area - 2000 to 2017.



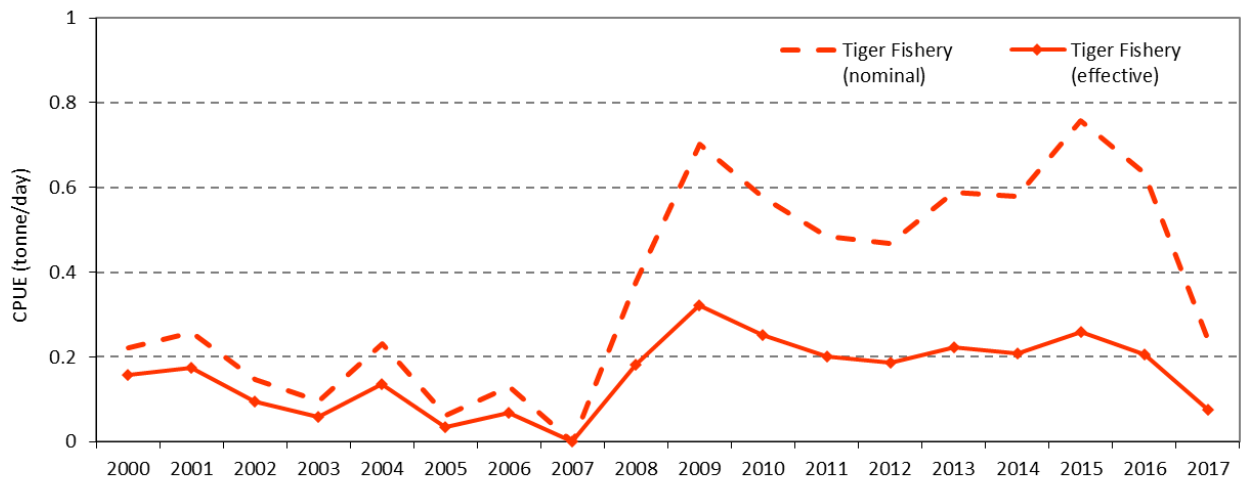
**Figure 30:** (a) Percentage catch of prawn species in the Sweers area during 2017, and (b) percentage catch of prawn species in the Sweers area - 2000 to 2017.



**Figure 31a:** Effort for the banana and tiger prawn fisheries in the Sweers area - 2000 to 2017.



**Figure 31b:** Catch rate for the banana prawn fishery in the Sweers area - 2000 to 2017.

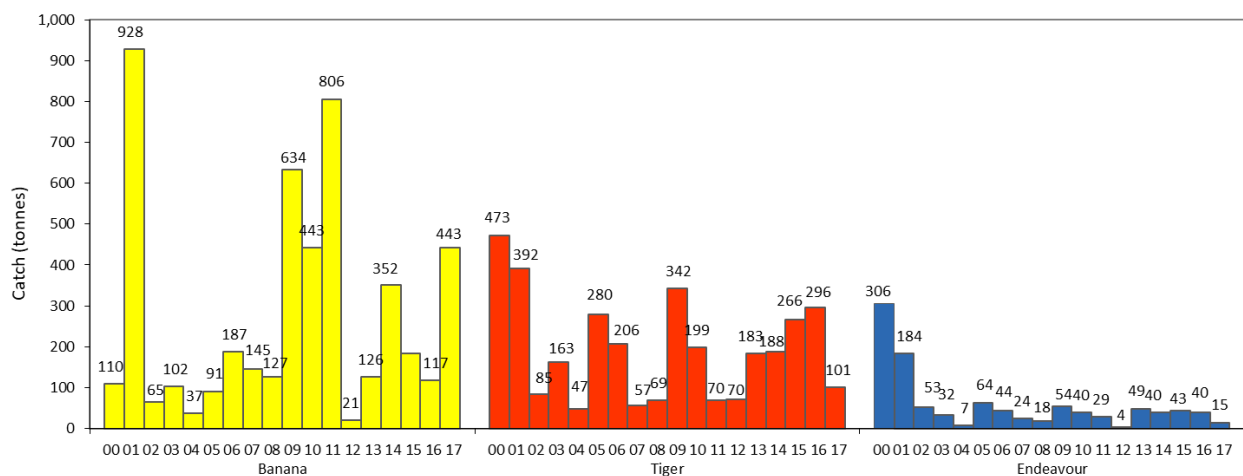


**Figure 31c:** Nominal and effective catch rate for the tiger prawn fishery in the Sweers area - 2000 to 2017.

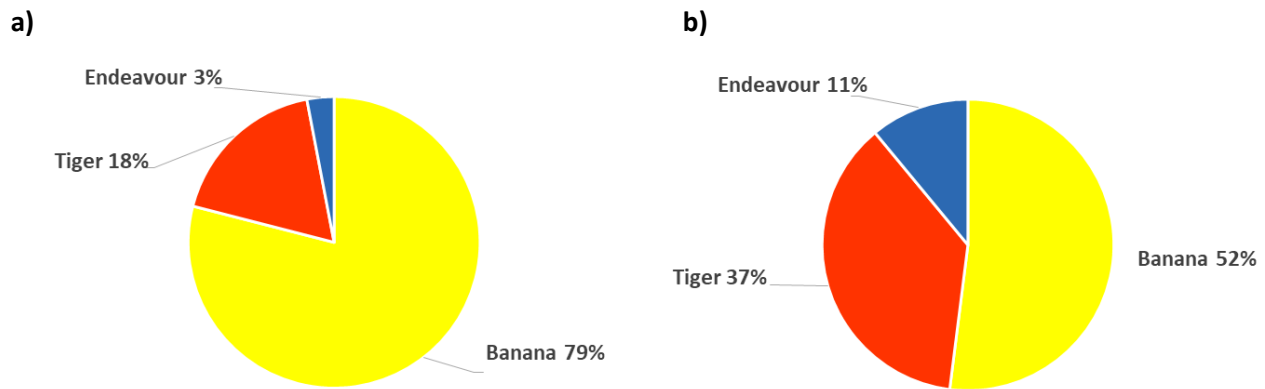
### Mornington

Banana prawn catches in the Mornington area increased from 117 t in 2016 to 443 t per day in 2017 (Figure 32). Catches of tiger prawns decreased from 296 t in 2016 to 101 t in 2017. Endeavour prawn catches decreased from 40 t in 2016 to 15 t in 2017. In 2017 banana prawns dominated the catch in this area, contributing 79% of the catch in 2017. Tiger and endeavor prawns contributed 18% and 3% to the total catch, respectively (Figure 33a).

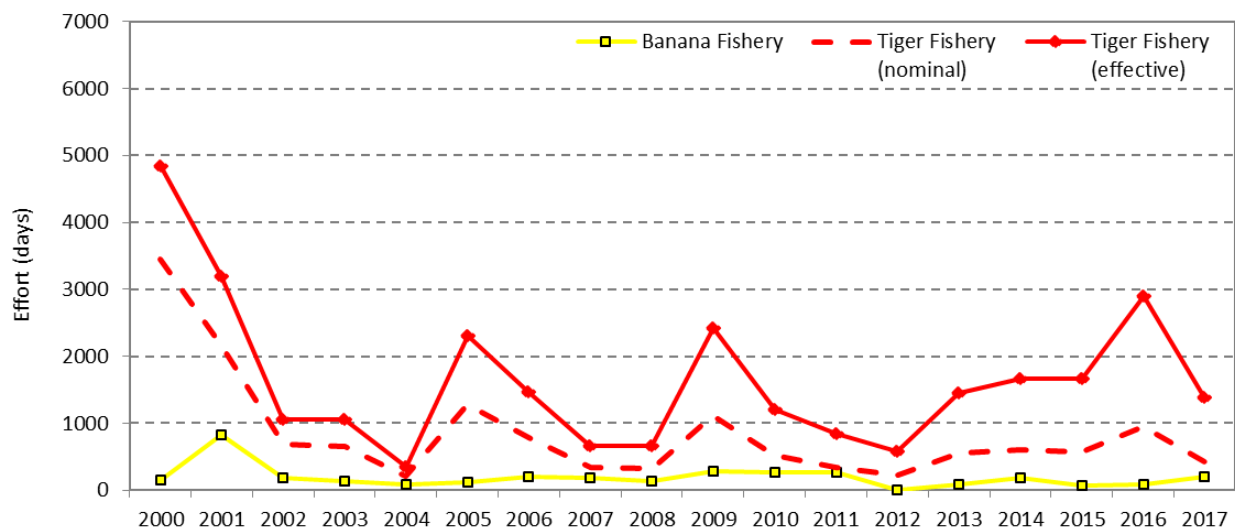
Effort in the banana prawn fishery increased from 92 days in 2016 to 202 days in 2017 (Figure 34a). CPUE of banana prawns increased from 1.239 t per day in 2016 to 2.183 t per day in 2017 (Figure 34b). Effort in the tiger prawn fishery decreased from 941 days in 2016 to 427 days in 2017 (Figure 34a). Nominal and effective CPUE of tiger prawns decreased from 0.377 and 0.123 t per day, respectively, in 2016 to 0.281 and 0.087 t per day in 2017 (Figure 34c).



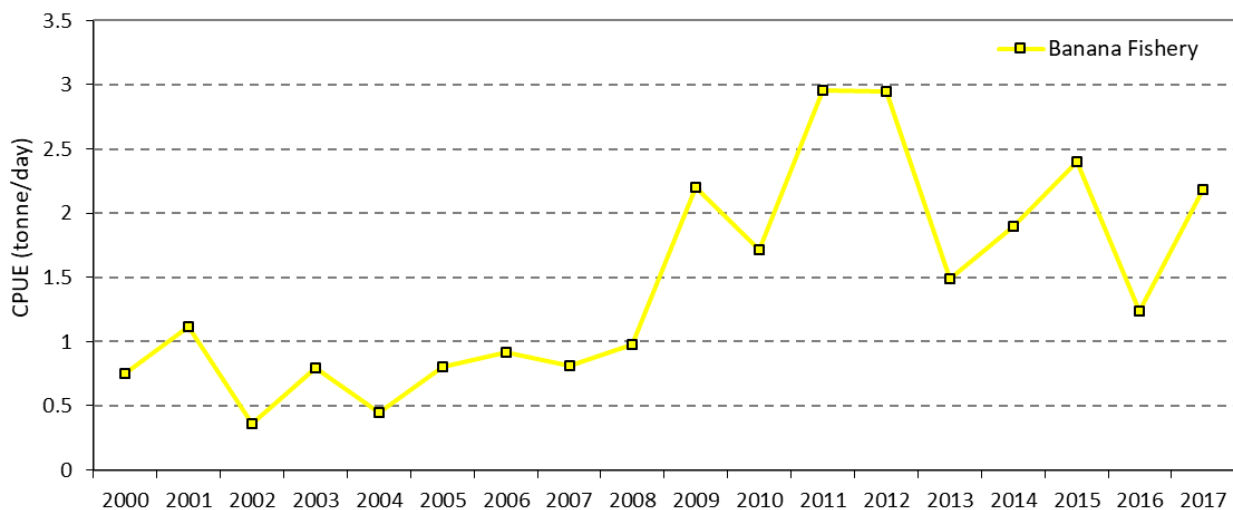
**Figure 32:** Catch by species in the Mornington area - 2000 to 2017.



**Figure 33:** (a) Percentage catch of prawn species in the Mornington area during 2017 and (b) percentage catch of prawn species in the Mornington area – 2000 to 2017.

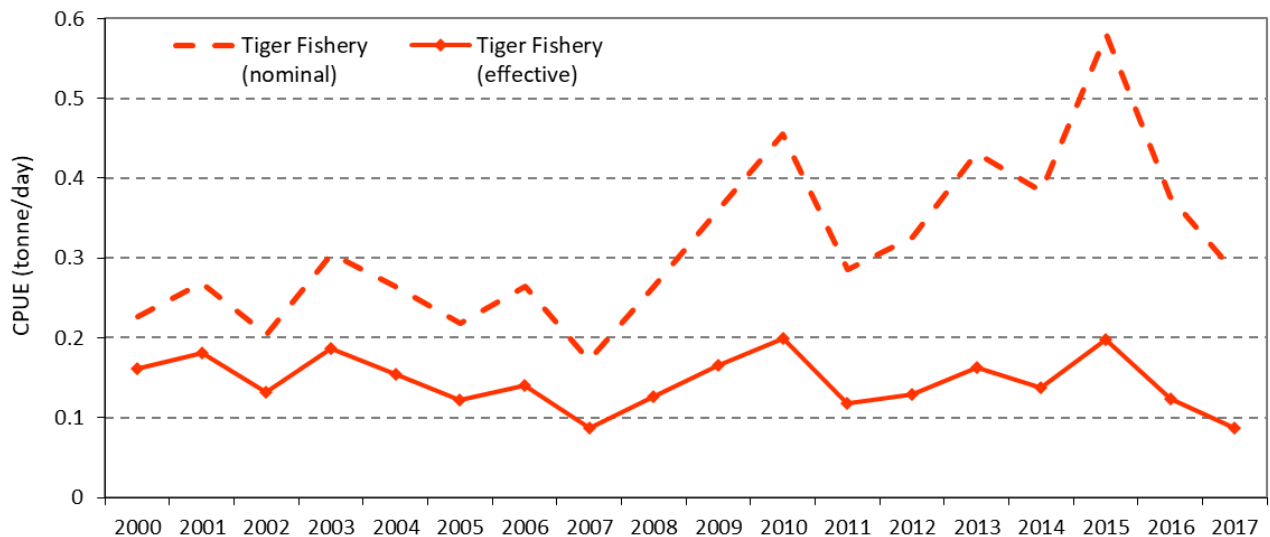


**Figure 34a:** Effort for the banana and tiger prawn fisheries in the Mornington area - 2000 to 2017.



**Figure 34b:** Catch rate for the banana prawn fishery in the Mornington area - 2000 to 2017.



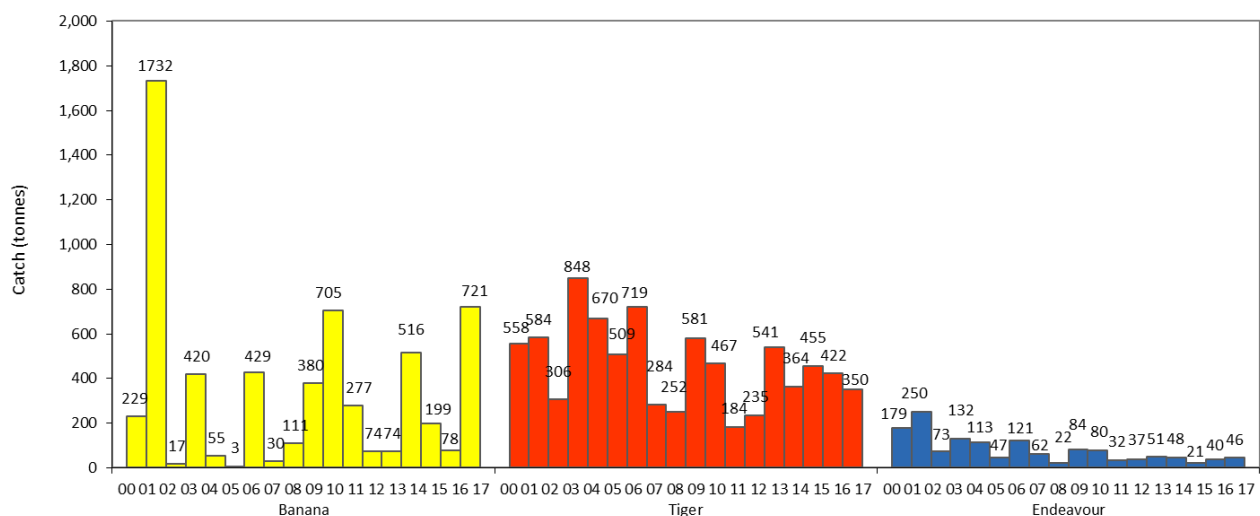


**Figure 34c:** Nominal and effective catch rate for the tiger prawn fishery in the Mornington area - 2000 to 2017.

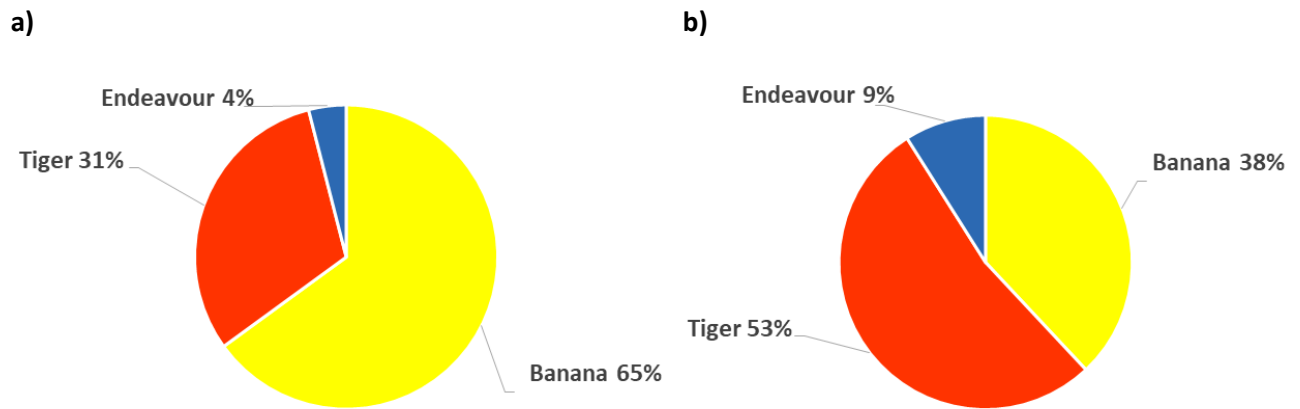
### Limmen Bight

Banana prawn catches in the Limmen Bight area increased from 78 t in 2016 to 721 t in 2017 (Figure 35). Catches of tiger prawns decreased from 422 t in 2016 to 350 t in 2017. Endeavour prawn catches increased from 40 t in 2016 to 46 t in 2017. Banana prawns dominated catches for 2017 in this area, comprising 65% of the total catch (compared to 78% tiger prawns in 2016). Tiger and Endeavour prawns contributed 31% and 8%, respectively (Figure 36)

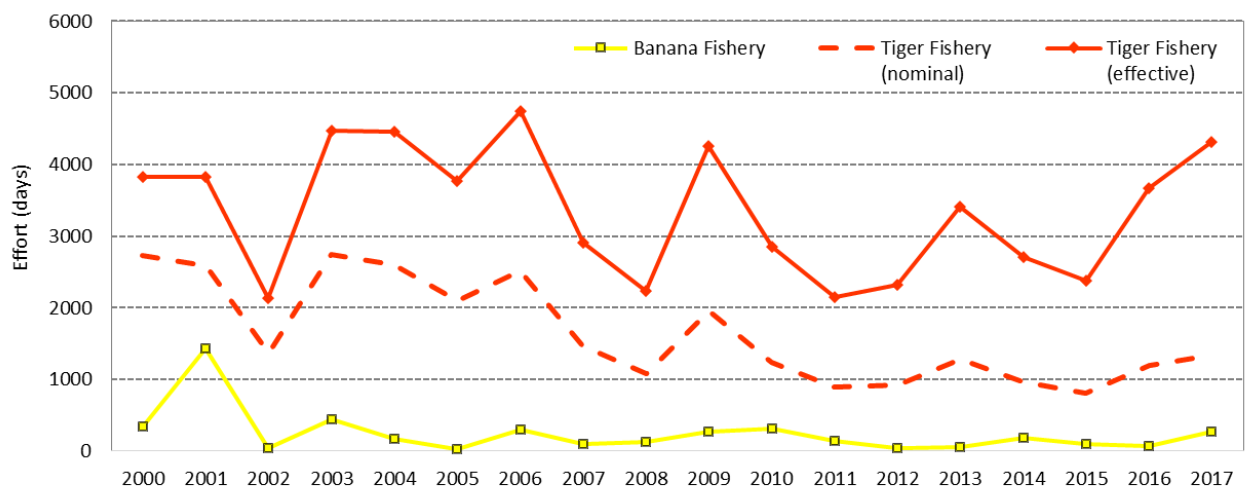
Effort in the banana prawn fishery increased from 72 days in 2016 to 271 days in 2017 (Figure 37a). CPUE of banana prawns increased from 1.111 t per day in 2016 to 2.671 t per day in 2017 (Figure 37b). Effort in the tiger prawn fishery increased from 1197 days in 2016 to 1340 days in 2017 (Figure 37a). Nominal and effective CPUE of tiger prawns decreased from 2015 to 0.385 and 0.125 t per day, respectively, in 2016 to 0.293 and 0.091 t per day in 2017 (Figure 37c).



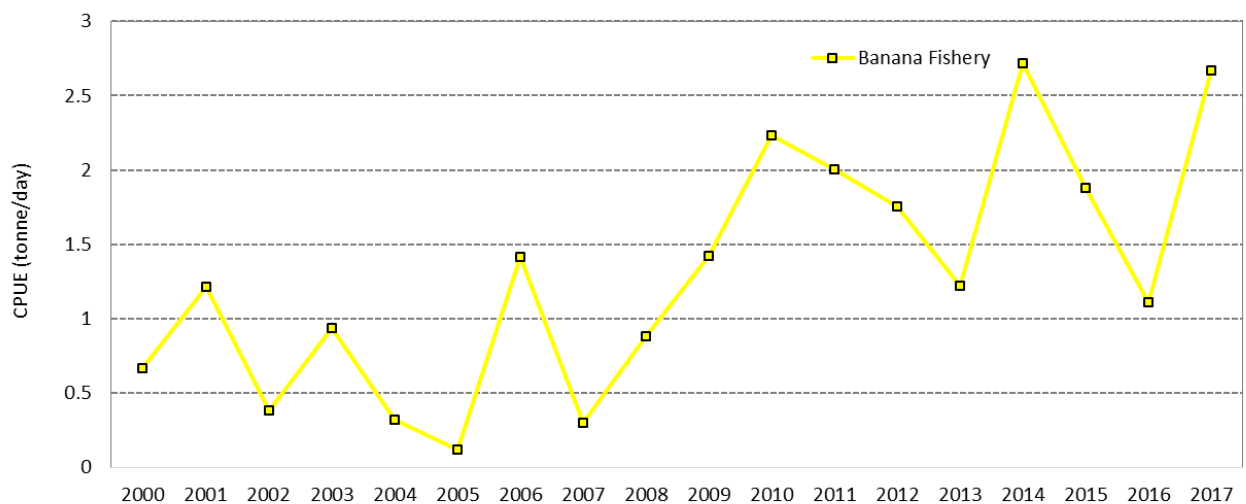
**Figure 35:** Catch by species in the Limmen Bight area - 2000 to 2017.



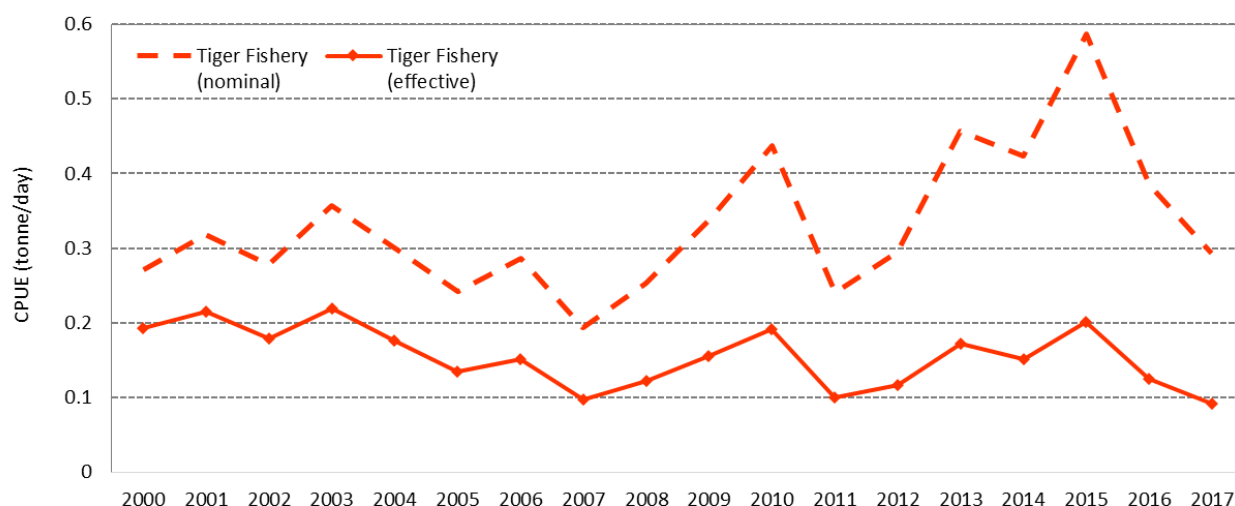
**Figure 36:** (a) Percentage catch of prawn species in the Limmen Bight area during 2017 and (b) percentage catch of prawn species in the Limmen Bight area - 2000 to 2017.



**Figure 37a:** Effort for the banana and tiger prawn fisheries in the Limmen Bight area - 2000 to 2017.



**Figure 37b:** Catch rate for the banana prawn fishery in the Limmen Bight area - 1999 to 2016.

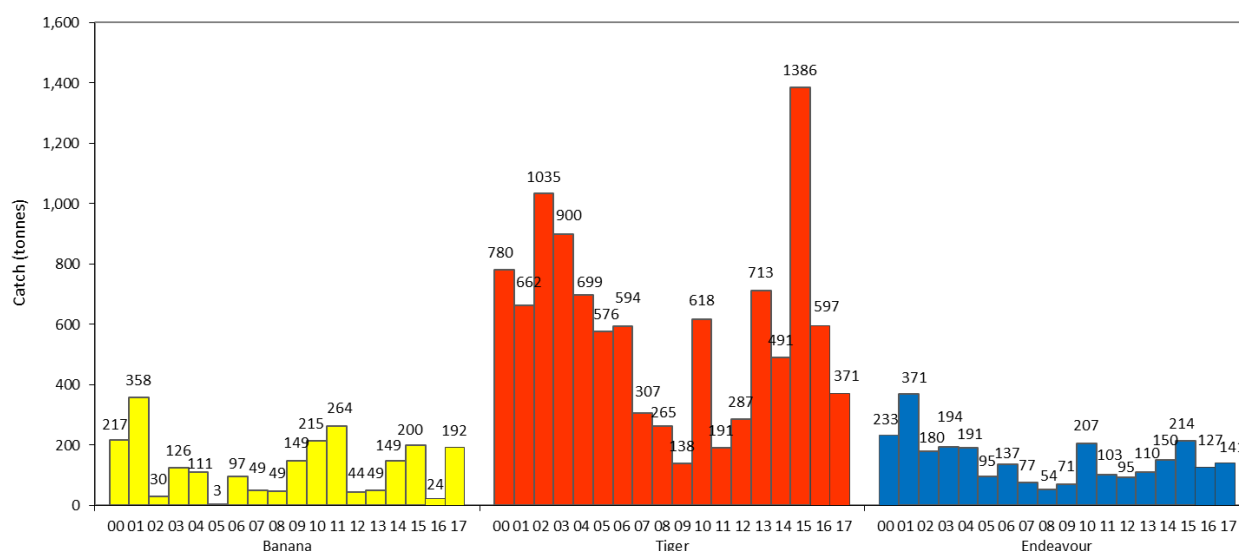


**Figure 37c:** Nominal and effective catch rate for the tiger prawn fishery in the Limmen Bight area - 2000 to 2017.

### Groote

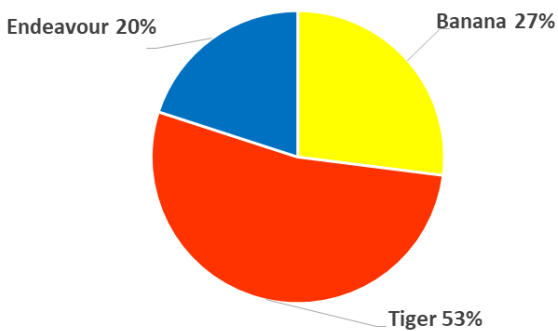
Banana prawn catches in the Groote area increased from 24 t in 2016 to 192 t in 2017 (Figure 38). Catches of tiger prawns decreased from 597 t in 2016 to 371 t in 2017. Endeavour prawn catches increased from 127 t in 2016 to 141 t in 2017. In 2017, prawn catch comprised of 53% tiger prawns (compared to 80% in 2016), 27% banana prawns and 20% endeavour prawns (Figure 39).

Effort in the banana prawn fishery increased from 45 days in 2016 to 124 days in 2017 (Figure 40a). CPUE of banana prawns increased from 0.422 t per day in 2016 to 1.57 t per day in 2017 (Figure 40b). Effort in the tiger prawn fishery decreased from 1,759 days in 2016 to 1,527 days in 2017 (Figure 40a). Nominal and effective CPUE of tiger prawns decreased from 0.415 and 0.135 t per day, respectively, in 2016 to 0.334 and 0.104 t per day in 2017 (Figure 40c).

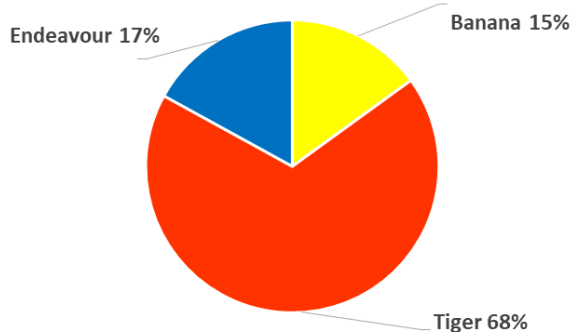


**Figure 38:** Catch by species in the Groote area - 2000 to 2017.

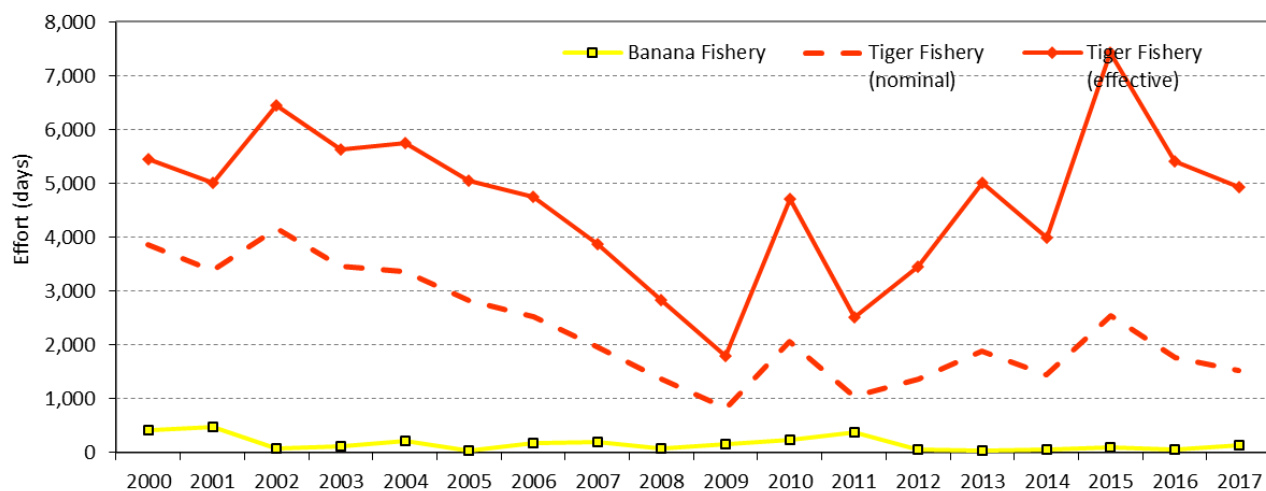
a)



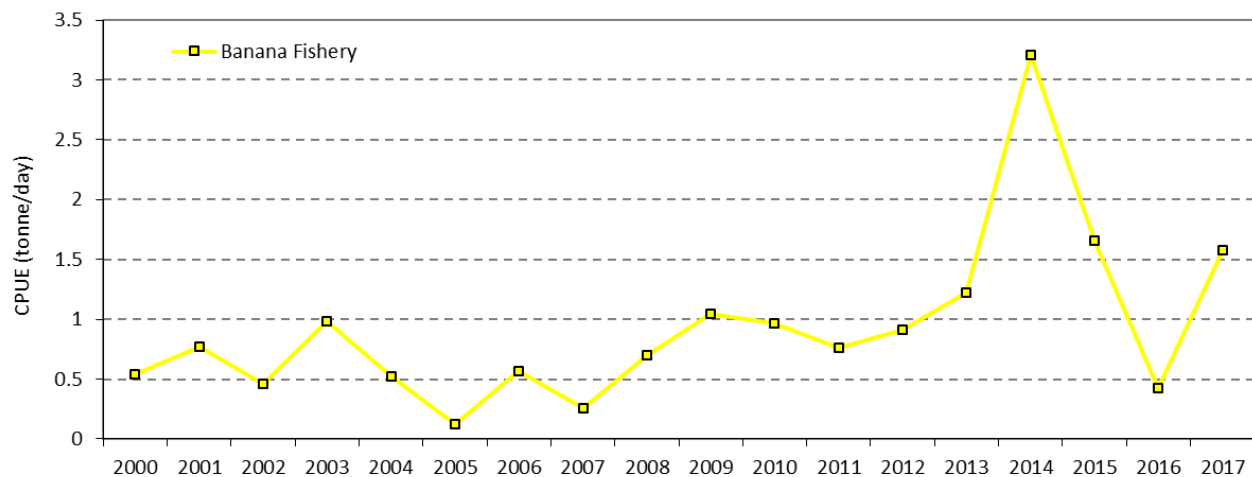
b)



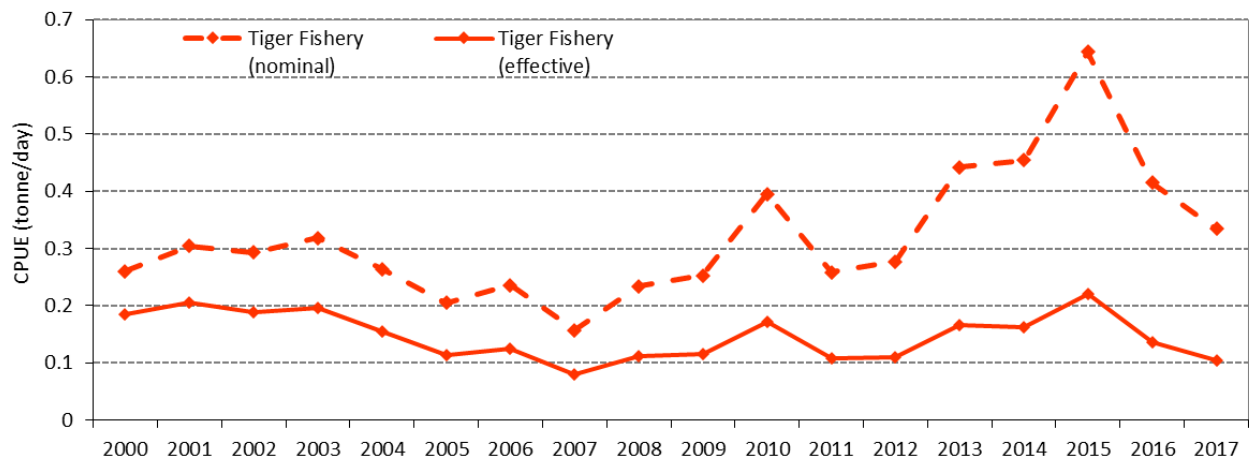
**Figure 39:** (a) Percentage catch of prawn species in the Groote area during 2017 and (b) percentage catch of prawn species in the Groote area - 2000 to 2017.



**Figure 40a:** Effort for the banana and tiger prawn fisheries in the Groote area - 2000 to 2017.



**Figure 40b:** Catch rate for the banana prawn fishery in the Groote area - 2000 to 2017.

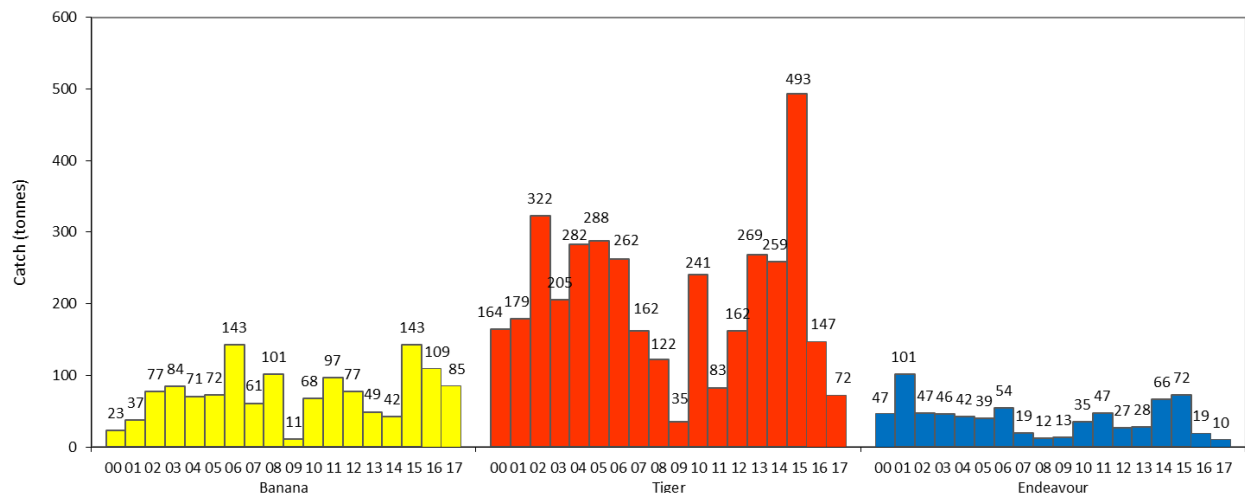


**Figure 40c:** Nominal and effective catch rate for the tiger prawn fishery in the Groote area - 2000 to 2017.

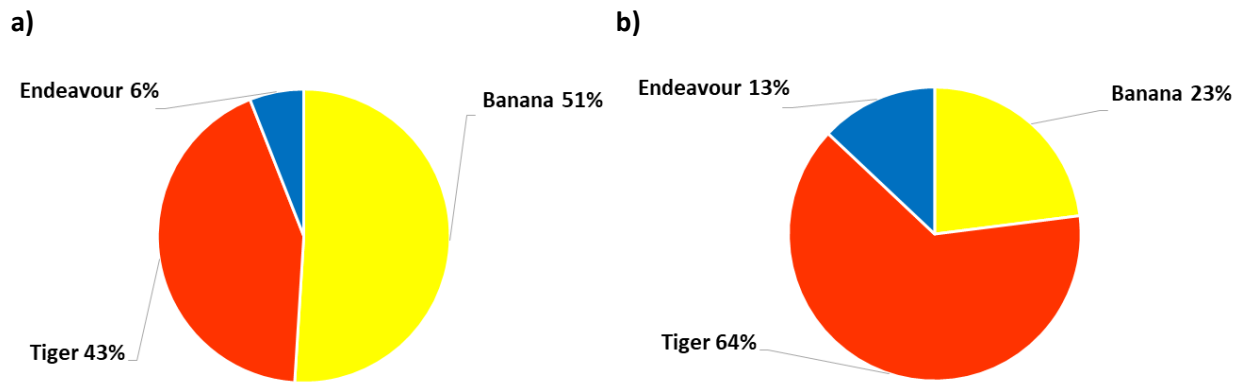
### Gove

Banana prawn catches in the Gove area decreased from 109 t in 2016 to 85 t in 2017 (Figure 41). Catches of tiger prawns decreased from 147 t in 2016 to 72 t in 2017. Endeavour prawn catches also decreased from 19 t in 2016 to 10 t in 2017. In contrast to 2016, banana prawns dominated the catch in 2017 with 51% followed by 43% tiger prawns and endeavour prawns the remaining 6% (Figure 42).

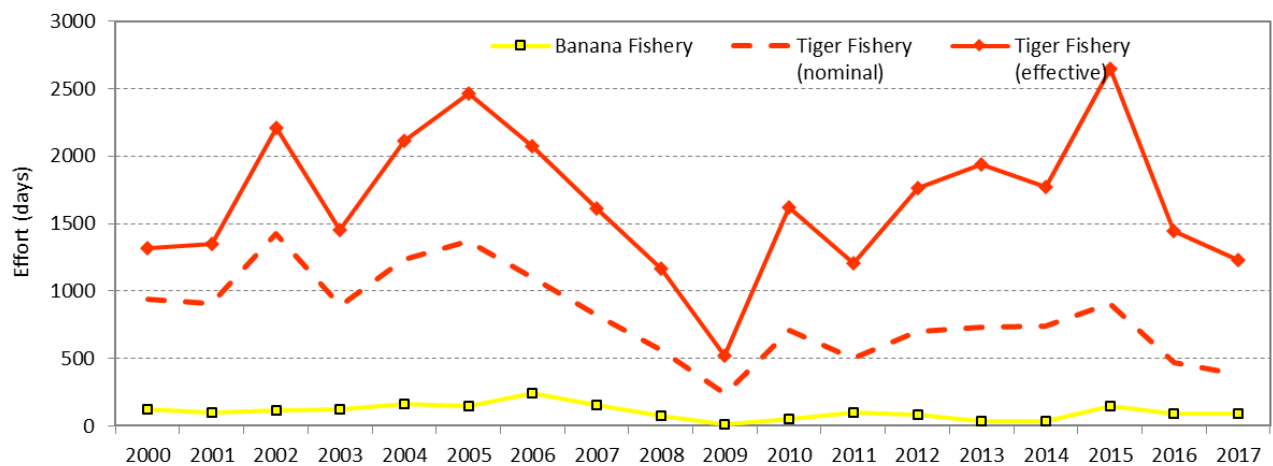
Effort in the banana prawn fishery increased from 89 days in 2016 to 93 days in 2017 (Figure 43a). CPUE of banana prawns decreased from 1.243 t per day in 2016 to 0.871 t per day in 2017 (Figure 43b). Effort in the tiger prawn fishery decreased from 471 days in 2016 to 382 days in 2017 (Figure 43a). Nominal and effective CPUE for tiger prawns decreased from 0.352 and 0.115 t per day in 2016 to 0.225 and 0.070 t per day, respectively, in 2017 (Figure 43c).



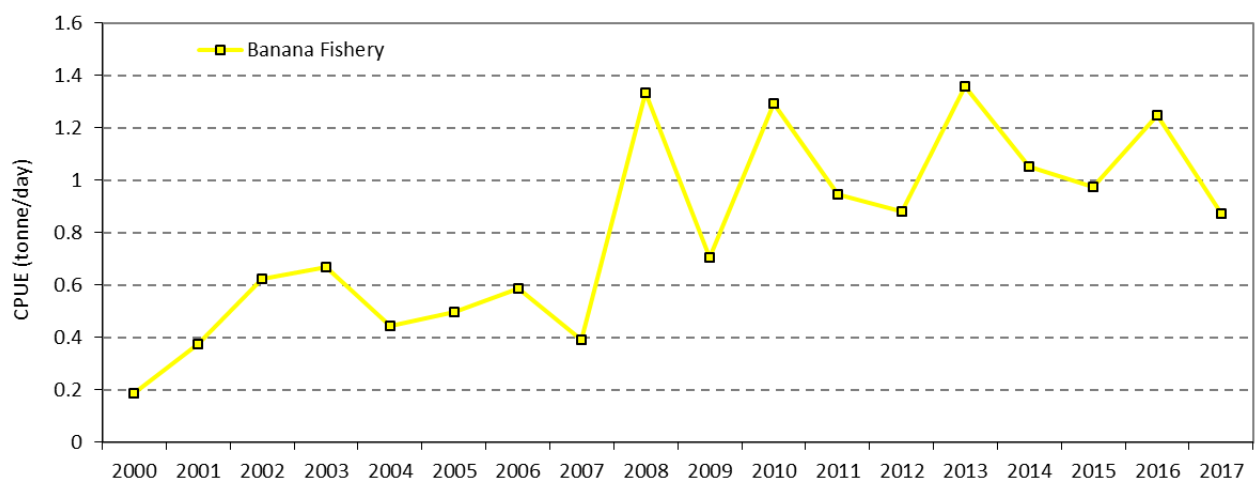
**Figure 41:** Catch by species in the Gove area - 2000 to 2017.



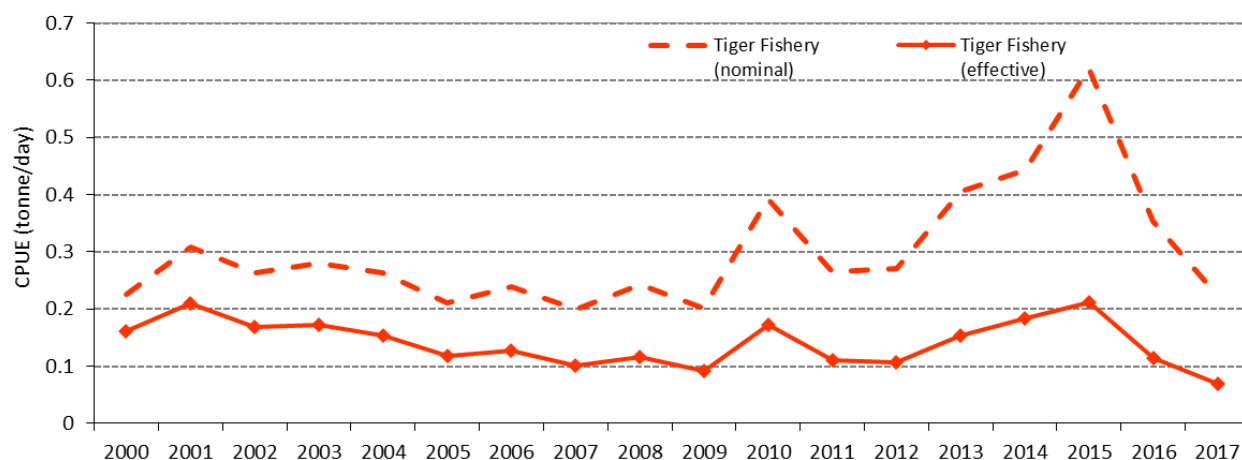
**Figure 42:** (a) Percentage catch of prawn species in the Gove area during 2017 and (b) percentage catch of prawn species in the Gove area - 2000 to 2017.



**Figure 43a:** Effort for the banana and tiger prawn fisheries in the Gove area - 2000 to 2017.



**Figure 43b:** Catch rate for the banana prawn fishery in the Gove area - 2000 to 2017.

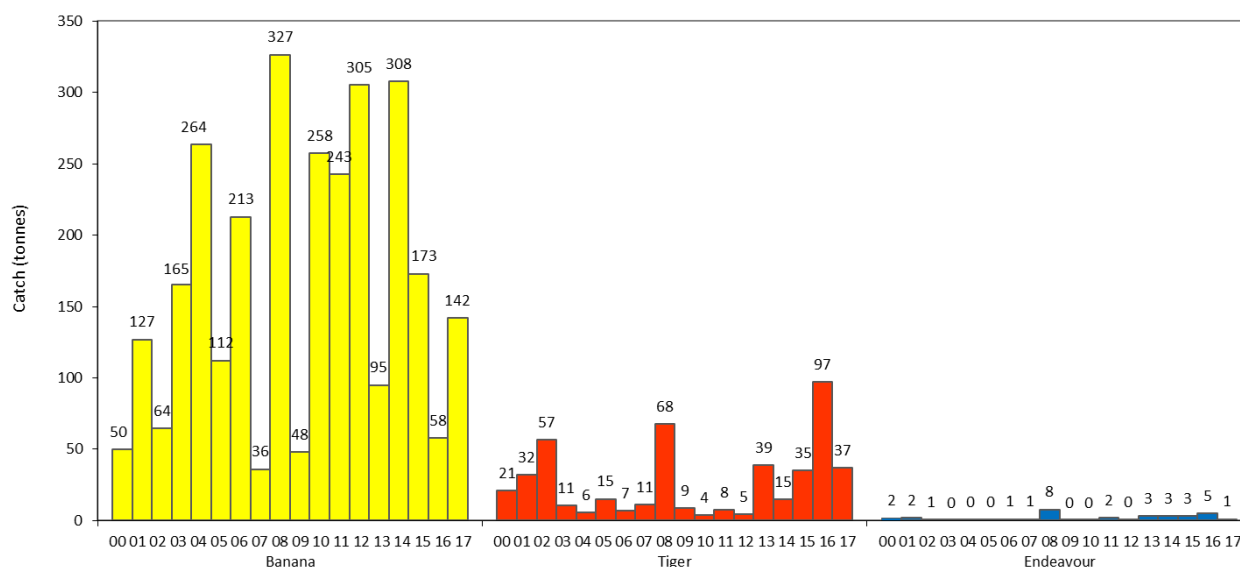


**Figure 43c:** Nominal and effective catch rate for the tiger prawn fishery in the Gove area - 2000 to 2017.

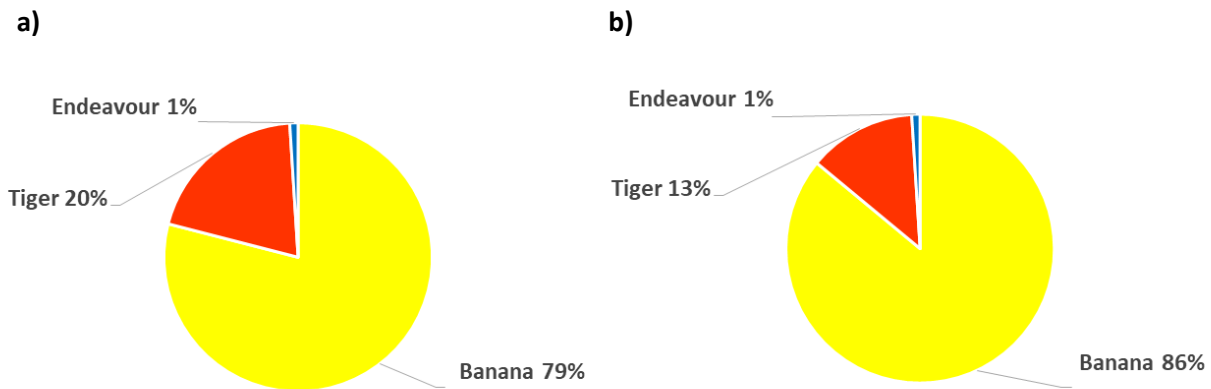
### Arnhem

Banana prawn catches in the Arnhem area increased from 58 t in 2016 to 142 t in 2017. Catches of tiger prawns decreased from 97 t in 2016 to 37 t in 2017. Catch of endeavour prawns decreased from 5 t in 2016 to 1 t in 2017 (Figure 44). In contrast to 2016, banana prawns dominated the catch in 2017, comprising 79% of the catch (Figure 45) compared to 61% tiger prawns in 2016. The remaining catch comprised 20% tiger prawns and 1% endeavour prawns.

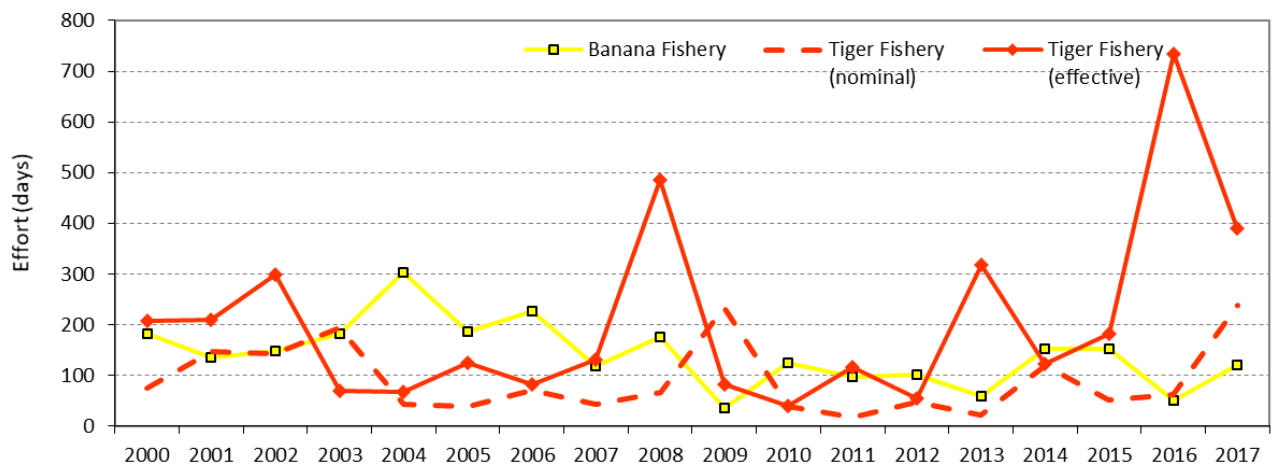
Effort in the banana prawn fishery increased from 50 days in 2016 to 120 days in 2017 (Figure 46a). CPUE of banana prawns increased from 1.152 t per day in 2016 to 1.183 t per day in 2017 (Figure 46b). Effort in the tiger prawn fishery decreased from 239 days in 2016 to 121 days in 2017 (Figure 46a). Nominal and effective CPUE of tiger prawns decreased from 0.427 and 0.139 t per day in 2016 to 0.314 and 0.097 t per day, respectively, in 2017 (Figure 46c).



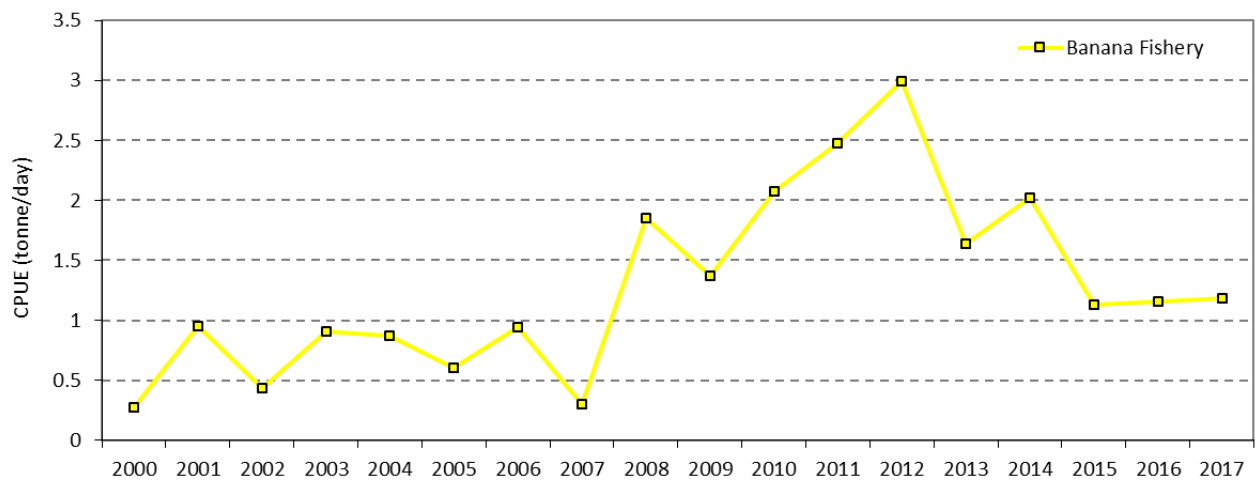
**Figure 44:** Catch by species in the Arnhem area - 2000 to 2017.



**Figure 45:** (a) Percentage catch of prawn species in the Arnhem area during 2017 and (b) percentage catch of prawn species in the Arnhem area - 2000 to 2017.

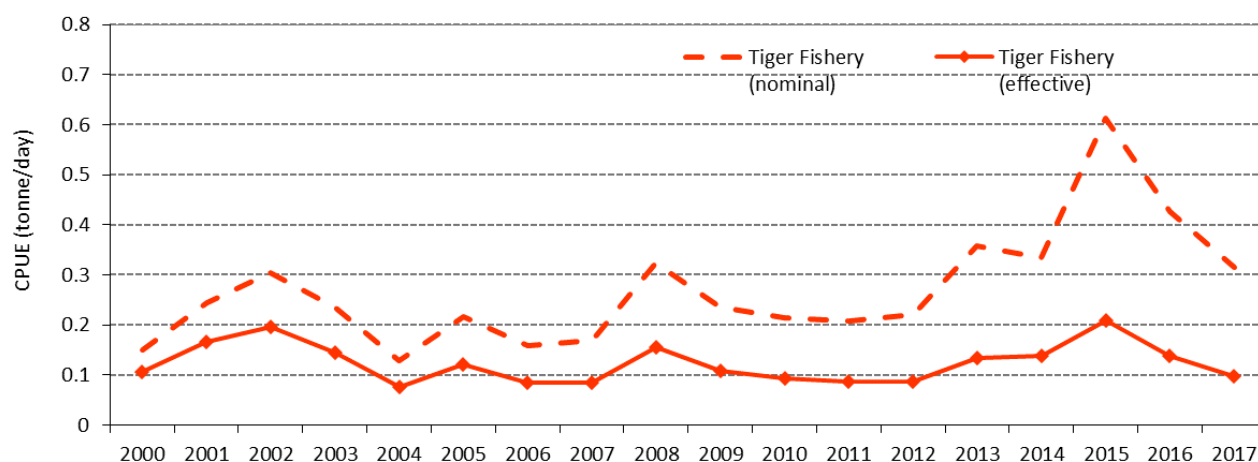


**Figure 46a:** Effort for the banana and tiger prawn fisheries in the Arnhem area - 2000 to 2017.



**Figure 46b:** Catch rate for the banana prawn fishery in the Arnhem area - 2000 to 2017.



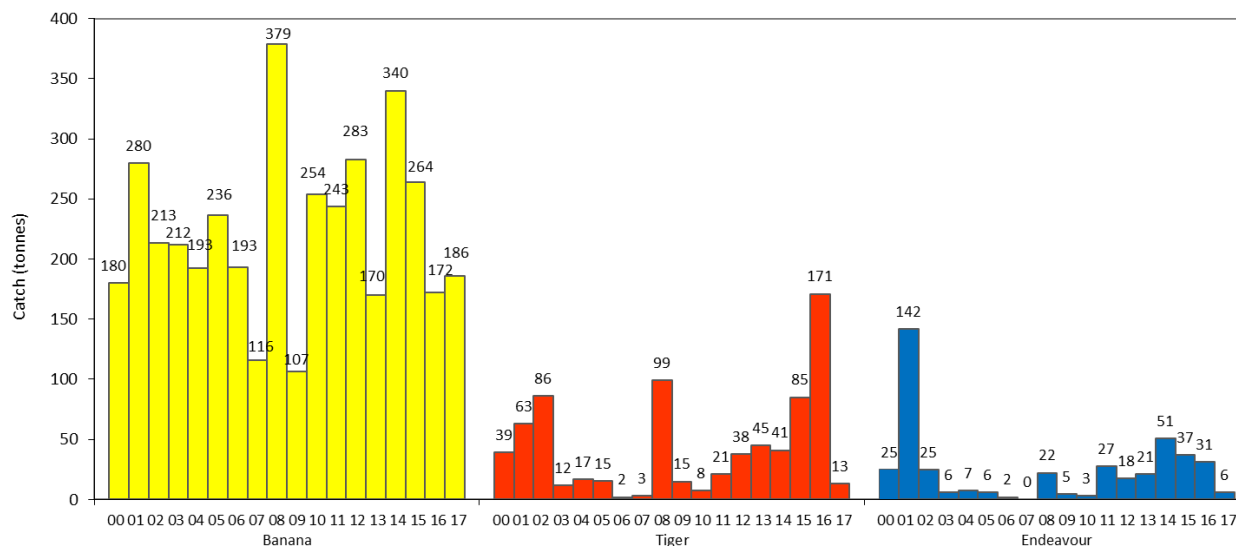


**Figure 46c:** Nominal and effective catch rate for the tiger prawn fishery in the Arnhem area - 2000 to 2017.

### Port Essington

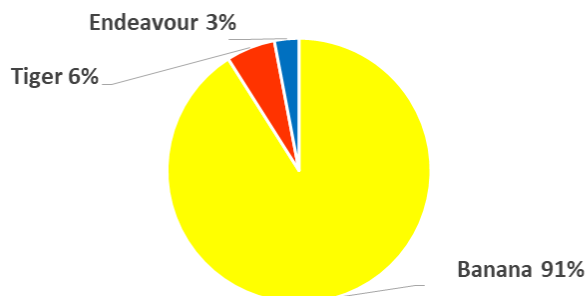
Banana prawn catches in the Port Essington area increased from 172 t in 2016 to 186 t in 2017 (Figure 47). Tiger prawn catches decreased from 171 t in 2016 to 13 t in 2017. Endeavour prawn catches decreased from 31 t in 2016 to 6 t in 2017. Banana prawns dominated catches in this area in 2017, comprising 91%. Tiger prawns made up 65 and Endeavour prawns the remaining 3% (Figure 48).

Effort in the banana prawn fishery increased from 161 days in 2016 to 182 days in 2017 (Figure 49a). CPUE of banana prawns increased from 1.006 t per day in 2016 to 1.033 t per day in 2017 (Figure 49b). Effort in the tiger prawn fishery decreased from 344 days in 2016 to 56 days in 2017 (Figure 49a). Nominal and effective CPUE of tiger prawns decreased from 0.616 and 0.201 t per day in 2016 to 0.286 and 0.089 t per day, respectively, in 2017 (Figure 49c).

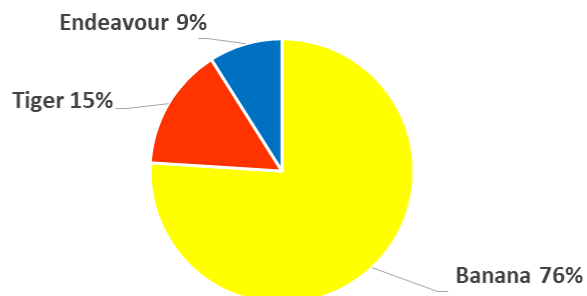


**Figure 47:** Catch by species in the Port Essington area - 2000 to 2017.

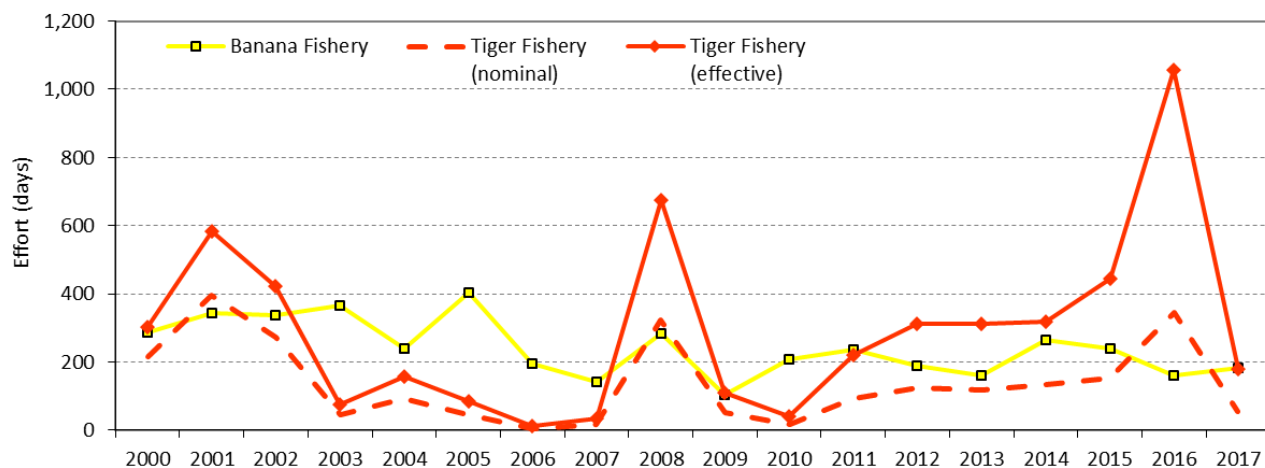
a)



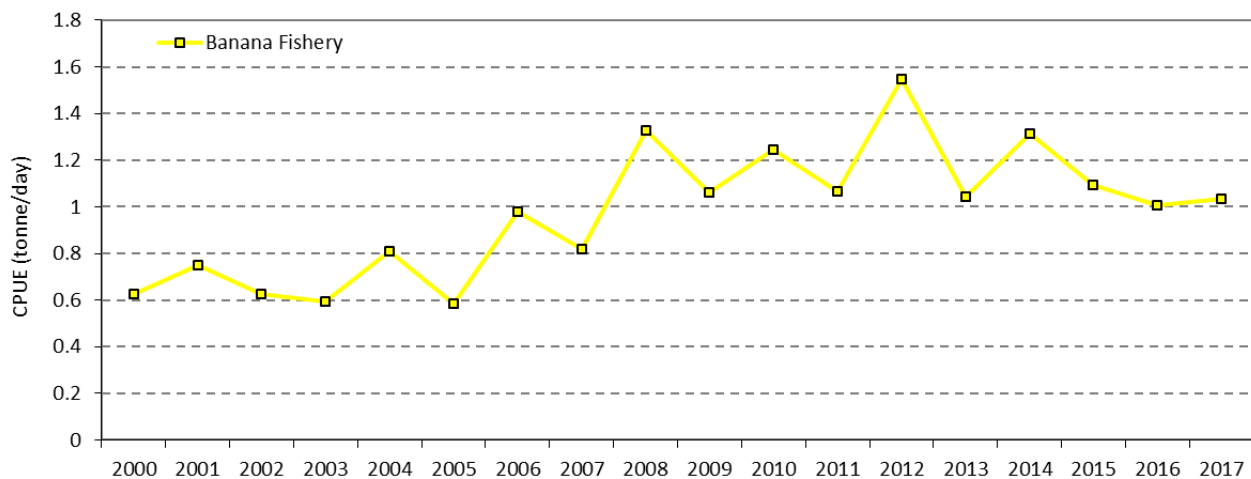
b)



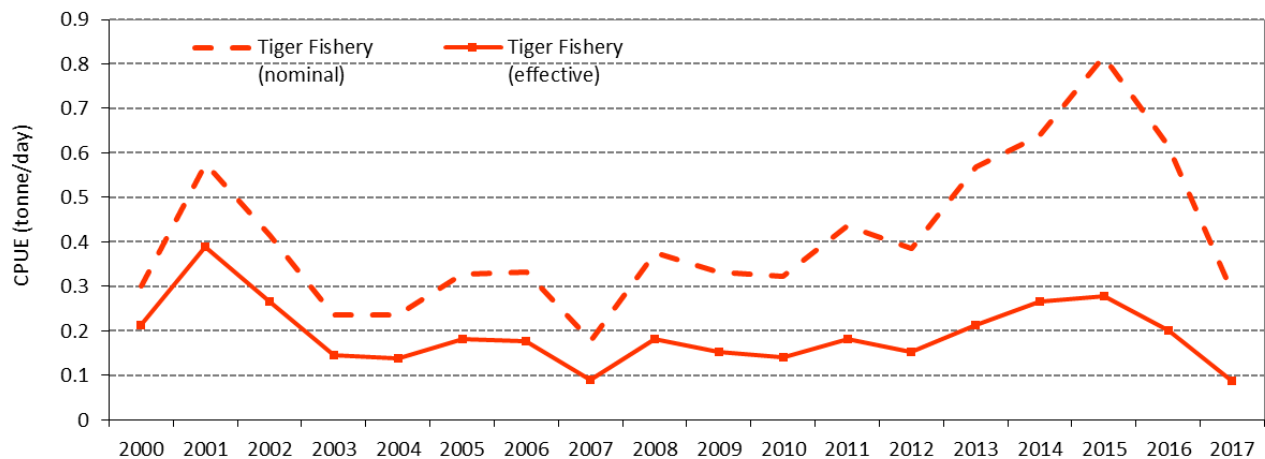
**Figure 48:** (a) Percentage catch of prawn species in the Port Essington area during 2017, and (b) percentage catch of prawn species in the Port Essington area - 2000 to 2017.



**Figure 49a:** Effort for the banana and tiger prawn fisheries in the Port Essington area - 2000 to 2017.



**Figure 49b:** Catch rate for the banana prawn fishery in the Port Essington area - 2000 to 2017.

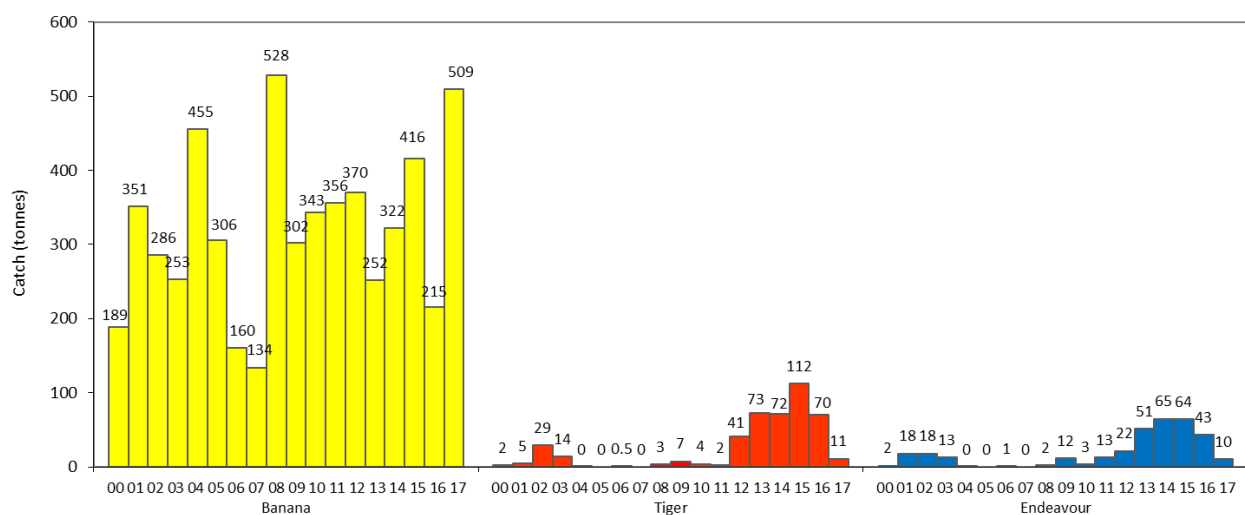


**Figure 49c:** Nominal and effective catch rate for the tiger prawn fishery in the Port Essington area - 2000 to 2017.

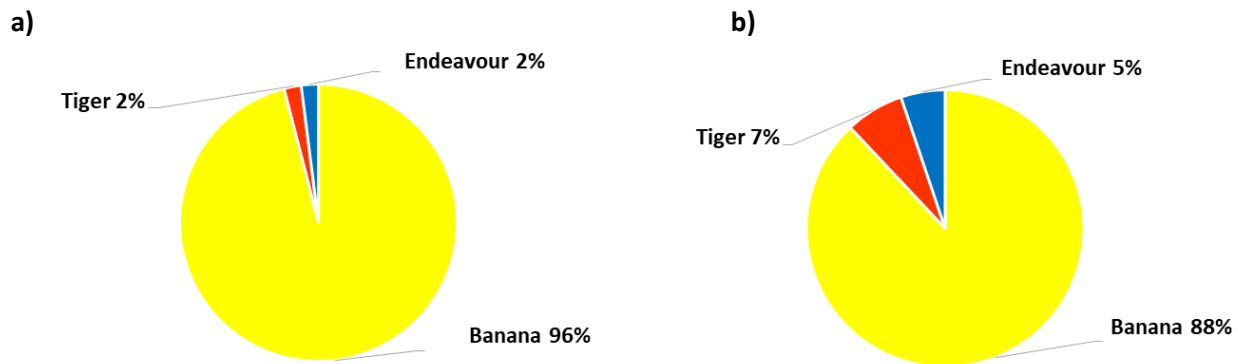
### Melville

Banana prawn catches in the Melville area increased from 215 t in 2016 to 509 t in 2017 (Figure 50). Catches of tiger prawns decreased from 70 t in 2016 to 11 t in 2017. Endeavour prawn catches decreased from 43 t in 2016 to 10 t in 2017. Banana prawns comprised 96% of the catch in 2017, with tiger and endeavour prawns making up 2% each (Figure 51).

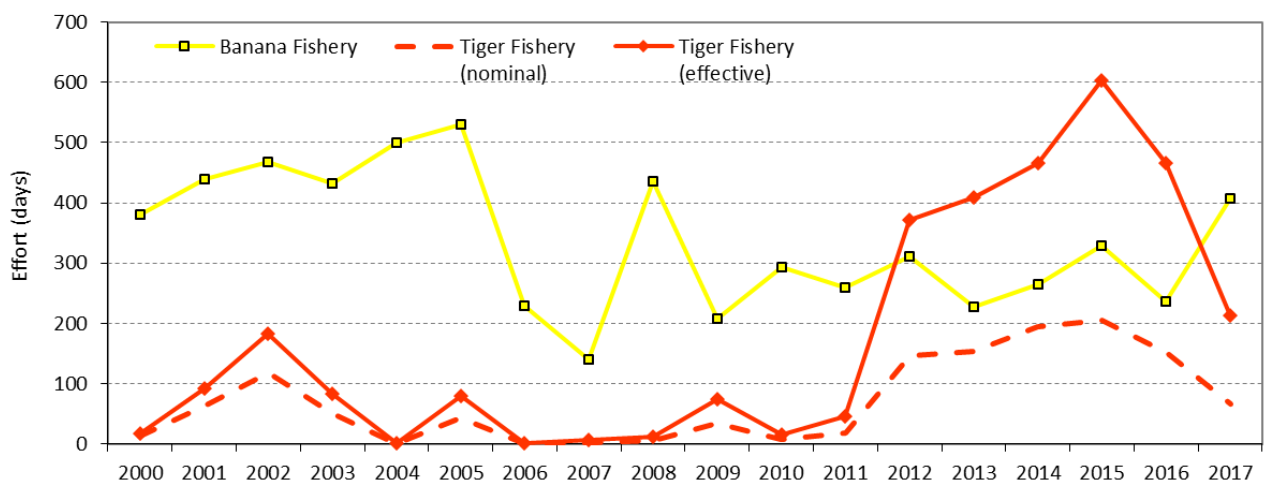
Effort in the banana prawn fishery increased from 237 days in 2016 to 408 days in 2017 (Figure 52a). CPUE for banana prawns increased from 0.937 t per day in 2016 to 1.255 t per day in 2017 (Figure 52b). Effort in the tiger prawn fishery decreased from 152 days in 2016 to 66 days in 2017 (Figure 52a). Nominal and effective CPUE for tiger prawns decreased from 0.678 and 0.221 t per day in 2016 to 0.273 and 0.085 t per day, respectively, in 2017 (Figure 52c).



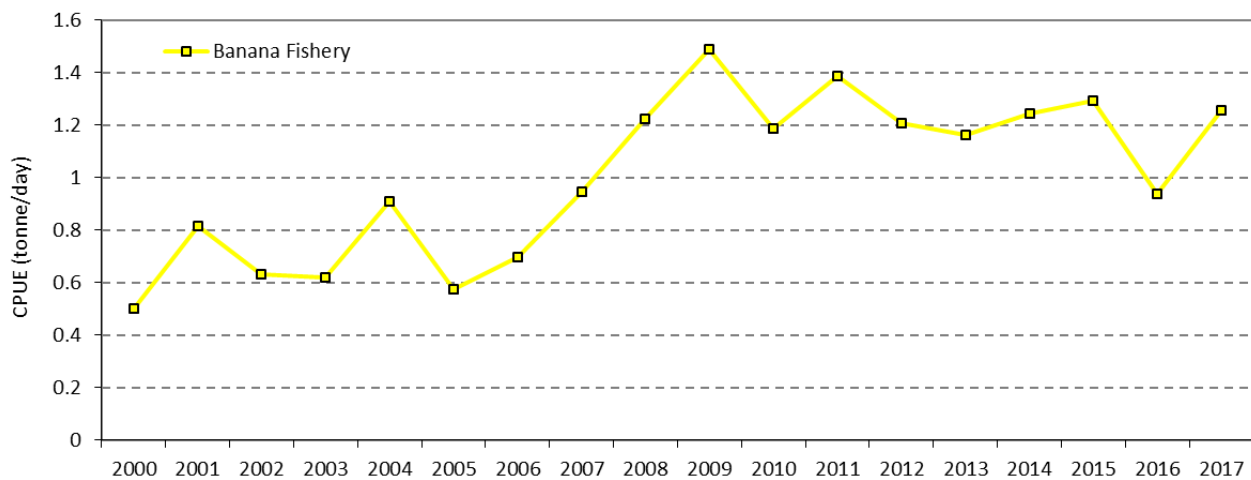
**Figure 50:** Catch by species in the Melville area - 2000 to 2017.



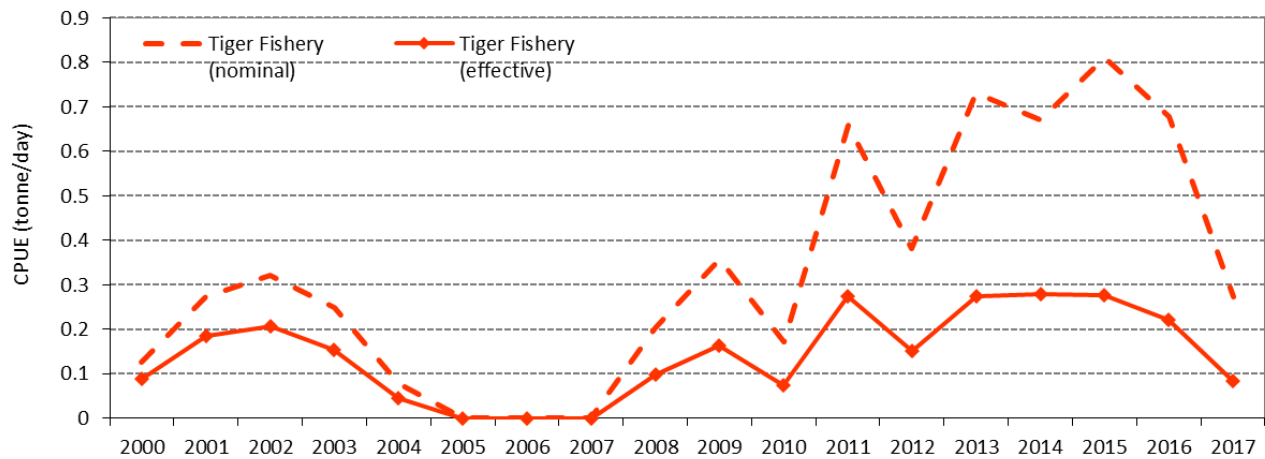
**Figure 51:** (a) Percentage catch of prawn species in the Melville area during 2017 and (b) percentage catch of prawn species in the Melville area - 2000 to 2017.



**Figure 52a:** Effort for the banana and tiger prawn fisheries in the Melville area - 2000 to 2017.



**Figure 52b:** Catch rate for the banana prawn fishery in the Melville area - 2000 to 2017.

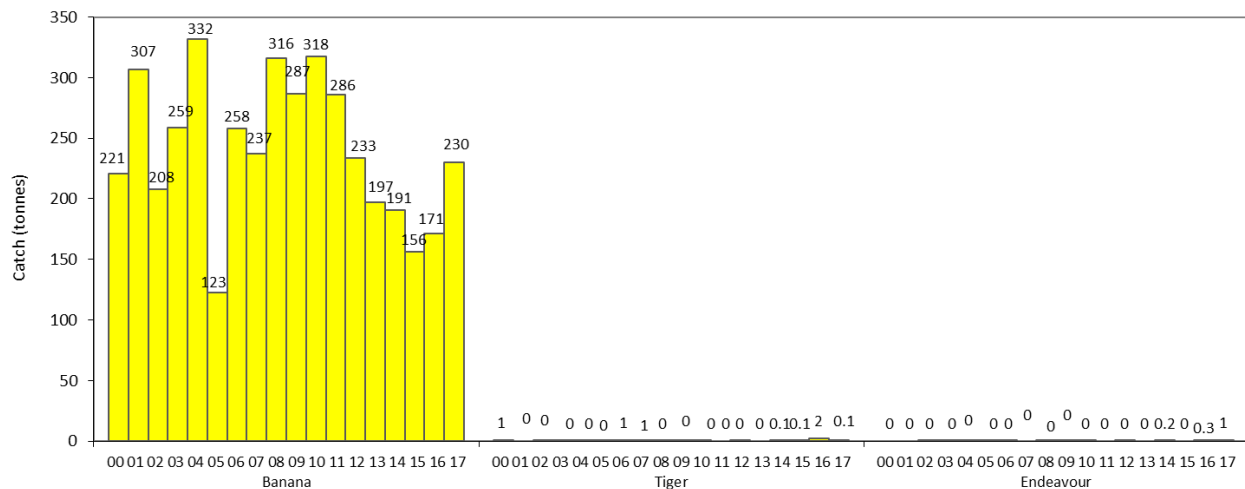


**Figure 52c:** Nominal and effective catch rate for the tiger prawn fishery in the Melville area - 2000 to 2017.

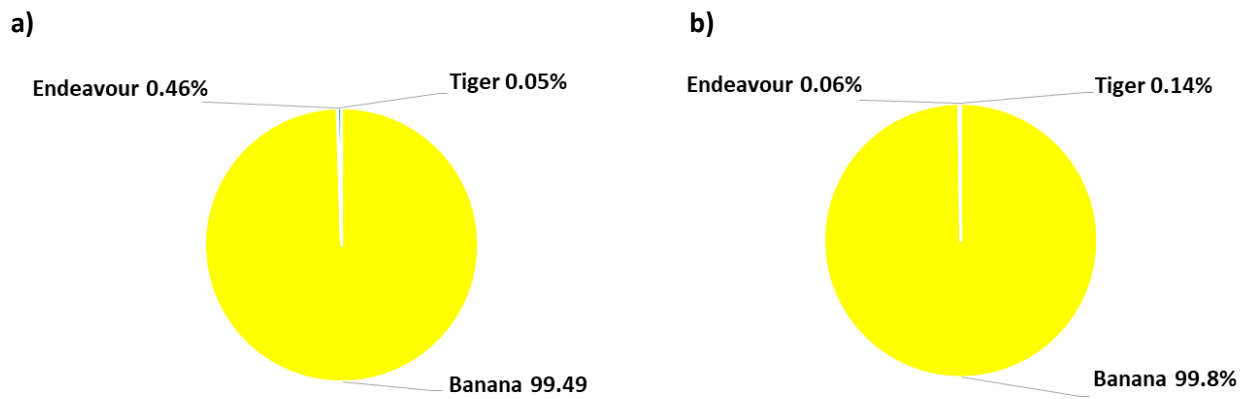
### Fog Bay

Banana prawn catches in the Fog Bay area increased from 171 t in 2016 to 230 t in 2017 (Figure 53). Catches of tiger prawns decreased from 2 t in 2016 to 0.1 t in 2017 and endeavour prawn catch increased from 0.3 t in 2016 to 1 t in 2017. Banana prawns comprised 99.49% of the catch taken during 2017 in this area, with the remainder comprising 0.46% endeavour prawns and 0.05% tiger prawns. (Figure 54).

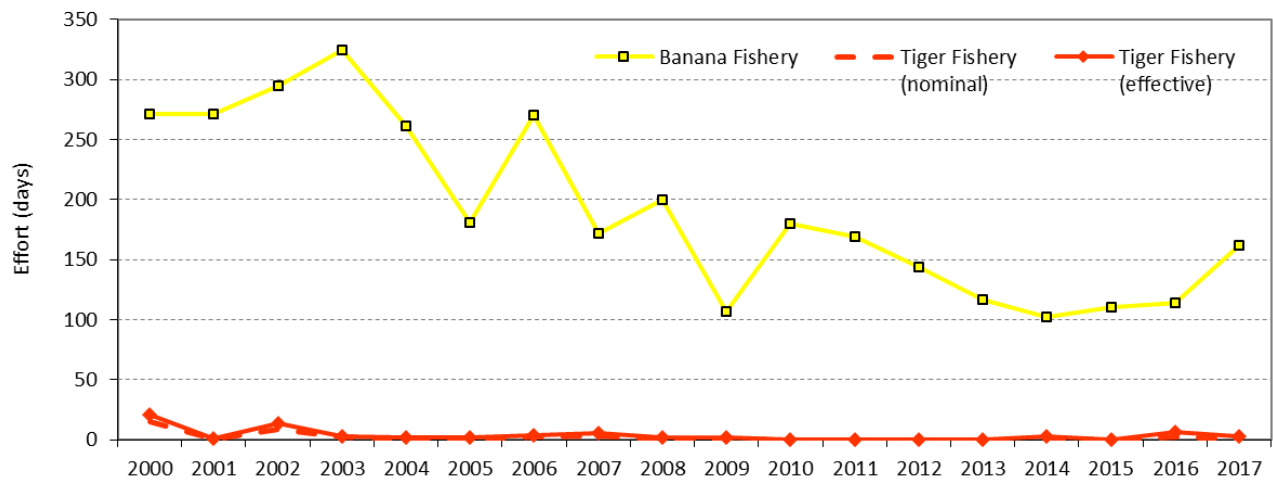
Effort in the banana prawn fishery increased from 114 days in 2016 to 162 days in 2017 (Figure 55a). CPUE for banana prawns decreased slightly from 1.500 t per day in 2016 to 1.420 t per day in 2017 (Figure 55b). One day of effort was expended in the tiger prawn fishery in 2017 for this area (Figure 55a). Nominal and effective CPUE for tiger prawns increased slightly from 0.848 and 0.276 t per day in 2016 to 1.1 and 0.341 t per day, respectively, in 2017 (Figure 55c).



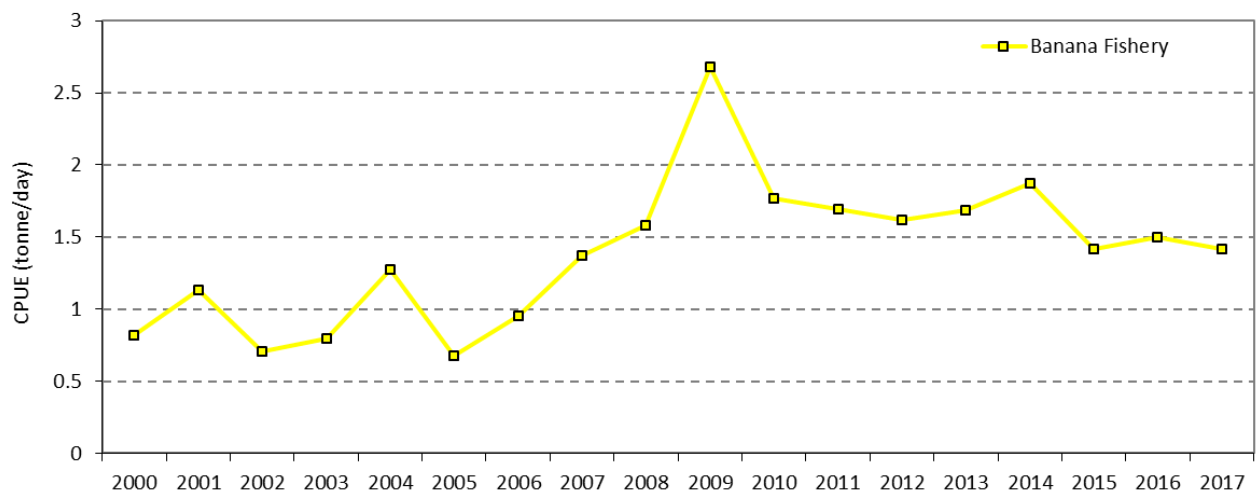
**Figure 53:** Catch by species in the Fog Bay area - 2000 to 2017.



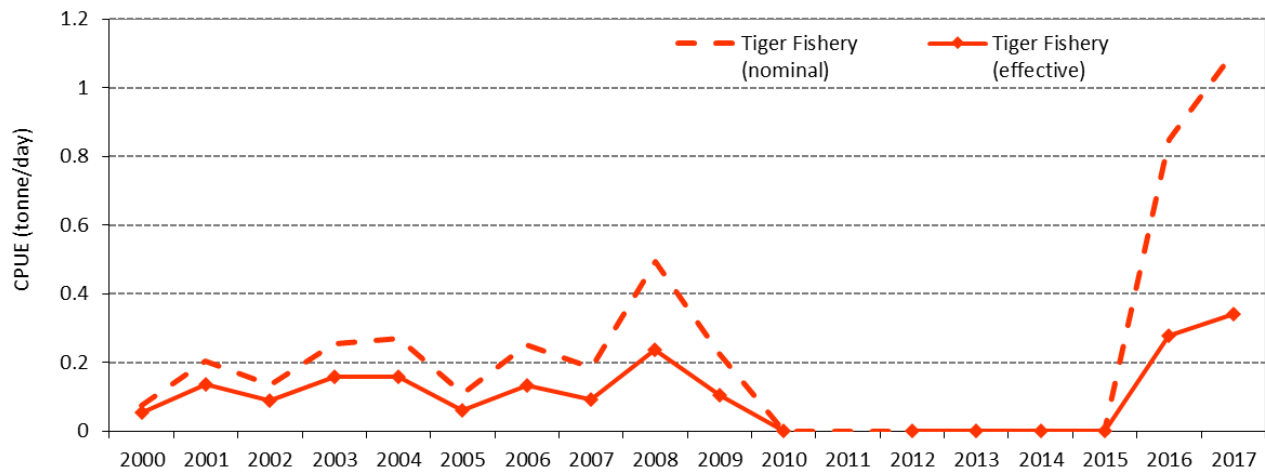
**Figure 54:** (a) Percentage catch of prawn species in the Fog Bay area during 2017 and (b) percentage catch of prawn species in the Fog Bay area - 2000 to 2017.



**Figure 55a:** Effort for the banana and tiger prawn fisheries in the Fog Bay area - 2000 to 2017.



**Figure 55b:** Catch rate for the banana prawn fishery in the Fog Bay area - 2000 to 2017.

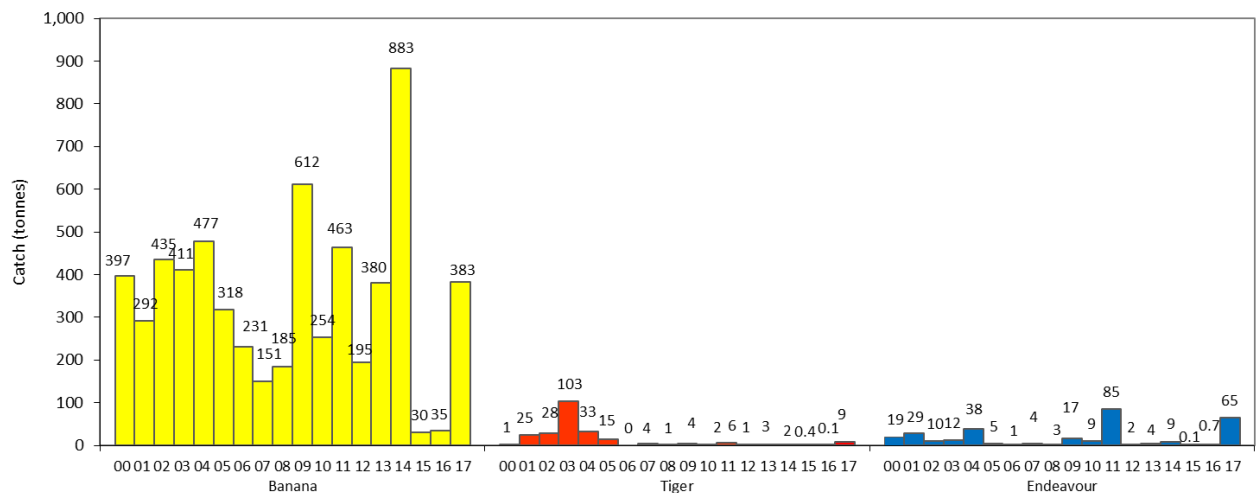


**Figure 55c:** Nominal and effective catch rate for the tiger prawn fishery in the Fog Bay area - 2000 to 2017.

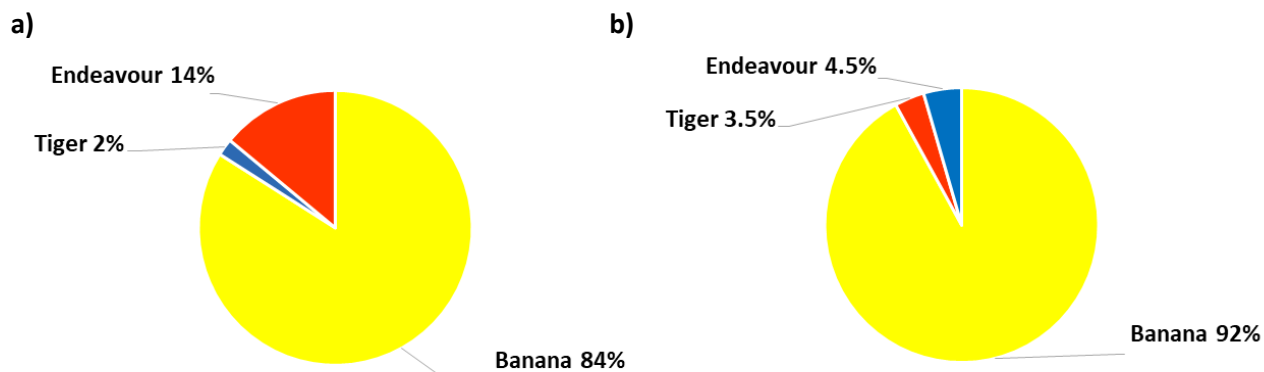
### Bonaparte

Banana prawn catches in the Bonaparte area increased considerably from 35 t in 2016 to 383 t in 2017 (Figure 56). Tiger prawn catches increased from less than 1 t in 2016 to 9 t in 2017 and endeavour prawn catches increased from less than 1 t in 2016 to 65 t in 2017. Banana prawns made up 84% of the catch for 2017 with tiger prawns making up 2% and endeavour prawns 14% (Figure 57).

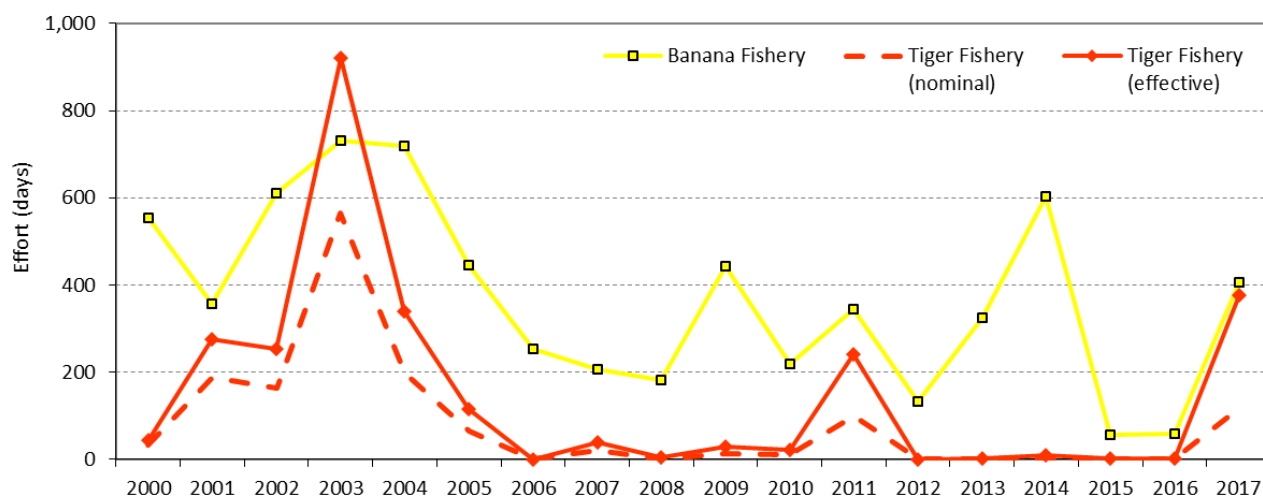
Effort in the banana prawn fishery increased from 59 days in 2016 to 405 days in 2017 (Figure 58a). CPUE of banana prawns increased from 0.600 t per day in 2016 to 0.959 t per day in 2017 (Figure 58b). Effort in the tiger prawn fishery increased from 1 day in 2016 to 117 days in 2017 (Figure 58a). Nominal and effective CPUE of tiger prawns increased from 0.045 and 0.015 t per day in 2016 to 0.583 to 0.181 t per day, respectively, in 2017 (Figure 58c).



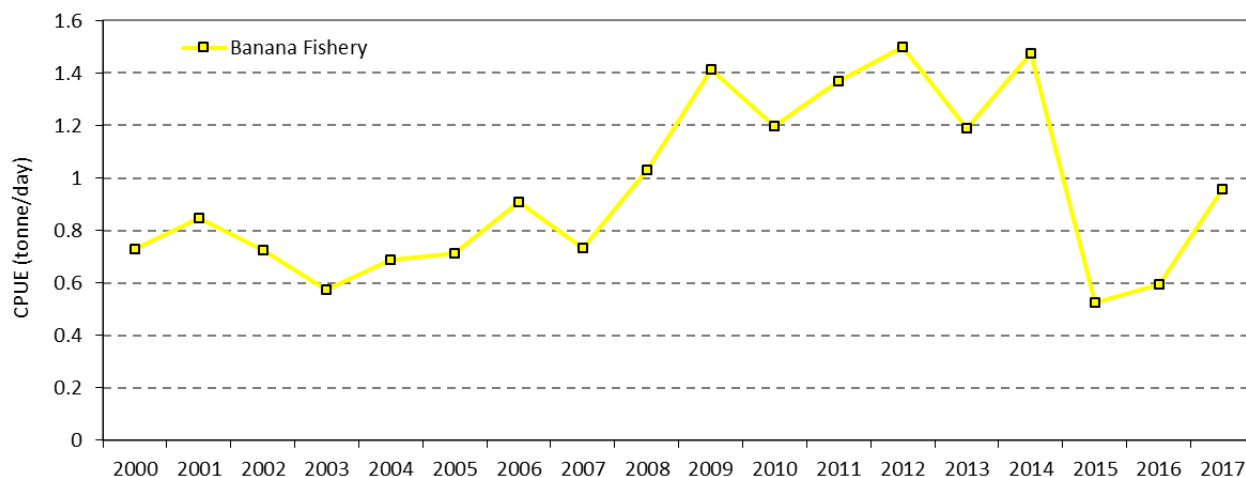
**Figure 56:** Catch by species in the Bonaparte area - 2000 to 2017.



**Figure 57:** (a) Percentage catch of prawn species in the Bonaparte area during 2017, and (b) percentage catch of prawn species in the Bonaparte area - 2000 to 2017.

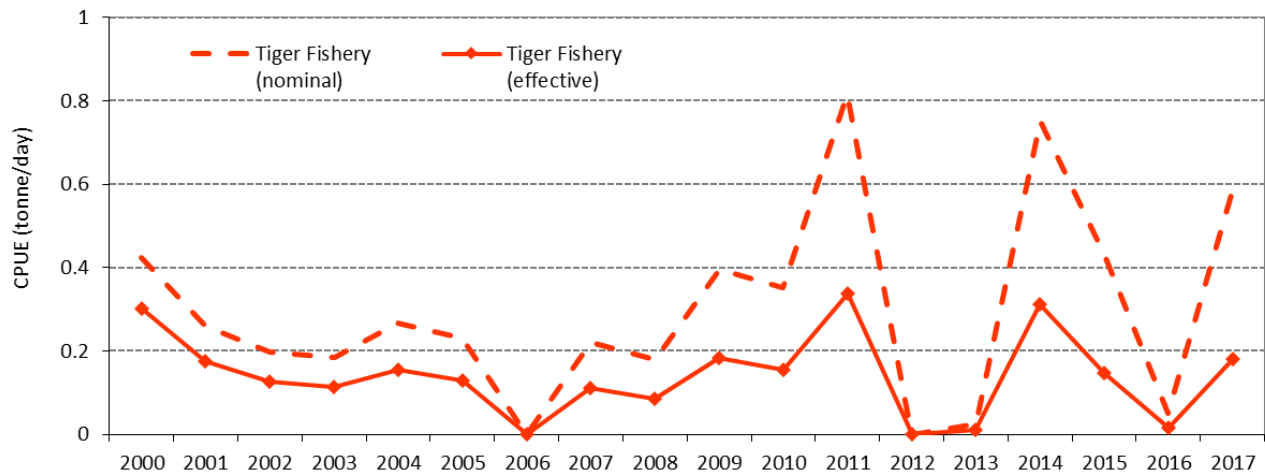


**Figure 58a:** Effort for the banana and tiger prawn fisheries in the Bonaparte area - 2000 to 2017.



**Figure 58b:** Catch rate for the banana prawn fishery in the Bonaparte area - 2000 to 2017.



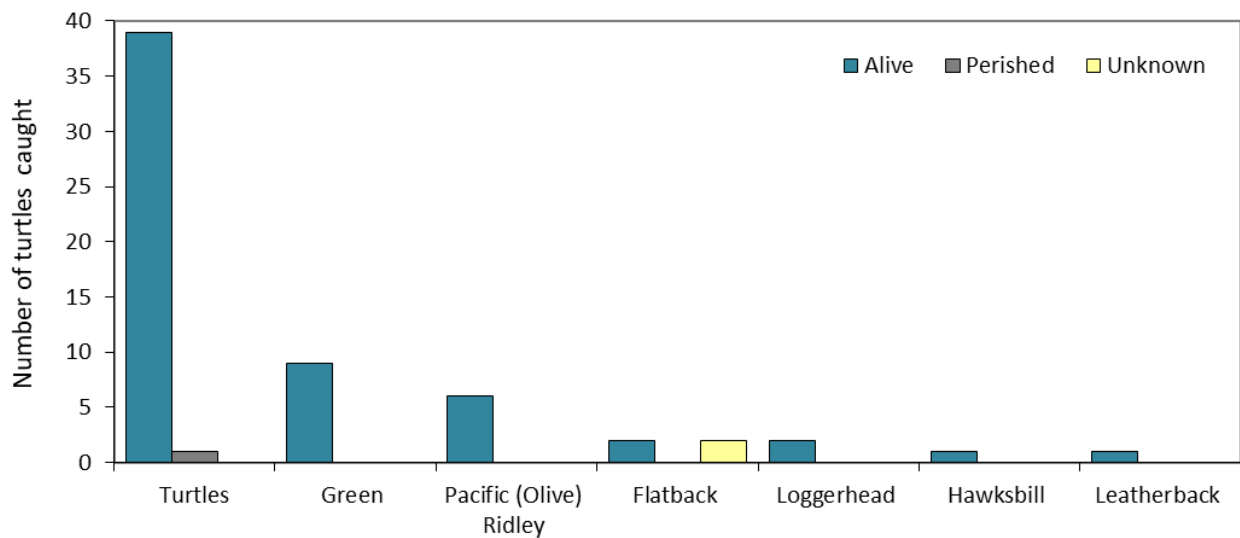


**Figure 58c:** Nominal and effective catch rate for the tiger prawn fishery in the Bonaparte area - 2000 to 2017.

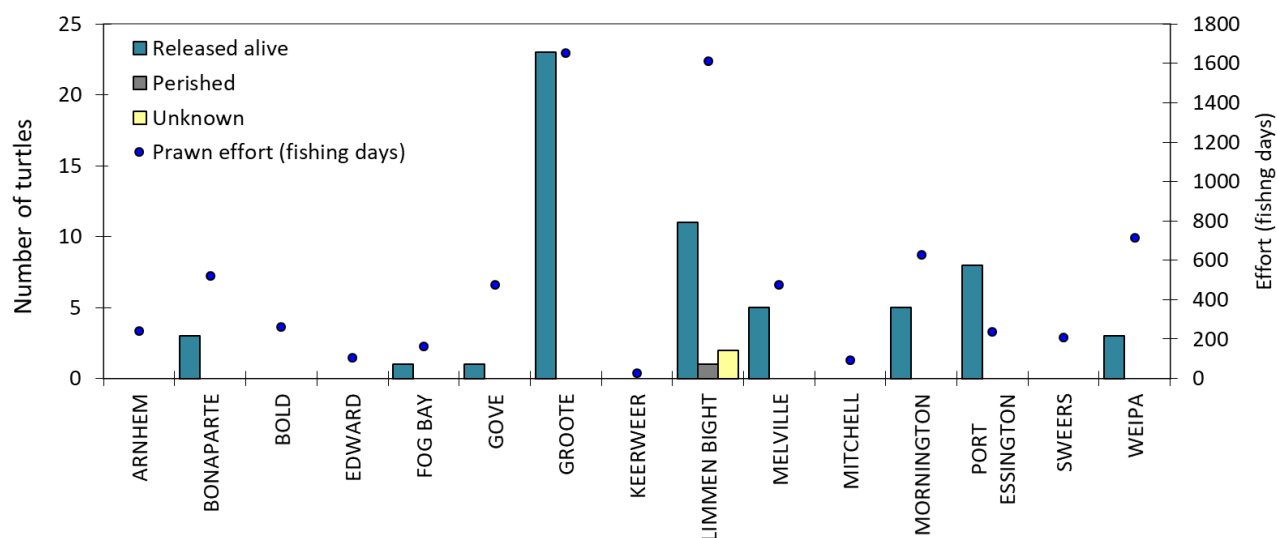
## Interactions with TEP species in the Northern Prawn Fishery

### Turtle interactions

A total of 63 turtle interactions were reported in the NPF during 2017 (Table 5), compared to 55 interactions in 2016. Turtles of undetermined species were the most numerous (40 interactions) followed by Green turtles (9 interactions). Six interactions occurred with Pacific (Olive) Ridley turtles, four with Flatback turtles, two Loggerhead turtles and one each of Leatherback and Hawksbill turtles (Figure 59). Of these, 61 turtles were released alive, one perished and the life status of two Flatback turtles was unknown. Turtle interactions were highest in the Groote region followed by the Limmen Bight region and both areas experienced the most fishing effort (Figure 60).



**Figure 59:** Turtle interactions by species and life status on release in the NPF in 2017.



**Figure 60:** Turtle interactions by species, life status on release and total fishing effort by area in the NPF in 2017.

**Table 5:** Turtle interactions by species, for each area between 2013 and 2017.

| Statistical Area | Turtle Species       | Released Alive |    |    |    |    | Perished |    |    |    |    | Condition Unknown |    |    |    |    |
|------------------|----------------------|----------------|----|----|----|----|----------|----|----|----|----|-------------------|----|----|----|----|
|                  |                      | 13             | 14 | 15 | 16 | 17 | 13       | 14 | 15 | 16 | 17 | 13                | 14 | 15 | 16 | 17 |
| ARNHEM           | Flatback             | 3              |    |    | 2  |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Green                |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Pacific Ridley       |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Unidentified species |                |    | 1  |    |    |          |    |    |    |    |                   |    |    |    |    |
| BOLD             | Flatback             | 1              |    |    |    |    | 1        |    |    |    |    |                   |    |    |    |    |
|                  | Green                | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Pacific Ridley       | 1              |    |    | 1  |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Unidentified species | 4              | 5  |    |    |    |          |    |    |    |    |                   |    |    |    |    |
| BONAPARTE        | Flatback             | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Green                |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Pacific Ridley       |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Unidentified species |                | 5  |    |    | 3  |          |    |    |    |    |                   |    |    |    |    |
| EDWARD           | Flatback             | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Green                |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Pacific Ridley       |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Unidentified species |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
| FOG BAY          | Flatback             |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Green                |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                  | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |

| Statistical Area      | Turtle Species       | Released Alive |    |    |    |    | Perished |    |    |    |    | Condition Unknown |    |    |    |    |
|-----------------------|----------------------|----------------|----|----|----|----|----------|----|----|----|----|-------------------|----|----|----|----|
|                       |                      | 13             | 14 | 15 | 16 | 17 | 13       | 14 | 15 | 16 | 17 | 13                | 14 | 15 | 16 | 17 |
|                       | Pacific Ridley       |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species |                |    |    |    | 1  |          |    |    |    |    |                   |    |    |    |    |
| <b>GOVE</b>           | Flatback             |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                | 1              | 2  | 1  |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           | 2              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species |                | 1  | 8  | 3  |    |          |    |    |    |    |                   |    |    |    |    |
| <b>GROOTE</b>         | Flatback             |                | 2  | 2  | 1  | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                | 5              | 2  | 4  |    | 4  |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    | 1  |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    | 1  |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           | 1              |    |    |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       | 3              | 1  | 1  |    | 2  | 1        |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species | 3              | 10 | 20 | 4  | 13 |          |    |    |    |    |                   |    |    |    |    |
| <b>LIMMEN BIGHT</b>   | Flatback             | 2              | 2  | 2  |    |    |          |    |    |    |    |                   |    |    |    | 2  |
|                       | Green                | 3              | 2  |    | 4  |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            | 1              | 1  |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           | 2              |    | 1  |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       | 2              |    | 1  | 1  | 2  |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species | 9              | 6  | 3  | 9  | 8  |          |    |    |    | 1  |                   |    |    |    |    |
| <b>MELVILLE</b>       | Flatback             |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                |                |    |    |    | 2  |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    | 1        |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       | 4              |    |    |    |    | 1        |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species | 1              |    | 3  | 2  | 3  |          |    |    |    |    |                   |    |    |    |    |
| <b>MITCHELL</b>       | Flatback             |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                |                |    |    | 1  |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
| <b>MORNINGTON</b>     | Flatback             |                | 1  | 1  |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                |                | 3  | 1  | 1  |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       |                |    | 1  |    | 2  |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species |                | 2  | 8  | 8  | 2  |          |    |    |    |    |                   |    |    |    |    |
| <b>PORT ESSINGTON</b> | Flatback             | 1              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                | 3              |    |    |    | 1  |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Pacific Ridley       |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Unidentified species |                |    |    | 3  | 7  | 1        |    |    |    |    |                   |    |    |    |    |
| <b>SWEERS</b>         | Flatback             |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Green                | 5              | 1  |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Hawksbill            |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Leatherback          |                |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |
|                       | Loggerhead           | 3              |    |    |    |    |          |    |    |    |    |                   |    |    |    |    |

| Statistical Area       | Turtle Species       | Released Alive |           |           |           |           | Perished |          |          |          |          | Condition Unknown |          |          |          |          |
|------------------------|----------------------|----------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|
|                        |                      | 13             | 14        | 15        | 16        | 17        | 13       | 14       | 15       | 16       | 17       | 13                | 14       | 15       | 16       | 17       |
|                        | Pacific Ridley       | 1              |           |           |           |           |          |          |          |          |          |                   |          |          |          |          |
|                        | Unidentified species | 3              | 5         | 1         | 11        |           |          |          |          |          |          |                   |          |          |          |          |
| <b>WEIPA</b>           | Flatback             |                |           |           |           |           |          |          |          |          |          |                   |          |          |          |          |
|                        | Green                |                | 3         |           |           | 1         |          |          |          |          |          |                   |          |          |          |          |
|                        | Hawksbill            |                |           |           |           |           |          |          |          |          |          |                   |          |          |          |          |
|                        | Leatherback          |                |           |           |           |           |          |          |          |          |          |                   |          |          |          |          |
|                        | Loggerhead           | 1              |           |           |           |           |          |          |          |          |          |                   |          |          |          |          |
|                        | Pacific Ridley       |                |           |           |           | 2         |          |          |          |          |          |                   |          |          |          |          |
|                        | Unidentified species |                | 2         | 1         | 1         | 2         |          |          |          |          |          |                   |          |          |          |          |
| <b>TOTAL ALL AREAS</b> | Flatback             | 9              | 5         | 5         | 2         | 2         | 1        |          |          |          |          |                   |          |          |          | 2        |
|                        | Green                | 18             | 13        | 6         | 6         | 9         |          |          |          |          |          |                   |          |          |          |          |
|                        | Hawksbill            | 1              | 1         | 1         |           | 1         | 1        |          |          |          |          |                   |          |          |          |          |
|                        | Leatherback          |                |           | 1         |           | 1         |          |          |          |          |          |                   |          |          |          |          |
|                        | Loggerhead           | 9              |           | 1         |           | 2         |          |          |          |          |          |                   |          |          |          |          |
|                        | Pacific Ridley       | 13             | 1         | 3         | 4         | 6         | 2        |          |          |          |          |                   |          |          |          |          |
|                        | Unidentified species | 20             | 36        | 46        | 43        | 39        | 1        |          |          |          | 1        |                   |          |          |          |          |
| <b>GRAND TOTAL</b>     | <b>ALL SPECIES</b>   | <b>70</b>      | <b>56</b> | <b>63</b> | <b>55</b> | <b>60</b> | <b>5</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> |

### Sea snake interactions

A total of 9,051 sea snake interactions were recorded during 2017. The majority of sea snakes (6,825 individuals, representing 75.4% of the total) were released alive. 2,179 (24%) perished, 2 (0.02%) were released injured, and 45 (0.5%) of sea snakes caught were released with condition unknown (Table 6). Sea snake interactions were highest in the Groote area (2,375 individuals), followed by Limmen Bight (1,297 individuals), and lowest in the Keerweer area (4). The number of sea snakes interactions recorded in 2017 was up 553 compared to 2016 (8,498 individuals). The percentage of sea snakes released alive in 2017 was slightly lower (75.4%) compared to 2016 (76.8%).

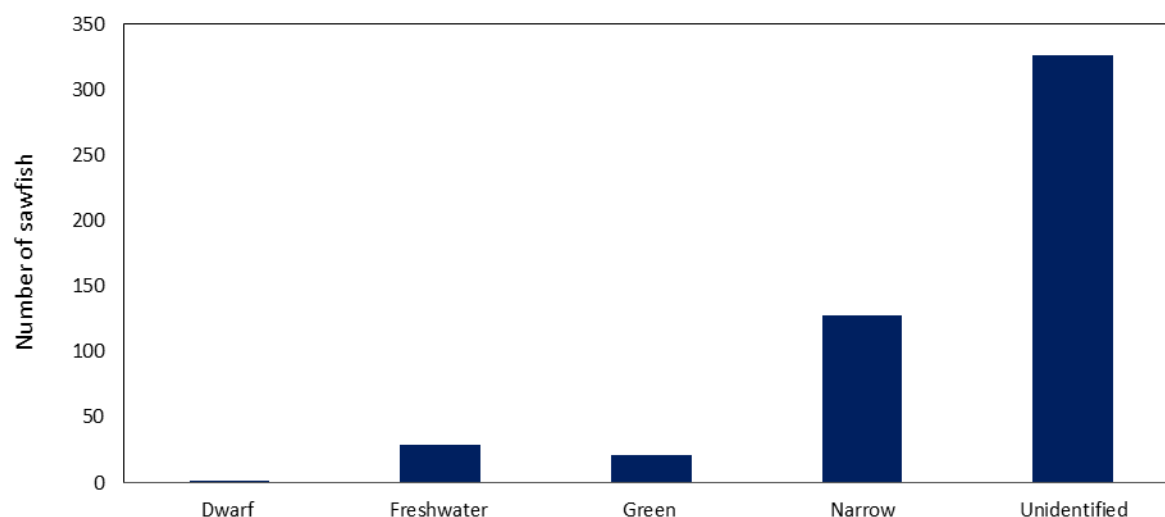
**Table 6:** Sea snake interactions and life status on release by area in the NPF in 2017.

| Statistical area | Released alive | Perished     | Released injured | Condition unknown | Total        |
|------------------|----------------|--------------|------------------|-------------------|--------------|
| ARNHEM           | 198            | 70           |                  |                   | 268          |
| BOLD             | 134            | 19           | 2                |                   | 155          |
| BONAPARTE        | 384            | 146          |                  |                   | 530          |
| EDWARD           | 97             | 24           |                  |                   | 121          |
| FOG BAY          | 27             | 20           |                  |                   | 47           |
| GOVE             | 216            | 16           |                  |                   | 232          |
| GROOTE           | 2,375          | 675          |                  |                   | 3,050        |
| KEERWEER         | 4              |              |                  |                   | 4            |
| LIMMEN BIGHT     | 1,297          | 198          |                  |                   | 1,495        |
| MELVILLE         | 439            | 176          |                  |                   | 615          |
| MITCHELL         | 71             | 30           |                  |                   | 101          |
| MORNINGTON       | 190            | 69           |                  |                   | 259          |
| PORT ESSINGTON   | 171            | 48           |                  |                   | 219          |
| SWEERS           | 142            | 40           |                  |                   | 182          |
| WEIPA            | 1,080          | 648          |                  | 45                | 1,773        |
| <b>Total</b>     | <b>6,825</b>   | <b>2,179</b> | <b>2</b>         | <b>45</b>         | <b>9,051</b> |

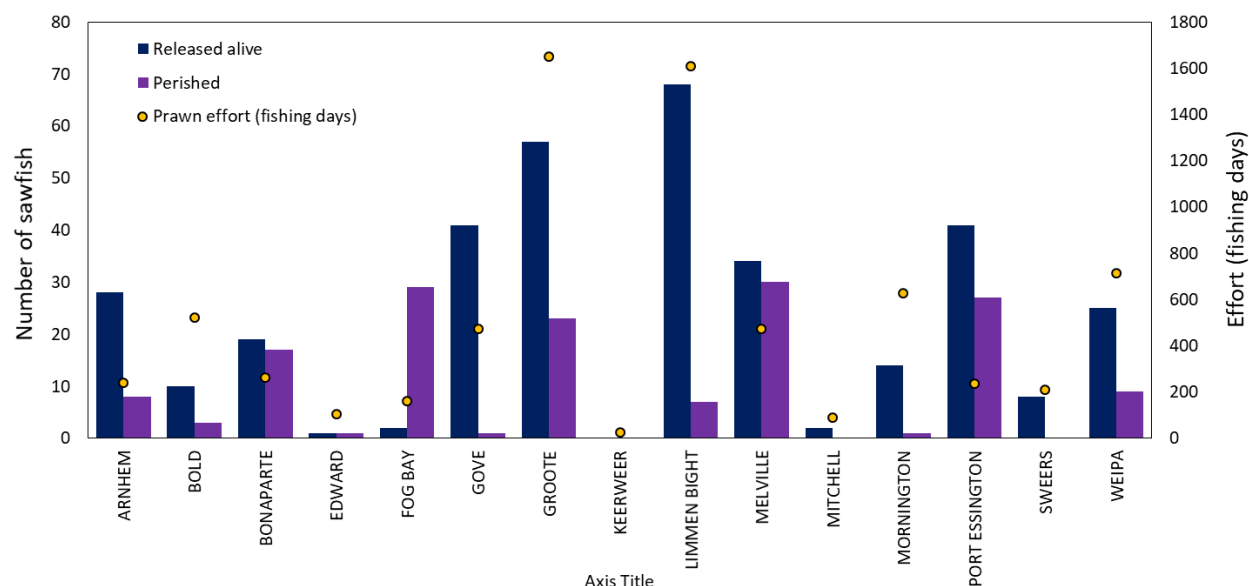
## Sawfish Interactions

A total of 506 sawfish interactions were recorded during 2017 with unidentified species being the most numerous (Figure 61), representing 64% of the total interactions (down from 92% in 2016). This was followed by the Narrow Sawfish with 128 interactions (25%), Freshwater Sawfish with 29 interactions (6%), Green Sawfish with 21 interactions (4%) and Dwarf Sawfish with two interactions (<1%). Of the 506 animals caught in 2017, 350 individuals (69%) were released alive.

Sawfish interactions were highest in the Groote area (80 individuals) which also had the highest fishing effort (Figure 62). The Keerweer area had no sawfish interactions and also the lowest fishing effort.



**Figure 61:** Sawfish interactions in the NPF by species in 2017.



**Figure 62:** Sawfish interactions, life status on release and total fishing effort in the NPF by area in 2017.

## Syngnathid Interactions

A total of 49 Syngnathid (seahorses and pipefish) interactions were recorded during 2017 (Table 7). Of these, 25 (51%) were released alive and 23 (47%) perished and for one (2%) the condition was unknown. Syngnathid interactions were highest in the Groote area (26 individuals), followed by Limmen Bight (8 individuals). Eight of the fifteen statistical areas of the fishery recorded no interactions with Syngnathids.

**Table 7:** Syngnathid interactions by area in the NPF in 2017.

| Statistical area | Released alive | Perished | Released injured | Condition unknown | Total |
|------------------|----------------|----------|------------------|-------------------|-------|
| ARNHEM           | 1              | 1        | 0                | 0                 | 2     |
| BOLD             | 0              | 1        | 0                | 0                 | 1     |
| BONAPARTE        | 0              | 0        | 0                | 0                 | 0     |
| EDWARD           | 1              | 0        | 0                | 0                 | 1     |
| FOG BAY          | 0              | 0        | 0                | 0                 | 0     |
| GOVE             | 2              | 0        | 0                | 0                 | 2     |
| GROOTE           | 10             | 16       | 0                | 0                 | 26    |
| KEERWEER         | 0              | 0        | 0                | 0                 | 0     |
| LIMMEN BIGHT     | 6              | 2        | 0                | 0                 | 8     |
| MELVILLE         | 0              | 0        | 0                | 0                 | 0     |
| MITCHELL         | 0              | 0        | 0                | 0                 | 0     |
| MORNINGTON       | 5              | 3        | 0                | 0                 | 8     |
| PORT ESSINGTON   | 0              | 0        | 0                | 0                 | 0     |
| SWEERS           | 0              | 0        | 0                | 0                 | 0     |
| WEIPA            | 0              | 0        | 0                | 1                 | 1     |
| Total            | 25             | 23       | 0                | 1                 | 49    |

## Scientific Observer and Crew Member Observer coverage

Tables 8 and 9 enable comparison of recorded interactions with TEP species within the Crew Member Observer (CMO), Scientific Observer and logbook datasets.

The number of fishing days from logbook returns decreased from 7,880 in 2016 to 7,418 in 2017. This was due to some operators leaving the fishery early in the banana prawn season and a reduction in the length of the tiger prawn season. The number of days observed by CMOs increased to from 893 in 2016 to 1,169 in 2017. The number of days observed by Scientific Observers increased to 152 in 2017 from 103 days in 2016.

The frequency of sea snake interactions per fishing day was highest in the CMO dataset (2.956) compared to the Scientific Observer dataset (2.737) and the NPF logbook dataset (1.220). Turtles were also reported more frequently in the CMO dataset (0.024) followed by the Scientific Observer dataset (0.013) and logbook dataset (0.008). The frequency of Syngnathid interactions was highest in the CMO dataset (0.117) compared to the Scientific Observer dataset (0.013) and logbook dataset (0.007). The frequency of sawfish interactions was also higher in the CMO dataset (0.117) than in the Scientific Observer dataset (0.099) - both were higher than the logbook dataset (0.068).

**Table 8:** Comparison of TEP species interactions reported by Scientific Observers, CMOs and in logbooks in the NPF in 2017.

|                       | Vessel Returns | Fishing Days | Total Sea Snakes | Total Turtles | Total Syngnathids | Total Sawfish | Dolphins | Birds |
|-----------------------|----------------|--------------|------------------|---------------|-------------------|---------------|----------|-------|
| Logbook Returns       | 52             | 7,418        | 9,051            | 63            | 49                | 506           | 0        | 1     |
| Crew Member Observers | 14             | 1,169*       | 3,456            | 28            | 137               | 132           | 0        | 0     |
| Scientific Observers  | 9              | 152*         | 416              | 2             | 2                 | 15            | 0        | 0     |

\*Number of days fishing practices were observed.

**Table 9:** Comparison of TEP species interactions reported by Scientific Observers, CMOs and in logbooks per boat day during in the NPF in 2017.

|                       | Sea Snakes per Fishing Day | Turtles per Fishing Day | Syngnathids per Fishing Day | Sawfish per Fishing Day |
|-----------------------|----------------------------|-------------------------|-----------------------------|-------------------------|
| Logbook Returns       | 1.220                      | 0.008                   | 0.007                       | 0.068                   |
| Crew Member Observers | 2.956                      | 0.024                   | 0.117                       | 0.113                   |
| Scientific Observers  | 2.737                      | 0.013                   | 0.013                       | 0.099                   |

## State or Territory specific data

Total prawn catch in Queensland (QLD) waters of the NPF increased from 2,878 t in 2015/16 to 3,234 t in 2016/17 (Table 10a). In the Northern Territory (NT), prawn catches increased from 3,796 t in 2015/16 to 3,832 t in 2016/17 (Table 10b). Total prawn catch in Western Australia (WA) increased from 25 t in 2015/16 to 84 t in 2016/17 (Table 10c).

In 2016/17, banana prawn catch increased in QLD, the NT and WA from that caught in the 2016/17 financial year. QLD increased from 2,010 t to 2,604 t, the NT from 839 t to 2,070 t and WA from 23 t to 83 t (Table 10).

Tiger prawn catches decreased in QLD from 696 t in 2015/16 to 503 t in 2016/17 and in the NT from 2,556 t in 2015/16 to 1,496 t in 2016/17. There was zero catch of tiger prawns in 2016/17.

Catches of endeavour prawns decreased in QLD from 143 t in 2015/16 to 105 t in 2016/17. In the NT catches decreased from 398 t in 2015/16 to 263 t in 2016/17 and in WA endeavour prawn catch remained the same at 1 t.

King prawn catches decreased in QLD from 30 t in 2015/16 to 22 t in 2016/17. As in 2015/16, 3 t was caught in NT and none in WA.

**Table 10:** Prawn catch for a) Queensland, b) Northern Territory and c) Western Australia for the 1994/95 to 2016/17 financial years.

**a) Queensland**

| <i>Financial Year</i> | <i>Banana (t)</i> | <i>Tiger (t)</i> | <i>Endeavour (t)</i> | <i>King (t)</i> | <i>Total Catch (t)</i> |
|-----------------------|-------------------|------------------|----------------------|-----------------|------------------------|
| 1994/95               | 2,540             | 1,883            | 346                  | 24              | 4,793                  |
| 1995/96               | 2,562             | 1,570            | 761                  | 23              | 4,916                  |
| 1996/97               | 2,050             | 1,259            | 817                  | 15              | 4,141                  |
| 1997/98               | 1,986             | 1,318            | 878                  | 11              | 4,193                  |
| 1998/99               | 1,548             | 634              | 335                  | 5               | 2,522                  |
| 1999/00               | 637               | 629              | 348                  | 1               | 1,615                  |
| 2000/01               | 3,651             | 553              | 352                  | 4               | 4,560                  |
| 2001/02               | 3,286             | 372              | 211                  | 1               | 3,870                  |
| 2002/03               | 1,307             | 97               | 54                   | 1               | 1,459                  |
| 2003/04               | 1,639             | 152              | 14                   | 0               | 1,805                  |
| 2004/05               | 1,700             | 70               | 7                    | 0               | 1,777                  |
| 2005/06               | 1,374             | 310              | 71                   | 13              | 1,768                  |
| 2006/07               | 1,839             | 195              | 47                   | 8               | 2,089                  |
| 2007/08               | 3,587             | 126              | 32                   | 8               | 3,753                  |
| 2008/09               | 3,917             | 202              | 88                   | 0               | 4,207                  |
| 2009/10               | 2,968             | 473              | 143                  | 0               | 3,584                  |
| 2010/11               | 5,454             | 279              | 88                   | 1               | 5,822                  |
| 2011/12               | 3,198             | 368              | 179                  | 1               | 3,746                  |
| 2012/13               | 1,867             | 575              | 299                  | 3               | 2,744                  |
| 2013/14               | 3,454             | 347              | 216                  | 0               | 4,017                  |
| 2014/15               | 2,372             | 495              | 258                  | 6               | 3,131                  |
| 2015/16               | 2,010             | 696              | 143                  | 30              | 2,878                  |
| 2016/17               | 2,604             | 503              | 105                  | 22              | 3,234                  |

**b) Northern Territory**

| <i>Financial Year</i> | <i>Banana (t)</i> | <i>Tiger (t)</i> | <i>Endeavour (t)</i> | <i>King (t)</i> | <i>Total Catch (t)</i> |
|-----------------------|-------------------|------------------|----------------------|-----------------|------------------------|
| 1994/95               | 1,536             | 1,855            | 423                  | 19              | 3,833                  |
| 1995/96               | 1,072             | 1,615            | 434                  | 6               | 3,127                  |
| 1996/97               | 1,472             | 1,184            | 387                  | 9               | 3,052                  |
| 1997/98               | 1,241             | 1,466            | 490                  | 9               | 3,206                  |
| 1998/99               | 1,549             | 2,141            | 778                  | 6               | 4,474                  |
| 1999/00               | 1,247             | 1,564            | 586                  | 11              | 3,408                  |
| 2000/01               | 2,323             | 1,546            | 489                  | 3               | 4,361                  |
| 2001/02               | 1,789             | 1,561            | 892                  | 1               | 4,243                  |
| 2002/03               | 1,509             | 1,797            | 333                  | 2               | 3,641                  |
| 2003/04               | 1,437             | 1,985            | 390                  | 1               | 3,813                  |
| 2004/05               | 838               | 1,683            | 368                  | 2               | 2,891                  |
| 2005/06               | 1,389             | 1,423            | 205                  | 6               | 3,023                  |
| 2006/07               | 783               | 1,635            | 308                  | 20              | 2,746                  |



|         |       |       |     |    |       |
|---------|-------|-------|-----|----|-------|
| 2007/08 | 1,550 | 1,100 | 164 | 12 | 2,826 |
| 2008/09 | 1,288 | 809   | 121 | 0  | 2,218 |
| 2009/10 | 2,229 | 788   | 189 | 0  | 3,207 |
| 2010/11 | 1,738 | 1,337 | 325 | 0  | 3,401 |
| 2011/12 | 1,544 | 490   | 228 | 0  | 1,230 |
| 2012/13 | 867   | 775   | 199 | 0  | 1,841 |
| 2013/14 | 1,792 | 1,676 | 266 | 0  | 3,734 |
| 2014/15 | 1,664 | 1,204 | 384 | 3  | 3,255 |
| 2015/16 | 839   | 2,556 | 398 | 3  | 3,796 |
| 2016/17 | 2,070 | 1,496 | 263 | 3  | 3,832 |

**c) Western Australia**

| <i>Financial Year</i> | <i>Banana (t)</i> | <i>Tiger (t)</i> | <i>Endeavour (t)</i> | <i>King (t)</i> | <i>Total Catch (t)</i> |
|-----------------------|-------------------|------------------|----------------------|-----------------|------------------------|
| 1994/95               | 414               | 2                | 16                   | 0               | 432                    |
| 1995/96               | 713               | 18               | 65                   | 0               | 796                    |
| 1996/97               | 1,079             | 5                | 38                   | 0               | 1,122                  |
| 1997/98               | 756               | 66               | 686                  | 1               | 1,509                  |
| 1998/99               | 519               | 23               | 17                   | 0               | 559                    |
| 1999/00               | 329               | 2                | 38                   | 0               | 369                    |
| 2000/01               | 281               | 16               | 23                   | 0               | 320                    |
| 2001/02               | 345               | 23               | 28                   | 0               | 396                    |
| 2002/03               | 509               | 75               | 8                    | 0               | 592                    |
| 2003/04               | 461               | 49               | 13                   | 0               | 523                    |
| 2004/05               | 293               | 29               | 36                   | 0               | 358                    |
| 2005/06               | 399               | 13               | 4                    | 0               | 416                    |
| 2006/07               | 108               | 0                | 1                    | 0               | 109                    |
| 2007/08               | 151               | 5                | 4                    | 0               | 160                    |
| 2008/09               | 287               | 1                | 3                    | 0               | 291                    |
| 2009/10               | 616               | 10               | 19                   | 0               | 645                    |
| 2010/11               | 371               | 2                | 9                    | 0               | 383                    |
| 2011/12               | 4,426             | 52               | 5                    | 0               | 4,484                  |
| 2012/13               | 420               | 3                | 3                    | 0               | 426                    |
| 2013/14               | 526               | 1                | 4                    | 0               | 531                    |
| 2014/15               | 519               | 1                | 8                    | 0               | 528                    |
| 2015/16               | 23                | 1                | 1                    | 0               | 25                     |
| 2016/17               | 83                | 0                | 1                    | 0               | 84                     |

### Retained Byproduct in the Northern Prawn Fishery by State or Territory waters

Total byproduct retained in the NPF by State or Territory in 2017 was 83,218 kg (Table 11). The highest retained byproduct level was observed in NT waters (69,449 kg) and the lowest in WA waters (207 kg). Australian Scampi was the largest component of byproduct catches, with 27,837 kg retained all but 2,000 kg of was taken outside of the NPF fishing seasons (Table 11).

**Table 11:** Retained byproduct in the NPF by State/Territory in 2017 (kilograms).

| Species                                  | NT     | QLD    | WA  | Total  |
|--|--------|--------|-----|--------|
| Australian scampi                        | 27,837 |        |     | 27,837 |
| Bugs - Shovel nosed and slipper lobsters | 6,879  | 4,261  | 120 | 11,260 |
| Calamari                                 | 70     |        |     | 70     |
| Champagne lobster - Spear lobster        | 831    |        |     | 831    |
| Crabs                                    | 39     |        |     | 39     |
| Cuttlefishes                             | 4,726  | 1,637  | 19  | 6,382  |
| Herring                                  | 42     |        |     | 42     |
| Mixed fish                               | 9      | 18     |     | 27     |
| Moreton Bay bugs                         | 15,529 | 5,785  | 14  | 21,328 |
| Pomfret                                  | 763    | 215    |     | 978    |
| Scallops                                 | 2,922  | 110    |     | 3,032  |
| Spiny lobsters                           |        |        | 20  | 20     |
| Squids                                   | 9,802  | 1,536  | 34  | 11,372 |
| Grand Total                              | 69,449 | 13,562 | 207 | 83,218 |

## References

Ma, K. Y., Chan, T. -Y & Chu, K. H. (2011). *Refuting the six-genus classification of Penaeus s.l. (Dendrobranchiata, Penaeidae): a combined analysis of mitochondrial and nuclear genes.* — Zoologica Scripta, 40, 498–508.

## Appendix 1 Historical Catch and Effort by Area

**Table 12: Weipa**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 208            | 201   | 49        | 230            | 228           | 455            | 1164                    | 1222                      | 0.504             | 0.196                   | 0.187                     |
| 1995 | 596            | 198   | 174       | 591            | 377           | 443            | 1396                    | 1539                      | 1.335             | 0.270                   | 0.245                     |
| 1996 | 1073           | 137   | 207       | 1072           | 345           | 676            | 1830                    | 2118                      | 1.585             | 0.188                   | 0.163                     |
| 1997 | 696            | 252   | 273       | 699            | 523           | 519            | 1844                    | 2241                      | 1.346             | 0.284                   | 0.233                     |
| 1998 | 165            | 46    | 13        | 165            | 59            | 233            | 388                     | 495                       | 0.709             | 0.151                   | 0.119                     |
| 1999 | 359            | 25    | 5         | 359            | 30            | 268            | 237                     | 318                       | 1.341             | 0.126                   | 0.094                     |
| 2000 | 36             | 154   | 147       | 37             | 301           | 170            | 1134                    | 1596                      | 0.218             | 0.265                   | 0.188                     |
| 2001 | 63             | 48    | 61        | 64             | 111           | 105            | 475                     | 702                       | 0.606             | 0.234                   | 0.158                     |
| 2002 | 42             | 12    | 12        | 42             | 24            | 64             | 127                     | 197                       | 0.661             | 0.186                   | 0.120                     |
| 2003 | 3              | 0     | 0         | 3              | 0             | 28             | 6                       | 10                        | 0.100             | 0.081                   | 0.050                     |
| 2004 | 138            | 0     | 0         | 138            | 0             | 120            | 3                       | 5                         | 1.147             | 0.024                   | 0.014                     |
| 2005 | 29             | 1     | 0         | 30             | 0             | 75             | 5                       | 9                         | 0.395             | 0.025                   | 0.014                     |
| 2006 | 391            | 6     | 2         | 391            | 6             | 342            | 53                      | 100                       | 1.143             | 0.113                   | 0.060                     |
| 2007 | 230            | 1     | 0         | 230            | 1             | 201            | 12                      | 24                        | 1.144             | 0.083                   | 0.042                     |
| 2008 | 833            | 28    | 22        | 833            | 51            | 374            | 208                     | 432                       | 2.226             | 0.244                   | 0.117                     |
| 2009 | 455            | 62    | 43        | 455            | 106           | 245            | 350                     | 764                       | 1.859             | 0.302                   | 0.138                     |
| 2010 | 280            | 44    | 25        | 280            | 69            | 173            | 194                     | 445                       | 1.619             | 0.355                   | 0.155                     |
| 2011 | 730            | 114   | 82        | 729            | 197           | 262            | 642                     | 1545                      | 2.784             | 0.306                   | 0.127                     |
| 2012 | 486            | 94    | 166       | 485            | 261           | 200            | 708                     | 1789                      | 2.426             | 0.369                   | 0.146                     |
| 2013 | 226            | 57    | 60        | 226            | 117           | 108            | 258                     | 685                       | 2.096             | 0.452                   | 0.170                     |
| 2014 | 338            | 138   | 160       | 338            | 298           | 136            | 559                     | 1557                      | 2.485             | 0.533                   | 0.201                     |
| 2015 | 394            | 92    | 28        | 394            | 120           | 178            | 298                     | 872                       | 2.213             | 0.403                   | 0.138                     |
| 2016 | 131            | 18    | 12        | 131            | 30            | 122            | 101                     | 310                       | 1.077             | 0.297                   | 0.097                     |
| 2017 | 274            | 101   | 82        | 273            | 185           | 110            | 603                     | 1945                      | 2.480             | 0.306                   | 0.095                     |

**Table 13: Keerweer**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 76             | 3     | 0         | 76             | 3             | 202            | 23                      | 24                        | 0.376             | 0.134                   | 0.127                     |
| 1995 | 107            | 2     | 0         | 108            | 1             | 123            | 8                       | 9                         | 0.874             | 0.100                   | 0.090                     |
| 1996 | 184            | 162   | 115       | 177            | 285           | 297            | 1097                    | 1270                      | 0.595             | 0.260                   | 0.225                     |
| 1997 | 123            | 88    | 18        | 119            | 113           | 164            | 463                     | 563                       | 0.726             | 0.244                   | 0.201                     |
| 1998 | 107            | 1     | 0         | 107            | 2             | 145            | 15                      | 19                        | 0.740             | 0.103                   | 0.081                     |
| 1999 | 114            | 6     | 1         | 114            | 7             | 150            | 40                      | 54                        | 0.761             | 0.176                   | 0.131                     |
| 2000 | 18             | 0     | 0         | 18             | 0             | 65             | 2                       | 3                         | 0.281             | 0.146                   | 0.103                     |
| 2001 | 77             | 0     | 0         | 77             | 0             | 88             | 2                       | 3                         | 0.878             | 0.075                   | 0.050                     |
| 2002 | 311            | 0     | 0         | 311            | 0             | 229            | 5                       | 8                         | 1.356             | 0.067                   | 0.043                     |
| 2003 | 6              | 0     | 0         | 6              | 0             | 35             | 3                       | 5                         | 0.168             | 0.042                   | 0.026                     |
| 2004 | 77             | 0     | 0         | 77             | 0             | 125            | 0                       | 0                         | 0.616             | 0.000                   | 0.000                     |
| 2005 | 78             | 0     | 0         | 78             | 0             | 85             | 1                       | 2                         | 0.917             | 0.010                   | 0.006                     |
| 2006 | 53             | 1     | 0         | 53             | 1             | 61             | 9                       | 17                        | 0.862             | 0.072                   | 0.038                     |
| 2007 | 115            | 0     | 0         | 115            | 0             | 125            | 0                       | 0                         | 0.916             | 0.000                   | 0.000                     |
| 2008 | 259            | 0     | 0         | 259            | 0             | 122            | 0                       | 0                         | 2.124             | 0.000                   | 0.000                     |
| 2009 | 258            | 0     | 0         | 258            | 0             | 142            | 2                       | 4                         | 1.818             | 0.082                   | 0.038                     |
| 2010 | 89             | 0     | 0         | 89             | 0             | 75             | 2                       | 5                         | 1.190             | 0.010                   | 0.004                     |
| 2011 | 230            | 0     | 0         | 230            | 0             | 82             | 2                       | 5                         | 2.811             | 0.175                   | 0.073                     |
| 2012 | 286            | 1     | 0         | 286            | 0             | 135            | 3                       | 8                         | 2.119             | 0.102                   | 0.040                     |
| 2013 | 98             | 0     | 0         | 99             | 0             | 78             | 1                       | 3                         | 1.263             | 0.130                   | 0.049                     |
| 2014 | 139            | 2     | 0         | 139            | 1             | 83             | 3                       | 8                         | 1.675             | 0.333                   | 0.126                     |
| 2015 | 204            | 1     | 2         | 204            | 3             | 82             | 5                       | 15                        | 2.488             | 0.600                   | 0.226                     |
| 2016 | 100            | 0     | 1         | 100            | 1             | 62             | 1                       | 3                         | 1.612             | 0.590                   | 0.192                     |
| 2017 | 26             | 0.1   | 0.2       | 26             | 0.3           | 24             | 1                       | 3                         | 1.085             | 0.3                     | 0.093                     |

**Table 14: Edward**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 161            | 1     | 0         | 161            | 1             | 335            | 6                       | 6                         | 0.481             | 0.134                   | 0.127                     |
| 1995 | 245            | 0     | 0         | 245            | 0             | 179            | 3                       | 3                         | 1.369             | 0.070                   | 0.063                     |
| 1996 | 248            | 1     | 0         | 248            | 1             | 253            | 4                       | 5                         | 0.979             | 0.179                   | 0.154                     |
| 1997 | 148            | 0     | 0         | 148            |               | 178            | 0                       | 0                         | 0.833             | 0.000                   | 0.000                     |
| 1998 | 317            | 0     | 0         | 317            | 0             | 276            | 4                       | 5                         | 1.148             | 0.032                   | 0.025                     |
| 1999 | 412            | 0     | 0         | 412            |               | 403            | 0                       | 0                         | 1.022             | 0.000                   | 0.000                     |
| 2000 | 27             | 0     | 0         | 27             |               | 117            | 0                       | 0                         | 0.233             | 0.000                   | 0.000                     |
| 2001 | 120            | 0     | 0         | 121            | 0             | 129            | 1                       | 1                         | 0.936             | 0.066                   | 0.045                     |
| 2002 | 399            | 0     | 0         | 399            |               | 244            | 0                       | 0                         | 1.635             | 0.000                   | 0.000                     |
| 2003 | 142            | 0     | 0         | 142            |               | 182            | 0                       | 0                         | 0.779             | 0.000                   | 0.000                     |
| 2004 | 151            | 0     | 0         | 151            | 0             | 162            | 0                       | 0                         | 0.932             | 0.000                   | 0.000                     |
| 2005 | 411            | 0     | 0         | 411            | 0             | 330            | 0                       | 0                         | 1.244             | 0.000                   | 0.000                     |
| 2006 | 134            | 0     | 0         | 134            | 0             | 186            | 0                       | 0                         | 0.721             | 0.000                   | 0.000                     |
| 2007 | 313            | 0     | 0         | 313            | 0             | 285            | 1                       | 2                         | 1.098             | 0.048                   | 0.024                     |
| 2008 | 612            | 0     | 0         | 612            | 0             | 295            | 0                       | 0                         | 2.074             | 0.000                   | 0.000                     |
| 2009 | 450            | 2     | 0         | 450            | 2             | 198            | 15                      | 33                        | 2.274             | 0.156                   | 0.071                     |
| 2010 | 426            | 0     | 0         | 426            | 0             | 228            | 3                       | 7                         | 1.869             | 0.112                   | 0.049                     |
| 2011 | 521            | 2     | 0         | 523            | 0             | 178            | 2                       | 5                         | 2.935             | 0.105                   | 0.044                     |
| 2012 | 634            | 6     | 1         | 634            | 7             | 297            | 19                      | 48                        | 2.135             | 0.374                   | 0.148                     |
| 2013 | 168            | 0     | 0         | 168            | 0             | 125            | 1                       | 3                         | 1.344             | 0.062                   | 0.023                     |
| 2014 | 250            | 0     | 0         | 250            | 0             | 128            | 0                       | 0                         | 1.953             | 0.000                   | 0.000                     |
| 2015 | 215            | 0     | 0         | 215            | 0             | 113            | 1                       | 3                         | 1.903             | 0.100                   | 0.034                     |
| 2016 | 306            | 0     | 0         | 306            | 0             | 167            | 0                       | 0                         | 1.833             | 0                       | 0                         |
| 2017 | 178            | 0.02  | 0         | 178            | 0.02          | 105            | 0                       | 0                         | 1.698             | 0                       | 0                         |

**Table 15: Mitchell**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 180            | 2     | 0         | 180            | 2             | 406            | 3                       | 3                         | 0.442             | 0.708                   | 0.675                     |
| 1995 | 433            | 0     | 0         | 433            | 0             | 308            | 0                       | 0                         | 1.406             | 0.000                   | 0.000                     |
| 1996 | 433            | 0     | 0         | 433            | 0             | 468            | 1                       | 1                         | 0.926             | 0.135                   | 0.117                     |
| 1997 | 274            | 0     | 0         | 274            | 0             | 289            | 0                       | 0                         | 0.949             | 0.000                   | 0.000                     |
| 1998 | 188            | 2     | 0         | 188            | 2             | 244            | 7                       | 9                         | 0.772             | 0.305                   | 0.239                     |
| 1999 | 246            | 0     | 0         | 246            | 0             | 268            | 0                       | 0                         | 0.918             | 0.000                   | 0.000                     |
| 2000 | 100            | 0     | 0         | 100            | 0             | 178            | 1                       | 1                         | 0.563             | 0.090                   | 0.064                     |
| 2001 | 256            | 0     | 0         | 257            | 0             | 300            | 0                       | 0                         | 0.856             | 0.000                   | 0.000                     |
| 2002 | 601            | 1     | 0         | 601            | 1             | 363            | 7                       | 11                        | 1.657             | 0.131                   | 0.084                     |
| 2003 | 325            | 0     | 0         | 325            | 0             | 377            | 0                       | 0                         | 0.862             | 0.000                   | 0.000                     |
| 2004 | 455            | 0     | 0         | 455            | 0             | 500            | 1                       | 2                         | 0.911             | 0.077                   | 0.045                     |
| 2005 | 306            | 0     | 0         | 306            | 0             | 296            | 0                       | 0                         | 1.034             | 0.000                   | 0.000                     |
| 2006 | 71             | 0     | 0         | 71             | 0             | 147            | 0                       | 0                         | 0.483             | 0.000                   | 0.000                     |
| 2007 | 455            | 0     | 0         | 455            | 0             | 301            | 0                       | 0                         | 1.512             | 0.000                   | 0.000                     |
| 2008 | 380            | 0     | 0         | 380            | 0             | 192            | 3                       | 6                         | 1.980             | 0.142                   | 0.068                     |
| 2009 | 282            | 0     | 0         | 282            | 0             | 160            | 1                       | 2                         | 1.761             | 0.010                   | 0.005                     |
| 2010 | 285            | 0     | 0         | 285            | 0             | 147            | 0                       | 0                         | 1.940             | 0.000                   | 0.000                     |
| 2011 | 288            | 0     | 0         | 288            | 0             | 107            | 0                       | 0                         | 2.695             | 0.000                   | 0.000                     |
| 2012 | 326            | 0     | 0         | 326            | 0             | 169            | 1                       | 3                         | 1.932             | 0.243                   | 0.096                     |
| 2013 | 566            | 0     | 0         | 567            | 0             | 200            | 0                       | 0                         | 2.833             | 0.000                   | 0.000                     |
| 2014 | 528            | 0     | 0         | 528            | 0             | 210            | 0                       | 0                         | 2.514             | 0.000                   | 0.000                     |
| 2015 | 480            | 0     | 0         | 480            | 0             | 131            | 0                       | 0                         | 3.664             | 0.000                   | 0.000                     |
| 2016 | 349            | 0     | 0         | 349            | 0             | 138            | 0                       | 0                         | 2.532             | 0                       | 0                         |
| 2017 | 205            | 0.3   | 0.5       | 205            | 1             | 87             | 4                       | 13                        | 2.353             | 199                     | 0.062                     |

**Table 16: Bold**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 244            | 115   | 22        | 241            | 143           | 542            | 553                     | 581                       | 0.444             | 0.258                   | 0.246                     |
| 1995 | 646            | 416   | 89        | 643            | 516           | 571            | 1187                    | 1309                      | 1.127             | 0.435                   | 0.394                     |
| 1996 | 393            | 86    | 24        | 393            | 112           | 429            | 457                     | 529                       | 0.917             | 0.246                   | 0.212                     |
| 1997 | 570            | 53    | 49        | 570            | 102           | 332            | 274                     | 333                       | 1.716             | 0.373                   | 0.307                     |
| 1998 | 574            | 104   | 22        | 579            | 125           | 628            | 460                     | 587                       | 0.922             | 0.271                   | 0.213                     |
| 1999 | 325            | 35    | 12        | 324            | 48            | 413            | 227                     | 304                       | 0.786             | 0.213                   | 0.159                     |
| 2000 | 289            | 20    | 1         | 287            | 23            | 349            | 161                     | 227                       | 0.823             | 0.145                   | 0.103                     |
| 2001 | 1736           | 11    | 16        | 1739           | 26            | 912            | 91                      | 134                       | 1.907             | 0.286                   | 0.193                     |
| 2002 | 1612           | 32    | 2         | 1614           | 32            | 788            | 172                     | 267                       | 2.048             | 0.183                   | 0.118                     |
| 2003 | 609            | 5     | 0         | 610            | 5             | 480            | 37                      | 60                        | 1.271             | 0.141                   | 0.087                     |
| 2004 | 649            | 2     | 0         | 649            | 3             | 392            | 15                      | 26                        | 1.654             | 0.183                   | 0.107                     |
| 2005 | 643            | 15    | 2         | 643            | 15            | 417            | 79                      | 142                       | 1.542             | 0.186                   | 0.104                     |
| 2006 | 479            | 4     | 0         | 479            | 4             | 378            | 22                      | 41                        | 1.268             | 0.202                   | 0.107                     |
| 2007 | 439            | 33    | 7         | 439            | 33            | 297            | 129                     | 255                       | 1.477             | 0.256                   | 0.129                     |
| 2008 | 1304           | 84    | 33        | 1302           | 120           | 489            | 327                     | 680                       | 2.662             | 0.366                   | 0.176                     |
| 2009 | 1614           | 52    | 41        | 1614           | 94            | 531            | 168                     | 367                       | 3.040             | 0.559                   | 0.256                     |
| 2010 | 1097           | 45    | 16        | 1094           | 64            | 442            | 87                      | 199                       | 2.475             | 0.739                   | 0.323                     |
| 2011 | 2451           | 46    | 20        | 2451           | 66            | 611            | 173                     | 416                       | 4.011             | 0.381                   | 0.158                     |
| 2012 | 912            | 110   | 45        | 905            | 162           | 368            | 347                     | 877                       | 2.459             | 0.466                   | 0.185                     |
| 2013 | 545            | 191   | 54        | 541            | 250           | 278            | 539                     | 1430                      | 1.946             | 0.464                   | 0.175                     |
| 2014 | 1445           | 42    | 21        | 1442           | 67            | 518            | 131                     | 365                       | 2.784             | 0.511                   | 0.184                     |
| 2015 | 742            | 55    | 9         | 742            | 55            | 271            | 112                     | 328                       | 2.738             | 0.491                   | 0.168                     |
| 2016 | 743            | 62    | 2         | 744            | 64            | 373            | 168                     | 516                       | 1.994             | 0.384                   | 0.125                     |
| 2017 | 757            | 8     | 0.4       | 757            | 9             | 229            | 34                      | 110                       | 3.306             | 0.265                   | 0.082                     |

**Table 17: Sweers**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 16             | 49    | 33        | 17             | 82            | 95             | 288                     | 302                       | 0.178             | 0.286                   | 0.272                     |
| 1995 | 336            | 357   | 126       | 331            | 498           | 213            | 1249                    | 1377                      | 1.553             | 0.398                   | 0.361                     |
| 1996 | 162            | 167   | 146       | 161            | 316           | 147            | 980                     | 1134                      | 1.097             | 0.323                   | 0.279                     |
| 1997 | 127            | 145   | 104       | 127            | 251           | 101            | 713                     | 867                       | 1.257             | 0.352                   | 0.290                     |
| 1998 | 473            | 41    | 60        | 486            | 88            | 532            | 305                     | 389                       | 0.914             | 0.290                   | 0.227                     |
| 1999 | 0              | 1     | 0         | 0              | 1             | 56             | 10                      | 13                        | 0.004             | 0.147                   | 0.110                     |
| 2000 | 61             | 3     | 2         | 60             | 5             | 98             | 22                      | 31                        | 0.612             | 0.221                   | 0.157                     |
| 2001 | 494            | 4     | 3         | 494            | 9             | 330            | 34                      | 50                        | 1.498             | 0.258                   | 0.174                     |
| 2002 | 225            | 2     | 1         | 225            | 3             | 204            | 19                      | 29                        | 1.105             | 0.146                   | 0.094                     |
| 2003 | 125            | 0     | 0         | 125            | 0             | 150            | 2                       | 3                         | 0.836             | 0.096                   | 0.059                     |
| 2004 | 127            | 0     | 0         | 127            | 0             | 106            | 1                       | 2                         | 1.198             | 0.230                   | 0.134                     |
| 2005 | 146            | 4     | 7         | 146            | 4             | 87             | 65                      | 117                       | 1.678             | 0.062                   | 0.034                     |
| 2006 | 70             | 0     | 0         | 70             | 0             | 48             | 1                       | 2                         | 1.454             | 0.130                   | 0.069                     |
| 2007 | 137            | 0     | 0         | 137            | 0             | 83             | 0                       | 0                         | 1.649             | 0.000                   | 0.000                     |
| 2008 | 126            | 28    | 15        | 126            | 43            | 63             | 115                     | 239                       | 2.001             | 0.378                   | 0.182                     |
| 2009 | 178            | 4     | 3         | 178            | 8             | 61             | 11                      | 24                        | 2.924             | 0.702                   | 0.322                     |
| 2010 | 397            | 4     | 7         | 396            | 13            | 179            | 22                      | 50                        | 2.213             | 0.576                   | 0.251                     |
| 2011 | 379            | 90    | 46        | 379            | 136           | 143            | 281                     | 676                       | 2.653             | 0.485                   | 0.201                     |
| 2012 | 177            | 50    | 49        | 174            | 103           | 65             | 219                     | 553                       | 2.673             | 0.468                   | 0.185                     |
| 2013 | 92             | 89    | 61        | 90             | 153           | 45             | 260                     | 690                       | 1.990             | 0.587                   | 0.221                     |
| 2014 | 436            | 70    | 49        | 428            | 129           | 144            | 223                     | 621                       | 2.972             | 0.578                   | 0.208                     |
| 2015 | 120            | 202   | 66        | 117            | 283           | 56             | 374                     | 1094                      | 2.089             | 0.757                   | 0.259                     |
| 2016 | 275            | 257   | 52        | 264            | 328           | 122            | 518                     | 1591                      | 2.166             | 0.633                   | 0.206                     |
| 2017 | 714            | 7     | 3         | 715            | 9             | 172            | 37                      | 119                       | 4.157             | 0.243                   | 0.075                     |

**Table 18: Mornington**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 4              | 760   | 306       | 2              | 1085          | 50             | 4813                    | 5054                      | 0.036             | 0.225                   | 0.215                     |
| 1995 | 126            | 1531  | 283       | 110            | 1840          | 141            | 5243                    | 5780                      | 0.779             | 0.351                   | 0.318                     |
| 1996 | 105            | 640   | 405       | 104            | 1052          | 148            | 4571                    | 5292                      | 0.702             | 0.230                   | 0.199                     |
| 1997 | 62             | 690   | 347       | 62             | 1046          | 72             | 3867                    | 4700                      | 0.857             | 0.271                   | 0.223                     |
| 1998 | 233            | 919   | 464       | 226            | 1394          | 323            | 4795                    | 6120                      | 0.699             | 0.291                   | 0.228                     |
| 1999 | 9              | 445   | 219       | 9              | 665           | 72             | 2474                    | 3315                      | 0.123             | 0.269                   | 0.201                     |
| 2000 | 110            | 473   | 306       | 110            | 780           | 147            | 3445                    | 4847                      | 0.752             | 0.226                   | 0.161                     |
| 2001 | 928            | 392   | 184       | 926            | 578           | 827            | 2157                    | 3187                      | 1.120             | 0.268                   | 0.182                     |
| 2002 | 65             | 85    | 53        | 65             | 139           | 177            | 680                     | 1055                      | 0.365             | 0.204                   | 0.132                     |
| 2003 | 102            | 163   | 32        | 101            | 197           | 127            | 645                     | 1051                      | 0.798             | 0.305                   | 0.187                     |
| 2004 | 37             | 47    | 7         | 37             | 54            | 82             | 205                     | 351                       | 0.446             | 0.265                   | 0.155                     |
| 2005 | 91             | 280   | 64        | 91             | 280           | 113            | 1281                    | 2300                      | 0.807             | 0.219                   | 0.122                     |
| 2006 | 187            | 206   | 44        | 187            | 206           | 204            | 780                     | 1471                      | 0.915             | 0.264                   | 0.140                     |
| 2007 | 145            | 57    | 24        | 145            | 57            | 179            | 333                     | 659                       | 0.810             | 0.171                   | 0.086                     |
| 2008 | 127            | 69    | 18        | 131            | 83            | 134            | 315                     | 655                       | 0.975             | 0.264                   | 0.127                     |
| 2009 | 634            | 342   | 54        | 630            | 401           | 286            | 1111                    | 2425                      | 2.202             | 0.361                   | 0.165                     |
| 2010 | 443            | 199   | 40        | 441            | 241           | 258            | 528                     | 1210                      | 1.711             | 0.456                   | 0.199                     |
| 2011 | 806            | 70    | 29        | 806            | 99            | 273            | 347                     | 835                       | 2.952             | 0.285                   | 0.119                     |
| 2012 | 21             | 70    | 4         | 21             | 74            | 7              | 227                     | 574                       | 2.945             | 0.326                   | 0.129                     |
| 2013 | 126            | 183   | 49        | 124            | 236           | 83             | 546                     | 1449                      | 1.492             | 0.432                   | 0.163                     |
| 2014 | 352            | 188   | 40        | 353            | 230           | 186            | 599                     | 1669                      | 1.898             | 0.384                   | 0.138                     |
| 2015 | 184            | 266   | 43        | 180            | 329           | 75             | 567                     | 1659                      | 2.400             | 0.580                   | 0.198                     |
| 2016 | 117            | 296   | 40        | 114            | 355           | 92             | 941                     | 2890                      | 1.235             | 0.377                   | 0.123                     |
| 2017 | 443            | 101   | 15        | 441            | 120           | 202            | 427                     | 1377                      | 2.183             | 0.281                   | 0.087                     |

**Table 19: Limmen Bight**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 9              | 716   | 107       | 5              | 842           | 68             | 3515                    | 3691                      | 0.073             | 0.240                   | 0.228                     |
| 1995 | 326            | 448   | 68        | 330            | 515           | 327            | 1856                    | 2046                      | 1.009             | 0.277                   | 0.252                     |
| 1996 | 201            | 555   | 174       | 201            | 737           | 252            | 3175                    | 3675                      | 0.797             | 0.232                   | 0.200                     |
| 1997 | 28             | 472   | 115       | 28             | 593           | 91             | 2100                    | 2553                      | 0.311             | 0.282                   | 0.232                     |
| 1998 | 273            | 748   | 122       | 274            | 870           | 307            | 3003                    | 3833                      | 0.891             | 0.290                   | 0.227                     |
| 1999 | 78             | 610   | 155       | 79             | 773           | 183            | 2933                    | 3931                      | 0.429             | 0.264                   | 0.197                     |
| 2000 | 229            | 558   | 179       | 232            | 737           | 348            | 2725                    | 3834                      | 0.666             | 0.270                   | 0.192                     |
| 2001 | 1732           | 584   | 250       | 1744           | 825           | 1440           | 2594                    | 3833                      | 1.211             | 0.318                   | 0.215                     |
| 2002 | 17             | 306   | 73        | 14             | 381           | 37             | 1373                    | 2130                      | 0.381             | 0.278                   | 0.179                     |
| 2003 | 420            | 848   | 132       | 420            | 981           | 449            | 2749                    | 4478                      | 0.935             | 0.357                   | 0.219                     |
| 2004 | 55             | 670   | 113       | 55             | 784           | 173            | 2607                    | 4459                      | 0.319             | 0.301                   | 0.176                     |
| 2005 | 3              | 509   | 47        | 3              | 509           | 25             | 2103                    | 3777                      | 0.120             | 0.242                   | 0.135                     |
| 2006 | 429            | 719   | 121       | 429            | 719           | 303            | 2516                    | 4744                      | 1.416             | 0.286                   | 0.152                     |
| 2007 | 30             | 284   | 62        | 30             | 284           | 101            | 1470                    | 2910                      | 0.299             | 0.193                   | 0.098                     |
| 2008 | 111            | 252   | 22        | 112            | 273           | 128            | 1079                    | 2243                      | 0.878             | 0.253                   | 0.121                     |
| 2009 | 380            | 581   | 85        | 386            | 659           | 272            | 1951                    | 4259                      | 1.419             | 0.338                   | 0.155                     |
| 2010 | 705            | 467   | 80        | 708            | 544           | 317            | 1245                    | 2854                      | 2.232             | 0.437                   | 0.191                     |
| 2011 | 277            | 184   | 32        | 278            | 215           | 139            | 891                     | 2144                      | 2.003             | 0.241                   | 0.100                     |
| 2012 | 74             | 235   | 37        | 75             | 271           | 43             | 919                     | 2322                      | 1.756             | 0.294                   | 0.117                     |
| 2013 | 74             | 541   | 51        | 77             | 589           | 63             | 1288                    | 3417                      | 1.222             | 0.457                   | 0.172                     |
| 2014 | 516            | 364   | 48        | 519            | 411           | 191            | 972                     | 2708                      | 2.717             | 0.423                   | 0.152                     |
| 2015 | 199            | 455   | 21        | 199            | 478           | 106            | 814                     | 2381                      | 1.877             | 0.587                   | 0.201                     |
| 2016 | 78             | 422   | 40        | 80             | 461           | 72             | 1197                    | 3677                      | 1.112             | 0.385                   | 0.125                     |
| 2017 | 721            | 350   | 46        | 724            | 393           | 271            | 1340                    | 4322                      | 2.672             | 0.293                   | 0.091                     |

Table 20: Groote

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 26             | 930   | 243       | 25             | 1176          | 49             | 5669                    | 5952                      | 0.503             | 0.207                   | 0.198                     |
| 1995 | 60             | 722   | 202       | 56             | 930           | 81             | 3554                    | 3918                      | 0.686             | 0.262                   | 0.237                     |
| 1996 | 62             | 418   | 131       | 61             | 550           | 109            | 3134                    | 3628                      | 0.560             | 0.175                   | 0.152                     |
| 1997 | 74             | 662   | 186       | 72             | 849           | 129            | 3279                    | 3986                      | 0.559             | 0.259                   | 0.213                     |
| 1998 | 75             | 951   | 449       | 73             | 1404          | 147            | 6051                    | 7723                      | 0.494             | 0.232                   | 0.182                     |
| 1999 | 471            | 803   | 313       | 509            | 1079          | 795            | 4810                    | 6446                      | 0.640             | 0.224                   | 0.167                     |
| 2000 | 217            | 780   | 233       | 222            | 1008          | 412            | 3870                    | 5445                      | 0.539             | 0.260                   | 0.185                     |
| 2001 | 358            | 662   | 371       | 363            | 1030          | 469            | 3387                    | 5004                      | 0.774             | 0.304                   | 0.206                     |
| 2002 | 30             | 1035  | 180       | 29             | 1216          | 63             | 4152                    | 6441                      | 0.457             | 0.293                   | 0.189                     |
| 2003 | 126            | 900   | 194       | 119            | 1100          | 121            | 3459                    | 5634                      | 0.984             | 0.318                   | 0.195                     |
| 2004 | 111            | 699   | 191       | 112            | 889           | 214            | 3363                    | 5752                      | 0.522             | 0.264                   | 0.155                     |
| 2005 | 3              | 576   | 95        | 3              | 576           | 25             | 2811                    | 5048                      | 0.120             | 0.205                   | 0.114                     |
| 2006 | 97             | 594   | 137       | 97             | 594           | 171            | 2516                    | 4744                      | 0.566             | 0.236                   | 0.125                     |
| 2007 | 49             | 307   | 77        | 49             | 307           | 190            | 1958                    | 3877                      | 0.257             | 0.157                   | 0.079                     |
| 2008 | 49             | 265   | 54        | 50             | 318           | 71             | 1361                    | 2829                      | 0.702             | 0.234                   | 0.112                     |
| 2009 | 149            | 138   | 71        | 152            | 206           | 146            | 818                     | 1786                      | 1.044             | 0.252                   | 0.116                     |
| 2010 | 215            | 618   | 207       | 227            | 813           | 235            | 2059                    | 4719                      | 0.965             | 0.395                   | 0.172                     |
| 2011 | 264            | 191   | 103       | 288            | 270           | 380            | 1045                    | 2515                      | 0.759             | 0.259                   | 0.108                     |
| 2012 | 44             | 287   | 95        | 47             | 379           | 51             | 1369                    | 3459                      | 0.915             | 0.277                   | 0.110                     |
| 2013 | 49             | 713   | 110       | 38             | 834           | 31             | 1888                    | 5009                      | 1.221             | 0.442                   | 0.167                     |
| 2014 | 149            | 491   | 150       | 138            | 652           | 43             | 1435                    | 3807                      | 3.209             | 0.454                   | 0.171                     |
| 2015 | 200            | 1386  | 214       | 167            | 1634          | 101            | 2538                    | 7424                      | 1.653             | 0.644                   | 0.220                     |
| 2016 | 24             | 597   | 127       | 19             | 730           | 45             | 1759                    | 5401                      | 0.422             | 0.415                   | 0.135                     |
| 2017 | 192            | 371   | 141       | 195            | 510           | 124            | 1527                    | 4925                      | 1.573             | 0.334                   | 0.104                     |

Table 21: Gove

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 42             | 225   | 71        | 43             | 296           | 116            | 1439                    | 1511                      | 0.370             | 0.206                   | 0.196                     |
| 1995 | 47             | 345   | 53        | 48             | 398           | 125            | 1522                    | 1678                      | 0.383             | 0.261                   | 0.237                     |
| 1996 | 18             | 111   | 21        | 18             | 133           | 131            | 775                     | 897                       | 0.140             | 0.171                   | 0.148                     |
| 1997 | 45             | 228   | 54        | 47             | 281           | 136            | 1032                    | 1254                      | 0.346             | 0.272                   | 0.224                     |
| 1998 | 39             | 266   | 113       | 37             | 383           | 98             | 1769                    | 2258                      | 0.374             | 0.216                   | 0.170                     |
| 1999 | 80             | 203   | 95        | 83             | 296           | 216            | 1423                    | 1907                      | 0.384             | 0.208                   | 0.155                     |
| 2000 | 23             | 164   | 47        | 23             | 212           | 122            | 939                     | 1321                      | 0.188             | 0.226                   | 0.161                     |
| 2001 | 37             | 179   | 101       | 37             | 281           | 99             | 911                     | 1346                      | 0.374             | 0.309                   | 0.209                     |
| 2002 | 77             | 322   | 47        | 74             | 374           | 119            | 1426                    | 2212                      | 0.624             | 0.262                   | 0.169                     |
| 2003 | 84             | 205   | 46        | 85             | 251           | 127            | 893                     | 1455                      | 0.669             | 0.281                   | 0.172                     |
| 2004 | 71             | 282   | 42        | 72             | 324           | 161            | 1234                    | 2111                      | 0.446             | 0.262                   | 0.153                     |
| 2005 | 72             | 288   | 39        | 72             | 288           | 145            | 1370                    | 2460                      | 0.497             | 0.210                   | 0.117                     |
| 2006 | 143            | 262   | 54        | 143            | 262           | 243            | 1099                    | 2072                      | 0.588             | 0.238                   | 0.126                     |
| 2007 | 61             | 162   | 19        | 61             | 162           | 156            | 816                     | 1616                      | 0.393             | 0.199                   | 0.100                     |
| 2008 | 101            | 122   | 12        | 100            | 136           | 75             | 562                     | 1168                      | 1.335             | 0.242                   | 0.116                     |
| 2009 | 11             | 35    | 13        | 11             | 48            | 15             | 240                     | 524                       | 0.706             | 0.201                   | 0.092                     |
| 2010 | 68             | 241   | 35        | 66             | 278           | 51             | 706                     | 1618                      | 1.292             | 0.393                   | 0.172                     |
| 2011 | 97             | 83    | 47        | 95             | 133           | 100            | 501                     | 1206                      | 0.947             | 0.265                   | 0.110                     |
| 2012 | 77             | 162   | 27        | 77             | 189           | 87             | 697                     | 1761                      | 0.881             | 0.271                   | 0.107                     |
| 2013 | 49             | 269   | 28        | 49             | 297           | 36             | 732                     | 1942                      | 1.356             | 0.406                   | 0.153                     |
| 2014 | 42             | 259   | 66        | 41             | 327           | 39             | 737                     | 1774                      | 1.051             | 0.444                   | 0.184                     |
| 2015 | 143            | 493   | 72        | 146            | 562           | 150            | 905                     | 2647                      | 0.973             | 0.621                   | 0.212                     |
| 2016 | 109            | 147   | 19        | 111            | 166           | 89             | 471                     | 1447                      | 1.247             | 0.352                   | 0.115                     |
| 2017 | 85             | 72    | 10        | 81             | 86            | 93             | 382                     | 1232                      | 0.871             | 0.225                   | 0.070                     |

**Table 22: Arnhem**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 42             | 90    | 11        | 44             | 100           | 178            | 526                     | 552                       | 0.245             | 0.190                   | 0.181                     |
| 1995 | 160            | 19    | 1         | 160            | 21            | 132            | 109                     | 120                       | 1.211             | 0.188                   | 0.171                     |
| 1996 | 90             | 37    | 3         | 90             | 40            | 210            | 252                     | 292                       | 0.430             | 0.158                   | 0.137                     |
| 1997 | 87             | 17    | 2         | 87             | 18            | 178            | 105                     | 128                       | 0.490             | 0.174                   | 0.143                     |
| 1998 | 94             | 49    | 2         | 95             | 52            | 225            | 231                     | 295                       | 0.422             | 0.223                   | 0.175                     |
| 1999 | 176            | 8     | 1         | 176            | 8             | 253            | 74                      | 99                        | 0.695             | 0.113                   | 0.085                     |
| 2000 | 50             | 21    | 2         | 50             | 22            | 181            | 148                     | 208                       | 0.278             | 0.149                   | 0.106                     |
| 2001 | 127            | 32    | 2         | 128            | 35            | 135            | 142                     | 210                       | 0.950             | 0.245                   | 0.166                     |
| 2002 | 64             | 57    | 1         | 63             | 59            | 147            | 193                     | 299                       | 0.432             | 0.304                   | 0.196                     |
| 2003 | 165            | 11    | 0         | 166            | 10            | 183            | 43                      | 70                        | 0.908             | 0.237                   | 0.145                     |
| 2004 | 264            | 6     | 0         | 265            | 5             | 303            | 39                      | 67                        | 0.873             | 0.129                   | 0.076                     |
| 2005 | 112            | 15    | 0         | 112            | 15            | 186            | 70                      | 126                       | 0.603             | 0.217                   | 0.121                     |
| 2006 | 213            | 7     | 1         | 213            | 7             | 227            | 44                      | 83                        | 0.938             | 0.159                   | 0.084                     |
| 2007 | 36             | 11    | 1         | 36             | 11            | 118            | 66                      | 131                       | 0.302             | 0.168                   | 0.085                     |
| 2008 | 327            | 68    | 8         | 326            | 76            | 176            | 234                     | 486                       | 1.854             | 0.324                   | 0.156                     |
| 2009 | 48             | 9     | 0         | 48             | 9             | 35             | 38                      | 83                        | 1.374             | 0.236                   | 0.108                     |
| 2010 | 258            | 4     | 0         | 258            | 4             | 124            | 17                      | 39                        | 2.079             | 0.215                   | 0.094                     |
| 2011 | 243            | 8     | 2         | 242            | 10            | 98             | 48                      | 116                       | 2.473             | 0.207                   | 0.086                     |
| 2012 | 305            | 5     | 0         | 305            | 5             | 102            | 22                      | 56                        | 2.994             | 0.221                   | 0.087                     |
| 2013 | 95             | 39    | 3         | 95             | 43            | 58             | 120                     | 318                       | 1.641             | 0.358                   | 0.135                     |
| 2014 | 308            | 15    | 3         | 309            | 17            | 153            | 51                      | 123                       | 2.020             | 0.333                   | 0.139                     |
| 2015 | 173            | 35    | 3         | 173            | 38            | 153            | 62                      | 181                       | 1.131             | 0.613                   | 0.210                     |
| 2016 | 58             | 97    | 5         | 58             | 102           | 50             | 239                     | 734                       | 1.160             | 0.427                   | 0.139                     |
| 2017 | 142            | 37    | 1         | 142            | 38            | 120            | 121                     | 390                       | 1.183             | 0.314                   | 0.097                     |

**Table 23: Port Essington**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 132            | 26    | 9         | 136            | 31            | 378            | 176                     | 185                       | 0.361             | 0.176                   | 0.167                     |
| 1995 | 257            | 63    | 57        | 253            | 124           | 363            | 359                     | 396                       | 0.697             | 0.344                   | 0.312                     |
| 1996 | 177            | 14    | 4         | 180            | 15            | 332            | 96                      | 111                       | 0.543             | 0.154                   | 0.133                     |
| 1997 | 302            | 16    | 54        | 302            | 69            | 478            | 186                     | 226                       | 0.632             | 0.372                   | 0.306                     |
| 1998 | 175            | 74    | 34        | 173            | 109           | 358            | 415                     | 530                       | 0.485             | 0.262                   | 0.205                     |
| 1999 | 195            | 8     | 18        | 196            | 25            | 343            | 98                      | 131                       | 0.570             | 0.259                   | 0.193                     |
| 2000 | 180            | 39    | 25        | 180            | 65            | 288            | 216                     | 304                       | 0.624             | 0.301                   | 0.214                     |
| 2001 | 280            | 63    | 142       | 258            | 227           | 345            | 395                     | 584                       | 0.749             | 0.576                   | 0.390                     |
| 2002 | 213            | 86    | 25        | 212            | 113           | 339            | 273                     | 424                       | 0.624             | 0.414                   | 0.267                     |
| 2003 | 212            | 12    | 6         | 219            | 11            | 367            | 47                      | 77                        | 0.595             | 0.236                   | 0.145                     |
| 2004 | 193            | 17    | 7         | 195            | 22            | 241            | 92                      | 157                       | 0.810             | 0.235                   | 0.137                     |
| 2005 | 236            | 15    | 6         | 236            | 15            | 403            | 47                      | 84                        | 0.586             | 0.327                   | 0.182                     |
| 2006 | 193            | 2     | 2         | 193            | 2             | 197            | 6                       | 11                        | 0.980             | 0.333                   | 0.177                     |
| 2007 | 116            | 3     | 0         | 116            | 3             | 141            | 18                      | 36                        | 0.820             | 0.178                   | 0.090                     |
| 2008 | 379            | 99    | 22        | 378            | 122           | 285            | 324                     | 674                       | 1.326             | 0.377                   | 0.181                     |
| 2009 | 107            | 15    | 5         | 109            | 17            | 103            | 51                      | 111                       | 1.062             | 0.332                   | 0.152                     |
| 2010 | 254            | 8     | 3         | 259            | 6             | 208            | 18                      | 41                        | 1.246             | 0.323                   | 0.141                     |
| 2011 | 243            | 21    | 27        | 252            | 40            | 236            | 92                      | 221                       | 1.066             | 0.437                   | 0.182                     |
| 2012 | 283            | 38    | 18        | 291            | 48            | 188            | 124                     | 313                       | 1.546             | 0.385                   | 0.152                     |
| 2013 | 170            | 45    | 21        | 169            | 67            | 162            | 118                     | 313                       | 1.042             | 0.568                   | 0.214                     |
| 2014 | 340            | 41    | 51        | 347            | 85            | 264            | 133                     | 320                       | 1.314             | 0.639                   | 0.266                     |
| 2015 | 264            | 85    | 37        | 262            | 124           | 240            | 152                     | 445                       | 1.092             | 0.816                   | 0.279                     |
| 2016 | 171            | 171   | 31        | 162            | 212           | 161            | 344                     | 1057                      | 1.006             | 0.617                   | 0.201                     |
| 2017 | 186            | 13    | 6         | 188            | 16            | 182            | 56                      | 181                       | 1.033             | 0.286                   | 0.089                     |



**Table 24: Melville**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 168            | 14    | 12        | 169            | 26            | 453            | 131                     | 138                       | 0.373             | 0.196                   | 0.187                     |
| 1995 | 493            | 20    | 56        | 502            | 67            | 628            | 186                     | 205                       | 0.799             | 0.361                   | 0.327                     |
| 1996 | 289            | 7     | 27        | 294            | 29            | 557            | 126                     | 146                       | 0.529             | 0.228                   | 0.197                     |
| 1997 | 554            | 41    | 111       | 574            | 132           | 842            | 312                     | 379                       | 0.682             | 0.424                   | 0.349                     |
| 1998 | 235            | 46    | 49        | 237            | 93            | 519            | 312                     | 398                       | 0.457             | 0.298                   | 0.233                     |
| 1999 | 527            | 8     | 14        | 531            | 17            | 667            | 76                      | 102                       | 0.796             | 0.229                   | 0.171                     |
| 2000 | 189            | 2     | 2         | 191            | 2             | 380            | 13                      | 18                        | 0.502             | 0.126                   | 0.089                     |
| 2001 | 351            | 5     | 18        | 358            | 17            | 439            | 63                      | 93                        | 0.816             | 0.273                   | 0.185                     |
| 2002 | 286            | 29    | 18        | 295            | 38            | 468            | 118                     | 183                       | 0.630             | 0.321                   | 0.207                     |
| 2003 | 253            | 14    | 13        | 267            | 13            | 432            | 51                      | 83                        | 0.618             | 0.249                   | 0.153                     |
| 2004 | 455            | 0     | 0         | 455            | 0             | 500            | 1                       | 2                         | 0.911             | 0.077                   | 0.045                     |
| 2005 | 306            | 0     | 0         | 306            | 0             | 530            | 44                      | 79                        | 0.577             | 0.000                   | 0.000                     |
| 2006 | 160            | 1     | 1         | 160            | 0             | 230            | 1                       | 2                         | 0.696             | 0.000                   | 0.000                     |
| 2007 | 134            | 0     | 0         | 134            | 0             | 141            | 3                       | 6                         | 0.947             | 0.000                   | 0.000                     |
| 2008 | 528            | 3     | 2         | 532            | 1             | 435            | 6                       | 12                        | 1.223             | 0.203                   | 0.097                     |
| 2009 | 302            | 7     | 12        | 309            | 12            | 208            | 34                      | 74                        | 1.488             | 0.358                   | 0.164                     |
| 2010 | 343            | 4     | 3         | 349            | 1             | 294            | 7                       | 16                        | 1.186             | 0.173                   | 0.075                     |
| 2011 | 356            | 2     | 13        | 359            | 13            | 259            | 19                      | 46                        | 1.384             | 0.660                   | 0.274                     |
| 2012 | 370            | 41    | 22        | 377            | 56            | 312            | 147                     | 371                       | 1.209             | 0.381                   | 0.151                     |
| 2013 | 252            | 73    | 51        | 263            | 113           | 227            | 154                     | 409                       | 1.160             | 0.731                   | 0.275                     |
| 2014 | 322            | 72    | 65        | 330            | 130           | 265            | 194                     | 467                       | 1.245             | 0.670                   | 0.278                     |
| 2015 | 416            | 112   | 64        | 425            | 167           | 329            | 206                     | 603                       | 1.292             | 0.811                   | 0.277                     |
| 2016 | 215            | 67    | 43        | 222            | 103           | 237            | 152                     | 467                       | 0.937             | 0.675                   | 0.220                     |
| 2017 | 509            | 11    | 10        | 512            | 18            | 408            | 66                      | 213                       | 1.255             | 0.273                   | 0.085                     |

**Table 25: Fog Bay**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 210            | 6     | 2         | 211            | 8             | 393            | 76                      | 80                        | 0.536             | 0.101                   | 0.096                     |
| 1995 | 251            | 5     | 1         | 251            | 6             | 346            | 40                      | 44                        | 0.726             | 0.144                   | 0.130                     |
| 1996 | 147            | 4     | 0         | 147            | 4             | 227            | 43                      | 50                        | 0.648             | 0.096                   | 0.083                     |
| 1997 | 448            | 10    | 3         | 452            | 10            | 464            | 61                      | 74                        | 0.974             | 0.158                   | 0.130                     |
| 1998 | 307            | 11    | 10        | 308            | 22            | 420            | 118                     | 151                       | 0.733             | 0.184                   | 0.144                     |
| 1999 | 254            | 1     | 1         | 254            | 2             | 308            | 17                      | 23                        | 0.824             | 0.137                   | 0.103                     |
| 2000 | 221            | 1     | 0         | 221            | 1             | 271            | 15                      | 21                        | 0.817             | 0.074                   | 0.053                     |
| 2001 | 307            | 0     | 0         | 308            | 0             | 271            | 1                       | 1                         | 1.136             | 0.202                   | 0.137                     |
| 2002 | 208            | 0     | 0         | 208            | 1             | 295            | 9                       | 14                        | 0.704             | 0.135                   | 0.087                     |
| 2003 | 259            | 0     | 0         | 259            | 1             | 324            | 2                       | 3                         | 0.798             | 0.255                   | 0.157                     |
| 2004 | 332            | 0     | 0         | 332            | 0             | 261            | 1                       | 2                         | 1.271             | 0.270                   | 0.158                     |
| 2005 | 123            | 0     | 0         | 123            | 0             | 181            | 1                       | 2                         | 0.679             | 0.110                   | 0.061                     |
| 2006 | 258            | 1     | 0         | 258            | 1             | 270            | 2                       | 4                         | 0.956             | 0.250                   | 0.133                     |
| 2007 | 237            | 1     | 0         | 237            | 1             | 172            | 3                       | 6                         | 1.375             | 0.183                   | 0.093                     |
| 2008 | 316            | 0     | 0         | 316            | 0             | 200            | 1                       | 2                         | 1.580             | 0.494                   | 0.238                     |
| 2009 | 287            | 0     | 0         | 287            | 0             | 107            | 1                       | 2                         | 2.682             | 0.225                   | 0.103                     |
| 2010 | 318            | 0     | 0         | 318            | 0             | 180            | 0                       | 0                         | 1.765             | 0.000                   | 0.000                     |
| 2011 | 286            | 0     | 0         | 286            | 0             | 169            | 0                       | 0                         | 1.692             | 0.000                   | 0.000                     |
| 2012 | 233            | 0     | 0         | 233            | 0             | 144            | 0                       | 0                         | 1.621             | 0.000                   | 0.000                     |
| 2013 | 197            | 0     | 0         | 197            | 0             | 117            | 0                       | 0                         | 1.685             | 0.000                   | 0.000                     |
| 2014 | 191            | 0     | 0         | 191            | 0             | 102            | 1                       | 2                         | 1.873             | 0.000                   | 0.000                     |
| 2015 | 156            | 0     | 0         | 156            | 0             | 110            | 0                       | 0                         | 1.418             | 0.000                   | 0.000                     |
| 2016 | 171            | 2     | 0         | 171            | 2             | 114            | 2                       | 6                         | 1.500             | 0.848                   | 0.276                     |
| 2017 | 230            | 0     | 1         | 230            | 1             | 162            | 1                       | 3                         | 1.420             | 1.100                   | 0.341                     |

**Table 26: Bonaparte**

| Year | Catch (tonnes) |       |           |                |               | Effort (days)  |                         |                           | CPUE (tonnes/day) |                         |                           |
|------|----------------|-------|-----------|----------------|---------------|----------------|-------------------------|---------------------------|-------------------|-------------------------|---------------------------|
|      | Banana         | Tiger | Endeavour | Banana Fishery | Tiger Fishery | Banana Fishery | Tiger Fishery (nominal) | Tiger Fishery (effective) | Banana Fishery    | Tiger Fishery (nominal) | Tiger Fishery (effective) |
| 1994 | 590            | 4     | 21        | 610            | 5             | 1125           | 28                      | 29                        | 0.542             | 0.182                   | 0.173                     |
| 1995 | 736            | 11    | 64        | 763            | 49            | 900            | 129                     | 142                       | 0.848             | 0.380                   | 0.345                     |
| 1996 | 546            | 10    | 36        | 569            | 23            | 1284           | 93                      | 108                       | 0.443             | 0.242                   | 0.209                     |
| 1997 | 1000           | 30    | 623       | 1010           | 643           | 1502           | 1147                    | 1394                      | 0.673             | 0.561                   | 0.461                     |
| 1998 | 262            | 25    | 7         | 265            | 29            | 846            | 125                     | 160                       | 0.313             | 0.230                   | 0.180                     |
| 1999 | 619            | 16    | 50        | 630            | 54            | 1235           | 246                     | 330                       | 0.511             | 0.221                   | 0.165                     |
| 2000 | 397            | 1     | 19        | 404            | 14            | 554            | 32                      | 45                        | 0.729             | 0.423                   | 0.300                     |
| 2001 | 292            | 25    | 29        | 303            | 49            | 358            | 187                     | 276                       | 0.847             | 0.259                   | 0.176                     |
| 2002 | 435            | 28    | 10        | 441            | 32            | 610            | 164                     | 254                       | 0.723             | 0.196                   | 0.126                     |
| 2003 | 411            | 103   | 12        | 422            | 105           | 732            | 566                     | 922                       | 0.576             | 0.185                   | 0.113                     |
| 2004 | 477            | 33    | 38        | 495            | 53            | 720            | 198                     | 339                       | 0.688             | 0.266                   | 0.155                     |
| 2005 | 318            | 15    | 5         | 318            | 15            | 445            | 64                      | 115                       | 0.715             | 0.230                   | 0.128                     |
| 2006 | 231            | 0     | 1         | 231            | 0             | 254            | 0                       | 0                         | 0.909             | 0.000                   | 0.000                     |
| 2007 | 151            | 4     | 4         | 151            | 4             | 206            | 20                      | 40                        | 0.732             | 0.220                   | 0.111                     |
| 2008 | 185            | 1     | 3         | 189            | 0             | 183            | 2                       | 4                         | 1.031             | 0.179                   | 0.086                     |
| 2009 | 612            | 4     | 17        | 628            | 5             | 444            | 13                      | 28                        | 1.415             | 0.397                   | 0.182                     |
| 2010 | 254            | 2     | 9         | 261            | 4             | 218            | 10                      | 23                        | 1.199             | 0.353                   | 0.154                     |
| 2011 | 463            | 6     | 85        | 472            | 81            | 345            | 100                     | 241                       | 1.369             | 0.815                   | 0.338                     |
| 2012 | 195            | 1     | 2         | 198            |               | 132            | 0                       | 0                         | 1.499             | 0.000                   | 0.000                     |
| 2013 | 380            | 3     | 4         | 387            | 0             | 325            | 1                       | 3                         | 1.191             | 0.025                   | 0.009                     |
| 2014 | 883            | 2     | 9         | 891            | 3             | 604            | 4                       | 10                        | 1.475             | 0.750                   | 0.312                     |
| 2015 | 30             | 0     | 0         | 30             | 0             | 57             | 1                       | 3                         | 0.526             | 0.429                   | 0.147                     |
| 2016 | 35             | 0     | 1         | 35             | 0             | 59             | 1                       | 3                         | 0.600             | 0.045                   | 0.015                     |
| 2017 | 383            | 9     | 65        | 388            | 68            | 405            | 117                     | 377                       | 0.959             | 0.583                   | 0.181                     |