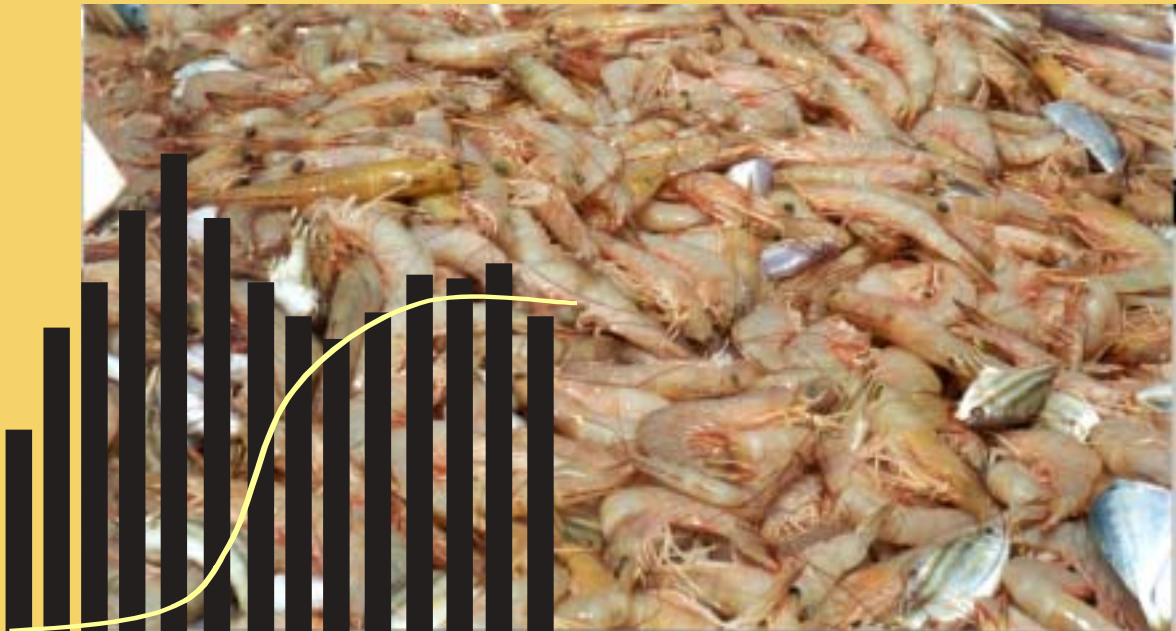


NORTHERN PRAWN FISHERY

DATA SUMMARY

STATISTICS FOR THE FIRST HALF OF THE 2003 SEASON
(1 APRIL - 13 MAY)



Matthew Perdrau
Logbook Program
August 2003

AFMA DATA SECTION

Matthew Perdrau

Northern Prawn Fishery Data Summary - Mid Season 2003

Statistics for the first half of the 2003 season (1 April - 13 May)

August 2003

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Summary

This data summary presents catch and effort data for the Northern Prawn Fishery (NPF) for the first half of the 2003 fishing season. Total catch in 2003 represented a 32 per cent decrease from last years first season, and was 53 per cent down on the 2001 first season. The 2003 season was the same duration as the 2002 season, with 19 less trawlers operating.

Average banana prawn catch per trawler for the first season was 30 tonnes, with an average catch of 787 kilograms per day, down considerably on the 967 kilograms per day in 2002.

Six turtle interactions were reported for 2003 first season, with all six being released alive. In 2002 five turtles were reported taken, with only three being released alive.

The distribution of the data summaries is an important mechanism to provide operators with feedback on the logbook data they have been returning to AFMA.

The summary has been produced primarily for the information of NPF permit holders, skippers and crew, but is also for the interest of other stakeholders and the general public. AFMA wishes to acknowledge the assistance provided by the data section in preparing this data summary and the co-operation of trawler skippers resulting in the timely return of logsheets.

Description of the Northern Prawn Fishery

Area of the Fishery

The NPF is located off Australia's northern coast, extending from Cape York Peninsula Queensland in the east, to Cape Londonderry Western Australia, in the west. It covers approximately 771,000 square kilometres of the Australian fishing zone.

Fishing Methods

At the start of 2003 the fishing fleet comprised of 96 twin-rigged trawlers of up to 29.2 metres in length. These trawlers are capable of sorting, grading, packing and freezing catches at sea. Figure 1 shows an indicative diagram of vessels used in the NPF.

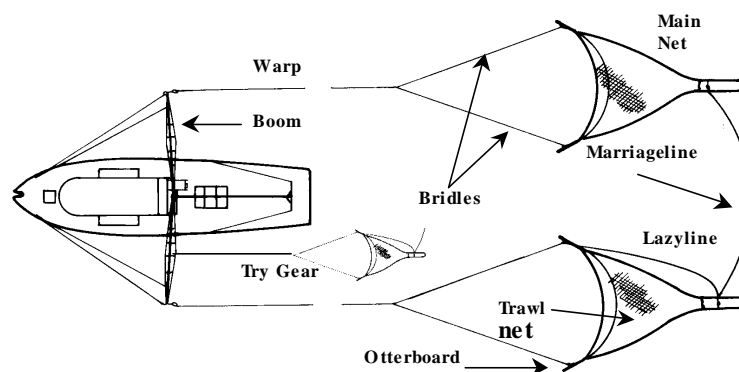


Figure 1: An indicative diagram of the twin-rig prawn trawl configuration used in the NPF (illustration C. Scott).



Management Information

AFMA manages the NPF through input controls, with the major elements being a limit on the number of boats and gear units, closed seasons and permanent and seasonal area closures. Each gear unit is set as a specified amount of headrope and footrope length, which can be varied by an AFMA determination. The total gear units, used in conjunction with other measures, are used to approximate the effort required to sustainably harvest the target species.

Species

The principle target species in the NPF are banana and tiger prawns, however other prawn species may be targeted. Squid, bugs and small quantities of other fish species are also taken.

Data Collection Program

NPF operators are required to complete the 'Northern and Torres Strait Prawn Fisheries Daily Log' (NP13) on a daily basis. The NP13 was introduced into the fishery in February 2001. It replaced the NP12 and NP12A.

Operators fill in catch and effort information while fishing. They are required to send completed logsheets to AFMA within 14 days after the end of each month. The data is entered and stored in the AFMA logbook database. Due to some logsheets being reported as missing, and therefore not entered onto the database, the data in this summary represents 99.8 per cent return of logsheets from 95 trawlers.



Important Notes Relating To This Data Summary

- ◆ The data provided in this summary represents catch and effort within and outside the NPF statistical regions (figure 2).
- ◆ A trawler operating on a day in the fishery is recorded as one boat day (1 unit of effort).
- ◆ Catch data presented in this report is rounded to the nearest tonne. The totals shown in the tables are calculated from actual (unrounded) catch figures and then rounded for the presentation.
- ◆ Nominal catch per unit effort (CPUE) is calculated by dividing the total kilograms caught (catch) by the number of boat days (effort).
- ◆ The 2003 banana season (1 April to 13 May) was the same as the 2002 season.
- ◆ The 2002 banana season (1 April to 13 May) was 14 days shorter than the 2001 season.
- ◆ The 2002 statistics have been updated and verified since the 2002 mid-season data summary report. The figures now cover 100 per cent of the fishery.
- ◆ The catch and effort information presented in the data summary has been aggregated to ensure that an individual's data cannot be identified. Where a particular set of data does not represent a sufficient number of vessels and/or operators, to protect operator confidentiality, the data are not shown.

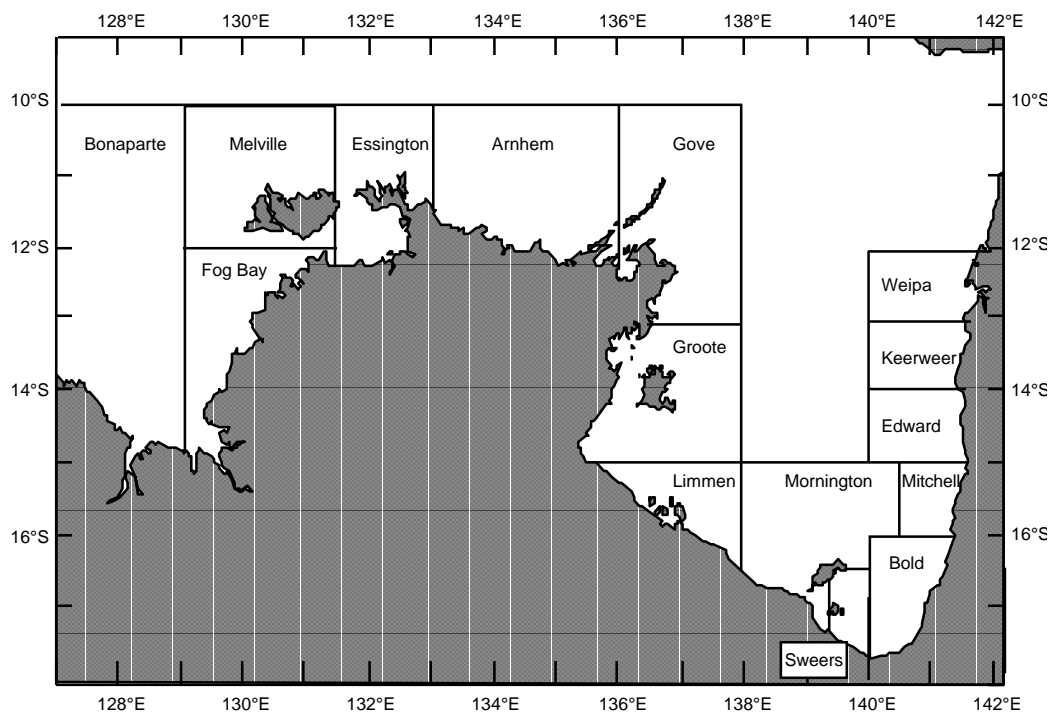


Figure 2: Statistical areas of the Northern Prawn Fishery.



Catch and Effort Data

Catch and Effort by Month

The catch and effort for each month of the first half of the season is displayed in tables 1a, 1b and 1c for 2003, 2002 and 2001 respectively.

Table 1a: Catch and effort by month for first half of the 2003 season (1 April - 13 May).

Month	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
April	2610	952	2467	12	6	0	0	2486
May	979	410	356	27	19	0	0	402
TOTAL	3589	804	2823	39	25	1	0	2887

Table 1b: Catch and effort by month for first half of the 2002 season (1 April - 13 May).

Month	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
April	3151	1243	3820	66	31	0	0	3918
May	1121	295	269	41	20	0	0	330
TOTAL	4272	994	4089	106	52	0	1	4248

Note: The 2002 statistics have been updated and verified since the 2002 mid-season data summary report and these figures represent 100% of the coverage.

Table 1c: Catch and effort by month for first half of the 2001 season (1 April - 27 May).

Month	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
April	3095	1605	4959	6	3	0	0	4969
May	2649	422	875	146	96	0	0	1117
TOTAL	5744	1060	5835	152	99	0	0	6086



Catch and Effort by Region

A breakdown of the catch and effort for each statistical area (for the first half of the season) is shown in tables 2a, 2b and 2c for 2003, 2002 and 2001 respectively. Graphical representation of banana prawn catches by statistical area is displayed in figure 3.

Table 2a: Catch and effort by region for the first half of the 2003 season (1 April - 13 May).

Area	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
Arnhem	180	912	163	1	0	0	0	164
Bold	515	1194	609	5	0	0	0	615
Bonaparte	317	566	171	7	1	0	0	179
Edward	182	779	142	0	0	0	0	142
Fog Bay	271	929	252	0	0	0	0	252
Gove	107	720	77	0	0	0	0	77
Groote	105	1044	110	0	0	0	0	110
Keerweer	35	168	6	0	0	0	0	6
Limmen Bight	447	938	419	0	0	0	0	419
Melville	320	591	181	6	3	0	0	189
Mitchell	377	862	325	0	0	0	0	325
Mornington	322	418	96	18	21	0	0	135
Port Essington	232	630	144	1	1	0	0	146
Sweers	152	826	125	0	0	0	0	126
Weipa	27	104	3	0	0	0	0	3
TOTAL	3589	804	2823	39	25	1	0	2887

Table 2b: Catch and effort by region for the first half of the 2002 season (1 April - 13 May).

Area	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
Arnhem	155	415	63	1	0	0	0	64
Bold	952	1726	1612	30	0	0	0	1643
Bonaparte	246	437	103	2	3	0	0	107
Edward	244	1635	399	0	0	0	0	399
Fog Bay	261	745	194	0	0	0	0	194
Gove	126	525	62	3	1	0	0	66
Groote	128	349	28	14	3	0	0	45
Keerweer	231	1345	311	0	0	0	0	311
Limmen Bight	43	237	10	1	0	0	0	10
Melville	415	585	215	19	9	0	0	243
Mitchell	370	1628	601	1	0	0	0	602
Mornington	554	221	65	25	33	0	0	122
Port Essington	261	657	160	10	1	0	0	171
Sweers	220	1032	225	2	0	0	0	227
Weipa	65	650	42	0	0	0	0	42
TOTAL	4272	994	4089	106	52	0	1	4248

Note: The 2002 statistics have been updated and verified since the 2002 mid-season data summary report and these figures represent 100% of the coverage.



Table 2c: Catch and effort by region for the first half of the 2001 season (1 April - 27 May).

Area	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
Arnhem	129	981	126	0	0	0	0	127
Bold	900	1916	1722	2	0	0	0	1725
Bonaparte	78	652	51	0	0	0	0	51
Edward	130	929	121	0	0	0	0	121
Fog Bay	252	1193	300	0	0	0	0	301
Gove	75	300	21	1	0	0	0	23
Groote	47	154	3	3	1	0	0	7
Keerweer	88	877	77	0	0	0	0	77
Limmen Bight	893	1346	1198	3	1	0	0	1202
Melville	395	829	320	3	5	0	0	327
Mitchell	300	856	257	0	0	0	0	257
Mornington	1773	641	912	137	88	0	0	1137
Port Essington	246	708	170	2	3	0	0	174
Sweers	334	1483	494	1	1	0	0	495
Weipa	104	606	63	0	0	0	0	63
TOTAL	5744	1060	5835	152	99	0	0	6086

Banana Prawn Catch by Area

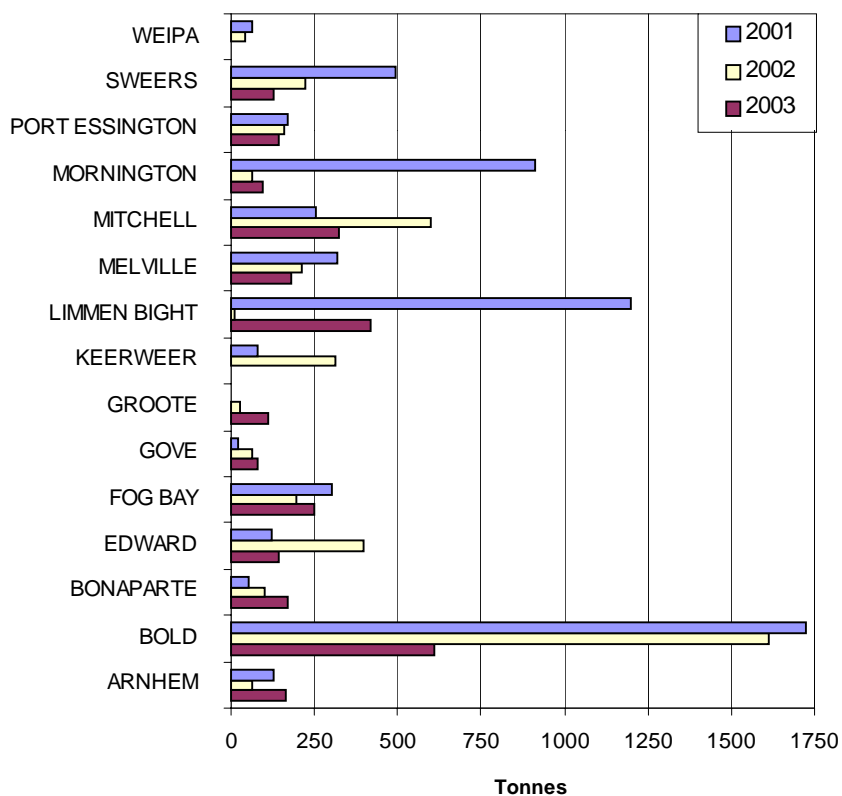


Figure 3: Catch of banana prawns by statistical area for the first half of the season in 2003, 2002 and 2001.



Catch by Boat

Distribution of total catch by boat for the first half of the season for 2003, 2002 and 2001 is graphically displayed in figure 4.

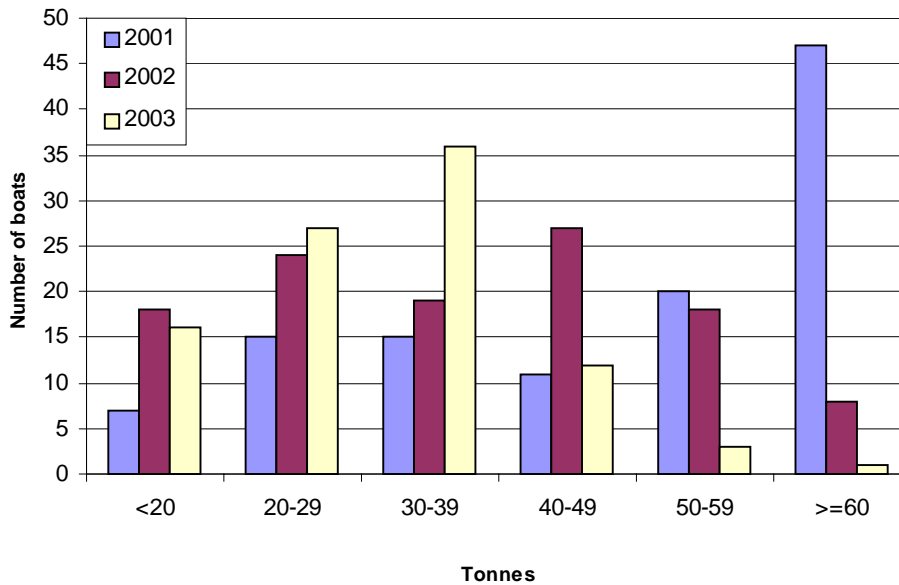


Figure 4: Total catch by boat for the first half of the season in 2003, 2002 and 2001.

2003 NPF By-product by Species

Total retained by-product for the first half of the 2003 season is presented in table 3 for each species, arranged in order of kilograms recorded.

Table 3: Total retained by-product for the first half of the 2003 season (1 April - 13 May).

Species	Total in Kg's
Bugs	5484
Squid	357
Whiting	185
Northern Cod	140
Saddle-tailed Sea Perch	100
Red Emperor	100
Mud Scallop	74
Pomfret	68
OTHER	64
Crayfish	62
Golden Snapper	60
Cuttlefish	49
Spanish Mackerel	40
Leatherjacket	14
Octopus	12
TOTAL	6809



NPF Turtle Bycatch

The turtle bycatch in the first half of the 2003 season is shown in tables 4a, 4b and 4c for 2003, 2002 and 2001 respectively. Each table includes the numbers of each species as recorded in the logbooks and whether they were released alive, dead or injured (since 2001). TEDs and BRDs became mandatory in the fishery on 15 April 2000. Reported turtle bycatch was significantly lower in 2003 and 2002 when compared to 2001.

Table 4a: Total turtle bycatch in the NPF for the first half of the 2003 season (1 April - 13 May).

Species	Live	Injured	Dead	Unknown	TOTAL
Flatback	3				3
Green	1				1
Hawksbill					0
Loggerhead					0
Pacific Ridley	1				1
Leatherback					0
Turtle species unknown	1				1
TOTAL	6	0	0	0	6

The use of TEDs was compulsory for the full season.

Table 4b: Total turtle bycatch in the NPF for the first half of the 2002 season (1 April - 13 May).

Species	Live	Injured	Dead	Unknown	TOTAL
Flatback	1				1
Green					0
Hawksbill			1		1
Loggerhead					0
Pacific Ridley	1				1
Leatherback	1		1		2
Turtle species unknown					0
TOTAL	3	0	2	0	5

The use of TEDs was compulsory for the full season.



Table 4c: Total turtle bycatch in the NPF for the first half of the 2001 season (1 April - 27 May).

Species	Released Alive		Released Injured		Released Dead		Unknown		TOTAL
	1-14/4	15/4-27/5	1-14/4	15/4-27/5	1-14/4	15/4-27/5	1-14/4	15/4-27/5	
Flatback	15	3	0	0	1	0	1	0	20
Green	9	0	0	1	0	0	0	0	10
Hawksbill	3	0	0	0	0	0	1	0	4
Loggerhead	0	0	0	0	0	0	0	0	0
Pacific Ridley	4	2	0	1	0	0	0	0	7
Leatherback	2	0	0	0	1	0	0	0	3
Turtle species unknown	0	0	0	0	0	0	2	3	5
TOTAL	33	5	0	2	2	0	4	3	49

The turtle bycatch data for 2001 is presented in a pre and post TED Monitoring Project format. For the first two weeks of the season (1 - 14 April) some vessels operated with 1 TED on / 1 TED off. This was used to assess the effect of TEDs on the catch of banana prawns.





