

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 laevis* 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

officer, were active along the coast to promote public awareness of and support for the conservation rules.

The number of VFLOs available this season increased by 34 on the previous year and enabled the effective coverage of a greater expanse of coastal reef.

Two aerial surveillance flights were undertaken from Cape Bouvard to Wedge Island to identify areas where people were targeting abalone outside the normal fishing areas and to gain accurate research data on the numbers of people taking abalone at different coastal locations.

The issuing of infringement notices again proved effective in the overall management of this recreational fishery. A total of 40 infringement warnings and 14 infringement penalties were issued in 1998/99. This resulted in fines totalling \$2,600. Two matters resulted in prosecution action being initiated which resulted in fines and penalties totalling \$5,660.

RESEARCH OVERVIEW

Scientific information for managing recreationally fished abalone stocks utilises the outcomes from specific research projects dealing with commercially exploited stocks. In addition, research surveys are undertaken to monitor the abundance of abalone on prime recreational reefs in the metropolitan area. Data from these surveys, carried out by VFLOs, Fisheries Officers and research staff, are also used to estimate the recreational catch of abalone on metropolitan reefs. The following status report is based on these research data.

Fishery Status Report

Main Features

Catch current season (1998):

Perth metropolitan area 23.1 tonnes whole weight (estimated)

Participation rate for year 1998:

*Whole State (including combination licences)
11,070 licences (as at
1 December 1998,
last week of the Perth
metropolitan season)*

Perth metropolitan area 18,300 fisher days

Catch projection next year (1999):

*Perth metropolitan area 20-25 tonnes
whole weight (estimated)*

Boundaries and Access

The metropolitan area of the fishery extends from Cape Bouvard to Wedge Island. The number of recreational licences is not limited. Access by recreational fishers to the metropolitan area is

controlled by allowable fishing times (7.00 a.m. to 8.30 a.m.) and a limited season (six Sundays). The 1998 season ran from 1 November to 6 December. A minimum legal size of 60 mm and a daily bag limit of 20 Roe's abalone is enforced throughout the State.

Catch

Main fishing method

Picking while wading, or free diving.

Landings

The total recreational take from the Perth metropolitan area was estimated at 23.1 tonnes, which is similar to last year's catch (Recreational Abalone Figure 1). The lower catch since 1995 reflects a major reduction in recreational fishing effort with the introduction of weekend-only fishing.

Fishing effort

18,300 fisher days or 3,050 fishers/day, which is similar to last year's effort.

Catch rate

1.19 kg/fisher/day or 17 abalone/fisher/day (estimated).

Stock Assessment

Size distributions and densities were measured from each of six reef platforms between Penguin Island and Burns Beach. Reef areas surveyed were Burns Beach, Beaumaris, Waterman, Mettams Pool, Bailey Street and Penguin Island. Measurements were taken in January and February 1999 (post-season) to use as an indication of the stock levels available for subsequent seasons. Post-season densities were highest at Burns Beach (with 109 abalone/m²), followed by Bailey Street (77 abalone/m²), Beaumaris (73 abalone/m²), Mettams Pool (72 abalone/m²) and lastly Penguin Island (57 abalone/m² averaged over two transects). At sites north of Penguin Island, these figures have remained fairly stable during the last three years, with fluctuations in total densities being influenced by the strength of post-settlement recruitment. In 1999 recruitment was relatively low resulting in lower overall densities.

Penguin Island densities are derived from two platform transects. Densities from the initial transect were unexpectedly low, independent of fishing pressure. Including a larger sample area indicates densities similar to last year (65 and 57 abalone/m² in 1998 and 1999 respectively). The percentage of legal-sized animals was also similar to last year (17.8% and 16.7% in 1998 and 1999 respectively). The stock measurement procedure and the status of Penguin Island will be reviewed in 2000.

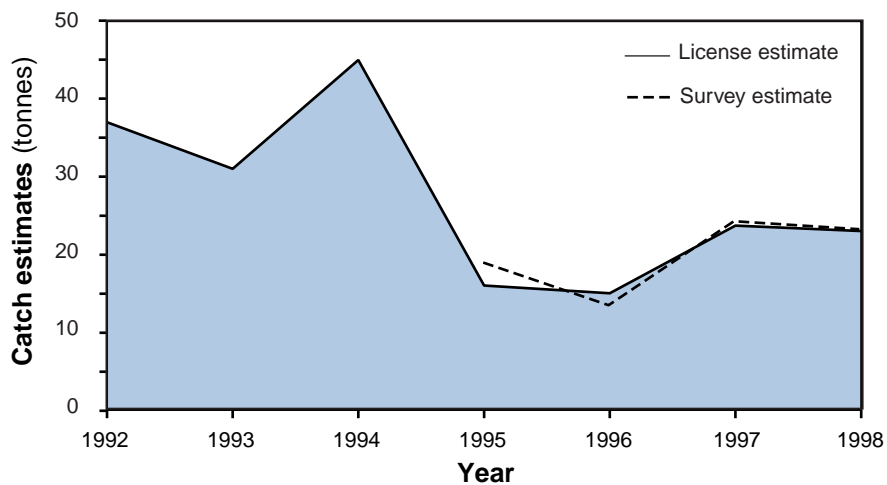
Breeding Stock Levels

Research has shown that abalone size at sexual maturity (50% of animals mature) in the Perth metropolitan area (40 mm) is below the State minimum legal size for Roe’s abalone (60 mm). This is considered to provide adequate protection for the breeding stock. In the metropolitan area, additional protection for the sub-tidal, professionally targeted breeding stock is provided by a higher minimum legal size of 70 mm for the professional sector of the fishery.

The densities measured at four of the five reef stock assessment sites surveyed were considered to be high enough to allow an adequate flow of abalone to the breeding stock. At Penguin Island, where reef platform stocks were low, the reef platform remained closed to all fishing in order to allow the breeding stock to recover.

Catch Projection for Year 1999

20–25 tonnes (estimated).



Recreational Abalone Figure 1 Alternative estimates of the recreational Roe’s abalone catch from the Perth metropolitan area since the introduction of recreational abalone fishing licences. Licence estimates are based on an assumed catch of 20 animals of approximately 70 mm shell length, or 70 g whole weight, on 25% of the available fishing days, by each individual licensed to participate in the recreational abalone fishery. Survey estimates are based on the results of research surveys conducted by Volunteer Fisheries Liaison Officers and staff of Fisheries WA.