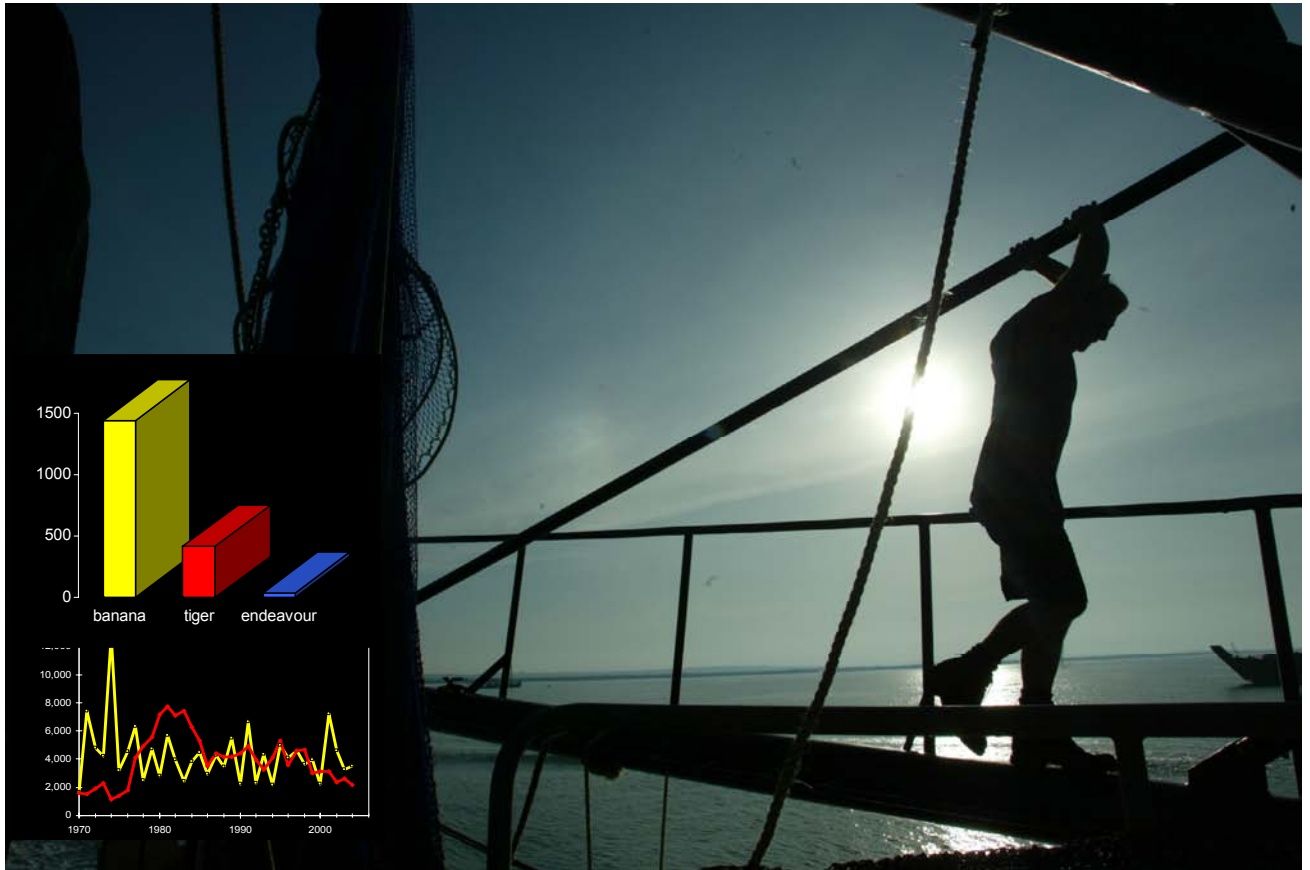




Australian Government
Australian Fisheries Management Authority

NORTHERN PRAWN FISHERY DATA SUMMARY

2006



Erik Raudzens
Logbook Program
March 2007



NORTHERN PRAWN FISHERY DATA SUMMARY 2006

AFMA DATA SECTION

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Northern Prawn Fishery Data Summary 2006
March 2007

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NORTHERN PRAWN FISHERY DATA SUMMARY 2006

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 sent to 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 data can be collected and managed better.

AFMA has produced data summary reports for the NPF on an annual basis since 1999. The following data summary reviews the 2006 prawn fishing season catch and effort for the NPF.

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 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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Ph (02) 6225 5353

Also note that this Data Summary is available on AFMA's website: www.afma.gov.au



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Introduction

The Northern Prawn Fishery (NPF) Data Summary 2006 contains catch and effort statistics by prawn species, area, time and fishery. Comprehensive bycatch and TEP species 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. In addition byproduct data for 2006 is also provided.

Description of the Northern Prawn Fishery

Area of Fishery

The 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).

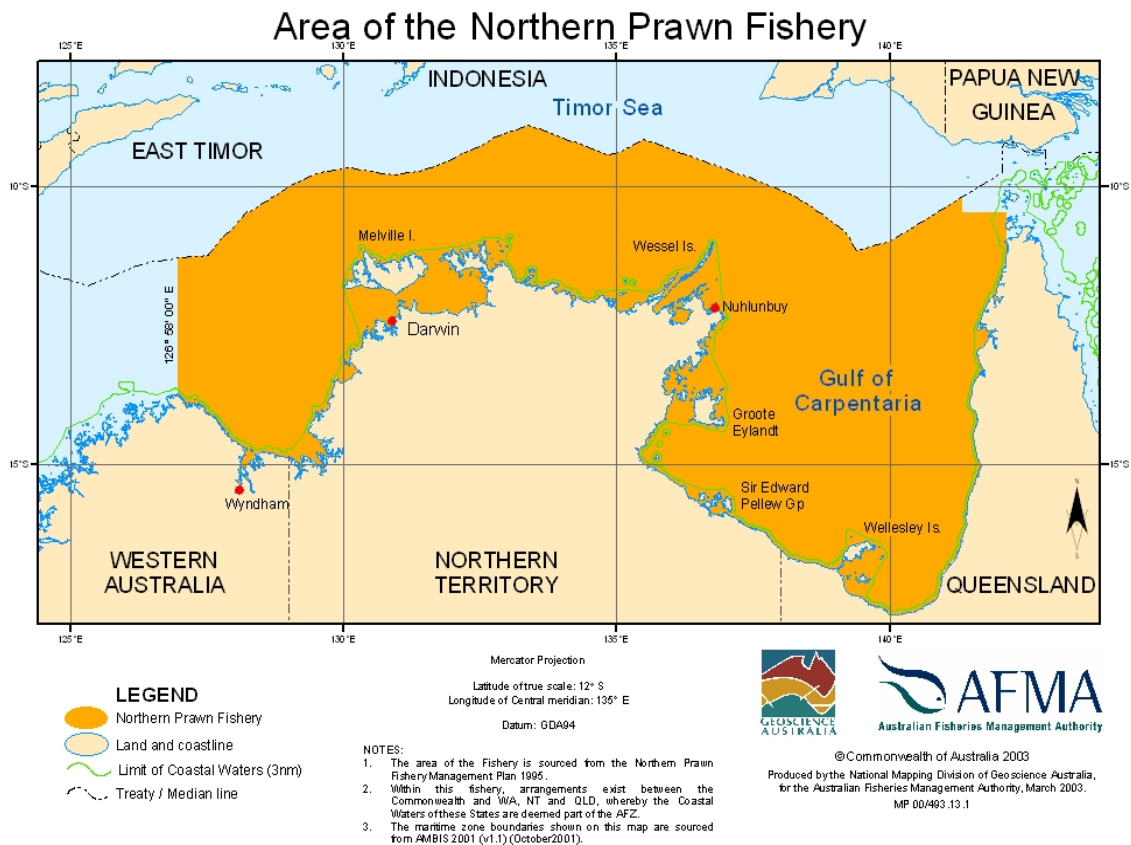


Figure 1. Northern Prawn Fishery Management Area.



Fishing Methods

Prawn trawling is an active fishing method that involves towing a conical-shaped net spread open by two steel or timber otter boards over the seabed; commonly called otter trawling. Groundchains 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 1995* 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 14 m to 28 m. All NPF vessels have modern, 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 phone and fax equipment are used by most vessels and many have introduced on-board computing facilities. All vessels are required to have a Vessel Monitoring System (VMS).

Management Information

The NPF 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 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 early 2005, fishing effort was further reduced in the fishery through a 25% reduction in the value of the gear SFR. During 2006, the fleet was further reduced to 88 Class B SFRs, with 77 vessels engaging in prawn trawling.

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 2006, the seasons were from 15 April to 10 June (Banana season) and from 1 August to 15 November (Tiger season), respectively.



Data Collection Program

NPF operators are required to complete the 'Northern and Torres Strait Prawn Fisheries Daily Fishing Log' (NP14) on a daily basis. Approximately 15 operators in the Tiger season used electronic logbook reporting in 2006. These electronic logbook data are included in this data summary.

Methods Used For Preparing Data Summary

The data used to prepare the NPF Data Summary are comprised of logbook information (NP14 and e-Logbook) 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 March 2007 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. A total of 67 vessels from a pool of 77 vessels had catches from logbooks totaling within 10% of the catch recorded in the landing returns for banana and tiger prawns. At the time of extraction, 100% of logsheets and 99% of landing data had been received. No days were missing because of lost logsheets.

Over the entire fleet, the logbook figures for banana and tiger prawns were lower than the landings figures (by 2.1% and 4.9%, respectively). For endeavour prawns, the logbook figures were slightly lower than the landings (by 0.7%). The logbook figures for king prawns were lower than the landings by 17%.

The catch and effort estimates in Table 1, Figure 2 and Figure 5 were derived from a combination of logbook and landings figures. The remainder of the tables and figures represent logbook data only. This may cause discrepancies between total catches.

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 the 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 fishing 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

Statistics for the NPF were collected from vessels that fished between Cape York (Queensland) and Cape Londonderry (Western Australia) (Figure 1). The 2006 NPF seasons were from 15 April to 10 June and 1 August to 15 November. There were 57 days available to fish during the first season and 117 during the second season (a total of 174), which was 24 days more than 2005. This was due to the extension of the first season by two weeks and the second season by 1 week. Total effort days in 2006 were 3283 days compared to 3364 in 2005.

Catch

The total NPF prawn catch for 2006 was 5310 t, compared with 4946 t in 2005 (Table 1). The catch of banana prawns increased compared to the previous year by 7% to 3117 t. The catch of tiger prawns increased by 3% from 1744 t in 2005 to 1802 t in 2006. Endeavour prawns increased by 23% from 281 t in 2005 to 363 t in 2006 (Figure 2).

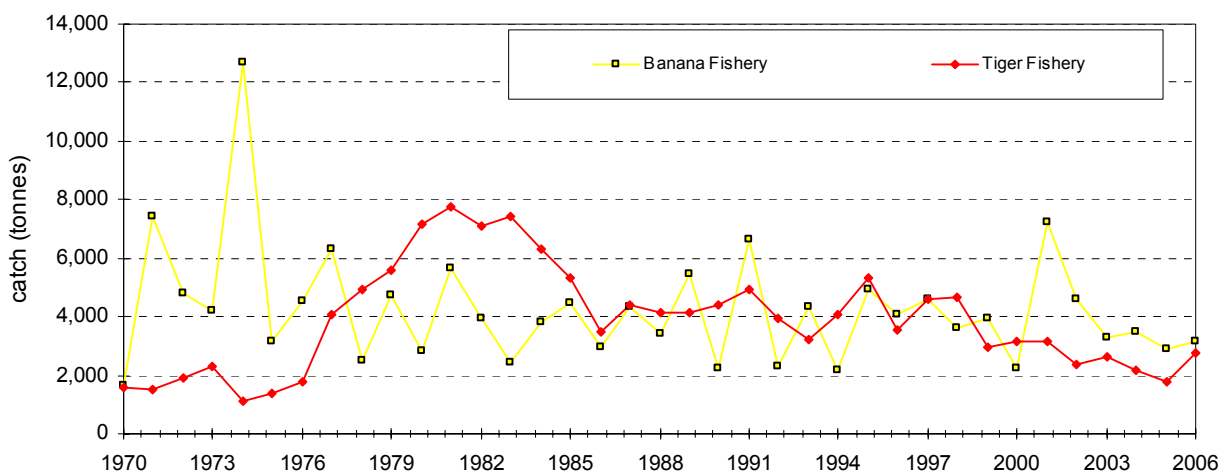


Figure 2. Catch in the banana and tiger prawn fisheries between 1970 and 2006.



Table 1. Annual reconciled landings, effort and vessel number in the NPF from 1970 to 2006.

Year	Banana (t)	Tiger (t)	Endeavour (t)	King (t)	Total catch (t)	No. of vessels	Banana fishery effort (days)	Tiger fishery effort (days)
1970	1702	1138	417	0	3257	191	2041	5818
1971	7364	1183	400	0	8948	169	5571	6057
1972	4801	1380	472	0	6654	180	4327	7380
1973	4226	1672	594	0	6492	217	4917	7362
1974	12711	666	434	4	13815	196	7537	3439
1975	3160	973	444	6	4583	107	5361	6010
1976	4519	1118	675	5	6319	145	7238	6660
1977	6345	2900	1125	28	10398	193	7257	11673
1978	2535	3599	1240	82	7456	237	5569	18749
1979	4775	4218	1213	94	10300	240	7328	17791
<i>1970-'79 average</i>	<i>5214</i>	<i>1885</i>	<i>701</i>	<i>22</i>	<i>7822</i>	<i>188</i>	<i>5715</i>	<i>9094</i>
1980	2835	5124	1891	111	9964	269	8391	30594
1981	5672	5559	2073	95	13400	286	11524	31895
1982	3875	4891	2124	144	11036	271	8751	32956
1983	2382	5751	1488	207	9831	254	6856	34551
1984	3770	4525	1714	83	10095	252	5932	32447
1985	4469	3592	1671	77	9811	231	6946	26516
1986	2935	2682	748	85	6451	238	7132	26669
1987	4257	3617	772	65	8713	234	7954	22478
1988	3381	3458	669	81	7591	222	6655	26264
1989	5466	3173	909	85	9636	223	7439	27036
<i>1980-'89 average</i>	<i>3904</i>	<i>4237</i>	<i>1406</i>	<i>103</i>	<i>9653</i>	<i>248</i>	<i>7758</i>	<i>29141</i>
1990	2221	3550	735	128	6636	200	5044	25525
1991	6605	3987	879	81	11554	172	6515	20744
1992	2254	3084	880	47	6267	170	5132	21789
1993	4292	2515	733	35	7572	127	6299	16019
1994	2157	3162	872	72	6263	128	4955	18592
1995	4961	4125	1150	58	10294	125	4880	16834
1996	4078	2311	1235	41	7665	127	5525	16635
1997	4587	2694	1870	51	9202	129	5476	15385
1998	3569	3218	1322	20	8123	130	5301	18003
1999	3904	2136	885	21	6947	129	5639	12675
<i>1990-'99 average</i>	<i>3863</i>	<i>3078</i>	<i>1056</i>	<i>55</i>	<i>8052</i>	<i>144</i>	<i>5477</i>	<i>18220</i>
2000	2195	2190	958	13	5335	121	3697	12736
2001	7245	1983	1157	4	10389	118	6247	10440
2002	4577	1943	411	5	6936	114	4148	8718
2003	3238	2222	435	4	5898	97	4114	8503
2004	3520	1767	396	3	5686	96	3985	7793
2005	2901	1744	281	20	4946	89	3364	7967
2006	3117	1802	363	28	5310	77	3283	6983
<i>2000-'06 average</i>	<i>3828</i>	<i>1950</i>	<i>571</i>	<i>11</i>	<i>6532</i>	<i>102</i>	<i>4120</i>	<i>9020</i>
<i>1970-2006 average</i>	<i>4232</i>	<i>2855</i>	<i>963</i>	<i>51</i>	<i>8102</i>	<i>176</i>	<i>5901</i>	<i>16964</i>



Catch by week

Figures 3 (a), (b) and (c) show the catch of banana and tiger prawns by week during 2004, 2005 and 2006. Unlike the 2004 and 2005 banana prawn seasons, the highest catches of banana prawns were recorded in the third week of the 2006 banana season, while tiger prawn catches were typically highest in August and September.

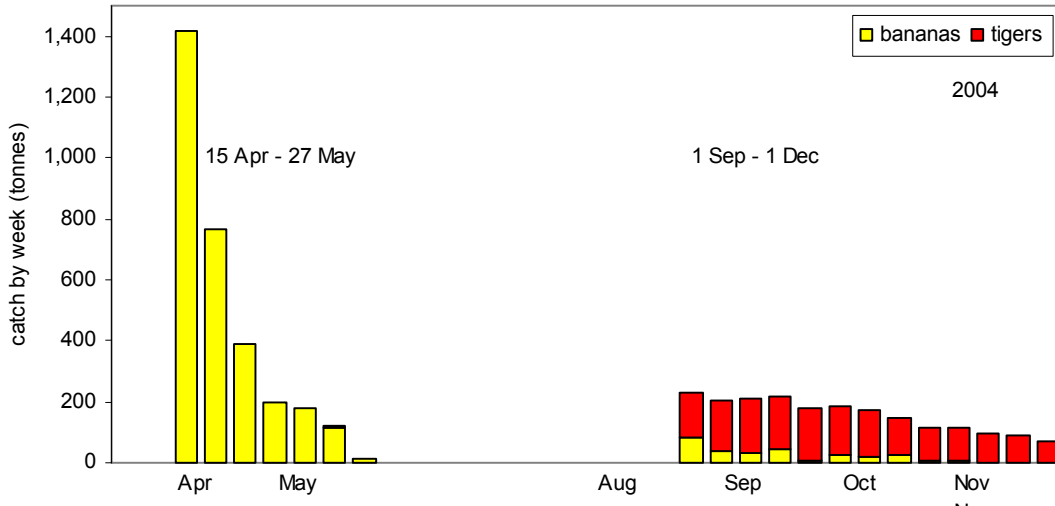


Figure 3a. Weekly catches of banana prawns and tiger prawns (t) in the NPF in 2004.

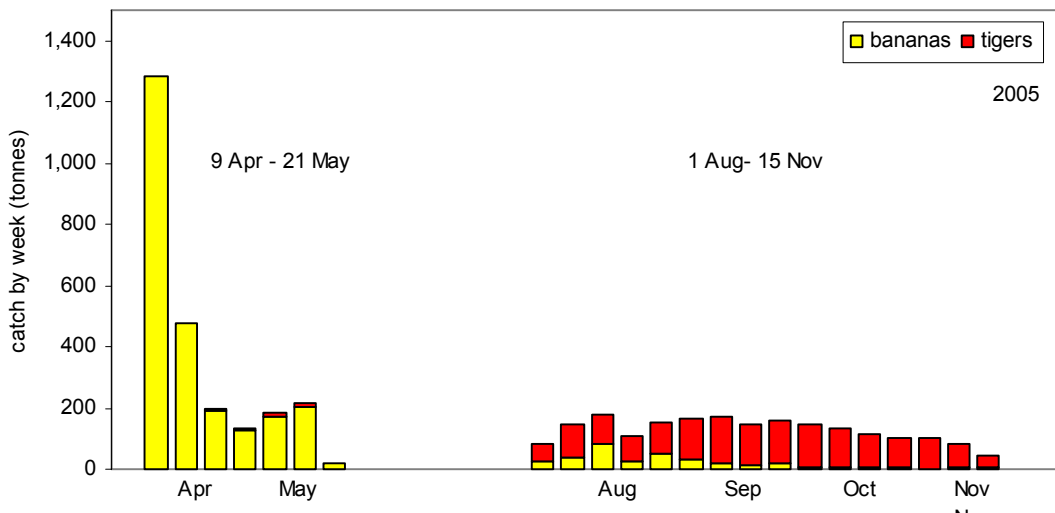


Figure 3b. Weekly catches of banana prawns and tiger prawns (t) in the NPF in 2005.



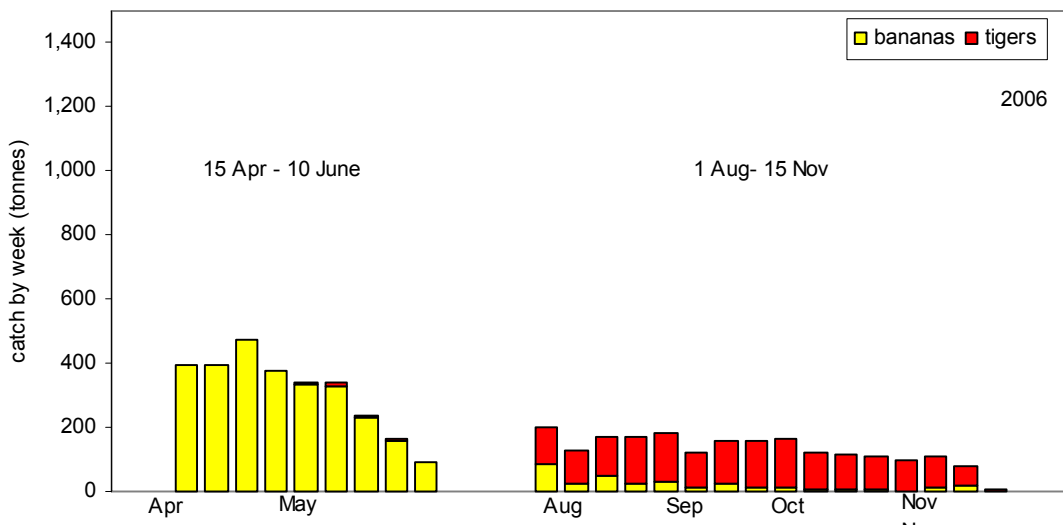


Figure 3c. Weekly catches of banana prawns and tiger prawns (t) in the NPF in 2006.

Effort

Nominal and effective effort

Nominal fishing 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' (i.e., an increase in effectiveness of the gear utilised). A number of different approaches to effort creep are being used by the Northern Prawn 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 fishery decreased by 81 days (2%), despite a 2 week season extension. In the tiger fishery, nominal effort decreased by 984 days (12%) (Figure 4).

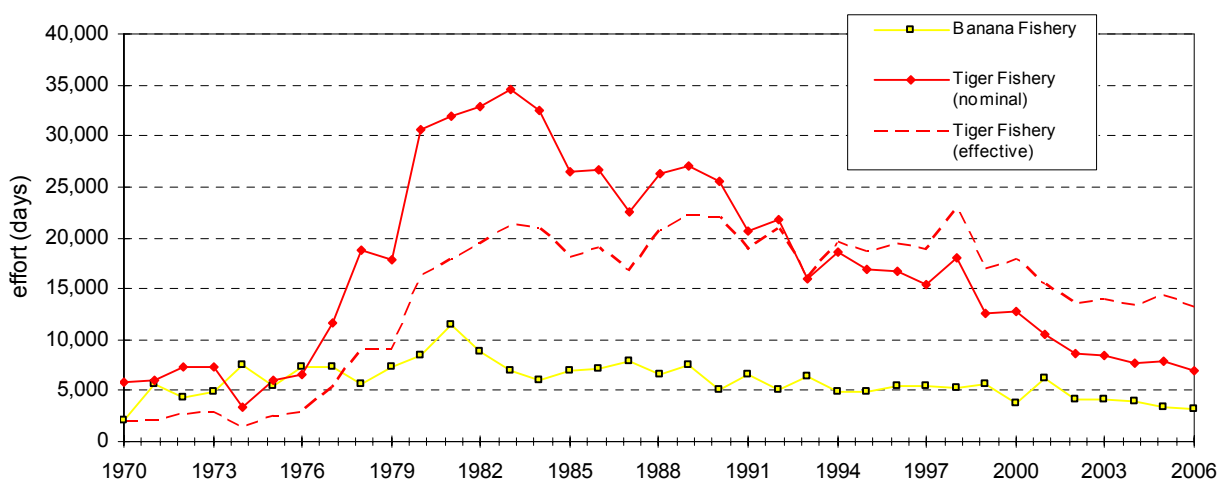


Figure 4. Effort (fishing days) in the banana and tiger prawn fisheries in the NPF between 1970 and 2006.



Catch rate

It is worth noting that there have been a number of gear reductions implemented in the fishery over time. The most recent was a 25% reduction in headrope length that came into effect at the start of the first season in 2005. As a result “catch rate”, measured in terms of catch per unit effort (CPUE) being tonnes per day may be affected. Decreases in CPUE, therefore, may not necessarily reflect poor catch rates or low abundances. The banana fishery catch rate increased slightly from 0.88 t per day in 2005 to 0.96 t per day in 2006. The nominal catch rate for the tiger fishery increased to 0.31 t per day for 2006 from 0.25 t per day in 2005, while the effective catch rate increased to 0.21 t per day in 2006 from 0.12 t per day in 2005 (Figure 5).

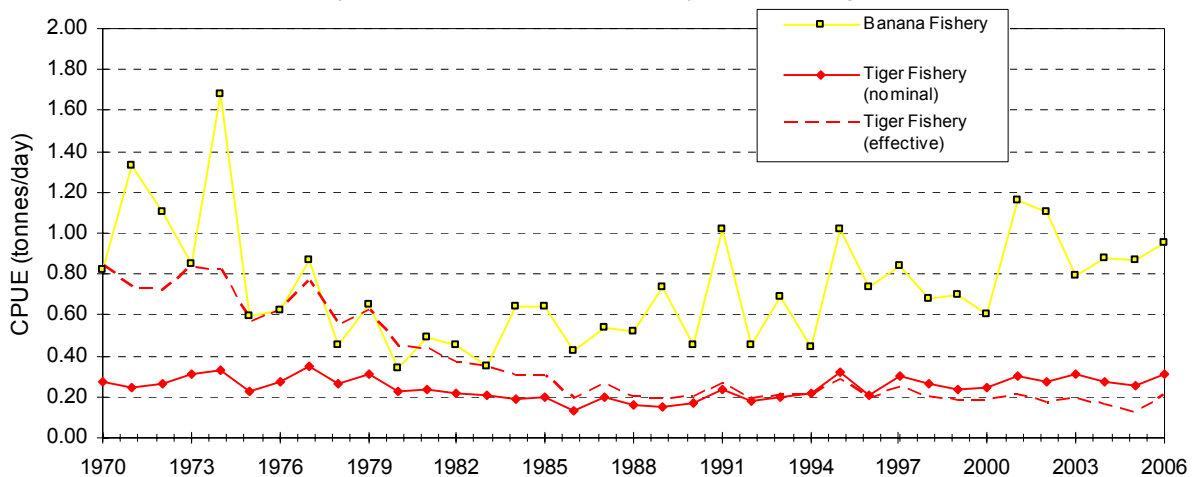


Figure 5. Catch rate in the banana and tiger prawn fisheries between 1970 and 2006.

Catch, effort and catch rate by month

The highest catches during the 2006 fishing seasons were obtained during May for bananas and during August for tigers (Table 2).

Table 3 shows effort by month in the banana and tiger fisheries for 2006. Catch rates (tonnes/day) for 2006 in the banana fishery were highest in May and lowest in June. Tiger fishery effort rates were highest in October and lowest in November (Table 3).

Monthly catch rates (CPUE) for banana prawns were highest in April during the banana prawn season (Table 4). Monthly catch rates for tiger prawns were highest in August for both nominal and effective effort during the tiger prawn season.

Table 2. Monthly catch (t) by species in 2006.

Catch (t)	Apr	May	Jun	Aug	Sep	Oct	Nov	Grand Total
<i>Banana</i>	1223	1354	208	203	78	24	28	3118
<i>Tiger</i>	1	26	3	548	591	486	147	1802
<i>Endeavour</i>	1	6	7	160	70	73	46	363
<i>King</i>	0	0	0	21	5	2	0	28
Total	1225	1387	218	932	744	585	222	5311

Table 3. Monthly effort (fishing days) in the banana and tiger prawn fisheries in 2006.

Effort (days)	Apr	May	Jun	Aug	Sep	Oct	Nov	Grand Total
<i>Banana Fishery</i>	973	1491	356	259	94	50	60	3283
<i>Tiger Fishery (nominal)</i>	1	92	11	1963	2043	2088	785	6983
<i>Tiger Fishery (effective)</i>	2	173	21	3702	3852	3937	1480	13167
Total	976	1756	388	5924	5989	6075	2325	23433

Table 4. Monthly catch rate (CPUE; t/day) for all species in the banana and tiger prawn fisheries in 2006.

CPUE (t/day)	Apr	May	June	Aug	Sep	Oct	Nov
<i>Banana Fishery</i>	1.26	0.92	0.61	0.78	0.80	0.46	0.53
<i>Tiger Fishery (nominal)</i>	1.24	0.24	0.16	0.37	0.33	0.27	0.24
<i>Tiger Fishery (effective)</i>	0.66	0.13	0.08	0.20	0.17	0.14	0.13

Vessel and gear information

Vessel length

The most common NPF vessel length in 2006 was between 22.0-22.9 m (Figure 6).

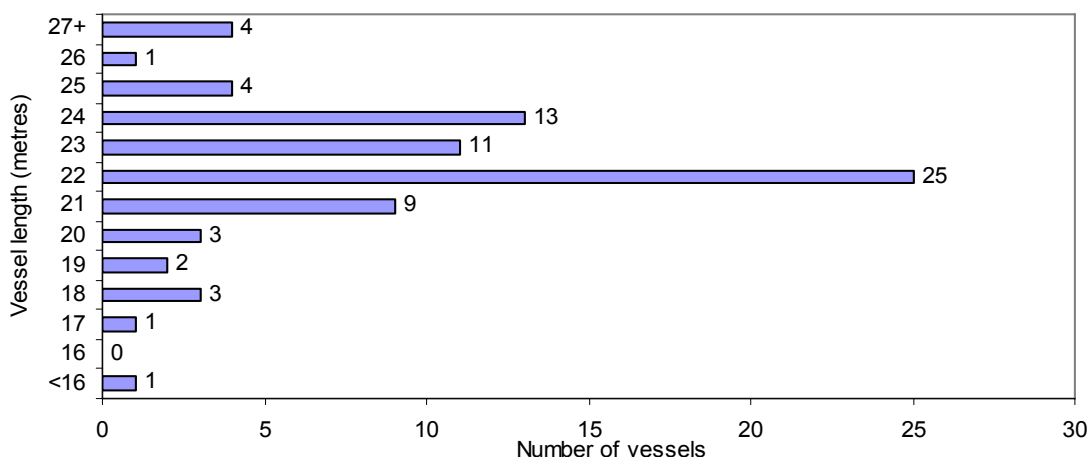


Figure 6. Frequency of vessel lengths in the NPF fleet in 2006.

Distribution of catch by vessel

Distribution of catch in the first season of 2006 was split evenly between the 30-39 and the 40-49 t categories with 15 vessels each (Figure 7a). Thirty-one percent of the vessels caught above this amount and 26% caught 29 t or less (Figure 7a). In the second season, 40 vessels (53%) caught between 30-39 t, 15 vessels (20%) caught between 40-49 t, 3 vessels caught above 49 t and 17 vessels caught less than 29 t (Figure 7b).

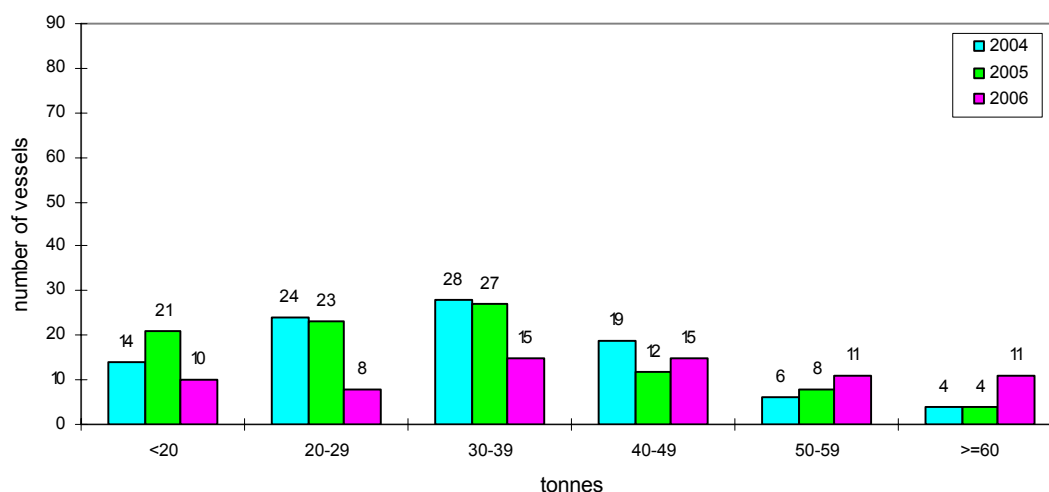


Figure 7a. Distribution of total catch and vessels in the banana prawn season, 2004-2006.



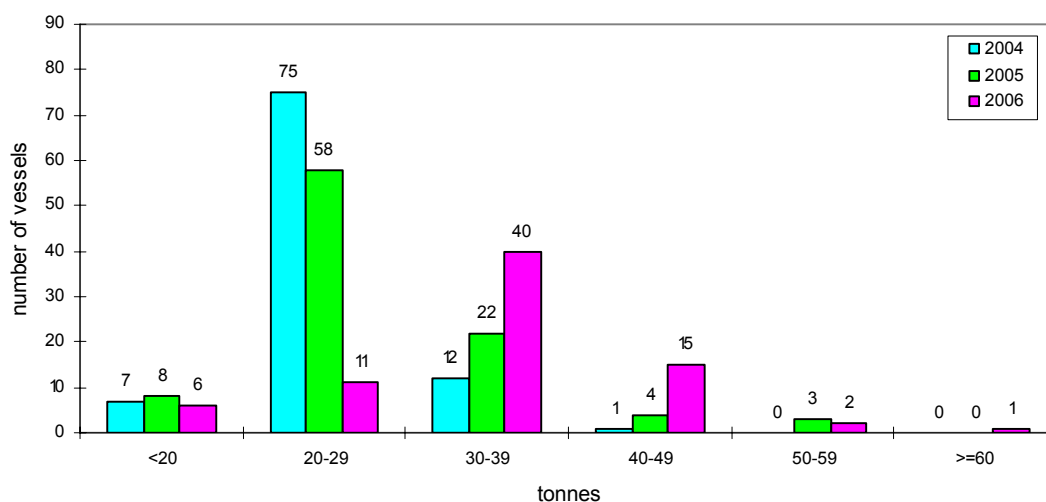


Figure 7b. Distribution of total catch and vessels in the tiger prawn season, 2004-2006.

Average catch per vessel

The average catch per vessel for all prawns rose to 69 t in 2006 (Figure 8a). The average catch per vessel for banana prawns in 2006 increased to 40 t from 33 t (Figure 8b), while that of tiger prawns increased slightly to 23 t per vessel in 2006 (Figure 8c).

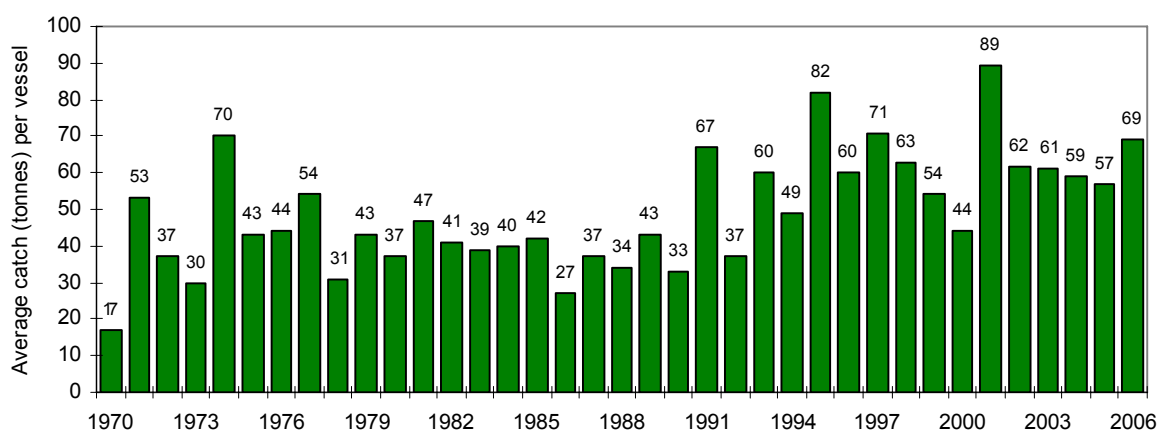


Figure 8a. Average total catch (t) of all prawns per vessel in the NPF from 1970 to 2006.



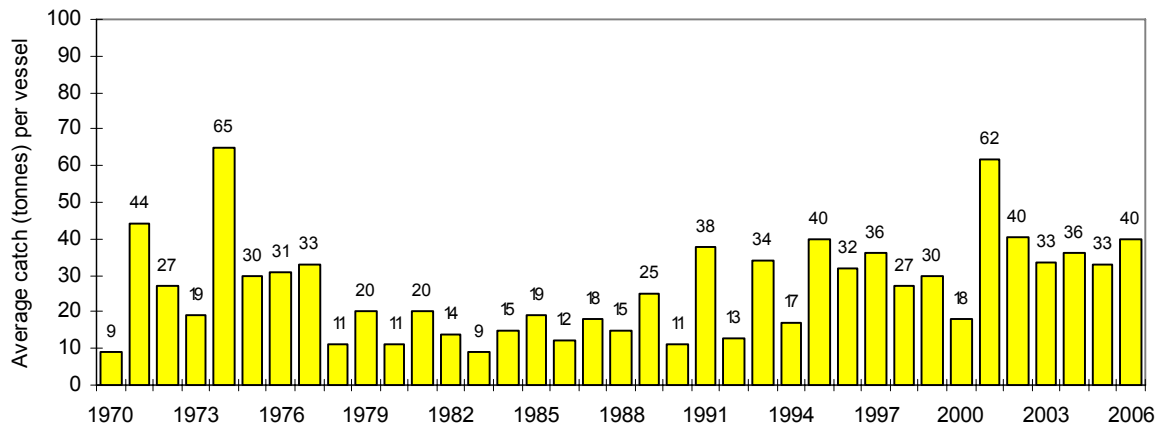


Figure 8b. Average total catch (t) of banana prawns per vessel in the NPF from 1970 to 2006.

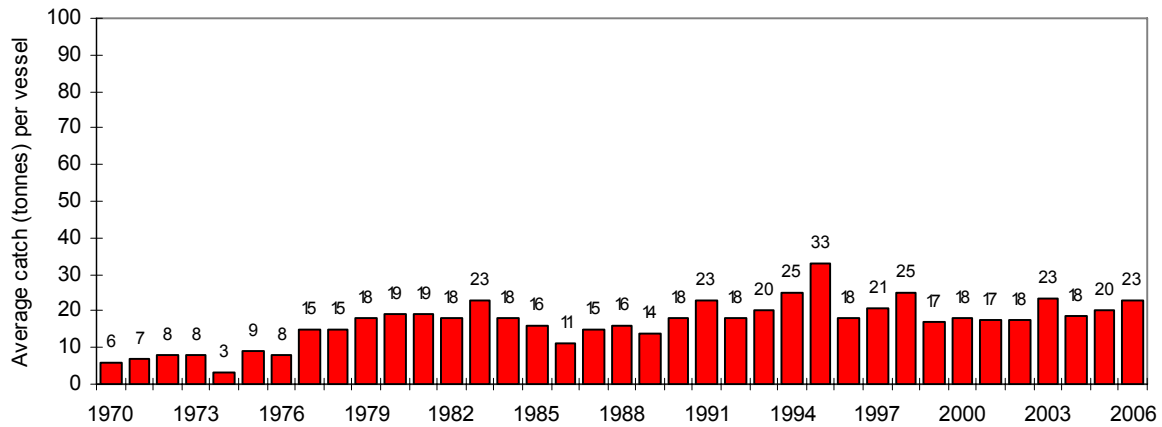


Figure 8c. Average total catch (t) of tiger prawns per vessel in the NPF from 1970 to 2006.



Fishing gear

Total tiger headrope in 2006 decreased to 1524 fathoms (2.79 km) compared to 1676 (3.06 km) in 2005 (Figure 9). In 2006, the mean headrope length was 18.83 fathoms (34.4 m) in 2005 compared with 20.1 fathoms (36.7 m) in 2006 (Figure 10).

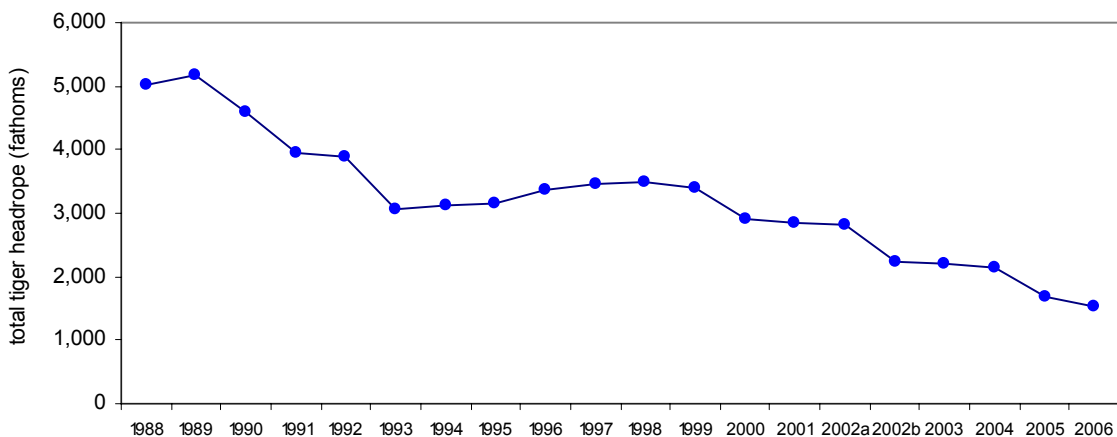


Figure 9. Total tiger prawn season headrope length in the NPF from 1988 to 2006.

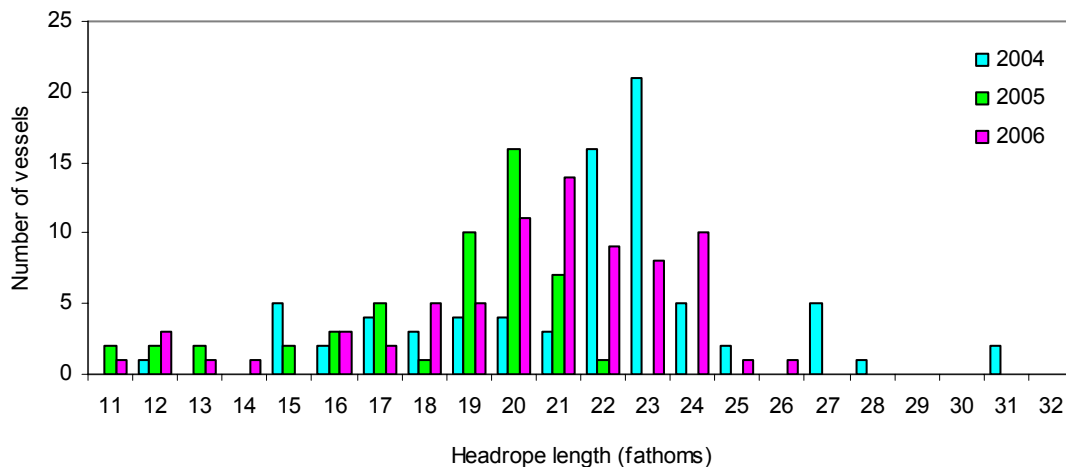


Figure 10. Frequency of headrope length for the tiger prawn season in the NPF from 1988 to 2006.

Catch and effort by statistical area in the NPF

All areas

Catch and effort has been partitioned into 15 statistical areas illustrated below (Figure 11) and detailed on the following pages. The highest banana prawn catches were recorded in the Bold area with 479 t (Figure 12). The highest catch of tiger prawns was recorded in the Limmen Bight area with 719 t (Figure 13).

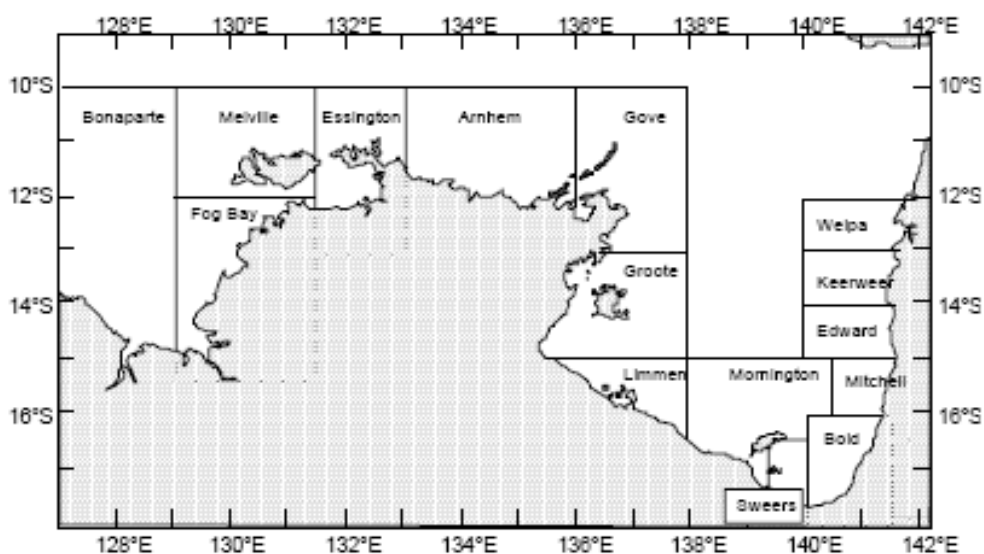


Figure 11. Statistical areas of the NPF.

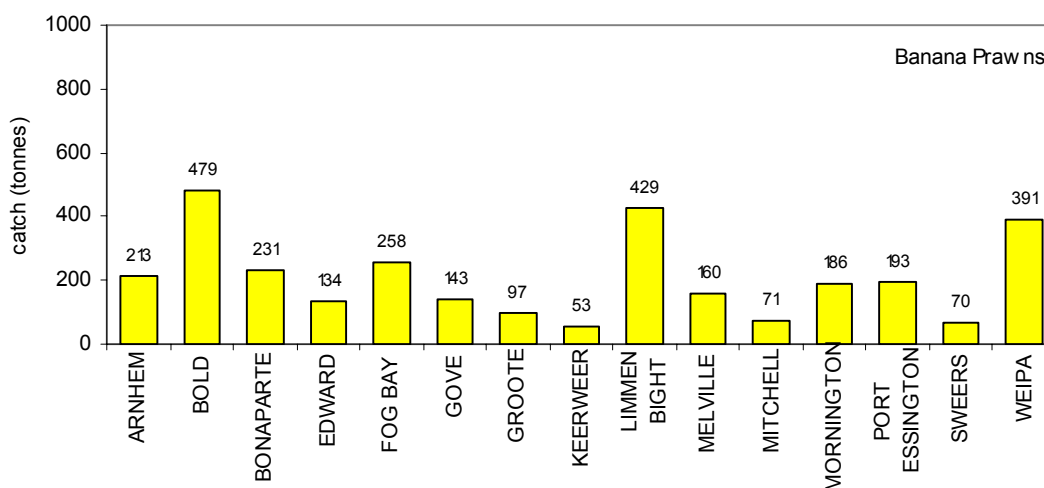


Figure 12. Total catch (t) of banana prawns for each statistical area of the NPF in 2006.



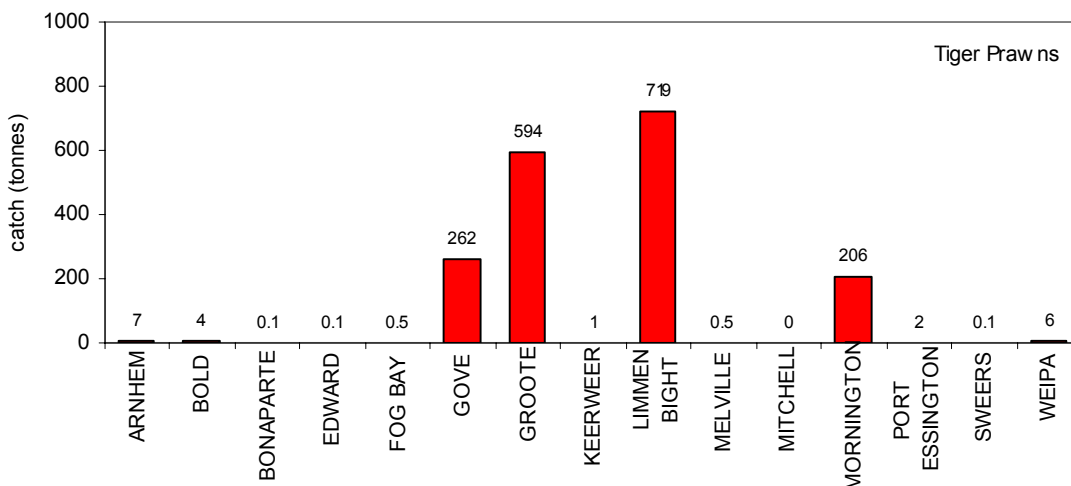


Figure 13. Total catch (t) of tiger prawns for each statistical area of the NPF in 2006.

Regionalised area weekly catch by size class

Statistical areas of the NPF (Figure 13) were amalgamated into 3 regional areas for the presentation of weekly prawn catch by size class (Figures 14-19). The 3 regional areas include the Northwest region (Bonaparte to Arnhem), the West Gulf region (Gove to Mornington) and the East Gulf region (Sweers to Weipa).

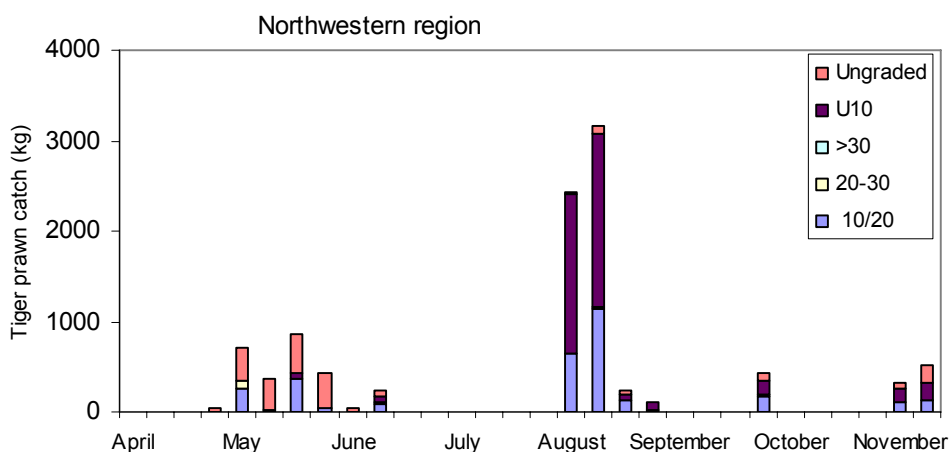


Figure 14. Total catch (t) of tiger prawns by size class for the Northwestern region (Bonaparte to Arnhem) of the NPF in 2006.



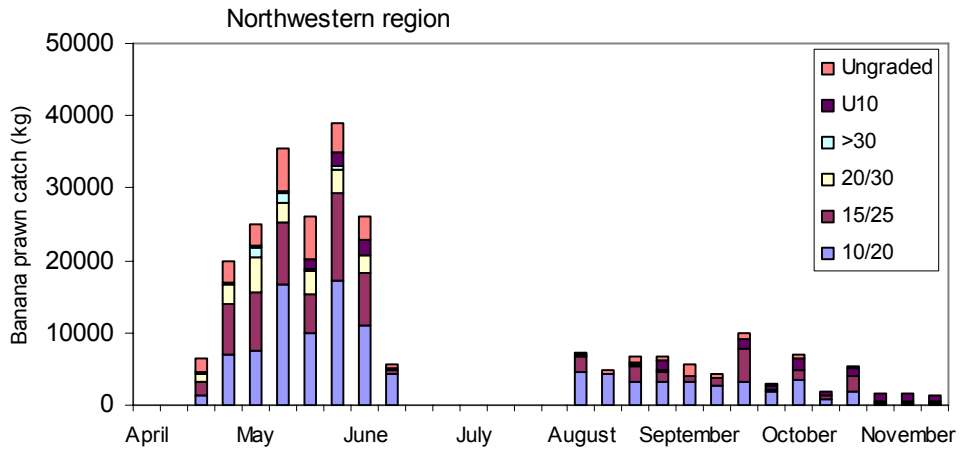


Figure 15. Total catch (t) of banana prawns by size class for the Northwestern region (Bonaparte to Arnhem) of the NPF in 2006.

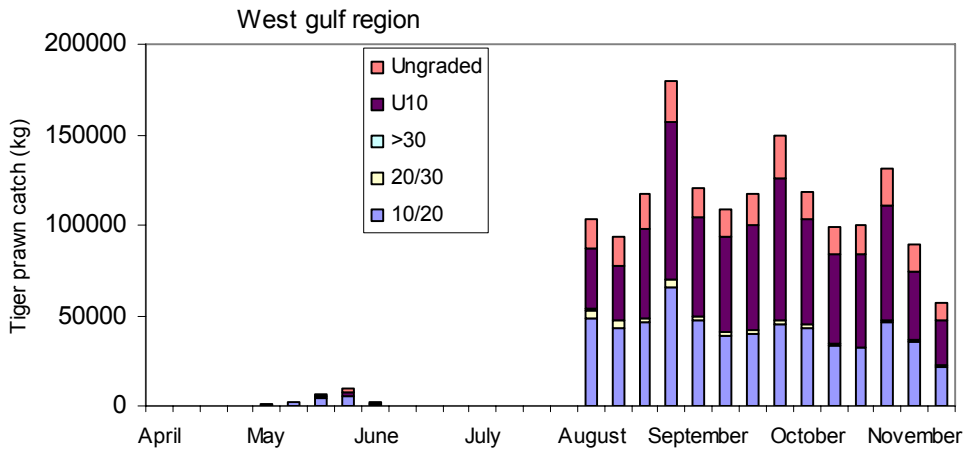


Figure 16. Total catch (t) of tiger prawns by size class for the West Gulf region (Gove to Mornington) of the NPF in 2006.

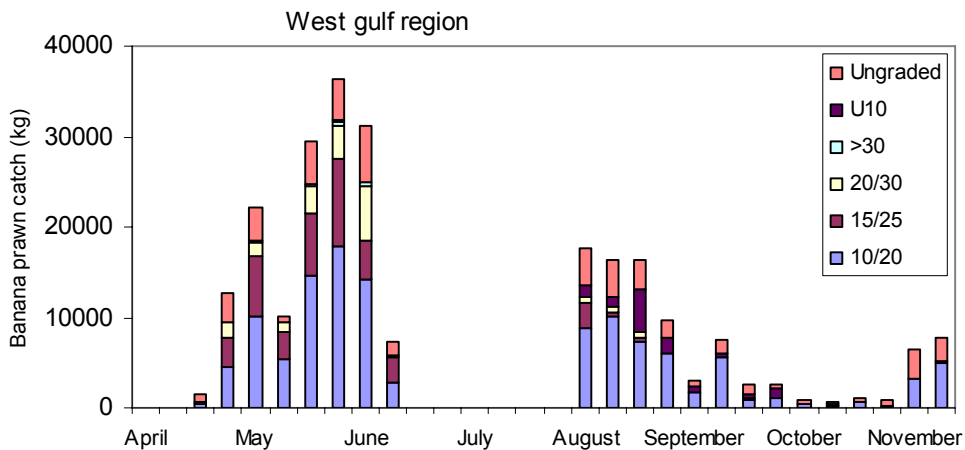


Figure 17. Total catch (t) of banana prawns by size class for the West Gulf region (Gove to Mornington) of the NPF in 2006.



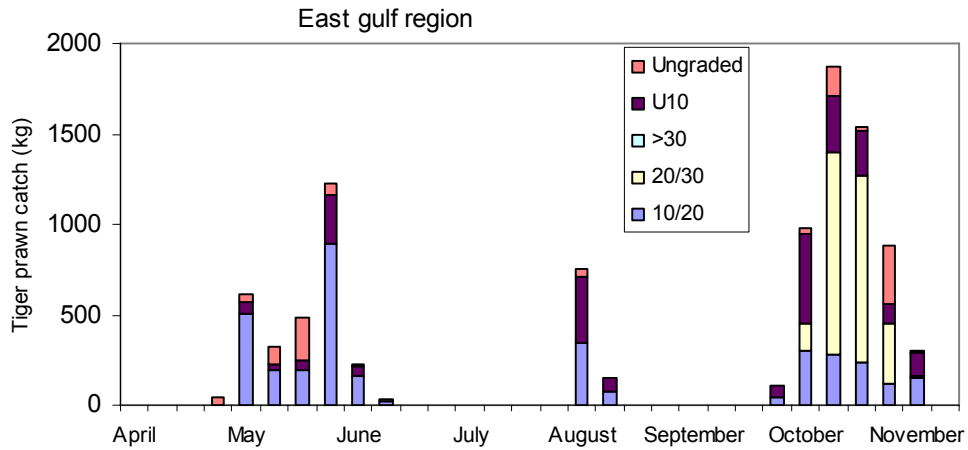


Figure 18. Total catch (t) of tiger prawns by size class for the East Gulf region (Sweers to Weipa) of the NPF in 2006.

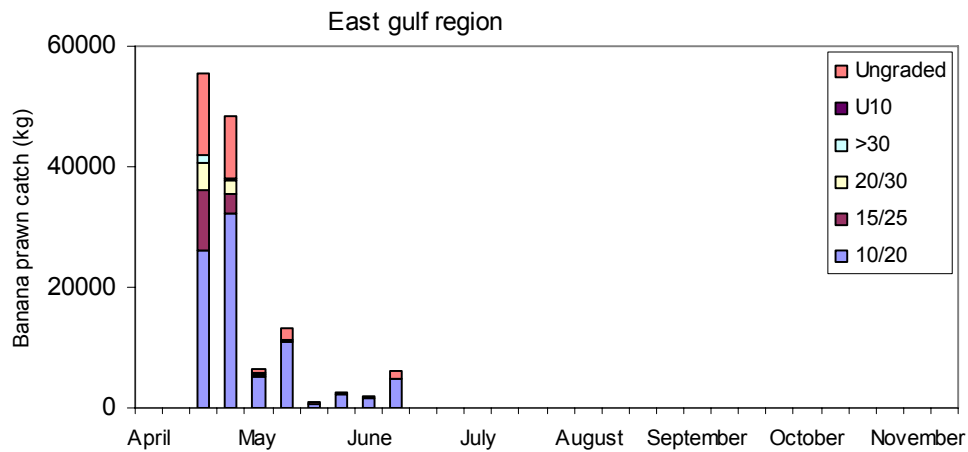


Figure 19. Total catch (t) of banana prawns by size class for the East Gulf region (Sweers to Weipa) of the NPF in 2006.

Weipa

Banana prawn catch increased from 29 t in 2005 to 391 t in 2006. Tiger prawn catches increased from 1 t in 2005 to 6 t in 2006 and catch of endeavour prawns increased from 0 t in 2005 to 2 t in 2006 (Figure 20). Banana prawns comprised 98% of the catch in 2006 (Figure 21).

Fishing effort in the banana fishery increased from 75 days in 2005 to 342 days in 2006 (Figure 22a). CPUE of banana prawn increased from 0.395 in 2005 to 1.14 t per day in 2006 (Figure 22b). Effort in the tiger prawn fishery increased from 5 days in 2005 to 53 days in 2006 (Figure 22a). Nominal and effective CPUE increased from 0.025 and 0.013 t per day, respectively in 2005 to 0.11 and 0.06 t per day, respectively in 2006 (Figure 22c).

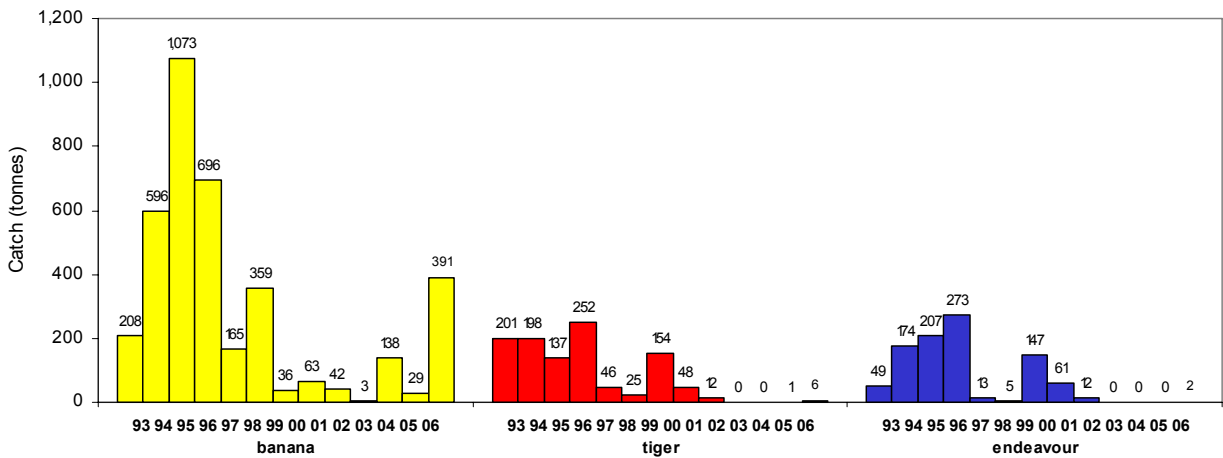


Figure 20. Catch (t) by species in the Weipa area between 1993 and 2006.

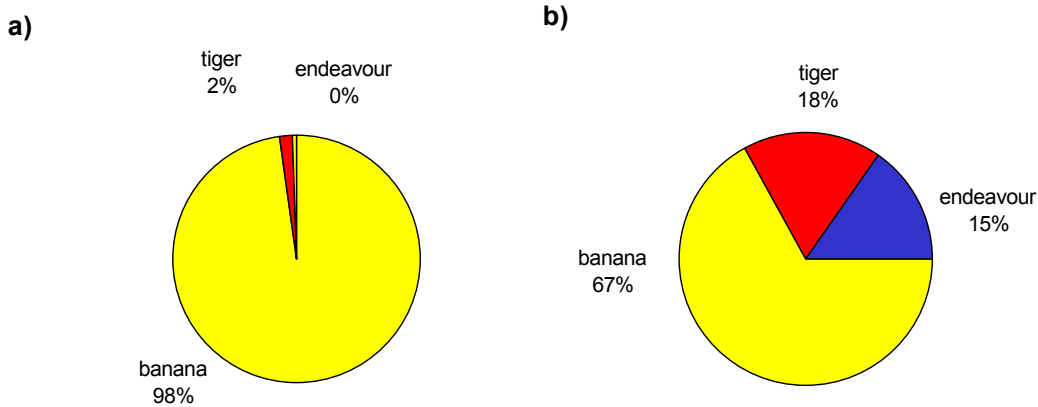


Figure 21. Percentage catch of prawn species in the Weipa area during (a) 2006 and (b) 1993 to 2006.



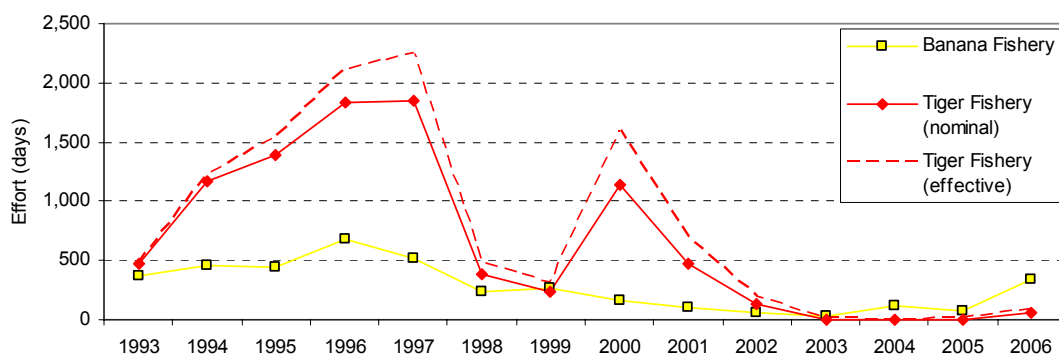


Figure 22a. Effort (fishing days) for the banana and tiger prawn fisheries in the Weipa area between 1993 and 2006.

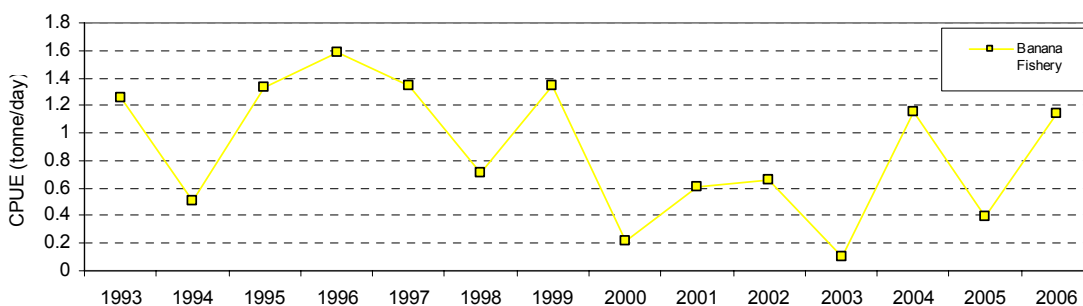


Figure 22b. Catch rate (t/day) for the banana fishery in the Weipa area between 1993 and 2006

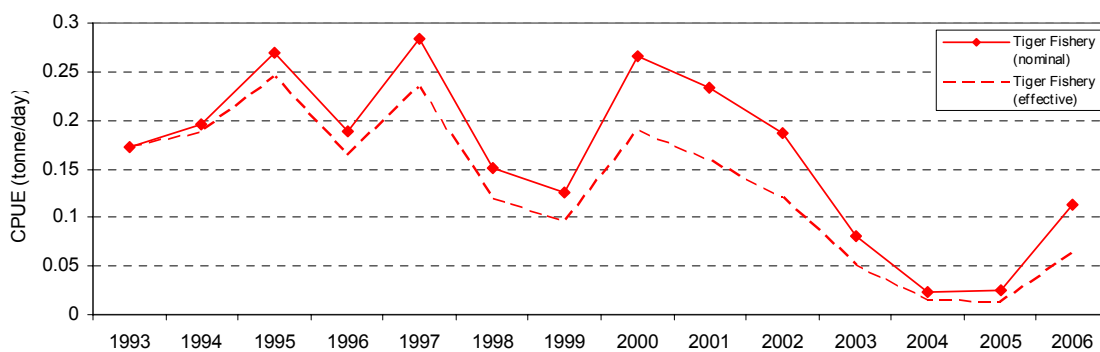


Figure 22c. Catch rate (t/day) for the tiger prawn fishery in the Weipa area between 1993 and 2006.



Keerweer

Prawn catches during 2006 in the Keerweer area were consistent with 2005. Banana prawn catch decreased slightly to 53 t, while catches of tiger and endeavour prawns remained at almost zero (Figure 23). Banana prawns comprised 98% of the catch in 2006 (Figure 24).

Fishing effort in the banana fishery decreased from 85 days in 2005 to 61 days in 2006 (Figure 25a). CPUE of banana prawn decreased from 0.92 in 2005 to 0.86 t per day in 2006 (Figure 25b). Effort in the tiger prawn fishery increased from 1 day in 2005 to 9 days in 2006 (Figure 25a). Nominal and effective CPUE increased from 0.01 t per day in 2005 to 0.07 and 0.04 t per day in 2006, respectively (Figure 25c).

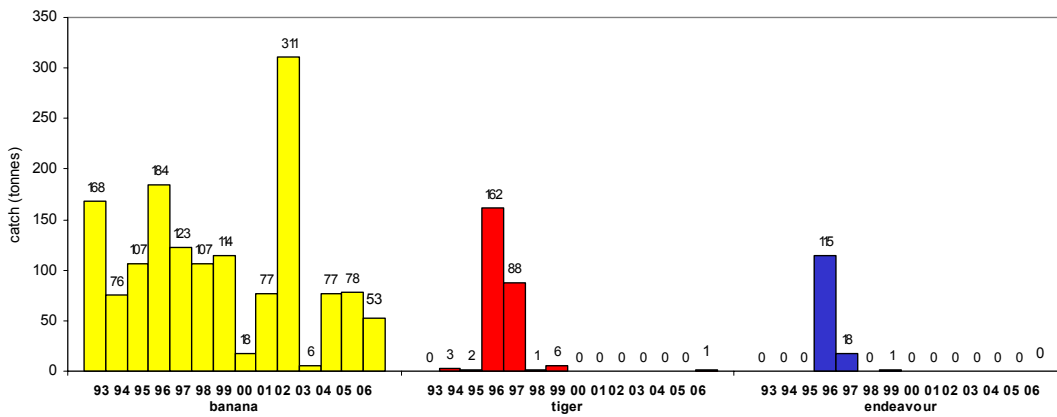


Figure 23. Catch (t) by species in the Keerweer area between 1993 and 2006.

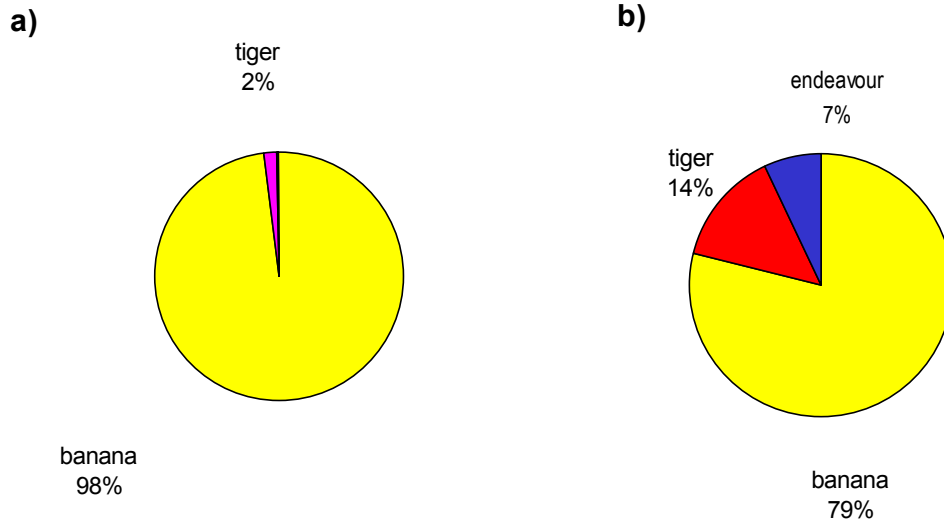


Figure 24. Percentage catch of prawn species in the Keerweer area during (a) 2006 and (b) 1994 to 2006.



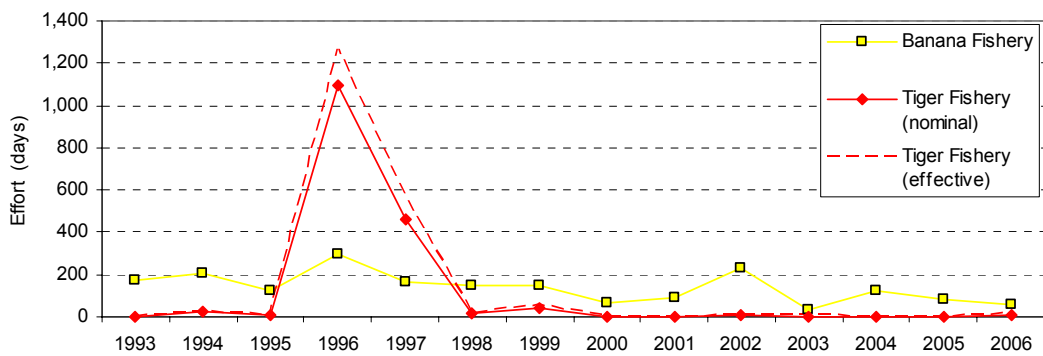


Figure 25a. Effort (fishing days) for the banana and tiger prawn fisheries in the Keerweer area between 1993 and 2006.

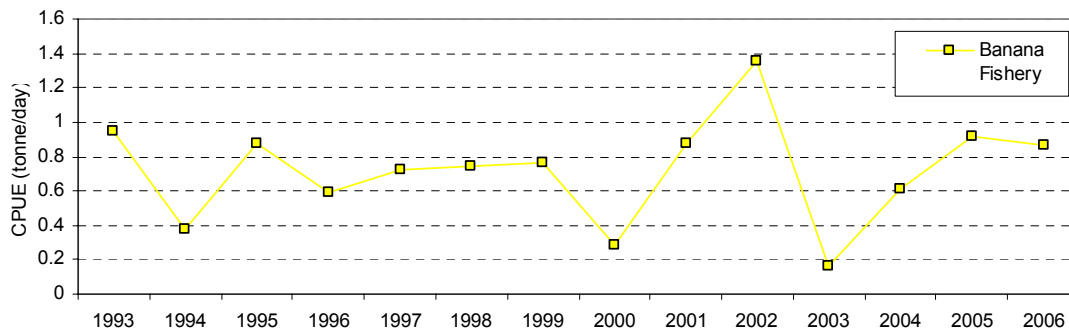


Figure 25b. Catch rate (t/day) for the banana fishery in the Keerweer area between 1993 and 2006.

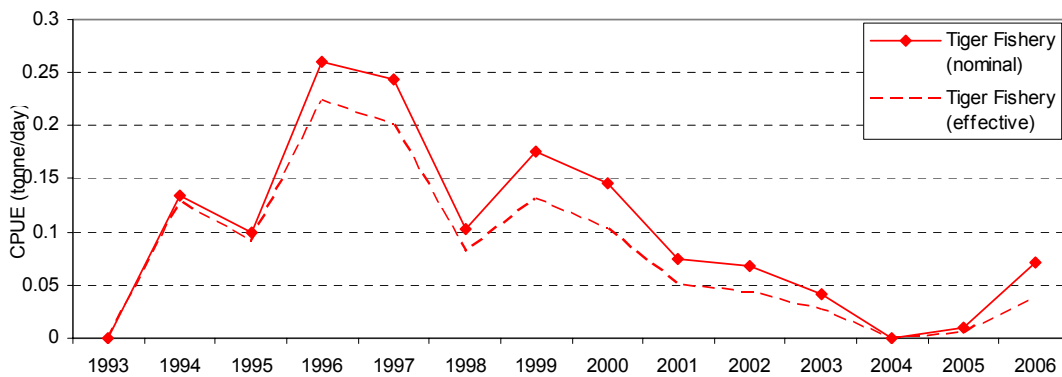


Figure 25c. Catch rate (t/day) for the tiger prawn fishery in the Keerweer area between 1993 and 2006.



Edward

Banana prawn catch in the Edward area decreased significantly from 411 t in 2005 to 134 t in 2006. Tiger and endeavour prawn catches did not show any change (Figure 26). Banana prawns comprised 100% of the catch in 2006 (Figure 27).

Fishing effort in the banana fishery decreased from 330 days in 2005 to 186 days in 2006 (Figure 28a). CPUE of banana prawn decreased from 1.24 t per day in 2005 to 0.72 t per day in 2006 (Figure 28b). There was no change in effort and CPUE in the tiger prawn fishery (Figure 28a, c).

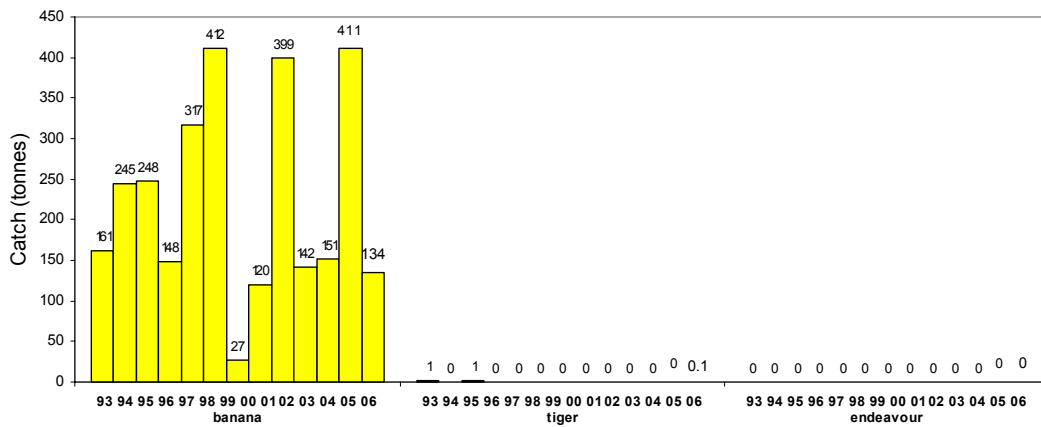
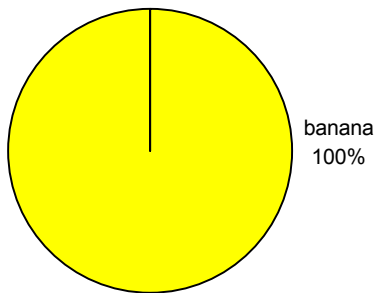


Figure 26. Catch (t) by species in the Edward area between 1993 and 2006.

a)



b)

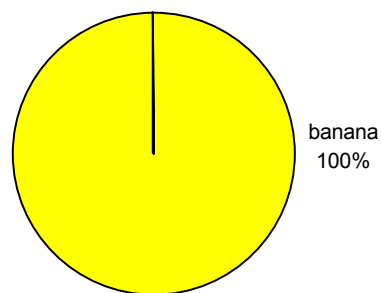


Figure 27. Percentage catch of prawn species in the Edward area during (a) 2006 and (b) 1993 to 2006.

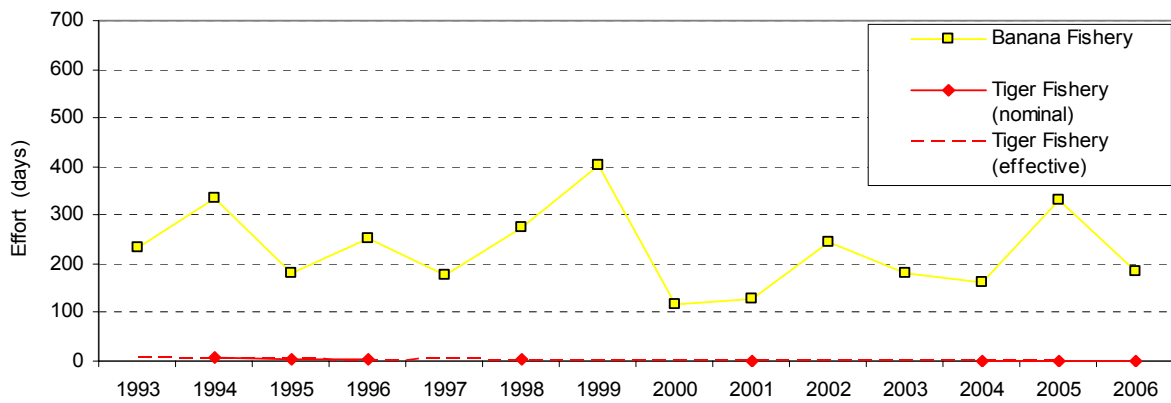


Figure 28a. Effort (fishing days) for the banana and tiger prawn fisheries in the Edward area between 1993 and 2006.

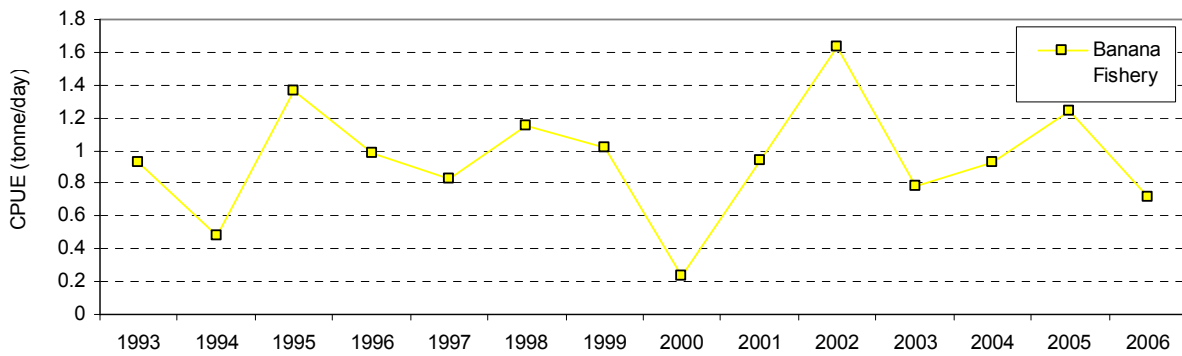


Figure 28b. Catch rate (t/day) for the banana fishery in the Edward area between 1993 and 2006.

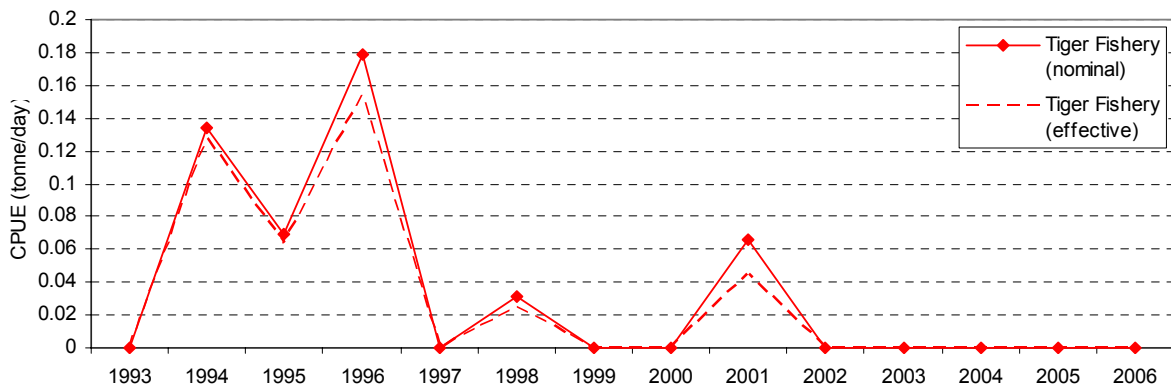


Figure 28c. Catch rate (t/day) for the tiger prawn fishery in the Edward area between 1993 and 2006.



Mitchell

Banana prawn catch in the Mitchell area decreased significantly from 306 t in 2005 to 71 t in 2006. Tiger and endeavour prawn catches did not show any change (Figure 29). Banana prawns comprised 100% of the catch in 2006 (Figure 30).

Fishing effort in the banana fishery decreased from 296 days in 2005 to 147 days in 2006 (Figure 31a). CPUE of banana prawn decreased from 1.03 t per day in 2005 to 0.48 t per day in 2006 (Figure 31b). There was no change in effort and CPUE in the tiger prawn fishery (Figure 31a, c).

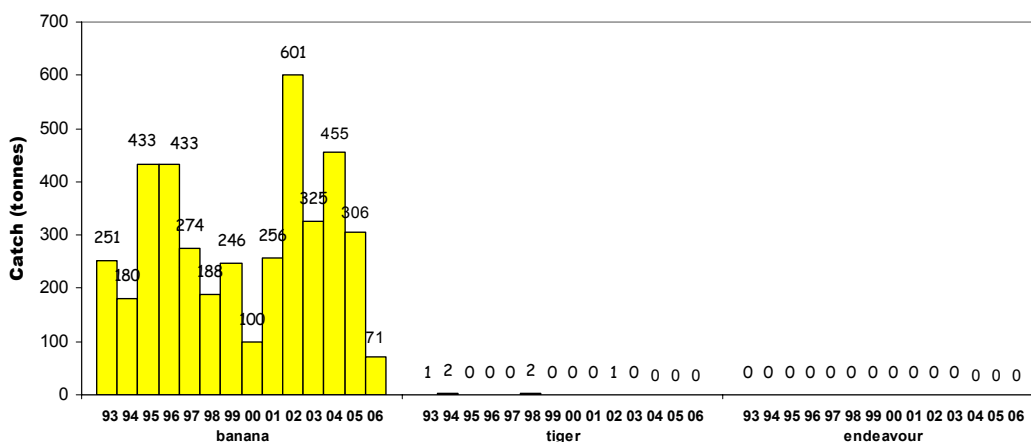


Figure 29. Catch (t) by species in the Mitchell area between 1993 and 2006.

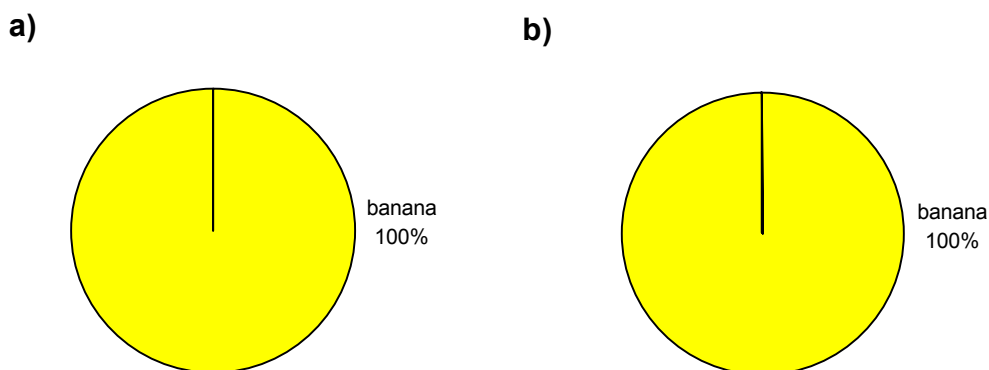


Figure 30. Percentage catch of prawn species in the Mitchell area during (a) 2006 and (b) 1993 to 2006.



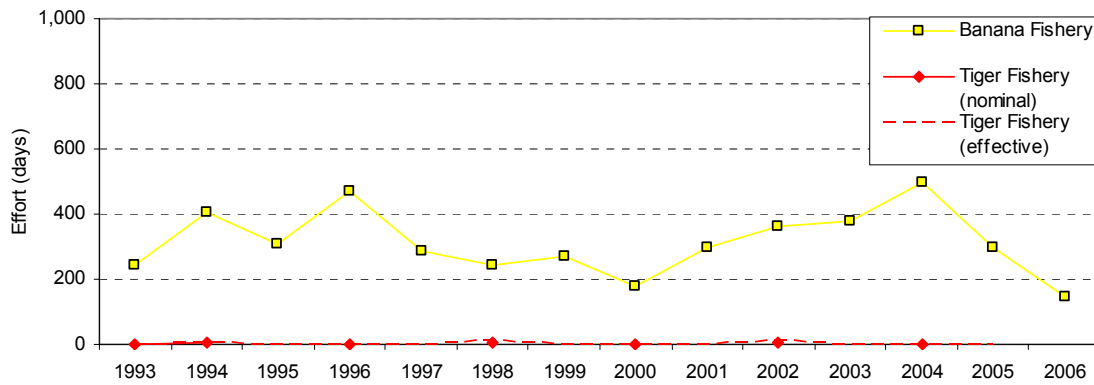


Figure 31a. Effort (fishing days) for the banana and tiger prawn fisheries in the Mitchell area between 1993 and 2006.

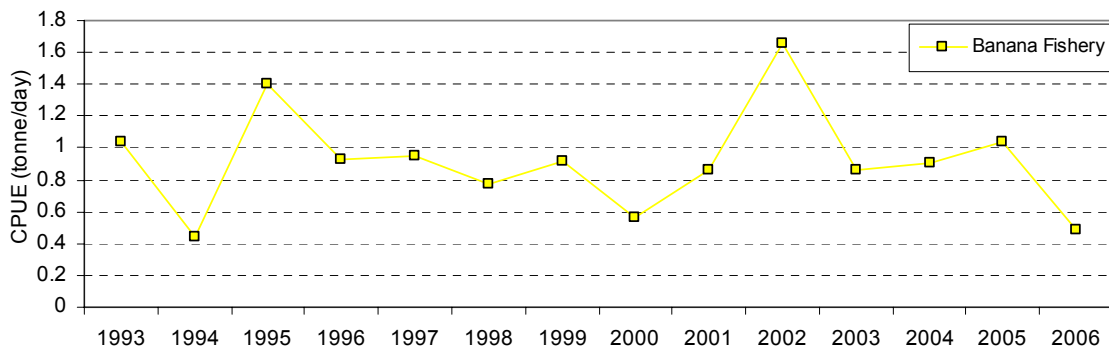


Figure 31b. Catch rate (t/day) for the banana fishery in the Mitchell area between 1993 and 2006.

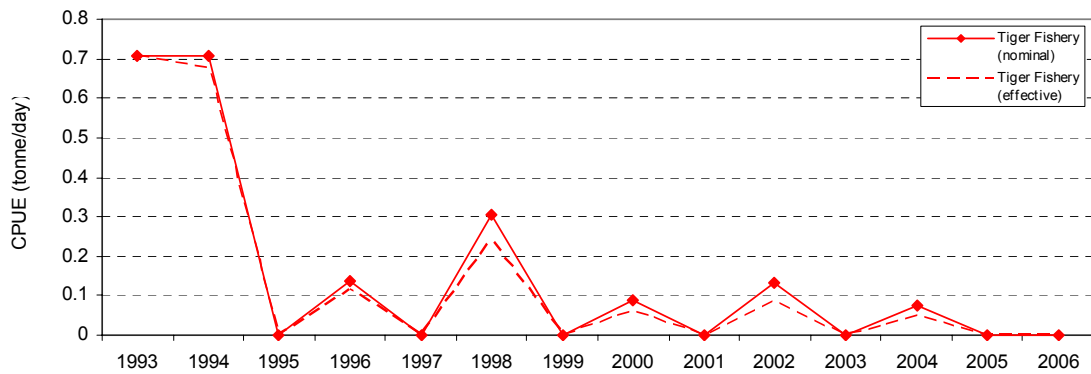


Figure 31c. Catch rate (t/day) for the tiger prawn fishery in the Mitchell area between 1994 and 2006.

Bold

Banana prawn catches in the Bold area decreased from 643 t in 2005 to 479 t in 2006. Catches of tiger prawn also decreased from 15 t in 2005 to 4 t in 2006, while no endeavour prawns were caught in 2006 (Figure 32). Banana prawns comprised 98% of the catch in 2006 (Figure 33).

Fishing effort in the banana fishery decreased from 417 days in 2005 to 378 days in 2006 (Figure 34a). CPUE of banana prawn decreased from 1.54 t per day in 2005 to 1.27 t per day in 2006 (Figure 34b). Effort in the tiger prawn fishery decreased from 79 days in 2005 to 22 days in 2006 (Figure 34a). Nominal and effective CPUE increased from 0.17 and 0.10 t per day in 2005 to 0.20 and 0.10 t per day in 2006, respectively (Figure 34c).

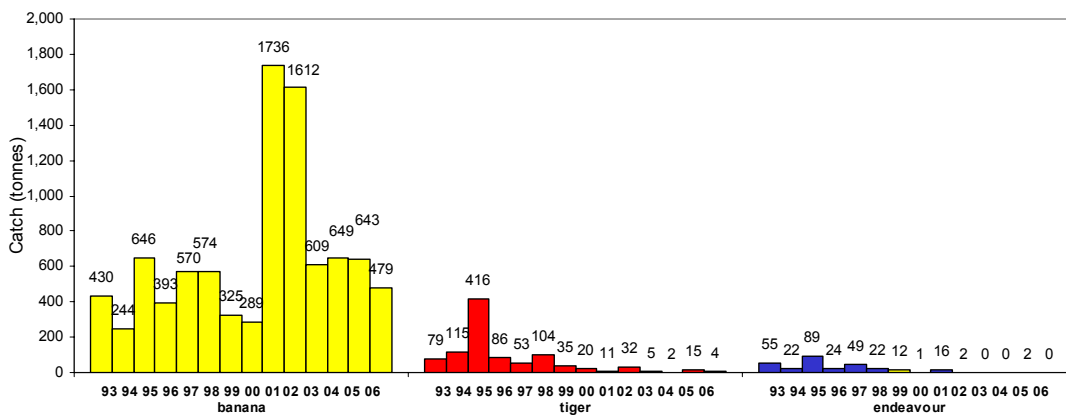


Figure 32. Catch (t) by species in the Bold area between 1993 and 2006.

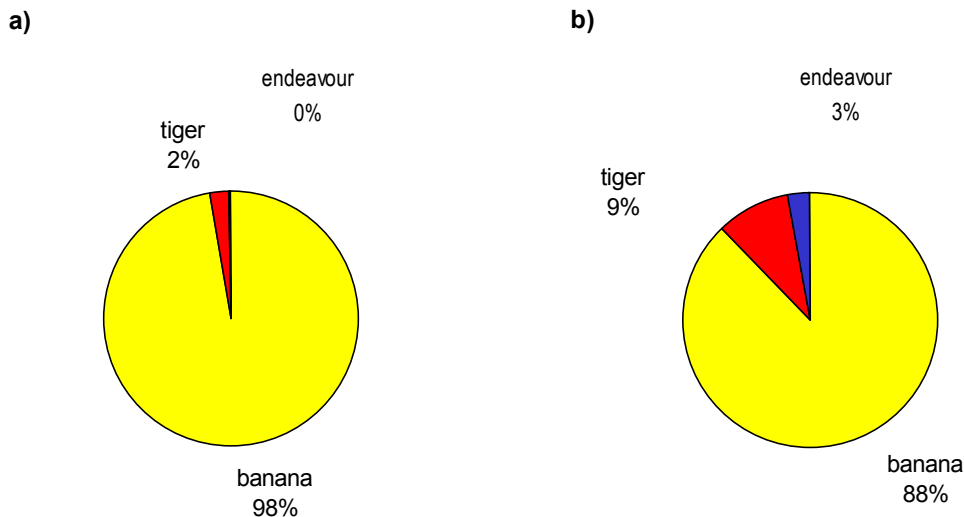


Figure 33. Percentage catch of prawn species in the Bold area during (a) 2006 and (b) 1993 to 2006.



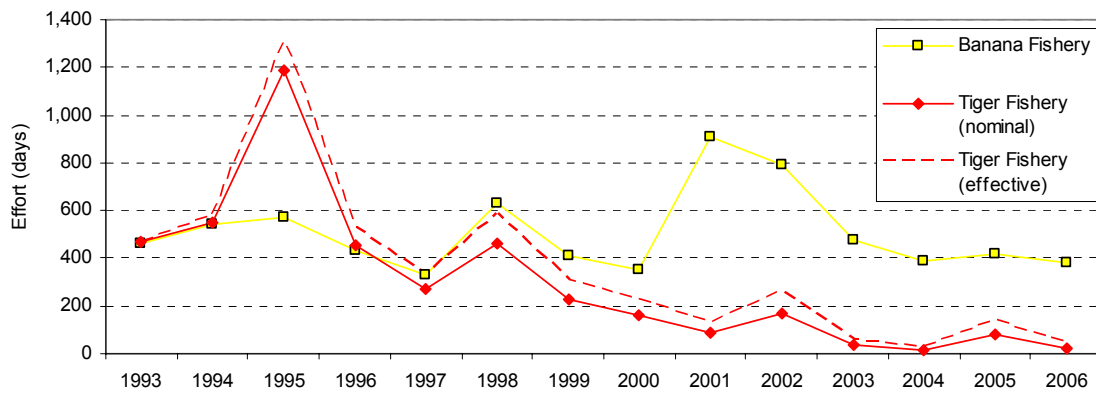


Figure 34a. Effort (fishing days) for the banana and tiger prawn fisheries in the Bold area between 1994 and 2006.

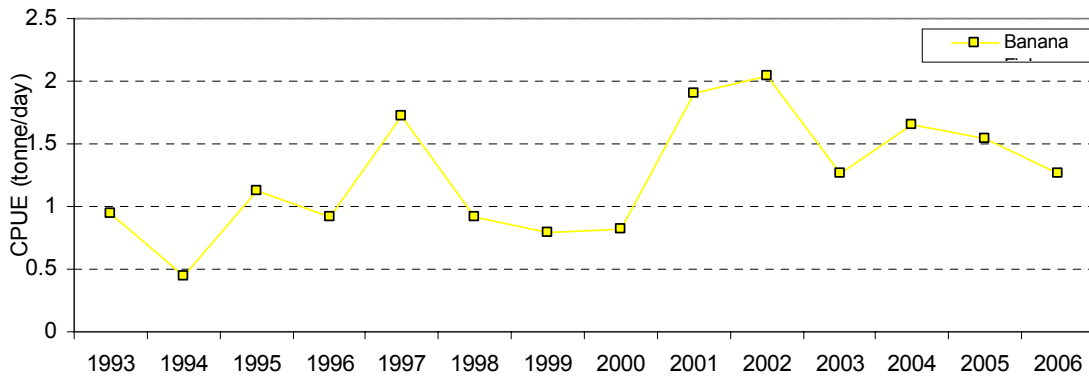


Figure 34b. Catch rate (t/day) for the banana fishery in the Bold area between 1993 and 2006.

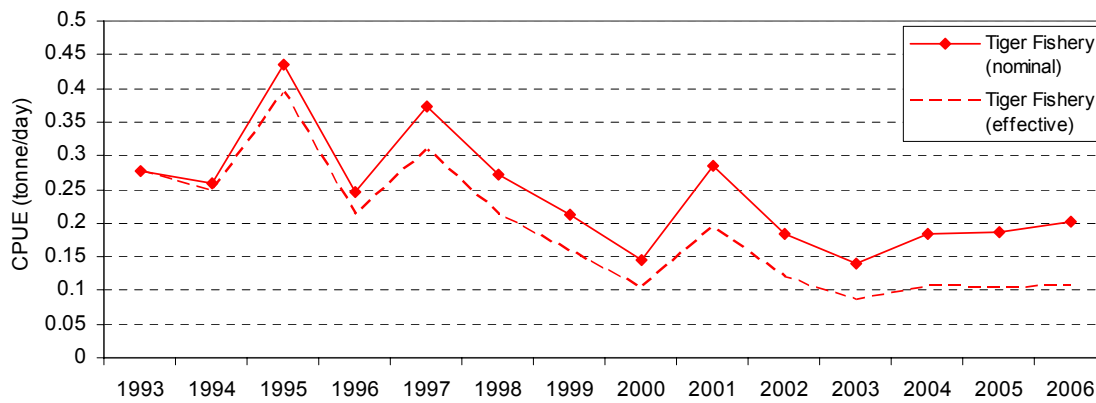


Figure 34c. Catch rate (t/day) for the tiger prawn fishery in the Bold area between 1994 and 2006.



Sweers

Banana prawn catches in the Sweers area decreased from 146 t in 2005 to 70 t in 2006. Catches of tiger and endeavour prawns also decreased from 4 and 7 t in 2005, respectively, to 0 t in 2006 (Figure 35). Banana prawns comprised 100% of the catch in 2006 (Figure 36).

Fishing effort in the banana fishery decreased from 87 days in 2005 to 48 days in 2006 (Figure 37a). CPUE of banana prawn decreased from 1.68 t per day in 2005 to 1.45 t per day in 2006 (Figure 37b). Effort in the tiger prawn fishery decreased from 65 days in 2005 to 1 day in 2006 (Figure 37a). Nominal and effective CPUE increased from 0.06 and 0.03 t per day in 2005 to 0.15 and 0.07 t per day in 2006, respectively (Figure 37c).

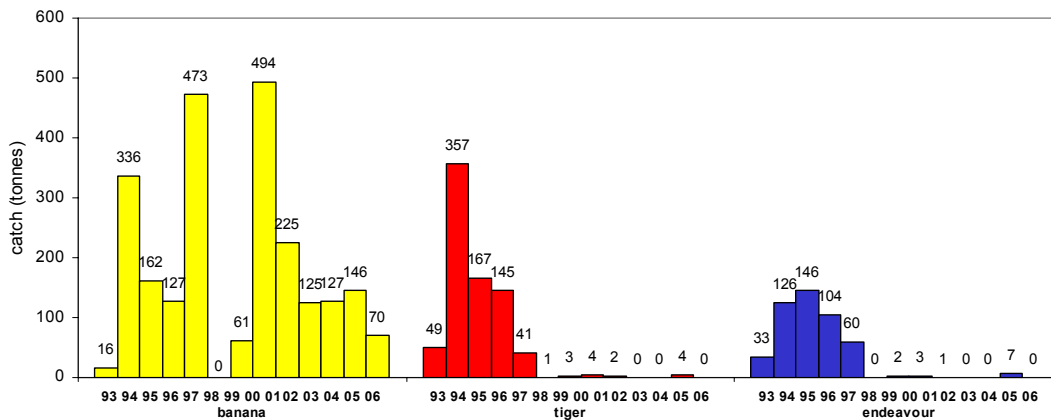


Figure 35. Catch by species in the Sweers area between 1993 and 2006.

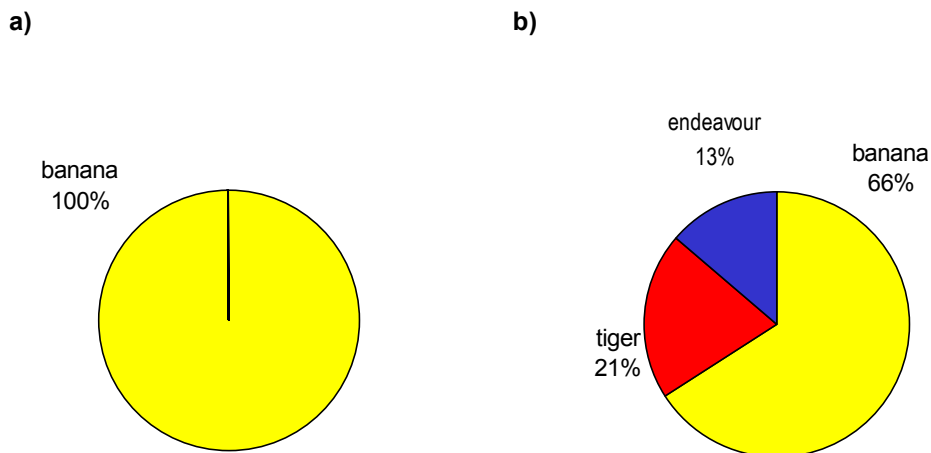


Figure 36. Percentage catch of prawn species in the Sweers area during (a) 2006 and (b) 1993 to 2006.

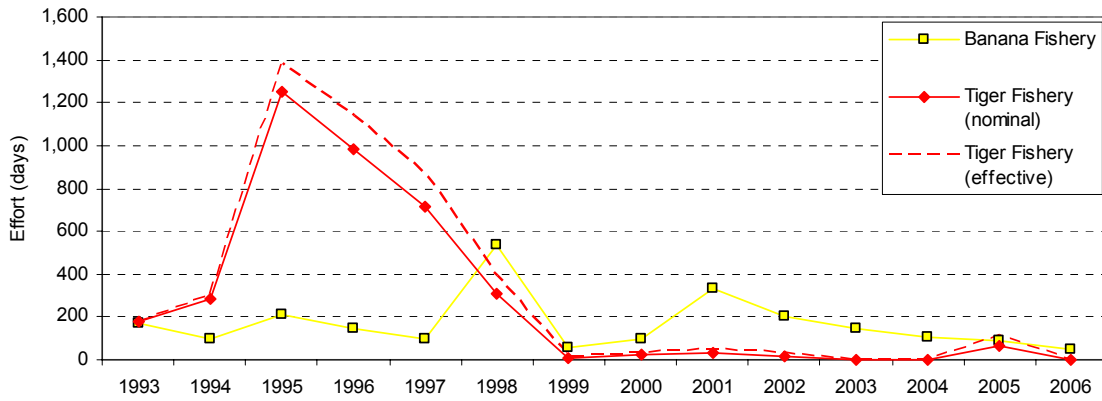


Figure 37a. Effort (fishing days) for the banana and tiger prawn fisheries in the Sweers area between 1993 and 2006.

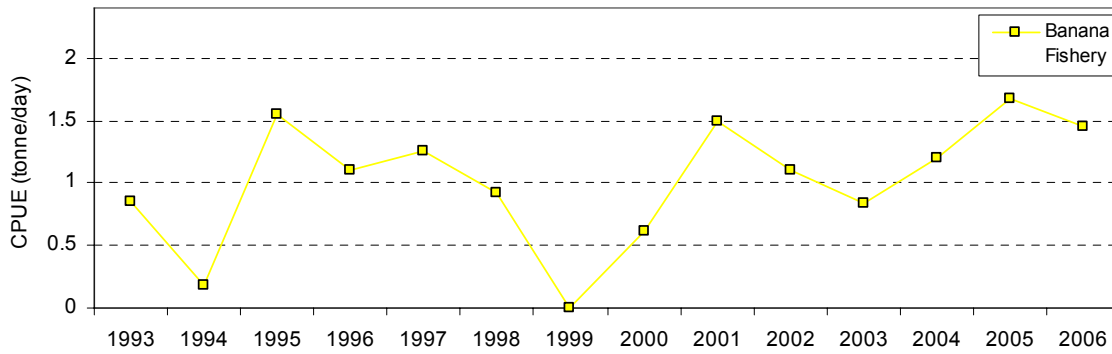


Figure 37b. Catch rate (t/day) for the banana fishery in the Sweers area between 1993 and 2006.

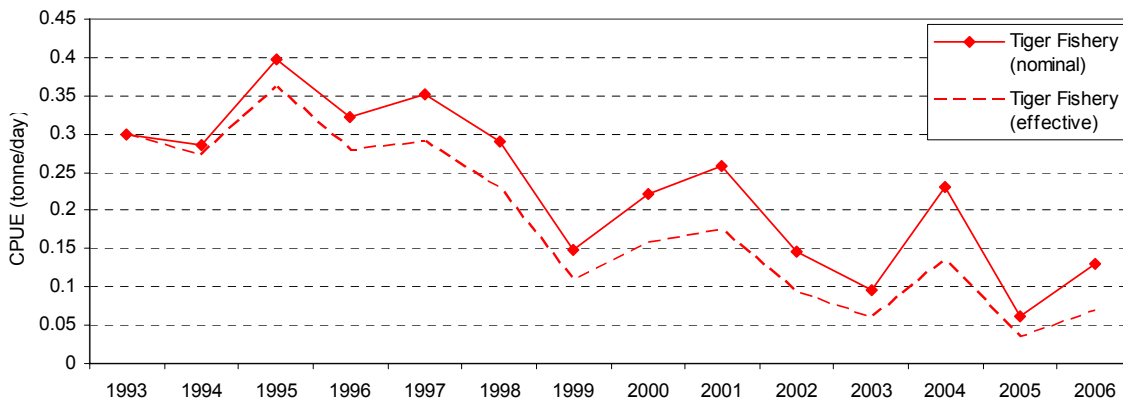


Figure 37c. Catch rate (t/day) for the tiger prawn fishery in the Sweers area between 1993 and 2006.



Mornington

Banana prawn catches in the Mornington area increased from 91 t in 2005 to 187 t in 2006. Catches of tiger prawn decreased from 260 t in 2005 to 206 t in 2006, while endeavour prawn catch decreased from 64 t in 2005 to 44 t in 2006 (Figure 38). Tiger and banana prawns comprised 47% and 43% of the catch, respectively in 2006 (Figure 39).

Fishing effort in the banana fishery increased from 113 days in 2005 to 204 days in 2006 (Figure 40a). CPUE of banana prawn increased from 0.81 t per day in 2005 to 0.91 t per day in 2006 (Figure 40b). Effort in the tiger prawn fishery decreased from 1281 days in 2005 to 780 days in 2006 (Figure 40a). Nominal and effective CPUE increased from 0.22 and 0.12 t per day in 2005 to 0.26 and 0.14 t per day in 2006, respectively (Figure 40c).

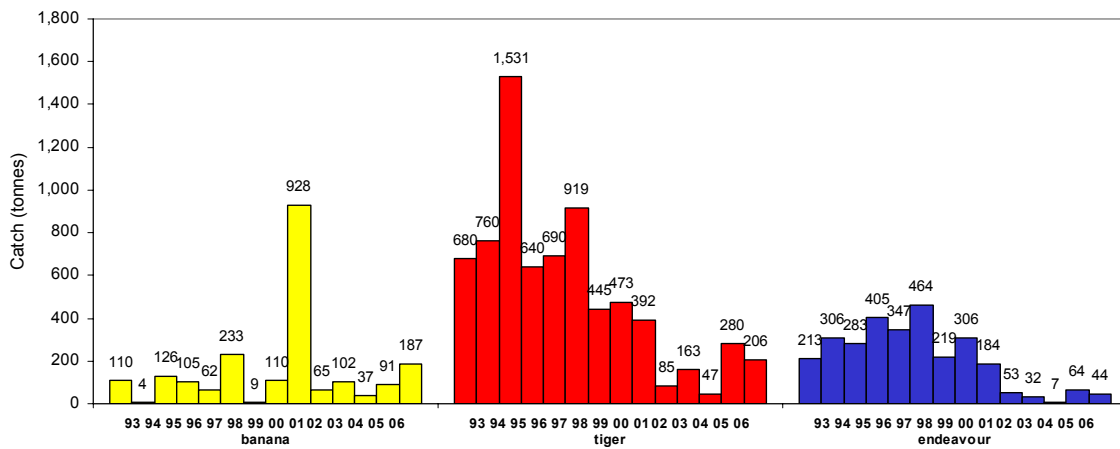


Figure 38. Catch by species in the Mornington area between 1993 and 2006.

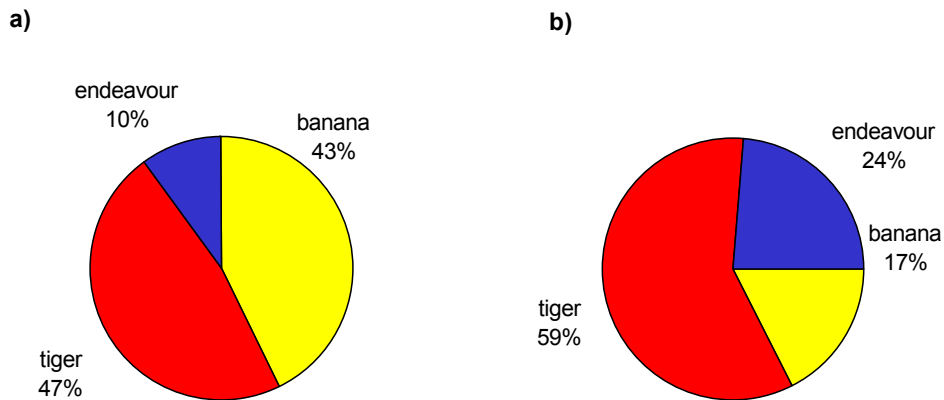


Figure 39. Percentage catch of prawn species in the Mornington area during (a) 2006 and (b) 1993 to 2006.



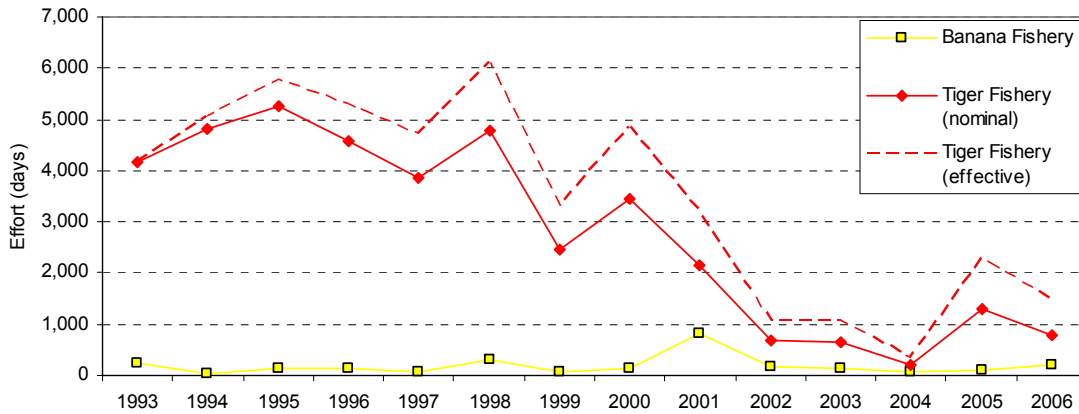


Figure 40a. Effort (fishing days) for the banana and tiger prawn fisheries in the Mornington area between 1993 and 2006.

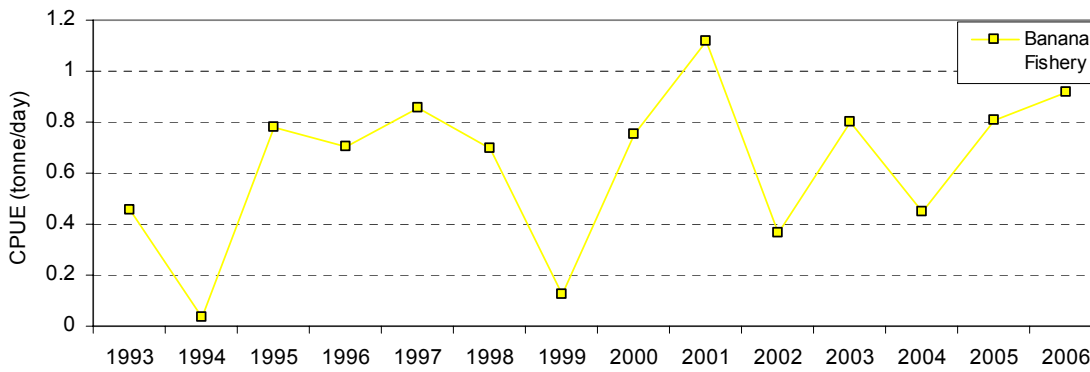


Figure 40b. Catch rate (t/day) for the banana fishery in the Mornington area between 1993 and 2006.

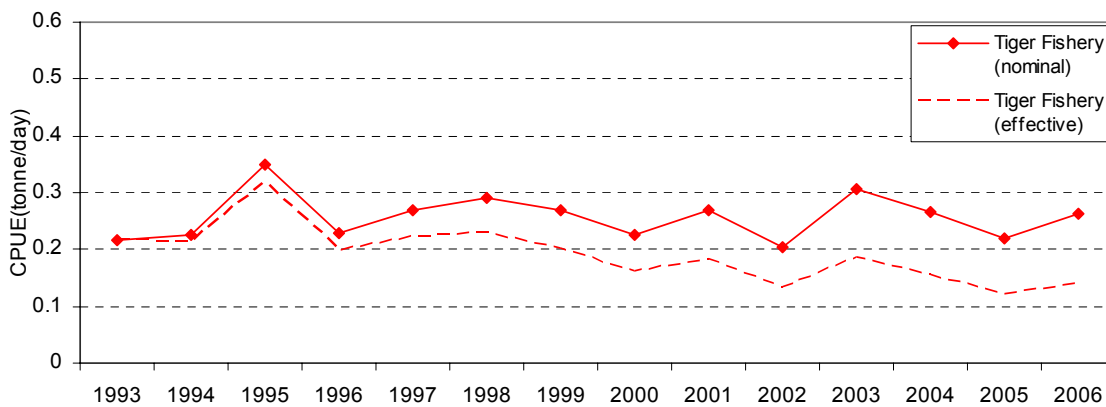


Figure 40c. Catch rate (t/day) for the tiger prawn fishery in the Mornington area between 1993 and 2006.



Limmen Bight

Banana prawn catches in the Limmen Bight area increased from 3 t in 2005 to 429 t in 2006. Catches of tiger prawn increased from 609 t in 2005 to 719 t in 2006, while endeavour prawn catch increased from 47 t in 2005 to 121 t in 2006 (Figure 41). Tiger prawns comprised 56% of the catch in 2006 (Figure 42).

Fishing effort in the banana fishery increased from 25 days in 2005 to 303 days in 2006 (Figure 43a). CPUE of banana prawn increased significantly from 0.12 t per day in 2005 to 1.42 t per day in 2006 (Figure 43b). Effort in the tiger prawn fishery increased from 2103 days in 2005 to 2516 days in 2006 (Figure 43a). Nominal and effective CPUE increased from 0.24 and 0.13 t per day in 2005 to 0.28 and 0.15 t per day in 2006, respectively (Figure 43c).

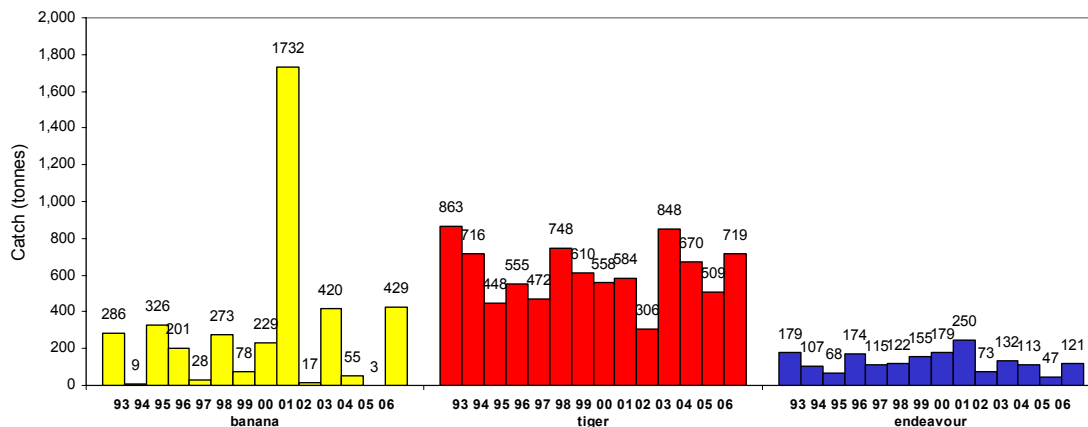


Figure 41. Catch (t) by species in the Limmen Bight area between 1993 and 2006.

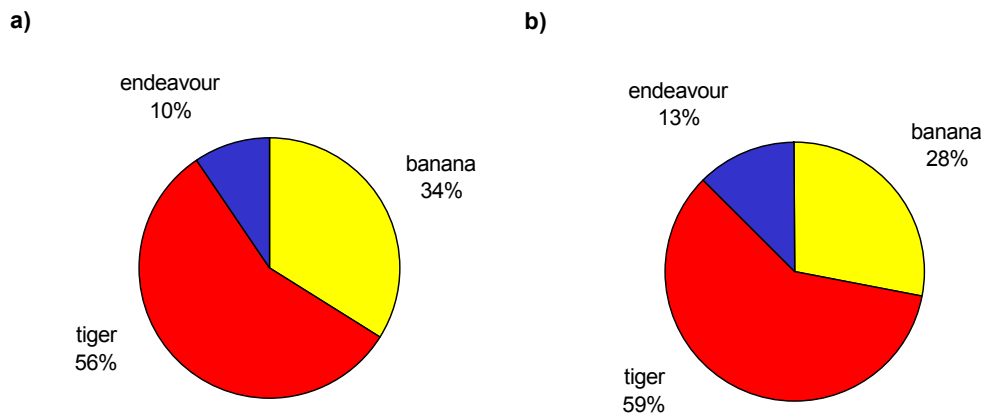


Figure 42. Percentage catch of prawn species in the Limmen Bight area during (a) 2006 and (b) 1993 to 2006.



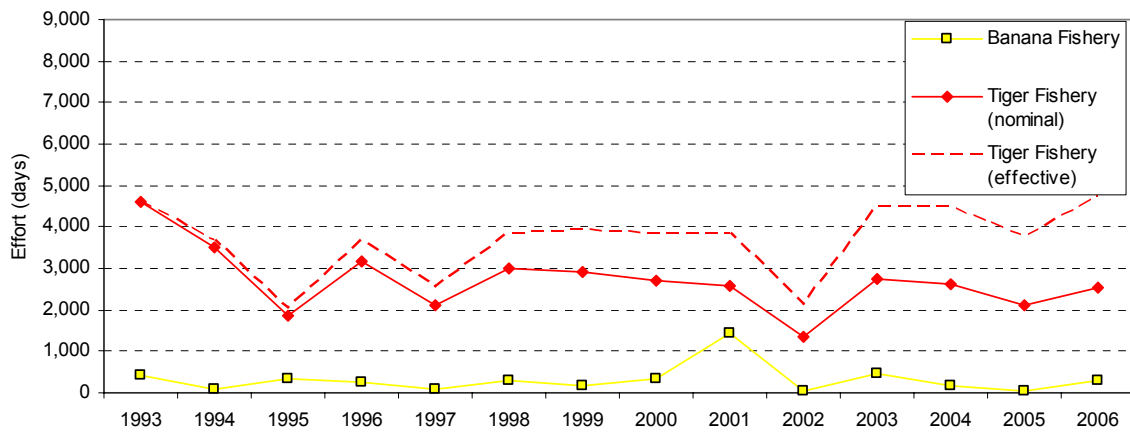


Figure 43a. Effort (fishing days) for the banana and tiger prawn fisheries in the Limmen Bight area between 1993 and 2006.

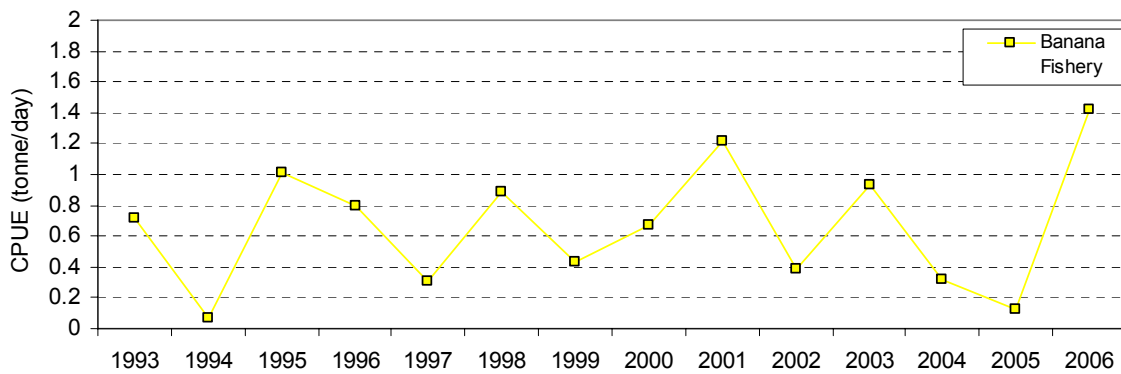


Figure 43b. Catch rate (t/day) for the banana fishery in the Limmen Bight area between 1994 and 2006.

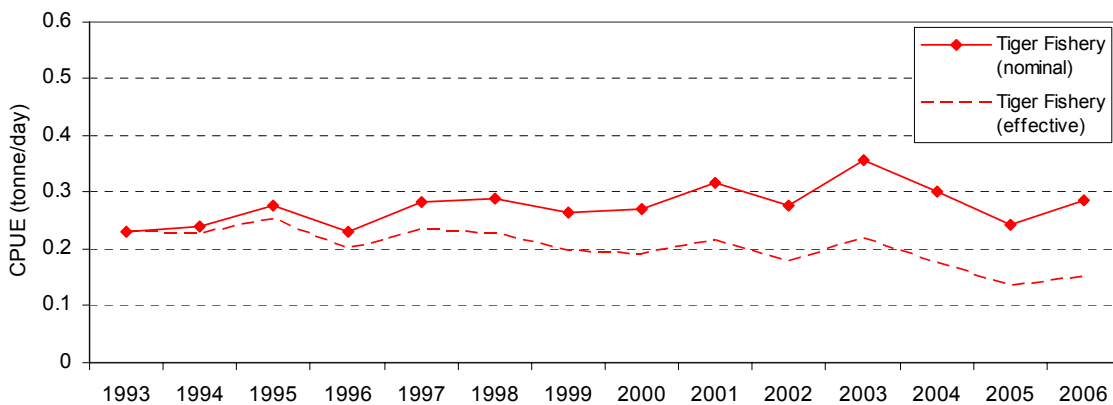


Figure 43c. Catch rate (t/day) for the tiger prawn fishery in the Limmen Bight area between 1993 and 2006.



Groote

Banana prawn catches in the Groote area increased from 3 t in 2005 to 97 t in 2006. Catches of tiger prawn increased slightly from 576 t in 2005 to 594 t in 2006, while endeavour prawn catch increased from 95 t in 2005 to 137 t in 2006 (Figure 44). Tiger prawns comprised 71% of the catch in 2006 (Figure 45).

Fishing effort in the banana fishery increased from 25 days in 2005 to 171 days in 2006 (Figure 46a). CPUE of banana prawn increased from 0.12 t per day in 2005 to 0.57 t per day in 2006 (Figure 46b). Effort in the tiger prawn fishery decreased from 2811 days in 2005 to 2516 days in 2006 (Figure 46a). Nominal and effective CPUE increased from 0.2 and 0.11 t per day in 2005 to 0.24 and 0.13 t per day in 2006, respectively (Figure 46c).

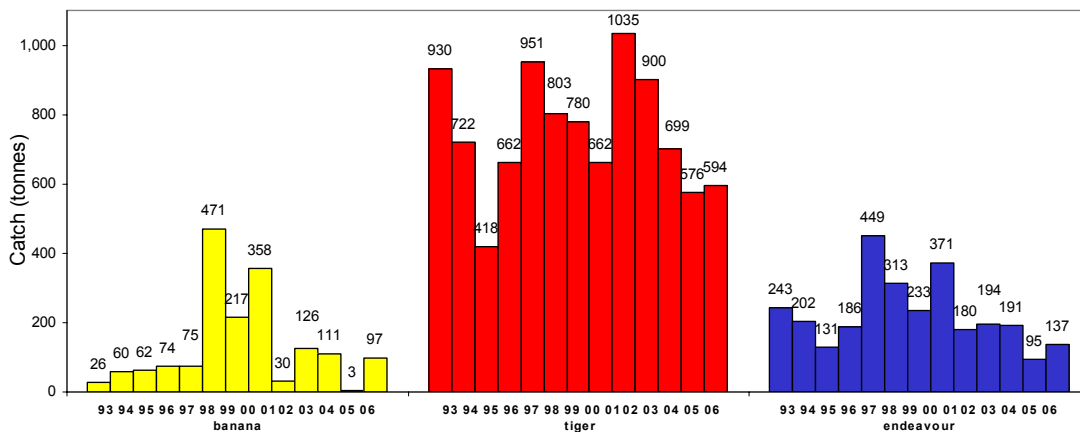


Figure 44. Catch (t) by species in the Groote area between 1993 and 2006.

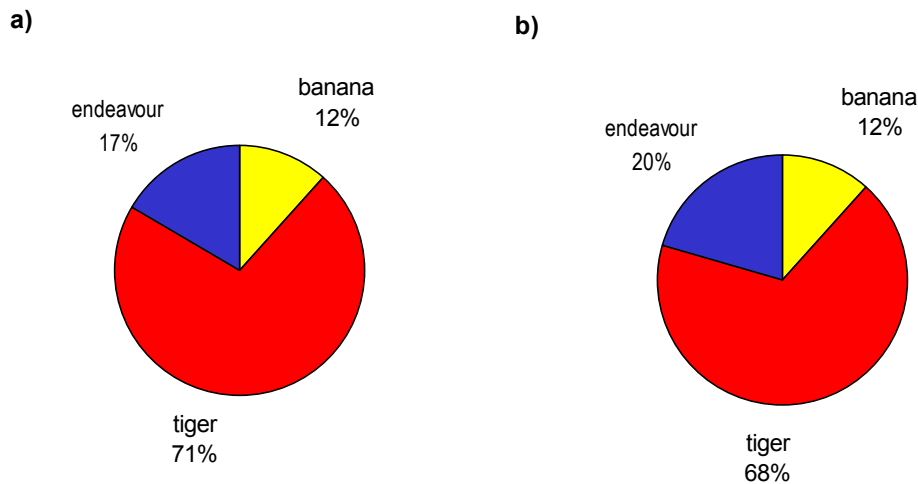


Figure 45. Percentage catch of prawn species in the Limmen Bight area during (a) 2006 and (b) 1993 to 2006.



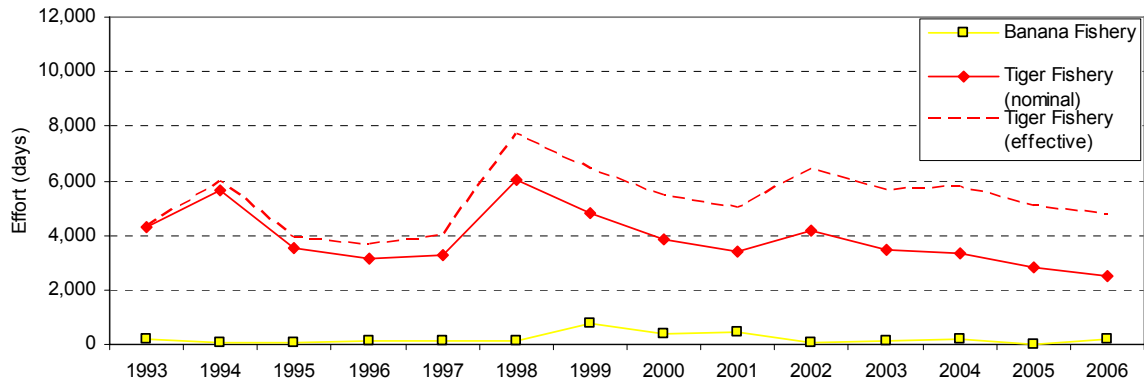


Figure 46a. Effort (fishing days) for the banana and tiger prawn fisheries in the Groote area between 1993 and 2006.

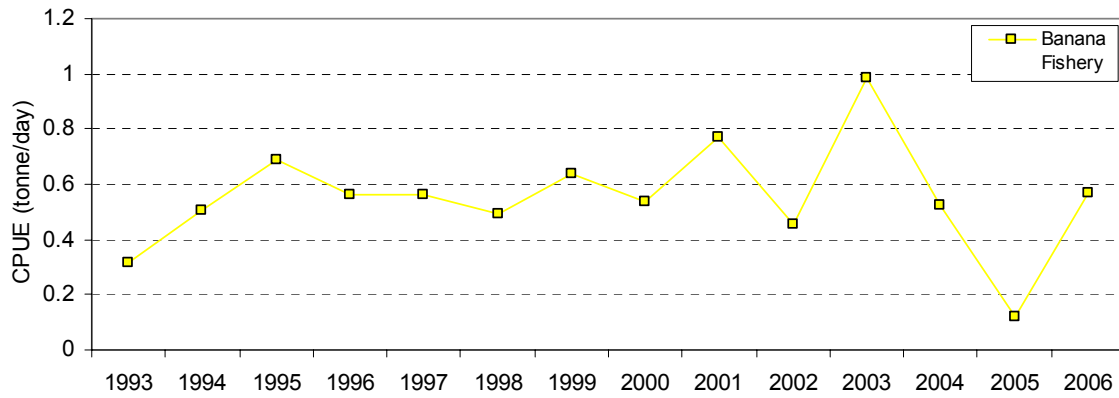


Figure 46b. Catch rate (t/day) for the banana fishery in the Groote area between 1993 and 2006.

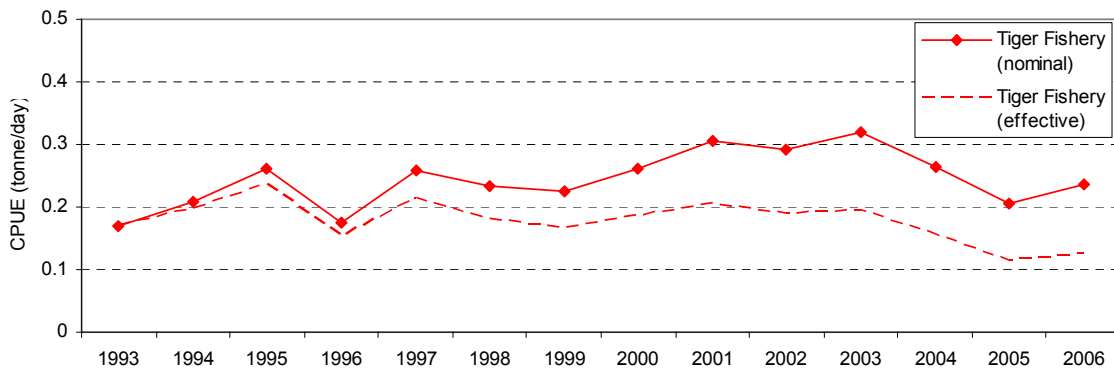


Figure 46c. Catch rate (t/day) for the tiger prawn fishery in the Groote area between 1993 and 2006.

Gove

Banana prawn catches in the Gove area increased from 72 t in 2005 to 143 t in 2006. Catches of tiger prawn decreased from 288 t in 2005 to 262 t in 2006, while endeavour prawn catch increased from 39 t in 2005 to 54 t in 2006 (Figure 47). Tiger prawns comprised 57% of the catch in 2006 (Figure 48).

Fishing effort in the banana fishery increased from 145 days in 2005 to 243 days in 2006 (Figure 49a). CPUE of banana prawn increased from 0.5 t per day in 2005 to 0.59 t per day in 2006 (Figure 49b). Effort in the tiger prawn fishery decreased from 1370 days in 2005 to 1099 days in 2006 (Figure 49a). Nominal and effective CPUE increased from 0.21 and 0.12 t per day in 2005 to 0.24 and 0.13 t per day in 2006, respectively (Figure 49c).

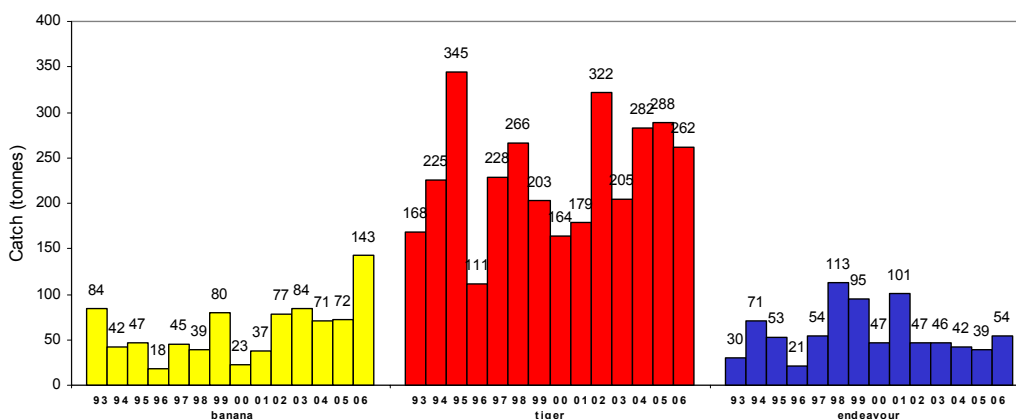


Figure 47. Catch (t) by species in the Gove area between 1993 and 2006.

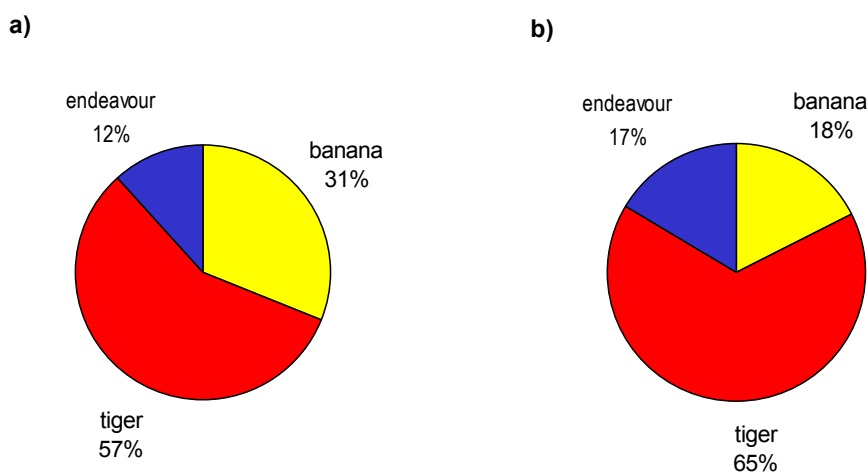


Figure 48. Percentage catch of prawn species in the Gove area during (a) 2006 and (b) 1993 to 2006.

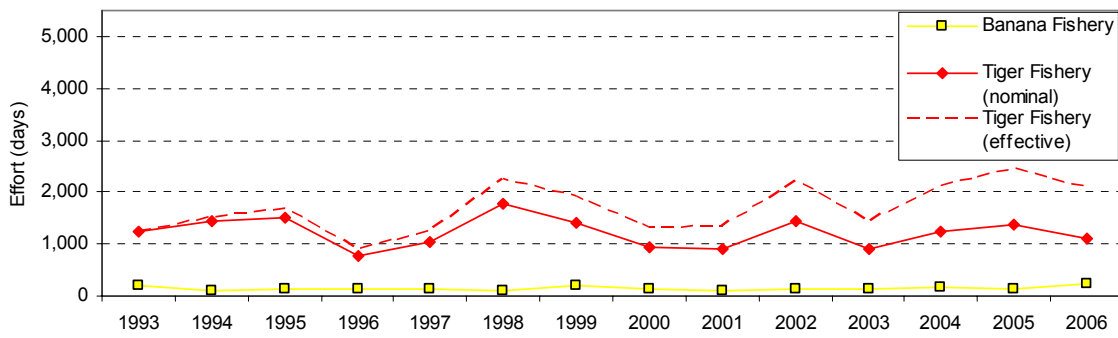


Figure 49a. Effort (fishing days) for the banana and tiger prawn fisheries in the Gove area between 1993 and 2006.

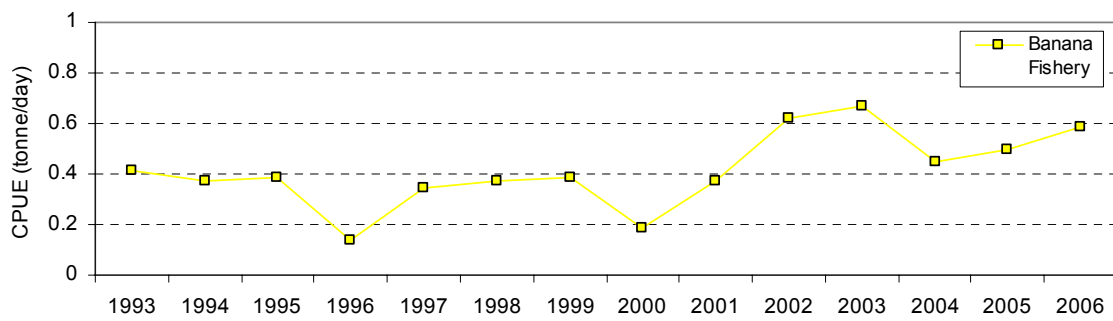


Figure 49b. Catch rate (t/day) for the banana fishery in the Gove area between 1994 and 2006.

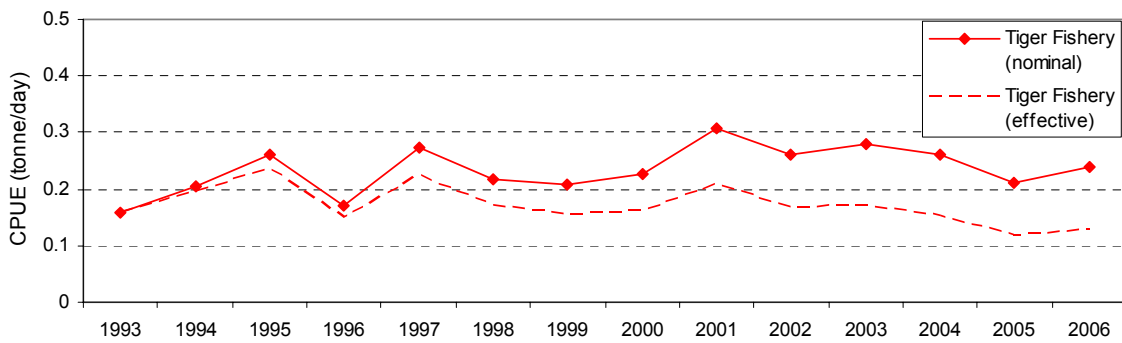


Figure 49c. Catch rate (t/day) for the tiger prawn fishery in the Gove area between 1994 and 2006.

Arnhem

Banana prawn catches in the Arnhem area increased from 112 t in 2005 to 213 t in 2006. Catches of tiger prawn decreased from 15 t in 2005 to 7 t in 2006, while endeavour prawn catch increased from 0 t in 2005 to 1 t in 2006 (Figure 50). Banana prawns comprised 98% of the catch in 2006 (Figure 51).

Fishing effort in the banana fishery increased from 186 days in 2005 to 227 days in 2006 (Figure 52a). CPUE of banana prawn increased from 0.6 t per day in 2005 to 0.94 t per day in 2006 (Figure 52b). Effort in the tiger prawn fishery decreased from 70 days in 2005 to 44 days in 2006 (Figure 52a). Nominal and effective CPUE decreased from 0.22 and 0.12 t per day in 2005 to 0.16 and 0.08 t per day in 2006, respectively (Figure 52c).

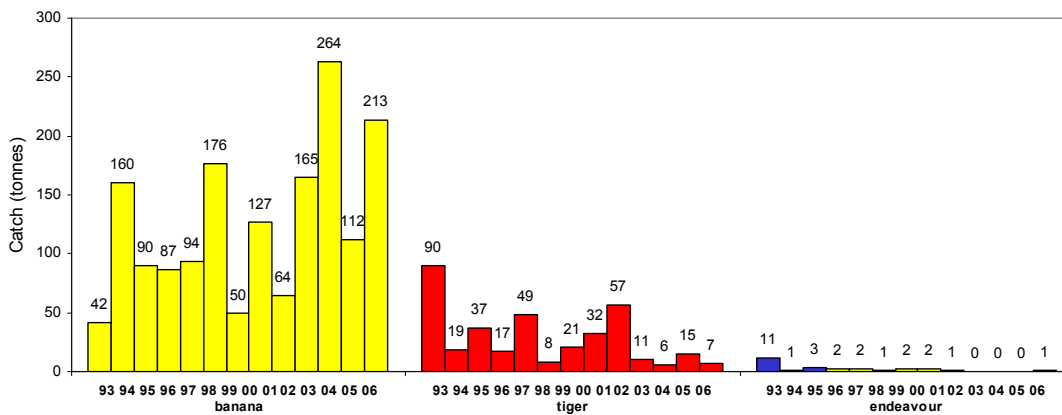


Figure 50. Catch (t) by species in the Arnhem area between 1993 and 2006.

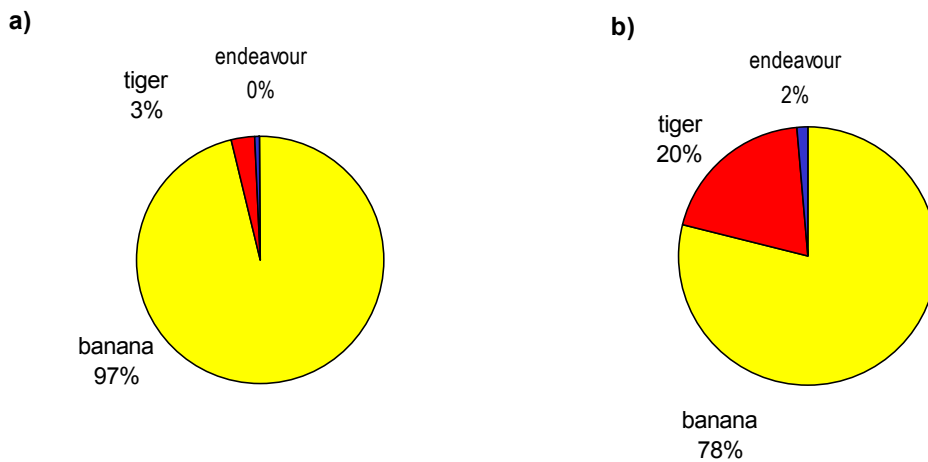


Figure 51. Percentage catch of prawn species in the Arnhem area during (a) 2006 and (b) 1993 to 2006.

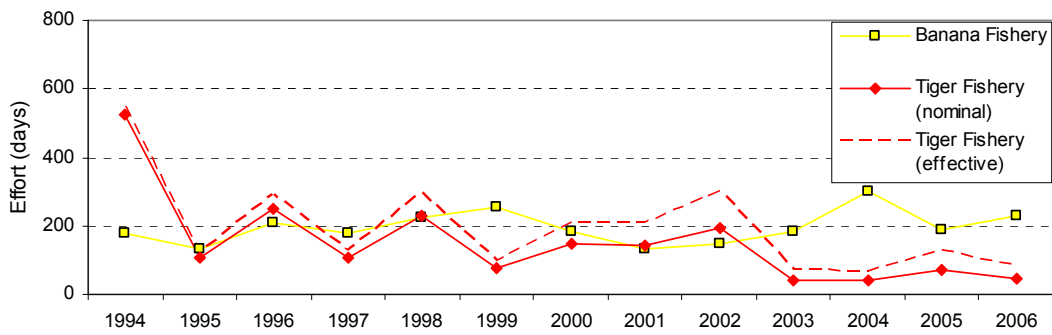


Figure 52a. Effort (fishing days) for the banana and tiger prawn fisheries in the Arnhem area between 1993 and 2006.

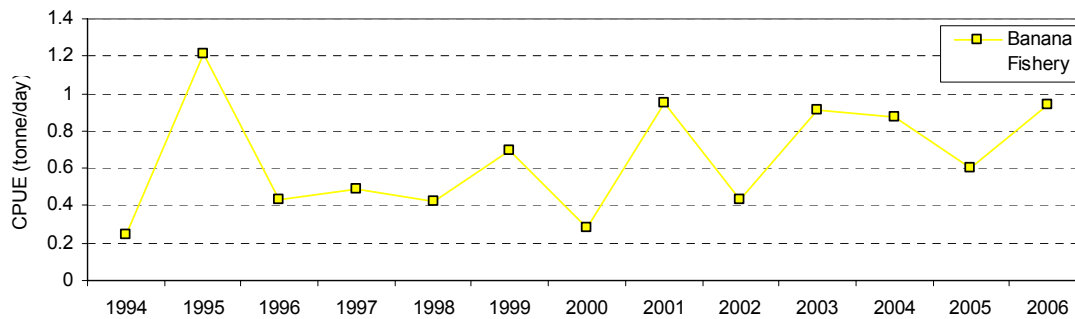


Figure 52b. Catch rate (t/day) for the banana fishery in the Arnhem area between 1993 and 2006.

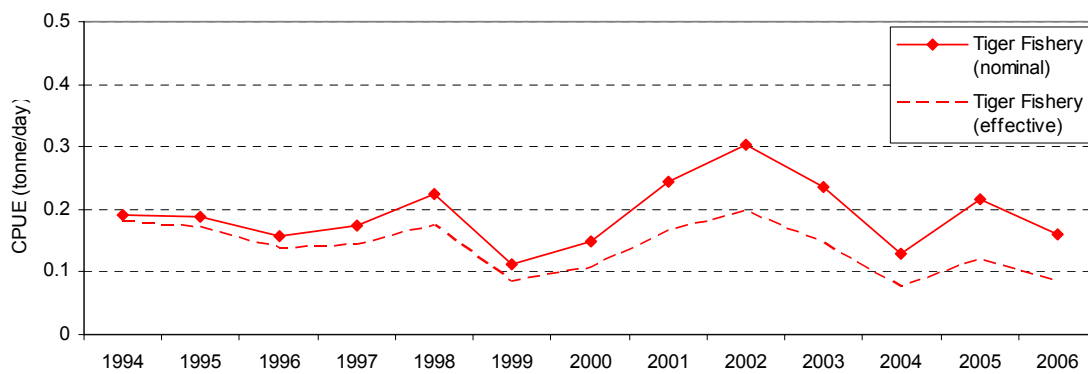


Figure 52c. Catch rate (t/day) for the tiger prawn fishery in the Arnhem area between 1993 and 2006.

Port Essington

Banana prawn catches in the Port Essington area decreased from 236 t in 2005 to 193 t in 2006. Catches of tiger prawn decreased from 15 t in 2005 to 2 t in 2006, while endeavour prawn catch decreased from 6 t in 2005 to 2 t in 2006 (Figure 53). Banana prawns comprised 98% of the catch in 2006 (Figure 54).

Fishing effort in the banana fishery decreased from 403 days in 2005 to 197 days in 2006 (Figure 55a). CPUE of banana prawn increased from 0.59 t per day in 2005 to 0.98 t per day in 2006 (Figure 55b). Effort in the tiger prawn fishery decreased from 47 days in 2005 to 6 days in 2006 (Figure 55a). Nominal and effective CPUE remained unchanged with 0.33 and 0.18 t per day in 2005 and 2006, respectively (Figure 55c).

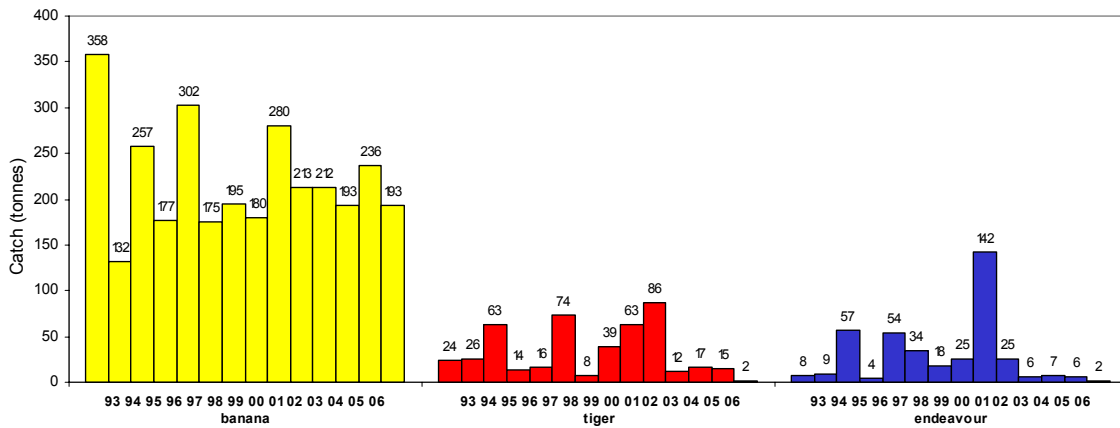


Figure 53. Catch (t) by species in the Port Essington area between 1993 and 2006.

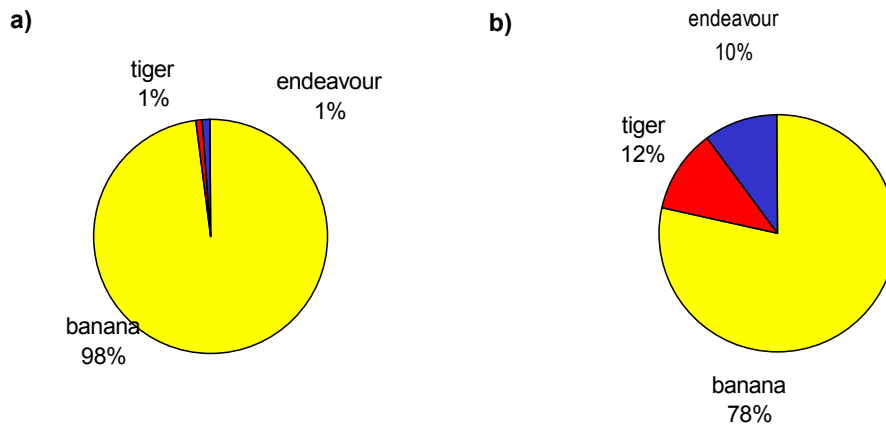


Figure 54. Percentage catch of prawn species in the Port Essington area during (a) 2006 and (b) 1993 to 2006.



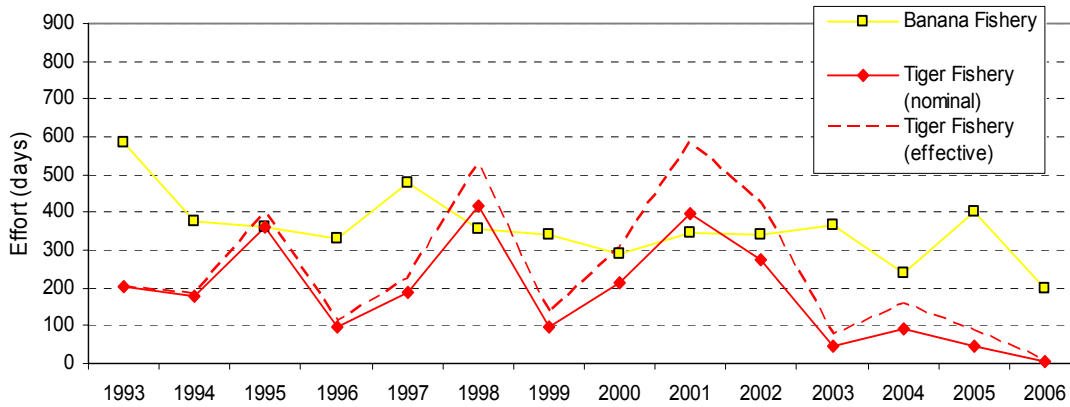


Figure 55a. Effort (fishing days) for the banana and tiger prawn fisheries in the Port Essington area between 1993 and 2006.

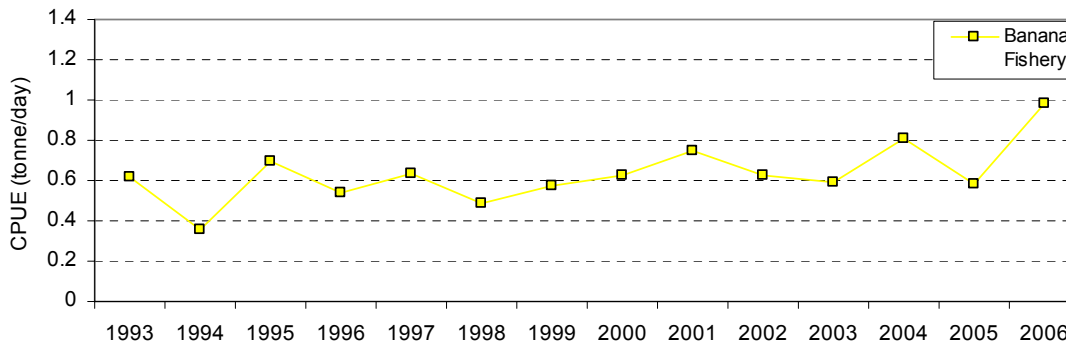


Figure 55b. Catch rate (t/day) for the banana fishery in the Port Essington area between 1993 and 2006.

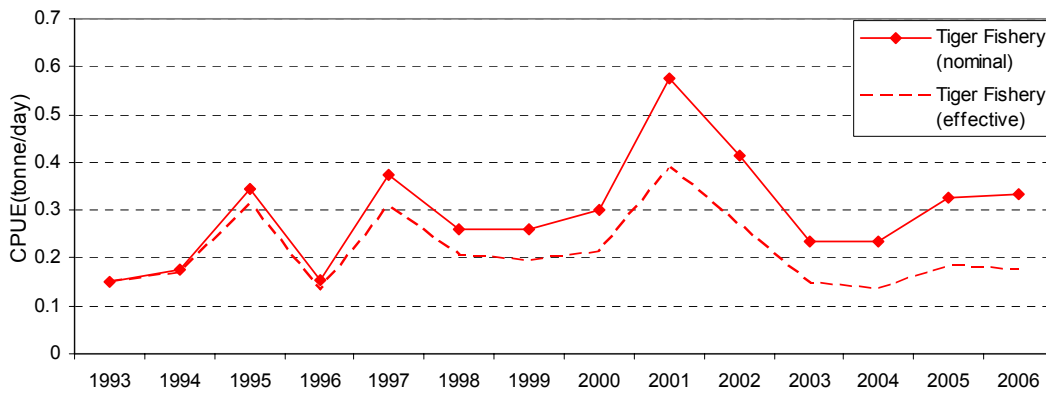


Figure 55c. Catch rate (t/day) for the tiger prawn fishery in the Port Essington area between 1993 and 2006.



Melville

Banana prawn catches in the Melville area decreased from 306 t in 2005 to 160 t in 2006. Catches of tiger and endeavour prawn had a very small change (Figure 56). Banana prawns comprised 99% of the catch in 2006 (Figure 57).

Fishing effort in the banana fishery decreased from 530 days in 2005 to 230 days in 2006 (Figure 58a). CPUE of banana prawn increased from 0.58 t per day in 2005 to 0.7 t per day in 2006 (Figure 58b). Effort in the tiger prawn fishery decreased from 44 days in 2005 to 1 day in 2006 (Figure 58a). Nominal and effective CPUE increased from 0 t per day in 2005 to 0.5 and 0.27 t per day in 2006, respectively (Figure 58c).

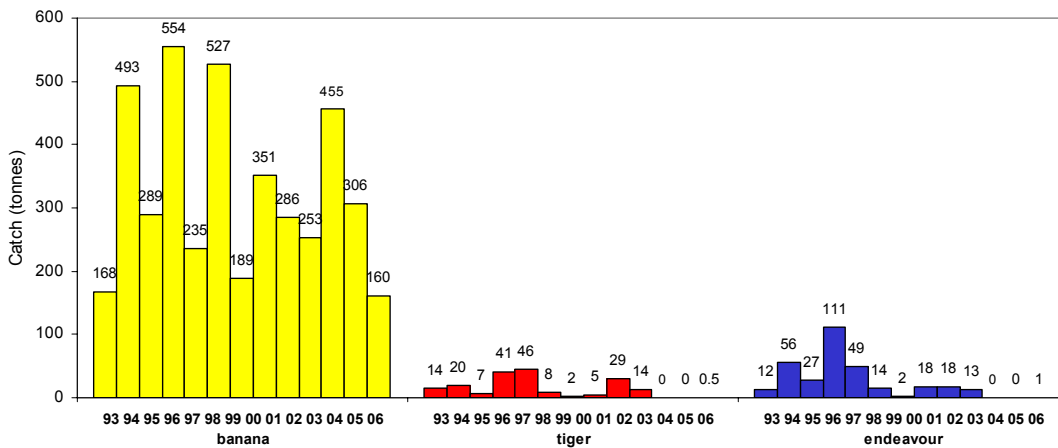


Figure 56. Catch (t) by species in the Melville area between 1993 and 2006.

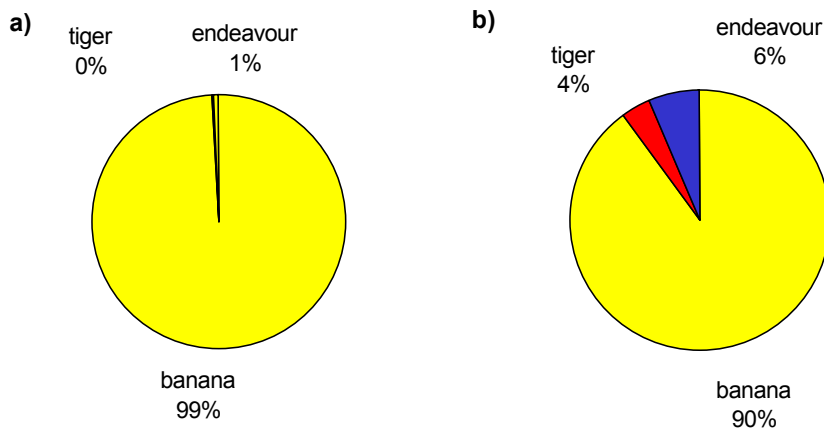


Figure 57. Percentage catch of prawn species in the Melville area during (a) 2006 and (b) 1993 to 2006.



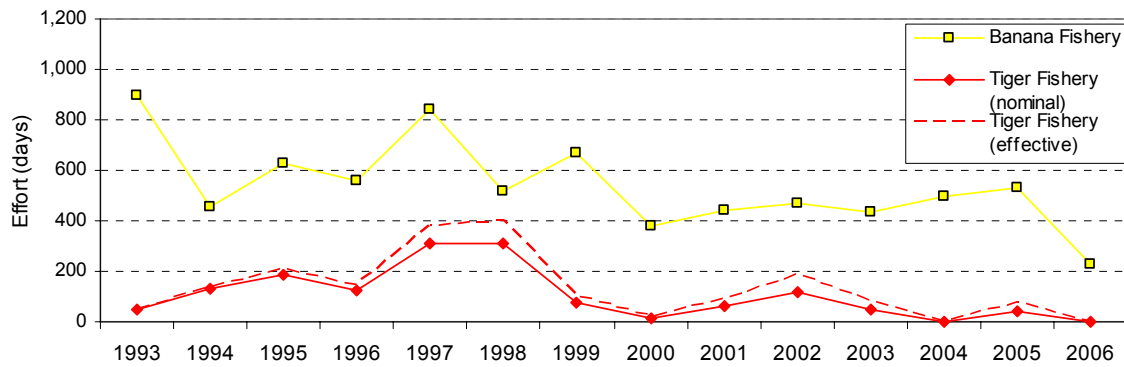


Figure 58a. Effort (fishing days) for the banana and tiger prawn fisheries in the Melville area between 1993 and 2006.

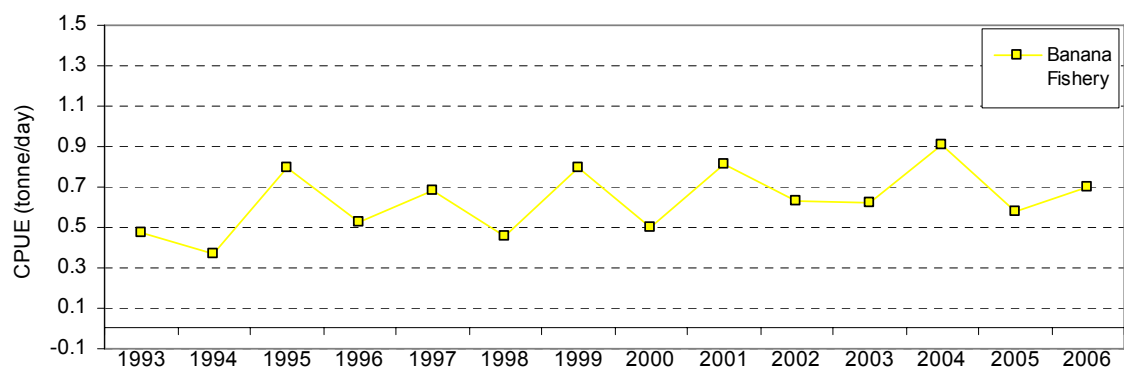


Figure 58b. Catch rate (t/day) for the banana fishery in the Melville area between 1993 and 2006.

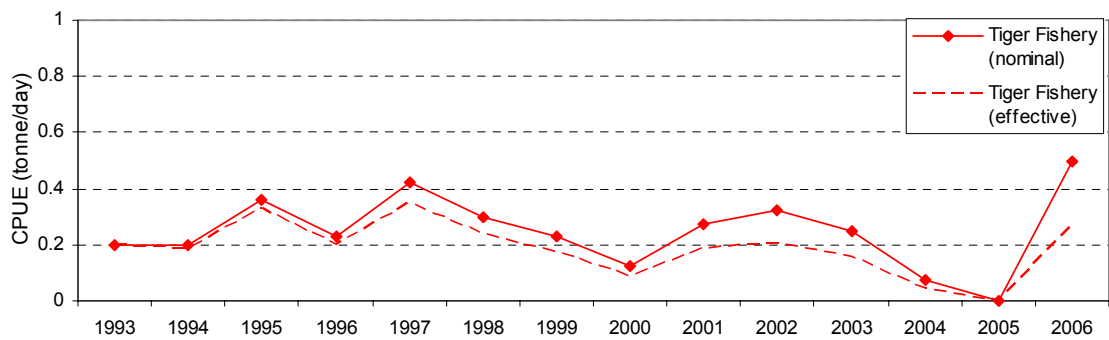


Figure 58c. Catch rate (t/day) for the tiger prawn fishery in the Melville area between 1993 and 2006.



Fog Bay

Banana prawn catches in the Fog Bay area increased from 123 t in 2005 to 258 t in 2006. Catches of tiger and endeavour prawn had a very small change (Figure 59). Banana prawns comprised 100% of the catch in 2006 (Figure 60).

Fishing effort in the banana fishery increased from 181 days in 2005 to 270 days in 2006 (Figure 61a). CPUE of banana prawn increased from 0.68 t per day in 2005 to 0.96 t per day in 2006 (Figure 61b). Effort in the tiger prawn fishery increased from 1 day in 2005 to 2 days in 2006 (Figure 61a). Nominal and effective CPUE increased from 0.11 and 0.06 t per day in 2005 to 0.25 and 0.13 t per day in 2006, respectively (Figure 61c).

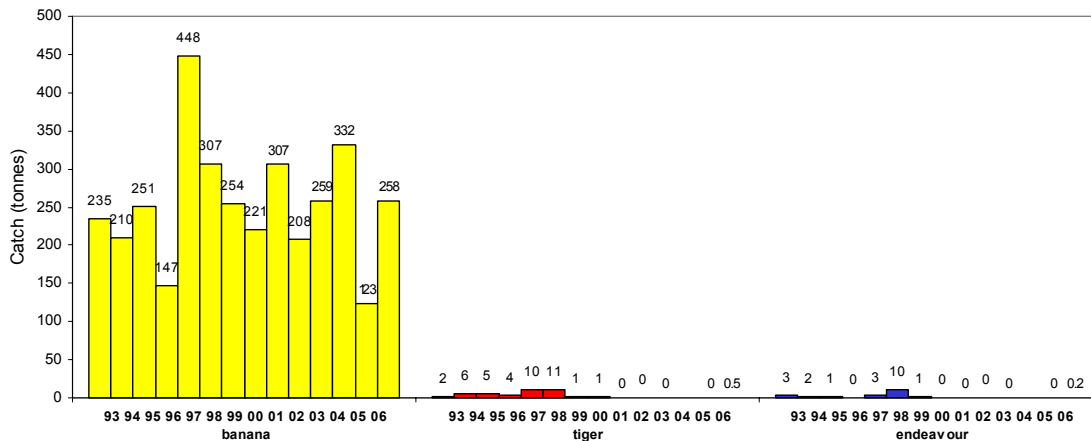


Figure 59. Catch (t) by species in the Fog Bay area between 1993 and 2006.

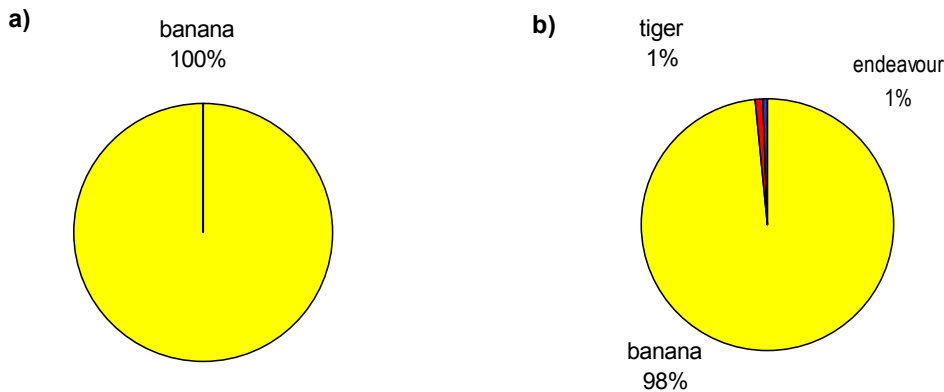


Figure 60. Percentage catch of prawn species in the Fog Bay area during (a) 2006 and (b) 1993 to 2006.

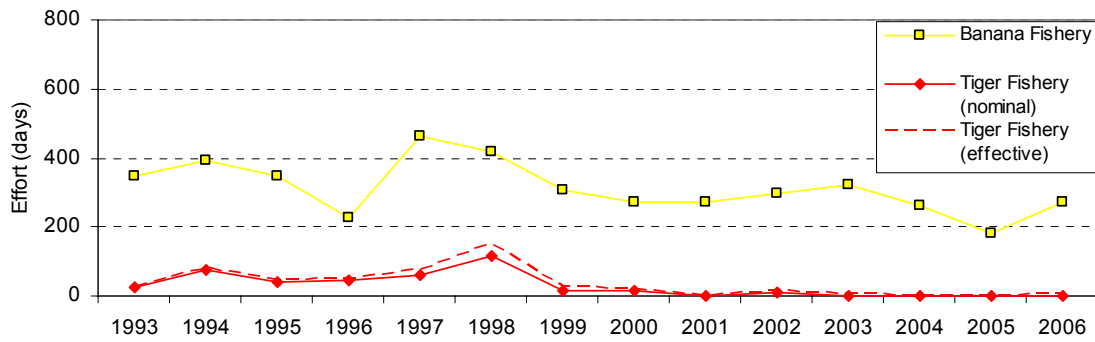


Figure 61a. Effort (fishing days) for the banana and tiger prawn fisheries in the Fog Bay area between 1993 and 2006.

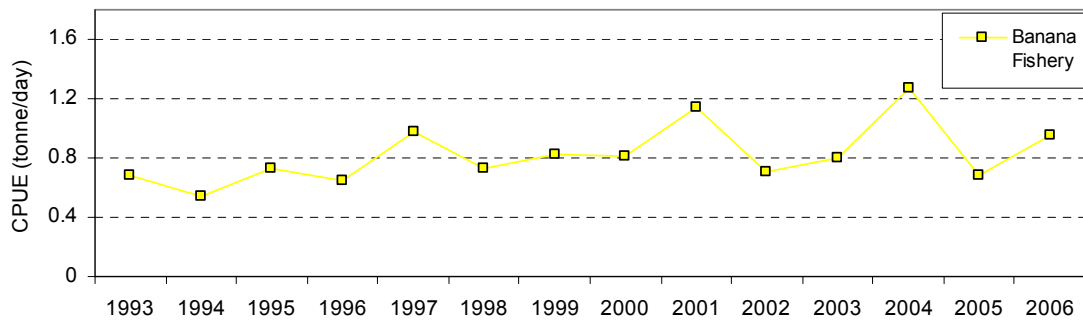


Figure 61b. Catch rate (t/day) for the banana fishery in the Fog Bay area between 1993 and 2006.

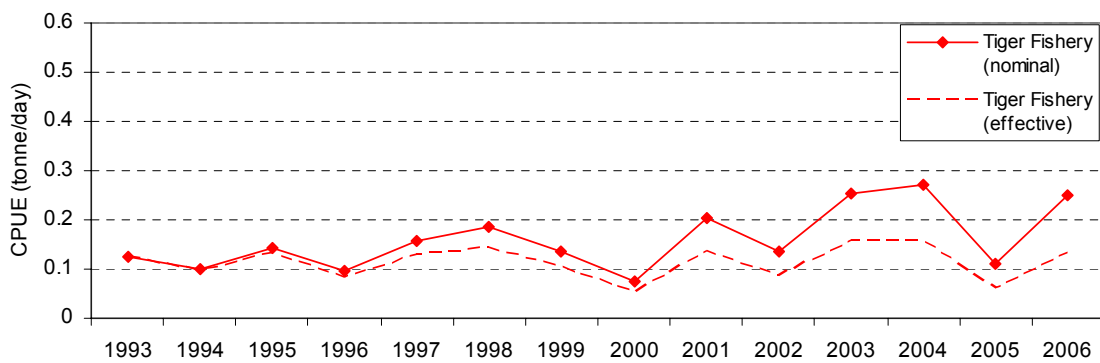


Figure 61c. Catch rate (t/day) for the tiger prawn fishery in the Fog Bay area between 1993 and 2006.



Bonaparte

Banana prawn catches in the Bonaparte area decreased from 318 t in 2005 to 231 t in 2006. Catches of tiger prawn decreased from 15 t in 2005 to <1 t in 2006 and endeavour prawn decreased from 5 t in 2005 to 1 t in 2006 (Figure 62). Banana prawns comprised nearly 100% of the catch in 2006 (Figure 63).

Fishing effort in the banana fishery decreased from 445 days in 2005 to 254 days in 2006 (Figure 64a). CPUE of banana prawn increased from 0.71 t per day in 2005 to 0.91 t per day in 2006 (Figure 64b). Effort in the tiger prawn fishery decreased from 64 days in 2005 to 0 days in 2006 (Figure 64a). Nominal and effective CPUE decreased from 0.23 and 0.13 t per day in 2005, respectively, to 0 t per day in 2006 (Figure 64c).

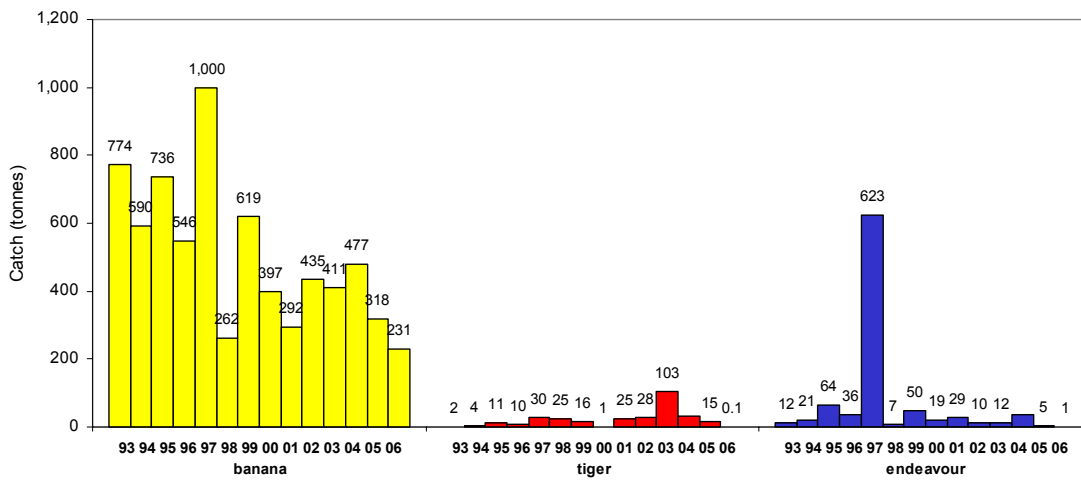


Figure 62. Catch (t) by species in the Bonaparte area between 1993 and 2006.

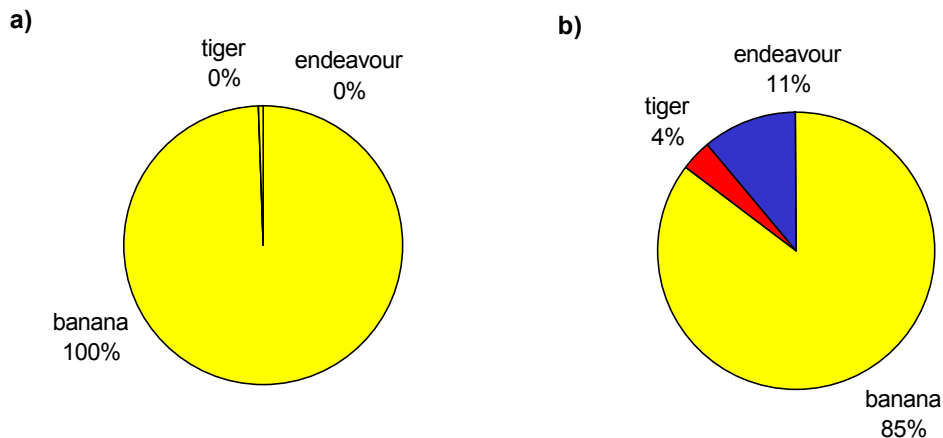


Figure 63. Percentage catch of prawn species in the Bonaparte area during (a) 2006 and (b) 1993 to 2006.



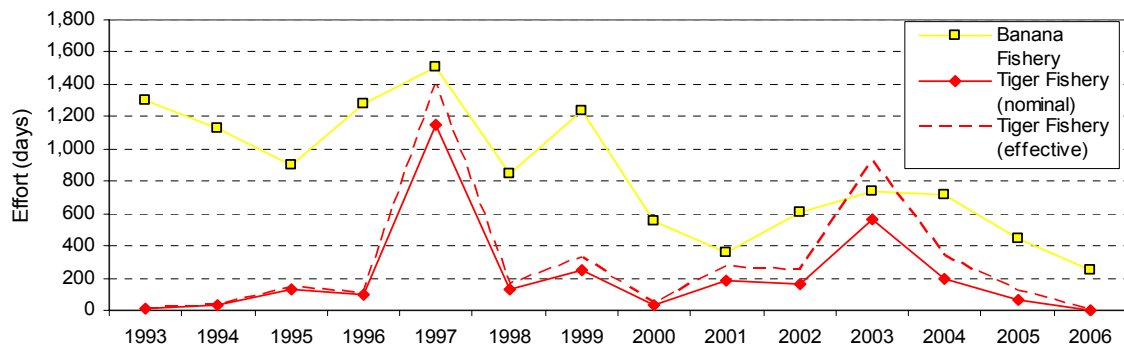


Figure 64a. Effort (fishing days) for the banana and tiger prawn fisheries in the Bonaparte area between 1994 and 2006.

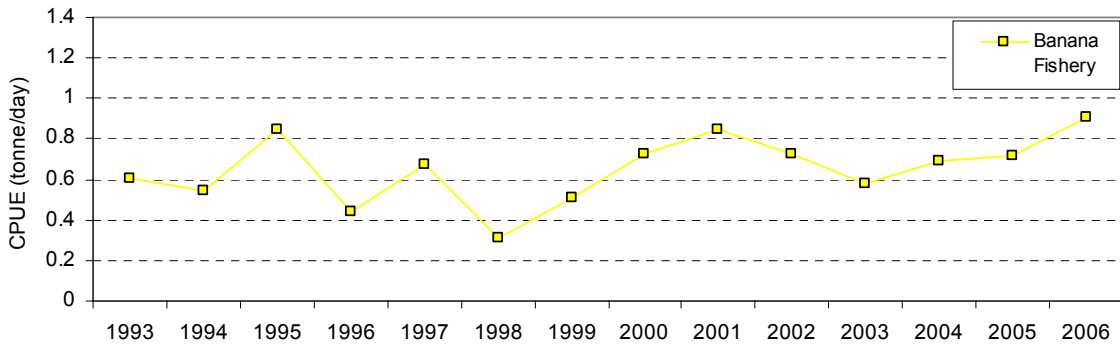


Figure 64b. Catch rate (t/day) for the banana fishery in the Bonaparte area between 1993 and 2006.

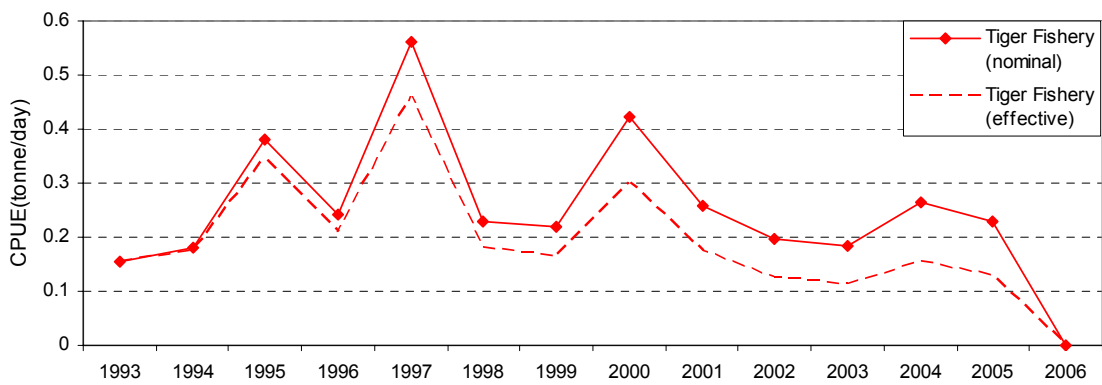


Figure 64c. Catch rate (t/day) for the tiger prawn fishery in the Bonaparte area between 1993 and 2006.



Bycatch in the Northern Prawn Fishery

Turtle bycatch

Flatback turtles, green turtles and unidentified species comprised most of the turtle bycatch (Figure 65). Bycatch has been on the increase from 2004 with the highest turtle bycatch of 43 recorded in 2006. Survival rates have changed slightly with two mortalities recorded in 2004 and 2005 and only one in 2006 (Table 5). Turtle bycatch in the NPF was highest in Limmen Bight with 12 turtles caught. Most of the turtles were released alive, with only one mortality recorded in the Bold area (Figure 66).

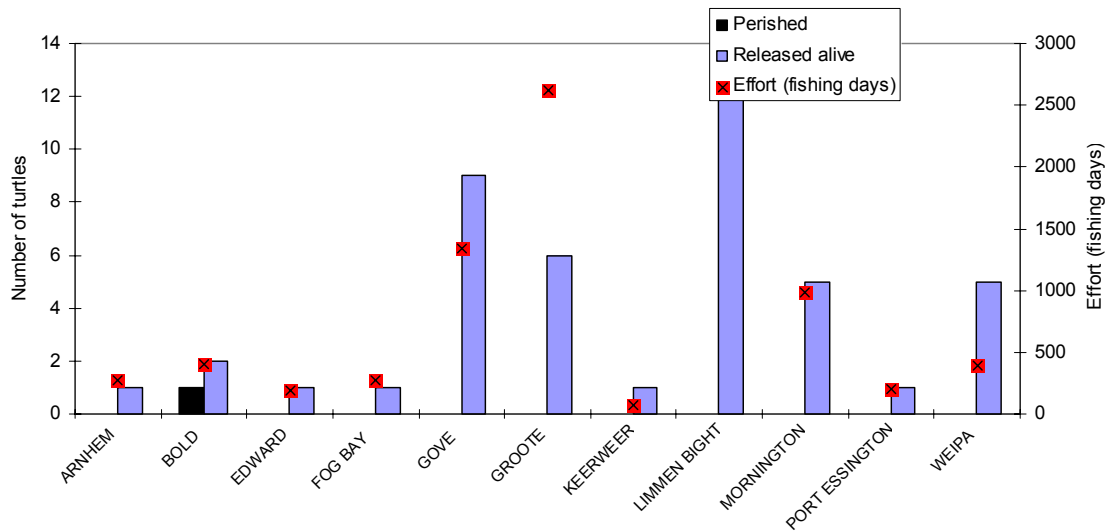


Figure 65. Turtle bycatch in the NPF by species in 2006.

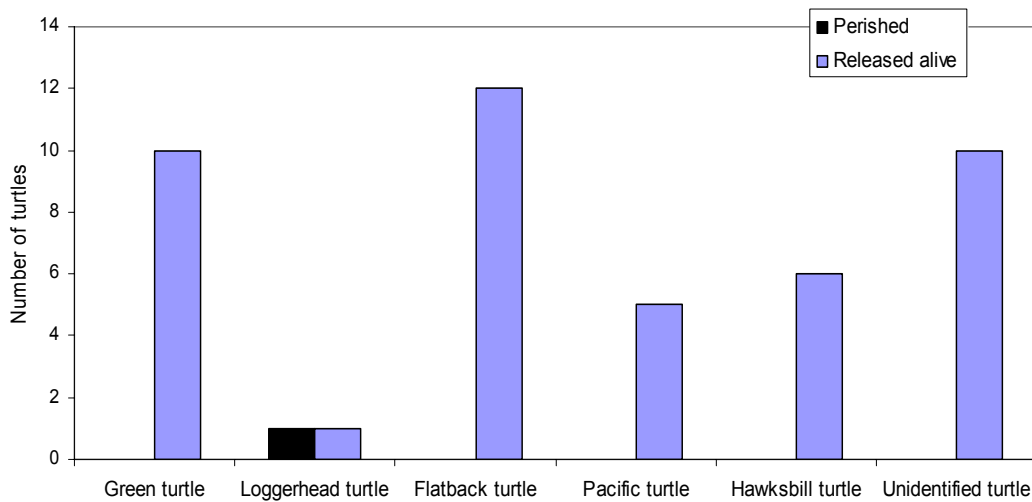


Figure 66. Turtle bycatch in the NPF by area in 2006



Table 5. Turtle bycatch by species for each area, 2004-2006.

Statistical Area	Turtle Species	Released alive			Dead			Condition unknown		
		2004	2005	2006	2004	2005	2006	2004	2005	2006
WEIPA	<i>Flatback</i>			2						
	<i>Green</i>			1						
	<i>Loggerhead</i>			1						
	<i>Unidentified species</i>			1						
KEERWEER	<i>Green</i>			1			1			
	<i>Flatback</i>	1								
BOLD	<i>Green</i>			1						
	<i>Loggerhead</i>									
	<i>Pacific Ridley</i>			1						
MORNINGTON	<i>Flatback</i>	1	1	1						
	<i>Hawksbill</i>			1		1			1	
	<i>Green</i>		2							
	<i>Unidentified species</i>			1						
LIMMEN BIGHT	<i>Pacific Ridley</i>		1	2						
	<i>Flatback</i>	1	1	3						
	<i>Green</i>		2	1						
	<i>Hawksbill</i>			3						
	<i>Loggerhead</i>	1	1	1						
GROOTE	<i>Pacific Ridley</i>		1	1						
	<i>Unidentified species</i>			4						
	<i>Flatback</i>	5		2						
	<i>Green</i>	3	4	2						
	<i>Hawksbill</i>	2		1						
		4								
GOVE	<i>Pacific Ridley</i>			1						
	<i>Unidentified species</i>			1						
	<i>Flatback</i>	1	2	4		1			1	
	<i>Green</i>		2	1						
ARNHEM	<i>Pacific Ridley</i>		1							
	<i>Green</i>			1						
	<i>Unidentified species</i>			1						
PORT ESSINGTON	<i>Hawksbill</i>			1						
	<i>Green</i>		1							
	<i>Pacific Ridley</i>				1					
MELVILLE	<i>Flatback</i>	2						1		
	<i>Green</i>	3	4							
FOG BAY	<i>Loggerhead</i>		1							
	<i>Green</i>		1	1						
EDWARD	<i>Green</i>			1						
	<i>Green</i>			1						
BONAPARTE	<i>Green</i>		2							
	<i>Green</i>			1						
TOTAL BY SPECIES	<i>Flatback</i>	11	4	12		1		1	1	
	<i>Green</i>	6	18	10						
	<i>Hawksbill</i>	2		6		1			1	
	<i>Leatherback</i>									
	<i>Loggerhead</i>	1	2	1			1			
	<i>Pacific Ridley</i>	4	3	5	2					
GRAND TOTAL	<i>unidentified species</i>			10						
	ALL SPECIES	24	27	43	2	2	1	1	2	0



Sea snake bycatch

The majority of seasnakes (6146, 64.1%) were released alive, 2218 (23.1%) where their condition was unknown after release, and only 1108 (11.5%) sea snakes perishing and 117 (1.2%) injured (Table 6). Sea snake bycatch was highest in Groote and lowest in Sweers with 3732 and 11 caught, respectively.

Table 6. Seasnake bycatch by area in the NPF for 2006.

Statistical area	Released alive	Dead	Released injured	Condition unknown	Total
ARNHEM	61	8	0	81	150
BOLD	131	50	3	90	274
BONAPARTE	149	23	21	21	214
EDWARD	193	36	6	21	256
FOG BAY	20	2	0	24	46
GOVE	728	86	14	438	1266
GROOTE	2340	382	53	957	3732
KEERWEER	162	10	1	2	175
LIMMEN BIGHT	1609	360	12	422	2403
MELVILLE	138	13	2	3	156
MITCHELL	17	5	0	4	26
MORNINGTON	270	67	0	115	452
PORT ESSINGTON	99	7	2	8	116
SWEERS	7	1	0	3	11
WEIPA	222	58	3	29	312
Grand Total	6146	1108	117	2218	9589

Scientific Observer and Crew Member Observer coverage

At the time of writing this report 4 Crew Member Observers (CMOs) had returned data from 4 vessels covering 65 fishing days for the 2006 tiger prawn season (Table 7). Data from another 2 CMOs is yet to be received by AFMA.

One AFMA Scientific Observer returned data from 6 vessels during the 2006 tiger prawn season covering 63 fishing days. This data was supplemented with an additional 21 days data from BRD gear trials (Table 7).

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 per fishing day were lowest from logbook data (Table 8). Recorded interactions per fishing day for seasnakes, sawfish and turtles were highest from CMO data, whilst syngnathid interactions per fishing day were highest from Scientific Observer data (Table 8).

Table 7. Comparison of TEP species interactions reported by Scientific Observers, CMOs and in logbooks in the NPF during the 2006 tiger prawn season.

	Vessel returns	Fishing days	Total sea snakes	Total turtles	Total syngnathids	Total sawfish
Logbook returns	77	6983	8058	8	40	N.A.*
Crew Member Observers	4	65	111	2	3	28
Scientific Observers**	7	84	122	0	9	21

*Reporting of sawfish interactions was not required in logbooks during 2006.

**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 fishing day during in the NPF during the 2006 tiger prawn season.

	Sea snakes per fishing day	Turtles per fishing day	Syngnathids per fishing day	Sawfish per fishing day
Logbook returns	1.154	0.001	0.006	N.A.*
Crew Member Observers	1.708	0.031	0.046	0.431
Scientific Observers**	1.452	0	0.107	0.25

*Reporting of sawfish interactions was not required in logbooks during 2006.

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

Scampi catch

Scampi are targeted by fishers in offshore waters in the northwestern area of the NPF. Scampi catch is recorded on the North West Slope Daily Fishing Log (NWS03). Between 2000 and 2006 the number of vessels targeting scampi has ranged between 3 and 6 vessels per year. The highest scampi catch was achieved in 2002 with 29149 kg of siboga and 511 kg mixed scampi recorded (Figure 68). The number fishing days targeting scampi peaked in 2003 at 143 days.



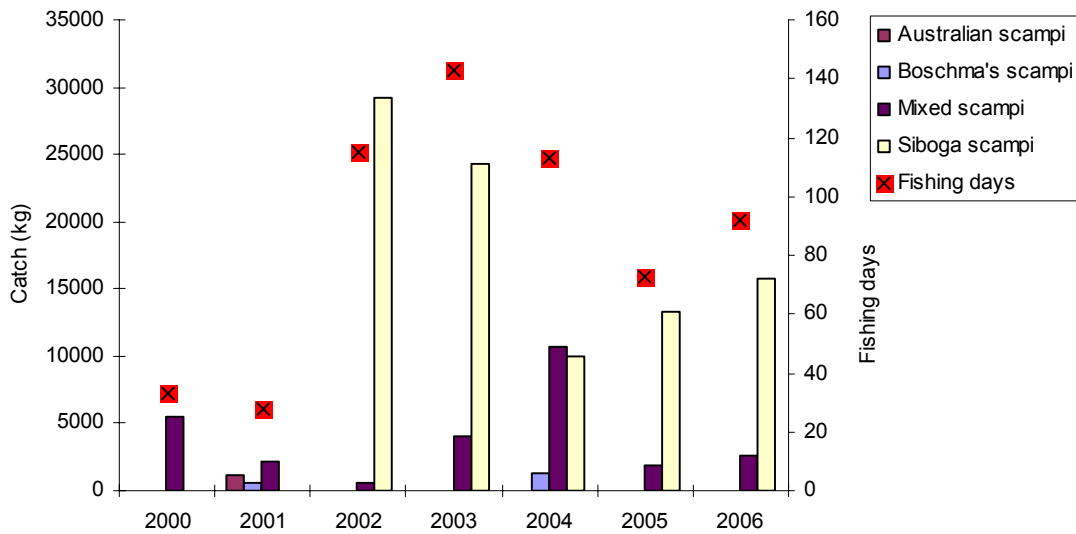


Figure 68. Retained scampi catch in the NPF for 2000-2006.

State/Territory specific data

The Northern Territory was the only state that recorded an increase in total prawn catch, increasing from 2890 t during 2004/05 to 3,417 t during 2005/06. Total prawn catch in WA and Queensland decreased slightly from 358 to 232 t in WA and from 1777 to 1656 t in Queensland during the same period (Table 9).

Banana prawn catch shows a similar pattern with catch increasing from 838 t during 2004/05 to 1495 t during 2005/06 in the Northern Territory, and decreasing from 293 t to 231 t in WA and 1700 to 1384 t in Queensland (Table 9).

Tiger prawn and endeavour prawn catch decreased in the Northern Territory and WA while it increased in Queensland. There was also a slight increase in king prawn catch in Queensland and the Northern Territory (Table 9).



Table 9. Prawn catch by State/Territory from 1990/91 to 2005/06 financial years.

State	Financial year	Banana (t)	Tiger (t)	Endeavour (t)	King (t)	Total catch (t)
Queensland	1990/91	4646	1151	269	51	6117
	1991/92	1392	1710	548	30	3680
	1992/93	1857	968	357	18	3200
	1993/94	904	1032	416	8	2360
	1994/95	2540	1883	346	24	4791
	1995/96	2562	1570	761	23	4916
	1996/97	2050	1259	817	15	4141
	1997/98	1986	1318	878	11	4193
	1998/99	1548	634	335	5	2523
	1999/00	637	629	348	1	1614
	2000/01	3651	553	352	4	4560
	2001/02	3286	372	211	1	3869
	2002/03	1307	97	54	1	1459
	2003/04	1639	152	14	0	1806
	2004/05	1700	70	7	0	1777
	2005/06	1384	217	46	9	1656
Northern Territory	1990/91	1430	2156	380	46	4011
	1991/92	669	2332	434	27	3462
	1992/93	1639	1907	437	18	4000
	1993/94	697	1768	403	18	2886
	1994/95	1536	1855	423	19	3836
	1995/96	1072	1615	434	6	3127
	1996/97	1472	1184	387	9	3052
	1997/98	1241	1466	490	9	3206
	1998/99	1549	2141	778	6	4474
	1999/00	1247	1564	586	11	3408
	2000/01	2323	1546	489	3	4361
	2001/02	1789	1561	892	1	4244
	2002/03	1509	1797	333	2	3641
	2003/04	1437	1985	390	1	3813
	2004/05	838	1683	368	2	2890
	2005/06	1495	1587	316	19	3417
Western Australia	1990/91	579	86	42	0	707
	1991/92	231	8	11	0	250
	1992/93	498	5	6	0	508
	1993/94	828	4	13	0	845
	1994/95	414	2	16	0	432
	1995/96	713	18	65	0	796
	1996/97	1079	5	38	0	1122
	1997/98	756	66	686	1	1509
	1998/99	519	23	17	0	559
	1999/00	329	2	38	0	369
	2000/01	281	16	23	0	321
	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	1	0	232



Byproduct of the NPF by State/Territory

Total byproduct retained in the NPF State/Territory was 40864 t, with the Northern Territory retaining the highest and WA the lowest amount of byproduct. Bugs and squid comprised most of the byproduct, with 15 t of bugs and 15 t of squid retained. Cuttlefishes, scallops and whittings also contributed substantially to retained byproduct (Table 10).

Table 10. Retained byproduct of the NPF by State/Territory in 2006.

Species	NT (kg)	QLD (kg)	WA (kg)	Total (kg)
Breams	5			5
Bugs - Shovel nosed and slipper lobsters	10098	5208	10	15316
Cuttlefishes	2207	2170		4377
Flathead		23		23
Goatfishes	488			488
Golden snapper - Fingermark seaperch	18			18
Herring		2		2
Ling		4		4
Mangrove Jack		18		18
Mixed fish	97			97
Mixed prawns	133	10		143
Mixed reef fish	40			40
Octopuses	117	14		131
Pilchard		2		2
Pink snapper		11		11
Pomfret species	627	135	90	852
Scallops	1979	203		2182
Squids	7365	7325		14690
Striped Seapike / Pike	71	14		85
Tropical rock lobsters		6		6
Tunas	5			5
Whittings	188	2182		2370
Total (kg)	23437	17327	100	40864

