



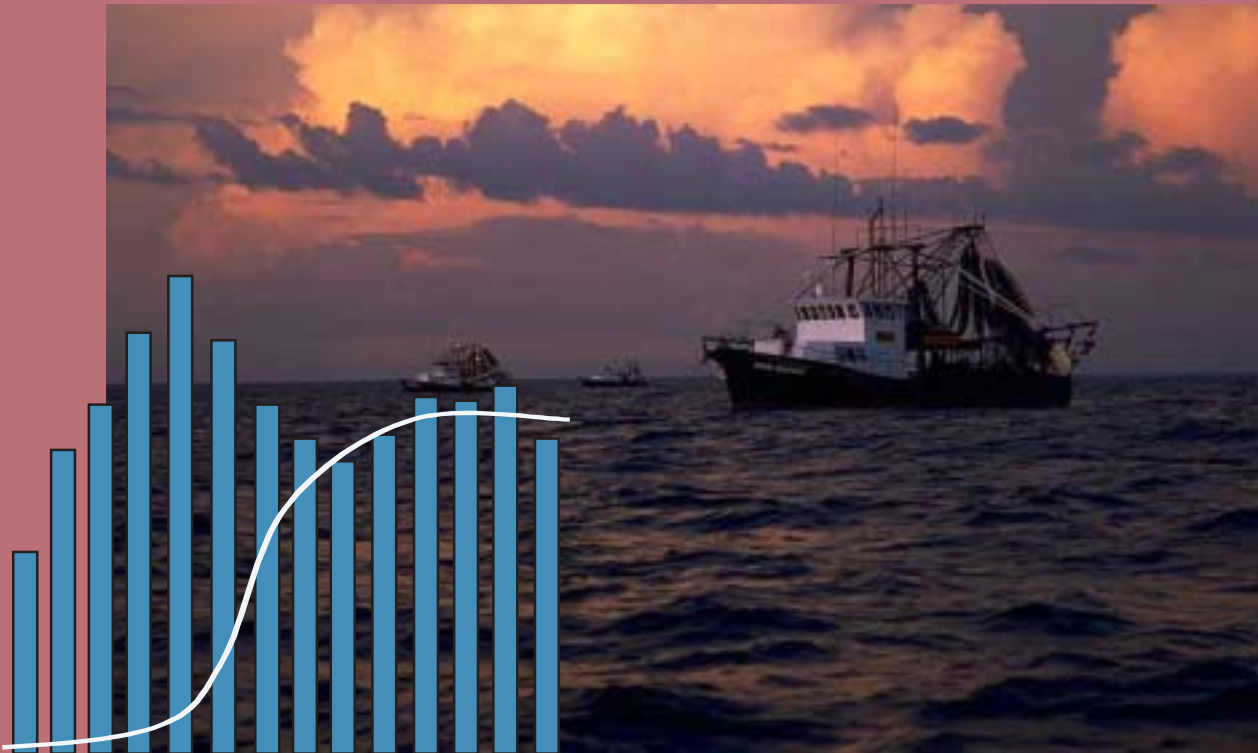
Australian Government

Australian Fisheries Management Authority

NORTHERN PRAWN FISHERY

DATA SUMMARY

**STATISTICS FOR THE FIRST HALF OF THE 2004 SEASON
(15 APRIL - 27 MAY)**



**Alex Lynch
Logbook Program
August 2004**

AFMA DATA SECTION

Alex Lynch

Northern Prawn Fishery Data Summary

Statistics for the first half of the 2004 season (15 April - 27 May)

August 2004

AFMA Logbook Program

22 Brisbane Avenue

BARTON ACT 2607

© Commonwealth of Australia 2004

ISBN 1-877044-26-1

This report should be cited as: Lynch A.W (2004). *Northern Prawn Fishery Data Summary: Statistics for the first half of the 2004 season (15 April - 27 May)*. Logbook Program, Australian Fisheries Management Authority, Canberra.

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth available from AusInfo. Requests and inquiries concerning reproduction and rights should be addressed to the Manager, Legislative Service, AusInfo, GPO Box 1920, Canberra ACT 2601

Published by the Australian Fisheries Management Authority

STREET ADDRESS

3rd Floor
John Curtin House
22 Brisbane Avenue
BARTON ACT 2600

POSTAL ADDRESS

Box 7051
Canberra BC
ACT 2610

ENQUIRIES

Telephone: (02) 6272 5029
Facsimile: (02) 6272 5175



Contents

Summary	4
Description of the Northern Prawn Fishery	4
Area of the Fishery	4
Fishing Methods	4
Management Information	5
Species	5
Data Collection Program	5
Important Notes Relating To This Data Summary	6
Catch and Effort Data	7
Catch and Effort by Month	7
Catch and Effort by Region	8
Banana Prawn Catch by Area	9
Catch by Boat	10
2004 NPF By-product by Species	10
NPF Turtle Bycatch	11
Prawn Grades	12



Summary

This data summary presents catch and effort data for the Northern Prawn Fishery (NPF) for the first half of the 2004 fishing season. Total catch in 2004 represented a slight increase (1.5%) from last years first season, and was 45 per cent down on the 2002 first season. The 2004 season was the same duration as the 2003 season, with the start date shifted back by 15 days.

Average banana prawn catch per trawler for the first season was 32 tonnes, with an average catch per vessel, per fishing day of 888 kilograms which was up from 787 kilograms per day, per vessel in 2003.

Twelve turtle interactions were reported for the 2004 first season, with only one turtle being reported as dead. In 2003 six turtles were reported taken, all were released alive.

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.

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 2004 the fishing fleet comprised of 95 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.

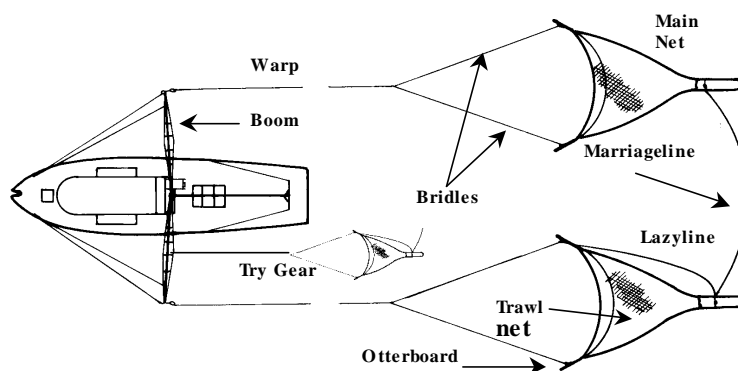


Figure 1: An indicative diagram of the twin-rig prawn trawl configuration used in the NPF (illustration C. Scott).

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

A new logbook was introduced into the NPF fishery this season. The 'Northern and Torres Strait Prawn Fisheries Daily Log' NP14 replaced the NP13. The NP14 has been designed to collect prawn grade information which will enhance future prawn stock assessments. This format is replicated in the electronic version of the logbook "XPR03".

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 problems with a small amount of e-log returns not all data was available at the time of publication, this data in this summary therefore represents 95.5 per cent 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 season dates of the 2004 banana season were moved back by 15 days but the season length was the same as the 2003 and 2002 seasons.
- ◆ 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.

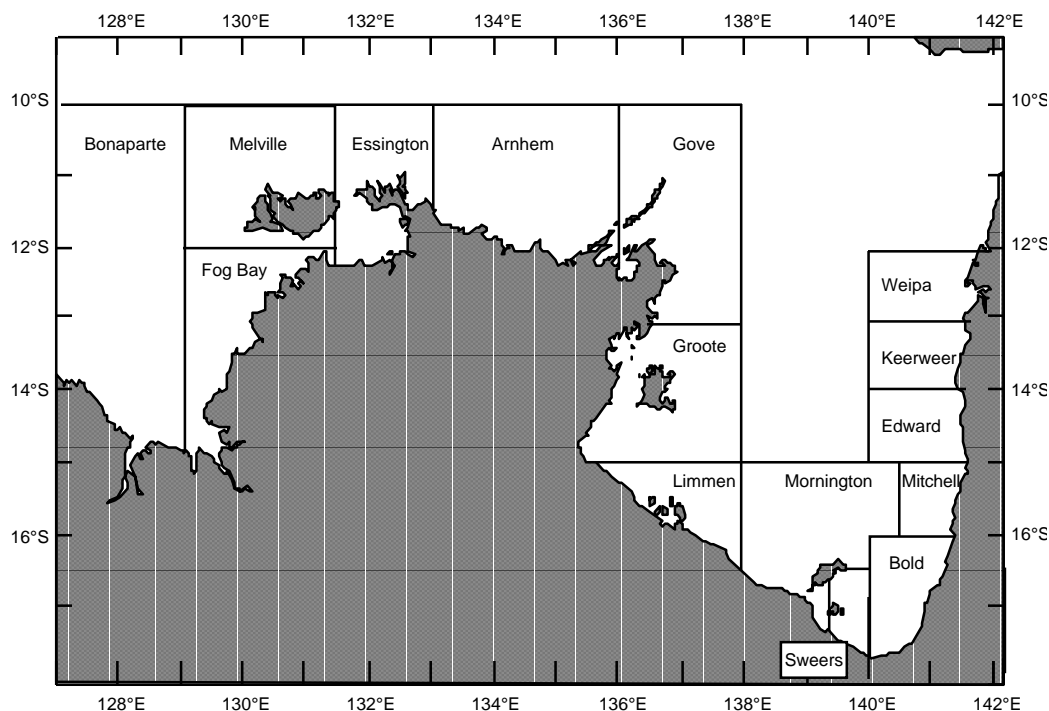


Figure 2: Statistical areas of the Northern Prawn Fishery.



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 2004, 2003 and 2002 respectively.

Table 1a: Catch and effort by month for first half of the 2004 season (15 April - 27 May).

Month	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
April	1369	1633	2235	1	0	0	0	2236
May	1902	365	671	16	6	0	1	694
TOTAL	3271	896	2905	17	7	0	1	2930

Table 1b: 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 1c: 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



Catch and Effort by Region

A breakdown of the catch and effort for each statistical area is shown in tables 2a, 2b and 2c for 2004, 2003 and 2002 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 2004 season (15 April - 27 May).

Area	Effort (boat days)	CPUE (kg/day)	Banana (tonnes)	Tiger (tonnes)	Endeavour (tonnes)	King (tonnes)	Mixed (tonnes)	TOTAL (tonnes)
Arnhem	297	841	247	2	0	0	0	250
Bold	382	1548	589	2	0	0	0	592
Bonaparte	300	554	158	6	2	0	0	166
Edward	159	949	151	0	0	0	0	151
Fog Bay	216	1471	317	0	0	0	0	318
Gove	151	418	62	1	1	0	0	63
Groote	116	493	57	0	0	0	0	57
Keerweer	123	596	73	0	0	0	0	73
Limmen Bight	164	325	53	0	0	0	0	53
Melville	346	847	291	1	1	0	0	293
Mitchell	495	913	452	0	0	0	0	452
Mornington	104	340	29	4	3	0	0	35
Port Essington	189	863	162	0	0	0	0	163
Sweers	105	1172	123	0	0	0	0	123
Weipa	119	1143	136	0	0	0	0	136
TOTAL	3266	896	2901	17	7	0	1	2926

Note: In 2004 four tonnes of prawns were caught outside these statistical zones.

Table 2b: 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 2c: 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

Banana Prawn Catch by Area

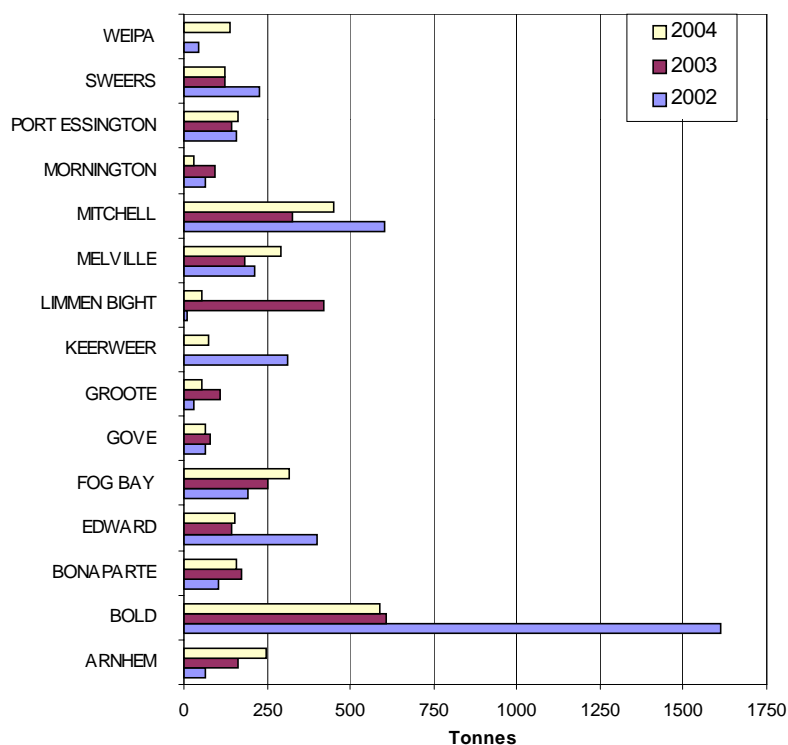


Figure 3: Catch of banana prawns by statistical area for the first half of the season in 2004, 2003 and 2002.



Catch by Boat

Distribution of total catch by boat for the first half of the season for 2004, 2003 and 2002 is graphically displayed in figure 4.

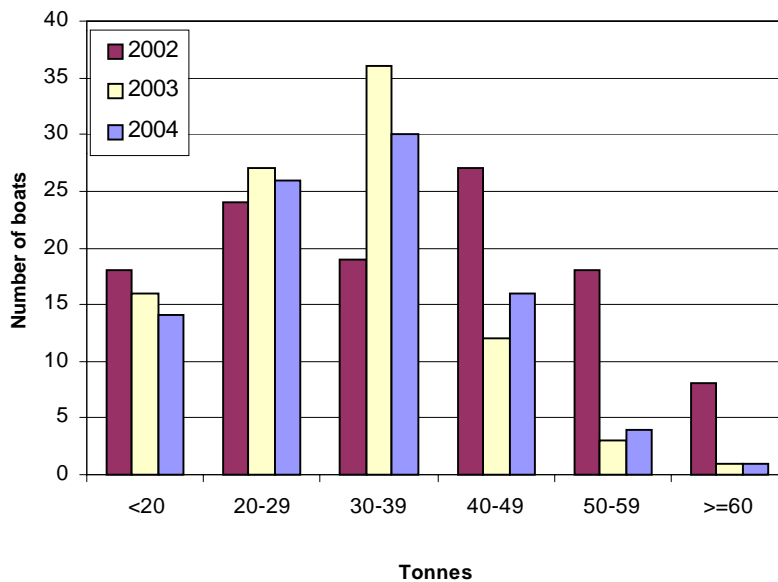


Figure 4: Total catch by boat for the first half of the season in 2004, 2003 and 2002.

2004 NPF By-product by Species

Total retained by-product for the first half of the 2004 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 2004 season (15 April - 27 May).

Species	Total in Kg's
Bugs	2797
Squid	478
Scarlet sea perch	400
Whiting	138
Mixed reef fish	130
Mackerel	106
Mangrove jack	50
Pomfret	45
Crayfish	37
Scallops	27
Cuttlefish	15
Unspecified mixed fish	5
TOTAL	4228



NPF Turtle Bycatch

The turtle bycatch in the first half of the season is shown in tables 4a, 4b and 4c for 2004, 2003 and 2002 respectively. Each table includes the numbers of each species as recorded in the logbooks and whether they were released alive, dead or injured (since 2002). TEDs and BRDs became mandatory in the fishery on 15 April 2000.

Table 4a: Total turtle bycatch in the NPF for the first half of the 2004 season (15 April - 27 May).

Species	Live	Injured	Dead	Unknown	TOTAL
Flatback	6			1	7
Green	2				2
Hawksbill	2				2
Loggerhead					0
Pacific Ridley			1		1
Leatherback					0
Turtle species unknown					0
TOTAL	10	0	1	1	12

Table 4b: 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



Table 4c: Total turtle bycatch in the NPF for the first half of the 2002 season (1 April - 27 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

Prawn Grades

Thirty five different grades of banana prawns were reported in 2004. Table 5 presents this information in a summarised format to give a general overview of prawn size in 2004.

Table 5. Banana prawn catch by grade for the first half of the 2004 season (15 April - 27 May).

Grade	Catch (tonnes)	%
U/10	9	0.3
10/15	926	35.0
15/20	1273	48.1
20/25	355	13.4
25/30	27	1.0
30+	4	0.2
S&B	54	2.0

