

Post Stocking Survey Report

Lake Monduran (Fred Haigh Dam), Gin Gin
Survey 2

18 November 1999

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Cover Photo: Monduran Dam, Gin Gin

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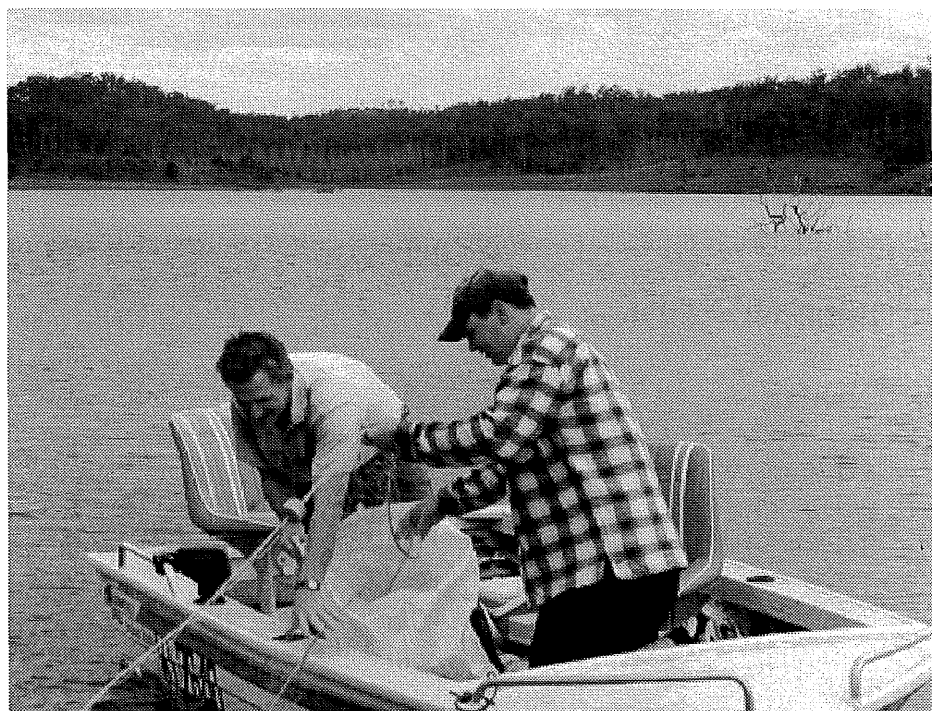
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Assistance from members of the Monduran Anglers and Stocking Association Inc with setting and clearing nets, recording data and participating in the electrofishing survey was greatly appreciated. The number and enthusiasm of members that arrived to assist our officers was very encouraging. Without this assistance the post stocking survey would not have been possible.

Members of the Monduran Anglers and Stocking Association Inc



SUMMARY

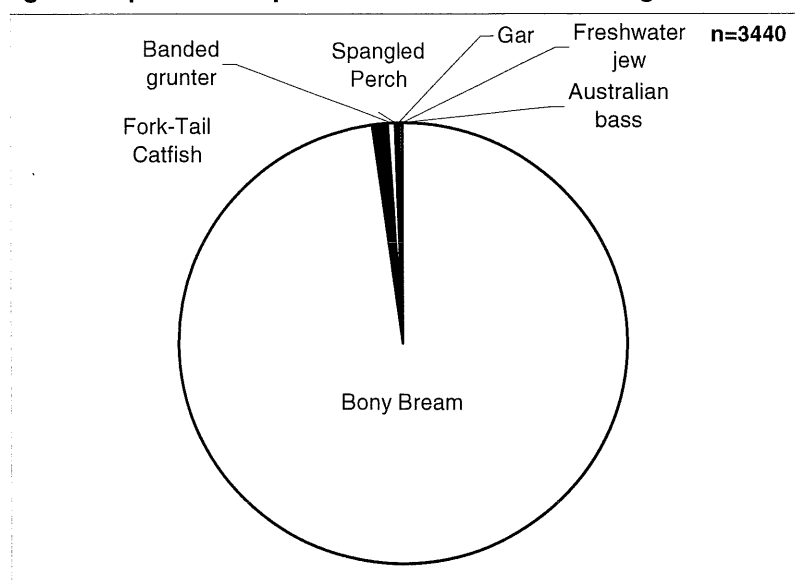
This report details the results of the post stocking survey conducted at Lake Monduran on 18 November 1999. Survey methods included electrofishing and netting.

The purpose of this survey was to

- Measure the relative abundance of angling species;
- Monitor the relative abundance and species composition of forage species;
- Monitor growth of stocked species where stockings can be differentiated;
- Review and provide recommendations on management strategies for the fishery.

Results

Figure 2 Species composition of total electrofishing catch.



A total of 3,340 fish were counted in this survey using electrofishing and gill netting as sampling methods. Bony bream dominated the catch (3365 fish), followed by fork-tail catfish (35), banded grunter (24), spangled perch (11), snub nosed gar (3), Australian bass (1), and freshwater jew (1).

Electrofishing: The majority of fish were collected electrofishing. The electrofishing catch consisted of 3293 fish with the total catch effort ratio of 56 fish/minute (56 fish were caught

for each minute of 'power on' electrofishing time). Bony bream predominated in the catch with 3250 fish, followed by, fork-tail catfish 16, banded grunter 14, spangled perch 9, snub-nose gar 2, Australian bass 1, and freshwater jew 1.

Netting: Six gill nets (three panel nets and three Barramundi nets) were set with a total of 147 fish caught, consisting of 143 bony bream, 18 fork-tail catfish, 12 banded grunter, 2 spangled perch, and 1 snub nosed gar. Management Group boats and crews assisted with the netting exercise.

Netting and electrofishing results were disappointing with the only stocked fish recorded being one bass and a number of gar. However results from anglers are more encouraging with catches of small bass reported regularly. One barramundi of 50 cm (TL) has also been caught. This catch occurred just prior to a fishing competition, and was verified by a number of competition officials.

The presence of snub-nosed gar was encouraging and indicates that at least some of the fish in the September stocking have survived. Gar stockings in a number of impoundments have been very successful with one initial stocking of between 100 to 200 fish resulting in the establishment of a large population in a matter of 18 to 24 months. Hopefully this will be case in Monduran.

Reservoir details Lake Monduran (Fred Haigh Dam) was built in 1978 and is managed by Department of Natural Resources. Fred Haigh Dam is situated 21 km north west of Gin Gin on the Kolan River. At full supply level the dam's surface area is 5,340 hectares. At the time of the survey the water level was 10% of full capacity.

Stocking Prior to stocking, endemic angling species in Lake Monduran would have included fork-tailed catfish, freshwater jew and spangled perch.

Stocking at Lake Monduran has been undertaken in three distinct phases.

- The first phase involved the stocking of sooty grunter and sleepy cod by DPI Walkamin between 1982 and 1983. These initial stockings appear to have failed.
- The second phase (under the auspices of the Queensland Government's Recreational Fishing Enhancement Program) took place between 1987 and 1991 involving golden perch, silver perch, a few barramundi, and saratoga. Again these stockings appear to have failed with very few stocked species having been recorded by anglers.
- The final and current phase (still under the auspices of the Queensland Government's Recreational Fishing Enhancement Program) commenced in 1997 with emphasis on barramundi and bass. Since 1997 some 104,000 Australian bass and 46,000 barramundi have been stocked. An introduction of adult and juvenile gar has also been undertaken.

Recommendations The stocking of bass and barramundi should continue. The introduction of the fishing permit scheme in July should provide significantly more funds for this purpose. Consideration should also be given to using artificial cover with future stockings as this has been shown to significantly increase initial fingerling survival. The help of the stocking group boats and crews who assisted with the netting operation was much appreciated.

INTRODUCTION

Initial stocking, by DPI Fisheries at Walkamin commenced in the 1981/82 season. Both sleepy cod and sooty grunter were released in 1981/82, with another release of sooty grunter in 1982/83. Survival of these species appears to have been limited as very few sooty grunter or sleepy cod have been reported in anglers catches since.

Under the auspices of the Queensland Governments Recreational Fishing Enhancement Program, Lake Monduran was again stocked in 1978/79. Species included barramundi, golden perch, saratoga, silver perch and a few barramundi. Again these stockings appear to have failed and the stocking group disbanded. A new group formed in 1997. Since then 103,950 Australian bass and 45,715 barramundi have been stocked. In this period stocking densities have ranged from 1 fingerling/hectare/year (calculated on full supply level) in 1996/97 to 14 fingerlings/hectare/year in 1998/99. The stocking composition has been 69% bass and 31% barramundi.

This document details results from this post stocking survey conducted on 17 and 18 November, 1999. The purpose of this survey was to

- Measure the relative abundance of angling species;
- Monitor the relative abundance and species composition of forage species;
- Monitor growth of stocked species in particular barramundi;
- Review and provide recommendations on management strategies for the fishery.

Results for the different fishing methods used in this survey are given as catch per unit effort (CPUE). CPUE is the number of fish caught, divided by the amount of time spent fishing. In this survey, CPUE is expressed as:

electrofishing - effort is the number of minutes ('power on' time) spent electrofishing. Results are expressed as the number of fish caught per minute of 'power on' time;

netting - effort is the number of hours that the net was set. Results are expressed as the number of fish caught per trap hour;

CPUE data are useful for comparing surveys over time as well as between dams where the same fishing method is used.

SAMPLING METHODS

1 Electrofishing

Electrofishing was conducted using a Smith Root 7.5 kva unit mounted on a 4.3 m aluminium 'Edgetracker' vessel. The crew consisted of a skipper and one net operator. Electrofishing was conducted over 2 days. On the 17th November some 5 hours were spent searching for stocked species and other species were not recorded. On the 18th November the electrofishing commenced at 1:00pm and concluded at 6:35 pm. All species collected were recorded and representative samples weighed and measured. Results are expressed as number of fish per electrofishing minute ('power on' time).

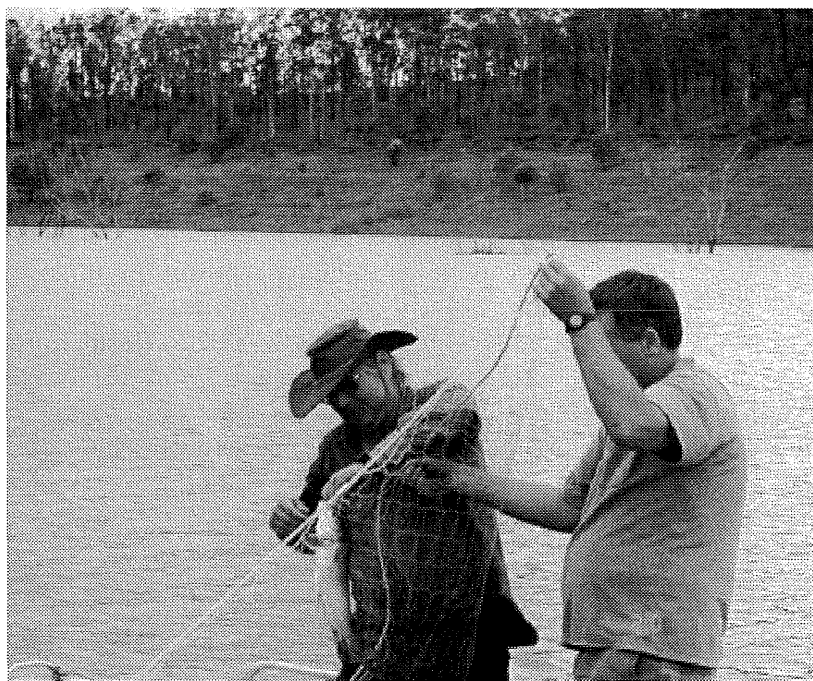
2 Panel Nets

Three panel nets were set for a total of 10.25 hours. Each panel net consisted of four 10 m sections of 1½, 2½, 3½ and 4½ inch mesh resulting in a total net length of 40 m, and a drop of 2.4 m. Each net was set perpendicular to the shoreline. Results are expressed as number of fish per panel net hour.

3 Barra Nets

Three barra nets (5 inch, 6 inch, and 7 inch mesh) were set for a total of 7.25 hours. Each net was set perpendicular to the shoreline. Results are expressed as number of fish per panel net hour.

Stocking group assisted with both the panel and barramundi netting components of the survey.



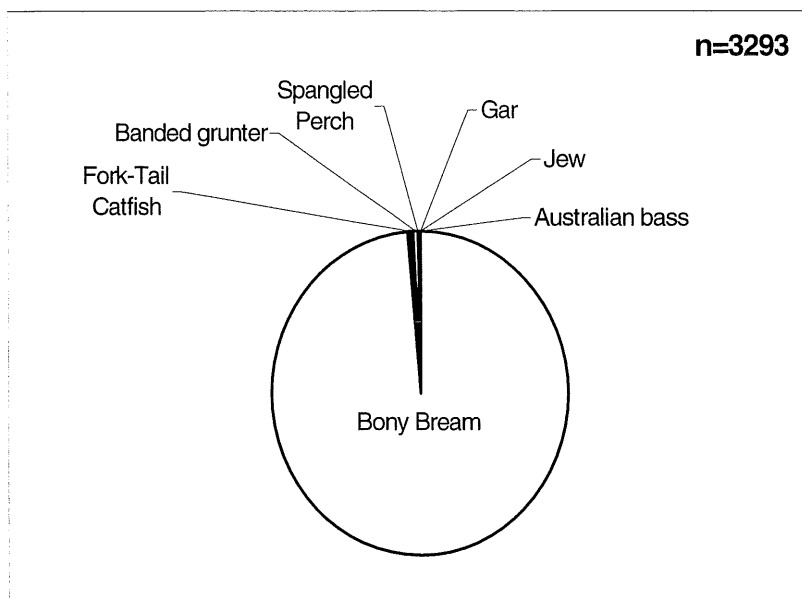
RESULTS

On the 18th a total of 3340 fish were collected using electrofishing and netting methods. Bony bream dominated the catch (3365 fish), followed by fork-tail catfish (35), banded grunter (24), spangled perch (11), snub nosed gar (3), Australian bass (1), and freshwater jew (1). A number of non-angling, smaller native species were also recorded as shown below.

- Australian bass *Macquaria novemaculeata*
- Banded grunter *Amniataba percooides*
- Bony bream *Nematolosa erebi*
- Fork-tailed catfish *Arius graffei*
- Freshwater jew (eel-tailed catfish) *Tandanus tandanus*
- Spangled perch *Leiopotherapon unicolor*
- Sub-nosed gar *Arrhamphus sclerolepis*
- Freshwater Jew *Tandanus tandanus*

1 Electrofishing

Fifty nine minutes of power on' time resulted in a total catch 3293 fish.



Bony bream predominated (3250 fish), followed by fork-tailed catfish (16), banded grunter (14), spangled perch (9) and Australian bass and freshwater jew (1 fish each) (see Fig 1). The CPUE ratio for electrofishing was 56 fish/minute. Figure 1 Species composition of total electrofishing catch.

Catch details for the electrofishing operation are given in Table 1. For interest, electrofishing results are compared with results from

surveys performed on a number of other impoundments in Appendix 4. Electrofishing operations were conducted during the day and night, over a selection of habitats. Details of the data from the day and night electrofishing and different habitats are shown in Appendix 2.

1 Catch effort ratios for electrofishing

Species	Power on time (minute)	Number	Fish/minute
Bony Bream	58.8	3250	55.3
Fork-tail Catfish	58.8	16	0.27
Banded Grunter	58.8	14	0.24
Spangled perch	58.8	9	0.15
Snub-nosed gar	58.8	2	0.03
Australian bass	58.8	1	0.02
Freshwater jew	58.8	1	0.02
Total	58.8	3293	56

2 Panel Nets

Panel nets accounted for 115 bony bream, 19 fork-tail catfish 10 banded grunter, 1 gar and 2 spangled perch, with a CPUE ratio of 9.5 fish per net hour.

Details of fish sampled from each panel net are given in Table 2. For interest, panel net results at Monduran Dam are compared with results from surveys on a number of other impoundments in Appendix 4.

Table 2 Catch effort ratios for each panel net

Net 1

Species	Net hours	Number	Fish/net hour
Bony bream	4.75	45	9.47
Fork-tail catfish	4.75	4	0.84
Banded grunter	4.75	5	1.05
Spangled perch	4.75	2	0.42
Total	4.75	56	11.79

Net 2

Species	Net hours	Number	Fish/net hour
Bony bream	2.5	19	7.6
Fork-tail catfish	2.5	8	3.2
Total	2.5	27	10.8

Net 3

Species	Net hours	Number	Fish/net hour
Bony bream	3.0	79	26.3
Fork-tail catfish	3.0	6	2
Banded grunter	3.0	7	2.3
Snub-nose gar	3.0	1	0.3
Total	3.0	93	31

3 Barra Nets

Each of three nets were set for a total of 7.25 hours. A total of 3 fish were caught: two fork-tail catfish, and 1 bony bream.

DISCUSSION

1 Stocking history

Fred Haigh Dam was built in 1978 to supply water to the Kolan Shire. Prior to stocking, endemic angling species in the lake would have included banded grunter, bony bream, eels, fork-tailed catfish, freshwater jew and spangled perch. Stocking at Monduran has occurred in three distinct phases.

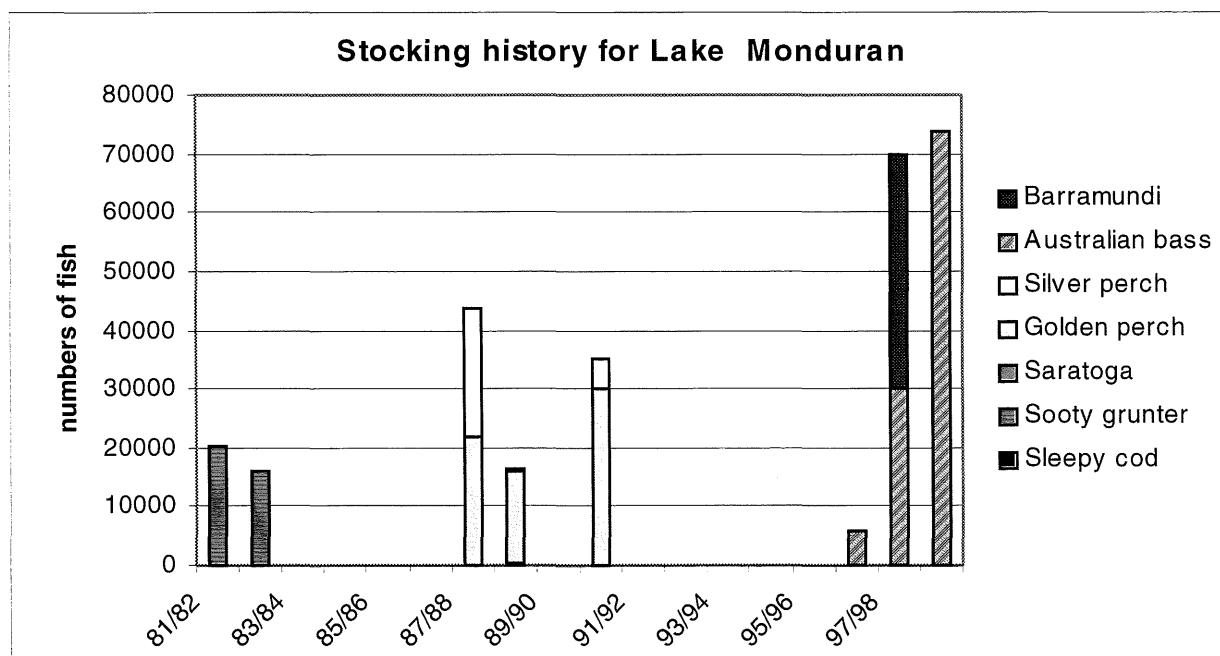
The first phase involved the stocking of 100 sleepy cod (*Oxyeleotris lineolatus*) and 20,190 sooty grunter (*Hephaestus fuliginosus*) by DPI Walkamin between 1981 and 1983 very few of these fish have ever been caught and therefore these early stockings are considered to have been unsuccessful.

The second phase of stocking took place between 1987 and 1991 as part of the Queensland Government's Recreational Fishing Enhancement Program. The species stocked during this period included golden perch, silver perch, saratoga and a small number of barramundi. Again these stockings appear to have been unsuccessful with very few stocked species reported as having been caught by anglers.

The third phase of stocking which is part of the Queensland Governments Recreational Fishing Enhancement Program commenced in 1997 when the current stocking group the Monduran Anglers and Stocking Association was formed. The current stocking emphasis is on barramundi and Australian bass. Since 1997 some 104,000 Australian bass and 46,000 barramundi have been stocked into Lake Monduran. A consignment of snub-nosed gar was also transferred from the Isis Balancing Storage to Lake Monduran in September 1999.

Since 1997 stocking densities have ranged from 1 fingerling/hectare/year (calculated on full supply level) in 1996/97 to 14 fingerlings/hectare/year in 1998/99. Species composition since 1997 has been 69% bass, 31% barramundi and <1% gar.

Figure 3 Stocking history for Lake Monduran



2 Survey results

Netting and electrofishing results were disappointing with the only stocked fish recorded being one bass and a number of gar. It needs to be understood that netting and electrofishing are selective sampling methods for example if the fish are in deep water the electrofisher is ineffective, and similarly with nets, if the fish are not moving, netting can be unproductive. The absence of stocked may simply mean that conditions on the day were simply not conducive to the survey methods used. Results from anglers tend to indicate that this may have been the case as numbers of small bass are regularly reported in angler's catches. One barramundi of 50 cm (TL) has also been caught. This catch occurred just prior to a fishing competition, and was verified by a number of competition officials.

The number of gar recorded was encouraging and indicates that at least some of the fish in the September stocking have survived. Stocking of mature and juvenile gar into other impoundments has met with mixed success. In Somerset, Samsonvale and Cressbrook Dams, the introduction of between 100 to 200 gar has been dramatically successful with large populations developing within 2 years of the initial introduction. Conversely in Hinze Dam and the Ted Pakalus Weir (Yarraman), similar stockings appear to have failed.

RECOMMENDATIONS

It is recommended that the group continue to concentrate on Australian bass and barramundi. Where possible both Australian bass and barramundi should be stocked as early in the season as possible so growth can be maximised prior to the onset of winter. Stocking a large impoundment with limited funds is a slow process. The introduction of the Stocked Impoundment Permit scheme should make significantly more funds available for this purpose and hopefully accelerate the development of this fishery.

The use of artificial cover for future stockings should be considered. A project presently being conducted indicates artificial cover may significantly increase initial survival. For further information contact Tom Gallagher Phone (07) 3817 9500 or 3817 9590.

Artificial cover used when releasing fingerlings



APPENDICES

1 Length and weight data

Bony Bream

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
151	35	110	12
92	8	71	2
234	123	104	9
303	314	104	10
168	52	90	7
80	7	87	6
73	4	95	7
109	14	56	1
98	10	59	1
100	10	77	2
122	19	91	7
103	12	105	9
104	13	74	2
83	7	71	2
72	3	72	2
146	29	62	10
83	7	102	9
67	3	92	6
83	7	102	9
72	5	98	8
102	3	101	8
93	9	60	1
116	62	59	1
62	2	60	1
147	34	94	7
166	48	81	2
66	3	84	4
92	8	96	8
130	22	86	5
129	22	51	1
127	20	59	1
80	4	92	5
70	3	100	9
76	3	86	5
79	4	61	0
73		83	4
72	2	69	0
72	2	78	2
78	4	88	4
98	10	82	3
89	7	59	1
99	9	57	1
99	9	98	8
88	6	74	2
101	11	83	3
59	1	62	1
73	2	60	1
71	2	70	1
80	2	70	1
58	0	190	80

77	0	155	50
68	0	320	380
67	1	205	100
59	1	205	100
59	1	200	100
65	1	205	100
82	3	225	130
69	1	200	100
70	1	190	100
58	1	135	40
59	1	130	40
64	1	140	50
56	1	125	30
60	1	145	40
53	1	135	40
59	1	135	40
56	1	150	50
53	1	165	60
63	1	140	45
51	1	145	45
56	1	230	150
62	1	200	100
61	1	220	120
68	1	300	300
49	1	290	300
220	100	260	280
220	100	320	480
120	25	220	160
185	75	240	160
250	225	220	160
200	100	220	160
290	275	220	140
295	300	250	200
340	525	230	180
275	250	250	220
250	200	220	160
320	425	160	40
360	525	300	300
195	75	240	160
195	100	320	440
130	25	290	375
135	30	120	25
250	250	125	25
205	100	125	25
230	125	120	25
390	325	140	50
310	300	130	25
270	250	280	875
270	200	280	250
285	250	325	275
325	250	275	250
300	375	285	250
260	250	345	500
365	125	280	250
325	400	240	125
315	375	230	125
270	375	300	260
310	250	200	125
330	375	240	145

320	400	295	250
310	500	215	50
290	375	230	125
285	375	260	150
290	250	225	125
130	25	340	500
120	25	300	375
295	250	290	260
275	250	270	250

	Length (mm)
Average	157
Min	49
Max	365

Fork-tail Catfish

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
360	428	440	1050
345	620	290	250
319	577	419	950
345	618	270	275
325	380	400	600
345	445	480	101
345	522	600	2700
298	284	450	1000
378	586	380	600
294	271	400	800
359	457	400	700
187	65	420	800
360	432	295	250
304	295	380	600
353	533	430	875
470	1250	610	3000
110	110	420	875
650	4000		

	Length (mm)
Average	378
Min	110
Max	650

Banded Grunter

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
65	1	115	26
89	1	48	1
132	24	170	125
70	1	100	?
95	2	110	?
72	1	105	20
84	1	110	25
93	1	110	25
78	1	110	25
82	1	110	50
78	1	78	1

	Length (mm)
Average	91
Min	48
Max	132

Spangled perch

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
137	20	152	44
192	92	208	130
175	62	129	19
138	29	120	30
152	41	115	25
222	174		

	Length (mm)
Average	158
Min	115
Max	222

Snub-nosed Gar

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
162	10	110	?
80	1		

Australian Bass

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
171	47		

Freshwater jew

LENGTH (mm)	WEIGHT (g)	LENGTH (mm)	WEIGHT (g)
476	1042		

2 Day and night electrofishing operations

Day operation

Species	Power on time (minutes)	Number	Fish/minute
Bony bream	47.6	2176	45.7
Fork-tail catfish	47.6	16	0.34
Banded grunter	47.6	2	0.04
Total	47.6	2194	46.1

Night operation

Species	Power on time (minutes)	Number	Fish/minute
Bony Bream	11.2	1074	95.9
Banded grunter	11.2	12	1.07
Spangled perch	11.2	9	0.80
Snub-nosed gar	11.2	2	0.18
Freshwater jew	11.2	1	0.009
Australian bass	11.2	1	0.009
Total	11.2	1099	98.13

3 Habitat electrofishing operations

Weed beds

Species	Power on time (minutes)	Number	Fish/minute
Bony Bream	15.2	798	52.5

Standing timber

Species	Power on time (minutes)	Number	Fish/minute
Bony Bream	15.2	815	53.6

Rocky wall

Species	Power on time (minutes)	Number	Fish/minute
Bony Bream	11.6	563	48.5
Fork-tail catfish	11.6	15	1.3
Banded grunter	11.6	14	1.2
Spangled perch	11.6	9	0.8
Snub-nose Gar	11.6	2	0.2
Australian bass	11.6	1	0.1
Total	11.6	604	52.1

Steep gully/Inlet

Species	Power on time (minutes)	Number	Fish/minute
Bony Bream	16.7	1074	64.31
Fork-tail catfish	16.7	1	0.04
Freshwater jew	16.7	1	0.04
Total	16.7	1076	64.39

4 Catch effort results: comparisons

Electrofishing results: comparisons with other impoundments

Impoundment	Date	Power on time (min)	Golden perch	Silver perch	Australian bass	Cod	Saratoga	Other	Total Stocked Species	Stocked Fish per min.
Monduran Dam	18/11/99	59	0	0	1	NP	0	56	1	0.01
Cania Dam	6/8/99	40.7	20	6	24	NP	4	28	54	1.32
Wuruma Dam	9/7/99	56.6	1		2	NP		1	4	0.07
Monduran Dam	17/5/99	60.28	0	0	0	NP	0	2.59	0	0
T Pukallus Weir	22/4/99	33.82	2	0	2	NP	NP	8	4	0.12
Connolly Dam	9/12/98	50.60	7	9	NP	0	NP	45	16	0.32
Leslie Dam	15/3/99	52.2	25	41	NP	4	NP	42	70	1.34
Leslie Dam	8/12/98	8.2	3	1	NP	0	NP	39	4	0.49
Lake Dyer	20/5/98	6.3	-	-	-	-	-	12	12	1.9
Cressbrook Dam	16/12/97	41.7	30	-	6	10	-	-	46	1.10
Cressbrook Dam	2/4/96	78.7	21	-	8	-	-	-	29	0.37
Cooby Dam	13/12/95	53.1	44	71	NP	4	NP	-	119	2.24
Baroon Pocket Dam	14/12/95	60.3	-	-	-	1	-	-	1	0.02
Cressbrook Dam	21/11/94	52.9	15	-	3	-	-	-	18	0.34
Hinze Dam	12/10/94	63.9	11	25	52	1	-	-	89	1.39
Leslie Dam	18/5/94	43.1	58	4	NP	1	NP	-	63	1.46
Cania Dam	18/4/94	35.2	3	16	4	NP	1	-	24	0.68

NP: Not present either as stocked species or naturally.

We need to add some of the more recent ones eg Awoonga, Boondooma, BjelkeP, Callide etc.

Panel net results: comparisons with other impoundments

Impoundment	Date	net hours	GP	SP	Bass	Cod	Sar	Total stocke d species	Bony bream	Jew	Other	Total all species
Monduran Dam	18/11/99	8.3				NP		0	115		31	9.5
Cania Dam	6/8/99	4.25	17	2	99	NP	2	28.2	NP	22	9	35.2
Wuruma Dam	9/7/99	10.35	2.42	0	1.64	NP	NP	4.06	NP	0.97	2.52	7.54
T Pukallus Weir	22/4/99	13.67	0.37	0	0	NP	NP	0.37	NP	0.29	0.51	1.17
Connolly Dam	9/12/98	11.25	1.87	0.44	NP	0	NP	2.31	NP	0.89	0	3.20
Leslie Dam	8/12/98	13.25	1.51	3.70	NP	-	NP	5.21	NP	0.91	0.08	6.20
Lake Dyer	20/5/98	3.75	0.53	1.33	-	-	-	5.61	-	16.53	8.80	30.94
Cressbrook Dam	2/4/96	8.2	0.2	0.1	9.3	-	-	9.6	-	2.6	4.4	16.6
Baroon Pocket Dam	14/12/95	9.75	-	-	2.15	-	-	2.15	-	-	15.08	17.23
Cressbrook Dam	21/11/94	11.75	-	-	0.25	-	-	0.25	-	0.85	17.45	18.6
Hinze Dam	12/10/94	7.7	-	1.83	8.76	-	-	10.6	-	-	-	10.6
Claude Wharton Weir	20/4/94	8.6	-	-	-	NP	0.12	0.12	29.2	-	5.1	34.5
Cania Dam	18/4/94	16.8	0.30	0.30	2.92	NP	0.18	3.69	NP	0.18	0.06	3.93
Cressbrook Dam	26/10/93	15.8	0.19	0.51	0.25	-	-	0.95	-	0.06	3.61	4.62
Bjelke Petersen Dam	19/10/93	8.5	0.4	0.6	-	NP	-	0.9	115.5	0.4	0.7	117.5
Yarramalong Weir	20/7/93	6.2	0.8	-	NP	-	NP	0.8	18.1	-	-	18.9
Cooby Dam	21/7/93	10.8	2.5	0.1	NP	-	NP	2.6	NP	3	-	2.9
Lenthalls Dam	22/2/93	12.7	0	0.6	NP	NP	0	0.6	17.9	0	0.47	18.82

5 Stocking data-1981/82 to 1998/99

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Season	Sleepy cod	Sooty grunter	Saratoga	Golden perch	Silver perch	Australian bass	Barramundi	Total	Fingerlings/h ectare
1981/82	0 100	0 20,190	0 0	0 0	0 0	0 0	0 0	20,290	3.80
1982/83	0 0	0 16,000	0 0	0 0	0 0	0 0	0 0	16,000	3.00
1983/84	0	0	0	0	0	0	0	0	0
1984/85	0	0	0	0	0	0	0	0	0
1985/86	0	0	0	0	0	0	0	0	0
1986/87	0	0	0	0	0	0	0	0	0
1987/88	0 0	0 0	0 0	0 21,950	0 29,500	0 0	0 0	51,450	9.63
1988/89	0 0	0 200	0 20	0 15,960	0 0	0 0	0 200	16,380	3.07
1989/90	0	0	0	0	0	0	0	0	0
1990/91	0 0	0 0	0 0	0 30,000	0 5,000	0 0	0 0	35,000	6.55
1991/92	0	0	0	0	0	0	0	0	0
1992/93	0	0	0	0	0	0	0	0	0
1993/94	0	0	0	0	0	0	0	0	0
1994/95	0	0	0	0	0	0	0	0	0
1995/96	0	0	0	0	0	0	0	0	0
1996/97	0 0	0 0	0 0	0 0	0 0	0 0	0 5,715	5,715	1.07
1997/98	0 0	0 0	0 0	0 0	0 0	0 30,000	40,000 0	70,000	13.11
1998/99	0	0	0	0	0	28,000 45,950	0	73,950	13.85
Grand total	100	36,390	20	67,910	34,500	104,950	45,915	286,585	53.67
Annual average	5.5	2021.7	1.1	3772.8	1916.7	5830.6	2550.8	15921.4	2.98
Average stocking rate		0.38		0.71	0.36	1.09	0.48	2.98	
LAST THREE YEARS OF STOCKINGS									
3 year totals	0	0	0	0	0	104,950	45,915	149,665	28.02
3 year annual average	0	0	0	0	0	34,983.3	15,238.3	49,888.3	9.34
3 year average stocking rate <i>(fingerlings/h a/year at FSL)</i>	0	0	0	0	0	6.55	2.85	9.34	

FSL: Full Supply Level 5,340 ha

Top line: Stocking funded by Monduran Anglers and Stocking Association

Bottom line: Stocking funded by Queensland Government Recreational Fishing Enhancement Program