



## **NORTHERN PRAWN FISHERY DATA SUMMARY**

**2008**



Shannon Evans  
**NPF Industry Pty Ltd**  
**2009**

## NORTHERN PRAWN FISHERY DATA SUMMARY 2008

NPF INDUSTRY PTY LTD on behalf of Australian Fisheries Management Authority  
Shannon Evans  
Northern Prawn Fishery Data Summary 2008  
July 2009

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# NORTHERN PRAWN FISHERY DATA SUMMARY 2008

## Preface

### Scope of the Report

This data summary provides a broad outline of the catch and effort for the Northern Prawn Fishery (NPF) and is an important mechanism for providing feedback to stakeholders on the logbook data received by AFMA. In addition, the extraction and analysis of the data by the Logbook Program helps to identify data quality issues and provides valuable information on how fishery data needs and collection methods can be improved.

AFMA has produced data summary reports for the NPF on an annual basis since 1999. As part of the AFMA/NPF Co-Management trial being undertaken in the NPF, this is the first year NPF Industry Pty Ltd is responsible for developing the data summary. The following data summary reviews the 2008 season prawn catch and effort for the NPF.

### Acknowledgements

Production of this report was made possible through the efforts of the skippers and vessel owners and Crew Member Observers of the NPF. Skippers supplied daily logbook information and vessel owners completed seasonal landing returns. The log sheets and landing returns were processed by D&S Datafix.

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

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Also note that this Data Summary is available on AFMA's website: [www.afma.gov.au](http://www.afma.gov.au)



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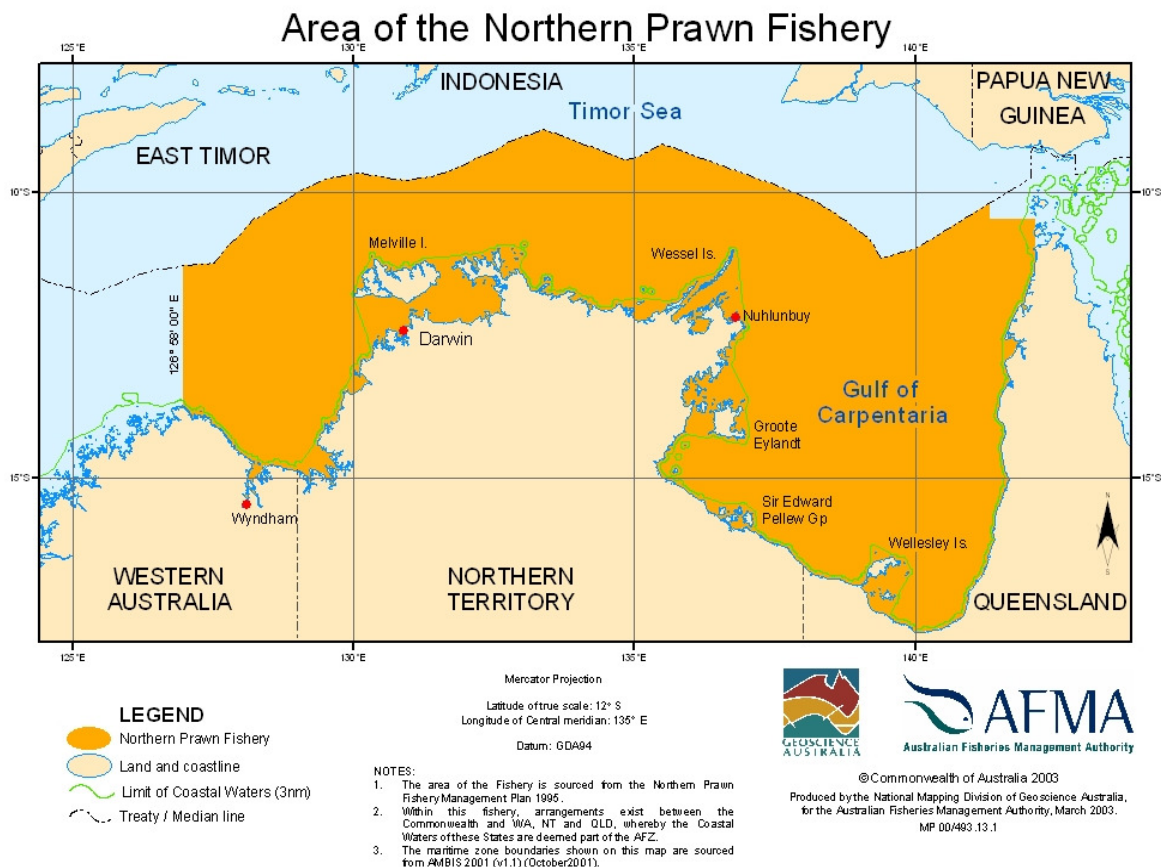
## Introduction

The Northern Prawn Fishery Data Summary 2008 contains catch and effort statistics by prawn species, area, time and fishery. Comprehensive bycatch information is also included for the information of stakeholders and to meet AFMA's obligations under Offshore Constitutional Settlements with Queensland, the Northern Territory and Western Australia. Interactions with threatened, endangered and protected (TEP) species including turtles and sea snakes are also reported.

## Description of the Northern Prawn Fishery

### Area of Fishery

The Northern Prawn Fishery 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 (Figure1).



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

## Fishing Methods

Prawn trawling is an active fishing method that involves towing a conical-shaped net spread open by two 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 NPF Management Plan and relevant Determinations. In addition to the main nets a small net, or try-net, is used to test the catches for a given area. All trawl nets (other than try-nets) in the NPF are required to be fitted with approved Turtle Excluder Devices (TEDs) and Bycatch Reduction Devices (BRDs).

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, sophisticated catch handling, packing and freezing capabilities as well as wet (brine) holding facilities. All use electronic aids such as colour echo sounders and Global Positioning Systems (GPS) and plotters. Satellite phone and fax equipment is used by most vessels and many have introduced on-board computing facilities, as well as electronic log books. All vessels are required to have a Vessel Monitoring System (VMS).

## Management Information

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

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

In 2002 measures to reduce effort by 40% on tiger prawns were introduced. This was achieved by shortening the seasons and a further 25% reduction in the value of an SFR from 24 August 2002. This resulted in a reduction in Class B SFRs from 119 to 102.

In 2006 the Commonwealth Government Structural Adjustment Package removed 42 B Class SFRs and approximately 30% of the effective effort from the Northern Prawn Fishery (NPF). The fishery is now composed of 52 vessels which is the level estimated by ABARE to maximise the economic yield (MEY) of the NPF. The industry has formed a company 'NPF Industry Pty Ltd' that incorporates around 95% of the fishery gear SFR holders.

In 2008, following a recommendation from the Northern Prawn Fishery Management Advisory Committee (NORMAC) there was an 8% increase in effort in the 2008 tiger prawn season. This translated into NPF gear SFRs increasing from 5.625 to 7.481 and Concessions Holders also having the ability to use quad gear (with a 10% penalty applied).

## Species

The Fishery targets nine commercial species of prawns including white banana (*Fenneropenaeus merguensis*), red-legged banana (*F. indicus*), brown tiger (*Penaeus esculentus*), grooved tiger (*P. semisulcatus*), blue endeavour (*Metapenaeus endeavouri*), and red endeavour (*M. ensis*). Scampi, squid, scallops and bugs are also taken as by-product.



The fishery is split into two seasons. For 2008, the seasons were from 26 March to 5 June (banana prawn season) and from 1 August to 28 November (tiger prawn season) respectively.

## **Data Collection Program**

NPF operators are required to complete the 'Northern and Torres Strait Prawn Fisheries Daily Fishing Log' (NP15 or NP16), a paper logbook on a daily basis. Alternatively, NPF operators can use an electronic version (e-log). Approximately 13 operators in the banana prawn season and 43 operators in the tiger prawn season used e-logs in 2008. 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 (NP15, NP16 and e-log) submitted by NPF skippers and the seasonal landing returns (SLR-T01) completed by SFR holders. This information is stored at AFMA on the Northern Prawn, Kimberley Prawn and Torres Strait Prawn database.

The data used in this summary was extracted during July 2009 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.

The banana prawn catches recorded in the logbooks from 44 out of 51 vessels were within 10% of the catch recorded in the seasonal landing returns for the banana prawn season. On average logbook catches of banana prawns were underestimated 2.9% when compared to seasonal landing returns, with the greatest discrepancy 13.8% for the banana prawn season. The tiger prawn catches recorded in the logbooks from 45 vessels out of 52 were within 10% of the catch recorded in the seasonal landing returns for the tiger prawn season. On average logbook catches of tiger prawns were underestimated 1.3% when compared to seasonal landing returns, with the greatest discrepancy 15.3% for the tiger prawn season.

The catch and effort estimates in Table 1, Figure 2 and Figure 6 were derived from a combination of logbook and seasonal landing returns figures. The remainder of the tables and figures in the summary represent logbook data only. This may cause discrepancies between totals. Discrepancies may also occur due to rounding.

## **Banana and Tiger Prawn Fishery Components**

The 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. Fishing days where vessels have been searching, but have not supplied details of the area searched, have not been included in the effort figures.



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

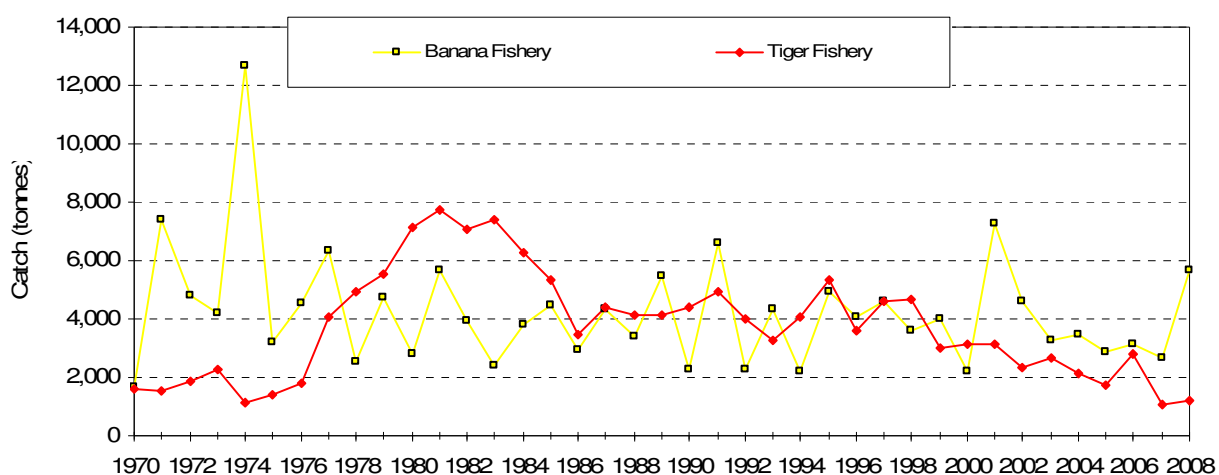
### Coverage

The 2008 NPF seasons were from 26 March to 5 June and 1 August to 28 November. There were 70 days available to fish during the first season and 119 during the second season (a total of 189), which was 13 days more than 2007. The increased number of fishing days in 2008 was due to the first season remaining open for 10 weeks compared to 8 weeks in 2007.

Total effort days in the 2008 banana prawn season were 2,629 days and 5,274 for the tiger prawn season. While total effort days in 2008 for the banana prawn fishery were 3,347 days and 4,556 days for the tiger prawn fishery.

### Catch

The total NPF prawn catch for 2008 was 7,058 t, compared with 4,310 t in 2007 (Table 1). The catch of banana prawns increased by 100% compared to the previous year (from 2901 t to 5816 t). The catch of tiger prawns decreased by 17% from 1,192 t in 2007 to 1,021 t in 2008. Catches of endeavour prawns increased by 9% from 196 t in 2007 to 213 t in 2008 (Figure 2). In 2008 catches of king prawns decreased to 7 t compared to 20 t in 2007.



**Figure 2:** Catch in the banana and tiger prawn fisheries between 1970 and 2008.

**Table 1:** Annual reconciled landings, effort and vessel number in the NPF from 1970 to 2008.

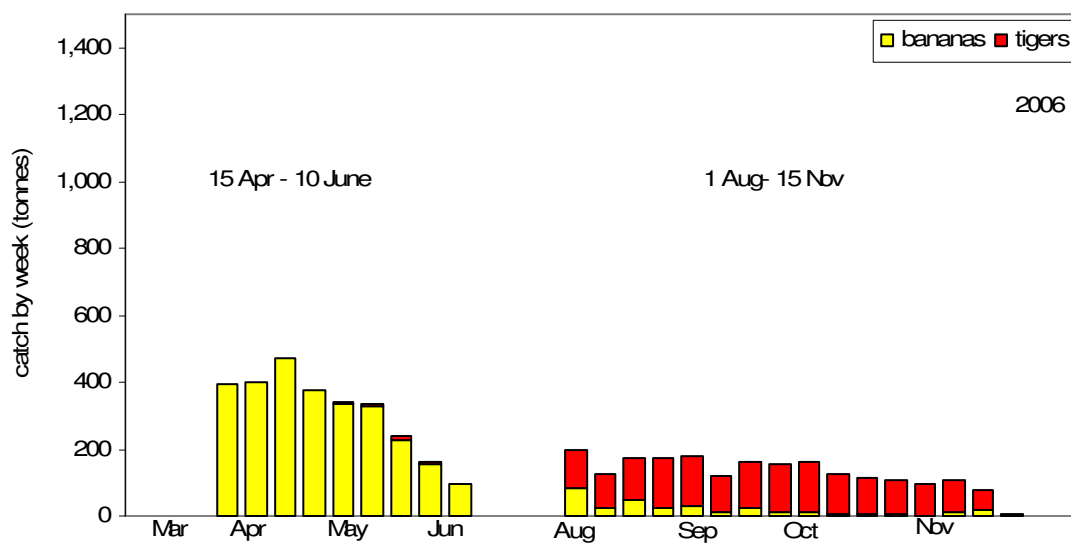
Year	Banana (t)	Tiger (t)	Endeavour (t)	King (t)	Total Catch (t)	No. of Vessels	Banana Fishery Effort (days)	Tiger Fishery Effort (days)
1970	1,702	1,138	417	0	3,257	191	2,041	5,818
1971	7,364	1,183	400	0	8,948	169	5,571	6,057
1972	4,801	1,380	472	0	6,654	180	4,327	7,380
1973	4,226	1,672	594	0	6,492	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
<i>1970-79 average</i>	<i>5,214</i>	<i>1,885</i>	<i>701</i>	<i>22</i>	<i>7,822</i>	<i>188</i>	<i>5,715</i>	<i>9,094</i>
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
<i>1980-89 average</i>	<i>3,904</i>	<i>4,237</i>	<i>1,406</i>	<i>103</i>	<i>9,653</i>	<i>248</i>	<i>7,758</i>	<i>29,141</i>
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
<i>1990-99 average</i>	<i>3,863</i>	<i>3,078</i>	<i>1,056</i>	<i>55</i>	<i>8,052</i>	<i>144</i>	<i>5,477</i>	<i>18,220</i>
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
<b>2008</b>	<b>5,816</b>	<b>1,021</b>	<b>213</b>	<b>7</b>	<b>7,058</b>	<b>53</b>	<b>3,347</b>	<b>4,556</b>
<i>2000-08 average</i>	<i>3,946</i>	<i>1,763</i>	<i>490</i>	<i>12</i>	<i>6,208</i>	<i>91</i>	<i>3,876</i>	<i>8,058</i>

\* note: Catch data is extracted from seasonal landing returns.

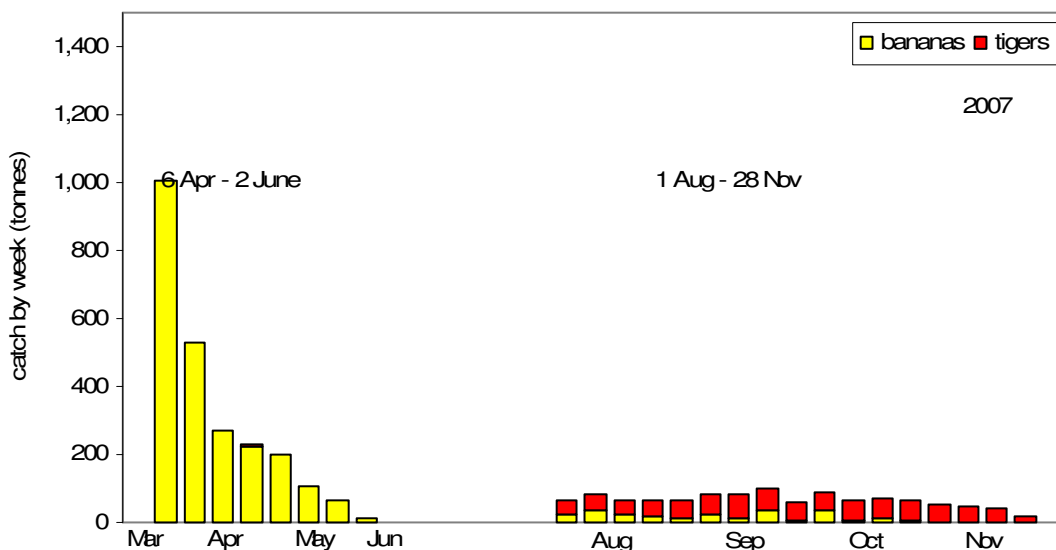
## Catch by week

Figures 3 (a), (b) and (c) show the catch of banana and tiger prawns by week during 2006, 2007 and 2008. Similar to the 2007 banana season, highest catches of banana prawns were recorded in the first week. This was unlike the 2006 banana prawn season, where the highest catches of banana prawns were recorded in the third week. In 2007, banana prawn catches were almost halved by the second week, banana prawn catches in 2008 remained quite high (>600 t) until the fifth week.

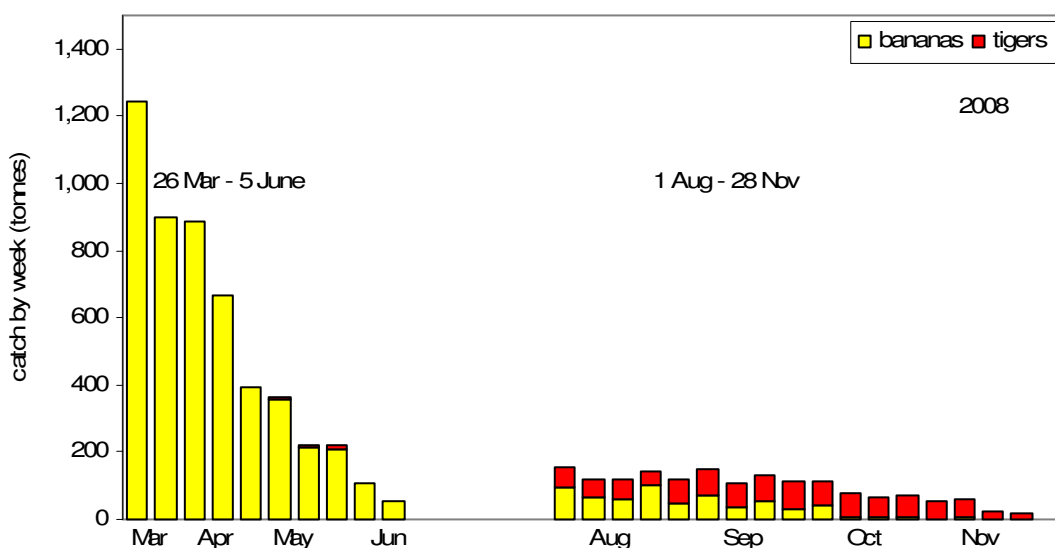
In 2008, catches of banana prawns during the first four weeks of the tiger prawn season were greater than catches of tiger prawns. Catches of tiger prawns during the tiger prawn season were at their highest from week's five to eleven ranging from 68 t to 83 t.



**Figure 3a:** Weekly catches of banana and tiger prawns (t) in the NPF in 2006.



**Figure 3b:** Weekly catches of banana and tiger prawns (t) in the NPF in 2007.

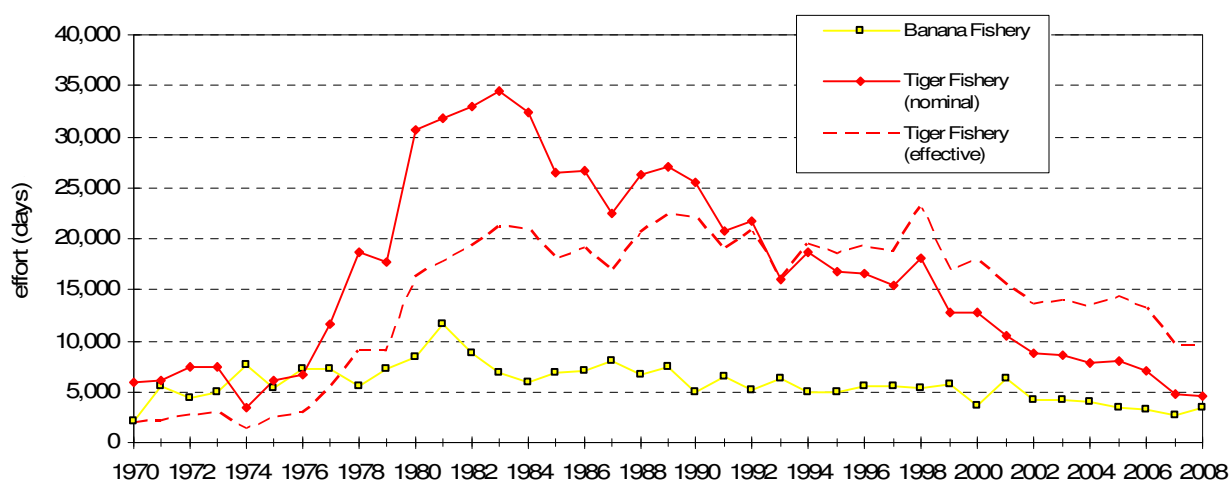


**Figure 3c:** Weekly catches of banana and tiger prawns (t) in the NPF in 2008.

## 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 based on the assumption that there has been an 'effort creep' (an increase in effectiveness of the gear utilised). A number of different approaches to effort creep are being used by Northern Prawn Fishery Resource Assessment Group (NPRAG), including using an average 5% per year as well as variable effort creeps. As in previous years, for the purpose of preparing this report we have used 5%. Nominal effort in the banana prawn fishery increased by 651 days (24%) as a result of the 10 week 2008 banana prawn season compared to 8 weeks in 2007 and greater catches of banana prawns in the tiger prawn season. In the tiger prawn fishery, nominal effort decreased by 273 days (6%) despite the 2008 tiger prawn season length being the same as 2007.

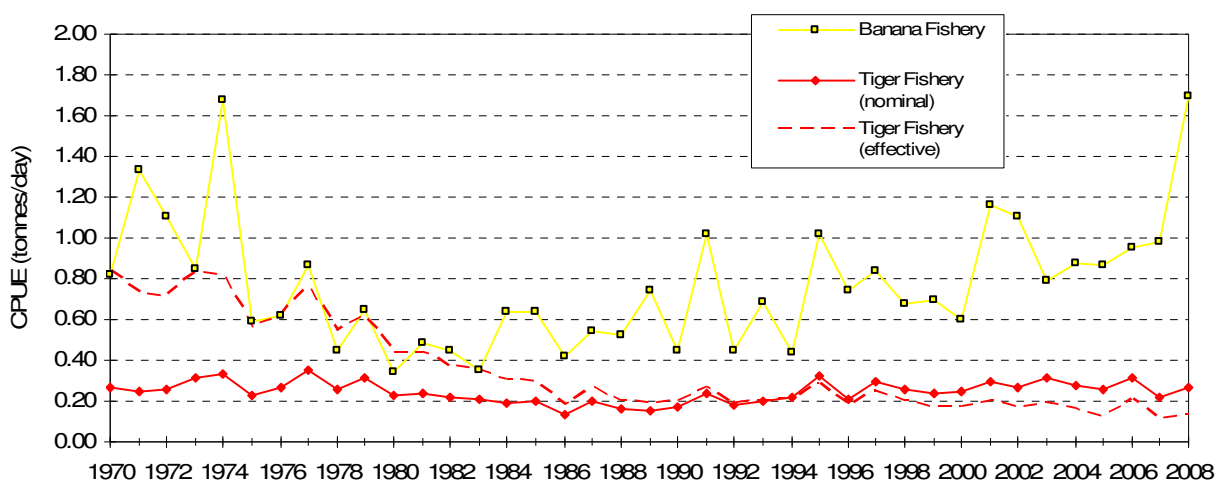


**Figure 4:** Effort in the banana and tiger prawn fisheries in the NPF between 1970 and 2008.

## Catch Rate

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

The banana prawn fishery catch rate significantly increased from a daily rate of 0.980 t per day in 2007 to 1.699 t per day in 2008. The nominal catch rate for the tiger prawn fishery slightly increased to 0.270 t per day for 2008 from 0.220 t per day in 2007, while the effective catch rate increased to 0.130 t per day in 2008 from 0.112 t per day in 2007 (Figure 5).



**Figure 5:** Catch rate in the banana and tiger prawn fisheries between 1970 and 2008.

## Catch, effort and catch rate by month

The highest catches during the 2008 banana prawn season were obtained during April whilst the highest catches during the 2008 tiger prawn season were obtained during September (Table 2).

Table 3 shows effort by month in the banana and tiger prawn seasons for 2008. Effort for 2008 in the banana prawn season was highest in April and lowest in June. Tiger prawn season effort was highest in October and lowest in November (Table 3).

Monthly catch rates (CPUE) for banana prawns were highest in March during the banana prawn season (Table 4). Monthly catch rates for tiger prawns were highest in August for nominal effort and equally as high in August and September for effective effort during the tiger prawn season.

**Table 2:** Monthly catch by species in 2008.

Catch (t)	Mar	Apr	May	Jun	Aug	Sep	Oct	Nov	Grand Total
Banana	1,083	3,091	856	17	345	206	71	10	5,678
Tiger	0	0	17	0	247	321	296	140	1,022
Endeavour	0	0	1	0	72	56	43	43	215
King	0	0	0	0	0	0	0	0	1
<b>Total</b>	1,083	3,091	874	17	665	584	409	193	6,916

**Table 3:** Monthly effort in the banana and tiger prawn seasons in 2008.

Effort (days)	Mar	Apr	May	Jun	Aug	Sep	Oct	Nov	Grand Total
Banana Fishery	311	1,317	914	40	388	208	98	24	3,300
Tiger Fishery (nominal)	0	0	69	1	998	1,215	1,376	895	4,554
Tiger Fishery (effective)	0	0	143	2	2,075	2,526	2,861	1,861	9,467
<b>Total</b>	311	1,317	1,126	43	3,461	3,949	4,335	2,780	17,321

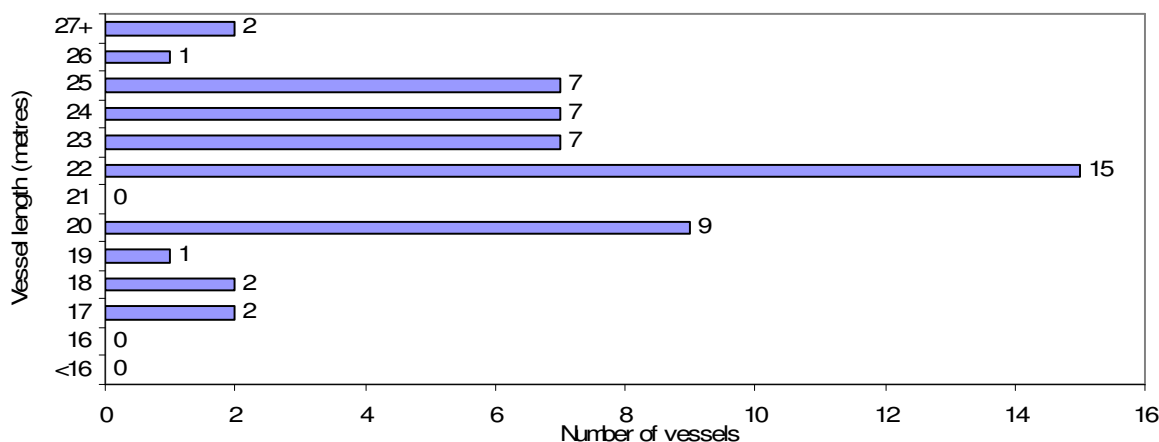
**Table 4:** Monthly catch rate for all species in the banana and tiger prawn seasons in 2008.

CPUE (t/day)	Mar	Apr	May	Jun	Aug	Sep	Oct	Nov
Banana Fishery	3.481	2.347	0.939	0.424	0.900	0.996	0.740	0.384
Tiger Fishery (nominal)	0	0	0.233	0.208	0.316	0.310	0.245	0.205
Tiger Fishery (effective)	0	0	0.112	0.100	0.152	0.149	0.118	0.099

## Vessel and gear information

### Vessel length

A total of 53 vessels fished in the NPF at some stage during 2008. The most common NPF vessel length in 2008 was between 22.0-22.9 metres (Figure 6).

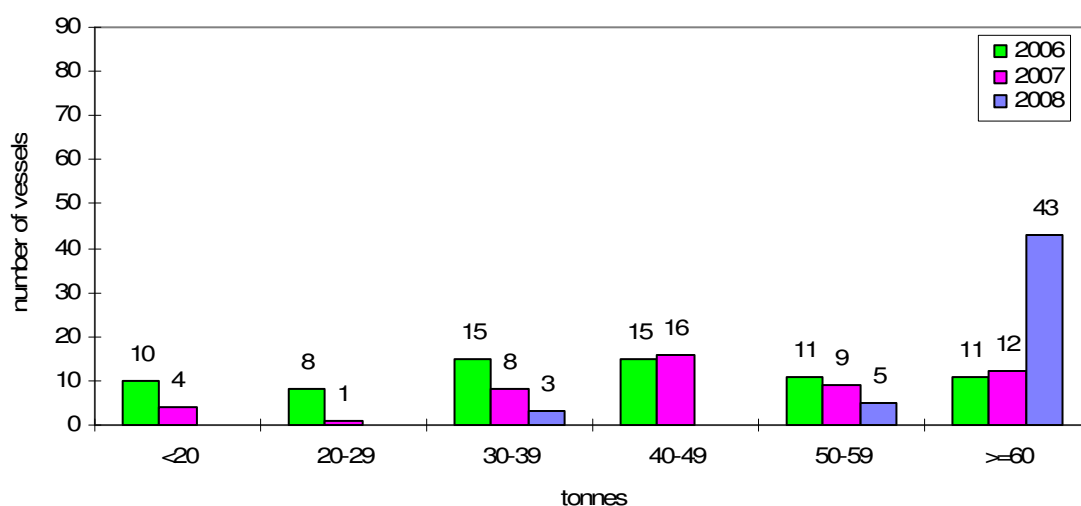


**Figure 6:** Frequency of vessel lengths in the NPF fleet in 2008

### Distribution of catch by vessel

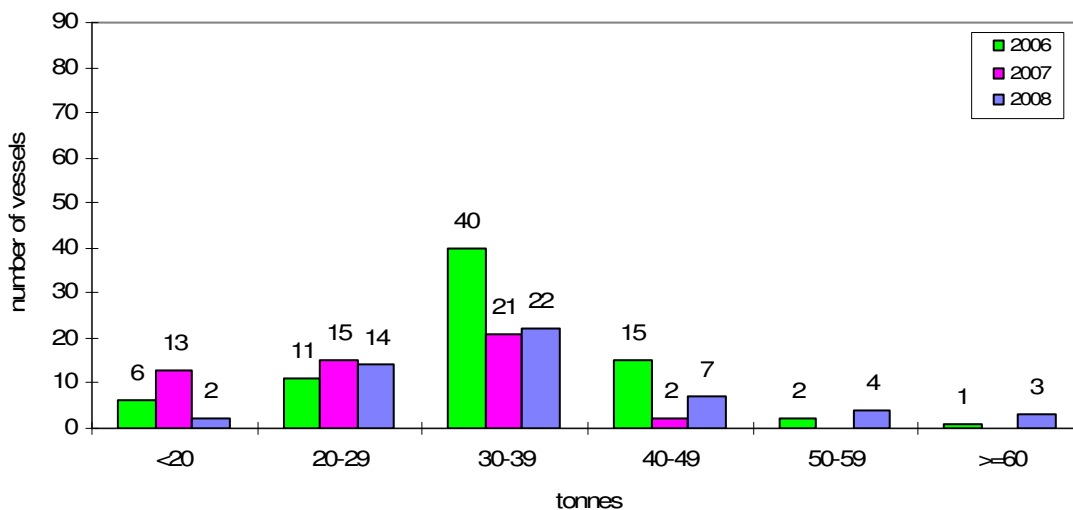
A total of 51 vessels fished during the 2008 banana prawn season. The highest distribution of catch in the banana prawn season of 2008 was in the range  $\geq 60$  t category with 43 vessels or 84% (Figure 7a). Three vessels (6%) caught between 30-39 t while the remaining 5 vessels (10%) caught between 50-59 t (Figure 7a).

A total of 52 vessels fished during the 2008 tiger prawn season. In the tiger prawn season, 16 vessels (31%) caught less than 20 t, 22 vessels (42%) caught between 30-39 t and 14 vessels (27%) caught more than 39 t (Figure 7b).



**Figure 7a:** Distribution of total catch in the banana prawn season, 2006-2008.

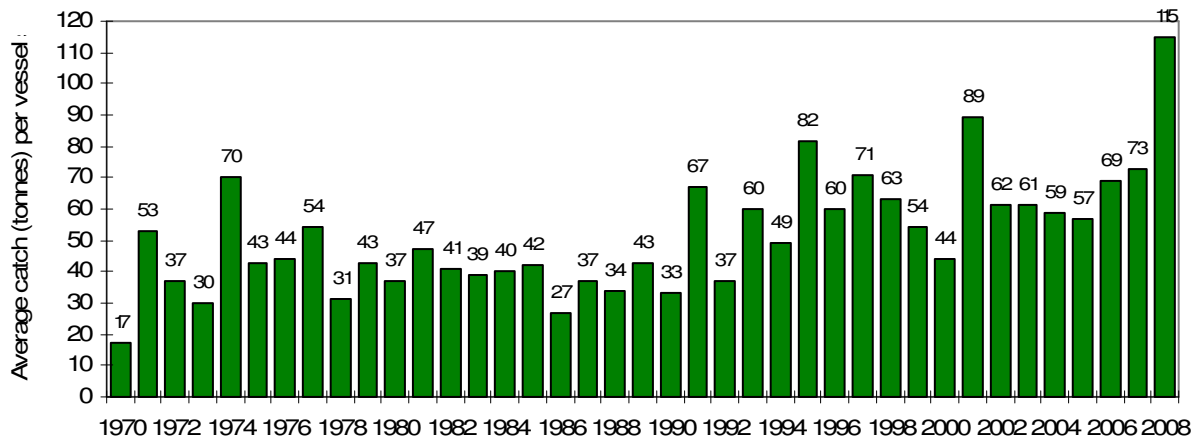




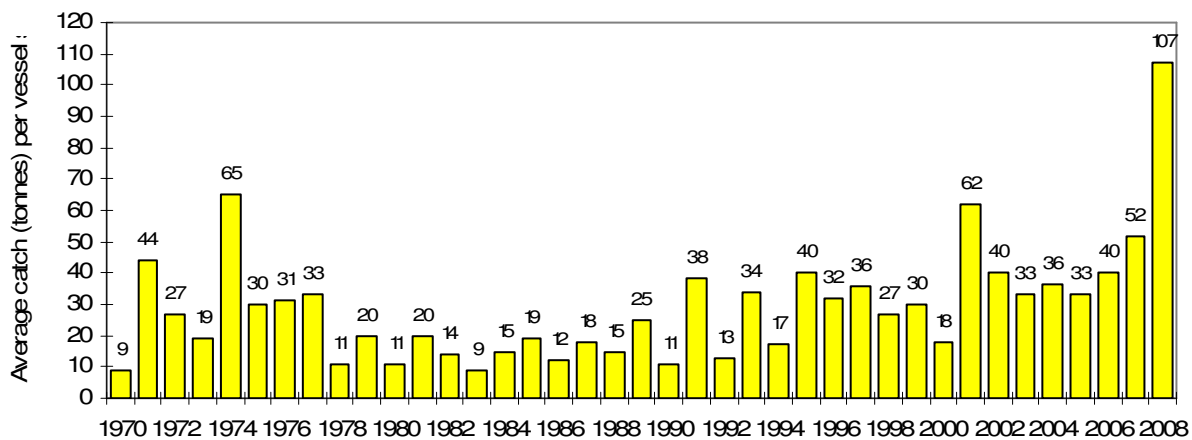
**Figure 7b:** Distribution of total catch in the tiger prawn season, 2006-2008.

### Average catch per vessel

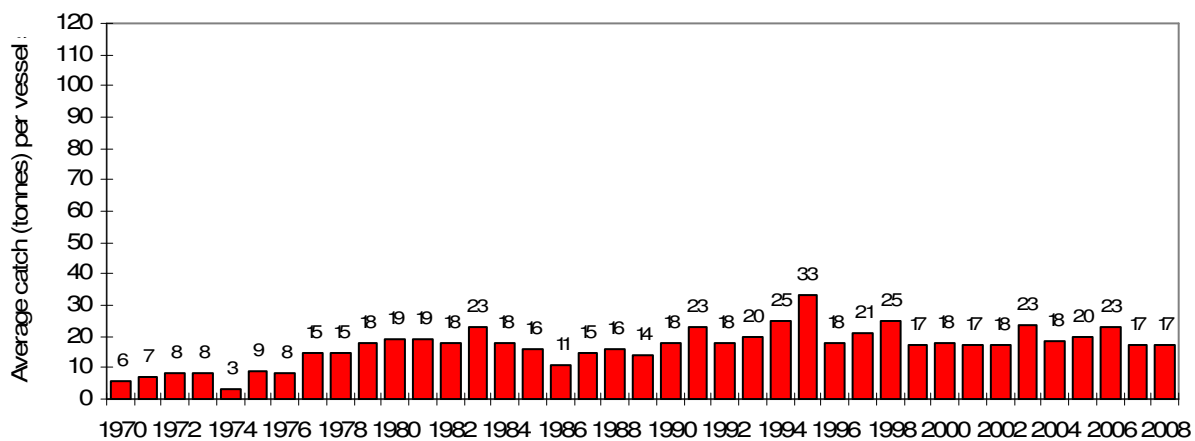
The average catch per vessel for all prawns increased to 115 t (58%) per vessel in 2008 (Figure 8a). The average catch per vessel for banana prawns in 2008 increased to 107 t (106%) per vessel (Figure 8b). In 2008 catches of tiger prawns per vessel remained the same as 2007 (Figure 8c).



**Figure 8a:** Average total catch of all prawns per vessel in the NPF from 1970 to 2008.



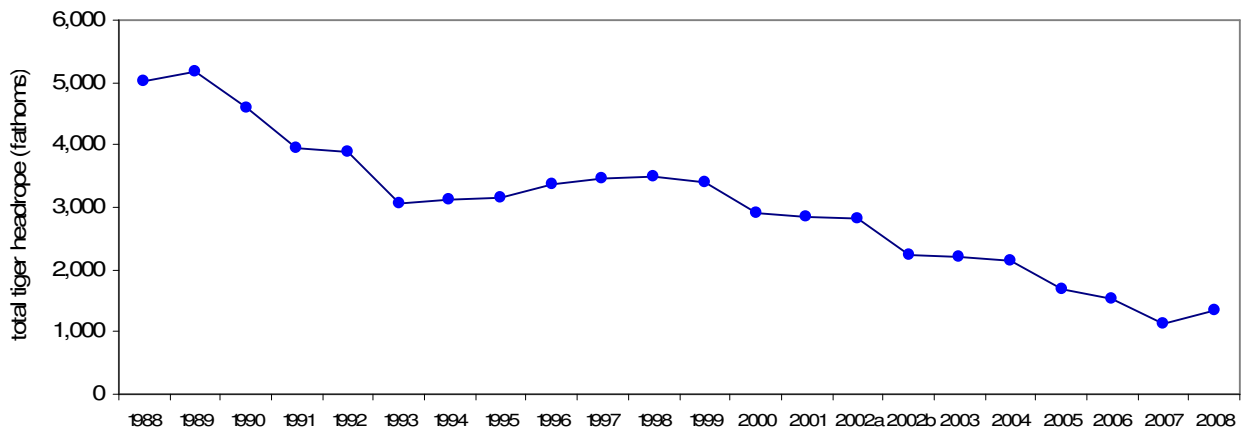
**Figure 8b:** Average total catch of banana prawns per vessel in the NPF from 1970 to 2008.



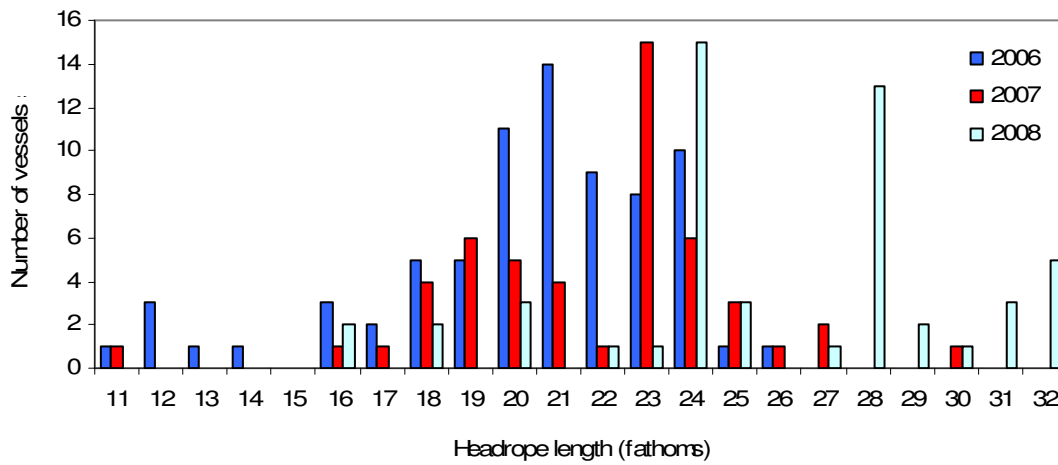
**Figure 8c:** Average total catch of tiger prawns per vessel in the NPF from 1970 to 2008.

## Fishing Gear

Total tiger prawn headrope in 2008 increased to 1337 fathoms (2.4km) compared to 1,135 (2km) in 2007 (Figure 9). The mean headrope length in 2008 was 25.22 fathoms (46.1m) compared with 22.25 fathoms (40.7m) in 2007 (Figure 10).



**Figure 9:** Total tiger prawn season headrope length in the NPF from 1988 to 2008.

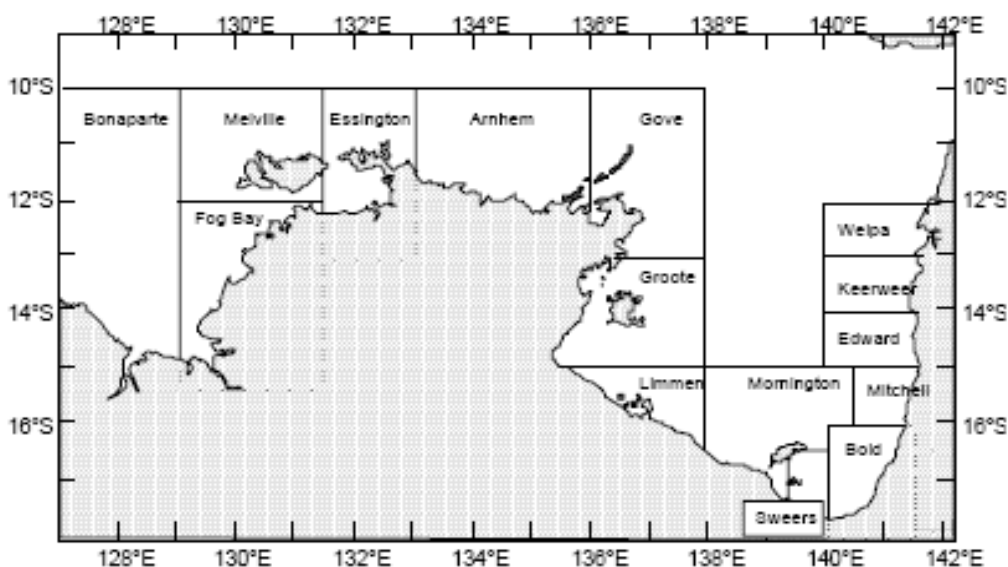


**Figure 10:** Frequency of headrope length for the tiger prawn season in the NPF from 1988 to 2008.

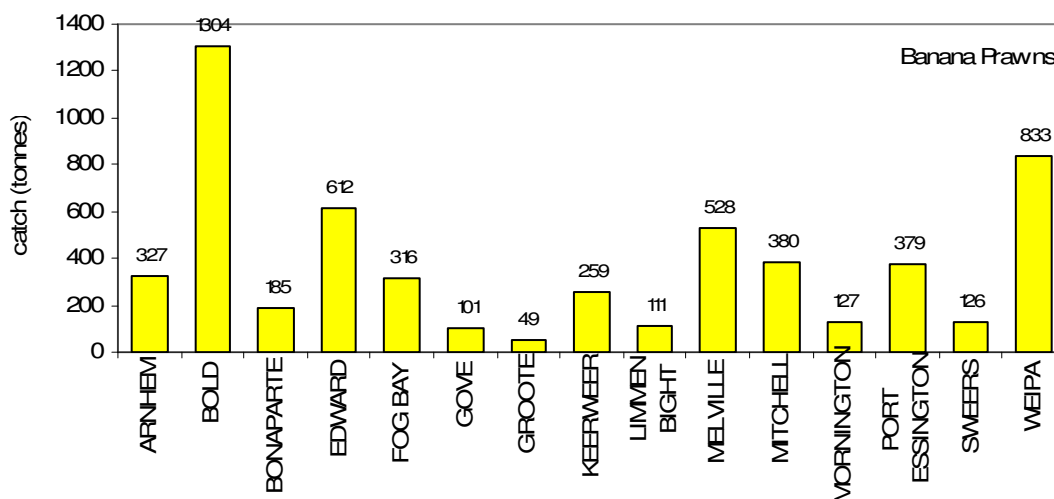
## Catch and effort by statistical area in the NPF

### All areas

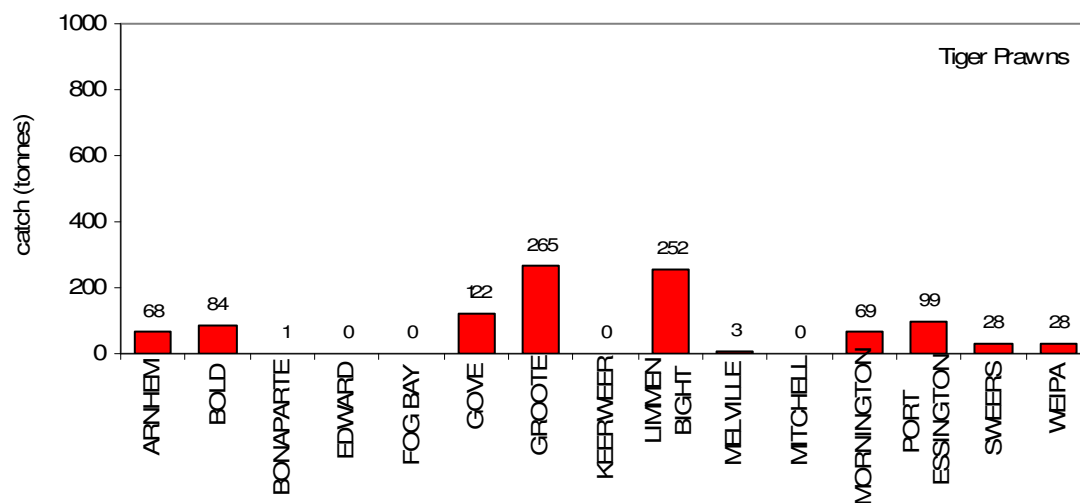
Catch and effort has been partitioned into the 15 statistical areas illustrated below (Figure 11) and is detailed on the following pages. The highest banana prawn catches were recorded in the Bold area with 1,304 t (Figure 12). The highest catch of tiger prawns was recorded in the Groote area with 3,265 t (Figure 13).



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



**Figure 12:** Total catch of banana prawns for each statistical area of the NPF in 2008.

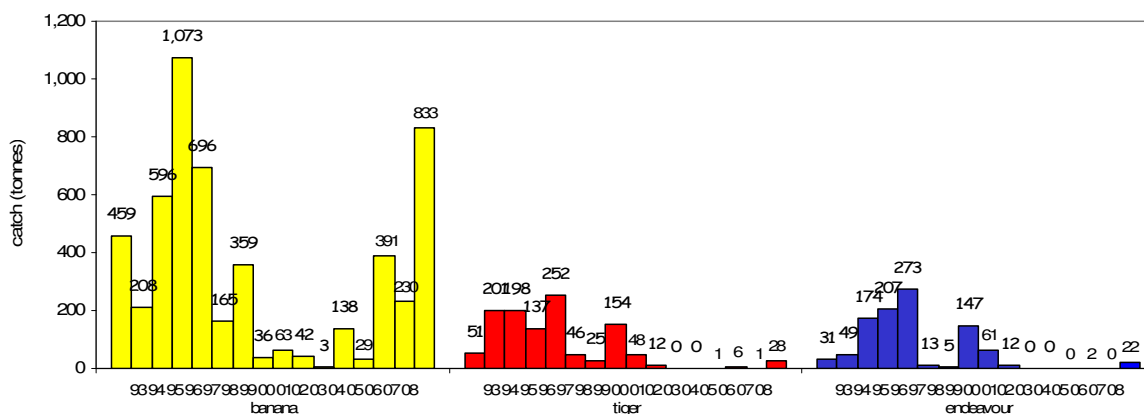


**Figure 13:** Total catch of tiger prawns for each statistical area of the NPF in 2008.

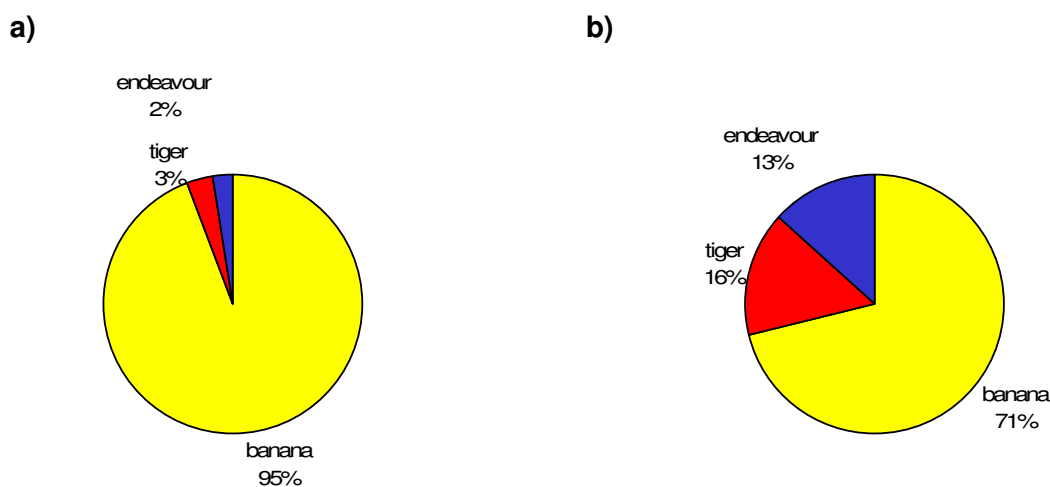
## Weipa

Banana prawn catch increased from 230 t in 2007 to 833 t in 2008. Tiger prawn catches increased from 1 t in 2007 to 28 t in 2008 and catch of endeavour prawns increased from 0 t in 2007 to 22 t in 2008 (Figure 14). Banana prawns dominated the catch in this area during 2008, comprising 95% of the catch (Figure 15).

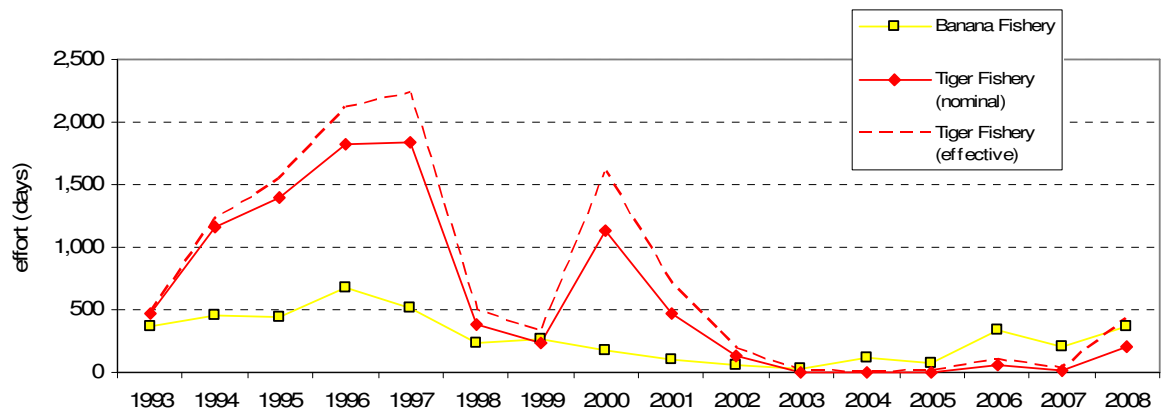
Effort in the banana prawn fishery increased from 201 days in 2007 to 374 days in 2008 (Figure 16a). CPUE of banana prawns increased significantly from 1.144 t per day in 2007 to 2.226 t per day in 2008 (Figure 16b). Effort in the tiger prawn fishery increased from 12 days in 2007 to 208 days in 2008 (Figure 16a). Nominal and effective CPUE increased from 0.083 t per day and 0.042 t per day in 2007 to 0.244 t per day and 0.117 t per day, respectively in 2008 (Figure 16c).



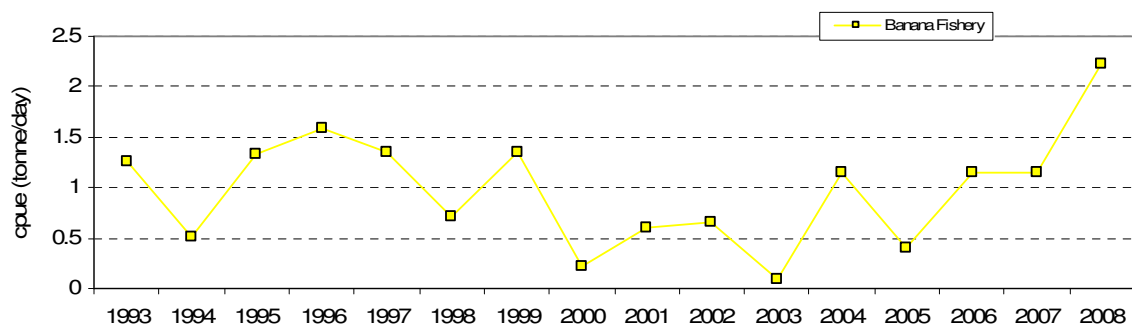
**Figure 14:** Catch by species in the Weipa area between 1993 and 2008.



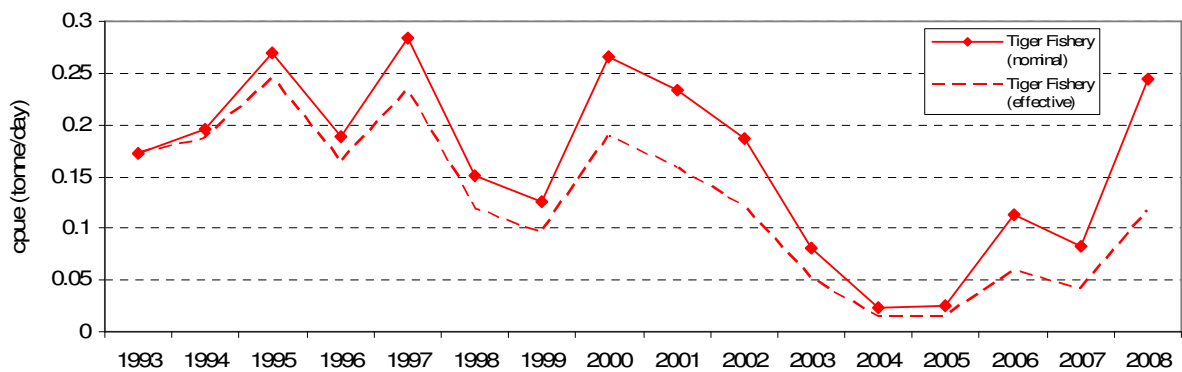
**Figure 15:** Percentage catch of prawn species in the Weipa area during 2008 (a) and percentage catch of prawn species in the Weipa area from 1993 to 2008 (b).



**Figure 16a:** Effort for the banana and tiger prawn fisheries in the Weipa area between 1993 and 2008.



**Figure 16b:** Catch rate for the banana fishery in the Weipa area between 1993 and 2008



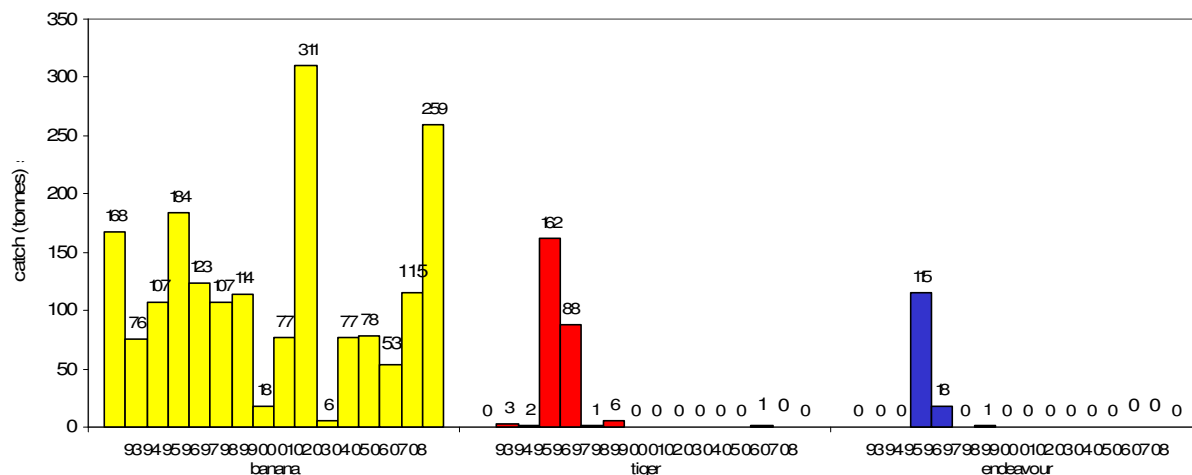
**Figure 16c:** Catch rate for the tiger prawn fishery in the Weipa area between 1993 and 2008.



## Keerweer

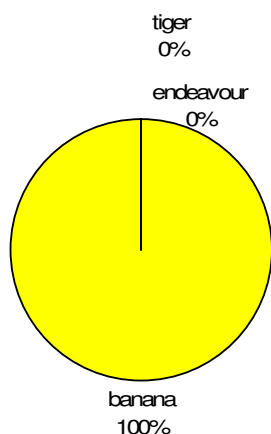
Banana prawn catches during 2008 in the Keerweer area increased from 115 t in 2007 to 259 t in 2008. Catches of tiger and endeavour prawns was zero (Figure 17). Banana prawns comprised 100% of the catch in 2008 (Figure 18a).

Effort in the banana prawn fishery decreased slightly from 125 days in 2007 to 122 days in 2008 (Figure 19a). CPUE of banana prawn increased from 0.916 t per day in 2007 to 2.124 t per day in 2008 (Figure 19b). Effort and CPUE in the tiger prawn fishery was zero in 2008 (Figure 19a, c).

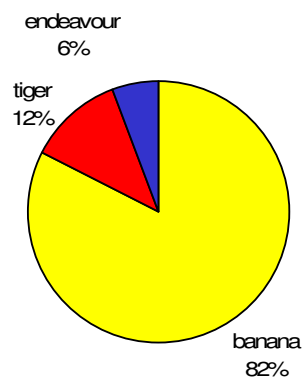


**Figure 17:** Catch by species in the Keerweer area between 1993 and 2008.

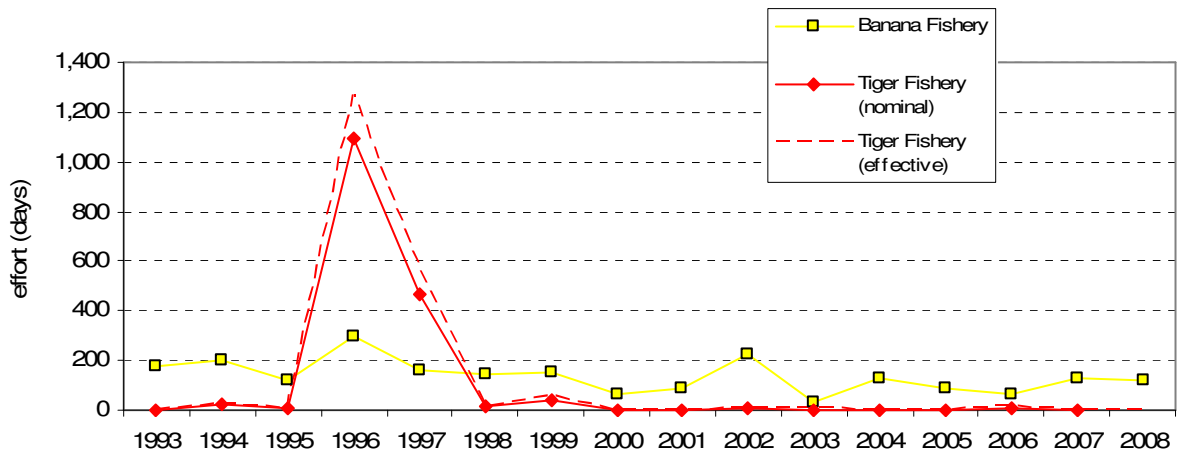
a)



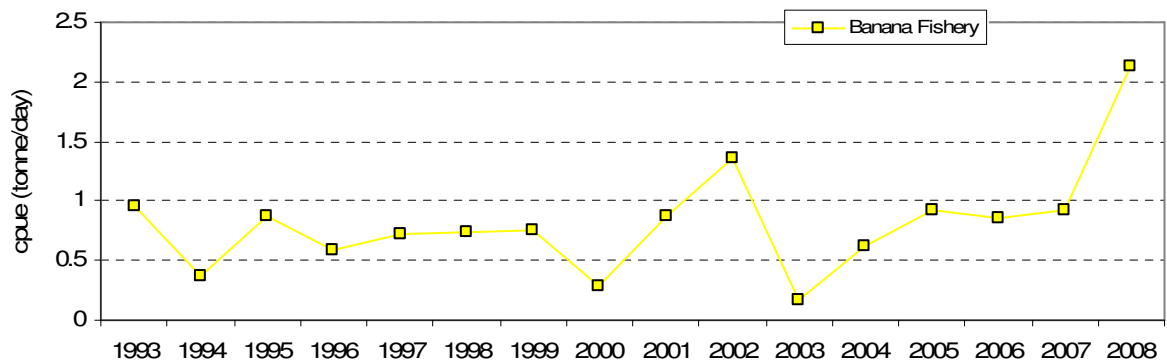
b)



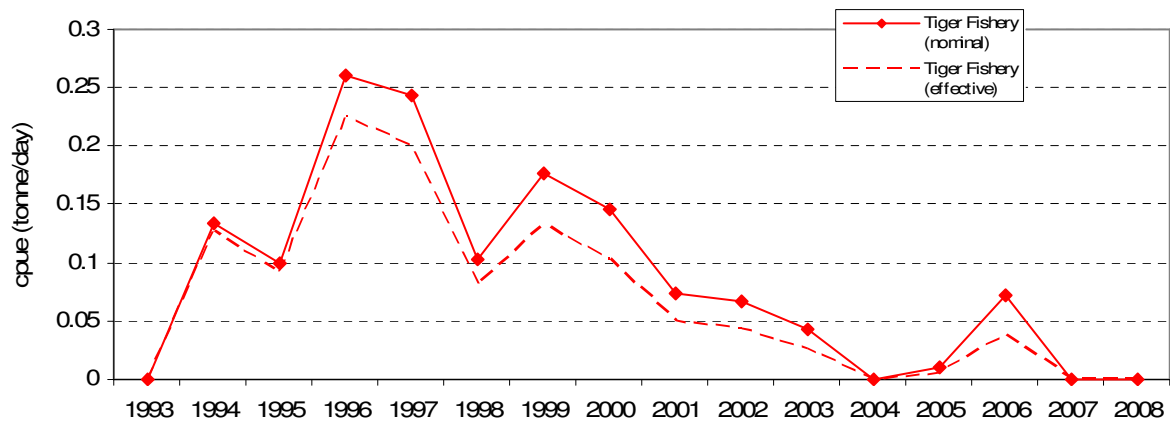
**Figure 18:** Percentage catch of prawn species in the Keerweer area during 2008 (a) and percentage catch of prawn species in the Keerweer area from 1993 to 2008 (b).



**Figure 19a:** Effort for the banana and tiger prawn fisheries in the Keerweer area between 1993 and 2008.



**Figure 19b:** Catch rate for the banana fishery in the Keerweer area between 1993 and 2008.

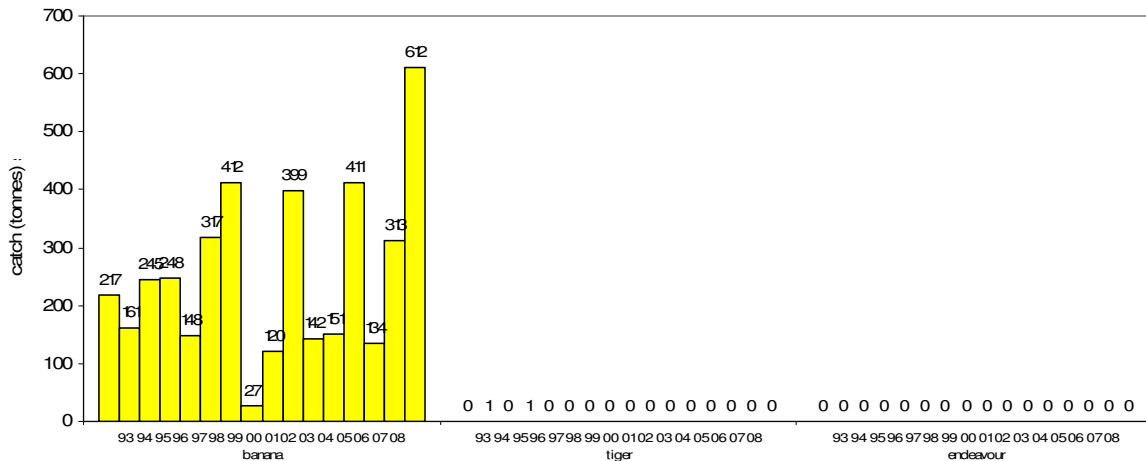


**Figure 19c:** Catch rate for the tiger prawn fishery in the Keerweer area between 1993 and 2008.

## Edward

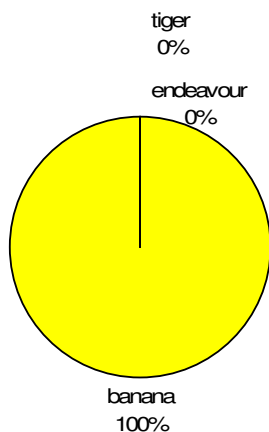
Banana prawn catch in Edward area increased from 313 t in 2007 to 612 t in 2008. Tiger and endeavour prawn catches did not show any changed, remaining at zero (Figure 20). Banana prawns comprised 100% of the catch in 2008 (Figure 21).

Effort in the banana prawn fishery increased slightly from 285 days in 2007 to 295 days in 2008 (Figure 22a). CPUE of banana prawn increased from 1.098 t per day in 2007 to 2.074 t per day in 2008 (Figure 22b). Effort and CPUE in the tiger prawn fishery in 2008 was zero (Figure 22a, c).

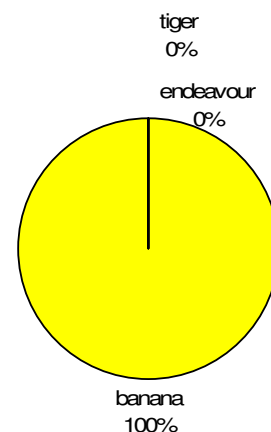


**Figure 20:** Catch by species in the Edward area between 1993 and 2008.

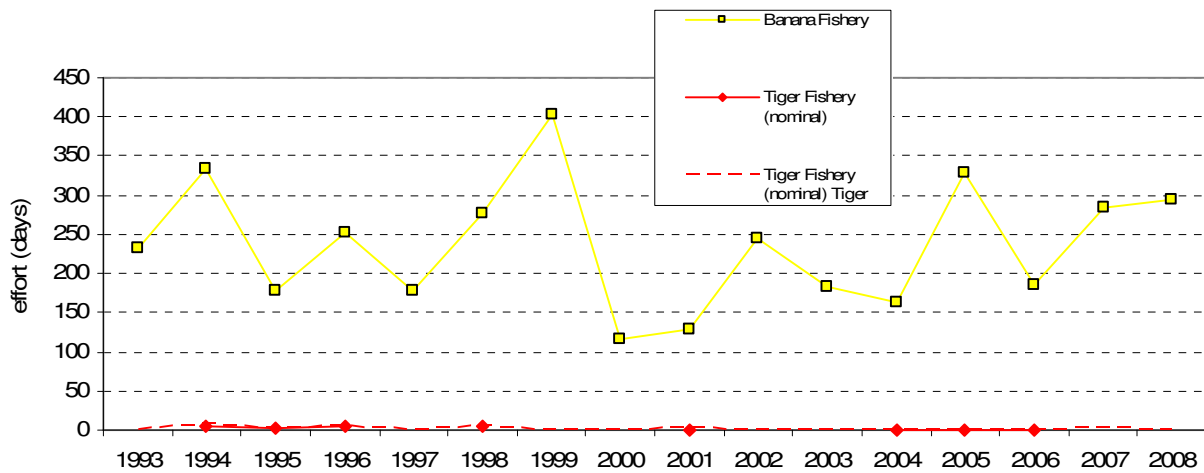
a)



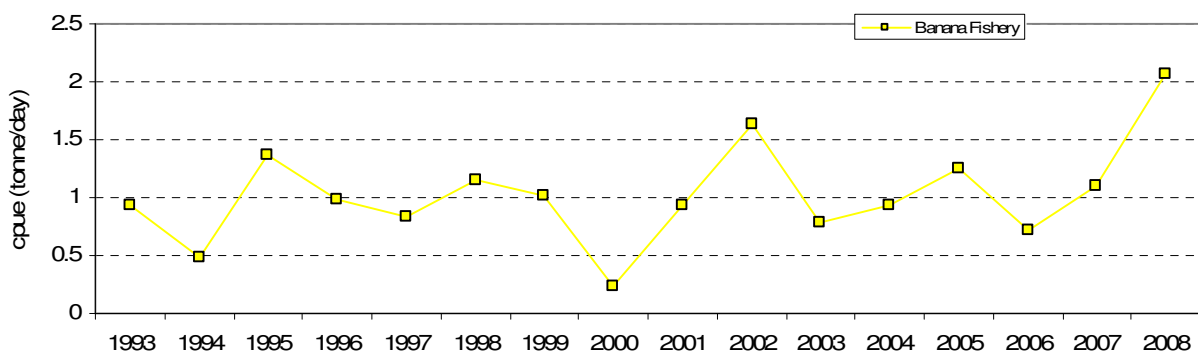
b)



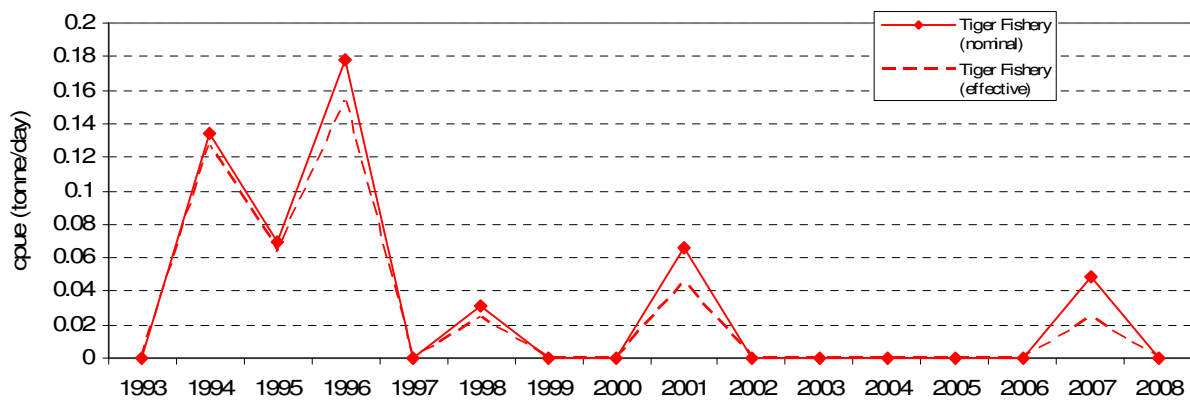
**Figure 21:** Percentage catch of prawn species in the Edward area during 2008 (a) and percentage catch of prawn species in the Edward area from 1993 to 2008 (b).



**Figure 22a:** Effort for the banana and tiger prawn fisheries in the Edward area between 1995 and 2008.



**Figure 22b:** Catch rate for the banana fishery in the Edward area between 1993 and 2008.

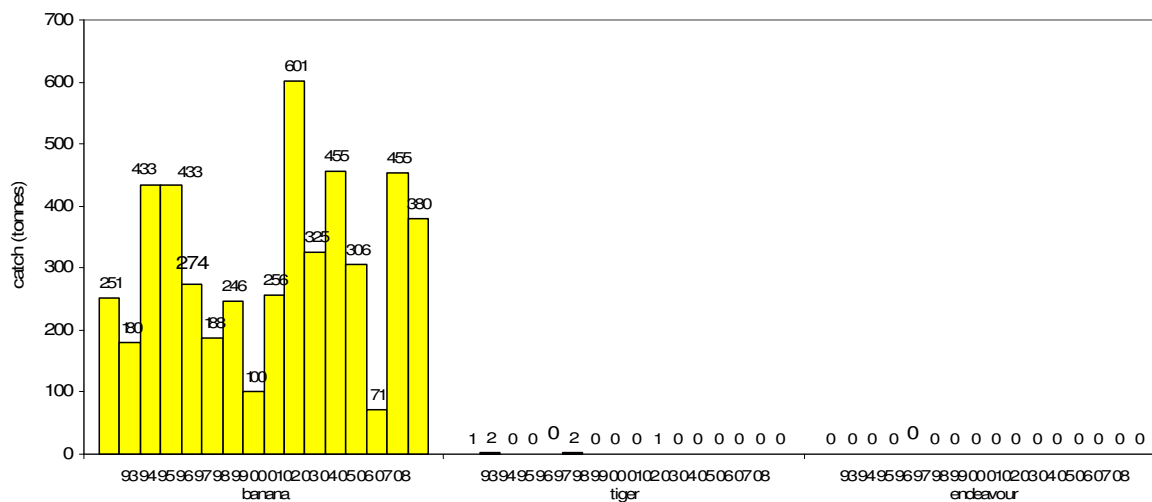


**Figure 22c:** Catch rate for the tiger prawn fishery in the Edward area between 1993 and 2008.

## Mitchell

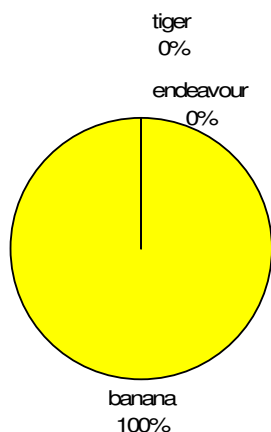
Banana prawn catch in Mitchell area decreased 455 t in 2007 to 380 t in 2008. Tiger and endeavour prawn catches did not show any changed (Figure 23). Banana prawns comprised 100% of the catch in this area during 2008 (Figure 24).

Effort in the banana prawn fishery decreased from 301 days in 2007 to 192 days in 2008 (Figure 25a). CPUE of banana prawn increased from 1.510 t per day in 2007 to 1.980 t per day in 2008 (Figure 25b). There was no change in effort and CPUE in the tiger prawn fishery in 2008 (Figure 25a, c).

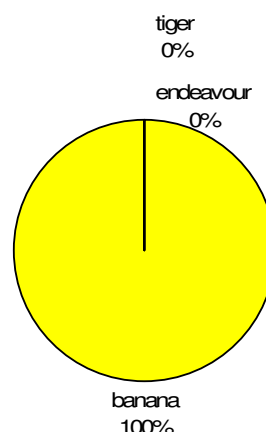


**Figure 23:** Catch by species in the Mitchell area between 1993 and 2008.

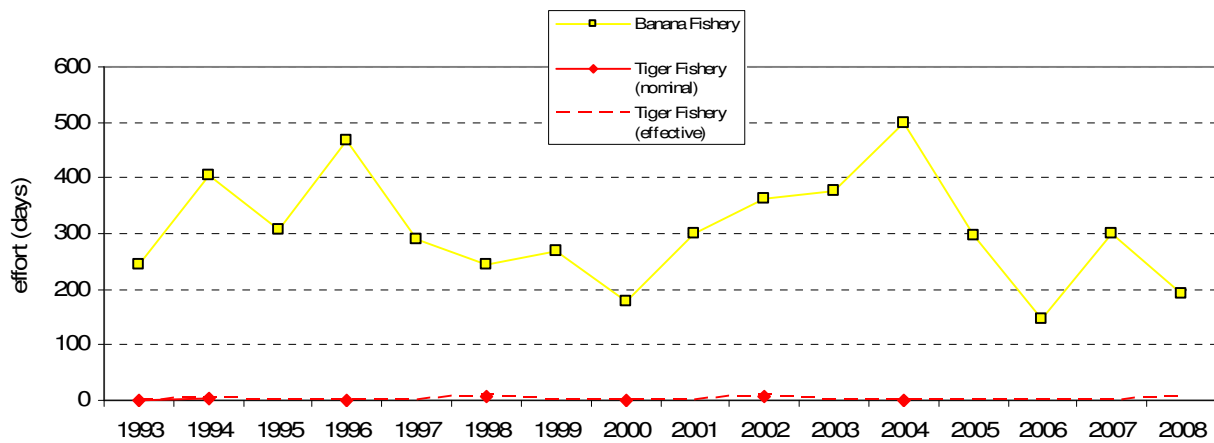
a)



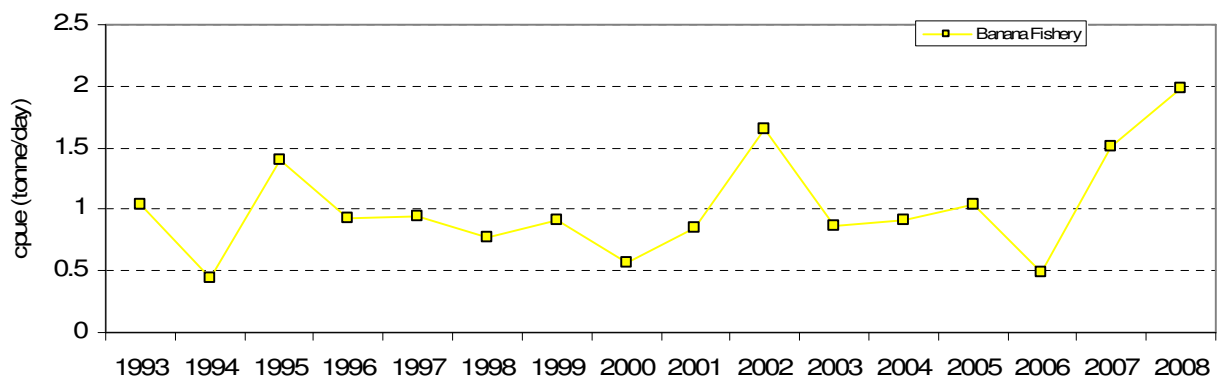
b)



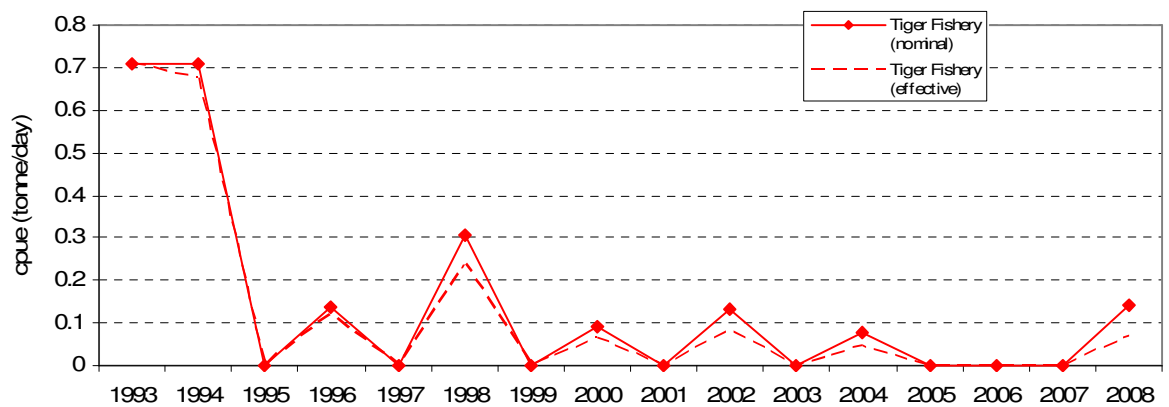
**Figure 24:** Percentage catch of prawn species in the Mitchell area during 2008 (a) and percentage catch of prawn species in the Mitchell area from 1993 to 2008.



**Figure 25a:** Effort for the banana and tiger prawn fisheries in the Mitchell area between 1993 and 2008.



**Figure 25b:** Catch rate for the banana fishery in the Mitchell area between 1993 and 2008.

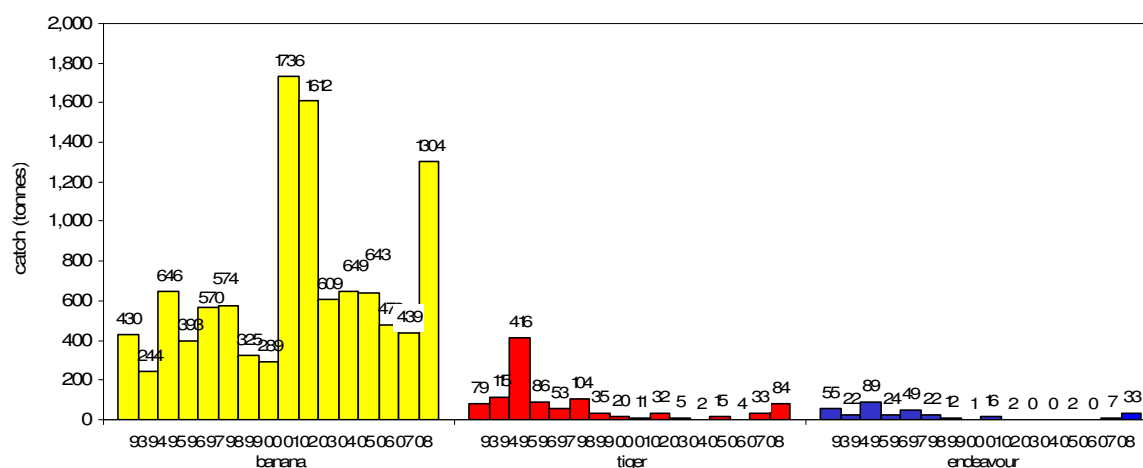


**Figure 25c:** Catch rate for the tiger prawn fishery in the Mitchell area between 1993 and 2008.

## Bold

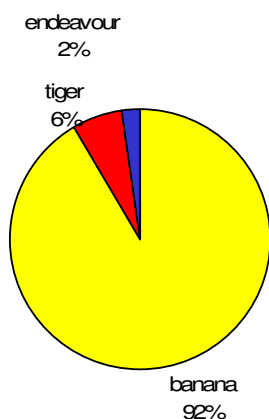
Banana prawn catches in the Bold area significantly increased from 439 t in 2007 to 1,302 t in 2008. Catches of tiger prawn also increased from 33 t in 2007 to 84 t in 2008, while endeavour prawns catches increased from 7 t in 2007 to 33 t (Figure 26). Banana prawns dominated the catch in this area in 2008, comprising 92% of the catch (Figure 27a).

Effort in the banana prawn fishery increased from 297 days in 2007 to 489 days in 2008 (Figure 28a). CPUE of banana prawn increased from 1.477 t per day in 2007 to 2.661 t per day in 2008 (Figure 28b). Effort in the tiger prawn fishery increased from 129 days in 2007 to 327 days in 2008 (Figure 28a). Nominal and effective CPUE increased from 0.256 t per day and 0.129 t per day in 2007 to 0.366 t per day and 0.176 t per day in 2008, respectively (Figure 28c).

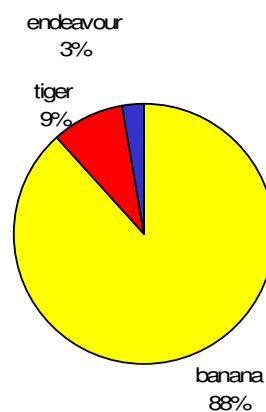


**Figure 26:** Catch by species in the Bold area between 1993 and 2008.

a)

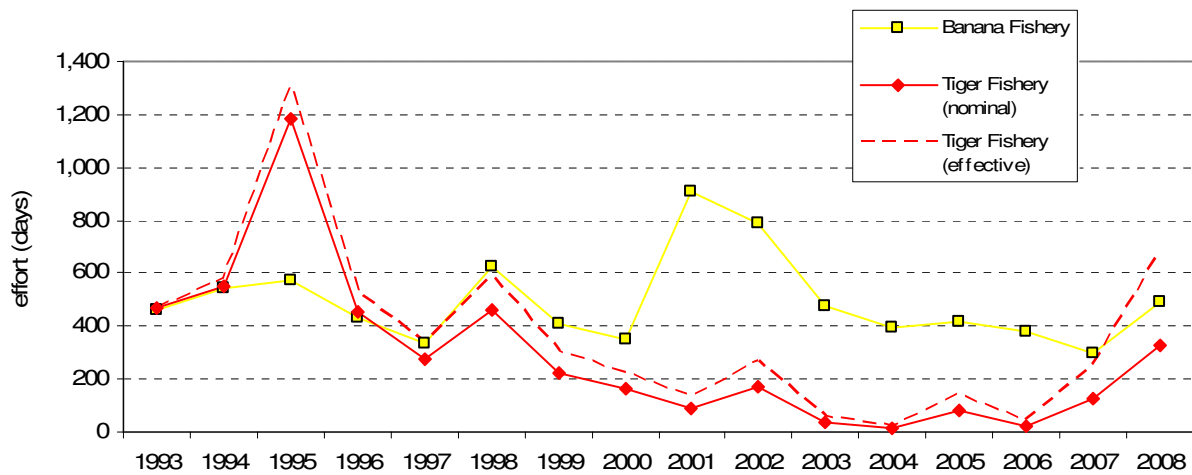


b)

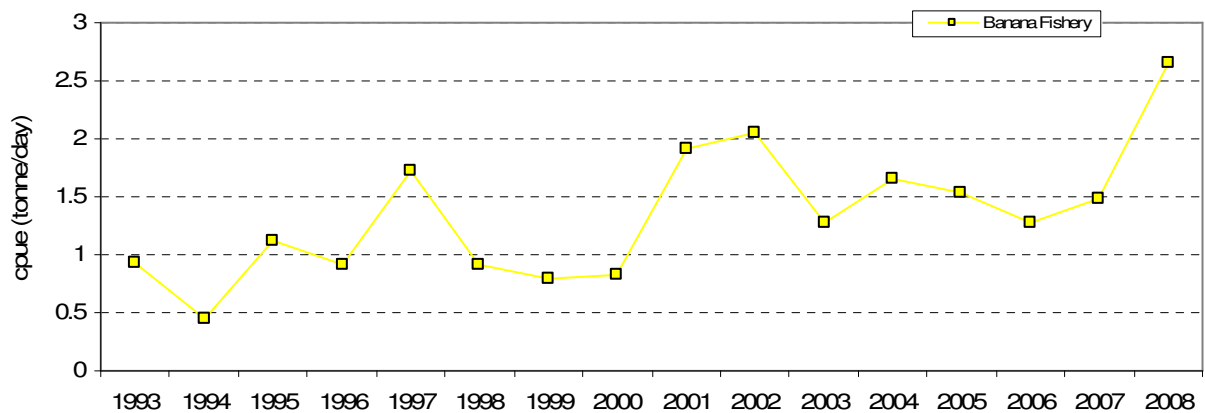


**Figure 27:** Percentage catch of prawn species in the Bold area during 2008 (a) and catch of prawn species in the Bold area from 1993 to 2008 (b).

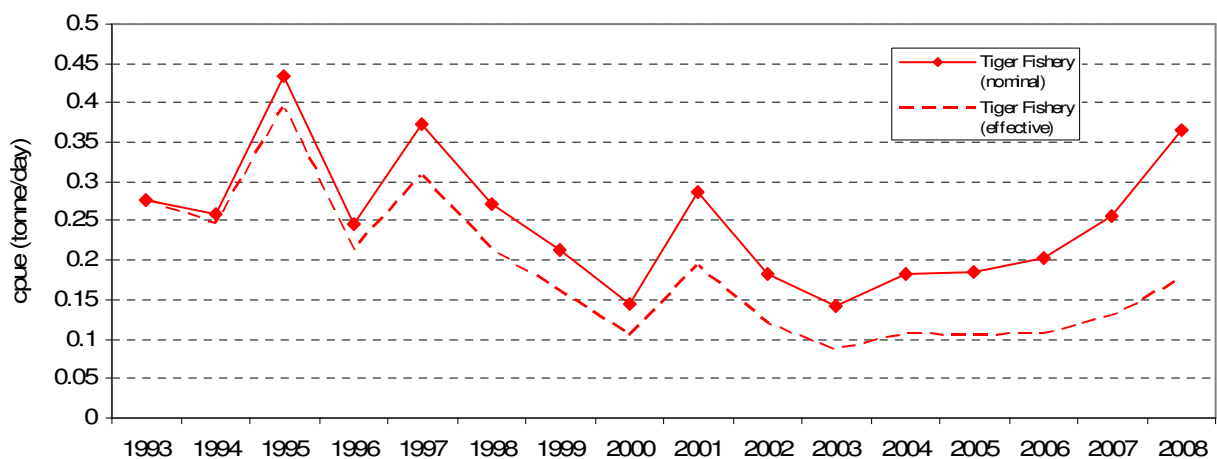




**Figure 28a:** Effort for the banana and tiger prawn fisheries in the Bold area between 1993 and 2008.



**Figure 28b:** Catch rate for the banana fishery in the Bold area between 1993 and 2008.

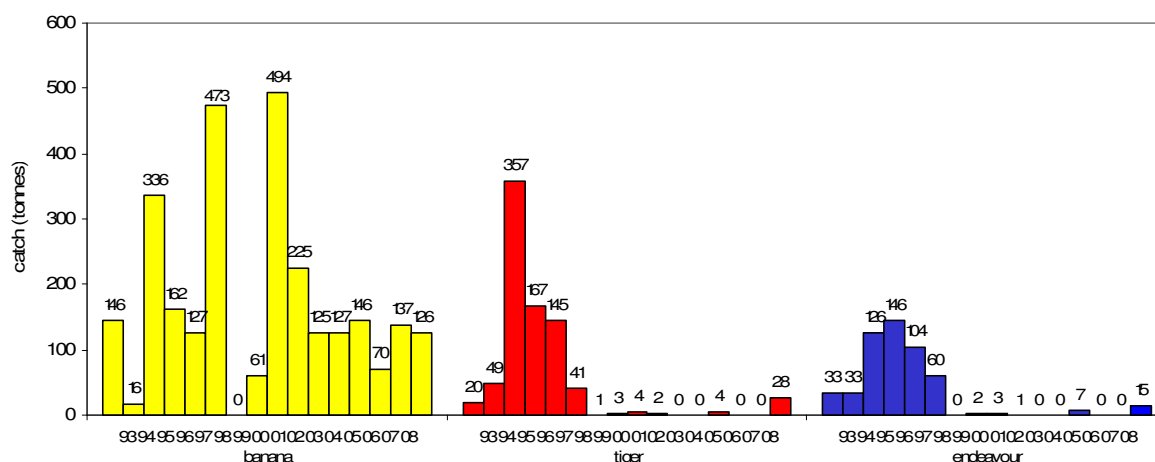


**Figure 28c:** Catch rate for the tiger prawn fishery in the Bold area between 1993 and 2008.

## Sweers

Banana prawn catches in the Sweers area slightly decreased from 137 t in 2007 to 126 t in 2008. There were no catches of tiger and endeavour prawns in 2007. In 2008 catches of tiger and endeavour prawns increased to 28 t and 15 t, respectively (Figure 29). Banana prawns comprised 75% of the catch for 2008 (Figure 30).

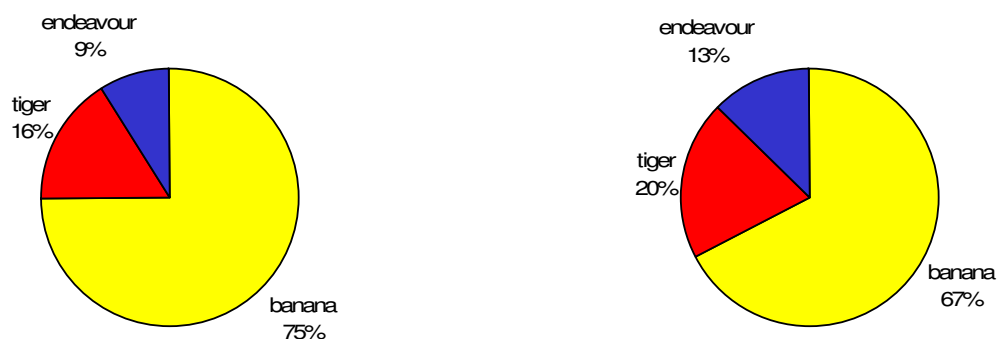
Effort in the banana fishery decreased from 83 days in 2007 to 63 days in 2008 (Figure 31a). CPUE of banana prawn increased from 1.649 t per day in 2007 to 2.000 in 2008 (Figure 31b). Effort in the tiger prawn fishery increased from zero days in 2007 to 239 days in 2008 (Figure 31a). Nominal and effective CPUE for 2008 was 0.378 t per day and 0.181 t per day, respectively (Figure 31c).



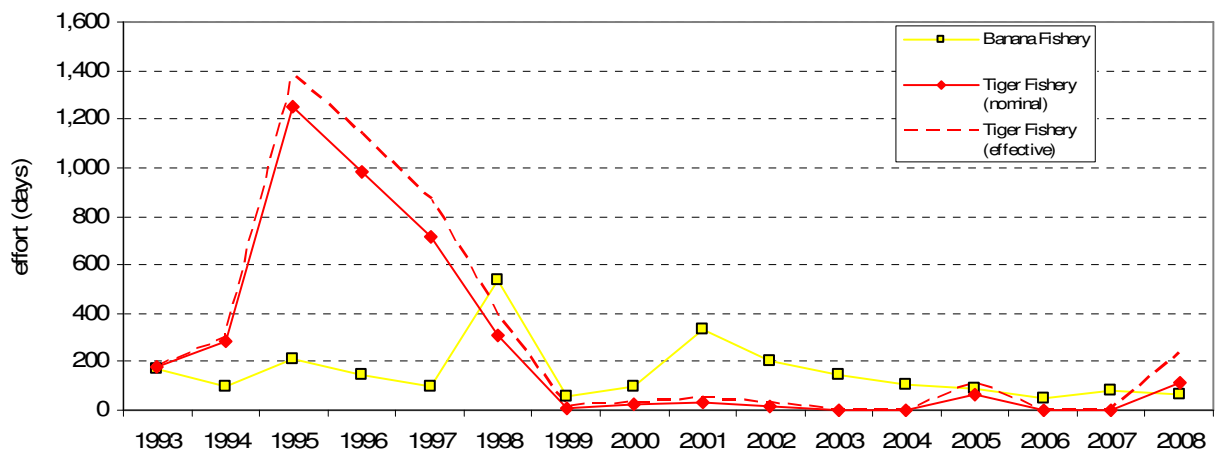
**Figure 29:** Catch by species in the Sweers area between 1993 and 2008.

a)

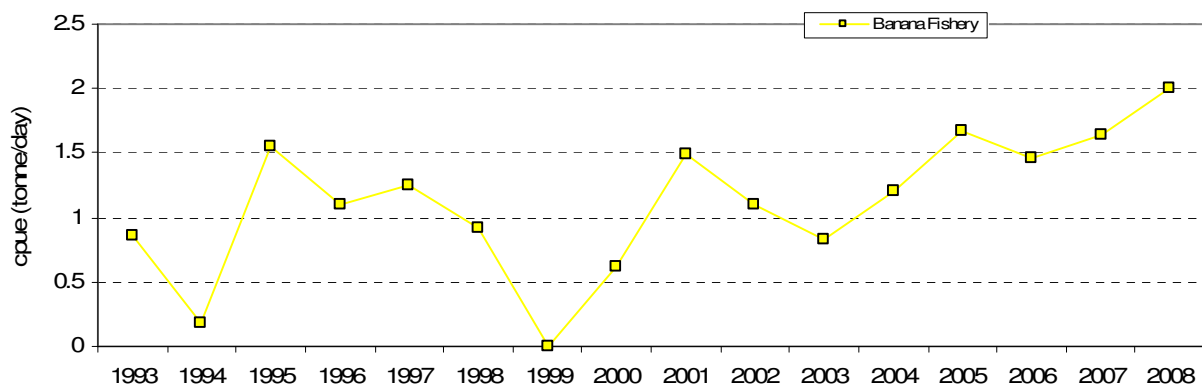
b)



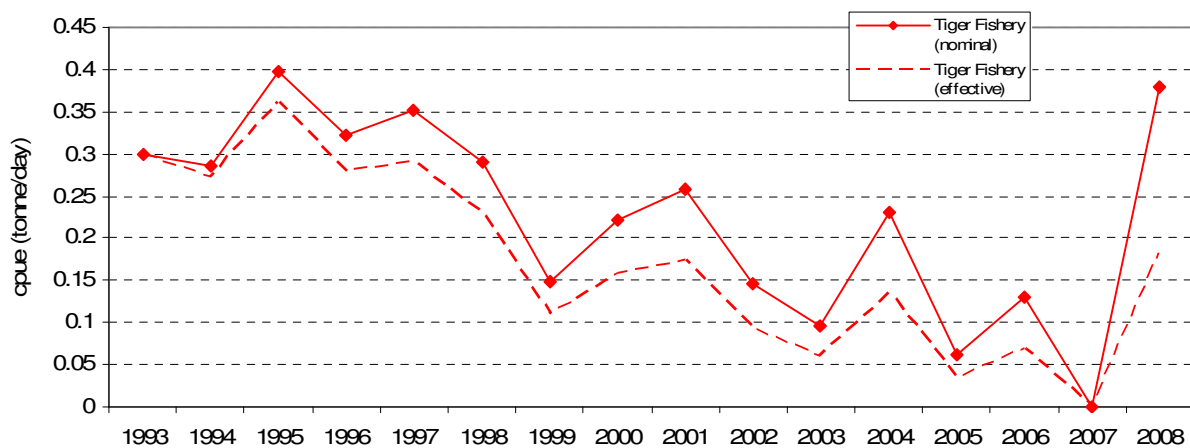
**Figure 30:** Percentage catch of prawn species in the Sweers area during 2008 (a) Percentage catch of prawn species in the Sweers area from 1993 to 2008 (b).



**Figure 31a:** Effort for the banana and tiger prawn fisheries in the Sweers area between 1993 and 2008.



**Figure 31b:** Catch rate for the banana fishery in the Sweers area between 1993 and 2008.

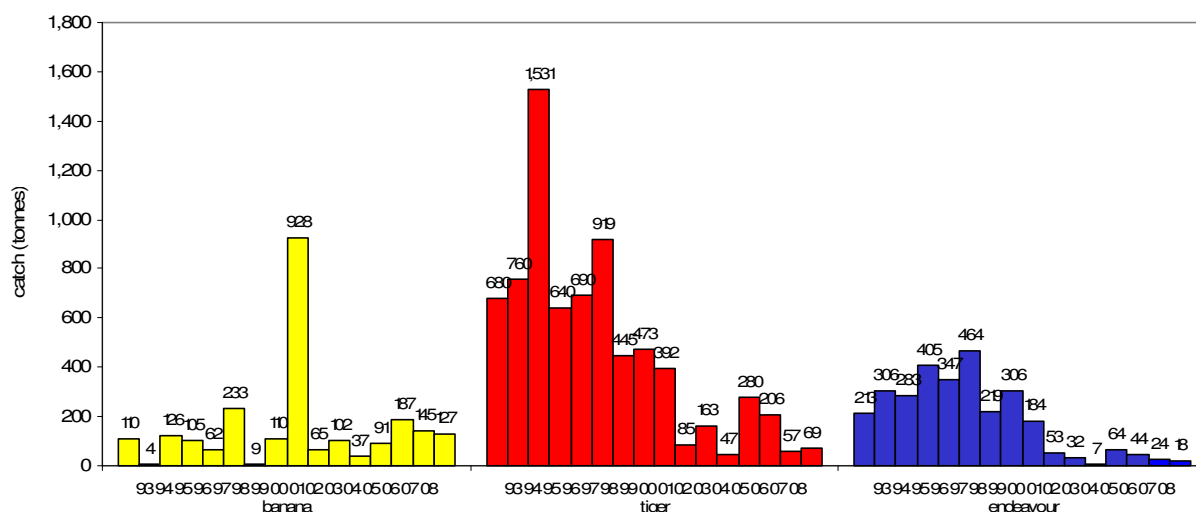


**Figure 31c:** Catch rate for the tiger prawn fishery in the Sweers area between 1993 and 2008.

## Mornington

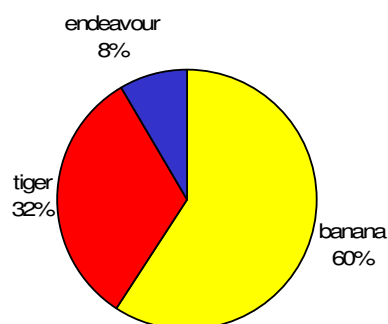
Banana prawn catches in the Mornington area decreased from 145 t in 2007 to 127 t in 2008. Catches of tiger prawn increased from 57 t in 2007 to 69 t in 2008, while endeavour prawn catch decreased from 24 t in 2007 to 18 t in 2008 (Figure 32). Banana prawns dominated the catch in this area, contributing to 60% of the catch in 2008 (Figure 33).

Effort in the banana fishery decreased from 179 days in 2007 to 134 days in 2008 (Figure 34a). CPUE of banana prawn increased from 0.810 t per day in 2007 to 0.975 t per day in 2008 (Figure 34b). Effort in the tiger prawn fishery decreased from 333 days in 2007 to 315 days in 2008 (Figure 34a). Nominal and effective CPUE increased 0.171 t per day and 0.086 t per day in 2007, to 0.264 t per day and 0.127 t per day respectively in 2008 (Figure 34c).

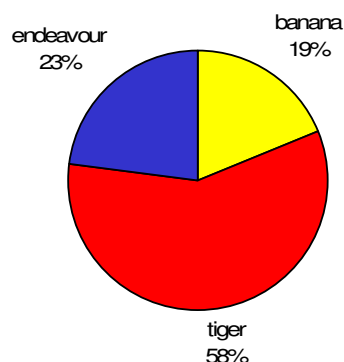


**Figure 32:** Catch by species in the Mornington area between 1993 and 2008.

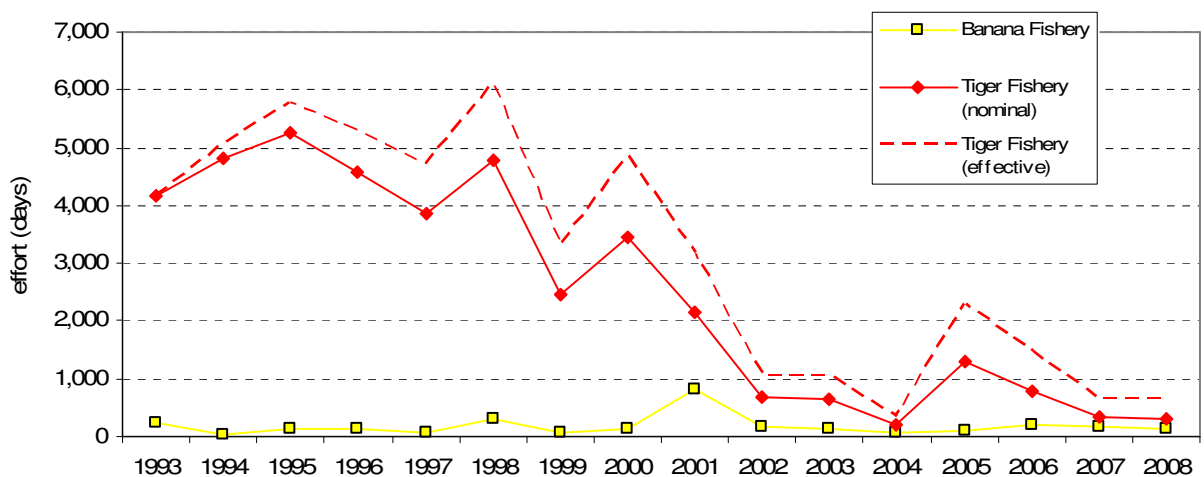
a)



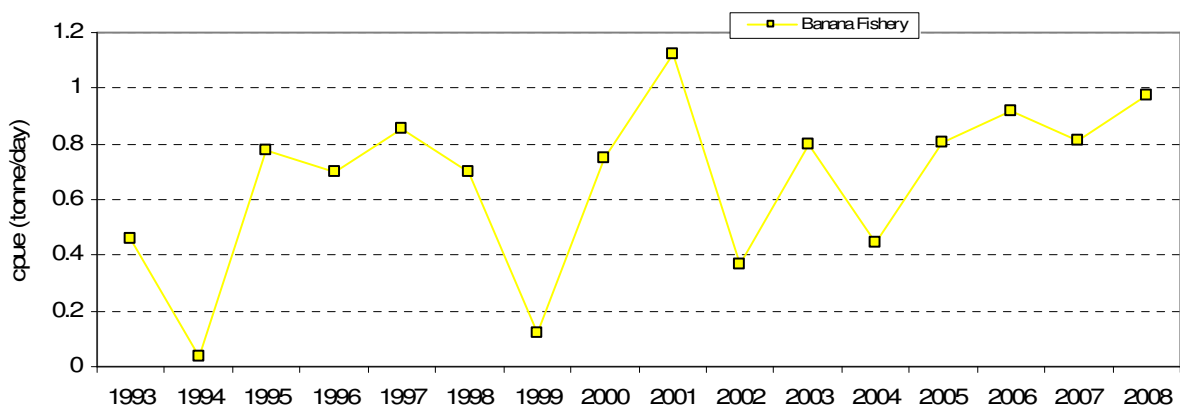
b)



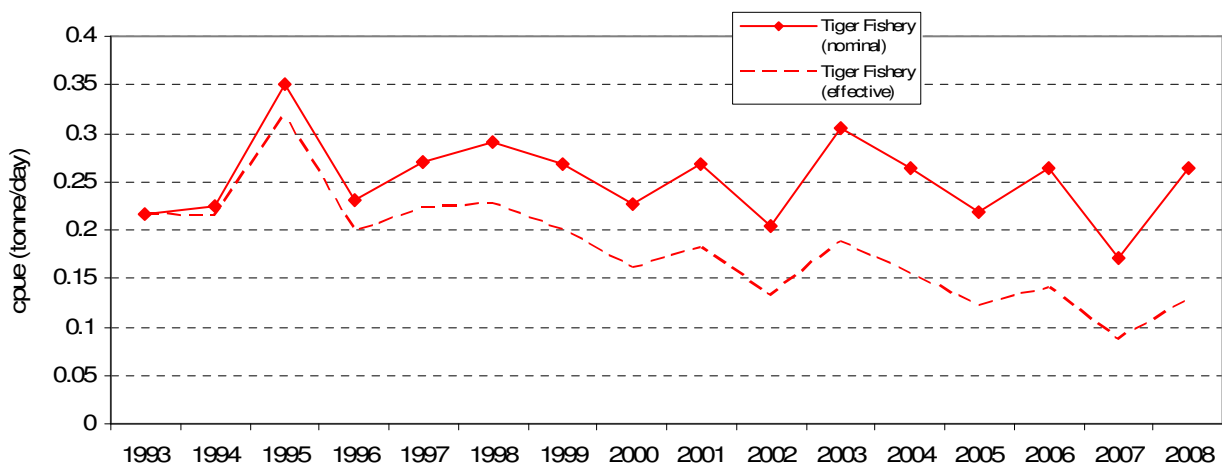
**Figure 33:** Percentage catch of prawn species in the Mornington area during 2008 (a) and percentage catch of prawn species in the Mornington area from 1993 to 2008 (b).



**Figure 34a:** Effort for the banana and tiger prawn fisheries in the Mornington area between 1993 and 2008.



**Figure 34b:** Catch rate for the banana fishery in the Mornington area between 1993 and 2008.

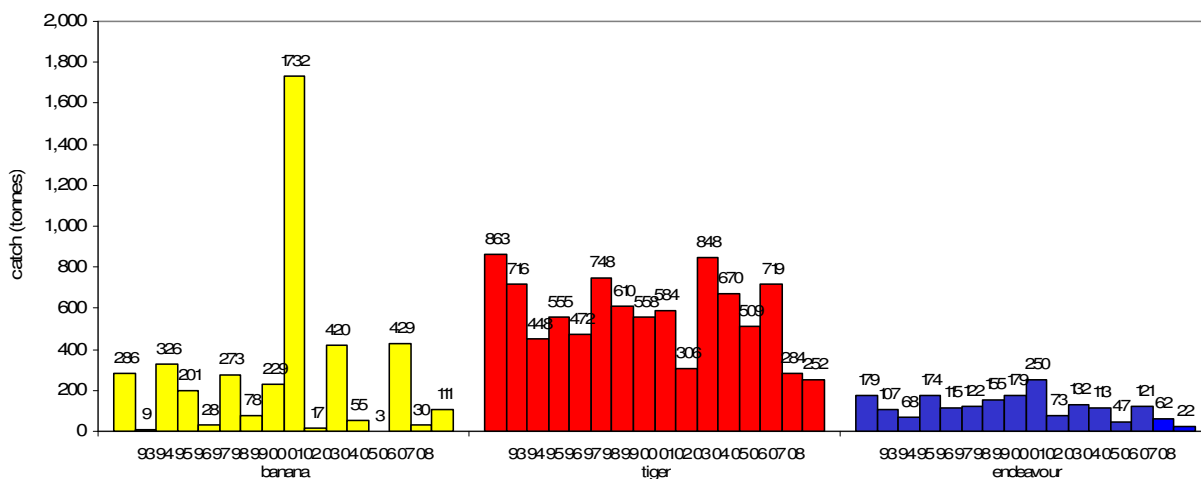


**Figure 34c:** Catch rate for the tiger prawn fishery in the Mornington area between 1993 and 2008.

## Limmen Bight

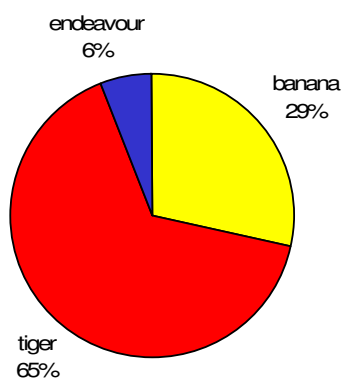
Banana prawn catches in the Limmen Bight area increased from 30 t in 2007 to 111 t in 2008. Catches of tiger prawn decreased from 284 t in 2007 to 252 t, while endeavour prawn catch decreased from 62 t in 2007 to 22 t in 2008 (Figure 35). Tiger prawns dominated in catch for 2008 in this area, contributing to 65% of the catch (Figure 36).

Effort in the banana fishery increased from 101 days in 2007 to 128 days in 2008 (Figure 37a). CPUE of banana prawn increased from 0.299 t per day in 2007 to 0.878 t per day in 2008 (Figure 37b). Effort in the tiger prawn fishery decreased from 1470 days in 2007 to 1079 days in 2008 (Figure 37a). Nominal and effective CPUE increased from 0.193 t per day and 0.098 t per day in 2007, to 0.253 t per day and 0.121 t per day respectively in 2008 (Figure 37c).

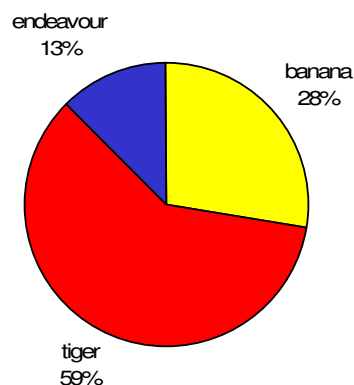


**Figure 35:** Catch by species in the Limmen Bight area between 1993 and 2008.

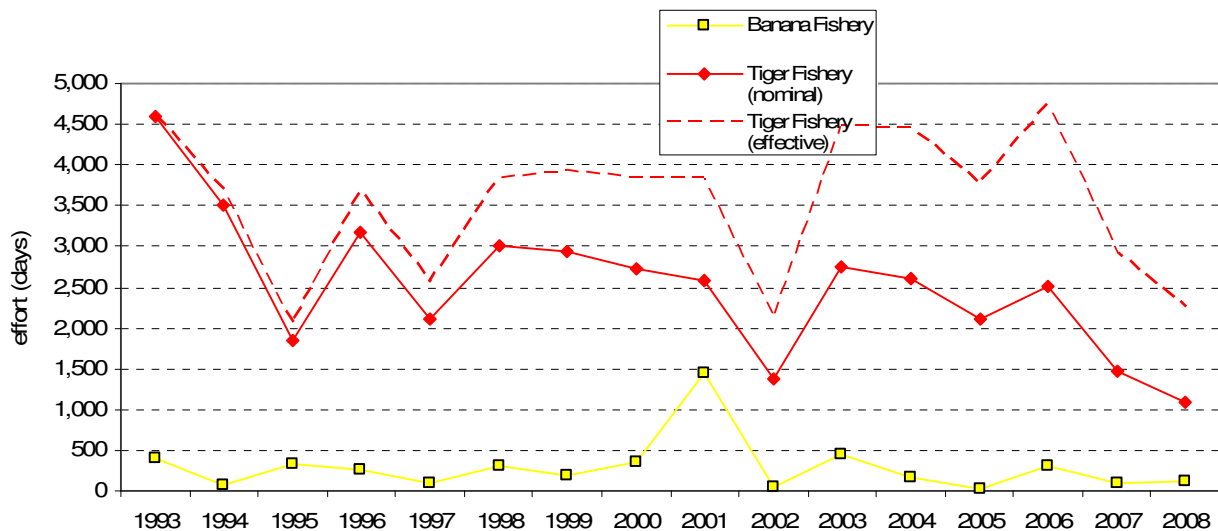
a)



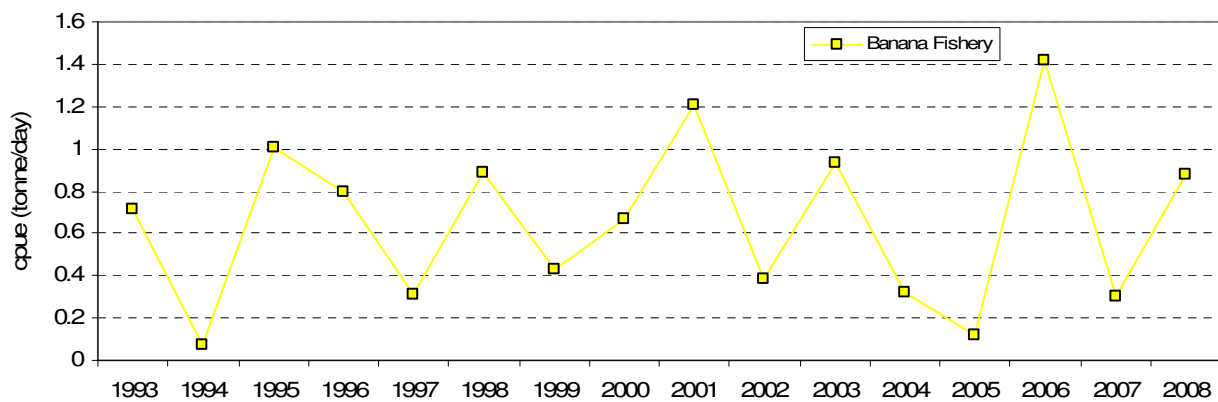
b)



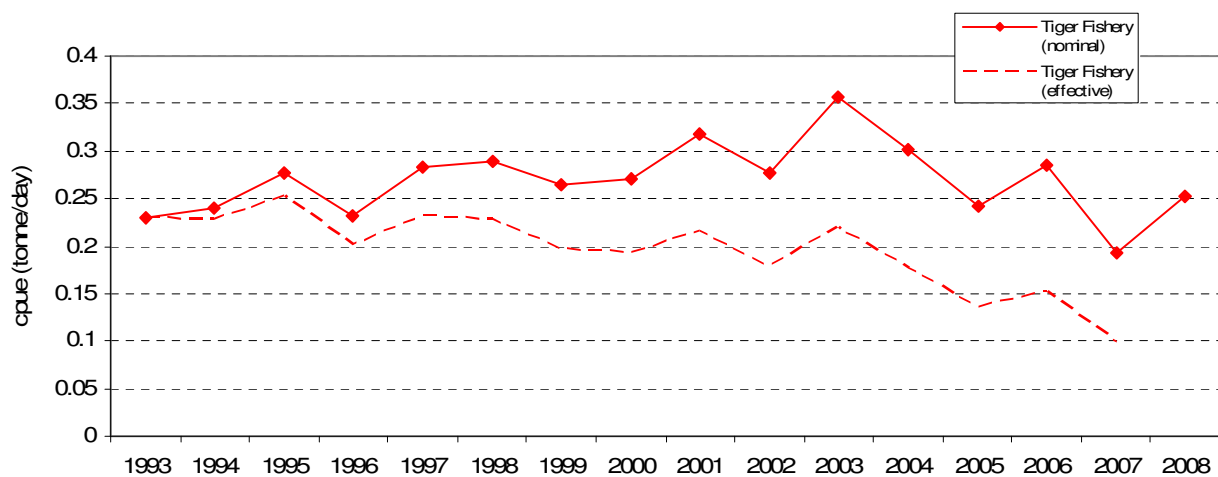
**Figure 36:** Percentage catch of prawn species in the Limmen Bight area during 2008 (a) and percentage catch of prawn species in the Limmen Bight area from 1993 to 2008 (b).



**Figure 37a:** Effort for the banana and tiger prawn fisheries in the Limmen Bight area between 1993 and 2008.



**Figure 37b:** Catch rate for the banana fishery in the Limmen Bight area between 1993 and 2008.



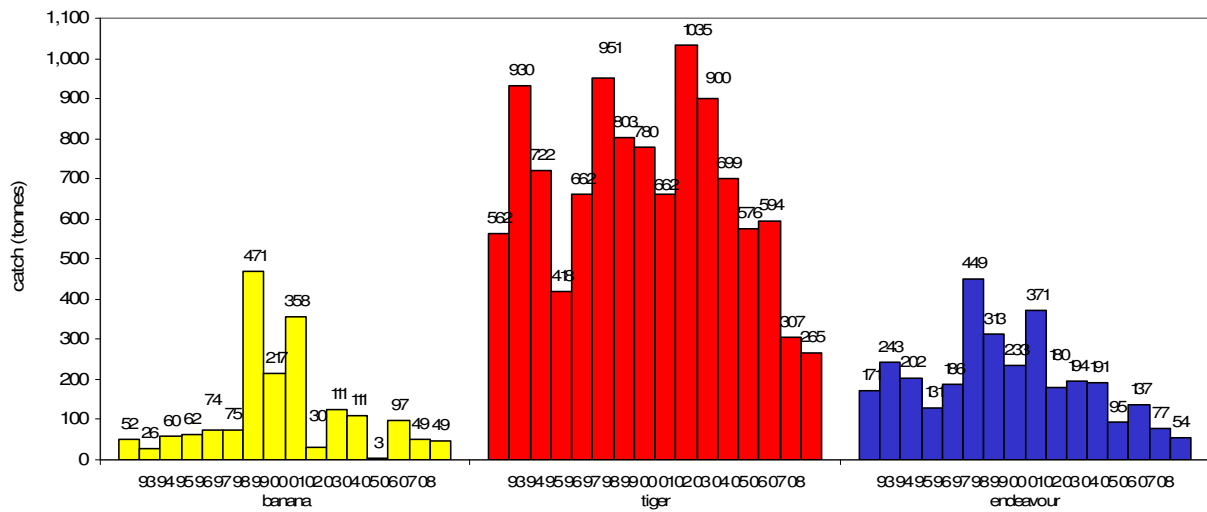
**Figure 37c:** Catch rate for the tiger prawn fishery in the Limmen Bight area between 1993 and 2008.



## Groote

Banana prawn catches in the Groote area remained the same as 2007 in 2008, 49 t. Catches of tiger prawn decreased from 307 t in 2007 to 265 t in 2008, while endeavour prawn catch decreased from 77 t in 2007 to 54 t in 2008 (Figure 38). Tiger prawns dominated in catch for 2008 in this area, contributing to 72% of the catch (Figure 39).

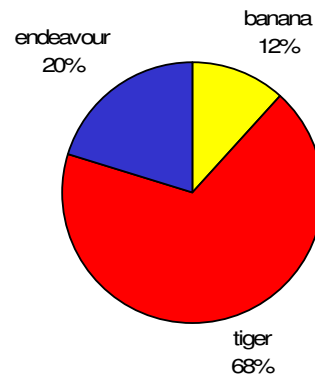
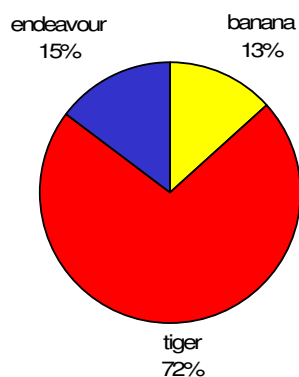
Effort in the banana fishery decreased from 190 days in 2007 to 71 days in 2008 (Figure 40a). CPUE of banana prawn increased from 0.257 t per day in 2007 to 0.702 t per day in 2008 (Figure 40b). Effort in the tiger prawn fishery decreased from 1,958 days in 2007 to 1,361 days in 2008 (Figure 40a). Nominal and effective CPUE increased from 0.157 t per day and 0.079 t per day in 2007 to 0.234 t per day and 0.112 t per day, respectively (Figure 40c).



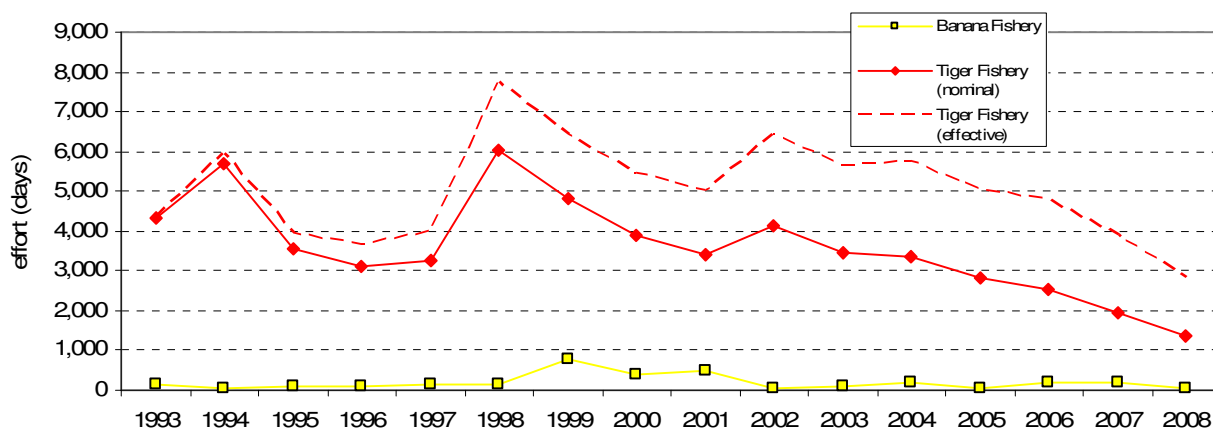
**Figure 38:** Catch by species in the Groote area between 1993 and 2008.

a)

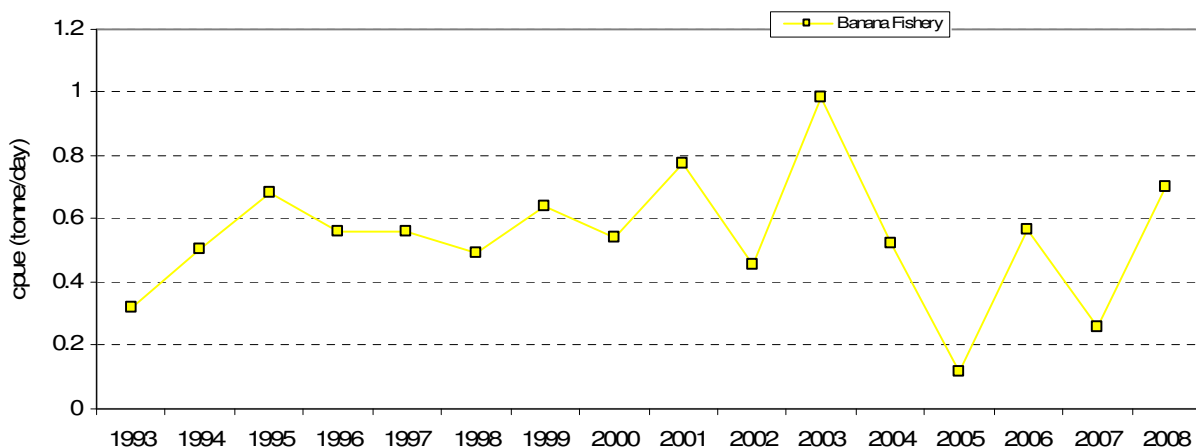
b)



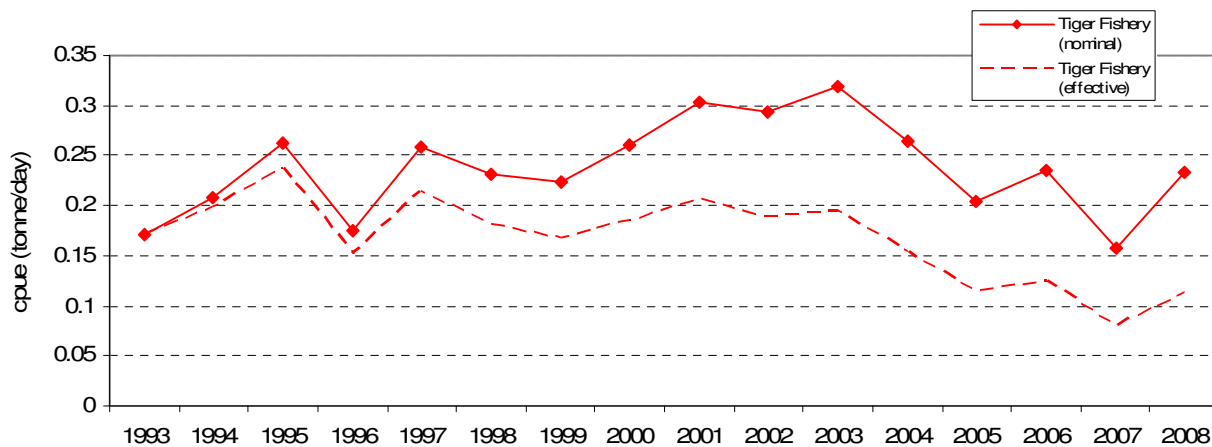
**Figure 39:** Percentage catch of prawn species in the Limmen Bight area during 2008 (a) and percentage catch of prawn species in the Groote area from 1993 to 2008 (b).



**Figure 40a:** Effort for the banana and tiger prawn fisheries in the Groote area between 1993 and 2008.



**Figure 40b:** Catch rate for the tiger prawn fishery in the Groote area between 1993 and 2008.

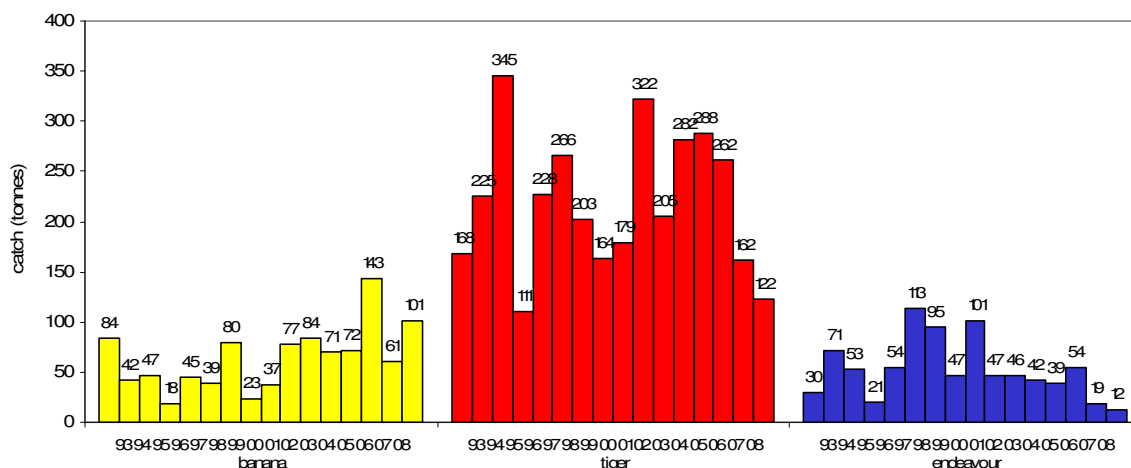


**Figure 40c:** Catch rate for the banana fishery in the Groote area between 1993 and 2008.

## Gove

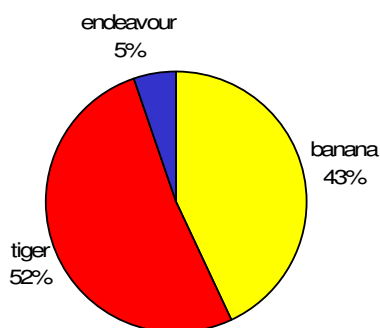
Banana prawn catches in the Gove area increased from 61 t in 2007 to 101 t in 2008. Catches of tiger prawn decreased from 162 t in 2007 to 122 t in 2008, while endeavour prawn catch decreased from 19 t in 2007 to 12 t in 2008 (Figure 41). Tiger prawns dominated in catch for 2008 in this area, contributing to 52% of the catch (Figure 42).

Effort in the banana fishery decreased from 156 days in 2007 to 75 days in 2008 (Figure 43a). CPUE of banana prawn increased from 0.392 t per day in 2007 to 1.335 t per day in 2008 (Figure 43b). Effort in the tiger prawn fishery decreased from 816 days in 2007 to 562 days in 2008 (Figure 43a). Nominal and effective CPUE increased from 0.199 t per day and 0.100 t per day in 2007 to 0.242 t per day and 0.116 t per day, respectively in 2008 (Figure 43c).

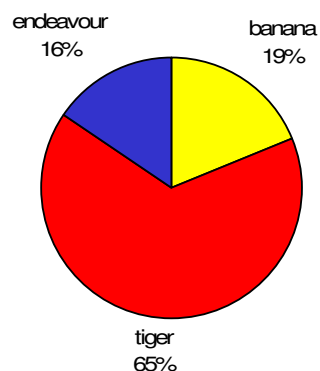


**Figure 41:** Catch by species in the Gove area between 1993 and 2008.

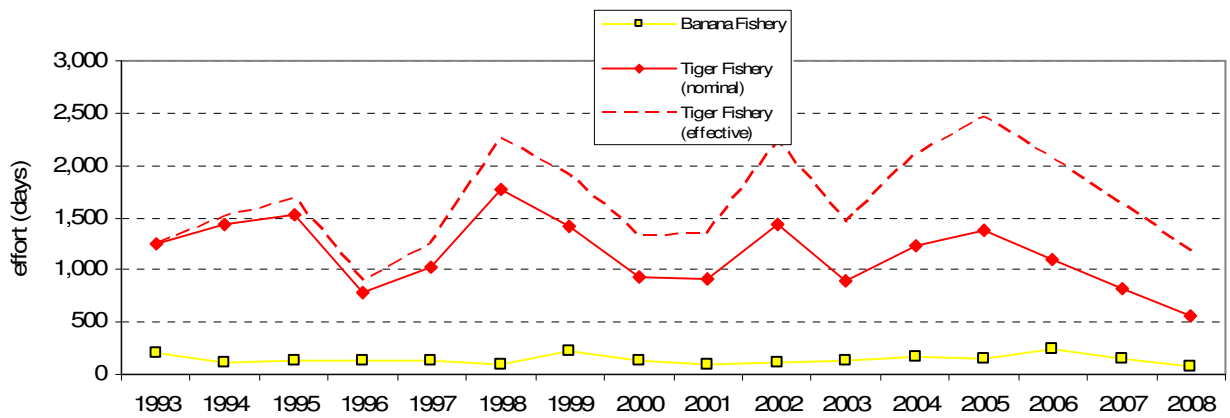
a)



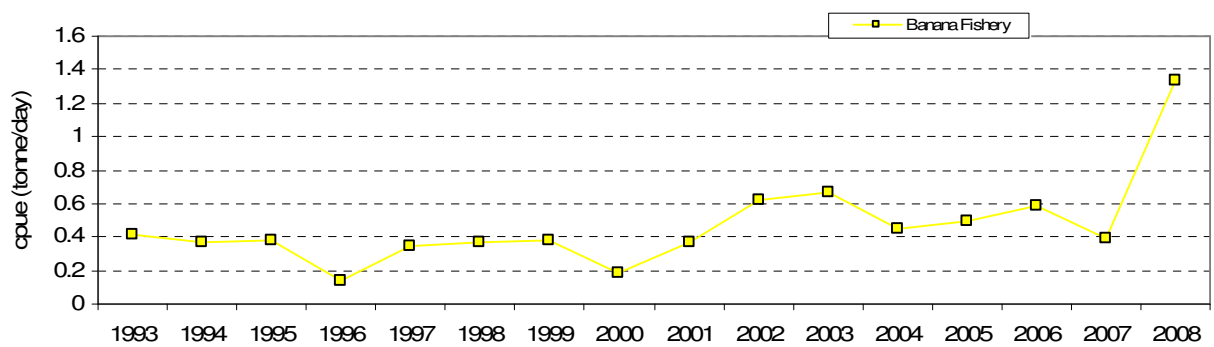
b)



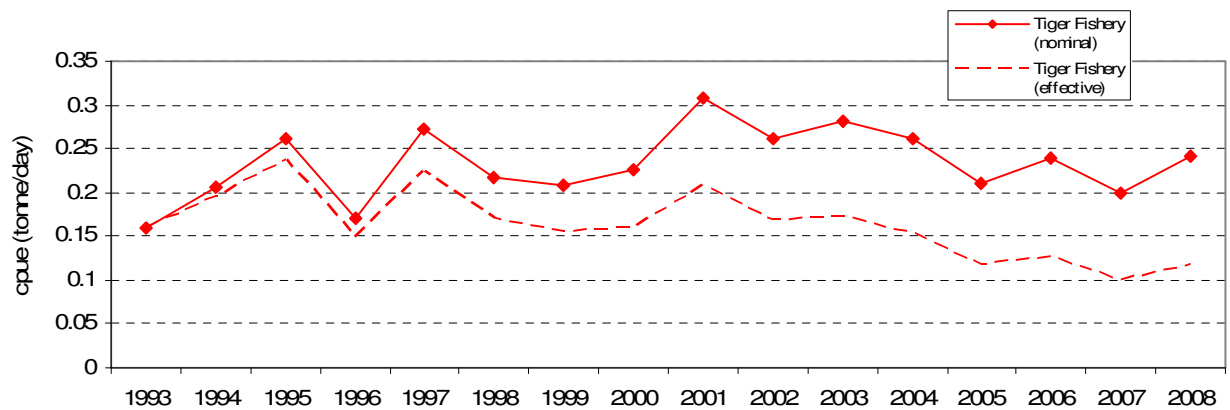
**Figure 42:** Percentage catch of prawn species in the Gove area during 2008 (a) and percentage catch of prawn species in the Gove area from 1993 to 2008 (b).



**Figure 43a:** Effort for the banana and tiger prawn fisheries in the Gove area between 1993 and 2008.



**Figure 43b:** Catch rate for the banana fishery in the Gove area between 1993 and 2008.

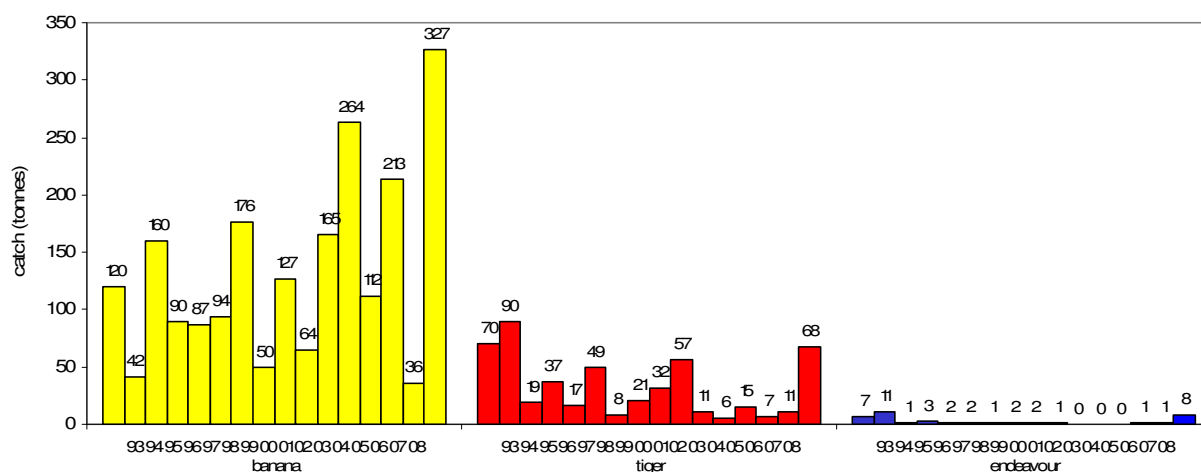


**Figure 43c:** Catch rate for the tiger prawn fishery in the Gove area between 1993 and 2008.

## Arnhem

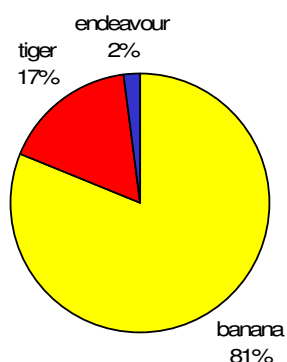
Banana prawn catches in the Arnhem area increased significantly from 36 t in 2007 to 327 t in 2008. Catches of tiger prawn increased from 11 t in 2007 to 68 t in 2008, while endeavour prawn catch increased from 1 t in 2007 to 8 t in 2008 (Figure 44). Banana prawns dominated in catch for 2008 in this area, contributing to 81% of the catch (Figure 45).

Effort in the banana fishery increased from 118 days in 2007 to 176 days in 2008 (Figure 46a). CPUE of banana prawn increased from 0.302 t per day in 2007 to 1.854 t per day in 2008 (Figure 46b). Effort in the tiger prawn fishery increased from 66 days in 2007 to 234 days in 2008 (Figure 46a). Nominal and effective CPUE increased from 0.168 t per day and 0.085 t per day in 2007 to 0.242 t per day and 0.116 t per day, respectively (Figure 46c).

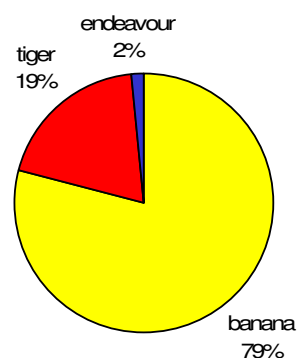


**Figure 44:** Catch by species in the Arnhem area between 1993 and 2008.

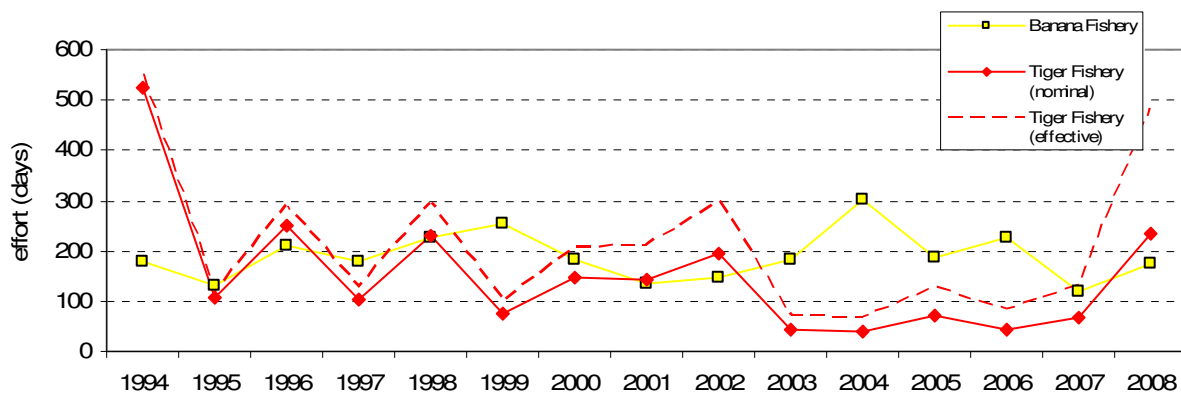
a)



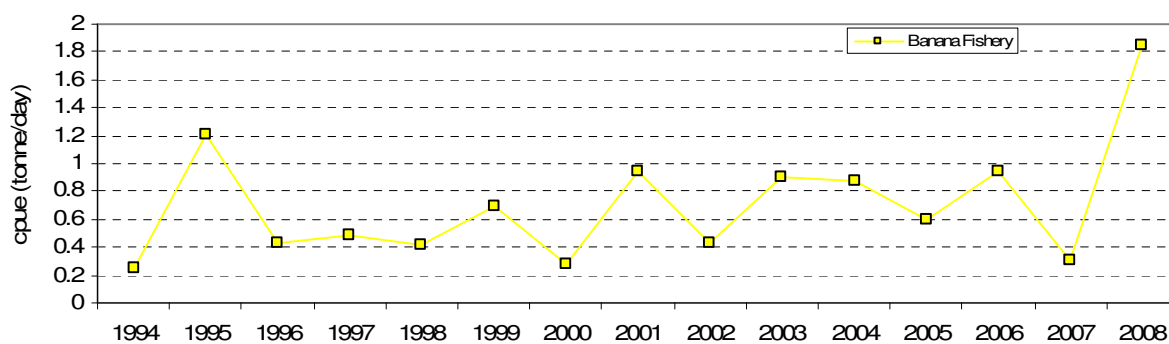
b)



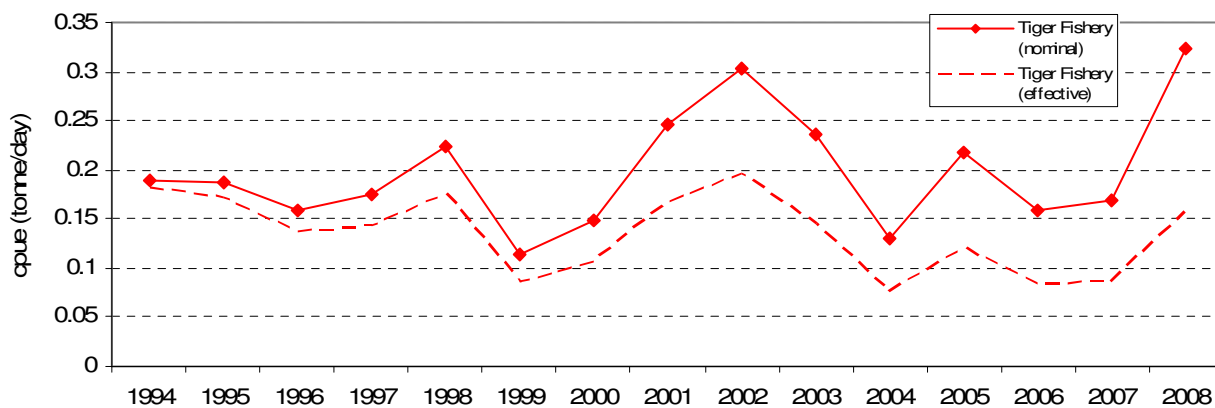
**Figure 45:** Percentage catch of prawn species in the Arnhem area during 2008 (a) and percentage catch of prawn species in the Arnhem area from 1993 to 2008 (b).



**Figure 46a:** Effort for the banana and tiger prawn fisheries in the Arnhem area between 1993 and 2007.



**Figure 46b:** Catch rate for the banana fishery in the Arnhem area between 1993 and 2008.

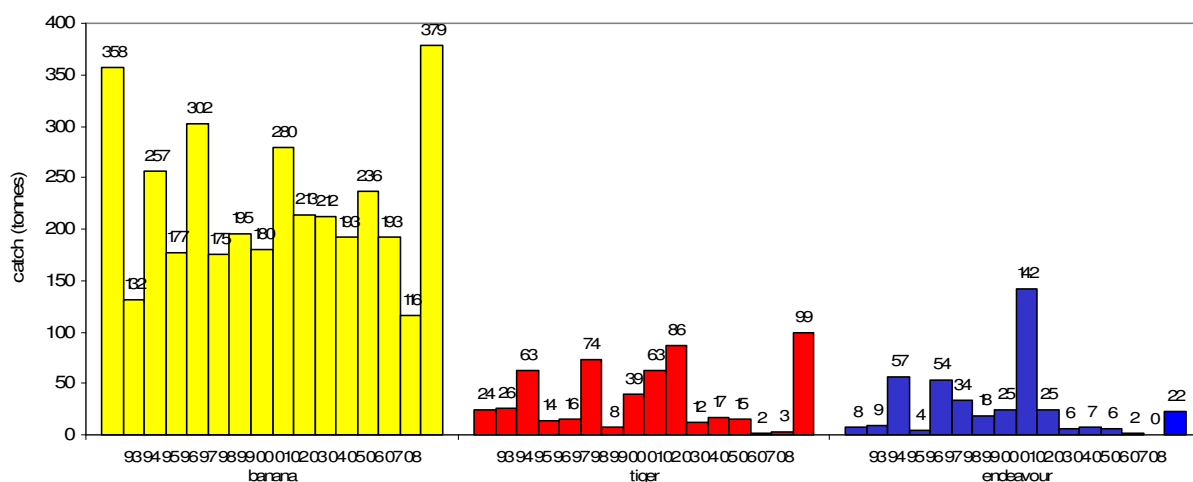


**Figure 46c:** Catch rate for the tiger prawn fishery in the Arnhem area between 1993 and 2008.

## Port Essington

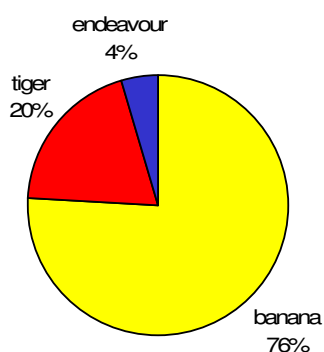
Banana prawn catches in the Port Essington area increased significantly from 116 t in 2007 to 379 t in 2008. Catches of tiger prawn increased from 3 t in 2007 to 99 t in 2008, while endeavour prawn catch increased from zero in 2007 to 22 t in 2008 (Figure 47). Banana prawns comprised 76% of the catch in 2007 (Figure 48).

Effort in the banana fishery increased from 141 days in 2007 to 285 days in 2008 (Figure 49a). CPUE of banana prawn increased from 0.820 t per day in 2007 to 1.326 t per day in 2008 (Figure 49b). Effort in the tiger prawn fishery increased from 18 days in 2007 to 324 days in 2008 (Figure 49a). Nominal and effective CPUE increased from 0.178 t per day and 0.090 t per day in 2007 to 0.377 t per day and 0.181 t per day, respectively (Figure 49c).

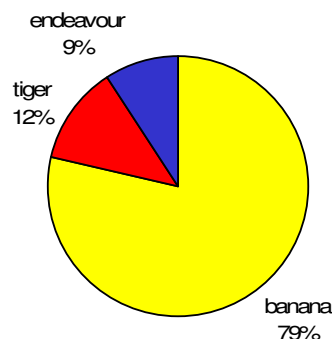


**Figure 47:** Catch by species in the Port Essington area between 1993 and 2008.

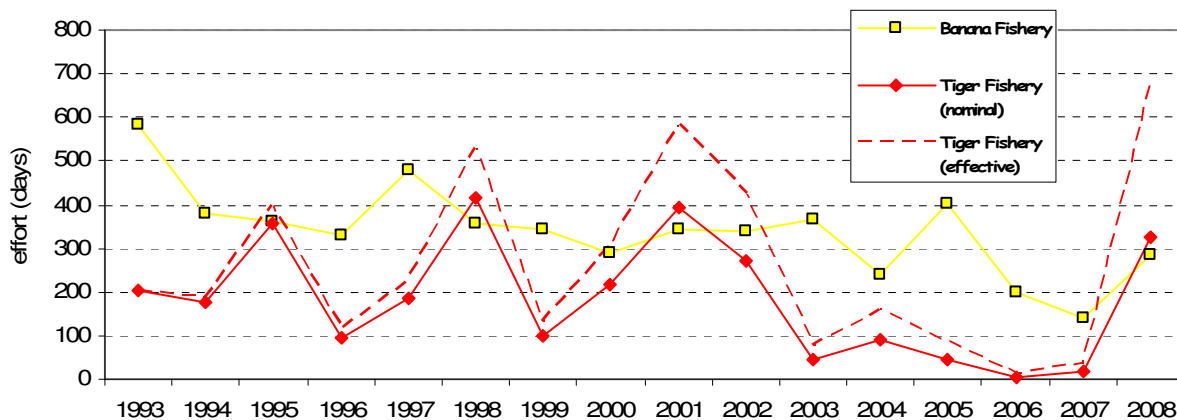
a)



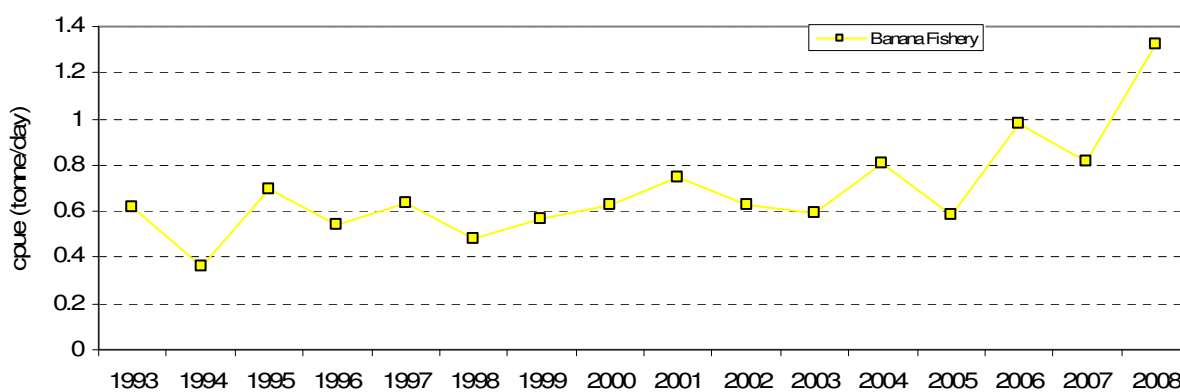
b)



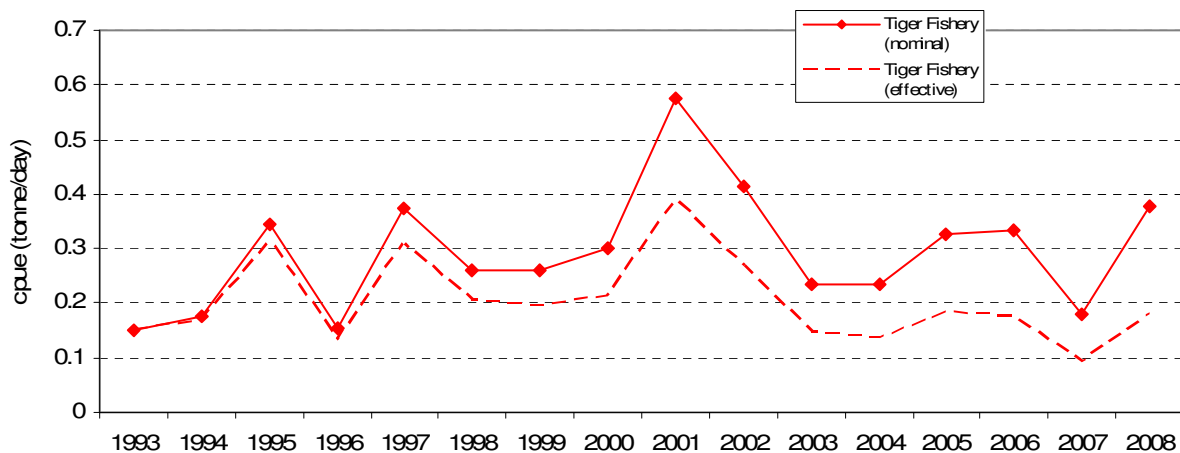
**Figure 48:** Percentage catch of prawn species in the Port Essington area during 2008 (a) percentage catch of prawn species in the Port Essington area from 1993 to 2008 (b).



**Figure 49a:** Effort for the banana and tiger prawn fisheries in the Port Essington area between 1993 and 2008.



**Figure 49b:** Catch rate for the banana fishery in the Port Essington area between 1993 and 2008.



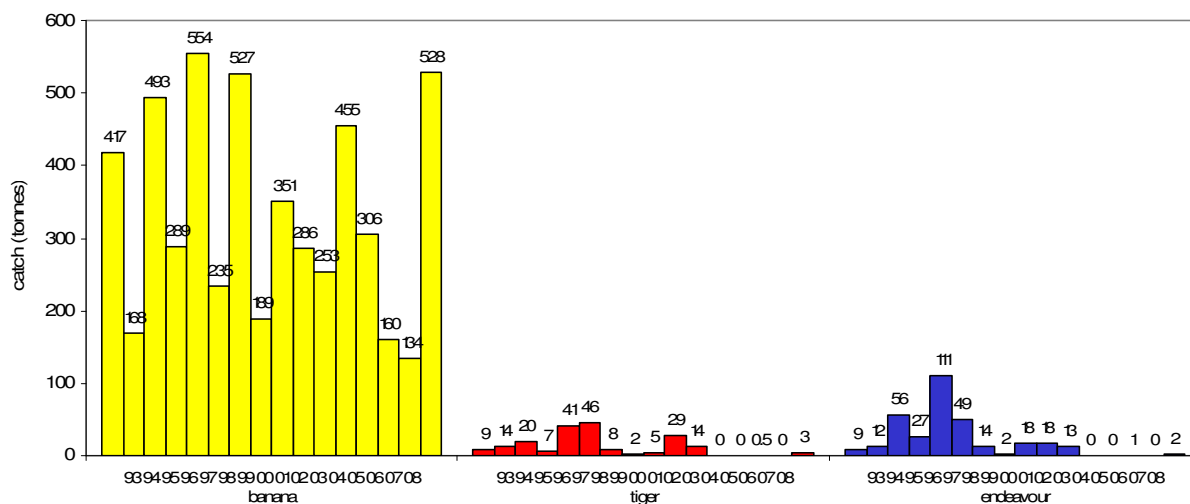
**Figure 49c:** Catch rate for the tiger prawn fishery in the Port Essington area between 1993 and 2008.



## Melville

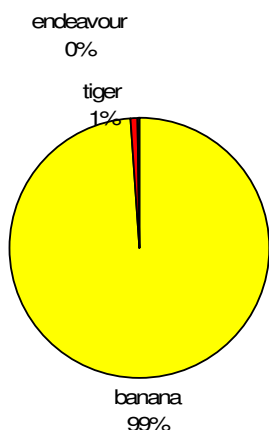
Banana prawn catches in the Melville area increased from 134 t in 2007 to 528 t in 2008. Catches of tiger and endeavour prawn in 2007 were 3 t and 2 t, respectively in 2008 (Figure 50). Banana prawns comprised 99% of the catch in 2008 (Figure 51).

Effort in the banana fishery increased from 141 days in 2007 to 435 days in 2008 (Figure 52a). CPUE of banana prawn increased from 0.947 t per day in 2007 to 1.223 t per day in 2008 (Figure 52b). Effort in the tiger prawn fishery increased from 3 days in 2007 to 6 days in 2008 (Figure 52a). Nominal and effective CPUE were zero in 2007 and increased to 0.203 t per day and 0.097 t per day, respectively in 2008 (Figure 52c).

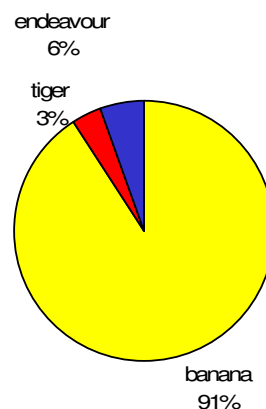


**Figure 50:** Catch by species in the Melville area between 1993 and 2008.

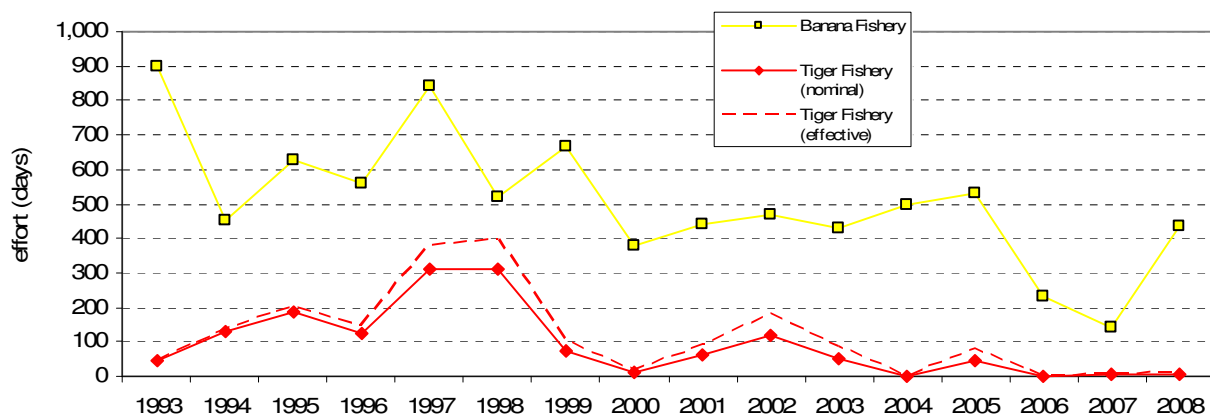
a)



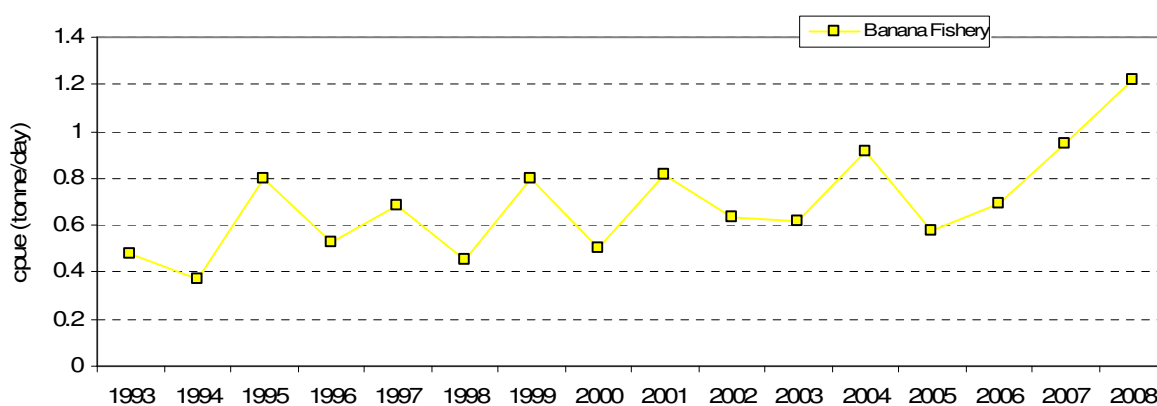
b)



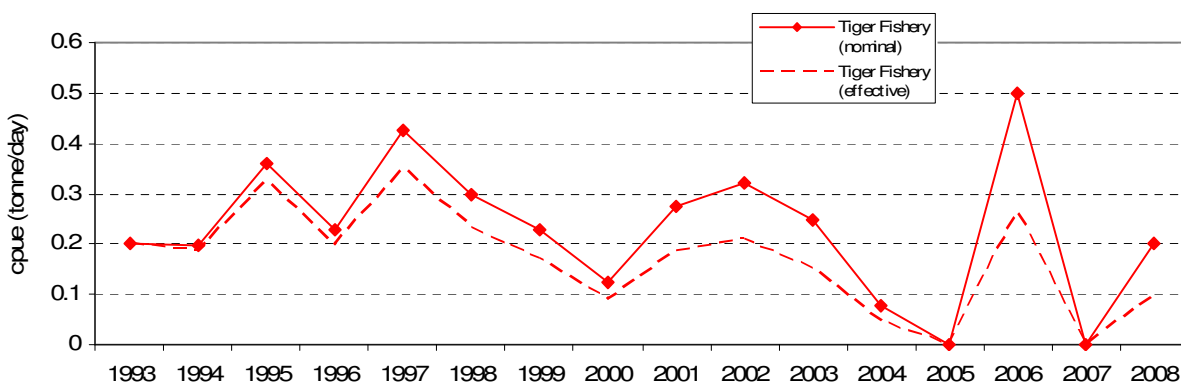
**Figure 51:** Percentage catch of prawn species in the Melville area during 2008 (a) and percentage catch of prawn species in the Melville area from 1993 to 2008 (b).



**Figure 52a:** Effort for the banana and tiger prawn fisheries in the Melville area between 1993 and 2008.



**Figure 52b:** Catch rate for the banana fishery in the Melville area between 1993 and 2008.

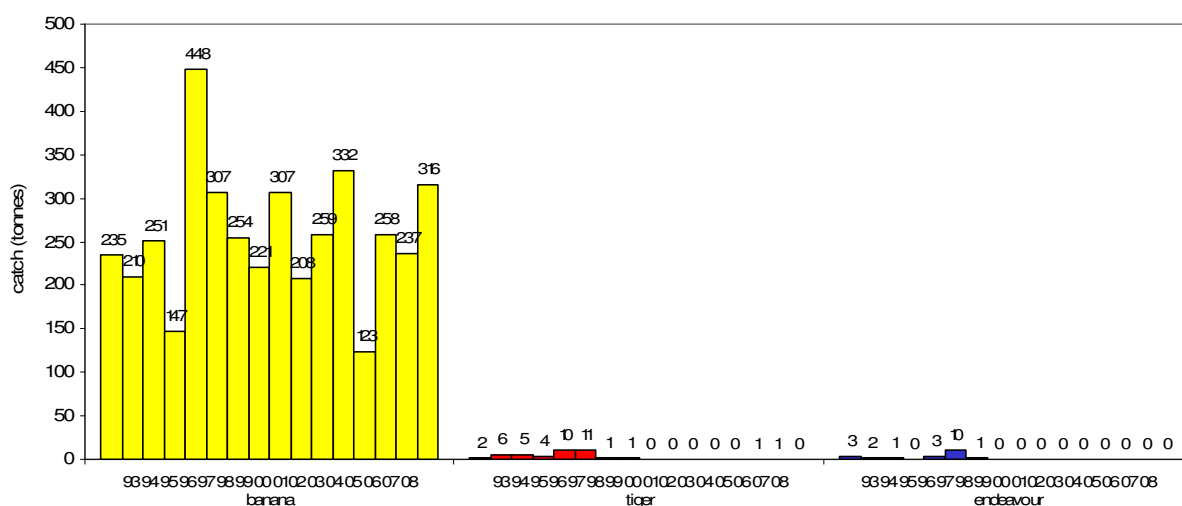


**Figure 52c:** Catch rate for the tiger prawn fishery in the Melville area between 1993 and 2008.

## Fog Bay

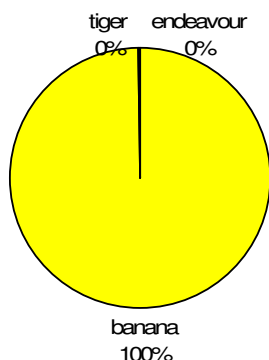
Banana prawn catches in the Fog Bay area increased from 237 t in 2007 to 316 t in 2008. Catches of tiger and endeavour prawns in 2008 were the same as 2007, zero (Figure 53). Banana prawns comprised 100% of the catch for 2008 in this area (Figure 54).

Effort in the banana fishery increased from 172 days in 2007 to 200 days in 2008 (Figure 55a). CPUE of banana prawns increased from 1.375 t per day in 2007 to 1.580 t per day in 2008 (Figure 55b). Effort in the tiger prawn fishery decreased from 3 days in 2007 to 1 day in 2008 (Figure 55a). Nominal and effective CPUE increased from 0.183 t per day and 0.093 t per day in 2007 to 0.494 t per day and 0.238 t per day in 2008, respectively (Figure 55c).

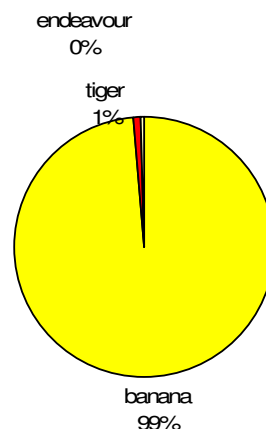


**Figure 53:** Catch by species in the Fog Bay area between 1993 and 2008.

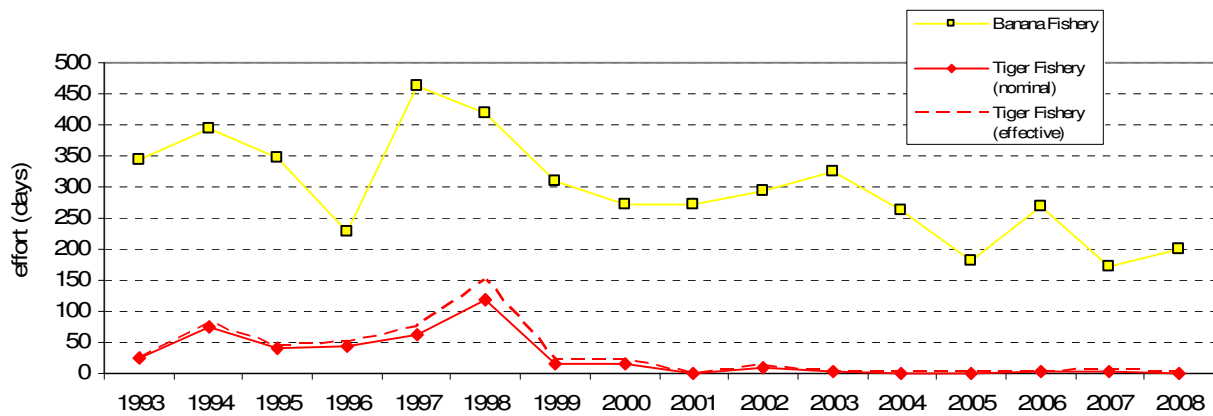
a)



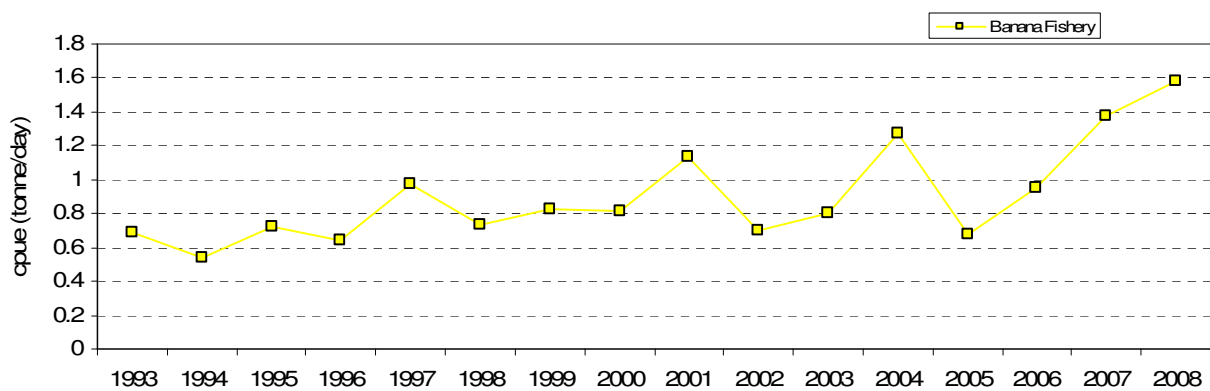
b)



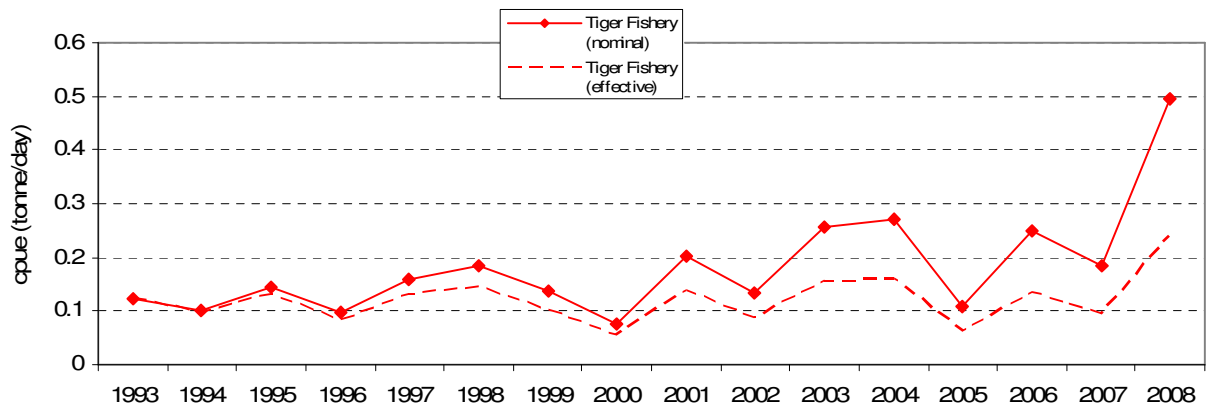
**Figure 54:** Percentage catch of prawn species in the Fog Bay area during 2008 (a) and percentage catch of prawn species in the Fog Bay area from 1993 to 2008 (b).



**Figure 55a:** Effort for the banana and tiger prawn fisheries in the Fog Bay area between 1993 and 2008.



**Figure 55b:** Catch rate for the banana fishery in the Fog Bay area between 1993 and 2008.

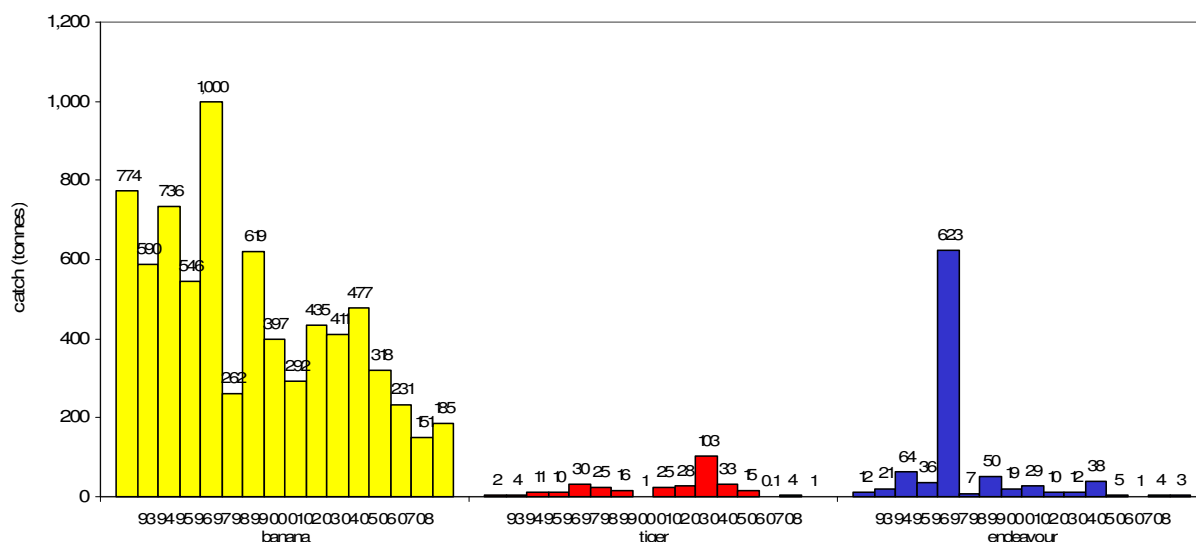


**Figure 55c:** Catch rate for the tiger prawn fishery in the Fog Bay area between 1993 and 2008.

## Bonaparte

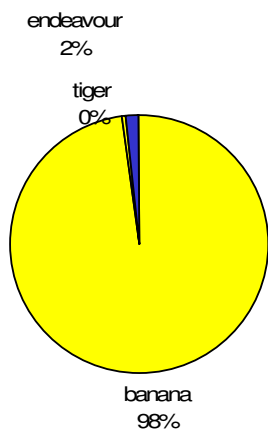
Banana prawn catches in the Bonaparte area increased from 151 t in 2007 to 185 t in 2008. Catches of tiger prawn decreased from 4 t in 2007 to 1 t and catches endeavour prawn decreased from 4 t in 2007 to 3 t in 2008 (Figure 56). Banana prawns comprised 98% of the catch for 2008 in this area (Figure 57).

Effort in the banana fishery decreased from 206 days in 2007 to 183 days in 2008 (Figure 58a). CPUE of banana prawn increased from 0.732 t per days in 2007 to 1.031 t per day in 2008 (Figure 58b). Effort in the tiger prawn fishery decreased from 20 days in 2007 to 2 days in 2008 (Figure 58a). Nominal and effective CPUE decreased from 0.220 t per day and 0.111 t per day in 2007 to 0.179 t per day and 0.086 t per day, respectively in 2008 (Figure 58c).

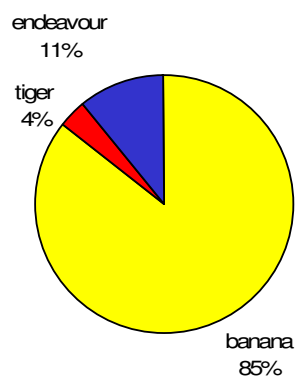


**Figure 56:** Catch by species in the Bonaparte area between 1993 and 2008.

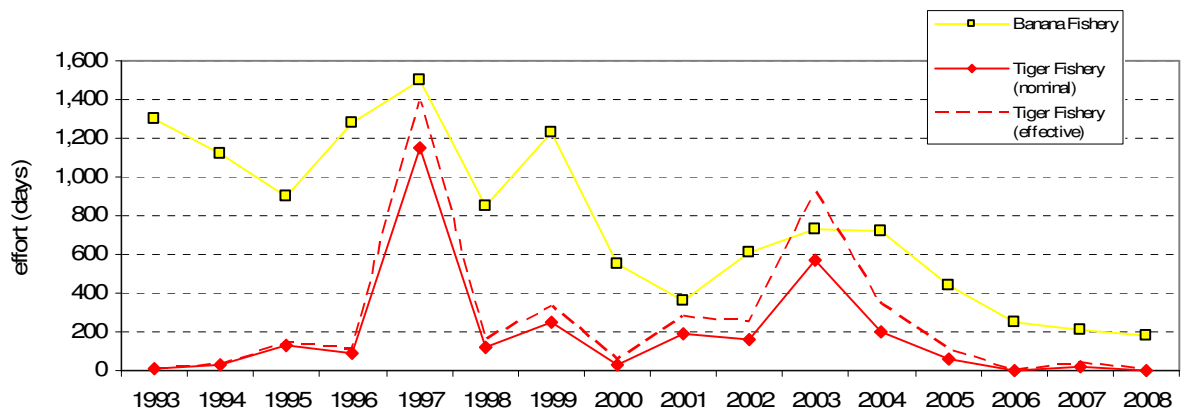
a)



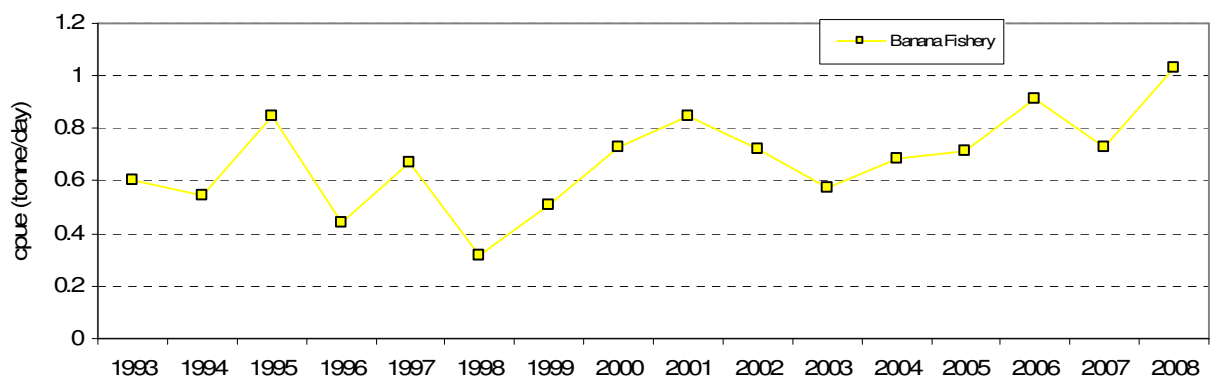
b)



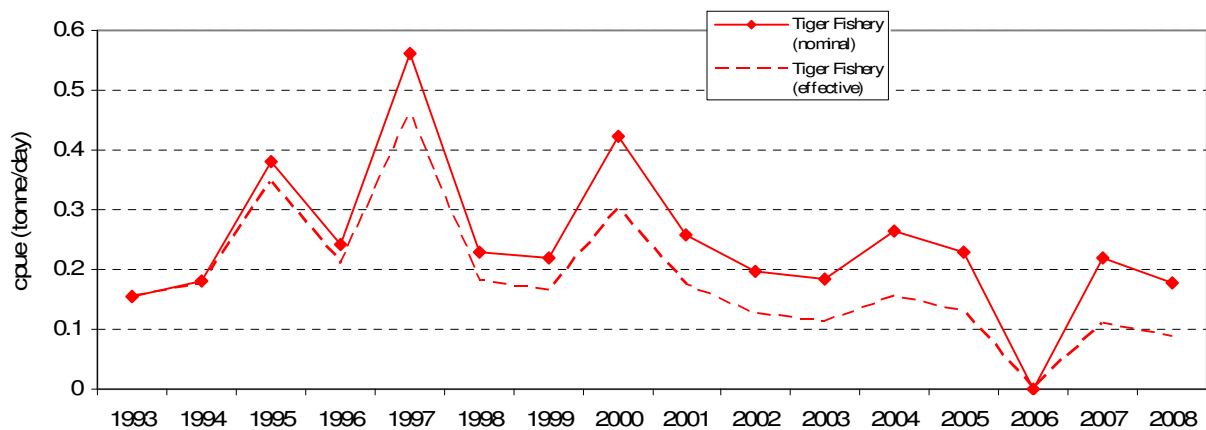
**Figure 57:** Percentage catch of prawn species in the Bonaparte area during 2008 (a) and percentage catch of prawn species in the Bonaparte area from 1993 to 2008 (b).



**Figure 58a:** Effort for the banana and tiger prawn fisheries in the Bonaparte area between 1993 and 2008.



**Figure 58b:** Catch rate for the banana fishery in the Bonaparte area between 1993 and 2008.

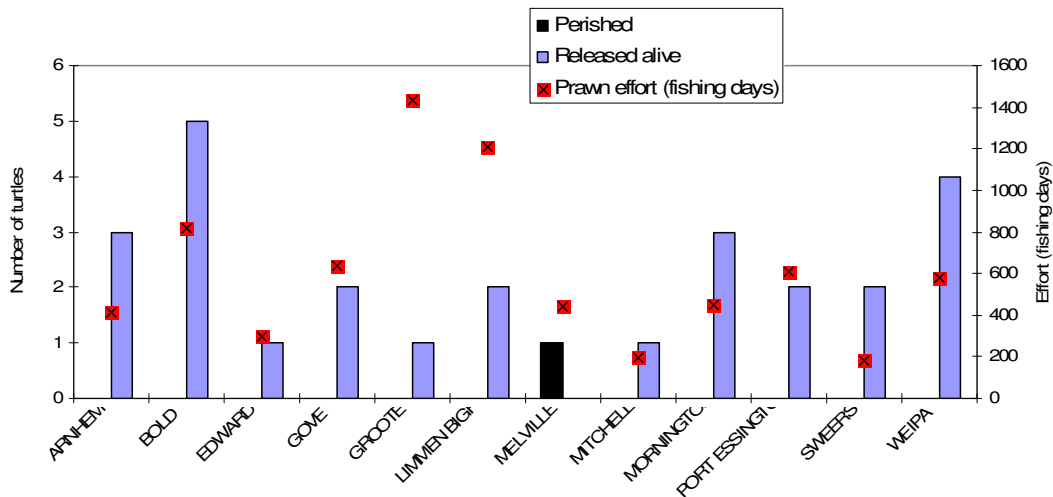


**Figure 58c:** Catch rate for the tiger prawn fishery in the Bonaparte area between 1993 and 2008.

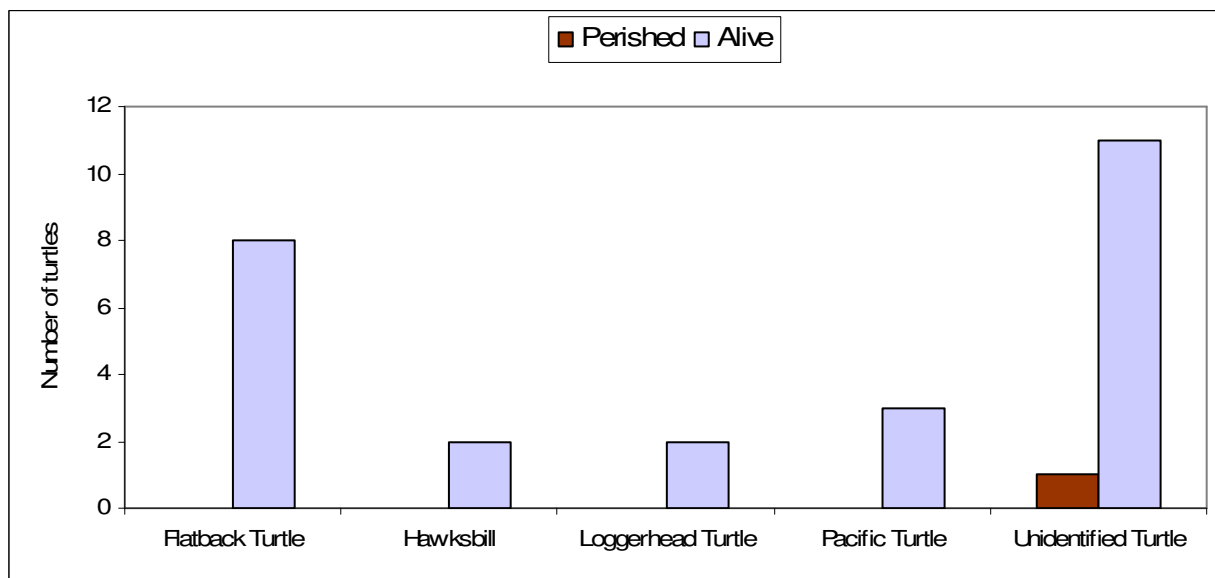
# Bycatch in the Northern Prawn Fishery

## Turtle bycatch

A total of 27 turtles were caught in 2008 (Table 5). Flatback turtles and unidentified species comprised most of the turtle bycatch (Figure 60). Turtle bycatch in the NPF was highest in Bold with only 5 turtles caught. All turtles, except an unidentified turtle caught at Melville, were released alive (Figure 59).



**Figure 59:** Turtle bycatch in the NPF by area in 2008.



**Figure 60:** Turtle bycatch in the NPF by species in 2008.

**Table 5:** Turtle bycatch by species for each area, 2006-2008.

Statistical Area	Turtle Species	Released Alive			Perished			Condition Unknown		
		06	07	08	06	07	08	06	07	08
<b>ARNHEM</b>	Flatback									
	Green	1								
	Hawksbill									
	Leatherback									
	Loggerhead			1						
	Pacific Ridley									
<b>BOLD</b>	Unidentified species	1	1	2						
	Flatback			4						
	Green									
	Hawksbill			1						
	Leatherback									
	Loggerhead									
<b>EDWARD</b>	Pacific Ridley									
	Unidentified species									
	Flatback									
	Green	1	1							
	Hawksbill									
	Leatherback									
<b>FOG BAY</b>	Loggerhead									
	Pacific Ridley			1						
	Unidentified species									
	Flatback									
	Green	1	2							
	Hawksbill									
<b>GOVE</b>	Leatherback									
	Loggerhead									
	Pacific Ridley									
	Unidentified species	4	2							
	Flatback	1								
	Green									
<b>GROOTE</b>	Hawksbill									
	Leatherback									
	Loggerhead									
	Pacific Ridley		3							
	Unidentified species	1	3	1						
	Flatback	2	8							
<b>LIMMEN BIGHT</b>	Green	2	1							
	Hawksbill	1								
	Leatherback									
	Loggerhead									
	Pacific Ridley		1							
	Unidentified species	1	3	1						
<b>MELVILLE</b>	Flatback									
	Green									
	Hawksbill									
	Leatherback									
	Loggerhead									
	Pacific Ridley									
<b>MITCHELL</b>	Unidentified species		7				1			
	Flatback									
	Green									
	Hawksbill									
	Leatherback									
	Loggerhead									
<b>MITCHELL</b>	Pacific Ridley									
	Unidentified species			1						
	Flatback									
	Green									
	Hawksbill									
	Leatherback									



Statistical Area	Turtle Species	Released Alive			Perished			Condition Unknown		
		06	07	08	06	07	08	06	07	08
<b>MORNINGTON</b>	Flatback	1								
	Green									
	Hawksbill	1								
	Leatherback									
	Loggerhead			1						
	Pacific Ridley	2	1	2						
	Unidentified species	1	1							
<b>PORT ESSINGTON</b>	Flatback									
	Green									
	Hawksbill	1								
	Leatherback									
	Loggerhead									
	Pacific Ridley			1						
	Unidentified species		2	1						
<b>SWEERS</b>	Flatback			2						
	Green									
	Hawksbill									
	Leatherback									
	Loggerhead									
	Pacific Ridley									
	Unidentified species									
<b>WEIPA</b>	Flatback	2		1						
	Green	1	3							
	Hawksbill									
	Leatherback									
	Loggerhead	1								
	Pacific Ridley									
	Unidentified species	1	14	3						
<b>TOTAL ALL AREAS</b>	Flatback	9	10	8						
	Green	8	7							
	Hawksbill	6		2						
	Leatherback									
	Loggerhead	1	1	2						
	Pacific Ridley	4	6	3						
	Unidentified species	11	31	11			1			
<b>GRAND TOTAL</b>	<b>ALL SPECIES</b>	<b>39</b>	<b>55</b>	<b>26</b>			<b>1</b>			

## Sea snake bycatch

The majority of sea snakes (4,715 individuals representing 79%) were released alive, 881 (15%) where their condition was unknown after release, and only 738 (10%) sea snakes perished 340 (6%) and 32 (0.5%) injured (Table 6). Sea snake bycatch was highest in Groote and lowest in Fog Bay with 1,420 and 19 caught, respectively. There was a reduction in both the total number of sea snakes taken and the total mortality compared to 2007.

**Table 6:** Sea snake bycatch by area in the NPF for 2008.

Statistical area	Released alive	Perished	Released injured	Condition unknown	Total
ARNHEM	129	27	0	34	190
BOLD	422	32	2	279	735
BONAPARTE	86	0	0	0	86
EDWARD	81	6	22	144	253
FOG BAY	14	4	0	1	19
GOVE	588	11	2	38	639
GROOTE	1,310	85	1	24	1,420
KEERWEER	20	0	0	62	82
LIMMEN BIGHT	839	56	0	31	926
MELVILLE	159	20	0	60	239
MITCHELL	79	1	0	67	147
MORNINGTON	262	35	0	4	301
PORT ESSINGTON	355	50	0	50	455
SWEERS	118	2	0	25	145
WEIPA	253	11	5	62	331
<b>Total</b>	<b>4,715</b>	<b>340</b>	<b>32</b>	<b>881</b>	<b>5,968</b>

## Scampi Catch

Due to data confidentiality requirements scampi catch cannot be disclosed.

## Scientific Observer and Crew Member Observer coverage

Comparison of CMO, Scientific Observer and logbook recorded interactions with Threatened Endangered and Protected (TEP) species is detailed in Tables 7 and 8. Recorded interactions with all TEP species other than seasnakes per boat day were lowest from logbook data (Table 8). Recorded interactions per boat day for seasnakes, syngnathids and sawfish were highest from Scientific Observer data, whilst turtle interactions per boat day were highest from CMO data (Table 8).

**Table 7:** Comparison of TEP species interactions reported by Scientific Observers, CMOs and in logbooks in the NPF during the 2008 tiger prawn season.

	Vessel Returns	Fishing Days*	Total Sea Snakes	Total Turtles	Total Syngnathids	Total Sawfish
<b>Logbook Returns</b>	53	7,903	5,978	27	38	458
<b>Crew Member Observers</b>	5	120	81	5	19	13
<b>Scientific Observers**</b>	8	141	186	4	42	56

\*Days fishing practices were observed.

\*\*Scientific observer results includes data collected during gear trials.

**Table 8:** Comparison of TEP species interactions reported by Scientific Observers, CMOs and in logbooks per boat day during in the NPF during the 2008 tiger prawn season.

	Sea Snakes per Fishing Day	Turtles per Fishing Day	Syngnathids per Fishing Day	Sawfish per Fishing Day
<b>Logbook Returns</b>	0.756	0.003	0.005	0.058
<b>Crew Member Observers</b>	0.675	0.042	0.158	0.108
<b>Scientific Observers*</b>	1.319	0.028	0.298	0.397

\*Scientific observer results include data collected during gear trials.

## State/Territory specific data

The Queensland and Northern Territory recorded an increase in total prawn catch, increasing from 2,085 t in 2006/07 to 3,744 t in 2007/08 and 2,688 t in 2006/07 to 2,826 t in 2007/08 respectively. Total prawn catch in Western Australia, decreased from 298 t in 2006/07 to 160 t in 2007/08 (Table 9).

Banana prawn catch increased significantly in Queensland in 2007/08 to 3,578 t compared to 1,839 t in 2006/07. Banana prawn catch also increased in Northern Territory and Western Australia from 783 t in 2006/07 to 1,550 t in 2007/08 and 108 t in 2006/07 to 151 t in 2007/08 respectively (Table 9).

Tiger prawn catch decreased in Queensland, Northern Territory and Western Australia. Endeavour prawn catch decreased in both Queensland and Northern Territory and increased in Western Australia. King prawn catch in Queensland and Western Australia remained the same, while Northern Territory decreased by 7 t (Table 9).

**Table 9:** Prawn catch by State/Territory from 1990/91 to 2007/08 financial years.

<i>State</i>	<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>
<b>Queensland</b>	1990/91	4,646	1,151	269	51	6,117
	1991/92	1,392	1,710	548	30	3,680
	1992/93	1,857	968	357	18	3,200
	1993/94	904	1,032	416	8	2,360
	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	1,384	217	46	9	1,656
	2006/07	1,839	192	46	8	2,085
	<b>2007/08</b>	<b>3,578</b>	<b>126</b>	<b>32</b>	<b>8</b>	<b>3,744</b>

<i>State</i>	<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>
<b>Northern Territory</b>	1990/91	1,430	2,156	380	46	4,012
	1991/92	669	2,332	434	27	3,462
	1992/93	1,639	1,907	437	18	4,001
	1993/94	697	1,768	403	18	2,886
	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	1,495	1,587	316	19	3,417
	2006/07	783	1,582	304	19	2,688
	<b>2007/08</b>	<b>1,550</b>	<b>1,100</b>	<b>164</b>	<b>12</b>	<b>2,826</b>
<b>Western Australia</b>	1990/91	579	86	42	0	707
	1991/92	231	8	11	0	250
	1992/93	498	5	6	0	509
	1993/94	828	4	13	0	845
	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	231	0	1	0	232
	2006/07	108	190	0	0	298
	<b>2007/08</b>	<b>151</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>160</b>

## Byproduct of the NPF by State/Territory

Total byproduct retained in the NPF State/Territory was 67 t, with Northern Territory retaining the highest and WA the lowest amount of byproduct. Moreton bay bugs comprised most of the byproduct, with 15 t of being retained. Other bugs, whittings and squids also contributed substantially to retained byproduct (Table 10).



**Table 10:** Retained byproduct of the NPF by State/Territory in 2008.

<b>Species</b>	<b>NT</b>	<b>QLD</b>	<b>WA</b>	<b>Grand Total</b>
Black pomfret	33	0	0	33
Bugs - Shovel nosed and slipper lobsters	4,235	3,538	8	7,781
Champagne lobster - Spear lobster	105	0	0	105
Cuttlefish	1,559	329	0	1,888
Cuttlefishes	681	82	0	763
Golden snapper - Fingermark seaperch	13	0	0	13
Mangrove Jack	5	0	0	5
Moreton Bay bugs	10,124	5,109	36	15,269
Mud scallop	0	15	0	15
Octopuses	165	31	0	196
Pink snapper	0	120	0	120
Red Emperor	0	20	0	20
Scallops	486	0	0	486
Scarlet Sea Perch / Large Mouth Nannygai	82	0	0	82
Spiny lobsters - Mixed crayfish	1,816	0	0	1,816
Squids	1,288	1,975	0	3,263
Whittings	4,950	68	0	5,018
<b>Grand Total</b>	<b>55,931</b>	<b>11,287</b>	<b>44</b>	<b>67,262</b>