

RECREATIONAL FISHERIES RESEARCH

Recreational fisheries research focused on establishing baseline catch and effort information on the marine finfish and blue swimmer crab fisheries, improving knowledge of the biology of key recreational finfish species, and developing stock assessment models.

In 1998/99 nine major research projects were funded. These included a program of regional angler surveys to establish baseline data on recreational catch and effort in the State's four fishing regions, ongoing monitoring in the rock lobster, abalone and marron fisheries, an evaluation of the freshwater trout stocking program, completion of biological and stock assessment work on Australian herring, a stock assessment and monitoring program on Shark Bay inner gulf pink snapper stocks, and an evaluation of the survival of black bream stocked into low-salinity inland waters.

In future years, in addition to reporting the status of the licensed recreational fisheries, this document will report the outcomes of research carried out in the four recreational fishing regions. The recreational fishery of inner Shark Bay (Gascoyne region) is reported this year.

Recreational Western Rock Lobster Fishery

MANAGEMENT OVERVIEW

The recreational rock lobster fishery is concentrated in inshore regions, in depths of less than 20 m, with most fishing activity around the Perth metropolitan area and Geraldton. Fishing controls include gear restrictions, bag and size limits and protection of breeding females. In addition, a restricted fishing season operates between 15 November and 30 June and a recreational rock lobster licence is required.

COMPLIANCE AND COMMUNITY EDUCATION OVERVIEW

There have been no major compliance breaches in the recreational sector for the 1998/99 season. Proactive patrols by Fisheries Officers have achieved positive results, with high-visibility catch inspections acting as a deterrent. Officers have received complaints regarding pots missing, lines of gear being pulled, and non-compliance during the hours of darkness. Under-size catch remains an issue, as does tail clipping. However, the overall level of compliance for the season has been good.

Ongoing education services have been delivered, including the use of Volunteer Fisheries Liaison Officers to provide community advice and collect research data.

RESEARCH OVERVIEW

General research for managing the rock lobster stock is undertaken through the Commercial Fisheries Program and reported in that section.

For the recreational component of this fishery, an annual survey of participants is used to estimate the recreational catch and to produce the following status report.

Fishery Status Report

Main Features

Catch current season (1997/98):

807 tonnes (estimated)

Participation rate for year 1997/98:

28,776 people purchased licences to fish for lobsters, but only an estimated 23,993 utilised their licence

Catch projection next year (1998/99):

900-1,000 tonnes (estimated)

Previous catch projection (1997/98):

450-550 tonnes

Boundaries and Access

The recreational western rock lobster fishery has no specific boundaries; however, fishing is concentrated in inshore regions in depths of less than 20 m. The Perth metropolitan region and Geraldton experience the greatest fishing activity. A recreational rock lobster licence is required to take lobsters, and in the 1997/98 season 28,776 licences were sold. The 1997/98 season operated between 15 November and 30 June inclusive, except at the Abrolhos Islands where the waters were closed to diving for rock lobsters, but open for potting, between 15 March and 30 June.

Catch

Main fishing method

Pots and diving.

Landings

Estimated at 807 tonnes, with 565 tonnes by potting and 242 tonnes by diving.

Fishing effort

The average pot and diving fishers (excluding all those who held a licence but failed to use it) used their licences on 34 and 14 days respectively during the 1997/98 fishing season.

Catch rate

The average pot and diving catches were 1.5 and 2 lobsters/person/fishing day.

Stock Assessment

The recreational catch is a relatively small proportion of the commercial catch (around 8%). Stock assessments are an important focus of western rock lobster research and this information is given under the report on the commercial fishery.

Breeding Stock Levels

See the commercial fishery status report.

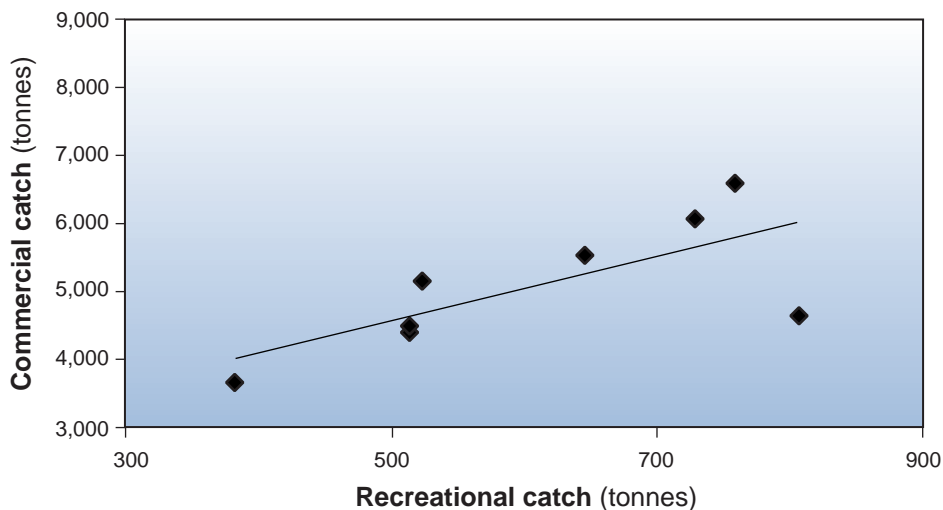
Catch Projection for Year 1998/99

900-1,000 tonnes (estimated).

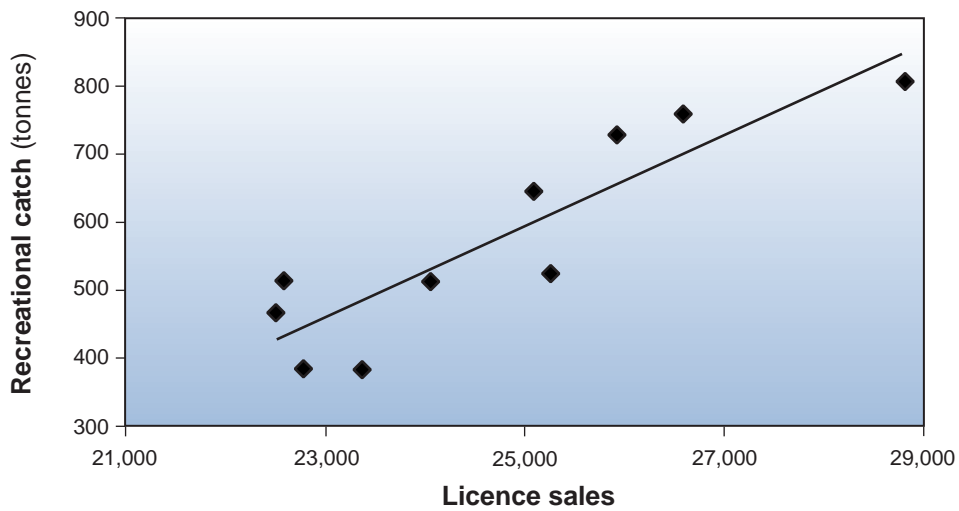
General Comments

The recreational rock lobster catch estimate of 807 tonnes for the 1997/98 season was substantially higher than the 516 tonne catch estimated for the 1996/97 season. The differences in the catches can be attributed to three factors: a 20% increase in the number of fishers who purchased recreational lobster licences; a large increase in the proportion of fishers who utilised their licence (79.5% in 1996/97 compared with 83.4% in 1997/98); and a slight increase in catch rates (from 1.3 lobsters/day caught by pot fishers in 1996/97 to 1.5 in 1997/98, and from 1.8 lobsters/day caught by divers in 1996/97 to 1.8 in 1997/98).

A decade of recreational lobster surveys has shown that the season-to-season catch estimate trends closely mirror those of the southern zone of the commercial fishery (Recreational Rock Lobster Figure 1), which is not surprising given that most recreational fishing takes place in the Perth metropolitan area. The most significant cause explaining this correlation is that recreational rock lobster licence sales fluctuate according to the strength of the year class entering into the fishery. As might be expected, sales are substantially higher in years of good recruitment, which in turn results in those years producing a higher overall recreational rock lobster catch (Recreational Rock Lobster Figure 2). These data provide a useful 'index' of recreational rock lobster fishing activity from season to season, however the absolute catch of lobsters taken is heavily reliant on weighting factors obtained from detailed studies undertaken a decade previously. Given the changes in recreational attitudes since that time, a review of the methodology for catch calculation is now being undertaken.



Recreational Rock Lobster Figure 1 Relationship between recreational and southern (Zone C) commercial catch, 1990/91 to 1997/98.



Recreational Rock Lobster Figure 2 Relationship between total recreational catch and number of rock lobster licences sold, 1988/89 to 1997/98.

Recreational Abalone Fishery

MANAGEMENT OVERVIEW

Recreational fishing for Roe’s abalone (*Haliotis roei*) takes place mainly on the inshore reef platforms between Geraldton and Augusta during the early spring and summer months when tide and weather conditions allow easy access to the reefs. Reeftops are generally regarded as nursery areas for abalone, which tend to migrate over the reef edge into deeper gutters as they mature. Consequently, there are always large numbers of under-size abalone present among the legal-size animals in the main areas where recreational fishing occurs.

South of Cape Naturaliste, the larger species of greenlip and brownlip abalone (*Haliotis laevigata* and *Haliotis conicopora*) are also taken in deeper water, with most fishing activity occurring from Hamelin Bay round to the south coast.

Fishing controls include licensing, closed seasons, closed waters, possession and size limits and gear controls. A recreational abalone licence is required to take abalone.

The Perth metropolitan and Greenough recreational abalone season commenced on Sunday 1 November 1998 and continued each Sunday only from 7.00 a.m. to 8.30 a.m. until 6 December.

This year Garden Island was included under the metropolitan management arrangements due to community concern over its accessibility and increasing fishing pressure on abalone stocks around the island. Penguin Island remained closed to abalone fishing to allow stocks to recover, following research surveys in 1996 which indicated that stocks around the island were depleted to very low levels.

COMPLIANCE AND COMMUNITY EDUCATION OVERVIEW

The strategies employed this season were effective in achieving a high level of compliance and community awareness among fishers. This was achieved through a high-profile awareness and in-field liaison campaign, both prior to and during the season, which utilised all forms of media to reach target audiences.

Fisheries Officers, supported by 64 Volunteer Fisheries Liaison Officers (VFLOs) and one temporary liaison