

Annual status report 2009

Rocky Reef Fin Fish Fishery



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Fishery profile 2008

Species targeted Snapper, pearl perch, cobia, teraglin	Total number of commercial licences in 2008 1351 (as at 10 July 2009)	
Total harvest from all sectors 1380 t	Commercial licences accessing the fishery in 2008 319	
Commercial harvest 257 t	Fishery season All year round	
Recreational harvest (2005) Approximately 550 t snapper, 123 t pearl perch, 283 t cobia	Fishery symbols L1, L2 & L3	
Indigenous harvest No estimate available	Monitoring undertaken Commercial logbooks (CFISH), fishery independent and dependent monitoring, at-sea observing	
Charter harvest 123 t	FOP days monitored in 2008 Nil	
Allocation between sectors Approximately equal between commercial and recreational	Accreditation under the EPBC Act Expires 8 November 2010	
Total exports Negligible – most product sold domestically	Logbook validation Yes – completed in 2006	
Commercial Gross Value of Production (GVP) Approximately \$1.7 million	Quota managed No	
		Risk to stock
Snapper (<i>Pagrus auratus</i>)	Overfished	Not assessed
Comments: Stock assessment results indicate a high level of fishing pressure. QPIF is working with a Stakeholder Network Working Group (SNWG) to develop new management arrangements to assist rebuilding the snapper stock.		
Pearl Perch (<i>Glaucosoma scapulare</i>)	Uncertain	Not assessed
Comments: Not enough history (poor recording until 2004) and highly variable catch rates. Length structure stable but QPIF need to analyse age information before a more informed decision can be made.		
Cobia (<i>Rachycentron canadum</i>)	Uncertain	Not assessed
Comments: Historical catch rates are variable. Length data available but more informed decision can be made when age data is analysed.		

Introduction

The Rocky Reef Fin Fish Fishery (RRFFF) comprises four primary target species including snapper (*Pagrus auratus*), pearl perch (*Glaucosoma scapulare*), teraglin (*Atractoscion aequidens*) and cobia (*Rachycentron canadum*). Other species in the fishery include mahi mahi (*Coryphaena hippurus*), yellowtail kingfish (*Seriola lalandi*), amberjack (*Seriola dumeril*), samsonfish (*Seriola hippos*), sea sweep (*Scorpius aequipinnis*), and grass sweetlip (*Lethrinus laticaudis*).

This status report covers the 2008 calendar year.

Fishery description

Fishing methods

Rocky reef fin fish are generally taken using hook and line. Both recreational and commercial fishers are permitted to use up to six hooks.

Key species

Snapper (*Pagrus auratus*) grow in excess of 100cm (>10kg). This species can live up to around 30 years and are sexually mature at about 3 years of age. Adult snapper are bright pink, merging to silver over the belly, or they may be red-brown with pink-flushed fins. Smaller snapper that lack a “hump” are commonly called squire.

Pearl perch (*Glaucosoma scapulare*) are deep bodied fish and have been measured up to 80cm in length in local waters (7kg). At maturity they are around 39cm in length. They are silver in colour with a bright blue sheen. They take their name from the pearly-white flattened bone located at the upper edge of the gill cover. Pearl perch have a distinctive large eye, presumably due to the fact that they feed mostly at night. They are opportunistic carnivores and feed on a variety of prey, including squid and small crustaceans.

Cobia (*Rachycentron canadum*) can grow to a length of 1.8m and weigh up to ~65kg. They are dark brown to almost black in colour, with a creamy white stripe along the side of the body that fades as the fish grows. This species is found predominantly in offshore reef areas, but juveniles may be found in estuarine areas (Grant, 1985).

Main management methods used

A range of input and output controls are legislated to manage the harvest of rocky reef species, including:

- recreational in-possession limits for snapper, pearl perch, teraglin (a limit of five for each species), and cobia (a limit of 2)
- apparatus restrictions with a limit on the number of hooks and lines that can be used by both commercial and recreational fishers
- limited entry into the commercial sector

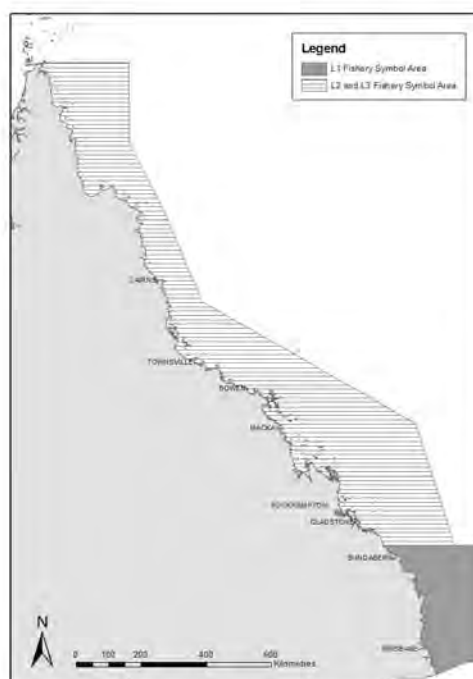


Figure 1: Map of fishery area.

- commercial fishing vessels limited to a maximum of 20 metres in length, and a policy for boat replacement¹ also applies
- minimum size limits for snapper (35 cm), pearl perch (35 cm), teraglin (38 cm), cobia, amberjack and yellowtail kingfish (75 cm), mahi mahi (60cm), and grass sweetlip (30cm) for both commercial and recreational fishers.

¹ The policy of boat replacement, in relation to the L1 fishery, provides that boat replacements will generally only be approved where the replacement boat is:

(i) 14 metres or less; or (ii) greater than 14 metres, but no longer than the boat being replaced.

Catch statistics

Commercial

There are complex management arrangements for the species harvested in this fishery, given that an east coast line fisher with an L1-L3 endorsement can capture and retain rocky reef species in addition to coral reef species if they also hold an RQ fishing symbol. As such, commercial fishers targeting coral reef species often also catch and retain traditional rocky reef fin fish even when they are not targeting their efforts towards catching them. For this reason, the commercial catch statistics are presented in terms of total catch² for the species harvested in this fishery (Table 1).

Table 1: Historical total harvest (in tonnes) of all rocky reef species caught on an L1-L3 endorsement (CFISH database, 10 June 2008). *denotes less than 5 boats catch and therefore cannot be displayed.

	2004	2005	2006	2007	2008
Snapper	169	264	202	141	121
Pearl perch	68	97.1	72.2	52.5	41
Teraglin	23	29.1	20.4	10.4	12
Cobia	14.6	26.9	35.6	27.1	35
Amberjack	9.2	13.1	13.1	13.6	15
Yellowtail kingfish	3.1	3.4	6	7.5	11
Mahi mahi	12.7	8.5	3.3	1.2	3
Samsonfish	3.2	1.9	1.4	1	<1
Sea sweep	*	*	*	<1	*
Grass sweetlip	<1	3.6	4.2	7.5	17.2
Frypan bream	*	*	<1	<1	<1

A standardisation was applied to only those fishers whose catch of rocky reef species was above 60% of their total fish landings. This provided a catch and catch per unit effort (CPUE) for the target species snapper and pearl perch (Figure 2). In 2008, the commercial catch of pearl perch declined from 32 t in 2007 to 19 t, and snapper catches from 81 t to 63 t.

Teraglin was historically one of the major secondary species harvested in the RRFFF, particularly in the recreational and charter sectors. Commercial catches and catch rates have tended to be variable, supporting the opportunistic harvest of this species by commercial fishers. A large increase in the commercial catch was

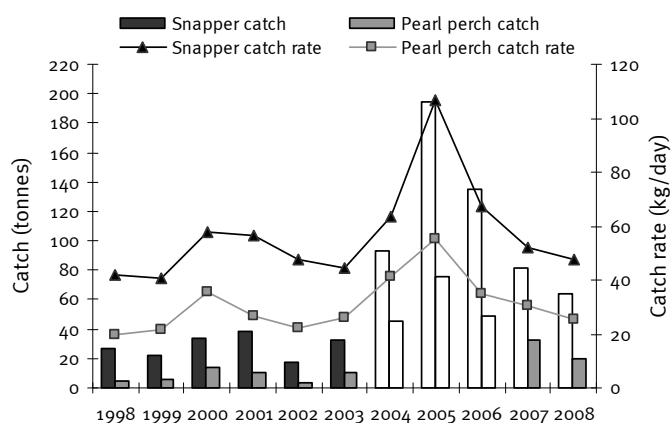


Figure 2: Standardised snapper and pearl perch catch and catch rate across the RRFF Fishery, 1997-2008 (QPIF CFISH database, 24 June 2009).

observed during 2004 and 2005 (Figure 3). The increase may be due to a decrease in the minimum size limit from 45 cm to 38 cm in 2002. The reduction was made in an attempt to reduce the high mortality resulting from the release of undersized teraglin (up to 95% do not survive following release). The catch in 2008 has increased from the previous year, attributed to the increase in the number of days fished.

In recent years, cobia catches have been higher than teraglin. Figure 3 shows the increased standardised catch of cobia since 2002, which is also reflected in the total catch in Table 1.

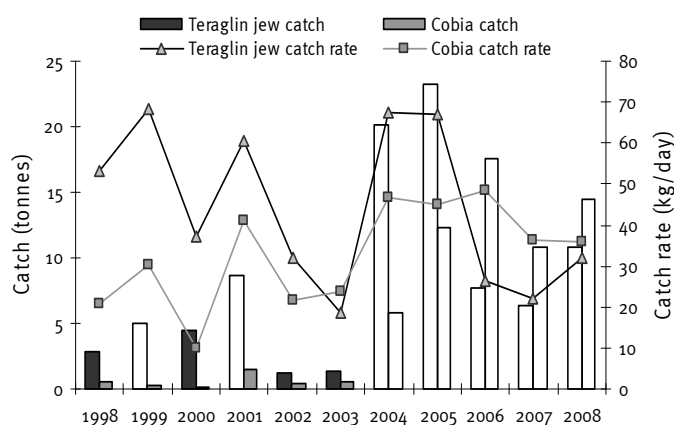


Figure 3: Standardised cobia and teraglin jew catch and catch rate across the fishery, 1997-2008 (QPIF CFISH database, 24 June 2009).

Recreational

The results of the fourth Recreational Fisheries Information System (RFISH) telephone survey and diary round that QPIF undertook in 2005 indicate that approximately 550 t of snapper, 123 t of pearl perch, and 283 t of cobia were retained by recreational fishers.

² The total catch reported here will differ from the total catch reported in the snapper stock assessment due to line-only caught snapper data being used here. Stock assessments also incorporate net caught snapper data.

Table 2 shows all of the available RFISH data on the recreational catch of rocky reef fin fish species. A more accurate conversion factor sourced from the 2009 snapper stock assessment has been applied to estimate the total weight of the recreational snapper catch (diary surveys only record numbers of fish). Conversion factors for pearl perch and cobia come from other sources (see footnotes).

QPIF is finalising the regional survey of recreational fishing in south east Queensland. The survey tested the bus route creel survey methodology and interviews with anglers at boat ramps were completed in November 2008. Results will be available shortly in Webley *et al.* (in press).

Table 2: Recreational catch statistics for snapper, pearl perch and cobia.

	Year	No. caught	No. released	Ttl harvest	Est. weight
Snapper	1999	1 284 850	757 000	527 000	~500 t ³
	2002	1 253 135	956 695	296 440	~281 t ³
	2005	1 218 316	890 533	327 783	~550 t ³
Pearl Perch	1999	109 095	43 700	64 400	~76 t ⁴
	2002	74 370	32 474	41 903	~50 t ⁴
	2005	355 826	207 798	148 028	~123 t ⁴
Cobia	2005	52 000	21 000	31 000	~283 t ⁵

Charter

Snapper and pearl perch continue to make up the majority of the charter catches. Figure 4 shows the charter catch and catch rate of snapper and pearl perch since 1998. In 2008, snapper catches increased from 38 t to 55 t, with an associated increase in CPUE. The catch and CPUE for pearl perch increased slightly, but the overall catches remain stable (Figure 4). The catch of both cobia and teraglin was around 12 t for each species.

³ In the 1999 and 2002 surveys an average weight of 0.95 kg/fish was used (Ferrell and Sumpton 1997). With an increase in minimum legal size limit (MLS) in 2003, the 2005 estimate is using an average weight of 1.68 kg per fish, based on the 2009 snapper stock assessment.

⁴ Using an average weight of 1.2 kg/fish, obtained from research surveys undertaken by Ferrel and Sumpton (1997).

⁵ Using an average weight of 9.15 kg per fish, based on 2007 unvalidated size structure estimates from QPIF fishery dependent sampling. The MLS for cobia is 75cm.

Indigenous

There are no estimates for this fishery.

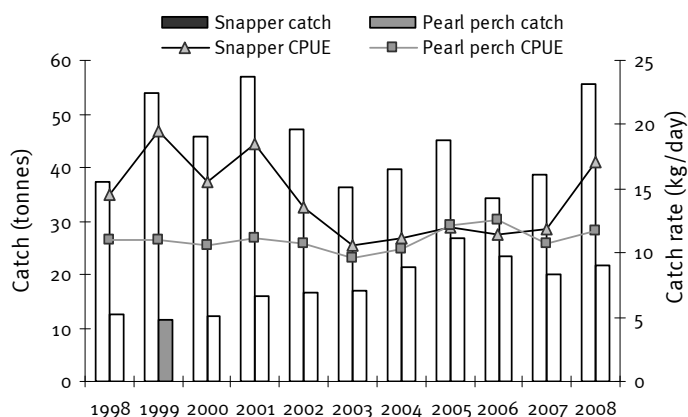


Figure 4: Charter catch and catch rate for snapper and pearl perch, 1997–2008 (QPIF CFISH database, 24 June 2009).

Spatial issues/trends

Figure 5 demonstrates the distribution of unstandardised snapper commercial catch in the fishery for 2004, 2006 and 2008 respectively. In 2008, catch was spread around areas off of Bundaberg, signalling a shift from the higher catches reported around Fraser Island and the southern shelf waters in 2006.

Socio-economic characteristics and trends

Commercial operators sell almost exclusively on the domestic market, with prices between \$7 – \$10 a kilogram (whole weight) for snapper and approximately \$6 a kilogram for pearl perch. Other species command lower prices.

Biological and ecological information

Monitoring programs

Fishery Dependent Sampling

Collecting biological information from the rocky reef fin fish fishery commenced in July 2006. The objective is to collect length, age and sex data representative of the commercial, recreational and charter boat catches in southern Queensland. Data and biological samples are collected using a variety of different approaches including;

- charter operators measuring fish caught by their clients

- measuring commercially caught fish at seafood wholesalers and retailers
- boat ramp surveys
- a keen angler program where recreational fishers can donate fish frames.

Data collected by the program are used to derive length and age frequencies for the retained catch in each sector and to calculate an index of mortality rate in the population. The primary species for which biological data are collected are snapper (*Pagrus auratus*), pearl perch (*Glaucosoma scapulare*), teraglin (*Atractoscion aequidens*) and cobia (*Rachycentron canadum*), but some data are also collected for amberjacks (*Seriola dumerili*, *S. rivoliana*, *S. nigrofasciata*), yellowtail kingfish (*S. lalandi*) and samsonfish (*S. hippos*). Figure 7

illustrates the age composition of snapper for each sector since 2006. This information was important in the stock status assessment of snapper, enabling QPIF to monitor recruitment across the three year period. The data are also used to calculate the Z estimate for the snapper stock, as outlined in the performance measurement system on page 9.

Fishery Independent Sampling

Monitoring pre-recruit snapper (juvenile fish <1 year old) in Moreton Bay commenced in November 2006. The objective is to collect data to estimate recruitment indices for snapper in Moreton Bay using annual beam trawl surveys. The snapper recruitment index will be incorporated into future snapper stock assessments to help assess the status of the snapper stock.

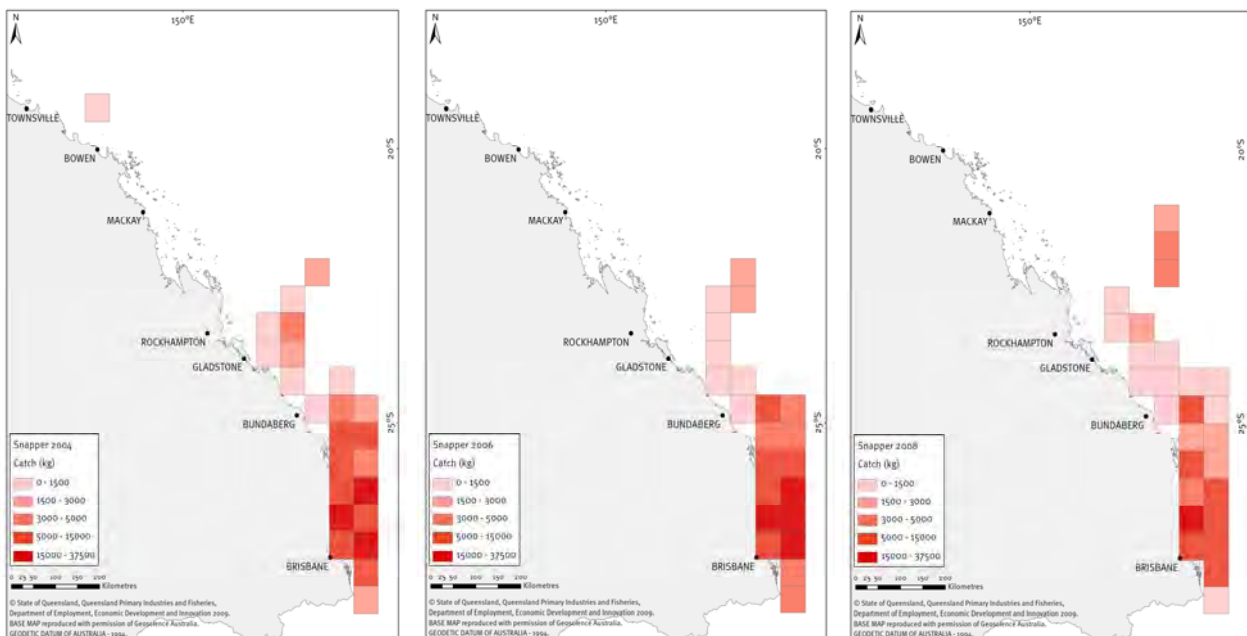


Figure 5: Distribution of all snapper commercial catch in 2004, 2006, and 2008.

At-Sea Observing

The Fisheries Observer Program (FOP) provides an effective method of obtaining a wide variety of information from the RRRFF. The primary objectives for the program are to supply information to the fishery manager regarding the species composition of catch and bycatch from this fishery.

To achieve these objectives, information is collected by ‘at sea’ observers on commercial fishing vessels, including:

- total catch numbers, size and form of product retained (target and non-target species)

- total species catch compositions (target, non-target and bycatch)
- vessel and gear information
- interactions with species of conservation interest.

Due to the size and complexity of Queensland’s fisheries, the FOP has designed a new monitoring strategy that will, over a three year period, allow adequate coverage of a range of fisheries to meet both QPIF data requirements and Commonwealth recommendations. Since 2006, there has been approximately 52 days observer coverage in the RRRFF fishery. Bycatch typically consisted of undersized target species or reef quota species that may

only be retained by an operator holding an RQ fishery symbol on their licence. A small number of gummy shark, sandbar whaler and silvertip shark made up the majority

of the shark catch component. The FOP will likely target the RRFFF again in 2011, when east coast line fisheries are scheduled to be monitored.

Table 3: Summary of biological information collected between 2006 and 2008 for the primary rocky reef fish species snapper, pearl perch, teraglin and cobia.

Year	Species	Number of Catches Sampled			Number of Fish Measured			No. Otoliths Collected	No. of Fish Aged
		Recreational	Commercial	Char ter	Recreational	Commercial	Charter		
2006	Snapper	166	5	60	617	356	348	278	273
	Pearl Perch	104	2	46	358	42	327	242	
	Teraglin	13	1	48	33	10	239	9	
	Cobia	49	1	12	91	5	30	89	
2007	Snapper	556	71	241	1617	2936	1706	497	487
	Pearl Perch	169	28	159	442	806	1289	194	
	Teraglin	15	15	117	27	73	721	39	
	Cobia	91	11	29	126	147	127	137	
2008	Snapper	750	58	126	2302	1370	1164	624	614
	Pearl Perch	203	33	83	530	372	666	202	
	Teraglin	47	13	39	109	100	339	84	
	Cobia	112	24	9	140	103	18	127	

Bycatch

There is limited bycatch in this fishery as recorded by at-sea observers. Bycatch consists mostly of undersized target species or other pelagic species that are retained as by-product. Other caught and released species in the commercial fishery include red emperor, red throat emperor and other groupers. These species may only be retained by fishers holding an RQ fishing symbol.

Interactions with protected species

No interactions were recorded in 2008 through the LF05 logbook. Fishery observers have not recorded any interactions with protected species to date.

Ecosystem impacts

There are minimal ecosystem impacts associated with selective line fishing.

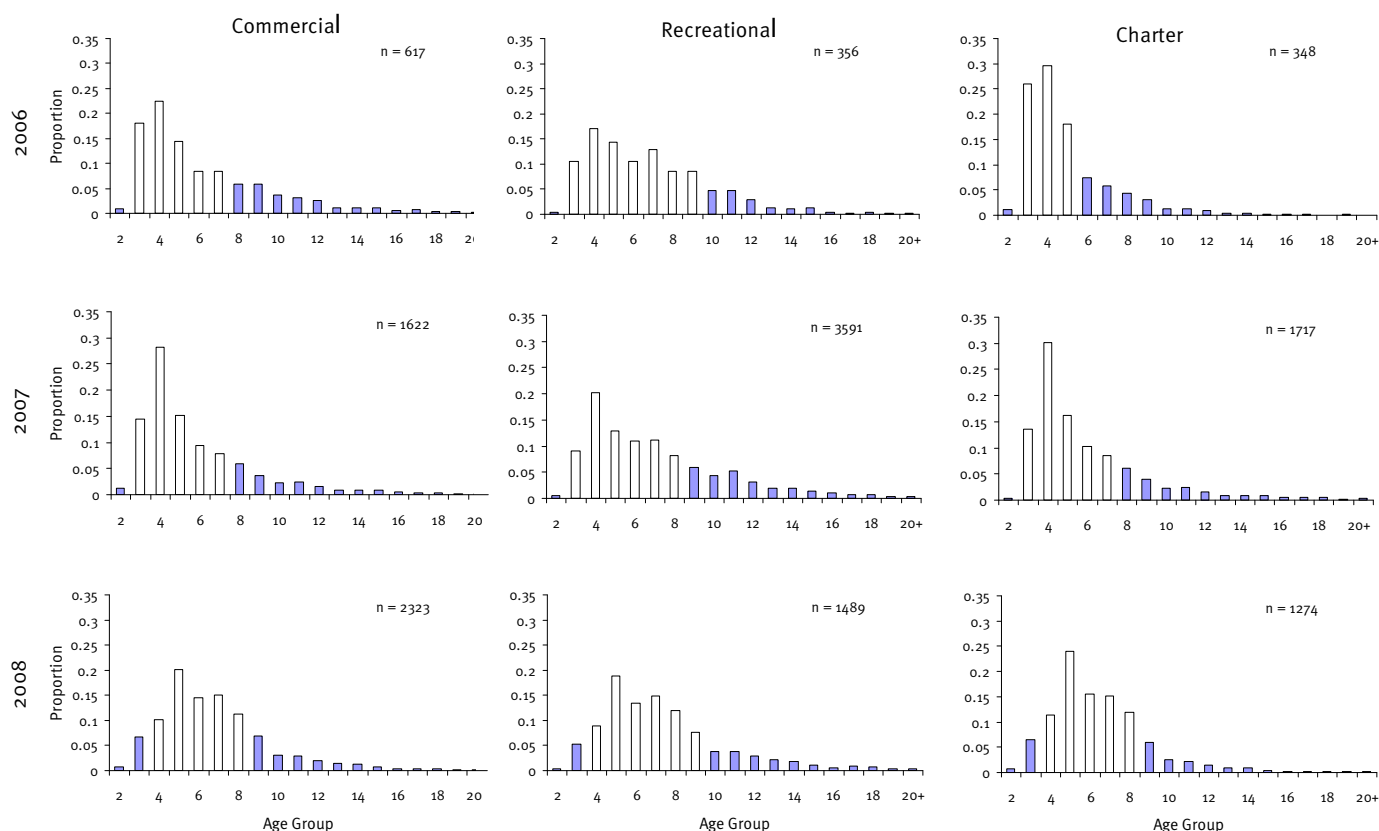


Figure 6: Age frequency of snapper sampled from the commercial, recreational and charters sectors between 2006 and 2008.

Sustainability Assessment

Performance against fishery objectives

In early 2008, QPIF finalised a performance measurement system which will now be reported on annually. The PMS functions as a reporting framework that is a transparent, defensible set of criteria for evaluating the performance of the fishery against management arrangements (Table 4). Within three months of becoming aware that a

performance measure has been triggered, QPIF is required to finalise a clear timetable for implementation of appropriate management responses. QPIF became aware of the triggers in July 2008. The results of a detailed analysis of the catch and effort data were considered by ReefMAC and ReefMAC Scientific Advisory Group (SAG) out-of-session in August 2008, and an appropriate management response developed.

Table 4: Performance measures and outcomes for the Rocky Reef Fin Fish Fishery in 2008.

Performance measure	Performance
<i>Target species</i>	
Standardised ⁶ commercial catch per unit effort (CPUE) of snapper and pearl perch shows a decrease of at least 10% in each consecutive year over three years OR decreases by 20% from the preceding year.	<i>Snapper – Not triggered⁷</i> <i>Pearl perch – Not triggered</i>

⁶ For standardisation procedure see page 4

⁷ The snapper CPUE was triggered in last years annual status report for each year of the 3 years prior (2005, 2006 & 2007). This year the decrease in CPUE was lower at 8.52%.

Performance measure	Performance
Standardised CPUE for snapper by region shows a decrease of at least 10% in each consecutive year over three years OR decreases by 20% from the preceding year.	<p><i>Triggered</i></p> <p>The standardised CPUE for the Fraser Offshore and Sunshine Coast Offshore regions have decreased by more than 10% each year since 2006. The Sunshine Coast Offshore also decreased by more than 20% since 2007.</p>
Estimates of exploitable biomass of snapper falls below 40% of the estimated virgin biomass.	<p><i>Triggered</i></p> <p>The 2008 stock assessment for snapper indicated that for 13 of the 15 models tested, that biomass was between 15% and 35% of virgin biomass.</p>
There is a 20% decrease in recreational CPUE for snapper and pearl perch between consecutive comparable surveys.	<p><i>Not measured</i></p> <p>The last statewide recreational survey was conducted in 2005 and does not represent recent data.</p> <p>The change in CPUE between the 2002 and 2005 statewide surveys indicate that snapper and pearl perch decreased by 9% and 12 % respectively, which would not have triggered.</p>
Total mortality (Z) exceeds 2 times estimate of natural mortality (M) for snapper and pearl perch.	<p><i>Snapper – Not triggered</i></p> <p>The Z estimate for the east coast snapper stock (all sectors combined) for 2008 was not triggered. Some variability was noted in individual commercial, recreational and charter sectors. These data indicate an improvement on Z estimates calculated on 2007 data for the latest stock assessment. Please see the Research section for more details. QPIF are still developing and refining protocols for calculating Z.</p> <p><i>Pearl Perch – Not measured</i></p> <p>Ageing required for calculation of Z estimates has not yet been completed for pearl perch.</p>
<i>By-product species</i>	
In those years where more than 10 tonnes (per species) is retained, there is an increase or decrease in the total catch of teraglin, cobia, amberjack, yellowtail kingfish, samsonfish and mahi mahi of more than 40% from the preceding year.	<p><i>Triggered</i></p> <p>In 2008, the catch of yellowtail kingfish increased by 46%, from 7.5 t to 11.1 t respectively.</p>
<i>Bycatch and protected species</i>	
Observer information [for a three year collection period] shows the amount of bycatch exceeds 10% of the total catch taken by commercial fishers.	<p><i>Not triggered</i></p> <p>The amount of bycatch in this fishery is small.</p>

Performance measure	Performance
The percentage of animals released (alive) from each category falls below 90%.	<i>Not triggered</i> There have been no reported catches of any protected species in 2008.
<i>Social</i>	
That the rate of compliance falls below 95% in the commercial fishery and/or 95% in the recreational fishery.	<i>Recreational – Not triggered</i> <i>Commercial – Triggered</i> Nine of 69 commercial inspections were non-compliant, resulting in an 87% compliance rate.
<i>Economic</i>	
The commercial GVP for the rocky reef fin fish fishery falls below \$1m.	<i>Not triggered</i> The GVP for the fishery in 2008 is approximately \$1.69 million.

Current sustainability status & concerns

The status of the snapper stock, based on recent assessments, is likely to be fully fished to overfished. In 2008, QPIF formed a Stakeholder Network Working Group (SNWG) to develop new management arrangements for the fishery in partnership with QPIF. Membership of the SNWG comprised of commercial fishers, recreational fishers, charter operators, tackle retail trade, seafood marketing sector, fisheries scientists, fisheries managers and NSW Fisheries. Media and conservation sectors were also involved in the process. Subcommittees of the SNWG also included the broader marine sector. The SNWG was tasked with identifying and prioritising fishery issues, facilitating consultation with the broader community and making recommendations for the management of the fishery. Management options developed by the SNWG were put out for consultation in September and October 2008 and followed up through a series of port meetings between the Gold Coast and Mackay. Responses from the community consultation process and outcomes of the 2008 snapper stock assessment were considered by the SNWG in making management recommendations to QPIF. These recommendations are currently being considered by QPIF before submission to the Minister for consideration.

The status of pearl perch and teraglin remains uncertain, in recognition that there is limited biological information available for the species on which to base a robust

assessment. Significant resources are currently being invested by QPIF through the LTMP to collect further information to improve future assessments of the status of the major target species in this fishery.

Research

Recent research and implications

The latest snapper stock assessment was completed in April 2009 (Campbell *et al.*, 2009). This stock assessment used a series of statistical analyses (generalised linear modelling, Sex-Age-Length Stock Assessment (SALSA) and Stochastic Stock Reduction Analysis (SSRA) population models) to investigate to what extent, if any, the stock is overfished. Catch rates from the commercial sector were stable over time appearing to indicate a low impact of fishing. However, there are concerns that the commercial data were hyperstable (catch rates can remain stable while abundance is declining), and this concern is supported by charter data and two recreational data sources, which all showed consistent significant declines. Commercial catch-at-length-and-age frequencies changed from mostly small and young fish in the mid 1990's (suggesting high fishing pressure) to higher frequency of larger and older fish in 2006–07 (suggesting lower fishing pressure). Recreational catch-at-length-and-age frequencies all suggested high fishing pressure. There was evidence that fishing selectivity had changed over

the last decade due to advances in fishing technology which resulted in larger fish being more vulnerable to line capture. Population modelling on the data quantified snapper exploitable biomass levels of between 15%-50% of unfished or virgin biomass levels, with the majority of analyses putting biomass below 35%, the approximate level that achieves maximum yield. The overall indication is that the stock is either fully fished or over fished (Figure 9).

Simulations were conducted to test the effectiveness and risk associated with various management strategies, including changes in minimum legal size and the introduction of quotas. While it was found that an increased minimum size would better protect the stock against high levels of effort, size changes alone would be unlikely to promote stock rebuilding. Simulations that investigated what level of future harvest would allow stock rebuilding were sensitive to the model inputs. Two model input scenarios that had the most consensus in terms of plausibility indicated that average harvests over the next ten years should be kept to 285 t and 380 t respectively.

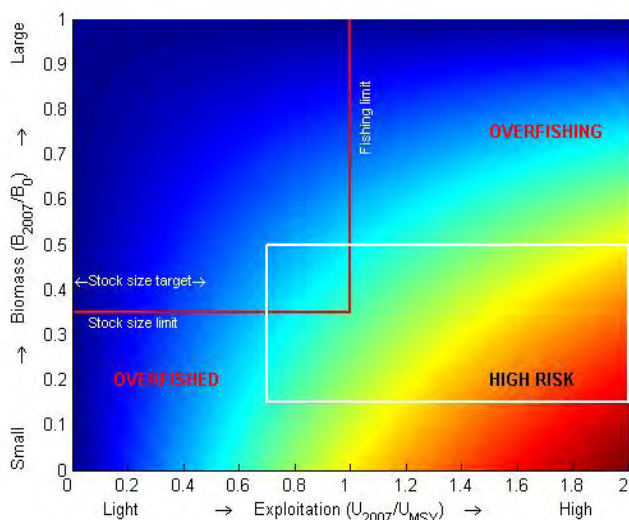


Figure 9: Stock status definitions based on limit reference points for fishing (U_{MSY}) and stock size (B_{MSY}). The figure area below and right of limit reference points indicate an over fished stock and overfishing respectively. The high risk zone with over fished stock and high fishing pressure is highlighted in bottom right corner. Weight of evidence across data and analysis scenarios classified Queensland snapper status in 2007 between fully (at target levels) and over fished (white rectangle).

Collaborative research

There has been no collaborative research this year.

Fishery management

Compliance report

During 2008, 3406 units, including 69 commercial fishing vessels, were inspected in the RRFF. A total of 113 offences were detected during the course of these inspections. Offences are reported as either a Fisheries Infringement Notice (FIN); Caution (FIN Caution or official caution issued by Legal); or Prosecution (to proceed by complaint summons)(Table 5).

A compliance risk assessment was conducted for this fishery in order to determine compliance priorities and allow the most effective use of Queensland Boating and Fisheries Patrol resources. The assessment identified the following activities in the Queensland Rocky Reef Fin Fish Fishery as having the highest level of risk. The QBFP will therefore direct their compliance resources to addressing:

- Take/possess regulated fish - size (recreational)
- Take/possess regulated fish - size (charter)
- Keeping inaccurate logbook records (commercial)
- Failure to comply with logbook requirements (charter)
- Violation of grey nurse shark closures
- Recreational fisher possessing fish not in the prescribed form e.g. skinned etc.
- Recreational fishers taking fish for commercial purposes

There are also a number of activities rated as having moderate risk, which will be addressed, but at lower priority. Detailed strategies to address the risks identified by this assessment will be developed through the QBFP strategic and operational planning processes that are reviewed annually.

Changes to management arrangements in the reporting year

There were no changes to management arrangements in 2008.

Communication and education

Promotion of regulations applying to both commercial and recreational fishers, including those relating to rocky reef fin fish species, is an ongoing role for QPIF.

Approximately 950 recreational fishing survey identification guides containing pictures and other biological information were sent out to diary program participants, as well as a regular recreational fishing update newsletter which is distributed to approximately 500 stakeholders each quarter.

Consultation with stakeholders in the fishery mainly occurs through ReefMAC, with meetings generally held twice a year. ReefMAC provides advice to QPIF on management measures for the fishery. Consultation with stakeholders also occurred as part of the PMS development process.

Table 5: Queensland RRRFF offences in 2008.

OFFENCE	FIN	Prosecution	Caution
Recreational fisher take or possess regulated fish	67	0	30
Did not comply with a regulated waters declaration	0	0	5
Fail to ensure the boat mark is placed as required	0	0	4
Fail to keep or give documents in approved form. (eg. logbook)	2	0	0
Fail to have a document available for immediate inspection	2	0	1
Buyer failed to have a docket available for inspection	0	1	0
Did an act only an authority holder can do eg. take fish	0	1	0
TOTAL	71	2	40

Note: The two prosecution offences recorded here are still pending

Complementary management

In September 2007, NSW DPI implemented changes to the bag and/or size limits for pearl perch (30 cm; bag limit five), amberjack and samsonfish (combined bag limit five), mahi mahi (60 cm; bag limit ten, with one over 110 cm), and yellowtail kingfish (65 cm; bag limit five). Currently, the minimum size limit in NSW for snapper (30 cm) is smaller than in Queensland (35 cm), and anglers have a daily bag limit of ten (compared to an in-

possession limit of five in Queensland). NSW DPI has completed a socio-economic impact study proposal to raise the limit of snapper to 32 cm.

In 2008, QPIF as a part of the East Coast Inshore Fin Fish Fishery Regulatory Impact Statement (RIS) process, made changes to several size and bag limits for rocky reef species to enable more consistency with shared stocks with NSW. These include:

- Cobia – MLS 75cm; bag limit 2
- Teraglin – MLS 38cm; bag limit 5
- Amberjack – MLS 75cm; bag limit combined 2 in total of amberjack and samsonfish
- Samsonfish – MLS 75cm; bag limit combined 2 in total of amberjack and samsonfish
- Grass sweetlip – MLS 30 cm; bag limit 10
- Mahi mahi – MLS 60cm; bag limit 5
- Yellowtail kingfish – MLS 60cm; bag limit 2

References

Ferrell, D. and Sumpton, W. (1997). *Assessment of the fishery for snapper (Pagrus auratus) in Queensland and New South Wales*, FRDC Project 93/704.

Campbell, A., O'Neill, M. F., Sumpton, W., Kirkwood, J. & Wesche, S. (2009), *Stock assessment of the Queensland snapper fishery (Australia) and management strategies for improving sustainability*, Technical report, Queensland Primary Industries and Fisheries.

Information compiled by

Bonnie Holmes

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Snapper (*Pagrus auratus*)

