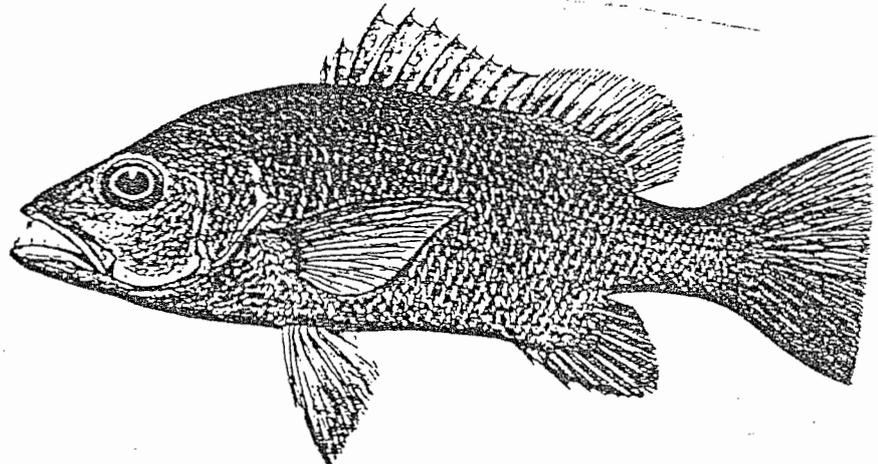
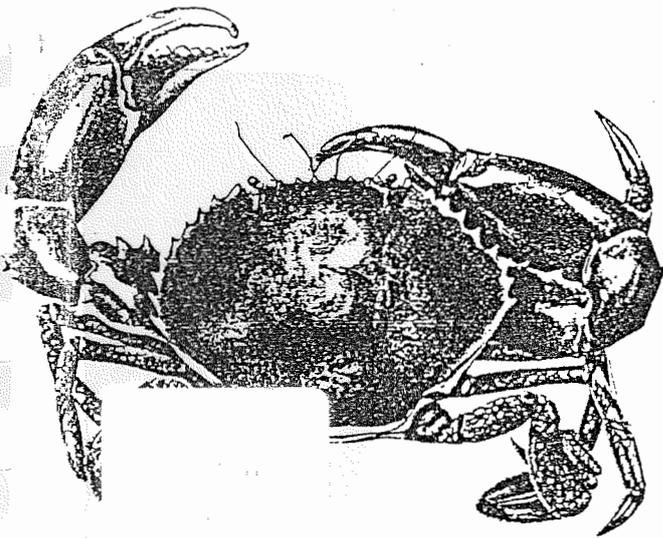
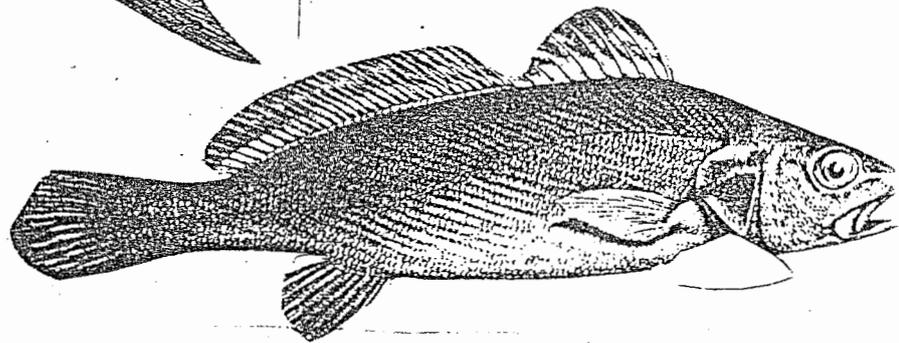
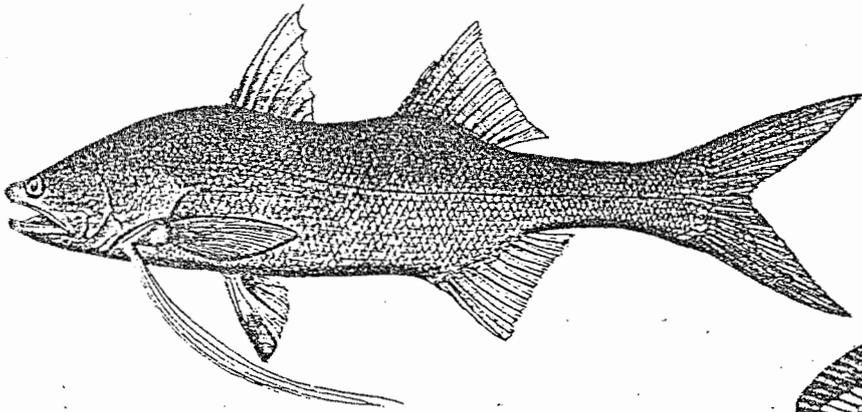
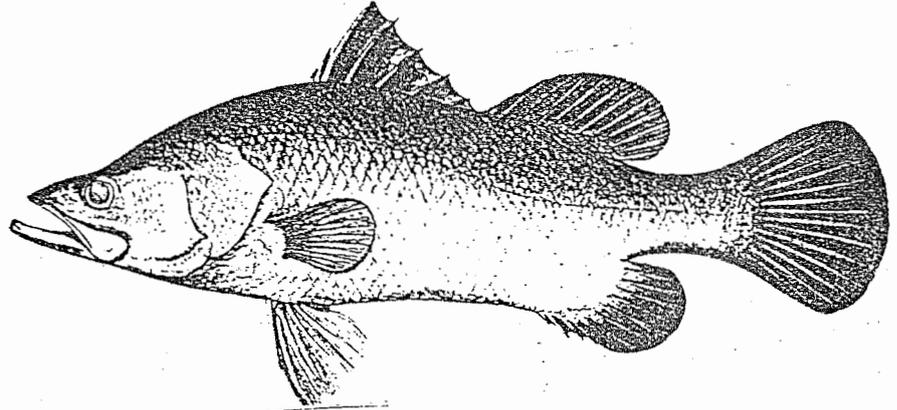




QUEENSLAND FISH MANAGEMENT AUTHORITY

*alen*

GULF OF CARPENTARIA  
FISHERY REVIEW  
BACKGROUND PAPER NO. 1  
SEPTEMBER 1992



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## GULF OF CARPENTARIA ESTUARINE & FINFISH FISHERY REVIEW

### 1. INTRODUCTION

This document refers to fishing activities carried out in rivers and near shore waters of the Gulf of Carpentaria.

The Gulf of Carpentaria fisheries are made up of commercial net, crab and line fisheries and recreational line and crab pot fisheries. Additionally, Gulf aboriginal communities engage in traditional fishing practices and many undertake some commercial activities under community fishing licences.

Management arrangements for these fisheries have their origins in the Barramundi Management Plan introduced in 1981. The key elements of the Plan were:-

- (i) the introduction of a Closed Season for the months of November, December and January during which the taking of barramundi would be prohibited.
- (ii) the banning of all set netting operations in rivers and territorial waters of the Gulf of Carpentaria and of river set netting on the East Coast during that same period.
- (iii) the introduction of two mutually exclusive limited licence regimes, one in the Gulf of Carpentaria with the other comprising river and foreshore areas of the East Coast of Queensland from Cape York to Baffle Creek (near Bundaberg).
- (iv) a standardisation of minimum net mesh sizes to 150m.m (6") for set nets available for use north of Cape Flattery (i.e. Cape York and the Gulf of Carpentaria).
- (v) the introduction of an amateur "bag limit" enabling anglers to be in possession of a maximum of 5 fish (barramundi) at any one time.
- (vi) the protection of known breeding grounds by extending habitat reserves and fish sanctuaries.
- (vii) enhancement of enforcement capabilities consistent with the needs of the management plan.
- (viii) provision for annual review of the overall management program.

The immediate objectives of the Management Plan were -

- . the establishment of a data collection system to provide catch and effort information on the fishery;
- . the reduction in commercial effort to a level regarded as stable for the fishery;
- . the continuation of research and monitoring studies which had begun in the late 1970s.

## 2. CURRENT MANAGEMENT MEASURES

### Commercial Fishery

The Gulf of Carpentaria Net Fishery Management Plan commenced with the introduction of barramundi management arrangements in 1981.

Barramundi is the most important species taken in the fishery by volume and value, consequently the management needs of the species are central to the range of interventions contained within the Management Plan.

From 1981 performance criteria were applied to the issue and renewal of licences authorising operation in the Gulf fishery. At that time, 306 operators sought to enter the fishery. Of that number, 211 participants could demonstrate the requisite level of historical involvement in the fishery and were authorised to engage in fishing activities. Through the continuous application of the licence renewal performance criteria, the number of participants was reduced each year culminating in the issuing of 113 licences authorising operation in the fishery in 1986. At that time, licence transferability was introduced and that number of licences remains current. (The actual number of currently existing licences is 110. This figure takes account of a small number of licences being relinquished).

During the course of this licence rationalisation process, the QFMA developed a series of policies associated with the licensing of primary vessels and tender vessels and provision for the upgrade and replacement of these vessels. These policies were periodically amended taking account of changing trends within the fishery. The current vessel replacement and upgrade policy is at Attachment A.

Participants in the fishery are also required to operate within a range of general controls applied to commercial fishing activities. These controls comprise and are detailed in Attachment B - Gulf of Carpentaria Net Fishery Information Booklet.

The booklet entails sections on the following areas -

- . Definitions of terms used;
- . Descriptions of permitted apparatus;
- . Requirements in relation to the marking of apparatus;
- . Attendance of apparatus by commercial fishers;
- . Responsibilities of commercial fishers;
- . General conditions on the use of nets;
- . Closed Waters;
- . Legislation.

### Recreational Fishery

Very few controls are applied to recreational fishing. These comprise apparatus controls and bag limits. Attachment C summarises the range of apparatus which may be used by recreational fishers and recreational bag limits.

## **Controls Applied to Commercial and Recreational Fishers**

The closed season on the taking of barramundi entails a prohibition on possession of the species for the period 1 November through 1 February and applies universally.

Additionally, a range on minimum and maximum legal sizes applies to the taking of certain species. These are also set out in Attachment C.

## **Aboriginal Community Fishing**

Queensland fisheries legislation provides a general exemption from all aspects of the controls on fishing described above for aboriginals who reside within an aboriginal community where marine animals have been taken for personal consumption. This exemption does not extend to the taking of fish or marine products for a commercial purpose, nor does it permit the use of explosives or noxious substances.

Provision also exists for aboriginal communities to take out a Community Fishing Licence which does permit the taking of fish and marine product for commercial purposes, subject to a range of conditions.

3. ANALYSIS OF G.O.C. LOGBOOK DATA 1981-87

and

C-FISH LOGBOOK DATA 1988-91

What happened in the Gulf Set Net Fishery  
from 1981 to 1991?

Report to the Gulf Set Net Fishermen July 1992

## Background

Operators in the Gulf Set Net Fishery have been required to provide information about their fish catches and fishing operations to logbook programmes since 1981. These logbook records are the only fishery data set in Queensland operating continuously for this length of time.

The QFMA is reviewing all aspects of the Gulf Set Net Fishery so it is useful to see what the logbook data tell us about the fishery over the last 11 years. The analysis uses the information supplied to the logbook programme in its various forms over the years.

The weight of fish landed and reported by operators as fillet, trunk or gutted fish has been converted into whole (live) weight for the analyses that follow.

Registering logbook returns changed in 1989 with the introduction of the CFISH logbook, from recording the number of operators sending in logbooks to recording the number of boat owners.

In addition, the method of recording the days fished changed then. Under the "old" logbook system operators reported the number of days fished each month. With the CFISH system boat owners record the days when fish were caught. Adjustments were made to the CFISH data to reflect a similar effort measure to that used before the introduction of CFISH logbooks.

The effort measure used in these analyses is the total days spent fishing each year for all operators and/or boats in the fishery.

So that what is happening in parts of the Gulf can be seen more clearly, analysis is also undertaken on an area basis within the Gulf using four large grids. The adjacent map (Figure 1) shows where these grids are. Grids are those used in the first logbook for the Gulf barramundi fishery.

This report is made up of three parts.

- total catch and total fishing effort for the main species from the whole Gulf;
- total catch and total fishing effort for the main species by Gulf grid;
- more detailed analysis of the Gulf barramundi catch.

Judging how well a fishery is doing usually involves some measure of catch per unit of effort (CPUE). If a fishery is doing well the trend for the CPUE ratio increases over time. If the fishery is not so "healthy" the CPUE ratio declines. CPUE is only one of the indicators used to examine a how well a fishery is doing but it is a key one.

CPUE is used because total catch on its own does not show how hard fishermen have to work to catch fish. The CPUE ratio combines catch and effort into a single figure so comparison between, for example, years or months or between areas or grids can be made.

It shows, for example, that in good times large catches are made with little effort giving a high CPUE ratio. In tough times, when fish are scarcer, poor catches are made for the same amount of effort or the same catch is made with a lot of extra effort. This results in a low CPUE.

The CPUE used in this study is catch per day shown as kg/day. It is calculated by dividing the catch for the year of a species or group of species by the number of days fished for the year.

This is a relatively crude measure and it would be possible to understand more about a fishery if more comprehensive information were available. Many fishermen do provide, for example, the length of net set and mesh size used. This can be used in more detailed analysis.

In the case of the Gulf set net fishery knowing where the fish were caught in more detail such as the grid, site and river name and the catch being separately recorded for the river, foreshore and offshore net groups would enable better judgements to be made.

# GULF GRIDS

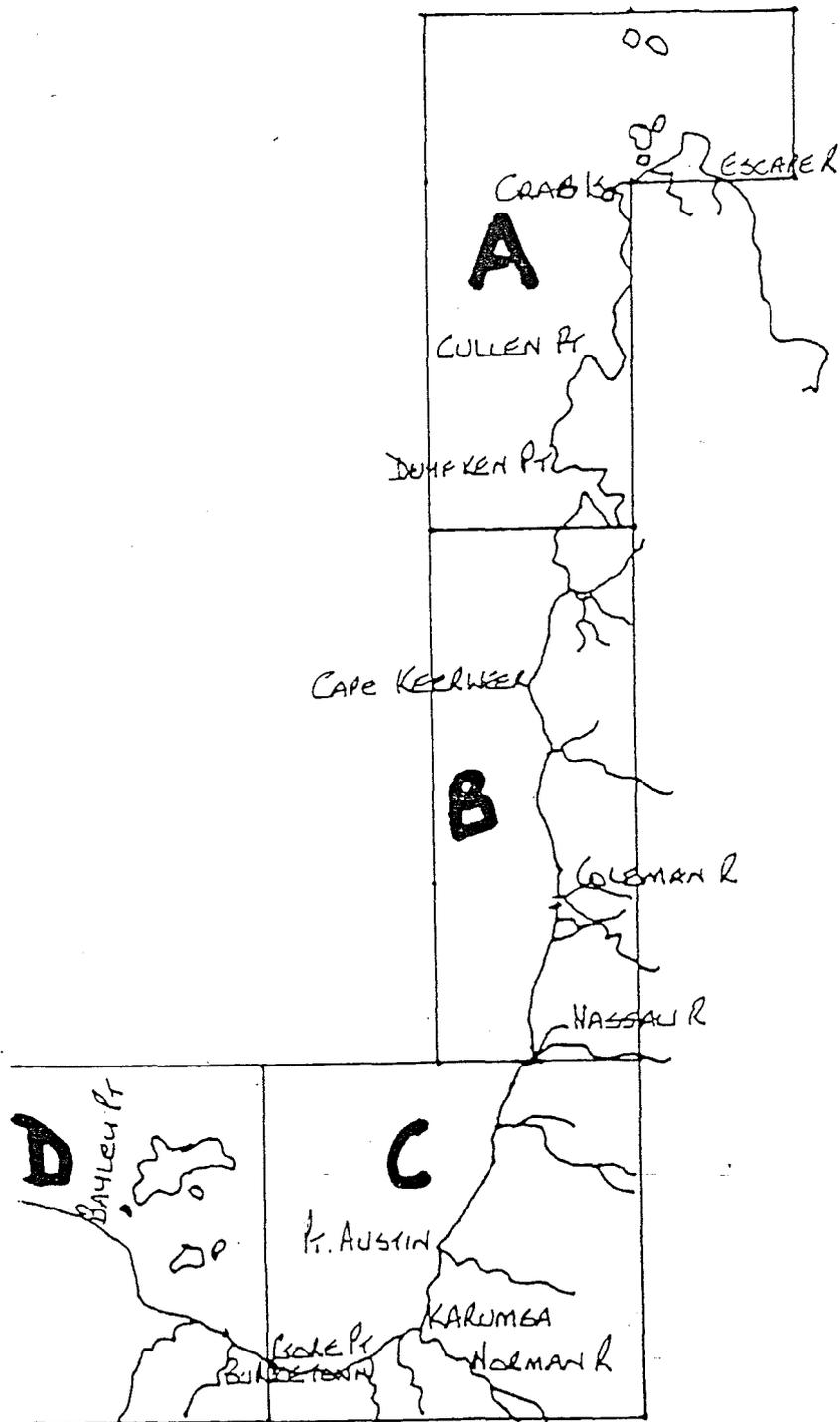


Figure 1 Map of Gulf showing Gulf Grids

## Whole Gulf - Set net fishery

Total catch of all species declined from about 1,600 tonnes (t) in 1981 to about 1,000t in 1989 then rose to 1,200t in 1991.

This is shown in Figure 2 as the total height of the bars using the scale on the left-hand side of the figure to show tonnes landed. Within each bar the catch for barramundi, king salmon, blue salmon and "other" fish caught is shown. Barramundi catch, for example, is shown as the height of the black (solid) part of the bar.

Barramundi catch peaked in 1981 at about 820t, declined until 1988 to about 500t, and then, apart from 1990, increased to 620t per year.

At the same time king salmon catch declined at a steady rate from about 500t in 1981 to about 290t in 1991. Blue salmon catch was lowest in 1981 with 46t rising to about 85t in the 1990 and 1991.

Barramundi typically accounts for about 46% of the total yearly catch, king salmon 28%, blue salmon 5% and other species 21%. There is quite some variation in the percentage contribution between years.

From 1981 to 1991 total catch declined by 26%.

The line linking the diamond points in Figure 2 shows the yearly effort as total days fished. The scale on the right-hand side of the figure shows that total effort in 1981 was about 23,000 days while in 1991 there were about 11,000 days of fishing effort.

From 1981 to 1991 total fishing effort declined by 51%; that is, effort halved.

Catch per day by year for total catch of all species increased from 71 kg/day to 108 kg/day over the 11 years as shown on the left hand scale in Figure 3.

When a trend line is drawn through the yearly catch rate per day, there was an increase from 62 kg/day to 92 kg/day. The trend line is used to reduce between year variation on the graph due to such factors as the effect of climate (eg rainfall) on catch rate.

Daily catch rate (kg/day) of all species caught increased by 35% over these 11 years.

The number of fishers operating in the fishery has declined since 1981. There was a maximum of 172 operators in the fishery in 1982 declining to 109 in 1988. The method of

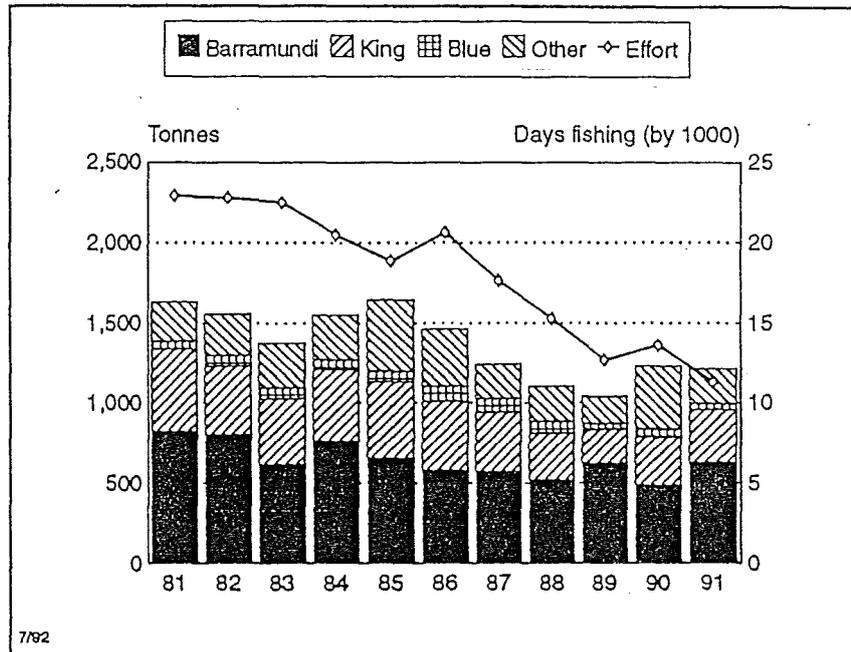


Figure 2 Gulf catch for major species and total effort

recording then changed emphasis to boats operating in the fishery. In 1989 there were 98 boats sending logbook returns reducing to 89 in 1991.

In Figure 3 catch per operator or boat per year is shown on the right hand scale. Notice that for 1989 onwards catch per operator and per boat values are shown. These values are shown in the top graphs in the figure.

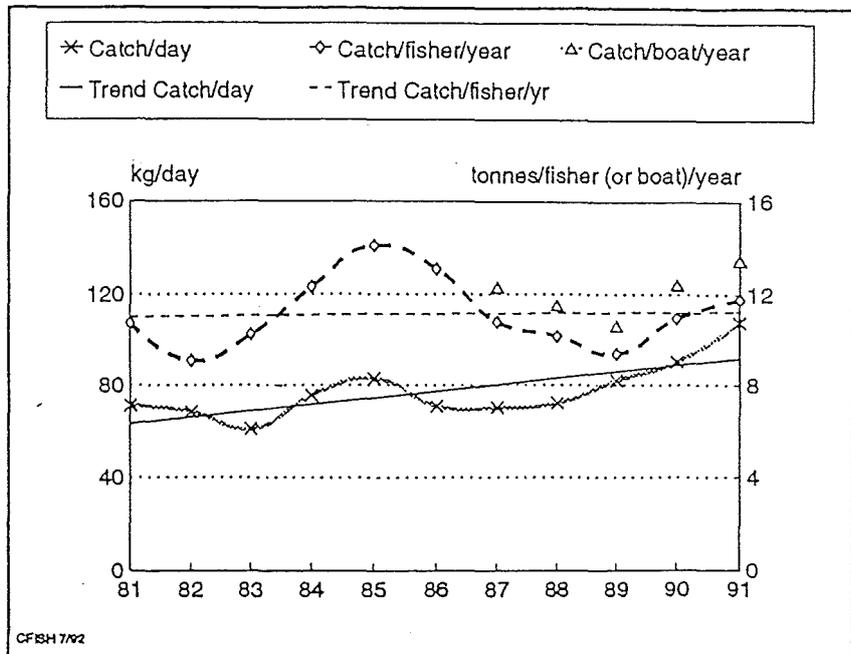


Figure 3 Catch rate trends for all Gulf catch

Estimates of the number of operators were based on the number of boats operating in the fishery. These estimates were based on the ratio of the number of boats to operators in 1987 and 1988 and extended to succeeding years.

Average total fish catch per operator or boat per year varied from a high of almost 14t in 1985 (about 630 boxes of fillet) to a low of about 10t in 1982 and 1989 (about 450 boxes of fillet). However, total landings per operator per year, as shown by the trend line (heavily dotted line), remained relative constant for 1981 to 1991.

Figure 4 shows the total weight of fish caught per day and the days fished per operator or boat per year. These two graphs were combined to show the relationship between catch per day and days fished. The daily catch rate as kg/day is shown on the left hand scale and the days fished per year is shown on the right hand scale.

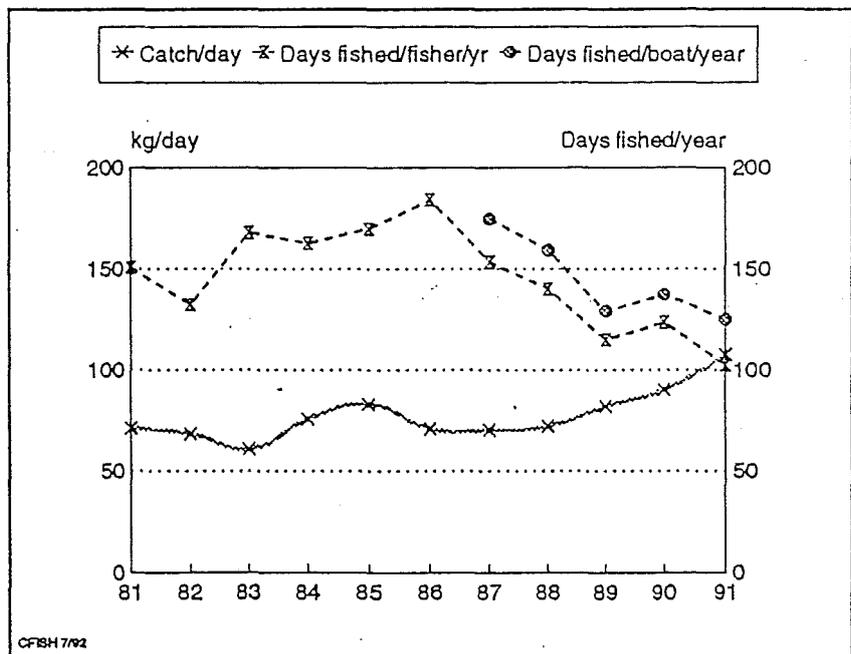


Figure 4 Days fished/fisher or boat/year and catch rate for all fish

In 1981 an average of about 150 days were fished per year per operator while in the early 90's about 120 days were fished per year. The most days fished per year was in 1986 with about 180 days/year. Note an adjustment has been made to the number of operators for 1989 to 1991 to compensate for the change in logbook systems. From 1981 there has been a decline of 20% in days fished per operator per year.

## Gulf Grids - Set net fishery

Figures 5 to 8 show similar information to that is presented in Figure 2 except it is broken down for each of the four Gulf grids.

When examining each set of graphs for specific grids check the left and right hand scales axes so that you know the level of catch and effort for each grid. The scales are different for each graph.

Figure 5 shows for Grid B, the central area of the Gulf coast, total catch of all species was about 370t in 1981, rising to a peak of about 650t in 1985 then settling down to about 400t a year from 1987 to 1991.

From 1981 to 1991 barramundi catch (black part of the bar) averaged almost two thirds (64%) of the total yearly catch, much higher than the mean percentage barramundi catch from the Gulf overall of 47%. King salmon catch from Grid B averaged about 15% of total catch (about 68t/year) while blue salmon catch averaged about 3% of total catch (about 14t/year).

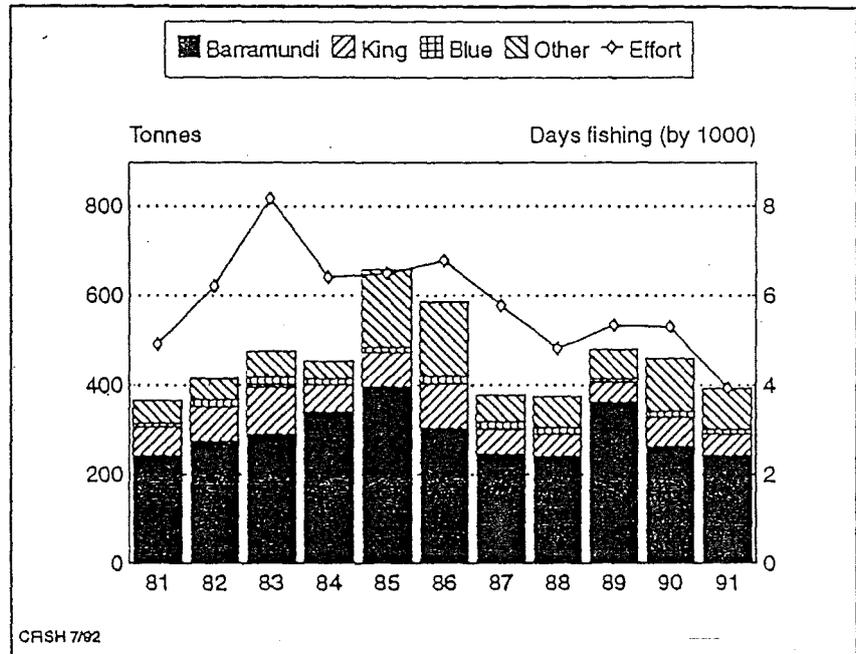


Figure 5 Gulf grid B, catch for major species and fishing effort

In Grid B, total catch of all species in 1981 and 1991 was approximately the same at 400t. The 1991 catch was 40% less than the maximum catch of 658t in 1985.

Effort in 1981 was similar to that from 1988 onwards at about 5,000 fishing days per year. Highest effort occurred in 1983 with about 8,000 days of fishing. Compared to maximum effort which occurred in 1983, 1991 effort was about half.

From 1981 to 1991 in Grid B total effort as all days fished declined by about 25%.

Mean yearly catch of all species per day peaked in 1985 at 101 kg/day. Overall, mean yearly catch rate increased from approximately 75 kg/day in 1981 to 99 kg/day in 1991, about a 25% increase in catch rate.

Barramundi catch from Grid B was about the same in 1981 and 1991 with about 240t being caught. Barramundi catch peaked in 1985 and 1989 at about 370t.

Figure 6 shows the results from Grid C which is in the south east Gulf. Total catch for all species declined from about 1,000t in 1981 to 500t in 1989 and then increased to about 600t/year for 1990 and 1991. There was a big drop in total catch in 1983 (about 300t) compared to the previous two years.

If allowance is made for good and bad fishing years it seems as if the catch has stabilised after this drop and seems to be declining slightly.

During the 11 years, barramundi made up about 36% of total yearly landings of all species from Grid C. This is lower than the mean of 47% for the whole Gulf. In Grid C, king salmon averaged almost 40% of the total catch compared to the Gulf average of 28%. Blue salmon provides, on average, 5% of the total catch in Grid C.

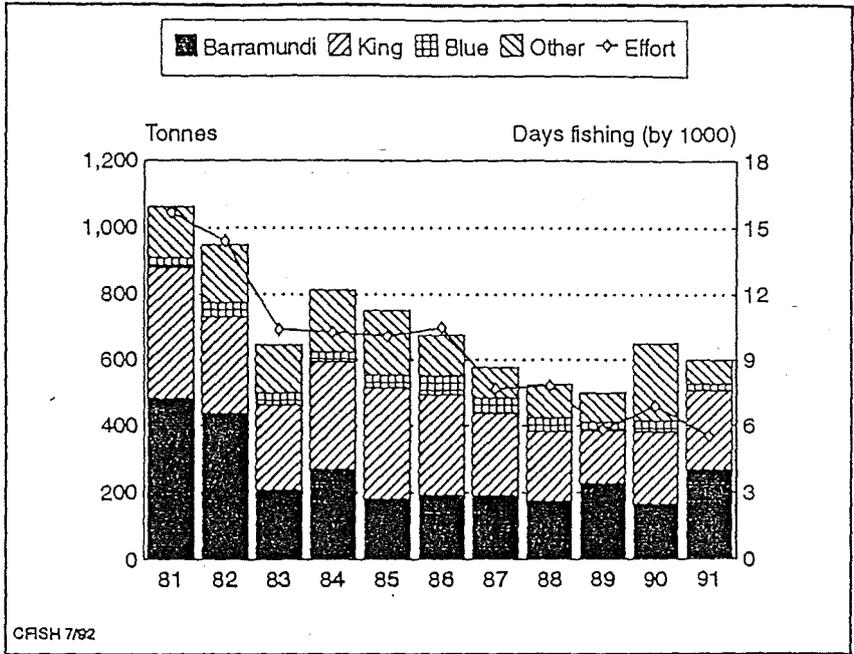


Figure 6 Gulf Grid C, catch for major species and effort

Total catch of all species declined by about 44% from 1981 to 1991.

During this time in Grid C, effort as days fished per year declined from almost 16,000 days in 1981 to 5,500 days in 1991, a drop of almost 66% (two thirds of maximum effort).

Catch rate as annual mean catch per day increased from about 68 kg/day in 1981 to about 108 kg/day in 1991. Catch rate was about 70 kg/day from 1981 to 1988 and then increased from 1989 onwards. This is an increase of about 37% in the catch rate over this period for Grid C.

Barramundi catch declined in Grid C from about 470t in 1981 and 1982 to about 200t per year from 1983 onward. There was an increase in catch per year for 1989 to 1991 to about 250t/year. Figure 6 shows that during the 11 years, effort into the fishery declined to one third of the 1981 effort.

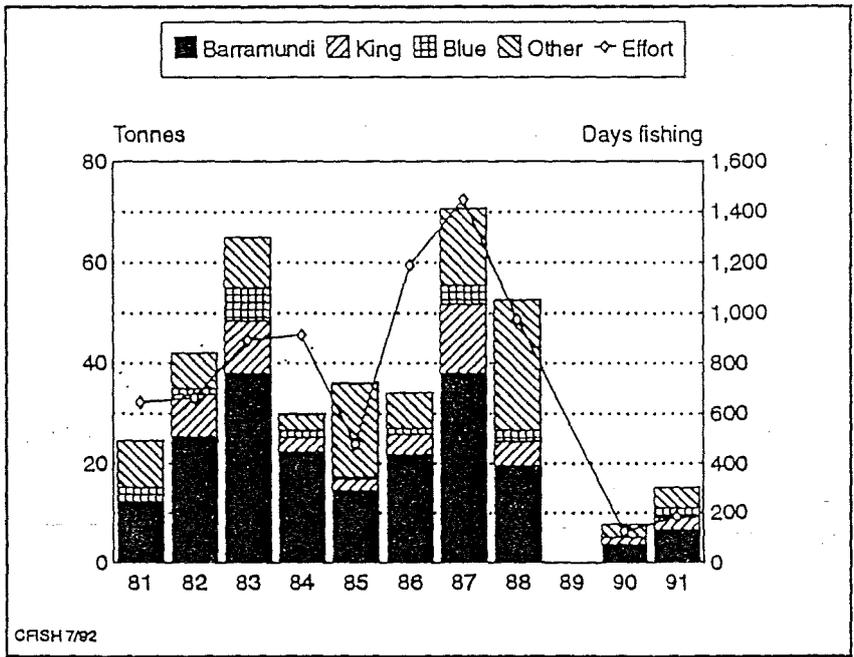


Figure 7 Gulf Grid A, catch for major species and effort

Figures 7 and 8 show the results for Grids A and D respectively. There is much more variation from year to year with these two grids than in the southern and central sections of the Gulf.

Catch of all species from both these grids declined dramatically in 1989 and 1990 - it would be interesting to know why.

### Barramundi fishery

The Gulf set gill net fishery places great emphasis on the barramundi fishery within the overall context of the Gulf fishery. The next set of figures and tables examine in greater detail aspects of the barramundi catch within the Gulf set net fishery.

Figure 9 uses two measure of CPUE to examine barramundi catch in the whole Gulf. They are catch per day and catch per operator (fisher) per year.

Catch per day (solid line with the cross) is the total catch made by all operators for a year divided by the total days fished in that year. The left hand scale is used for catch per day results. It is the average daily catch rate for all boats operating in the fishery. Trend of barramundi catch per day is the straight solid line running through the yearly daily catch.

On the other hand catch per operator per year (dashed line with the diamond) shows the average barramundi catch as tonnes per year for each operator in the fishery. It uses the right hand scale in the Figure 9. The trend line for catch per operator per year is the dashed straight line running through the operator catch per year plot. Remember that adjustments were made to the 1989 to 1991 logbook data as explained earlier. Also shown is the catch per boat per year for 1987 to 1991 (the dotted line with the triangle).

Barramundi per day fished is fairly constant at about 35kg/day from 1981 to 1988. The catch per day increased to about 50kg/day from 1989 onwards. Some may suggest that this is a result of the different ways of recording days fished.

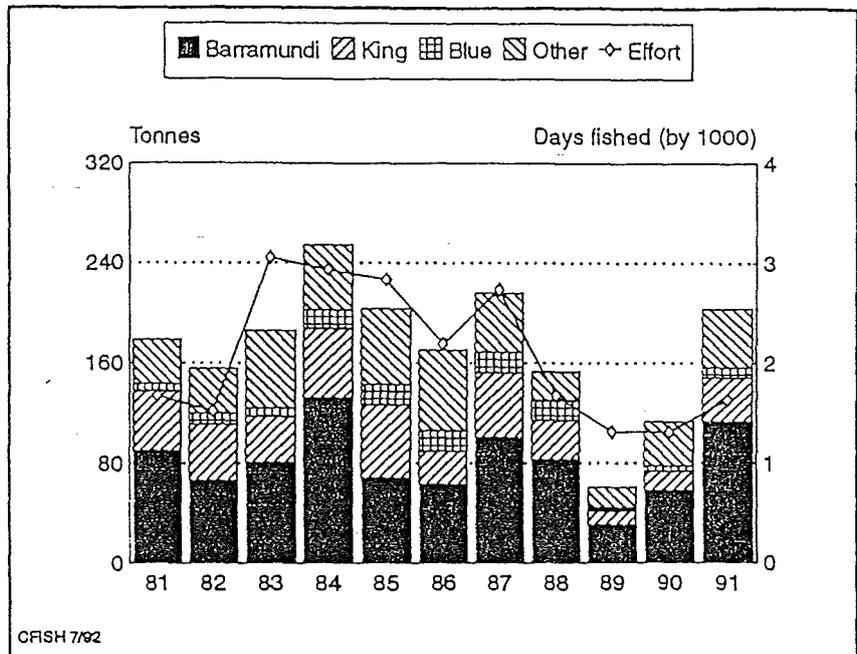


Figure 8 Gulf Grid D, catch for major species and effort

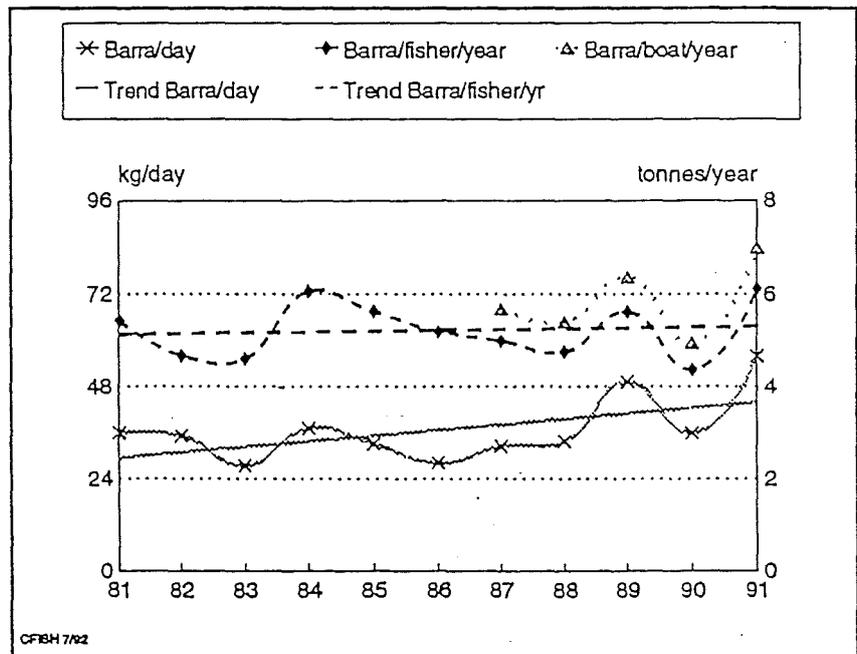


Figure 9 Barramundi, all Gulf, various CPUE estimates

In the pre-CFISH logbooks you reported the total days you fished for the month. CFISH reports the days on which any fish were landed, whether it was barramundi or not. This adjustments made to the CFISH data should give the same results as the "old" logbook method. Even if effort recorded in CFISH was slightly less compared to the "old" logbook method, the average 15kg/day increase represents about a 33% increase in daily catch rate. It is unlikely that effort as reported in CFISH is understated by this percentage.

Catch of barramundi per operator or boat per year varies between 4.5 and 6t/year and is remarkably consistent across the years. This means, on average, each operator and/or boat landed between 200 and 300 cartons of barramundi fillet a year.

Finally, the importance of each grid as a production area for barramundi will be considered. Table 1 shows the percentage contribution made by each grid to the total barramundi production from the Gulf. Estimated total production is shown in the right hand column of the table.

The mean or average percentage contribution (see last line in Table 1) from Grid A is 3%, Grid B is 46%, Grid C is 38% and Grid D is 13%. As implied earlier, the production from Grids A and D may be understated, especially for 1989 and 1990.

As Grids B and C make the greatest contribution to the Gulf barramundi catch, the year to year variability of barramundi catch will be considered.

Table 1 Percent of barramundi catch by year and Gulf grid

Year	Grid A	Grid B	Grid C	Grid D	Total Catch (t)
1981	1	29	58	11	825
1982	3	34	54	8	802
1983	6	47	34	13	618
1984	3	45	35	17	764
1985	2	60	27	10	658
1986	4	52	33	11	581
1987	7	43	33	17	573
1988	4	46	34	16	518
1989	0	58	37	5	619
1990	1	54	34	12	489
1991	1	38	43	18	630
Mean	3	46	38	13	643

In both grids the lowest percentage contribution was about 28% in any one year and the greatest contribution was almost 60% from one of these grids in any one year.

From 1983 onwards Grid C consistently produced slightly more than one third (33%) of the Gulf production and Grid B produced about 45% of Gulf production. In 1981 and 1982 Grid C produced more than half of the Gulf barramundi catch.

Table 2 shows the mean daily barramundi catch (kg/day) of operators each year by Gulf grid and for the whole Gulf. Mean catch rate for the whole of the Gulf for the 11 year period is 35 kg/day. As can be seen the mean annual catch rate tended to increase from 1986 when the annual barramundi catch rate was a low 28 kg/day.

Grid B had the highest overall catch rate at 50 kg/day for the study period. Grid C and Grid A shared the lowest mean catch rate at 27 kg/day. Under-reporting of catch from Grid A especially for 1989 and 1990 may affect the results shown here.

In Grid B, daily barramundi catch rate varied from 68 kg/day in 1989 to a low of 36 kg/day

in 1983. Despite this, Grid B catch rate variation each year is less than other grids.

Grid C, the other major producing area had its highest catch rate in 1991 of 48 kg/day and the lowest annual catch rate of 18 kg/day in 1985 and 1986.

Compared to Grid B the annual catch rate was much more variable.

### Effect of rainfall on barramundi catch

Discussions with fishery operators indicate the importance they place on rainfall and its effect of fishery production. This section relates Gulf barramundi catch to rainfall during the summer months.

This is a "first pass" analysis and is simple in that annual (summer) rainfall is plotted against barramundi yearly mean catch per day. It is intended to undertake more detailed analysis to explore the relationships between rainfall and various measures of catch.

Figure 10 shows yearly rainfall for Burketown (left hand scale) plotted with mean daily catch per year from Grid C (right hand scale).

The Burketown data set was chosen as it contained long-term rainfall records for an important part of the Gulf where barramundi are caught.

The rainfall data were converted from a calendar year basis to a financial year basis. In Figure 10, for example, "85" stands for 1984/85 financial year.

This approach was taken so that all summer rainfall was aggregated into a single year and represents the wet season just prior to the 1985 fishing year.

Table 2 Mean daily catch rate (kg/day) for Gulf Grid and year

Year	Grid A	Grid B	Grid C	Grid D	Whole Gulf
1981	18	49	31	54	36
1982	38	44	30	44	35
1983	43	35	20	26	27
1984	24	53	26	45	37
1985	30	61	18	24	33
1986	18	45	18	29	28
1987	26	42	25	37	32
1988	20	50	22	49	34
1989	-	68	39	23	49
1990	29	49	24	45	36
1991	36	61	48	69	56
Mean	27	50	27	39	35

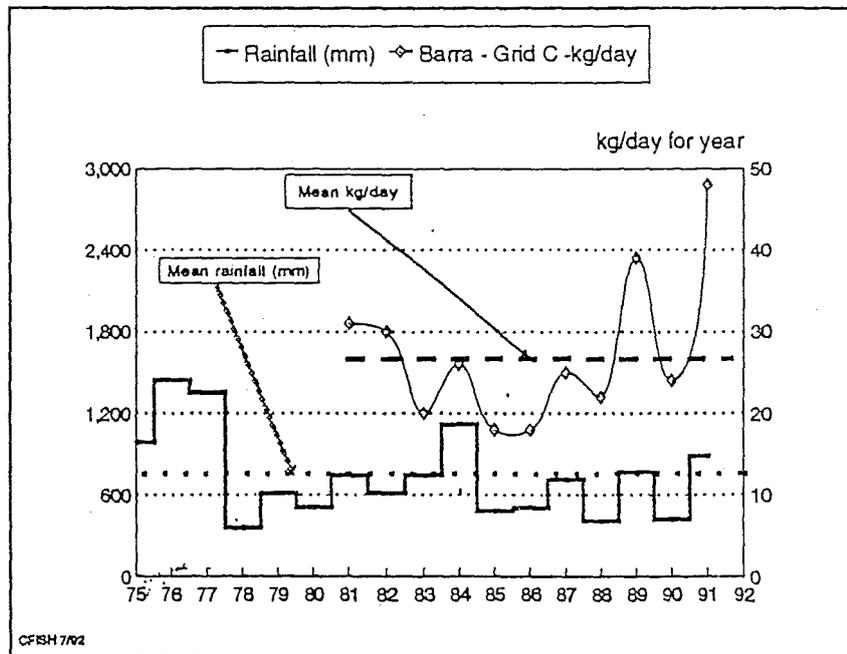


Figure 10 Summer rainfall and barramundi daily catch rate for Grid C

As well as plotting yearly values, the mean annual rainfall and the mean catch per day are shown. This emphasises the year to year variability of catch rate and rainfall.

When the curves for the rainfall and catch rate are considered the initial impression from the Figure 10 is that there is a close relationship between the level of summer rainfall and the catch per day in that year. That is, when there is high summer rainfall compared to the previous year, the catch rate is substantially higher. Conversely when there is a poor wet season, catch rates fall.

However it is known for barramundi that it takes from three to four years for a fish to grow from the egg stage until it enters the fishery and are available for taking. At this stage no attempt has been made to unravel this part of the story and the influence of wet season rains, barramundi breeding success and eventual recruitment of new fish to the fishery await further consideration.

## Summary

The analysis of the fishery logbook data shown here is preliminary only. There is much scope for further analysis to be undertaken. However, it is possible to draw some conclusions from the results presented. They are:

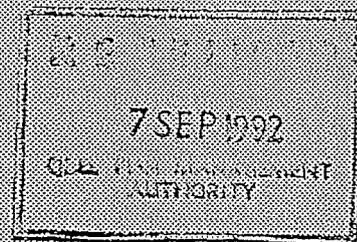
- Although total production of all fish from the Gulf has decreased from 1981 to 1991 (↓ 26%), the effort put into the fishery seems to have declined at an even greater rate (↓ 51%);
- Days fished per boat each year has declined (↓ 20%);
- The number of operators and boats has declined (↓ 36%);
- Catch rate measured as catch/day fished seems to have increased (↑ 35%);
- A relationship between barramundi catch rate and summer rainfall in the preceding summer seems to exist.

There are a number of graphs available showing what has happened in each of the Grids in greater detail. They are available through Bill Kehoe.

For further information about this analysis about the Gulf Set Net fishery contact Lew Williams on (07) 239 3429.

4. BIOLOGICAL INVESTIGATIONS OF  
KING SALMON  
IN THE GULF OF CARPENTARIA

BIOLOGICAL INVESTIGATIONS OF  
KING SALMON *Polydactylus sheridani*  
IN THE GULF OF CARPENTARIA: A  
SUMMARY REPORT



R. Garrett  
Northern Fisheries Centre  
Queensland Department of Primary Industries  
Cairns

17 August 1992

## Introduction

Threadfin salmon (Family Polynemidae) are large predatory fishes inhabiting tropical estuarine and inshore waters around northern Australia. Two species are commonly taken by anglers and commercial gillnetters along the coast of Queensland - *Polydactylus sheridani* (the king or Burnett salmon) and *Eleutheronema tetradactylum* (blue or Cooktown salmon).

In the Gulf of Carpentaria gillnet fishery, landings of king salmon are second only to barramundi. Between 1981 and 1991, the annual king salmon catch was about 360 tonnes whole weight, or some 28% of total netfishery landings. The Gulf blue salmon catch was very much less, ranging from 46 tonnes to 85 tonnes per year over this period.

Overseas research has established that polynemids have a complicated life cycle, with many species starting life as a male and transforming into a female during its lifetime. Observations by Russell (1988) and Stanger (1974) suggested that central Queensland king salmon and blue salmon were protandric hermaphrodites, with females derived from males after passing through a hermaphroditic stage where both male and female tissue could be recognized in an ovotestes sex organ. Griffin (1992) has presented evidence for this same sex changing process in Northern Territory king salmon.

Despite its interesting biology and fishery importance, the king salmon has not been adequately studied in Australia. Consequently there is very little published information about the species which can be considered by the Queensland Fish Management Authority in its management plans for the fish resources of Queensland.

To provide the necessary information, Fisheries Division of the Queensland Department of Primary Industries undertook basic biological research on king salmon in Gulf of Carpentaria and north-east coast waters. The investigations have focussed on several areas of king salmon biology including age, growth, sexuality, breeding season and abundance. A pilot exercise with industry commenced on the east coast in 1986, and detailed studies were extended to the Gulf area in 1988.

This document provides a summary of the research findings for the Gulf of Carpentaria segment of the study.

## Collection of Samples

Catches of king salmon were examined on a monthly basis during the commercial season each year from 1986 to 1991. The fish were taken in gillnets, mainly of 150 to 200 mm stretched mesh. Other samples were taken during the annual netfishing closed seasons on an opportunistic basis by

Fisheries Division staff. Most sampled fish were caught in southern Gulf areas, where the major king salmon fishery operates.

Fish samples were generally provided as filleted frames, frozen on board, and trucked to the Northern Fisheries Centre (QDPI) in Cairns. For each fish, a length measurement from snout to caudal fork (in cm), its sex, the weight of the sex organs (in grams), and an assessment of the maturity stage of the sex organs were recorded. Sections of the sex organs were preserved and examined histologically in the laboratory.

### King salmon sexuality

Between 1986 and 1991, a total of 2 263 Gulf king salmon (length range 20.5 - 136.5 cm fork length FL) were examined. Of those, 78.1% were identified as male fish (33.0 - 110.0 cm FL), 15.2% were female (51.0 - 136.5 cm FL), and 2.3% possessed ovotestes (66.0 - 103.5 cm FL). Of the 52 hermaphroditic fish found, only 18 could readily be distinguished by eye (male and female elements about equally represented); the majority were identified from histological preparations. In another 101 specimens (4.4% of all salmon samples, 20.5 - 62.5 cm FL) sex could not be determined by eye.

Figure 1 shows the numbers of male, female, and hermaphrodite salmon plotted against fish length. The plot shows two distinct peaks, with male fish dominating the smaller length classes and females the larger sizes. Hermaphrodites occupied the mid-range. Some 90% of king salmon smaller than 80 cm FL were males (Figure 2), and by 100 cm FL 90% were females. The proportion of hermaphrodites increased from less than 1% at 65 cm FL to a peak of 14.9% at 85 cm FL and then fell, so that all salmon larger than 110 cm FL were females.

The distinct size ranges of male and female fish observed in the study, together with the overlapping size range of hermaphrodite specimens, strongly suggests that females are derived from males in Gulf of Carpentaria king salmon.

### King salmon abundance

Overall, the ratio of males to females was 5.2 to 1. Female king salmon were best represented in November and December catches, although the sample sizes are very small. This seasonal abundance of females may reflect aggregation of mature ripe fish for breeding. Compared with males, the large-sized female salmon were least abundant in the first months of the open fishing season (February and March, ratios of 13.2 to 1 and 13.9 to 1 respectively). Male numbers may be increased at this time of the year with the entry of new recruits to the fishery.

Hermaphrodite salmon occurred in most months of the year, with greatest numbers appearing in June, July and August. Griffin (1992) suggested the sex change process took less than twelve months in Northern Territory king salmon, with the transition commencing at the finish of the breeding season and completed before the next spawning. Sample sizes in the Gulf study are too small to allow calculation of time for sex change transition there.

### Breeding season

The annual cycle of ripening of the sex organs, shedding of eggs and milt at spawning, and post-spawning recovery is presented in Figure 3. Gravid females with egg sacs at maximum size first appeared in large numbers from about August, and running ripe fish in November. Only a very few running ripe (= spawning) fish were taken. Spent fish with deflated egg sacs (indicative of very recent breeding activity) first appeared in December and peaked in January and February.

For male king salmon, fully developed testes were seen as early as July, but peak numbers occurred in November, December and January. Running ripe males with white milt oozing from the vent were found in December and January.

King salmon in the southern Gulf of Carpentaria appear to breed only during summer months, from about October to March. In both males and females, maturation of the sex organs begins in the preceding winter.

Unfortunately, in this study very few fish were sampled during the king salmon spawning season which corresponds in part with the annual netting closure for barramundi. A greater sampling effort in the closed fishing season would be required to define the peak salmon spawning times.

Additionally, only estuarine and nearshore salmon were targeted. The very low incidence of running ripe fish taken in these environments may simply reflect inadequate sample sizes. However, the possibility that the spawning grounds may lie offshore cannot be discounted, and remains to be tested.

### Age and Growth

Otoliths ("earbones") were used to age king salmon from Gulf of Carpentaria waters. The banding pattern present on whole otoliths could readily be read when immersed in aniseed oil and examined against a black background. Otoliths proved to be the most reliable hard structure for age assessment, with only 4.1% rejected. Body scales, on the other hand, proved much less suitable, with a large proportion of scales appearing as either replacements (missing many age marks) or displaying considerable resorption and loss of definition (especially in larger salmon).

Although validation of annulus formation is not yet complete, bands on otoliths appear to be laid down at the rate of one per year. A new band is formed between August and October, and may reflect a change in fish growth associated with cooler seasonal water temperatures and/or the start of the buildup to breeding.

A close relationship was established between increasing fish length (fork length FL cm) and otolith size, and this allowed back-calculation of fish length to the time of annulus formation to give length-at-age data. Figure 4 shows a preliminary growth curve derived from these data.

Gulf king salmon appear to be long lived, with the largest females being 14 years of age and older. Sex change to female commonly occurs in male salmon between four and six years old. The net fishery takes mostly three to six year old fish.

Growth of king salmon in the first few years of life is extremely rapid (to 60 cm FL in three years), and is probably on a par with southern Gulf barramundi. This fast growth spans the sexually immature stage of life. Sexual maturity occurs for most male king salmon in the fourth year of life.

#### Management considerations

In summary, king salmon in the Gulf of Carpentaria have a complex life cycle. Young fish grow quickly to a large size before they become mature as males. Salmon function as male breeders for a season or more and then pass through a hermaphrodite transition stage to become female. Female salmon are typically the largest and oldest individuals in the population, and can breed for many years. Breeding activities are extended through summer months, and the spawning grounds are probably located some distance offshore. Large schools of juvenile king salmon one to two years old inhabit estuary and foreshore shallows after the wet season floods have abated.

King salmon have a life cycle very similar to that of barramundi *Lates calcarifer*. Barramundi is also a protandric hermaphrodite, changing sex at 80-100 cm total length in the south-eastern Gulf (Davis 1982). Both species appear to breed in summer, and details of their lifespan, growth rates, and size and age at maturity are closely matched. As Griffin (1992) has stated, given the biological similarities between the two, it is likely that management measures, such as the annual closed fishing season, that have been introduced to sustain barramundi, might serve Gulf king salmon just as well.

Not all the management interventions applied to barramundi will suffice for king salmon however. For example, minimum and maximum taking sizes of barramundi are achieved in the commercial fishery largely through mesh size regulation. King salmon bridle in gillnets (a strand of the mesh material lodges

in the fish's mouth) rather than just become gilled or entangled as barramundi do. So using mesh size restrictions to prevent the capture of both immature fish and the large female breeders may not be as effective a measure for king salmon as it is for barramundi.

On the other hand, some interventions currently applied to barramundi might usefully be considered for introduction to king salmon resource management. These could include an upgrading of the minimum legal size to better reflect size at maturity, providing legislated protection for spawning grounds and juvenile salmon habitats where these are threatened, rationalizing levels of commercial effort, and investigating the relevance of bag limits for king salmon and other estuarine fish species.

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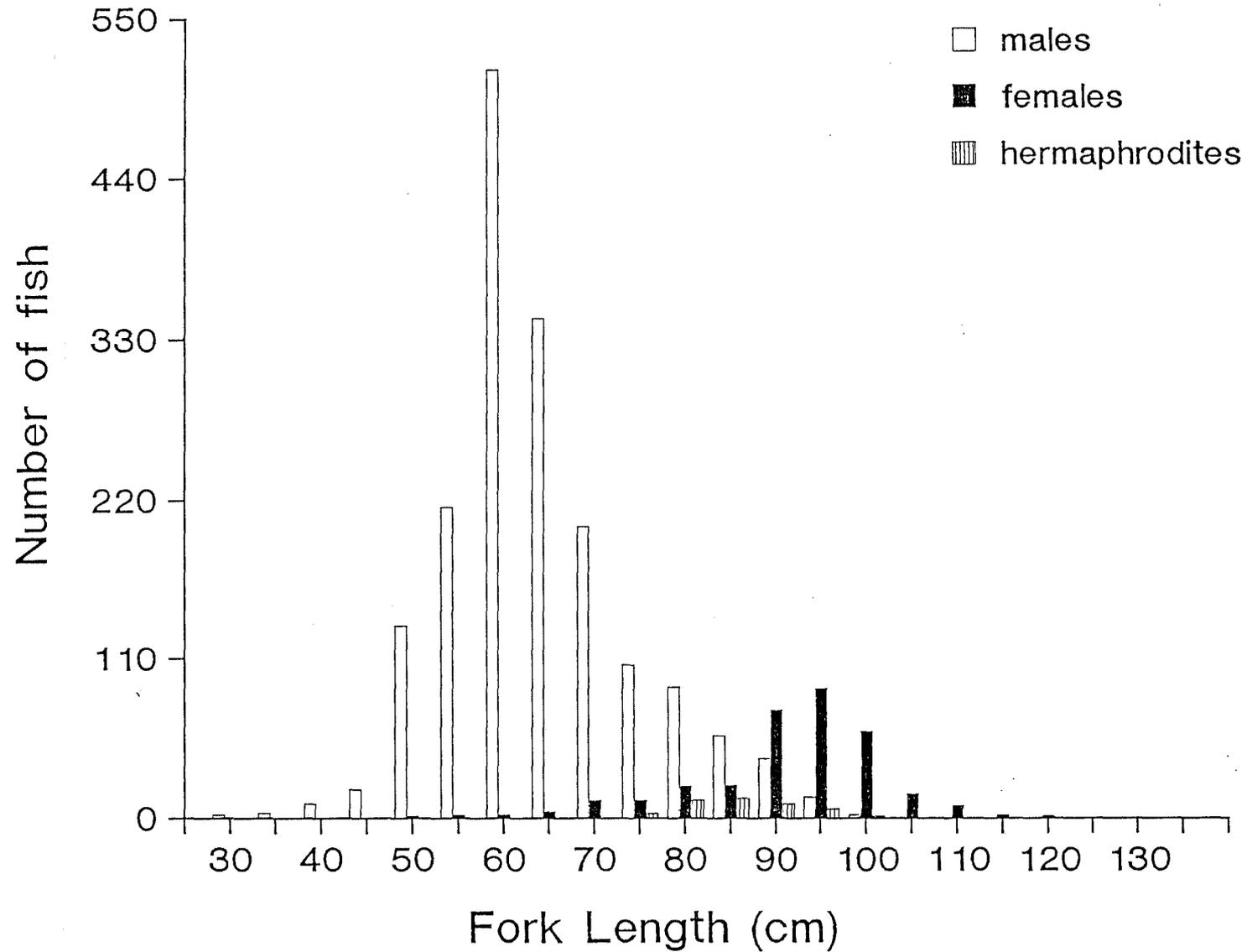


Figure 1. Numbers of male, female and hermaphrodite king salmon by length. Fish are grouped into 5cm size classes.

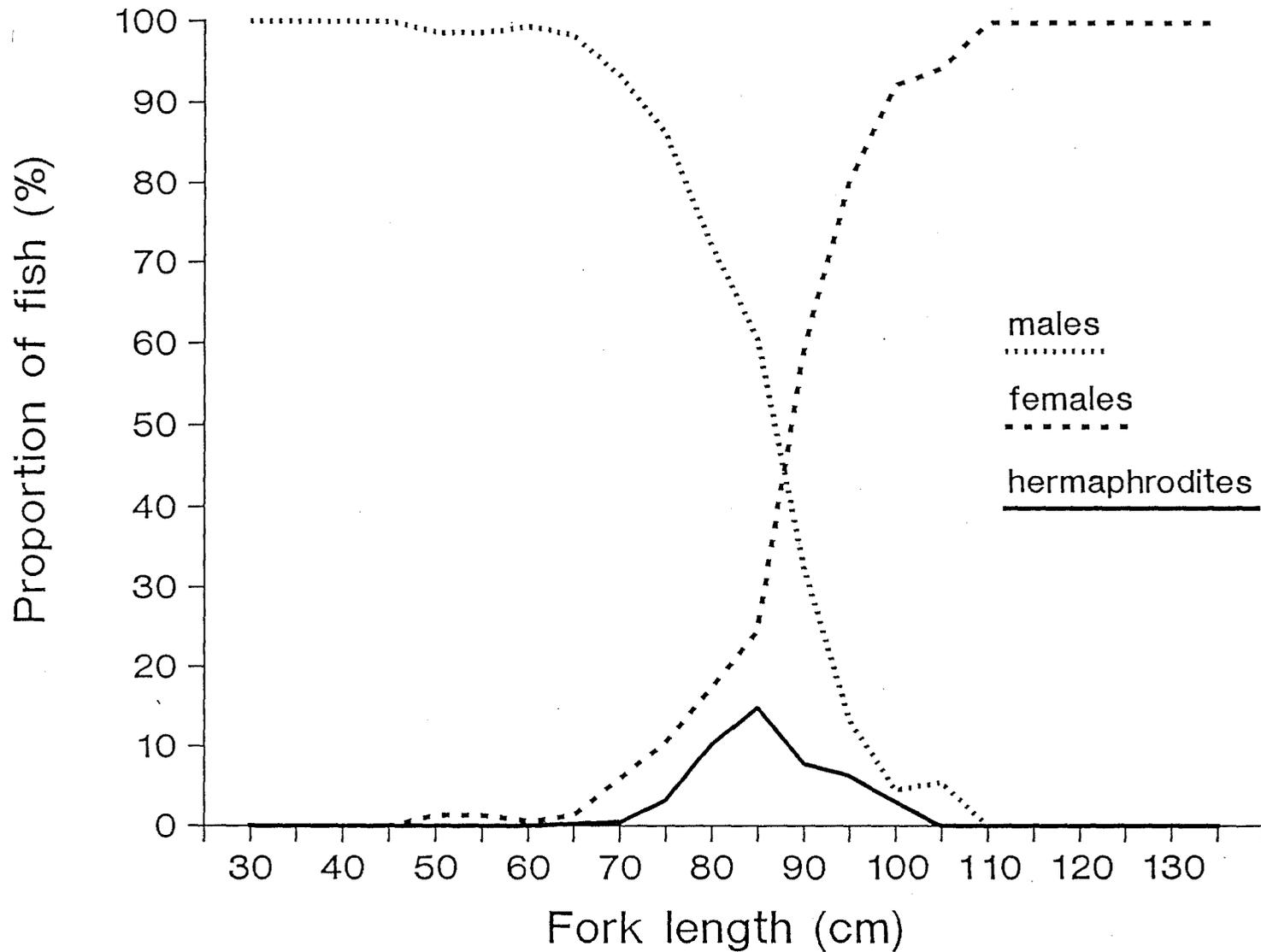


Figure 2. Proportion of male, female and hermaphrodite king salmon by length. Fish are grouped into 5cm size classes.

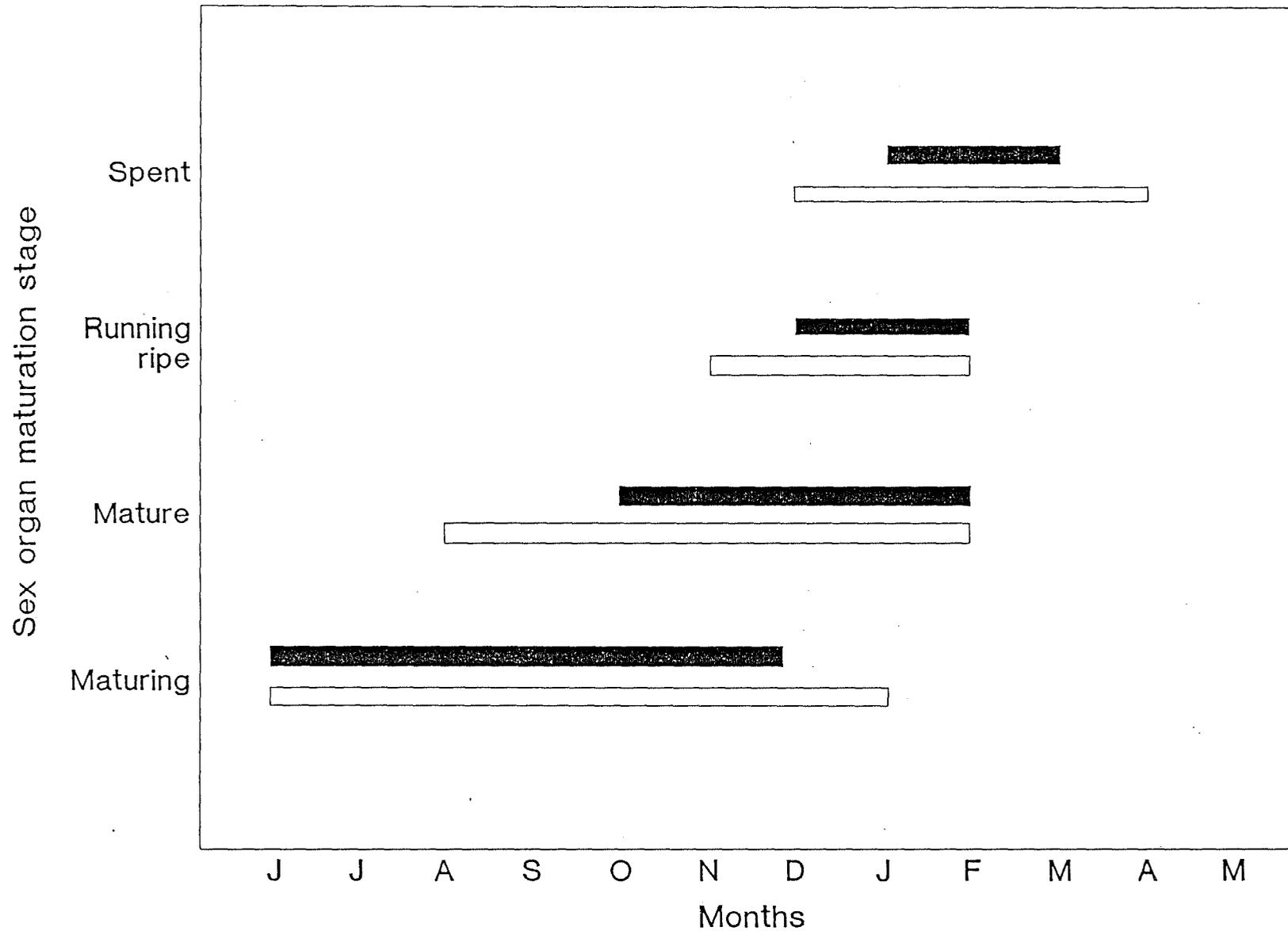


Figure 3. Distribution of sex organ maturation stages through the year (June to May) for male (■) and female (□) king salmon.

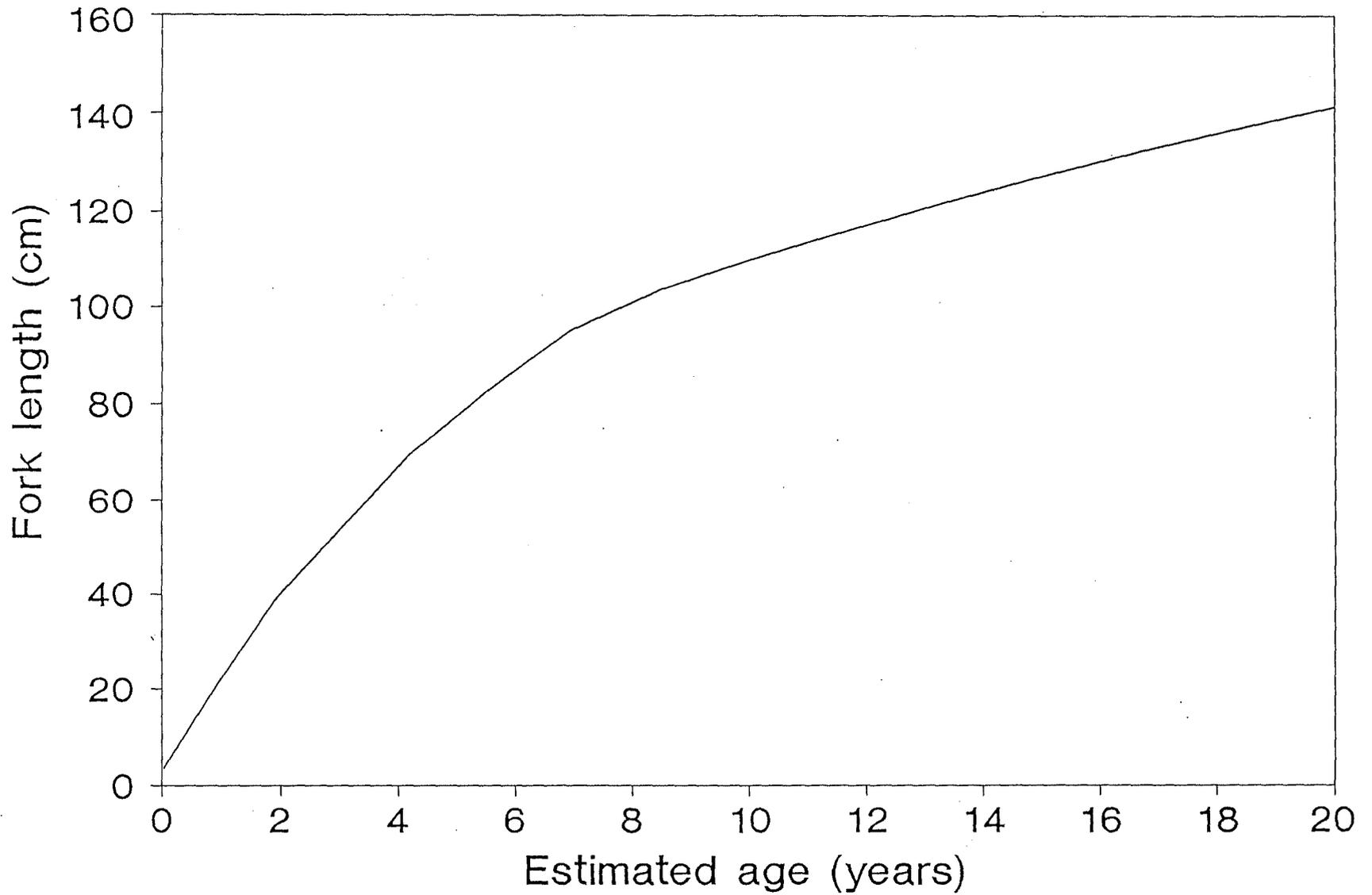


Figure 4. Preliminary growth curve for king salmon, compiled from back-calculated mean lengths-at-age.

5. BIOLOGICAL INVESTIGATIONS

OF BARRAMUNDI IN

THE GULF OF CARPENTARIA

BIOLOGICAL INVESTIGATIONS OF  
BARRAMUNDI *Lates calcarifer* IN THE  
GULF OF CARPENTARIA:

A SUMMARY REPORT

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Cairns

20 August 1992

RECEIVED

7 SEP 1992

## INTRODUCTION

The barramundi *Lates calcarifer* is the main target species of inshore fishing operations along the Gulf of Carpentaria coastline. Large numbers of barramundi are taken in set gillnets, and by hook and line. The commercial catch amounts to about half of annual net fishery landings, and has varied from 489 to 825 tonnes wholeweight per year between 1981 and 1991 (see Williams, 1992, Figure 2). Angler catches of barramundi can also be substantial, and amounted to an estimated 108 tonnes in 1986 according to a Queensland Department of Primary Industries survey (B. Pollock, personal communication).

Such a high level of fishery importance has encouraged a great deal of research activity into the species for management purposes. Detailed studies in the early 1980's established the basic features of barramundi biology in Gulf waters (eg. Davis, 1982; Garrett, 1987; Russell and Garrett, 1983). The species is very long lived (beyond 20 years) and can grow to a great size (more than 50 kg). Female barramundi are the largest and oldest individuals in a population, and females are derived from male fish through a protandric or "male first" sex reversal (Moore, 1979). Northern Gulf barramundi breed in early summer (October and November); fish in more southerly areas spawn later from November to January.

Two genetically distinct stocks of barramundi are found in Gulf waters (Shaklee and Salini, 1983) each with special biological features. From around Arukun (Archer River) north, male barramundi start breeding as young as one or two years old (Davis, 1984), well before they are large enough to be taken in the commercial fishery. Gillnet catches of northern stock fish are predominantly of females. In the southern stock, male maturity occurs much later in life at three to five years age, so sexually immature individuals regularly appear in gillnet catches along with males and females. Production records show that the southern stock supports high levels of commercial fishing activity, and provided about 80% of the annual Gulf barramundi catch between 1981 and 1991 (Williams, 1992). The northern stock, on the other hand, was much more lightly fished over this same period (only 8% on average of total yearly Gulf fishing effort occurred there).

The sizes and structures of fish populations are not fixed over time, but vary in response to external pressures. Part of this response can involve changes to the timing of events in the life cycle, particularly those associated with the onset of sexual maturity and breeding. Fishing pressure is an important environmental modifier of fish populations, and the structured life cycle demonstrated by Gulf barramundi offers opportunities for assessing any changes in the resource that may have occurred over time with fishing. For this species, the relative proportion of sexually immature to sexually mature fish entering the fishery, the number of years spent breeding as a male before sex

change, and the proportion of female fish in the population (especially in the smaller size classes) can serve as sensitive indicators of pressure once baseline levels are known.

Since 1983 the Queensland Department of Primary Industries has undertaken biological monitoring of commercial barramundi catches in the southern Gulf of Carpentaria. The study was undertaken as a pilot exercise to test the value of a long term data series in detecting changes in population structure occurring over several barramundi generations. Its implementation has owed much to the interest and generosity of a small group of dedicated operators. Their contributions are gratefully acknowledged.

This report summarizes the findings of the monitoring programme to date.

### **COLLECTION OF SAMPLES**

Catches of barramundi were examined on a monthly basis during the commercial season each year from 1983 to 1991. Sampling for the 1992 season is incomplete. The fish were caught in gillnets, mainly of 150 to 200 mm stretched mesh size. Other samples were taken, especially during the annual netfishing closed seasons, by Fisheries Division staff. Most sampled fish were taken in the south-eastern Gulf area from Middle Point to Point Austin, which includes the important fishing grounds of the Flinders River and the Norman River.

Barramundi samples were generally provided as filleted frames, frozen on board, and trucked to the QDPI's Northern Fisheries Centre in Cairns. For each fish, a total length measurement from snout to tail (in cm), its sex, and an assessment of the maturity stage of the sex organs were recorded. Sections of the sex organs were preserved and examined histologically in the laboratory.

### **SEXUAL MATURITY AS MALES**

Between February 1983 and June 1992, a total of 1 536 Gulf barramundi were examined in the length range 55 - 90 cm total length (TL), the size range most likely to be occupied by adult male fish. Of these samples, 55.3% were identified as adult males, 8.9% were female, and a further 35.8% (55 - 76 cm TL) possessed immature testes.

Figure 1 shows the proportions of immature fish and mature male fish plotted against fish length, using data on 1 399 barramundi gathered over all years. At 55 cm length, only 4% of southern Gulf barramundi were mature. By 77 cm length, all male fish had attained sexual maturity.

Biologically meaningful minimum legal taking sizes are normally set at fish lengths where a majority of individuals in the population of a species have

attained sexual maturity and bred. Currently in Queensland the smallest barramundi that may be taken legally is a fish of 58 cm TL. Figure 1 shows that only 16% of southern Gulf barramundi were mature at this size; the 50% maturity mark was not reached until 62 cm.

#### **SIZE OF MATURE MALE BARRAMUNDI**

The smallest mature male fish sampled in the study measured 55 cm TL. In a collection of 451 males taken from the Norman River area some four years earlier (1979/80), mature males also first appeared at 55 cm TL (reported in Davis, 1982).

Between 1983 and 1991, 90% of all barramundi identified as adult males measured 60-80 cm TL. The year-to-year variation in the mean size of mature male barramundi represented by this category in sampled catches, is illustrated in Figure 2. Data for the 1992 fishing season are incomplete and are excluded from consideration.

Mean sizes of mature males fluctuated between 66 and 69.5 cm TL over the period of observation. Male fish size appears to have fallen sharply since 1979/80, when Davis (1982) found most mature Norman River area barramundi were 70-75 cm TL.

#### **INCIDENCE OF FEMALE BARRAMUNDI**

Large numbers of small female barramundi were identified in sampled catches. Over the ten year period, female fish accounted for 8.9% of all barramundi between 55 and 90 cm TL. The female component in this size range varied from year to year (expressed in Figure 3 as the ratio of females to males), and by 1991 there were nearly three times as many small female barramundi in catches as there were in 1983. The high female to male ratio demonstrated so far for 1992 (1 to 4.9) may alter as additional data from catches made during the latter part of the year are included in analyses.

Figure 4 indicates that between 1983 and 1992, there has been a trend for replacement of male barramundi by female barramundi in the likely male fish size range, 55-90 cm TL. Mathematical analysis of the data strongly supports the reality of this situation, with the probability of such a trend arising only through chance circumstances being less than one in a thousand.

#### **SIZE OF FEMALE BARRAMUNDI**

The rising proportion of small female barramundi in catches may indicate that increasing numbers of male fish may be changing sex before they attain any great size. In his 1979/80 study, Davis (1982) established that southern Gulf male fish sex-changed to female at around 82 cm TL, and the newly formed

females averaged about 84.5 cm long. Only 2.3% of female barramundi in 1979/80 were newly changed fish smaller than 80 cm TL.

Between 1983 and 1991, the mean size of female fish appearing in the 55-90 cm size class averaged 74.5 cm TL (range 64.5 to 81.5 cm TL, see Figure 5). Although the size of small female fish did vary from year to year, there appears to be no clear trend in these data for a decrease in female fish size over time. However, 1992 data cannot be regarded as final.

Histological examination of ovary sections from these small female barramundi showed that most (85.7%) had only recently sex-changed from males before capture. Only 10.7% of small female fish were larger than 84.5 cm TL, the size of newly changed southern Gulf female barramundi in 1979/80. By 1991 and 1992, newly changed females under 80 cm TL comprised more than 70% of all newly changed fish. This is a significant departure from the 1979/80 baseline established by Davis (1982).

## MANAGEMENT CONSIDERATIONS

In summary, monitoring of commercial catches in the southern Gulf of Carpentaria has revealed that changes have occurred in the barramundi resource there since the early 1980's. More and more female fish are appearing in the size ranges normally associated with male fish. The rising proportion of small female barramundi in catches may indicate that more male fish are changing sex before they attain any great size. There is evidence that male fish too may be maturing earlier in life.

The agency for such change is unclear. If fishing pressure is responsible, then the results of the study are highly significant to the fishery. A major concern for fishery managers is that barramundi stocks are vulnerable to the rapid removal of female fish, because sex-changing male fish may not be able to replace the females at the required rate. The data presented in this report provide some evidence that, at least in the southern Gulf stock, there is a degree of flexibility and adaptability in the size at which male barramundi undergo sex-change. Whether such a mechanism can fully compensate for the loss of female barramundi is not known.

Also unknown is the level to which the proportion of females in the barramundi population must be depressed before the regulation of sex change becomes necessary. This critical level would be reached when the high fecundity (= egg producing capability) of the species is unable to compensate for the loss of breeder fish. That this point has been exceeded in the southern Gulf barramundi stock fishery seems likely from the results of this study.

Monitoring the size at which barramundi populations on different fishing grounds change sex appears to be a useful management tool. Unfortunately, no

long-term biological database exists for the Gulf fishery beyond the south-eastern corner. An extension of the monitoring programme into other areas of the Gulf would be necessary to determine trends in the wider context. Implementing such a programme should be given high priority. The information generated should help to establish just what are sustainable levels of exploitation in the barramundi fishery.

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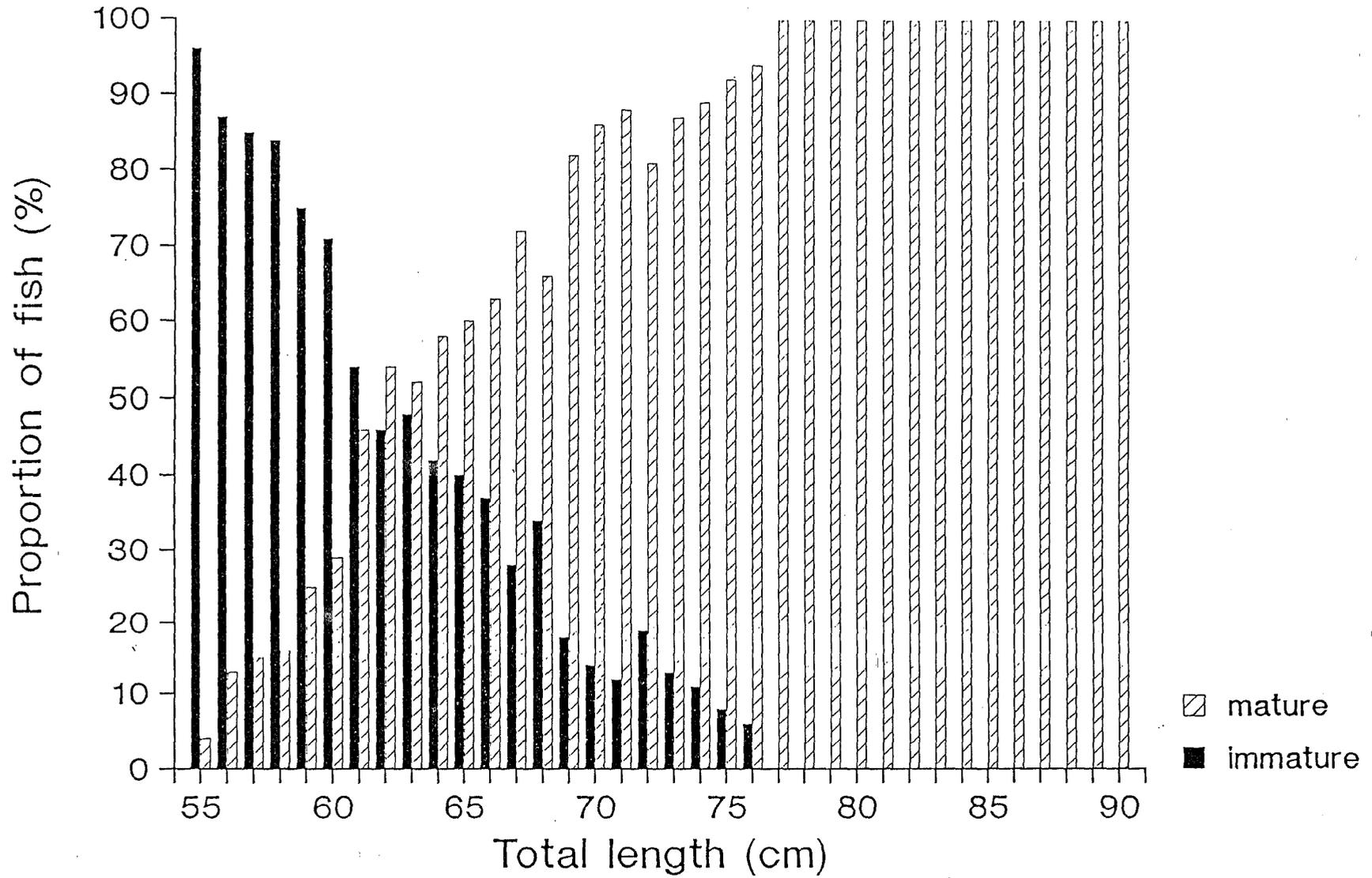


Figure 1. Proportion of immature fish and male barramundi by length. Fish are grouped into 1cm size classes.

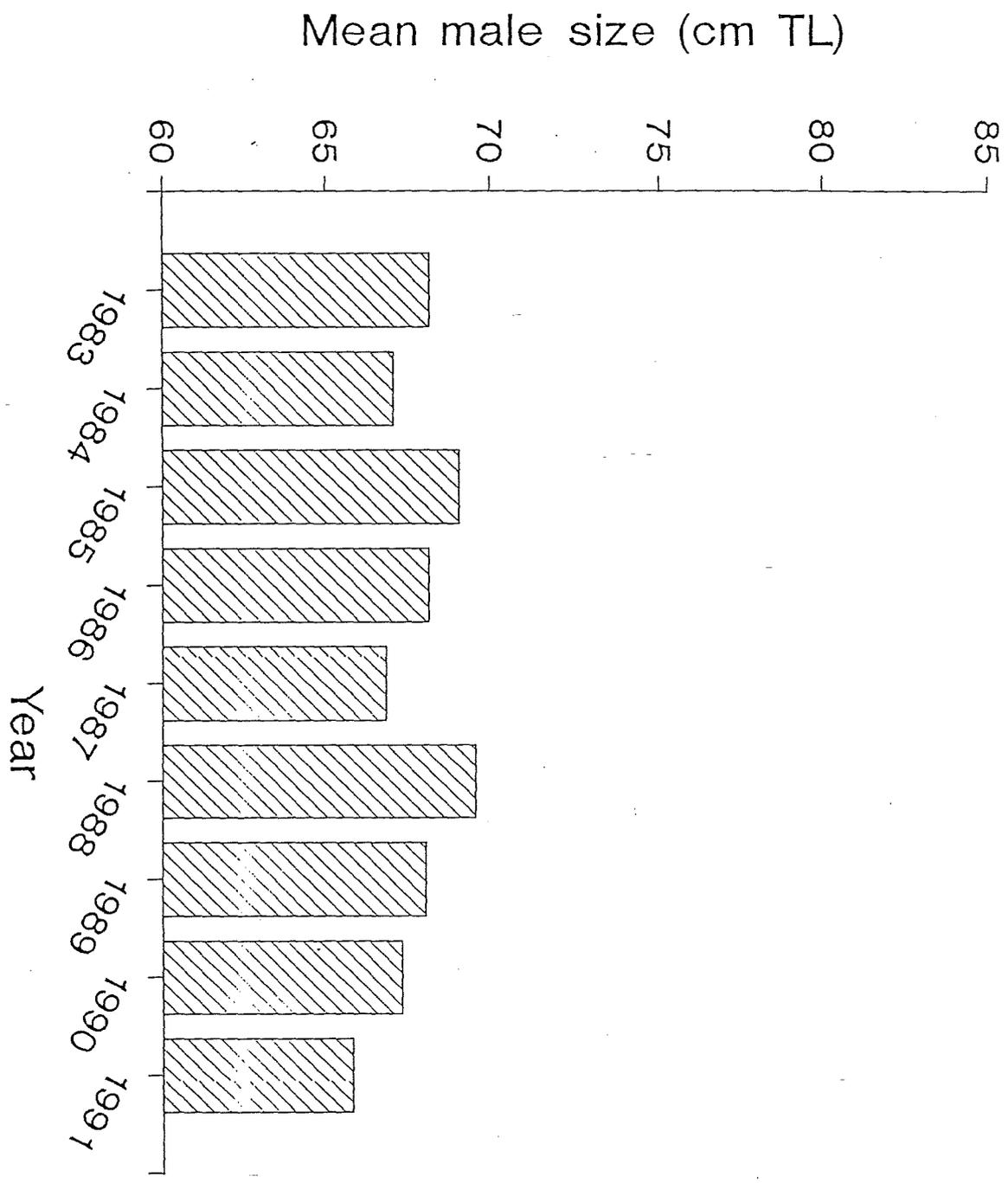


Figure 2. Variation in mean size of mature barramundi over the period 1983 - 1991.

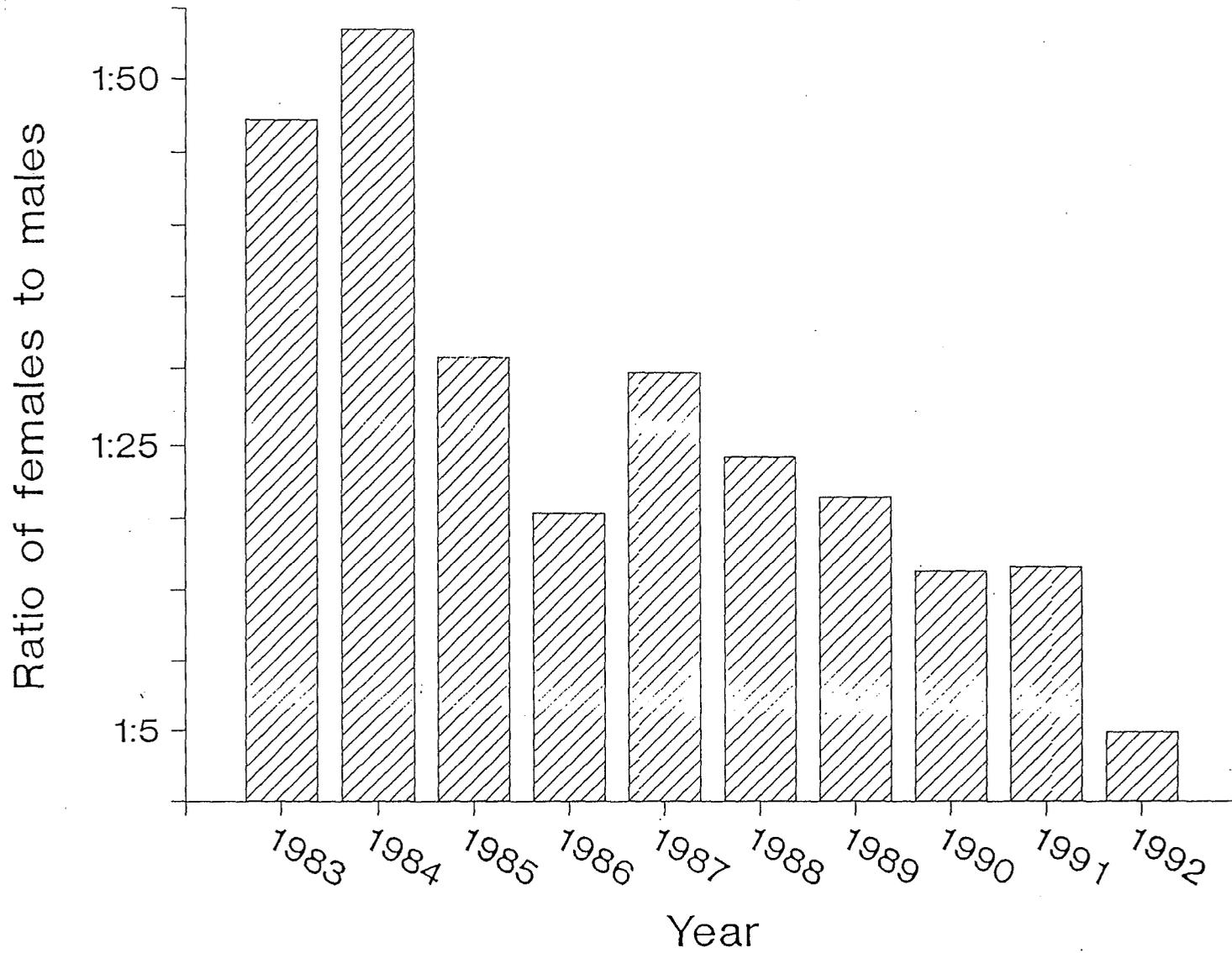


Figure 3. Variation in ratio of females to males in barramundi catches over time.

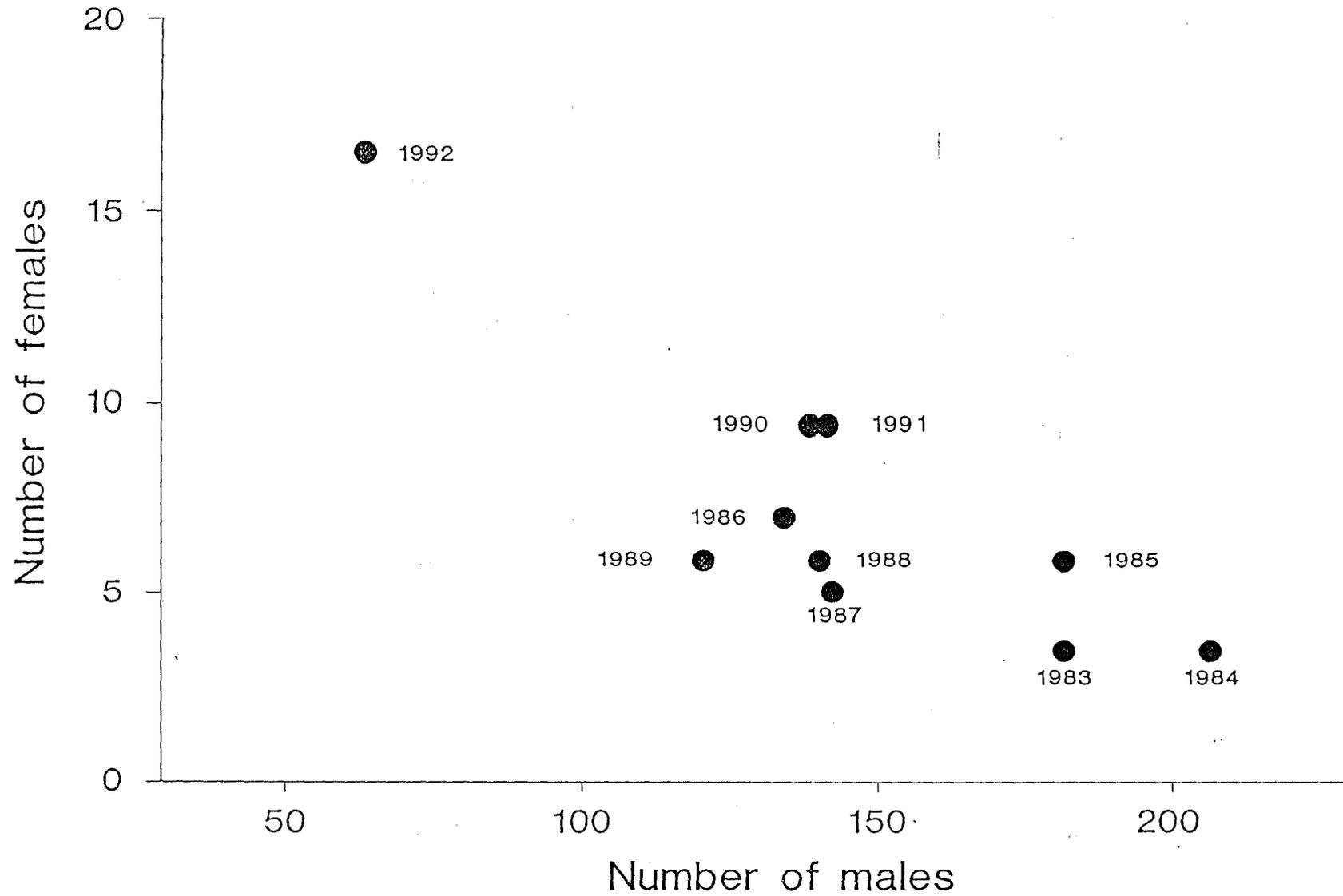


Figure 4. Variation in number of female barramundi compared with number of male fish in southern Gulf catches between 1983 and 1992.

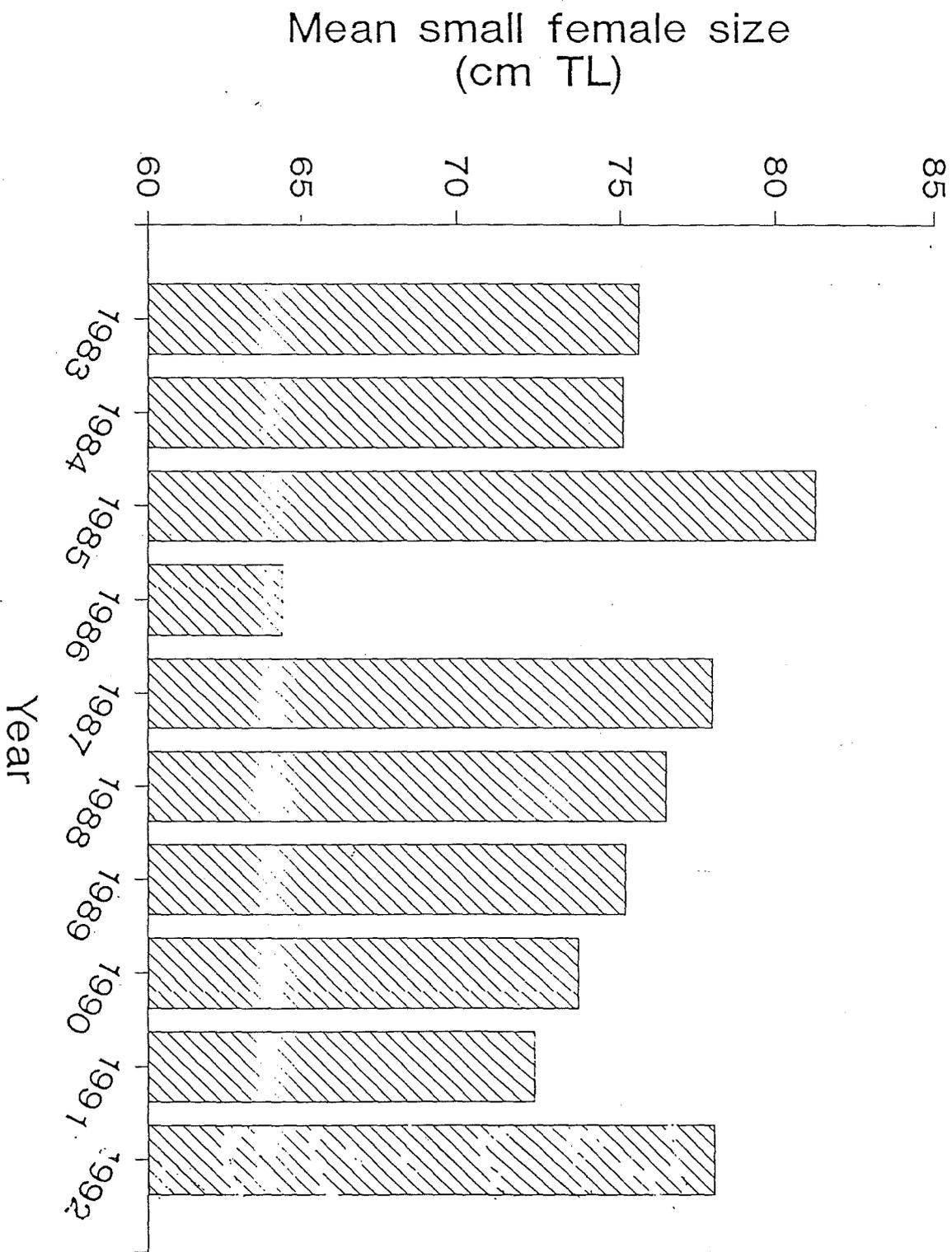


Figure 5. Variation in mean size of small female barramundi over the period 1983 - 1992.

## 6. THE CURRENT REVIEW

In mid 1991 the QFMA determined to undertake a review of management arrangements applying in the Gulf of Carpentaria fishery. This review flows on from a review of the east coast fishery which has recently been completed and implemented. The purpose of the review is to examine all forms of fishing for estuarine and coastal finfish and the management of those activities within a public consultation process, after which a new management plan would be implemented for a five year period. The format for this review involves four stages - information gathering, preparation and release of a discussion paper, assessment of responses and an implementation phase.

It is stressed that in this review there will be a major emphasis on consultation. All key interest groups (i.e. Queensland Commercial Fishermen's Organisation (QCFO), Queensland Sport and Recreational Fishing Council (QSRFC) and fishing clubs in the region, local authorities, Gulf Local Authority Development Association, Cape York Development Council, Gulf aboriginal communities and the Department of Family Services) will be invited to participate in all discussions associated with the review. The views of individual members of any of these organisations or members of the general public will also be welcomed.

### **Stage 1 - Information Gathering (July - December 1992)**

This stage is designed to gather the views of commercial, recreational and community participants in the fishery on the adequacy of existing management arrangements.

A record of meetings will be developed throughout the course of the review to ensure that all interest groups have an understanding of issues raised at all industry or recreational/community meetings. Summary records of all meetings will form part of the later Discussion Paper.

Meetings with commercial operators and Gulf aboriginal communities will be held in Karumba and Weipa in November 1992. An initial discussion has been held with commercial interests at the mid-year industry meeting and a Summary Record of that meeting is attached. Meetings with recreational fishing groups will be held in Mt. Isa, Karumba, Weipa and Cairns during November/December 1992.

### **Stage 2 - Discussion Paper**

This stage will involve the release of a discussion paper for public comment outlining the state of the fishery and information obtained from meetings. This discussion paper will include management options. Submissions from all interested organisations and individuals will be invited in response to all issues raised in the discussion paper.

### **Stage 3 - Assessment**

Assessment of submissions received in response to the discussion paper will be undertaken by an Authority appointed technical working group. This working group will report to the Board of the QFMA by 31 December 1993.

## 7. MEETING OF COMMERCIAL OPERATORS - KARUMBA

This meeting was chaired by Mr R. McKinlay, Chairman QCFO Karumba Branch. Approximately 30 Branch members attended the meeting in addition to the Branch Executive and Mr T. Loveday, President QCFO.

Also attending were Messrs. Russell and Kingdom, QBFP Karumba; Mr L. Williams, Senior Fisheries Economist, QDPI; Mr R. Garrett, Senior Fisheries Biologist, QDPI; and Mr T. Healy, Manager Inshore Fisheries, QFMA.

The Chairman opened the meeting and invited Mr Loveday to make a presentation on the review of the fishery.

Mr Loveday stated that the Gulf of Carpentaria Net Fishery is regarded as one of the best managed fisheries in Queensland. He felt that this can be borne out by the high level of stability observable in the fishery over a long period. He stated that the fishery did not exhibit many of the difficult user conflict problems observable in equivalent fisheries on the east coast. He stated that even in such a stable environment, the QCFO acknowledged the need for periodic review of management arrangements applying in all fisheries and in that context supported the current review.

Mr Loveday referred to the historical development of the existing management regime and stressed the positive role played by the Karumba Branch. He felt that the Branch had shown a high degree of responsibility and initiative in advocating many of the management interventions which had been seen to be so successful in the management of the fishery.

Mr Loveday stated that whilst it was clear that the review would focus broadly on the state of the fishery and the adequacy of existing management approaches there was a range of specific questions which he felt should be addressed. These were -

- (i) an understanding of the extent of recreational participation in the fishery and the stock consequences of that participation;
- (ii) an understanding of the relevance of external factors such as input costs on the viability of the commercial fishery;
- (iii) acknowledgement of the service provided to the community through commercial fishing in the Gulf;
- (iv) the consequences of the increase in the minimum legal size for the taking of barramundi;
- (v) the adequacy of the existing vessel upgrade and replacement policy;
- (vi) the extent and effectiveness of surveillance and enforcement.

## Vessel Upgrade and Replacement Policy

### Primary Vessels

The meeting endorsed the existing vessel upgrade and replacement policy. This policy entails a free upgrade to 14 metres, with a "like for like" upgrade beyond 14 metres. The meeting sought to formalise the maximum vessel length for upgrade and replacement beyond 14 metres and advocated a maximum vessel length of 20 metres, as prescribed by Queensland fisheries legislation. The Chairman stated that the Branch would develop a proposal outlining this matter for presentation to the QFMA.

### Tender Vessels

Existing vessel licensing, upgrade and replacement policy permits the use of a maximum of three tender vessels to every primary vessel. Additionally if a tender vessel being replaced exceeds 7 metres in length, the replacement vessel must not exceed 7 metres in length.

The meeting sought an amendment to this policy which would permit the use of three tender vessels to every primary vessel but that one of the tenders be up to 10 metres in length. This measure was advocated on the basis of improved product handling and safety of operation. The Chairman stated that the Branch would develop a proposal outlining this matter for presentation to the QFMA.

### Apparatus permitted for Use in the Fishery

Participants in this fishery are permitted to utilise a range of apparatus subject to specified conditions of use.

The principal netting method is set gill netting. This method entails the use of -

- Serial No. 13 - Gulf of Carpentaria River Set Gill Net;
- Serial No. 14 - Northern Foreshore Set Gill Net;
- Serial No. 17 - Offshore Set Gill Net or Drift Net.

Operators are also permitted to use a range of general purpose and/or commercial bait nets.

The Crab Pot Fishery for mud crabs is also an important activity undertaken in association with the Gulf of Carpentaria Net Fishery.

Conditions of use of set gill nets and crab pots are set out in Attachment B.

The meeting discussed existing conditions in relation to the use of apparatus and recommended consideration of the following issues -

(i) Reduction in the Distance Between Set Nets:

Queensland fisheries regulations prescribe that a set gill net may not be set within 100 metres of another net in use. The meeting sought consideration of a reduction in this distance.

(ii) Separate Crab Fishery Endorsement:

Queensland crab fishery, east coast and Gulf of Carpentaria are managed as a single entity. The establishment of a limited entry arrangements for Gulf of Carpentaria crab pot fishery has been raised from time to time, primarily on the basis of stock conservation. The Chairman advised that the Branch would be presenting a submission to the Authority on this matter seeking the establishment of a separate limited entry crab pot fishery endorsement for the Gulf of Carpentaria.

(iii) Marking of Apparatus:

The requirements for the marking of nets and crab pots for commercial operators are set out on page 4 of Attachment B.

In relation to the marking of nets, the meeting expressed the view that the surface float should bear the registered markings (symbols) of the primary vessel, rather than the name of the Master Fisherman under whose direction the operation is undertaken. Also in relation to surface floats, the meeting advocated the use of solid white floats placed at 25 metre intervals. Additionally, the meeting advocated the use of flags for marking the end of nets, i.e. a 1 m flag on the midstream end of the river set gill net and a 1 m flag on both ends of the foreshore set gill net.

The meeting did not seek any amendment to existing arrangements for the marking of crab pots.

(iv) Attendance at Nets:

The arrangements requiring commercial fishing operators to remain in attendance at nets is set out on Page 5 of Attachment B.

The meeting did not seek any amendment to the existing attendance requirement which was regarded as appropriate for the fishery.

(v) Responsibilities of Master Fishermen:

In addition to responsibilities of Master Fishermen described on page 5 of Attachment B, commercial net fishing operators in the Gulf of Carpentaria fishery are subject to a range of penalties involving licence suspension for specific breaches of fisheries legislation. These are described on page 4 of Attachment A.

The meeting expressed the view that the penalty for the use of excess nets should be extended from one month to six months.

(vi) Areas Closed to Commercial Netting:

The range of closed areas to commercial netting in the Gulf of Carpentaria are set out in Section 8 of Attachment B.

The meeting expressed the view that existing catch sharing arrangements between commercial and recreational participants in the fishery were adequate. It was also stated that this balance is reflected in the absence of social conflict over access to rivers and near-shore areas. The meeting felt that this situation was a result of the work of the Branch Executive in promoting good relations between the commercial fishing industry and the other key interest groups including the recently established and long-standing recreational fishing clubs in Mt Isa, Karumba, Normanton and Weipa, aboriginal communities and local councils and organisations such as GLADA and the Cape York Development Association.

The meeting was aware of consultation between the Council of the Shire of Burke, QFMA, QDPI and the QCFO in relation to the Council's concern over the status of fish stocks, in particular barramundi, in the Albert and Nicholson Rivers. This matter has been the focus of a preliminary investigation by QDPI to determine whether there exists a problem with fish stocks of the region, and if so, the identification of possible cause and available remedies. The meeting sought to have the remaining investigative work to be completed as soon as possible.

(vii) Definition of River Mouth:

In the Gulf of Carpentaria net fishery the term "mouth" is crucial to the determination of the areas in which river and foreshore set gill nets may be used. The mouth of a river or creek is currently defined as the seaward limit of the confluence of the river or creek with the sea as defined by the trend line of the coast at low water.

This measure is depicted in Figures 1,2 and 3 in Section 8 of Attachment B.

One outcome of the review of the East Coast Barramundi Set Gill Net Fishery was the amendment of the conditions of use of foreshore set gill nets to refer to "entrance" at high water, rather than mouth. In the east coast fishery, entrance, which defines the area where river and foreshore set gill nets may be used, is described as -

"... a reference to the point of confluence of that river or creek at high water mark with the general trend line of the coast determined by drawing a line across the river or creek at the seaward limit of -

- (i) marine vegetation, mangrove trees or terrestrial vegetation; or
- (ii) permanent sand spits exposed at high water mark; or
- (iii) rocky headland or outcrops; or
- (iv) a continuation of vegetation, trees, spits, headlands or outcrops;

at the entrance, as the case may be ...."

This definition was favoured in the east coast fishery on the basis that it provided a more discernable definition of mouth or entrance, thereby reducing the potential for confusion and enhanced enforcement measures.

The meeting sought amendment of conditions of use of set gill nets in the Gulf of Carpentaria Net Fishery so that the point distinguishing the use of rivers and foreshore set gill nets be defined as "entrance".

The meeting also made the point that in cases where the entrance was difficult to discern, specific point to point definitions should be applied.

(viii) Enforcement:

The Chairman referred to long-standing concerns of the Branch in relation to the level of surveillance and enforcement applied to the Gulf of Carpentaria Net Fishery. He particularly referred to discussions at the 1991 Branch Annual General Meeting with the Superintendent of the Queensland Boating and Fisheries Patrol at which the need for increased enforcement capacity was discussed in detail.

The Deputy Chairman put the view that there was need for a particular enforcement exercise in the fishery. He stated that this exercise should entail a QBFP Patrol Officer or QDPI Fisheries Inspector carrying out a "fact finding" excursion throughout the Gulf, focusing particularly on the use of excess nets and report these findings back to the November 1992 Annual General Meeting of the Branch.

Mr Russell referred to the significant budgetary limitations placed on the QBFP which was inevitably reflected in a limited surveillance and enforcement capacity. He expressed the view that the introduction of "on the spot fines" would greatly reduce the procedural steps associated with processing alleged breaches of the regulation and could result in more time being devoted to actual enforcement and surveillance activities. The introduction of "on the spot" fines was supported by the Branch.

### Environmental Considerations

The meeting stressed the need for a high level of protection of fisheries habitat areas throughout the Gulf. Environmental and habitat protection was regarded as being crucial to the capacity to apply meaningful management to the fishery.

The meeting felt that attention should be given to the following areas:-

- . the establishment of an inventory of all coastal wetland areas to provide an accurate assessment of the current environmental status of all such areas throughout the Gulf;
- . the QFMA and the QDPI should take urgent action to provide the highest degree of environment protection possible to wetland areas;
- . the QFMA and the QDPI should ensure that research into the significance of wetland areas as important fisheries habitats is adequately funded and accorded a high priority.

## ATTACHMENT A

### COMMERCIAL FISHING VESSEL UPGRADE AND REPLACEMENT POLICY AND LICENCE PENALTIES FOR BREACHES OF LEGISLATION

This section summarises the conditions under which commercial operators may introduce vessels to the fisheries and upgrade or replace those vessels.

The section also provides details of arrangements under which commercial operators may be penalised in the way of licence suspension for specific breaches.

These policies were developed in consultation with operators in the Gulf of Carpentaria Net Fishery.

QUEENSLAND FISH MANAGEMENT AUTHORITY

In any further correspondence refer to No.

ENQUIRIES

Telephone: (07) 227 6239 Secretary  
Telephone: (07) 227 6245 Inspector  
Telephone: (07) 227 6252 Licensing  
Facsimile: (07) 221 8793  
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OFFICES

10th Floor,  
Unisys Centre,  
157 Ann Street,  
Brisbane.

Please address all correspondence to:

The Secretary,  
Queensland Fish Management Authority  
P.O. Box 344,  
Fortitude Valley Qld. 4006

MANAGEMENT ARRANGEMENTS FOR THE GULF OF CARPENTARIA NET FISHERY

AS AT 4 JUNE, 1991

GENERAL

The existing management arrangements with respect to closed season, closed waters etc are to be continued, as is transferability for the limited licence fishery which was introduced as at 1st January, 1987. As was the case previously, no additional endorsements for entry to the fishery are to be granted.

SECTION A: PRIMARY STATUS VESSEL TRANSFER/REPLACEMENT GUIDELINES

1. VESSEL REPLACEMENTS

PLEASE NOTE:

Under current legislation the Authority is required to consider all licensing applications received, and would use the guidelines contained in this document as part of the consideration process.

However, persons seeking approval for a proposal which does not fall within these guidelines, would need to be able to demonstrate to the Authority that particular circumstances existed which would warrant a variation to these guidelines.

Consequently, applicants should understand these guidelines before making any commitments and be clear about the criteria required for a successful application.

A replacement vessel for the purposes of these guidelines includes any vessel which is intended for licensing in terms of a physical hull being introduced in place of a vessel which has sunk or been otherwise removed from the fishery, or any vessel that has been modified which results in an increase or decrease in its dimensions.

Vessel length for licensing purposes - see Fishing Industry Organization And Marketing Regulations 1991.

- A. If the Primary Status Vessel being replaced exceeds 14 metres in length, the replacement vessel will not be permitted to exceed the length of the original vessel.

- B. If the Primary Status Vessel being replaced is less than 14 metres in length, it may be replaced by a vessel up to but not exceeding 14 metres in length.
- C. If a Primary Vessel is being replaced under replacement guidelines applying to other endorsed fisheries on its licence, the endorsement authorising operations in this fishery will be transferred to the new vessel only if the new vessel satisfies replacement requirements specified in this document, otherwise the endorsement must be forfeited.
- D. In respect of licensed vessels in excess of the minimum required length for marine survey certificate (presently 10 metres), the following additional replacement requirements apply:-
- . If the vessel is in current survey it may be replaced in accordance with abovementioned requirements.
  - . If the vessel is not currently certificated for survey purposes, it may be replaced by another vessel of a length less than that for which survey certification is required (presently 10 metres).
- E. The conditions outlined in the preceding sections of this document relate only to vessels with Primary Vessel Status. (For guidelines relating to tender vessels refer Section B herewith).
- F. Queensland Commercial Fishing Vessel Licences for Primary Status Vessels (with all attached endorsements) may be transferred on change of ownership of the vessel or be traded separately from the vessel. In the latter case the vessel must firstly be removed from the Queensland Fishery (i.e. the current Queensland Commercial Fishing Vessel Licence surrendered and returned to the Queensland Fish Management Authority for cancellation, and registered markings removed from the vessel).
- G. Trading in endorsements separate from the licence will not be permitted, nor will "splitting" of endorsements be permitted (i.e. separating particular endorsements from the total list of endorsements or endorsements from the licence other than by forfeiture through relinquishment).
- H. If the Primary Status Vessel being replaced is endorsed to permit operations in the River Beam Trawl Fishery and is replaced by a vessel exceeding 9 metres in length, such vessel will be not eligible to operate in that fishery, but an existing Tender Status Vessel associated with that Primary Status Vessel will be eligible to operate in that fishery provided all other criteria are satisfied.

I. It will be permitted to have a licence and endorsement/s transferred to a new licensee, or allocated to a replacement vessel, or recorded as an eligibility, providing that:-

- (a) The current licensee advises the Secretary of the Queensland Fish Management Authority of their concurrence with the vessel replacement provisions, within 28 days of the date of removal from the fishery of the vessel being replaced and forward the current Commercial Fishing Vessel Licence for cancellation.
- (b) Any subsequent holder of that eligibility advises of their concurrence with the vessel replacement guidelines, within 28 days of such eligibility being recorded in their name. No limitations apply to the number of times such eligibility may change ownership however, each subsequent holder shall have only the balance period of time in which to introduce the replacement vessel.
- (c) The holder of the eligibility, whether the original licensee or a subsequent holder, has a period of 12 months from the date of removal of the previous vessel from the fishery to license the replacement vessel, where such replacement vessel is an existing unlicensed vessel (including an existing vessel which is to be modified).
- (d) Where the vessel is yet to be constructed, the holder of the eligibility, whether the original licensee or a subsequent holder, has 12 months from the date of removal of the original vessel from the fishery in which to construct, or make substantial progress toward construction of, the replacement vessel.

If the replacement vessel is not completed within the 12 months period, the holder of the eligibility must provide a detailed report on the progress of construction (subject to Authority inspection) and a future construction program and estimated completion date, for consideration by the Authority. Should the Authority grant an extension of time, such approval will be on the basis that no changes of ownership or variations to the proposed replacement vessel will be considered.

- (e) Failure to comply with any of the abovementioned conditions will render the eligibility subject to cancellation.

- J. (i) A transfer fee as determined by the Queensland Fish Management Authority will be payable by the transferee for each application for transfer of a vessel licence, (i.e. vessel and licence together);
- (ii) where an eligibility to introduce a replacement vessel changes ownership, a service fee will be charged at the same rates applying in item (i) above.

2. LICENSING PENALTIES FOR BREACHES OF THE FISHERIES ACT 1976 AND FISHING INDUSTRY ORGANIZATION AND MARKETING ACT 1982

(a) Breaches of the provisions of the Fisheries Act 1976 and Fishing Industry Organization and Marketing Act 1982 with respect to the following operations in the Gulf Fishery:-

(i) Conducting Set Gill Net Operations in Closed Waters, or taking Barramundi during the Closed Season, or conducting Fishing Operations in a fishery for which the primary vessel is not authorised, and

(ii) Contravention of the Food Act 1981-1984 with respect to the substitution of fish,

will incur a 12 months suspension period of the Gulf of Carpentaria Net Fishery endorsement.

(b) Conviction for a breach of the netting regulations with regard to nets of a length or number in excess of that prescribed will attract a one month suspension of licences held by that person.

NOTE: The Authority retains the right to require vessel licence holders to show cause why a licence should not be suspended. In addition, the Queensland Master Fisherman's Licence of the person nominated as being in charge of an authorised vessel found in breach of such provisions, will be subject to the above relative penalties.

OTHER MANAGEMENT ARRANGEMENTS

3. Each entitled Primary Vessel may have a maximum of three associated Tender Vessels whilst operating in this fishery. A Tender Vessel may be not greater than 7 metres in length.

4. The Marine Board of Queensland has been requested to direct licence holders of vessels in the fishery for which a Certificate of Survey is required but not held, that the vessel must not proceed beyond Port Limits.

SECTION B

TENDER STATUS VESSEL TRANSFER/REPLACEMENT  
(INCLUDING MODIFICATION) GUIDELINES  
AS AT 29 OCTOBER, 1991

PLEASE NOTE:

Under current legislation, the Authority is required to consider all licensing applications received, and would use the guidelines contained in this document as part of the consideration process.

However, persons seeking approval for a proposal which does not fall within these guidelines, would need to be able to demonstrate to the Authority that particular circumstances existed which would warrant a variation to these guidelines.

Consequently, applicants should understand these guidelines before making any commitments, and be clear about the criteria required for a successful application.

A replacement vessel for the purposes of these guidelines includes any vessel which is intended for licensing in terms of a physical hull being introduced in place of a vessel which has sunk or been otherwise removed from the fishery, or any vessel that has been modified which results in an increase or decrease in its dimensions.

Vessel length for licensing purposes - see Fishing Industry Organization And Marketing Regulations 1991.

These arrangements were implemented by the Queensland Fish Management Authority as part of its overall responsibilities under the licensing provisions of the Fishing Industry Organization and Marketing Act 1982.

No restrictions apply to the issue of new Queensland Tender Commercial Fishing Vessel Licences.

However, the following arrangements will continue to apply:

- (a) the limitation on the allocation of Line Fishery endorsements for Tender vessels (apart from replacements) will be maintained, and
- (b) operations in the Gulf of Carpentaria Net Fishery are limited to a maximum of three tender vessels in actual use. (Refer to Item 3 of Management arrangements for this fishery.)

Where replacement of an existing licensed Tender Vessel is necessary, the following conditions will apply:-

1. If the vessel being replaced currently exceeds 7 metres in length, the replacement vessel will not be permitted to exceed 7 metres in length.

2. If the vessel being replaced is less than 7 metres in length, it may be replaced by a vessel up to and including 7 metres in length.
3. Existing licensed Tender Status Vessels may be transferred only where the associated Primary Status Vessel is transferred at the same time to the same party. Tender Vessels may not be transferred without the associated Primary Vessel. The licences of Tender Status Vessels not transferred together with their related Primary Status Vessel Licences will be cancelled.
4. Existing licensed Tender Vessels exceeding 7 metres in length may be transferred at their existing length, provided that the associated Primary Status Vessel is transferred to the same party.
5. Tender Vessels presently licensed by a person other than the licensed owner of the related Primary Status Vessel will be permitted to continue to be attached to the Primary Status Vessel on its transfer only if the new owner of the Primary Status Vessel provides written agreement to such an arrangement.
6. Reallocation of licensed Tender Status Vessels between two Primary Status Vessels in the same ownership is not permitted.
7. It will be permitted to have a Tender Vessel Licence, and endorsement/s where applicable, transferred to a new licensee in accord with item 3 above or allocated to a replacement vessel, or recorded as an eligibility, providing that:-
  - (a) The current licensee advises the Secretary of the Queensland Fish Management Authority of their concurrence with the vessel replacement provisions, within 28 days of the date of removal from the fishery of the vessel being replaced and forward the current Commercial Fishing Vessel Licence for cancellation.
  - (b) Any subsequent holder of that eligibility advises of their concurrence with the vessel replacement guidelines, within 28 days of such eligibility being recorded in their name. No limitations apply to the number of times such eligibility may change ownership however, each subsequent holder shall have only the balance period of time in which to introduce the replacement vessel.
  - (c) The holder of the eligibility, whether the original licensee or a subsequent holder, has a period of 12 months from the date of removal of the previous vessel from the fishery to license the replacement vessel, where such replacement vessel is an existing unlicensed vessel (including an existing vessel which is to be modified).
  - (d) Where the vessel is yet to be constructed, the holder of the eligibility, whether the original licensee or a subsequent holder, has 12 months from the date of removal of the original vessel from the fishery in which to construct, or make substantial progress toward construction of, the replacement vessel.

If the replacement vessel is not completed within the 12 months period, the holder of the eligibility must provide a detailed report on the progress of construction (subject to Authority inspection) and a future construction program and estimated completion date, for consideration by the Authority. Should the Authority grant an extension of time, such approval will be on the basis that no changes of ownership or variations to the proposed replacement vessel will be considered.

(e) If the Tender Status Vessel is licensed in a name other than the licensee of the associated Primary Status Vessel, the written permission of the licensee of that Primary Status Vessel is required before the licence of the Tender Status Vessel will be recorded in the name of the former licensee of the Tender Vessel as an eligibility. Advices concerning the provisions of Items 7 (a) and (b) above are to be signed by the licensee of the Tender Status Vessel and be counter signed by the licensee of the Primary Status Vessel.

(f) Failure to comply with any of the abovementioned conditions will render the eligibility subject to cancellation.

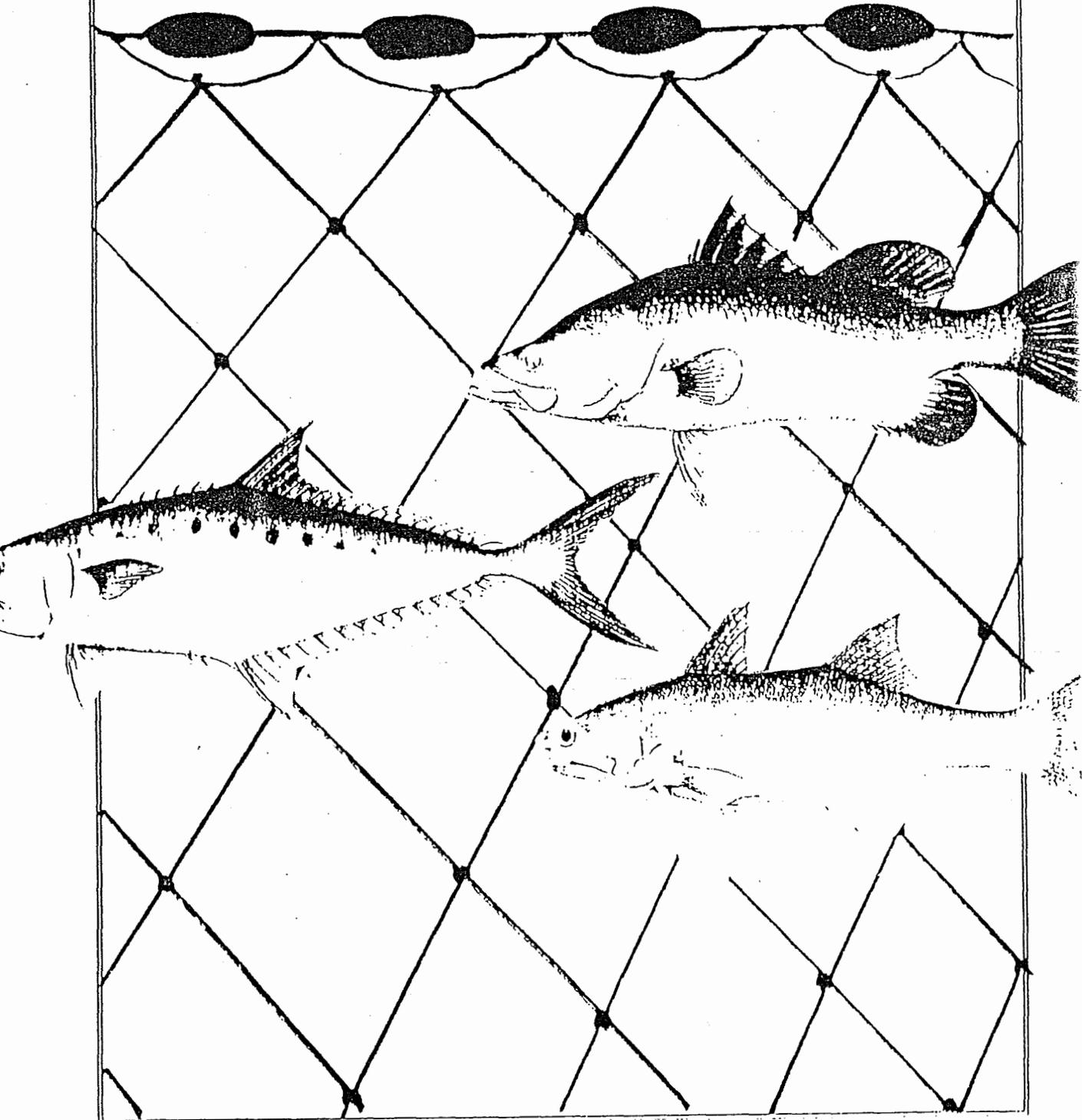
8. A transfer fee as determined by the Queensland Fish Management Authority will be payable by the transferee for each application for transfer of a vessel licence. Where an eligibility to introduce a replacement vessel changes ownership, a service fee will be charged at the rates applying to a vessel and licence transfer.

## ATTACHMENT B

### GULF OF CARPENTARIA NET FISHERY INFORMATION BOOKLET

This section summarises the legislative restrictions applied to commercial fishing undertaken in the rivers and near shore areas of the Gulf of Carpentaria.

**GULF OF CARPENTARIA**  
**NET FISHERY**  
**INFORMATION BOOKLET**



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## INTRODUCTION

The following booklet is provided to all Gulf of Carpentaria Entitlement holders for their information and it is intended to be a guide only. Fishers are advised to read the contents of this carefully as breaches of the legislation can result in financial hardship. As well as this booklet, fishers should also make themselves familiar with the actual Regulations and Act which govern all commercial fishing activity. (F.I.O.M. Act and Regulations, Fisheries Act) Photocopies of the relevant Legislation is at the rear of this booklet.

## SECTION 1

## DEFINITIONS

(See Section 9 for legal description)

APPARATUS	-	Any net, crab pot or any other legal method of taking fish.
ASSISTANT FISHERMAN	-	A person licenced as an Assistant or Trainee Master Fisherman
COMMERCIAL FISHING VESSEL	-	A fishing vessel licenced as a Commercial Fishing Vessel, this included licenced tender vessels.
FORESHORE	-	The part of the shore between high and low water marks but not in rivers or creeks.
HIGH WATER	-	The level of water at the highest of Spring tides.
LOW WATER	-	The level of low water at the lowest of Spring tides.
MOUTH (RIVER/CREEK)	-	See Legal definitions and illustrations (Section 8 & 9)
NET	-	Monofilament or other material knotted into meshes to form a net to take fish.
SET	-	Fasten, stake, anchor or fix a net in anyway.
ENDORSEMENTS ON LICENCES	A.	Ocean Beach Net Fishery
	B.	East Coast Barramundi/Set Gill Net Fishery
	C.	Concessional Zone Otter Trawl and Beam Trawl Fishery
	E.	East Coast Otter Trawl and Beam
	F.	Crab Pot Fishery
	G.	Gulf of Carpentaria Net Fishery
	H.	Area No 1 River Beam Trawl Fishery
	I.	Area No 2 River Beam Trawl Fishery
	J.	Area No 4 River Beam Trawl Fishery
	K.	Area No 5 River Beam Trawl Fishery
	L.	Line Fishery
	M.	Mutiple Hook Fishery
	N.	Net Fishery-East Coast
	O.	Gulf of Carpentaria Line Fishery
	P.	Bait Fishery
	S.	Spanner Crab Fishery
	T.	Fin Fish Fishery
	U.	Spear or Shell Fishery
	V.	Area No. 3 River Beam Trawl Fishery
	Y.	Non Standard Endorsement

## SECTION 2

## EQUIPMENT THAT MAY BE USED

(i) VESSELS The vessels to be used are licenced Primary and Tender Vessels that are endorsed in the Gulf of Carpentaria Net Fishery.

(ii) NETS

(a) River Set Gill Net - Gulf of Carpentaria (Serial 13). Refer to diagram. Up to 6 nets may be used per endorsed Primary vessel. A Master Fisherman must set the net and the net must be correctly marked. (Section 3) The distance between the first (1st) and last nets of the River nets MUST NOT EXCEED 5 NAUTICAL MILES ALONG THE RIVER OR CREEK. Nets no closer than 100 metres from each other. The net mesh must not be less than 150 mm ( 6 inches) or larger than 245 mm (9½ inches). Any single net is to be no greater than 120 metres in length and not to have a drop of more than 50 meshes. The combined length of the 6 nets is to not exceed 360 m. For attendance requirements refer to Section 4, for marking requirements refer to Section 3.

(b) Northern Foreshore Set Gill Net - Gulf of Carpentaria (Serial 14). Refer to diagram. Up to 6 sets may be used provided the combined length of net does not exceed 600 m. Nets no closer than 100 metres from each other. Mesh size is the same as the River set gill nets. This net is to be ONLY USED ON THE FORESHORE. No attendance required, for marking requirements refer to Section 3.

IT SHOULD BE NOTED that no more than 1/3 of the total length of the net may extend beyond the seaward limit of the foreshore and no part of the net that contains fish should be in the water no less than 30 cm (1 FOOT) at any time. The distance between the 1st and last nets of the group must not exceed 5 nautical miles.

(c) Offshore Set Gill Net (Serial 17). Refer to diagram. Length of net up to 600 metres. The mesh must not be less than 150 mm (6 inch) or greater than 245 mm (9½). The net can only be used where the depth of water is 2 metres or more at any stage of the tide. The net must not be used in rivers or creeks. Only one (1) net is to be used at any one time. Attendance required, refer Section 4.

Two (2) General Purpose nets Serial Nos 3 & 4 or Commercial Bait Nets Serial No 8 & 9 may also be used. (Refer Section 9 of this booklet for details of these nets.

(iii) CRAB POTS Fifty (50) crab pots may be used per endorsement (Endorsement "F"). Refer Section 3 for marking requirements.

## SECTION 3

## MARKING OF EQUIPMENT

- (i) VESSELS  
(Reg 24) The vessel symbols must be marked in block letters or numbers on each side of the vessel's hull forward of amidships. The symbols must be black on a yellow background. Symbols should also be displayed on the deck or other area so as to be visible from the air. Tender vessels are to display similar markings following by their number e.g. FSGN-1. For a description of size of marking see the Legislation Section Regulation 24.
- (ii) NETS  
(Reg 25)
- (a) Day Marking  
A person must not use a net unless it is marked by light coloured surface float every 20 metres along the length of the net and at the end of the net by a white coloured float no less than 150 mm (6 inches) in diameter bearing the NAME OF THE MASTER FISHERMAN WHO SET THE NET.
- (b) Night Marking  
As well as the above requirements between sunset and sunrise the net **MUST** be marked (1) If the length is less than 50 metres by a light at the end most distant from the shore. The light must be visible in all directions for a distance of 400 metres. The end nearest the shore a float bearing reflectors or similar devices must be displayed.  
(2) If the net is greater than 50 metres a white light must be fixed at both ends of the net. The lights should be visible for 400 metres in any direction.
- In addition to the above if an Offshore Set Gill net is used the end of the net furthest from the shore must have an upright pole carrying an Orange flag at least two (2) metres above the water.
- (iii) CRAB POTS  
(Reg 26) A crab pot which is being used commercially must be marked by (1) identifying tag fastened to the actual pot, bearing the surname of the owner. OR (2) Be permanently marked with the owners commercial fishing vessel symbols. When not attached to an immovable object the crab pot must bear a float not less than 150 mm (6 inch) bearing the owners commercial fishing vessel symbols in a contrasting colour.

## SECTION 4

## ATTENDANCE REQUIREMENTS

- i) River Set Gill Net - A licenced fisher must be in attendance at a net or between the first and last nets of a group of nets.
- ii) Northern Foreshore Set Gill Net - No attendance required in the Gulf of Carpentaria.
- iii) Offshore Set Gill Net - Attendance required.
- iv) General Purpose Nets - A licenced fisher must be at the net whilst it is in the water.

### NOTE:

Attendance is defined as:- *"a person is in attendance at a net or other apparatus if the person is in actual contact with the net or apparatus or is within such distance, not exceeding 800 metres, from the net or apparatus as will enable the person to keep the net or apparatus under observation at all times during its use".*

## SECTION 5

## MASTER FISHERMEN

- (i) **RESPONSIBILITIES** - A Master Fisherman is basically responsible for the following:-
  - (a) To ensure that the commercial fishing operation is conducted in a professional manner.
  - (b) Ensure that the vessel and crew all hold the appropriate licences.
  - (c) Maintain the vessel and all equipment in a clean and hygienic condition.
  - (d) Present a quality product to the public to enhance and promote the Gill Net Fishery.
  - (e) Assistant/Trainee Fishermen - See Section 9 for Assistant/Trainee responsibilities.
- (ii) **ASSISTANT FISHERMAN** - An Assistant Fisherman may:-

UNDER THE DIRECTION of a Master Fisherman who shall be on the fishing ground either on the Primary Vessel and or on a tender vessel which may be anchored near by a net or nets to comply with attendance requirements:-

- (i) Set any net as may be directed by the Master.
- (ii) Remove fish from nets so set as directed by the Master; and
- (iii) Retrieve nets from the water as so directed by the Master:-

while in a tender vessel accompanied or unaccompanied by the Master Fisherman.

## SECTION 6

## GENERAL CONDITIONS FOR USE OF NETS

(Reg 29)

- (i) No Net to be set where the use of a net is not permitted. (e.g. closed waters)
- (ii) No net containing fish is to lie out of the water (except Northern Foreshore Set Gill Net where no portion of the net containing fish is to be in water less than 30 cm (1 foot).
- (iii) A net is not to be placed across the mouth of any River/Creek or Watercourse (Block-off).
- (iv) A net is not to be placed more than halfway across a river/Creek or watercourse in such a manner as to impede the passage of fish and vessels.
- (v) A net is not to be placed from bank to bank in any River/Creek or Watercourse.
- (vi) Nets must be emptied in water sufficiently deep enough to allow all unwanted fish to escape.
- (vii) All nets must be cleared to prevent the death of fish in the nets.
- (viii) After shooting a net remain in attendance if that is a requirement for use of that particular net.
- (ix) A person must not overlap or use two (2) or more nets in a manner which results or may be expected to result in a reduction of the mesh size.

## SECTION 7

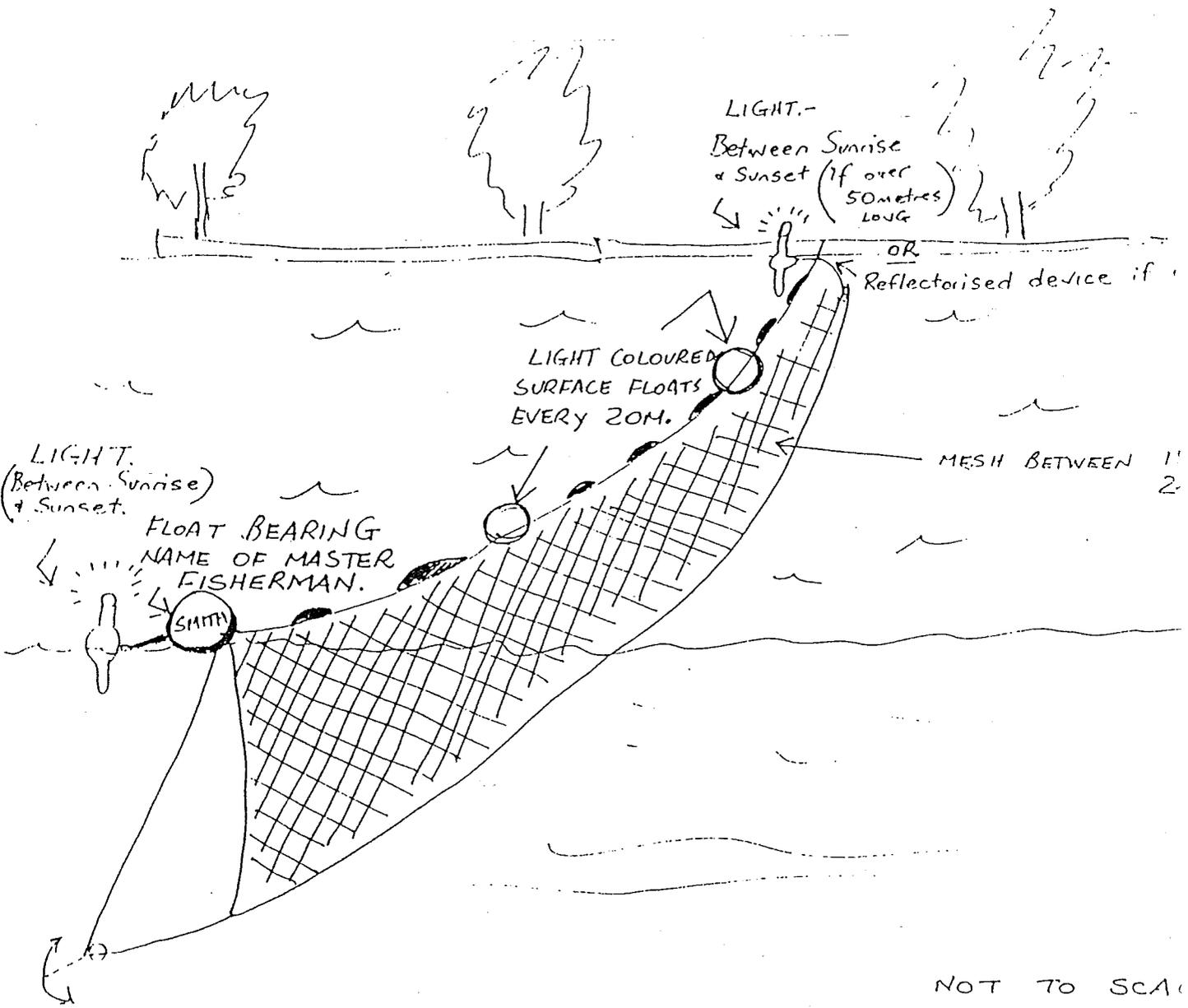
## CLOSED WATERS

A number of Rivers and Creeks are closed in the Gulf of Carpentaria please refer to the legislation Section of the booklet for a full description of the Closures. The closures MUST be observed at all times.

SECTION 8

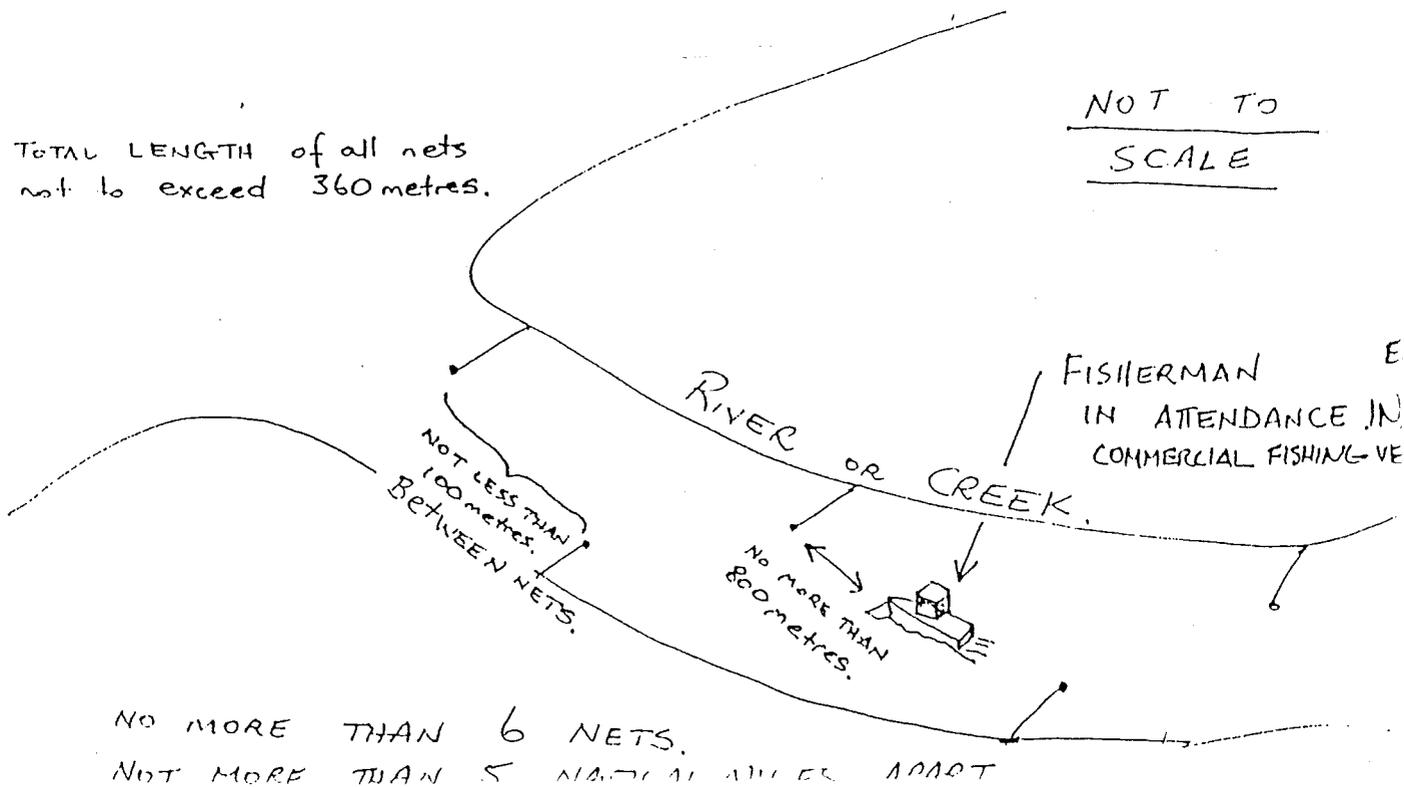
ILLUSTRATIONS

# RIVER SET GILL NET.



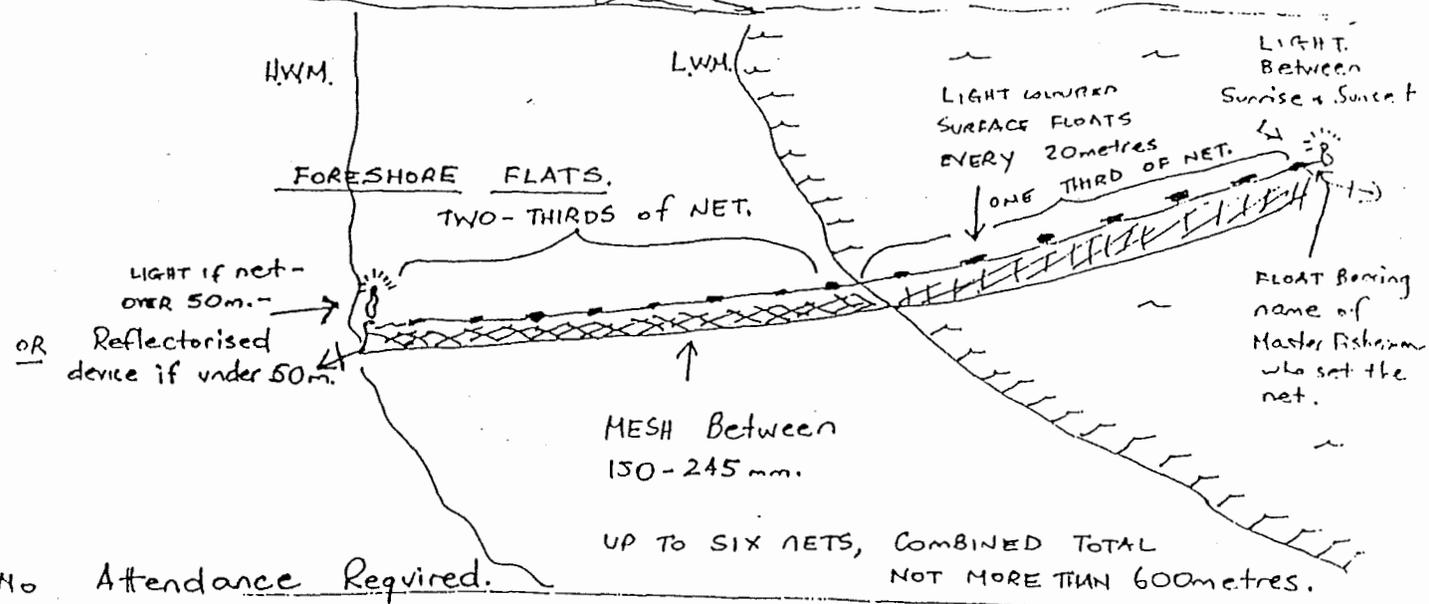
TOTAL LENGTH of all nets  
not to exceed 360 metres.

NOT TO  
SCALE

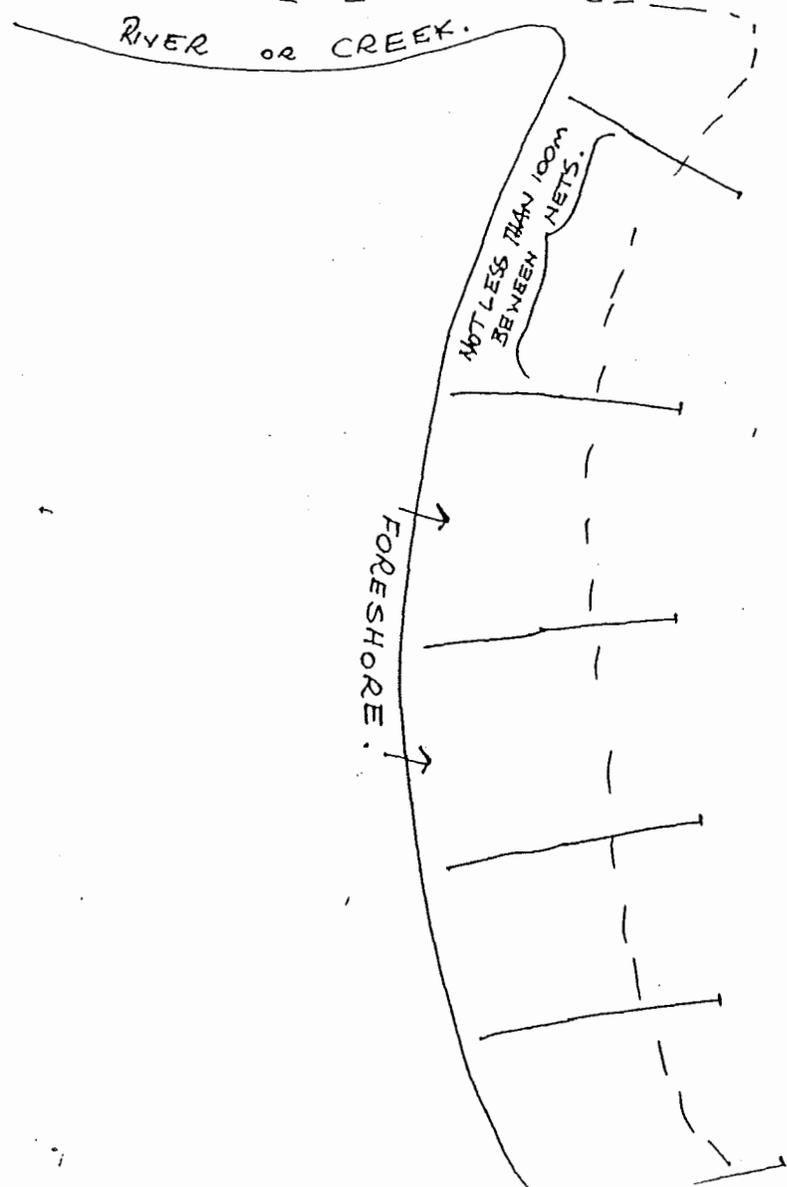


# NORTHERN FORESHORE SET GILL NET

NOT TO SCALE.

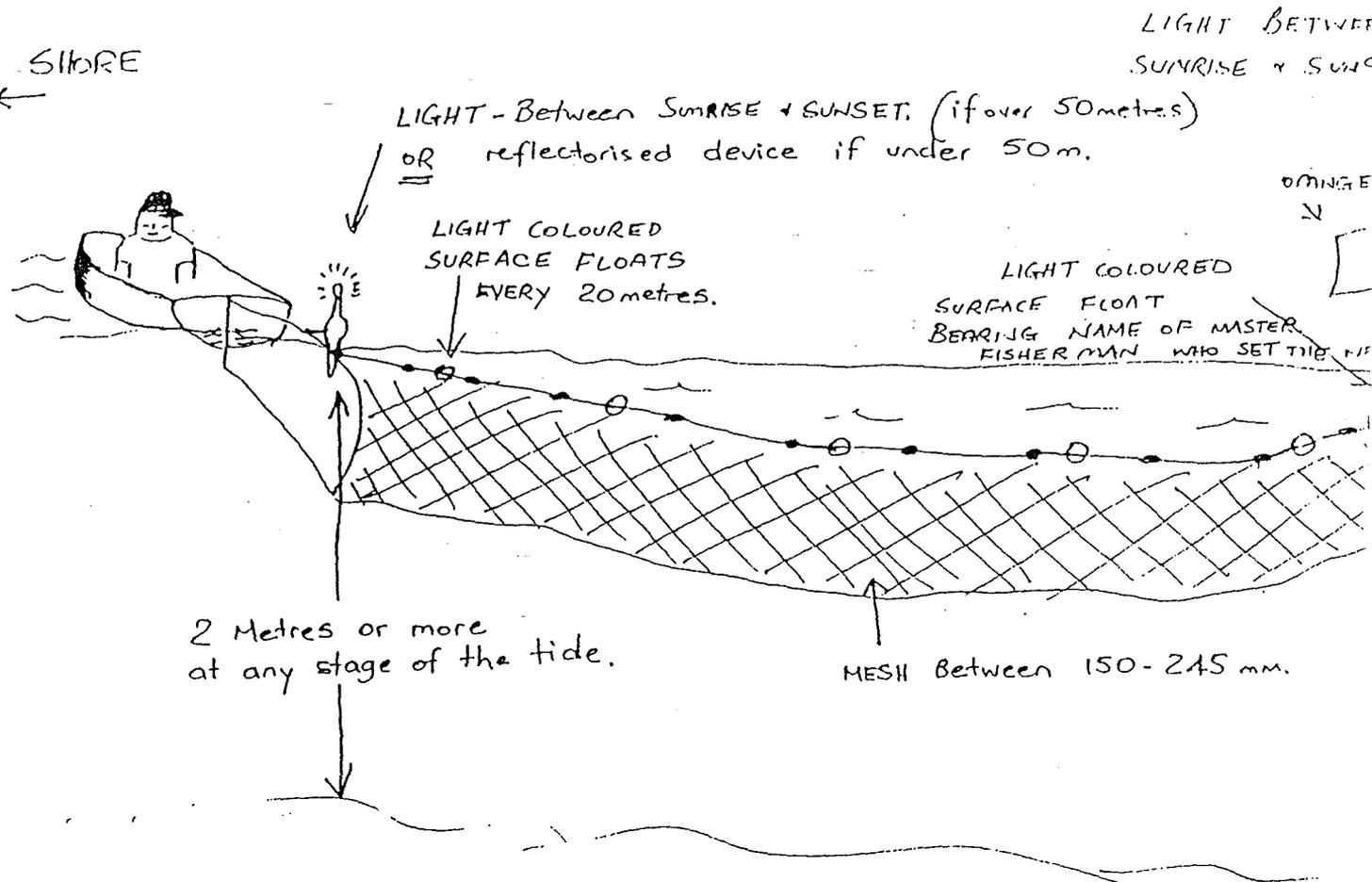


No Attendance Required.



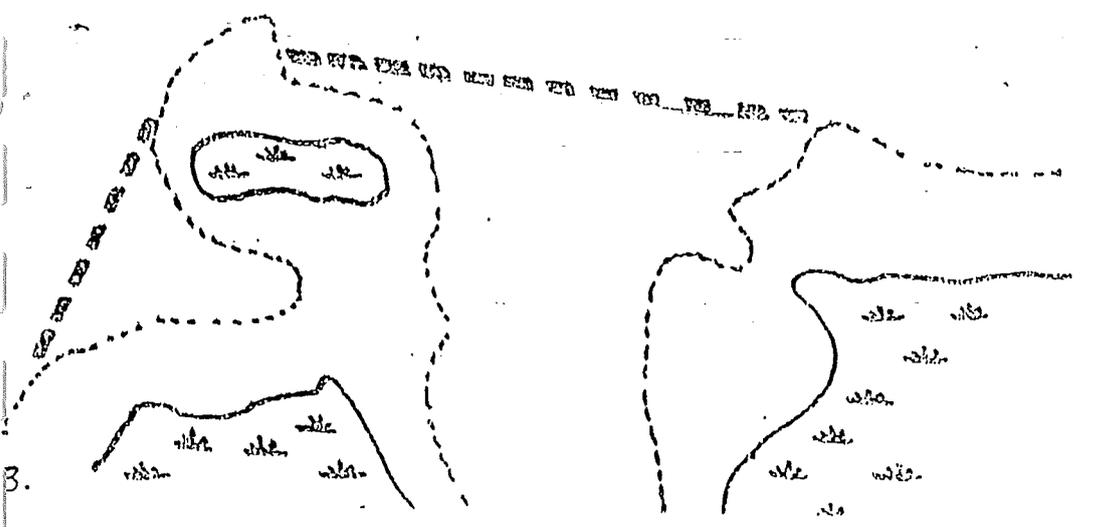
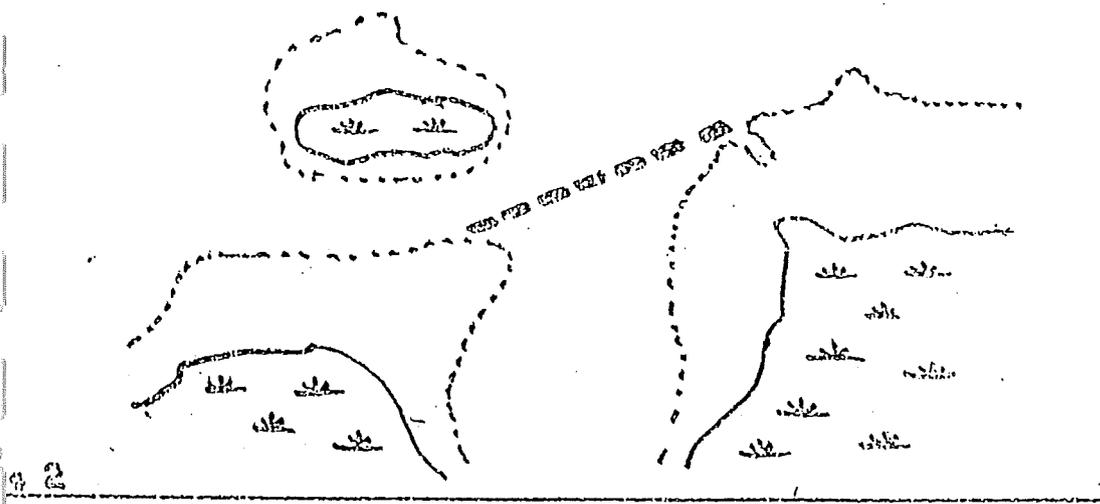
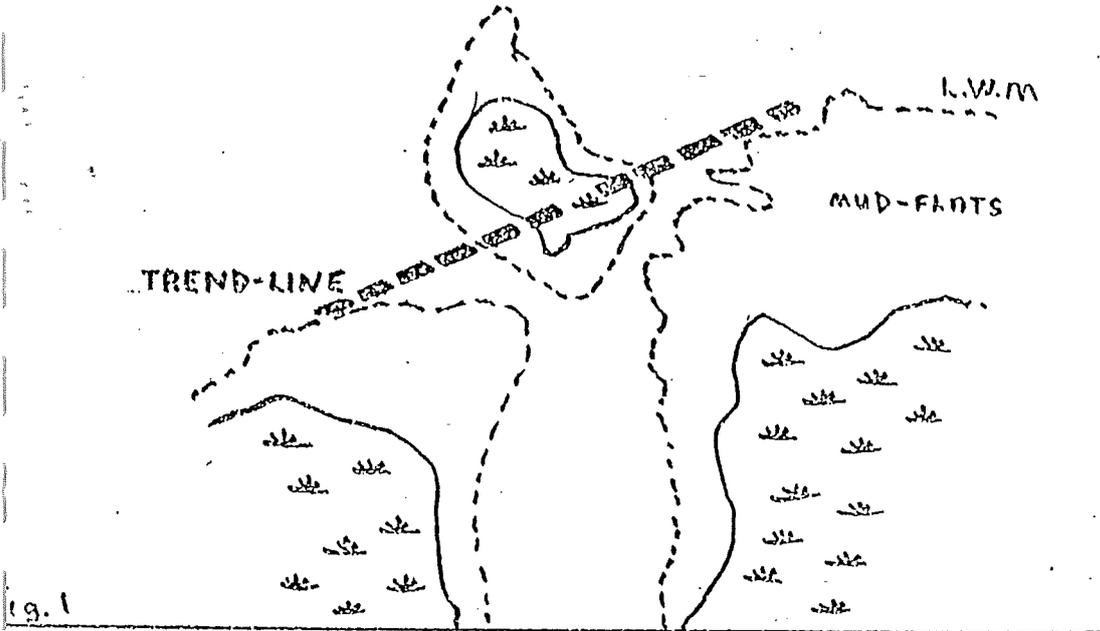
NOT MORE THAN  
6 NETS, TOTAL  
LENGTH NOT MORE  
600metres.

# OFFSHORE SET GILL NET.



NOT TO SCALE

Illustration of USE OF TREND-LINE to determine the mouth of a river  
The Low Water Mark ( as defined in the F.I.O.M. Act) must first be ascertained.



THIS PLAN HAS BEEN DRAWN TO ASSIST GULF NET FISHERMAN.  
 YOU SHOULD NOTE THAT IT IS A GUIDE ONLY AND SHOULD  
 NOT BE USED AS A SUBSTITUTE FOR ANY CONDITIONS OR  
 RESTRICTIONS CONTAINED IN LEGISLATION.

FISHERS SHOULD MAKE THEIR OWN ALLOWANCES  
 FOR VARIATIONS, NATURAL FEATURES AND  
 OTHER CIRCUMSTANCES WHICH MAY AFFECT  
 AN INDIVIDUALS USAGE OF FISHING  
 APPARATUS.

GUIDE ONLY.

NOT TO SCALE

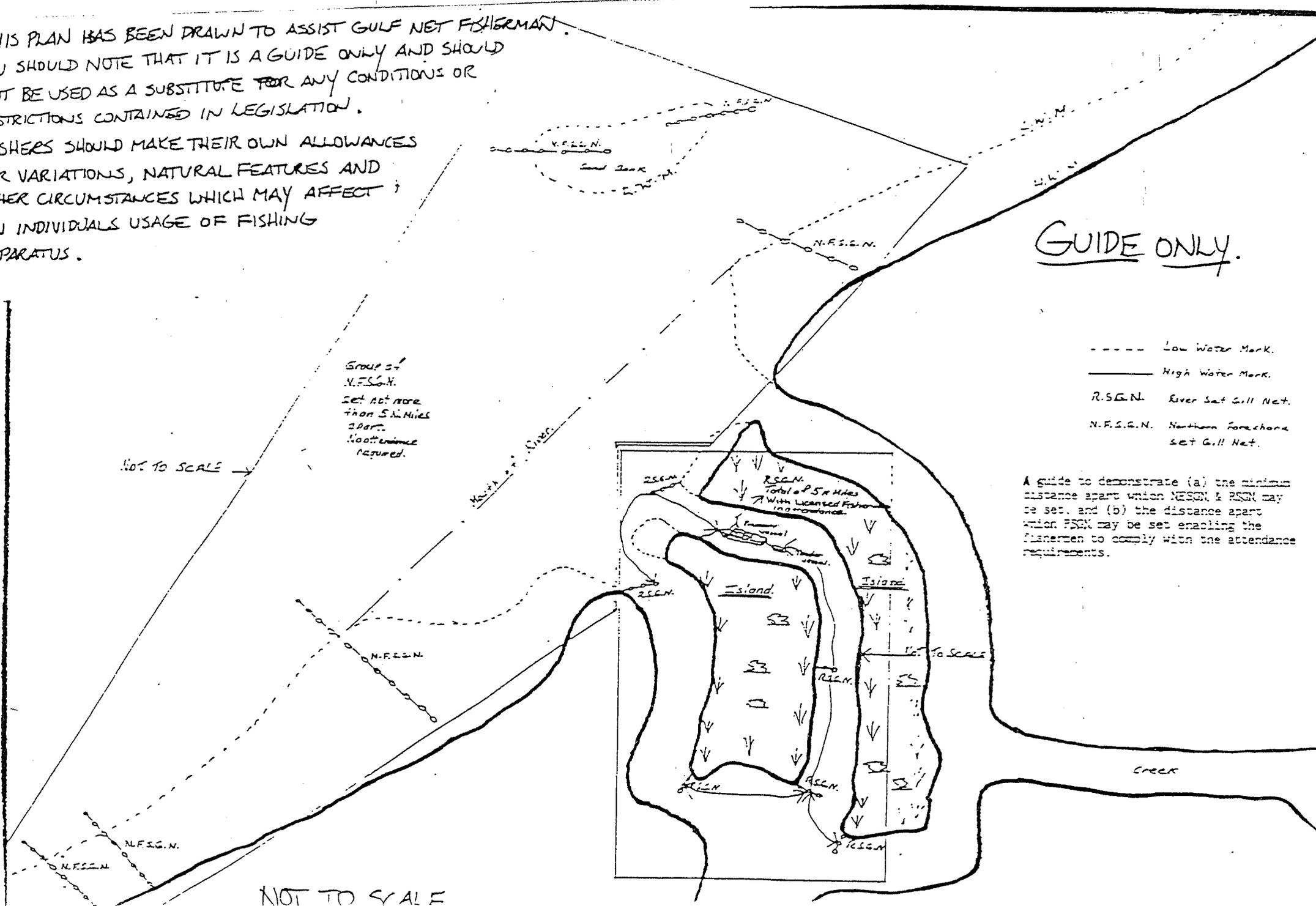
Group of  
 N.F.S.G.N.  
 Set not more  
 than 5/8 Miles  
 apart.  
 No attendance  
 required.

North River

NOT TO SCALE

- Low Water Mark.
- High Water Mark.
- R.S.G.N. River Set Gill Net.
- N.F.S.G.N. Northern Foreshore Set Gill Net.

A guide to demonstrate (a) the minimum distance apart which N.F.S.G.N. & R.S.G.N. may be set, and (b) the distance apart which R.S.G.N. may be set enabling the fishermen to comply with the attendance requirements.



SECTION 9

LEGISLATION

\*FISHING INDUSTRY ORGANIZATION AND  
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(3) For the purposes of these regulations—

- (a) a net is a monofilament net if it is made from a continuous filament or strand of synthetic fibre joined, knitted or woven into meshes;  
and
- (b) a person is in attendance at a net or other apparatus if the person is in actual contact with the net or apparatus or is within such distance, not exceeding 800 metres, from the net or apparatus as will enable the person to keep the net or apparatus under observation at all times during its use;  
and
- (c) a person makes a shot, sets a net or shoots a net if the person places, positions or spreads a net or any part of a net in the water or over a foreshore so that it becomes capable of taking fish.

(4) Where, under these regulations—

- (a) the depth of a net is specified by reference to a number of meshes, the actual number of meshes in a net is to be determined by counting the number of meshes in a single row oriented in the direction at right angles to the direction of the length of the net;  
or
- (b) the diameter of any monofilaments or firm netting twine in a net is specified, the actual diameter of any monofilament or firm netting twine in the net is the average of the diameters measured by a thickness gauge or vernier gauge at 10 locations not less than 30 centimetres apart;  
or
- (c) the length of a net is specified, the actual length of any net is to be determined—
  - (i) in the case of an otter trawl net, by combining the lengths when taut, of each headrope, bottom rope, any rope which determines the opening of the net, and any other rope to which meshes of the net are attached, with the lengths, measured along the points of attachment, of any part of any other rope (other than a lazy line or log rope) to which a wing net is attached;  
or
  - (ii) in the case of a beam trawl net, by measuring the distance between the extreme points of attachment of the net to the beam or pole used to open the net;  
or
  - (iii) in any other case, by measuring the distance between the outer limits of the meshes of the net along the headrope or bottom rope of the net, whichever is the greater, when the net is taut;  
or
- (d) the length of a vessel is specified, the actual length of a vessel is to be determined by measuring the distance between a vertical line passing through the foremost part of the hull and a vertical line passing through the aftermost part of the hull in a horizontal plane, including the length of any appendage which effectively increases the length of the hull, but excluding the length of any anchor rail, bowsprit or similar appendage.

**\*FISHING INDUSTRY ORGANIZATION AND  
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**4. Person in company of master fisherman.** Where, under these regulations, a person may do any thing in the company of a master fisherman, the person is to be taken to be in the company of a master fisherman—

- (a) in the case of a primary commercial fishing vessel endorsed to operate a beam trawl or otter trawl fishery, only when both the person and the master fisherman are on the primary commercial fishing vessel;  
or
- (b) in any other case, only when—
  - (i) the master fisherman is on the same premises or the same vessel as the person or is physically handling the same apparatus as the person;  
or
  - (ii) the master fisherman is engaged in fishing operations on a different commercial fishing vessel from the vessel on which the person then is, at a distance of not more than 800 metres from that vessel, and the person is on that other vessel by direction of the master fisherman.

**7. Master fisherman's licence.** It is a condition of each master fisherman's licence that the holder of the licence must not—

- (a) take fish or marine product for a commercial purpose from a vessel which is not a commercial fishing vessel;  
or
- (b) receive, sell or deliver fish or marine product taken from a vessel which is not a commercial fishing vessel;  
or
- (c) deliver, cause to be delivered or permit to be loaded for delivery on the holder's behalf, fish or marine product—
  - (i) which are not covered to protect them from contamination and from direct sunlight;  
and
  - (ii) which have not been placed in and subjected to continuous refrigeration within 2 hours of being taken;  
or
- (d) take fish or marine product—
  - (i) using apparatus;  
or
  - (ii) in a fishery;  
not permitted by endorsement on the commercial fishing vessel licence for the vessel used, employed or had in possession, or receive or have in possession fish or marine product so taken;  
or
- (e) sell fish or marine product, whether for reward or otherwise, to a person who is not a processor Class A or a commercial buyer Class A, C or D.

**8. Assistant fisherman's licence.** It is a condition of each assistant fisherman's licence that the holder of the licence must not—

- (a) take fish or marine product—
  - (i) using apparatus;  
or
  - (ii) in a fishery;  
not permitted by endorsement on the commercial fishing vessel licence for the vessel on which the person is engaged in fishing operations, or receive or have in possession fish or marine product so taken;  
or

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**8. Assistant fisherman's licence.** It is a condition of each assistant fisherman's licence that the holder of the licence must not—

- (b) have in possession or use apparatus prescribed in the Fifth Schedule except in conjunction with a commercial fishing vessel and in the company of a master fisherman;
- or
- (c) use a commercial fishing vessel except to shoot a net, to clear fish from apparatus, to set, lay or use a fishing line, or to set crab pots while in the company of a master fisherman.

**9. Fishing vessel licences.** For the purposes of section 31 (1) (g) of the Act, the fishing vessel licences which may be granted and issued by the Authority are—

- (a) primary commercial fishing vessel licences;
- and
- (b) tender commercial fishing vessel licences.

**10. Licensed commercial fishing vessels.** (1) The holder of a primary commercial fishing vessel licence is authorized to—

- (a) use or employ that vessel for commercial fishing purposes;
- and
- (b) use or employ that vessel for the transportation of—
  - (i) apparatus and equipment;
  - and
  - (ii) fish or marine product taken by a licensed fisherman using that vessel;

but only while the vessel is in the charge of a master fisherman.

(2) The holder of a tender commercial fishing vessel licence is authorized to—

- (a) use or employ that vessel for commercial fishing purposes;
- and
- (b) use or employ that vessel as a substitute primary commercial fishing vessel if the person's primary commercial fishing vessel is not engaged in commercial fishing operations.

**11. Prescribed conditions—commercial fishing vessels.** (1) It is a condition of each commercial fishing vessel licence that the holder or the person for the time being in charge of the vessel—

- (a) must maintain the vessel and all equipment and apparatus in or on the vessel, including any tray, compartment, tank or other appurtenance used in dealing with fish or marine product, in a clean and hygienic condition;
- and
- (b) must ensure that all persons dealing with fish or marine product are clean and healthy, and clothing worn by those persons is maintained in a clean and hygienic condition;
- and
- (c) must not sell or deliver fish or marine product, whether for reward or otherwise, to a person other than a processor Class A or a commercial buyer Class A, C or D;
- and
- (d) must not permit any domestic animal on board any vessel, or any substance which may contaminate fish or marine product, to be in or in the vicinity of any compartment in which fish or marine product is stored.

(2) It is a condition of each tender commercial fishing vessel licence that the licensed vessel must only be used—

- (a) while it is in the charge of a master fisherman or an assistant fisherman who is in the company of a master fisherman;
- and

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- (b) in a fishery where the holder's primary commercial fishing vessel is endorsed to operate;  
and
- (c) as a substitute primary commercial fishing vessel if the vessel carries the primary commercial fishing vessel's licence and identification card.

**22. Endorsement symbols.** (1) The Authority is to endorse a commercial fishing vessel licence with one or more of the symbols "A", "B", "C", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "S", "T" and "U".

(2) The matters appearing—

- (a) in the Third Schedule under and in relation to a symbol endorsed on a licence;  
and
- (b) in the Fifth Schedule under and in relation to a serial number referred to in the Third Schedule under a symbol endorsed on a licence;

are prescribed conditions of issue of the licence on which the symbol is endorsed.

**23. Restrictions on apparatus, etc.** Where a licence is endorsed pursuant to regulation 22—

- (a) the owner or person in charge of the commercial fishing vessel to which the licence relates may have in possession on either—
  - (i) the primary commercial fishing vessel;  
or
  - (ii) an associated tender commercial fishing vessel;  
apparatus permitted by the endorsement;  
and
- (b) the person in charge of the commercial fishing vessel to which the licence relates must only use 1 type of apparatus at any one time except in the case of a crab pot fishery where crab pots and 1 other apparatus may be used at the same time;  
and
- (c) the master fisherman in charge of the commercial fishing vessel—
  - (i) may use permitted apparatus on the primary commercial fishing vessel or an associated tender commercial fishing vessel;  
and
  - (ii) must comply with any prescribed conditions which apply to the permitted apparatus.

**24. Marking of vessels.** (1) Subject to subregulation (3), the Authority must assign to every commercial fishing vessel a marking which must be shown on the licence and must consist of an initial letter followed by 2 or 3 letters or numbers or a combination of letters and numbers and having as its initial letter one of the letters "F", "G", "H", "J" or "K".

(2) The markings of a tender commercial fishing vessel must be the markings of the primary commercial fishing vessel to which it relates, followed by a dash and a different arabic number for each related tender commercial fishing vessel.

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(3) Where the Authority is satisfied that a commercial fishing vessel is licensed under a law of another State, a Territory of the Commonwealth or the Commonwealth, the Authority may assign to that vessel the markings by which it is registered under that law.

(4) The owner or person in charge of a commercial fishing vessel must cause the markings assigned by the Authority to be marked in block letters or numbers—

(a) on each side of the vessel's hull forward of amid-ships and above the water line;

and

(b) if there is a deck or shelter on the forepart of the vessel, on that deck or shelter, or on any enclosed cabin or wheelhouse on that deck, so as to be visible from above;

or

(c) if there is no deck or shelter on the forepart of the vessel, on a flat surface within the vessel so as to be visible from above.

(5) All markings must—

(a) be made in black upon a yellow background, and—

(i) be at least 100 millimetres high and have a bar width of 10-15 millimetres if the vessel is less than 6 metres in length;

or

(ii) be at least 200 millimetres high and have a bar width of 20-25 millimetres if the vessel is 6 metres or more but less than 10 metres in length;

or

(iii) be at least 300 millimetres high and have a bar width of 35-40 millimetres if the vessel is 10 metres or more but less than 25 metres in length;

or

(iv) be at least 450 millimetres high and have a bar width of 60-65 millimetres if the vessel is 25 metres or more in length;

and

(b) be kept legibly and conspicuously displayed on the vessel.

(6) If, in the opinion of an inspector, the markings of a vessel are illegible or inconspicuous, the inspector may direct the owner or person in charge of the vessel, in writing, to mark the vessel to the inspector's satisfaction within a time specified in the direction.

(7) A person must not use, authorize the use of or be in charge of a commercial fishing vessel which is not marked in accordance with this regulation.

**25. Marking of nets.** (1) This regulation does not apply to trawl nets or nets specified in the Sixth Schedule.

(2) A person must not use a net unless it is marked as required by this regulation.

(3) Each net must be marked—

(a) by light coloured floats spaced not more than 20 metres apart along the length of the net;

and

(b) by a white coloured float, not less than 15 centimetres in diameter, bearing, in legible letters, the name of the master fisherman who set the net, and positioned at the point on the net which is the most distant from the shore.

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(4) If the net is a set net which is used between sunset on any day and sunrise on the following day, the net must be marked—

(a) if the combined length of the net and any tackle or equipment used in setting it does not exceed 50 metres, by—

(i) a white light fixed at the end of the net the most distant from the shore and visible in all directions for a distance of not less than 400 metres;

and

(ii) a reflectorised float or other reflectorised device not less than 15 centimetres in diameter fixed above the water at the end of the net nearest the shore;

or

(b) if the combined length of the net and any tackle or equipment used in setting it exceeds 50 metres, by a white light fixed at either end of the net and visible in all directions for a distance of 400 metres.

26. Marking of crab pots, etc. (1) A person must not set, or have in possession in or on any vehicle, a crab pot, dilly, inverted dilly, canister trap or funnel trap unless it is marked as required by this regulation.

(2) A crab pot, dilly or inverted dilly which is used to take crabs for a commercial purpose must be marked by—

(a) an identifying tag fastened to it bearing, in legible letters, the surname of its owner;

or

(b) a device incorporated into its construction bearing, in legible characters, the markings of the owner's primary commercial fishing vessel;

and, when it is not secured to a jetty, vessel or other fixed object, must, when it is in use, have attached to it a light coloured surface float not less than 15 centimetres in any dimension with the marking of the owner's primary commercial fishing vessel inscribed on it in legible characters and in a contrasting colour.

(3) A crab pot, dilly, inverted dilly, canister trap or funnel trap which is used by a person who is not a licensed fisher to take crabs, prawns, yabbies, crayfish, shrimps or fish must be marked by an identifying tag fastened to it bearing, in legible characters, the surname and the address of its owner, and, when it is not secured to a jetty, vessel or other fixed object, must, when it is in use, have attached to it a light coloured surface float not less than 15 centimetres in any dimension with the name of its user inscribed on it in legible letters and in a contrasting colour.

29. Use or possession of apparatus. A person must not—

(a) anchor, fix, set or stake apparatus in any place where the use of that apparatus is not permitted or in a manner which does not comply with these regulations;

or

(b) allow any part of an apparatus (other than a fishing line) to lie out of the water, or drag, draw, haul or place apparatus on land above the level of the tide, while the apparatus contains fish;

or

(c) place or use any apparatus or allow any apparatus to be in place—

(i) across the mouth of any creek, river, stream or watercourse;

or

(ii) from bank to bank of any creek, river, stream or watercourse;

or

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- (iii) in such a manner as to obstruct or block off to the free passage of fish or vessels more than one-half of the width of any creek, river, stream, watercourse or navigation channel;  
or
- (d) empty or clear any apparatus (other than a crab pot, trawl net or fishing line) in waters which are not sufficiently deep to allow the free escape of all fish the taking of which is prohibited or which the person did not intend to take;  
or
- (e) fail to empty or clear any apparatus in time to prevent the death of fish in the apparatus;  
or
- (f) after shooting any net, fail to remain at the net or in attendance at that net or fail to comply with any conditions of use of the net prescribed by these regulations;  
or
- (g) between 12 o'clock (midday), Eastern Standard Time, on 11 August and 12 o'clock (midday), Eastern Standard Time, on 14 October in each year, carry or have in possession in a vessel, at the same time, an otter trawl or beam trawl net and fish of the species known as Rock Lobster or Crayfish, in Queensland waters contained within the boundaries commencing at the point of intersection of Latitude  $10^{\circ}15'20''$  South and the meridian of Longitude  $142^{\circ}49'40''$  East, thence running north-easterly along the geodesic to the point of intersection of Latitude  $9^{\circ}57'15''$  South and Longitude  $143^{\circ}23'45''$  East, thence north-easterly along the geodesic to the intersection of Latitude  $9^{\circ}52'40''$  East and Longitude  $143^{\circ}29'$  East, thence north-easterly along the geodesic to the intersection of Latitude  $9^{\circ}08'45''$  South and Longitude  $143^{\circ}52'30''$  East, thence west along the parallel of Latitude  $9^{\circ}08'45''$  South to its intersection with the meridian of Longitude  $143^{\circ}48'$  East, thence south-westerly along the geodesic to the point of intersection of Latitude  $9^{\circ}16'30''$  South and Longitude  $143^{\circ}05'$  East, thence south along the meridian of Longitude  $143^{\circ}05'$  East to its intersection with the parallel of Latitude  $9^{\circ}40'$  South, thence south-westerly along the geodesic to the point of commencement.

30. Joining of nets. (1) Unless otherwise prescribed, a person must not—

- (a) join together 2 or more nets;  
or
- (b) allow 2 nets to overlap or to be set less than 1 metre apart;  
or
- (c) act as a barrier or position any other barrier or thing between 2 nets in such a manner as to prevent the escape of fish between adjacent ends of the nets unless the combined length of the nets does not exceed the maximum length prescribed for a net of the kind being used.

(2) A person must not—

- (a) overlap, place or use two or more nets;  
or
- (b) cover a net with canvas or any other thing;

in a manner which results or may reasonably be expected to result in a reduction of the effective mesh size of the net.

**41. Priority among master fishermen.** (1) The order of priority in which master fishermen may use nets to take fish on any fishing ground must be determined as follows:—

- (a) turns are to be taken to make a shot according to the order in which master fishermen arrive at the fishing ground with a sufficient crew and a suitable net ready for use;
- (b) where two or more master fishermen join together to shoot and work a net, priority passes to the next master fisherman in line when that net is shot;
- (c) the total area for which a master fisherman may claim priority is an area within a circle with a radius equal to the length of the net used or intended to be used.

(2) A master fisherman is not entitled to claim priority for a vessel stationed on a fishing ground unless the master fisherman and the crew of the vessel are on the vessel and ready to shoot a net at that location.

(3) A master fisherman is only entitled to claim priority if engaged in taking fish in accordance with the Act.

(4) Priority subsists for no more than 6 hours.

**42. Obstruction of master fishermen.** A person must not on any fishing ground—

- (a) obstruct or interfere with a master fisherman who is taking or attempting to take fish using a net;  
or
- (b) obstruct or interfere with a master fisherman who is exercising a prior right to take or attempt to take fish using a net;  
or
- (c) wilfully do or attempt to do any thing which will or is likely to disturb or frighten fish so as to prevent fish being taken by a master fisherman.

**43. Offence to interfere with or damage apparatus.** A person must not—

- (a) place a stick, stake, pole or other thing below high water mark knowing that the stick, stake, pole or other thing will or is likely to damage a net or other apparatus;  
or
- (b) interfere with any apparatus being used by a master fisherman in such a way as to cause the loss of fish or fishing time to the master fisherman.

**44. Damage to official markers.** A person must not damage, destroy, interfere with or remove any board, marker, peg, post or sign erected in accordance with these regulations.

**49. Master not to permit certain acts.** A master fisherman must not permit an assistant fisherman to do any act which is required to be done only in the master fisherman's company otherwise than in the master fisherman's company.

PART G

AREAS BETWEEN CAPE YORK AND THE NORTHERN TERRITORY BORDER

Column One	Column Two	Column Three	Column Four
Serial No.	Areas of waters declared to be closed waters	Period of Time declared to be closed	Exempted Nets
1	The waters of Mission River, Embley River and Hey River upstream of a line from Andoomajettie Point to Kerr Point thence to Urquhart Point as indicated by boards marked F † B including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	(a) Cast Net, not exceeding 6m in diameter with size of mesh not more than 28 mm;  (b) scoop or dip net, not exceeding 2 m in any dimension with a handle or shaft not more than 2.5 m in length, with size of mesh not less than 25 mm; and (c) Amateur bait net, not exceeding 16 m in length, with size of mesh not greater than 28 mm, with depth or drop of net not more than 3 metres (measured in the one plane) and the net shall not contain a bag, pocket or device of like construction. Provided that such net shall not be anchored, staked or fixed, or used in any way other than as a beach seine net
2	The waters of the Pine River upstream of the junction of Pine River with Pine River Bay at high water mark as indicated by boards marked F † B located on both banks near its mouth, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
3	The waters of the Watson River upstream of a line from the south head of Watson River to the eastern end of Long Island thence generally northward to the ramp at the Aurukun Aboriginal Reserve, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
4	The waters of the Chapman River upstream of a line across the mouth of the Chapman River from the south head to the north head at high water mark, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
5	The waters of Moonkan Creek upstream of a direct line across the mouth of Moonkan Creek including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1

Fishing Organization and Marketing Act 1982-1989

Column One	Column Two	Column Three	Column Four
Serial No.	Areas of waters declared to be closed waters	Period of Time declared to be closed	Exempted Nets
6	The waters of the Mitchell River, including all rivers, creeks and tributaries flowing into or connected therewith, upstream of its confluence with West Mottle Creek at high water mark as indicated by boards marked F + B one located on the north bank at the mouth of West Mottle Creek and the other located directly opposite on its south bank	All year round	As for Serial 1
7	The waters of the foreshore and to a distance of one kilometre seawards of the Gulf of Carpentaria between boards marked F + B one located at high water mark approximately one kilometre south from the mouth of Chapman River and the other located at high water mark approximately one kilometre north from the mouth of Moonkan Creek	All year round	As for Serial 1
8	The waters of the Staaten River upstream of a direct line across the Staaten River on the downstream side of the road crossing located between Picnic Waterhole and Bayswater Waterhole including all waters flowing into or connected therewith	All year round	As for Serial 1
9	The waters of the Gilbert River upstream of a direct line across the Gilbert River on the downstream side of the road crossing located between Goose Lagoon and Mosquito Waterhole including all waters flowing into or connected therewith	All year round	As for Serial 1
10	The waters of the Norman River upstream of the Normanton to Karumba road traffic bridge across that River, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
11	the waters of the Bynoe River upstream of the Normanton to Burketown road traffic crossing across that River, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
12	The waters of the Flinders River upstream of the Normanton to Burketown road traffic crossing across that River, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
13	The waters of the Albert River upstream of a direct line across the Albert River at Truganini Landing	All year round	As for Serial 1
14	The waters of the Nicholson River upstream of a direct line across the Nicholson River from the western or downstream head of Gaynor Creek, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1

Fishing Organization and Marketing Act 1982-1989

Column One	Column Two	Column Three	Column Four
Serial No.	Areas of waters declared to be closed waters	Period of Time declared to be closed	Exempted Nets
15	The waters of the Gin Arm Creek upstream of a direct line across Gin Arm Creek from the western or downstream head of Wild Horse Creek, including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
16	The waters of the Sandalwood River, Mornington Island, upstream of a direct line across the Sandalwood River at its mouth including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1
17	The waters of the Elizabeth River, Mornington Island, upstream of a direct line across the Elizabeth River at its mouth including all rivers, creeks, tributaries and waters flowing into or connected therewith	All year round	As for Serial 1

APPARATUS WHICH MAY BE USED BY LICENSED FISHERS  
USING COMMERCIAL FISHING VESSELS

G. Gulf of Carpentaria Net Fishery.

1. Fishery operations are only to be carried out in the waters of the Gulf of Carpentaria between Slade Point and the Queensland/Northern Territory border.

2. Only apparatus serial no. 3, 4, 13, 14 or 17 is to be used.

Serial No. 3—General Purpose Net.

1. A beach seine, haul seine, drift, gill or mesh net having—
  - (a) a length of up to 400 metres;  
and
  - (b) a size of mesh of at least 50 millimetres;  
and
  - (c) between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday), Eastern Standard Time, on 1 February in the following year, a size of mesh of 50-115 millimetres;must be used.
2. The net is only to be used to take any unprotected species of fish—
  - (a) between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday), Eastern Standard Time, on 1 February in the following year, in tidal waters north of the north head of Baffle Creek, including the entrance to any river or creek, but excluding the tidal waters of the Gulf of Carpentaria between Slade Point and the Queensland/Northern Territory border, and the waters of all rivers and creeks;  
and
  - (b) at all other times, in tidal waters, other than rivers or creeks, north of the north head of Baffle Creek.
3. Only 1 end of the net may be fixed temporarily while the net is being shot, but if the size of mesh of the net is not more than 75 millimetres, both ends of a net shot in waters between Cape Gloucester and the north head of the St. Lawrence River may be fixed for up to 1 hour.
4. A licensed fisher must be at the net while it is in the water.
5. During drift netting operations the depth of the net must not exceed the depth of the water in which the net is then being used.

Serial No. 4—General Purpose Net.

1. A beach seine, haul seine, drift or ring net having—
  - (a) in the case of a beach seine or haul seine net, a length of up to 200 metres;  
and
  - (b) in the case of a drift net or ring net, a length of up to 400 metres;  
and
  - (c) a size of mesh of at least 50 millimetres;  
and
  - (d) between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday), Eastern Standard Time, on 1 February in the following year, a size of mesh of 50-115 millimetres;must be used.
2. Beach seine, haul seine and drift nets are only to be used to take any unprotected species of fish in all rivers and creeks, but not in rivers and creeks flowing into or connected with the Gulf of Carpentaria between Slade Point and the Queensland/Northern Territory border, between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday) on 1 February in the following year. P.T.O.

**Serial No. 4—General Purpose Net.** continued

3. Ring nets are only to be used to take any unprotected species of fish in all rivers and creeks south of the south head of the Endeavour River.

4. Only 1 end of the net may be fixed temporarily while the net is being shot, but if the size of mesh of the net is not more than 75 millimetres, both ends of a net shot in waters between Cape Gloucester and the north head of the St. Lawrence River may be fixed for up to 1 hour.

5. A licensed fisher must be at the net while it is in the water.

6. During drift netting operations the depth of the net must not exceed the depth of the water in which the net is then being used.

**Serial No. 8—Commercial Bait Net.**

1. A beach seine, haul seine, mesh, gill or ring net having a length of up to 400 metres, and a size of mesh of 12-45 millimetres must be used.

2. The net is only to be used to take any unprotected species of fish (other than prawns)—

(a) in the waters of Moreton Bay south of a direct line drawn between Skirmish Point (on Bribie Island) and Comboyuro Point (on Moreton Island);

and

(b) in the waters of Pumicestone Passage;

and

(c) in the waters of Hervey Bay, Great Sandy Strait, and Tin Can Bay south of a line drawn between the south head of Theodolite Creek (on the mainland) and Arch Cliff (on Fraser Island) and west of a line drawn between the eastern extremity of Inskip Point (on the mainland) and the eastern extremity of Hook Point (on Fraser Island);

and

(d) in all tidal waters north of the north head of the Burnett River but not in the waters of rivers and creeks and the waters of Hinchinbrook Channel (near Ingham) west of a direct line drawn from Lucinda Point to George Point, and south of a direct line drawn from Hecate Point to the mouth of Meunga Creek.

3. Only 1 end of the net may be fixed temporarily while the net is being shot, except between Cape Gloucester and the north head of the St. Lawrence River where both ends of the net may be fixed for up to 1 hour.

4. A licensed fisher must be at the net while it is in the water.

5. If a back net is used south of the north head of Baffle Creek, the length of that net must not exceed one quarter of the length of the bait net being used.

**Serial No. 9—Commercial Bait Net.**

1. A beach seine, haul seine, gill, mesh or ring net having a length of up to 200 metres, and a size of mesh of 25-45 millimetres must be used.

2. The net is only to be used in all tidal rivers or creeks to take any unprotected species of fish (other than prawns).

3. Only 1 end of the net may be fixed temporarily while the net is being shot, except between Cape Gloucester and the north head of the St. Lawrence River where both ends of the net may be fixed for up to 1 hour.

4. A licensed fisher must be at the net while it is in the water.

APPARATUS WHICH MAY BE USED BY LICENSED FISHERS  
USING COMMERCIAL FISHING VESSELS

Serial No. 13—River Set Gill Net.

1. A river set gill net having a length of up to 120 metres, a depth of drop of not more than 50 meshes, and a size of mesh of 150 - 245 millimetres must be used.
2. The net is only to be used to take any unprotected species of fish in the waters of—
  - (a) all rivers and creeks north of the south head of Kauri Creek (Great Sandy Strait);  
and
  - (b) Hinchinbrook Channel and waters connected with the Channel within the boundaries commencing at a boundary board marked F † B at Fishermen's Point on Hinchinbrook Island, thence in a south-easterly direction and in a direct line across the Hinchinbrook Channel to a boundary board marked F † B on the eastern head of the eastern entrance to Neams Inlet, thence by high water mark in a north-westerly direction to a boundary board marked F † B on the mainland at the foot of Round Hill, thence in a north-easterly direction and in a direct line across the Hinchinbrook Channel to a boundary board marked F † B located at the south end of Mangrove Island, thence to Lead Beacon No. 2 on Hinchinbrook Island, thence by high water mark to the point of commencement.
3. The net must not be used at any time in the waters of all rivers and creeks flowing from Great Sandy or Fraser Island, and is only to be used in the waters specified in paragraph 2 between 12 o'clock (midday), Eastern Standard Time, on 1 February, and 12 o'clock, Eastern Standard Time, on 1 November in each year.
4. A net must not be set within 400 metres of any jetty or wharf or within 100 metres of any other net.
5. Only two nets may be joined together and used as a single net in the waters specified in paragraph 2 (b).
6. The maximum number of nets which are to be set at any one time by a master fisherman is—
  - (a) in waters south of Cape Flattery - 3;  
and
  - (b) in waters between the Queensland/Northern Territory border and Cape Flattery - 6, but only if the combined length of those nets does not exceed 360 metres.
7. If more than 1 net is set at any one time, the distance between the first and the last nets of the group must not exceed—
  - (a) 5 nautical miles measured along the river or creek in the waters of rivers and creeks flowing into the Gulf of Carpentaria;  
or
  - (b) 1 nautical mile measured along the river or creek in the waters of rivers and creeks between Slade Point and Cape York, and, on the east coast of Queensland, between Cape York and the south head of Kauri Creek;  
or
  - (c) 1 nautical mile in the waters specified in paragraph 2 (b).
8. A licensed fisher must be in attendance at a net or between the first and last nets of a group of nets while a net is set.

APPARATUS WHICH MAY BE USED BY LICENSED FISHERS  
USING COMMERCIAL FISHING VESSELS

**Serial No. 14—Northern Foreshore Set Gill Net.**

1. A net having a length of up to 600 metres and a size of mesh of 150-245 millimetres must be used.
2. The net is only to be used to take any unprotected species of fish in tidal waters (other than rivers and creeks) on the foreshores of the Gulf of Carpentaria and on the east coast of Queensland north of Cape Flattery.
3. The net must not be set within 400 metres of any jetty or wharf or within 100 metres of any other net.
4. Not more than one third of the total length of the net may extend beyond the seaward limit of the foreshore.
5. No part of the net containing fish must be in water less than 30 centimetres deep at any time while the net is set.
6. Not more than 6 nets may be set by a master fisherman, and the combined length of all the nets set must not exceed 600 metres.
7. If more than 1 net is set at any one time, the distance between the first and the last nets of the group must not exceed—
  - (a) 5 nautical miles in the waters of the Gulf of Carpentaria;  
or
  - (b) 1 nautical mile in waters between Slade Point and Cape York, and, on the east coast of Queensland, between Cape York and Cape Flattery.
8. The net must be anchored or fixed only at the ends and must not be used between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday), Eastern Standard Time, on 1 February in the following year.
9. A licensed fisher is not required to be in attendance at the net or nets while a net is in the water.

**Serial No. 17—Offshore Set Gill Net or Drift Net.**

1. A net having a length of up to 600 metres and a size of mesh of 150-245 millimetres must be used.
2. The net is only to be used to take any unprotected species of fish in all tidal waters having a depth of 2 metres or more at any stage of the tide, other than—
  - (a) the waters of all rivers and creeks;  
and
  - (b) the waters of Moreton Bay south of a direct line from Victoria Point to Pott's Point and thence to Blakesley's Camp on North Stradbroke Island;  
and
  - (c) all waters south of the southern extremity of North Stradbroke Island;  
and

APPARATUS WHICH MAY BE USED BY LICENSED FISHERS  
USING COMMERCIAL FISHING VESSELS

Serial No. 17--Offshore Set Gill Net or Drift Net.

- (d) the waters of Queen's Bay inshore of a direct line from Cape Edgecumbe to the north head of the Don River;  
and
- (e) all tidal waters of Hervey Bay contained within a boundary commencing at high water mark at the south head of Elliott River, thence in a direct line due east to the meridian of 153° East Longitude, thence south along 153° East Longitude to where that line intersects high water mark near Sandy Point (Fraser Island), thence in a direct line to high water mark at Dayman Point on the mainland, and thence by high water mark to the point of commencement;  
and
- (f) all tidal waters of Keppel Bay west of a line from Water Park Point to Cape Capricorn;  
and
- (g) all waters within an area bounded by a line commencing at high water mark at Skirmish Point on Bribie Island thence easterly in a direct line to North Point on Moreton Island, thence northerly in a direct line to Double Island Point, thence by the ocean foreshore at high water mark to the point of commencement;  
and
- (h) all tidal waters of the Gulf of Carpentaria and all tidal waters of the east coast of Queensland north of Cape Flattery, but only between 12 o'clock (midday), Eastern Standard Time, on 1 November in any year and 12 o'clock (midday), Eastern Standard Time, on 1 February in the following year.

FOR ATTENDANCE SEE REGULATION 3(b)

ATTACHMENT C

THIS SECTION DESCRIBES THE RANGE OF RESTRICTIONS  
APPLIED TO RECREATIONAL FISHING IN ALL WATERS  
UNDER QUEENSLAND JURISDICTION.



# Recreational Fishing in Queensland



QUEENSLAND FISH MANAGEMENT  
AUTHORITY JULY 1992

SUMMARY OF PROVISIONS  
of the  
QUEENSLAND FISHING INDUSTRY  
ORGANIZATION AND MARKETING ACT  
and the  
QUEENSLAND FISHERIES ACT  
AND REGULATIONS  
relating to  
RECREATIONAL FISHING

## INTRODUCTION

These notes are only a summary of the provisions as at the date of publication of this leaflet. They are not a precise statement of the law, and furthermore deal with aspects which can be subject to change from time to time. Whenever such amendments to the regulations are made, they will be announced in the news media.

Any person wishing to obtain clarification of any points should contact the Queensland Fish Management Authority, Brisbane (telephone 225 1850 or 225 1852) or any of the offices of the Boating and Fisheries Patrol listed hereunder:-

<i>Brisbane</i>	860 3506	<i>Rockhampton</i>	31 9714
<i>Roma</i>	22 9755	<i>Mackay</i>	57 8940
<i>Gold Coast</i>	91 3514	<i>Bowen</i>	86 3444
<i>Mooloolaba</i>	44 4870	<i>Townsville</i>	72 7302
<i>Noosa</i>	49 7555	<i>Ingham</i>	76 1611
<i>Maryborough</i>	23 7720	<i>Cairns</i>	52 7404
<i>Hervey Bay</i>	25 3989	<i>Port Douglas</i>	99 5170
<i>Bundaberg</i>	53 8111	<i>Karumba</i>	45 9142
<i>Gladstone</i>	76 0722	<i>Thursday Is.</i>	69 1772

*Copies of the Acts and Regulations may be purchased from Go Print, 371 Vulture Street, Woolloongabba, Brisbane, Telephone 896 3448.*

## FISHERIES ENFORCEMENT HOTLINE

Persons wishing to report illegal fishing activities should do so by phoning (008) 017116. This number is not to be used for general enquiries. Complaints of illegal fishing may also be directed to the officers of the Qld. Boating and Fisheries Patrol (listed above) or to any Police Officer.

## LICENSES

No licence is required for recreational fishing.

## SALE OF FISH

Sale of fish by recreational fishers is totally prohibited.

## BAG LIMITS

Bag limits apply to the taking or having in possession certain species of fish and marine products.

A person in Queensland may not take or have in possession any more than:-

- 2 Australian Bass.
- 5 Barramundi.
- 10 Mud Crabs.
- 20 Spanner or Frog Crabs.
- 50 Any Mollusc (excluding oysters)  
(e.g. Pipis (Eugarie)).

## CLOSED SEASONS

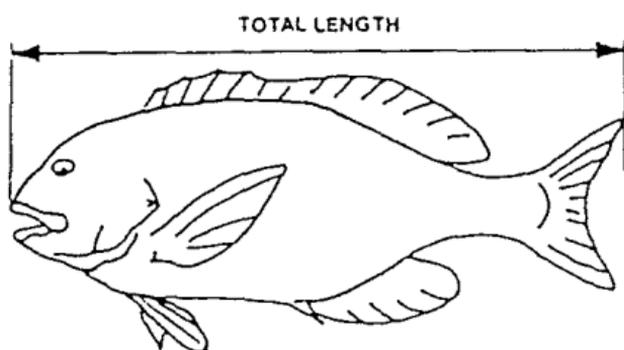
AREA	SPECIES	PERIOD OF CLOSURE
All Queensland	Barramundi	Midday 1 Nov - Midday 1 Feb
All Queensland	Spanner or Frog Crab	Midday 20 Nov - Midday 20 Dec
Fraser Island from 400m north of Waddy Point to 400m south of Indian Head and 400m seaward	All Species	Midday 1 Sept - Midday 30 Sept

## PROTECTED SPECIES

The following species are protected throughout Queensland:

- (a) Ceratodus or Lungfish;
- (b) Helmet, Trumpet and Clam Shells;
- (c) Female Mud and Sand Crabs;
- (d) Whales, Porpoises, Dugong, Dolphin;
- (e) Turtles;
- (f) Egg-bearing female Spanner Crabs;
- (g) Egg-bearing female Moreton Bay Bugs and other species of Egg-bearing Sea Bugs;
- (h) Egg-bearing female Slipper Lobsters.

## FISH MEASUREMENT



Any person who unintentionally takes protected or undersized fish should return them to the water immediately, taking as much care as possible to avoid causing injury thereto.

## BAIT

Bait such as Pipis (Eugaries) should be kept in clean seawater out of direct sunlight and any surplus Pipis (Eugaris) should be returned to the wet sand in the wave zone. Other surplus live bait should be returned to a site similar to their usual habitat.

## NOXIOUS FISH

Persons must not have in possession or keep, hatch, rear, sell, consign or convey or place in any container any NOXIOUS FISH. Tilapia and carps (European, Koi and Mirror Carp) are declared NOXIOUS FISH and with other non-indigenous fish must not be released into Queensland Waters and must not be used as bait. Piranhas and Walking Catfish are also declared noxious fish.

ALL NOXIOUS FISH when caught should be destroyed and must not be returned to the water. For information telephone (07) 239 3400.

## MUD AND SAND CRAB IDENTIFICATION



MALE



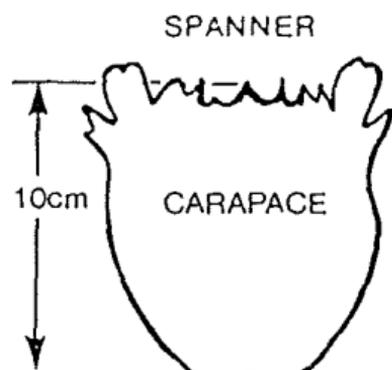
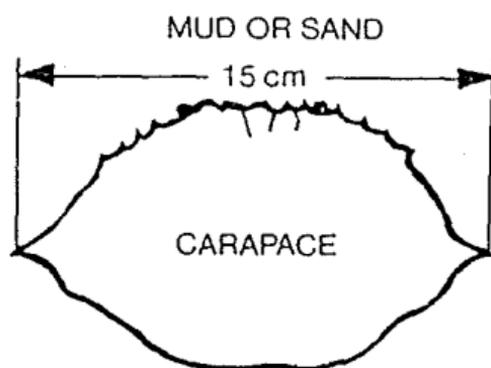
FEMALE

Fishers are not allowed to have in their possession:

- (a) mud or sand crabs with the carapace (shell) missing;
- (b) crab meat of any species;

unless the mud or sand crab with a missing shell or crab meat is being, or is about to be, consumed on the vehicle, vessel or premises where the person then is.

# CRAB MEASUREMENT



## MARKING OF APPARATUS:

CRAB POTS, DILLIES, DILLY NETS AND TRAPS must be marked by an identifying tag bearing the surname and the address of its owner, and, when it is not secured to a jetty, vessel or other fixed object, must, when it is in use, have attached to it a light coloured surface float not less than 15 centimetres in any dimension with the name of its user inscribed on it in a contrasting colour.

## LEGAL FISH SIZES

The following minimum sizes and where indicated, maximum sizes of relevance to recreational fishing apply to fish and shell fish throughout Queensland:-

	cm		cm
Barramundi	Min. 58 Max. 120	Luderick	23
Bass		Mackerel	
Australian	30	Broad-barred	45
Bream		Narrow-barred	45
Pikey	23	Queensland school	45
Yellow-finned	23	Spotted	45
Cod		Mullet	
Estuary-rock	Min. 35 Max. 120	Sea	30
Freshwater	Max. 120	Mulloway	30
(all species)	Min. 50	Oyster	5
Crab		Pearl Oyster	
Mud (carapace)	15	Gold Lip	Min. 13 Max. 23
Sand (carapace)	15	Blacklip	9
Spanner (carapace)	10	Perch	
Emperor		Golden	30
Red	35	Silver	30
Red-finned	30	Saratoga	35
Sweetlip	30	Scallops	
Flathead		Saucer	(See Below) *
Bar-tailed	30	Snapper	25
Mud	30	Tailor	30
Sand	30	Tarwhine	23
Freshwater Eels	30	Teraglin	
Green Snail	280g	Jew	30
Groper		Silver	30
Queensland	Min. 35 Max. 120	Trochus	Min. 8 Max. 12.5
Javelin-fish		Trout	
Small-spotted	30	Coral	35
Spotted	30	Salmon	
Jew-fish		Burnett	40
Silver	30	Cooktown	40
Spotted	30	Whiting	
		Gold-lined	23
		Sand	23

\* 9 cm — 8 a.m. Eastern Standard Time on the 1st day of November to and including 8 a.m. Eastern Standard Time on the 1st day of May in each year.

9.5 cm — 8 a.m. Eastern Standard Time on the 1st day of May to and including 8 a.m. Eastern Standard Time on the 1st day of November in each year.

# APPARATUS FOR GENERAL USE

**LINES** — In tidal waters hand-lines or rod-lines with up to six hooks on each line are permitted but when fishing from a vessel, no more than 3 lines per person is permitted.

In freshwaters one hook only per line is permitted, cross-lines or more than 6 set lines are prohibited.

In all cases an artificial fly or lure is deemed to be equal to one hook, and a gaft or landing net may be used to secure line-caught fish.

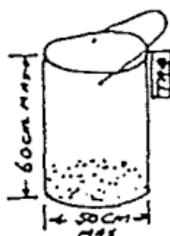
**DILLY NET, CANISTER & FUNNEL TRAPS** — may be used in fresh water to take any unprotected species of freshwater fish, crayfish or shrimps (decapods).

A person, 15 years or over must not have in possession in or on any vehicle or vessel or use at any one time more than 4 apparatus in any combination of dilly nets, canister traps or funnel traps.

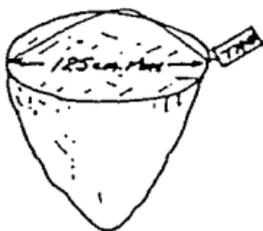
**DILLY NET** — hoop may be no more than 125 cm in diameter.

**CANISTER TRAP** — may be no more than 60 cm in length with a width, height or diameter of no more than 50 cm.

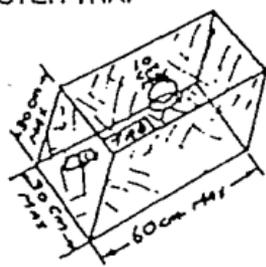
**FUNNEL TRAP** — may be no more than 60 cm in length, have a height and/or width of not more than 30 cm and may have no more than 4 entrance holes no larger than 10 cm in any dimension.



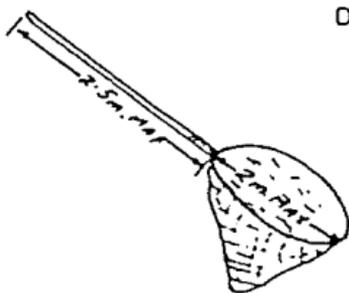
CANISTER TRAP



DILLY NET



FUNNEL TRAP



SCOOP NET

**SCOOP OR DIP NETS** — In all areas open to fishing, any person may use a scoop or dip net not exceeding 2 m in any dimension, with a handle or shaft not more than 2.5 m long, with a mesh not less than 25 mm.

**CRAB POTS OR DILLIES** — Up to four crab pots or dillies may be used in tidal waters by any person aged 15 years or over.

**CAST NETS** — In tidal waters open to fishing, any person may use a cast net up to 6 m in diameter, with a mesh not exceeding 28 mm.

**BAIT NET** — This net may be used by a person under the age of 15 years only when that person is in the company and under the supervision of a person 15 years or over. A beach seine net may be used in tidal waters open to fishing. This net may not exceed 16 m in length, with a mesh not greater than 28 mm, with depth or drop of net not more than 3 metres (measured in the one plane) and the net shall not contain a bag, pocket or device of like construction. The use of such net is subject to the following conditions:-

- (a) it shall not be anchored, staked or fixed.
- (b) any portion of the net containing fish shall not be drawn or dragged on to the land above the level of the tide, or allowed to lie out of water.
- (c) any protected or unwanted fish in the net shall be cleared in water of sufficient depth to allow their free escape and the net shall be cleared in time to prevent the death of fish in the net.

**SHELL DREDGES** — Persons wishing to use dredges for amateur shell-collecting should consult the regulations directly.

**YABBY PUMPS** — Hand pumps may be used for taking yabbies in any tidal waters not closed to all forms of fishing.

## **AREAS CLOSED TO ALL FORMS OF FISHING**

Total fishing prohibitions exist in the following areas:-

(For precise boundaries consult the Regulations or Qld Boating & Fisheries Patrol. For marine park boundaries contact the National Parks & Wildlife Service or Great Barrier Reef Marine Park Authority — G.B.R.M.P.A.)

- (a) Certain areas within marine parks;
- (b) Certain waters of the Torres Strait near Hammond Island;
- (c) Fish Sanctuaries:
  - Coombabah Creek and Lake
  - Eurimbula Creek (Crab Sanctuary Only)
  - Swan Bay
  - Waters of Bizant River and German Bar Lagoon for 2 km downstream of the road crossing known as German Bar
  - Waters of Lily Creek and lakes known as Centenary Lakes Cairns
    - Within 100 m of the Coral Reef Observatory on Hook Island.
  - Within 150m of Middle Island Underwater Observatory
- (d) Mission Bay near Cairns;
- (e) Nelgai Fish Refuge on the Condamine River;
- (f) Queen Mine Waterhole on the Severn River near Ballandean;
- (g) That portion of the Barron River known as the Barron Waters;
- (h) Waters within 400 m upstream of the Neville Hewitt Weir and those waters downstream of the Neville Hewitt Weir on the Dawson River at Baralaba, to a point on the downstream side of the Baralaba-Woorabinda River Road Traffic Bridge across the Dawson River.;
- (i) Within 400 m upstream and downstream of the following weirs:-
  - Mungindi Weir on the Barwon River
  - Goondiwindi Weir on the Macintyre River
  - Bonshaw Weir on the Dumaresq River
  - Jack Taylor Weir on the Balonne River
  - Miles Weir on Dogwood Creek
  - Ben Dor Weir on Macintyre Brook
  - Whetstone Weir on Macintyre Brook
  - Dalby Weir on the Condamine River
  - Kolan Barrage Weir on the Kolan River
  - Chinchilla Weir on the Condamine River
  - Burnett Barrage Weir on the Burnett River
  - Fitzroy River Barrage on the Fitzroy River
  - Clare Weir on the Burdekin River
  - Tinana Creek Barrage on Tinana Creek
  - Mary River Barrage on the Mary River
- (j) Waters within 400 m downstream and (excluding those rivers or creeks within that boundary) the waters within 200 m upstream of the following dam walls:-
  - Wuruna Dam on the Ngoo River
  - Awoonga Dam on the Boyne River
  - Storm King Dam on Quart Pot Creek
  - Cania Dam on Three Moon Creek.
  - Boondooma Dam on the Boyne River
  - Leslie Dam on Sandy Creek
  - Glenylon Dam on Pike Creek.
  - Coolmundra Dam on Macintyre Brook.
  - Beardmore Dam on the Balonne River
- (k) Certain waters of the South Mitchell River and waters of rivers, creeks and tributaries flowing into and connected therewith.

# SPEAR FISHING

Spear-guns may only be used by persons aged 15 years and over and shall not be used to take fish while using or wearing underwater breathing apparatus other than a snorkel.

Spear-fishing is prohibited in the following areas (for precise boundaries consult the Regulations):-

- Tallebudgera Creek upstream of a direct line running between the eastern extremity of Burleigh Heads and the seaward extremity of the rock groyne on the southern bank of the creek mouth;
- Jumpinpin and the Southport Broadwater;
- Vicinity of the Artificial Reef off Moreton Island near Cowan Cowan;
- Pumicestone Passage, south of Elimbah Creek;
- Pumicestone Passage, north of Bell's Creek.
- Mooloolah River downstream of David Low Bridge;
- Maroochy River downstream of and including the Cod Hole;
- Within 100m of all public jetties in and south of the Noosa River;
- Noosa River downstream of Parkyn's Jetty at Tewantin;
- Vicinity of the Artificial Reef off Woodgate, North Hervey Bay.
- Vicinity of the Artificial Reef near Woody Island, North Sandy Straits;
- "The Basin" at Bargara Beach;
- The north-western, western and southern sides of Great Keppel Island;
- The western and southern sides of North Keppel Island;
- The waters between Brampton and Carlisle Islands;
- Seaforth Island;
- The southern and western sides of Lindeman Island;
- The western side of Long Island;
- The northern side of South Molle Island;
- Daydream Island;
- The eastern, south-eastern and southern sides of Hook Island;
- The southern and western sides of Hayman Island;
- Within 100m of the public jetties at Dungeness and Lucinda Point;
- The northern, north-western and western sides of Bedarra Island;
- The north-western and western sides of Dunk Island;
- All freshwaters and Fish Habitat Reserves and areas closed to all forms of fishing.



NOTE — G.B.R.M.P.A. has allowed for spearfishing to occur in 95% of the Great Barrier Reef Marine Park, that is, the general Use 'A' and General Use 'B' Zones. Spearfishing is not allowed in the Marine National Park Zones or the Scientific Research and Preservation Zones which account for the remaining 5% of the Marine Park area.

Throughout the Marine Park there is a total ban on commercial spearfishing, spearfishing with underwater breathing apparatus (SCUBA or hookah), and the use of powerheads.

# MISCELLANEOUS PROHIBITIONS

The following activities are illegal throughout Queensland:-

- Jaggng or foul-hooking of fish.
- Using explosives, poisons or electrical devices to take fish. (Divers may use a power head on a hand spear for protection against sharks);
- Trespassing on licensed oyster areas;
- Digging worms within 5 m of the boundary of a licensed oyster area or within a habitat reserve;
- Removing oysters from any oyster ground. However, a person may consume oysters "on the spot" in any public oyster reserve or on unlicensed oyster grounds;
- Obstructing lawful netting operations, damaging or interfering with fishing apparatus, or removing fish therefrom without lawful authority;
- Possession or carriage of prohibited apparatus in closed waters unless the apparatus is dismantled, secured or stowed.
- Collection of coral without lawful authority;
- Sale of fish by amateur fishermen;
- Interfering with marine life in a habitat or wetland reserve. (Note, however, that line-fishing is allowed in certain areas of marine parks, and there is no specific prohibition on fishing in a habitat reserve (other than spearfishing). Digging of yabbies with a hand-pump or worms taken by hand capture is also allowed in habitat and wetland reserves).
- Removing, damaging or interfering with markers or signs erected under the authority of the Fisheries Act or The Fishing Industry Organization and Marketing Act.
- The taking of Narrow Barred Mackerel, Barracuda and Slender Barracuda from Platypus Bay (inside a line from Rooney Point to Coongul Point on the western side of Fraser Island).
- The taking of Barramundi from the Russell/Mulgrave River system including all rivers, creeks or tributaries flowing into or connected therewith upstream from the mouth, (until 1 February 1993).
- The taking of fish or marine products (excluding all the species of fish of the Superclass Pisces) in the waters surrounding Fitzroy Island and High Island, near Cairns, within a distance of 400m seawards from low water mark around these islands.

## TAGGED FISH

The research staff of the Fisheries and Fisheries Research Branches are engaged in a number of research programmes involving the tagging of fish and crabs. Should you catch a fish or crab with tag attached, return the tag to The Chief Inspector of Fisheries, G.P.O. Box 46, Brisbane, 4001, together with the following information:-

- (a) date and place of capture;
- (b) length of fish (or shell width of crab);
- (c) method of capture;
- (d) your name and address.

As the research staff would like to examine the specimen wherever this is convenient, an early phone call to your nearest laboratory (Brisbane 239 3404, Cairns 35 1580 or Burnett Heads 59 4155) would be appreciated if you happen to live near these centres.

For further information on the tailor tagging program being conducted by the Queensland Department of Primary Industries, Fisheries Branch, please contact Brisbane: 239 3404.