

Mussel Aquaculture

MANAGEMENT OVERVIEW

Fisheries WA manages mussel farming in Cockburn Sound following an agreement reached between the Minister for Fisheries and the Fremantle Port Authority in 1997/98. Tenure for the existing farming sites at the Kwinana Grain Terminal is due to expire in December 1999. As a result, Fisheries WA in liaison with industry has identified an alternative site at Southern Flats within Cockburn Sound. The suitability of the site has been assessed through a comprehensive consultation process involving a wide range of stakeholders. Subject to final approvals, relocation of mussel farming activities is expected to be completed by the end of 1999.

During 1998/99, the Australian Quarantine and Inspection Service (AQIS) approved the export status of three shellfish-growing areas in Western Australia in accordance with the procedures outlined in the Western Australian Shellfish Quality Assurance Program.

Industry Status Report

Main Features

Production current season (1997/98):

659 tonnes

Number of producers for year 1997/98:

14

Estimated annual value (to producers) for year 1997/98:

\$1,750,000

Production projection next year (1998/99):

800 tonnes

Production areas

Mussel farms are found in Cockburn Sound, Warnbro Sound, Oyster Harbour, Princess Royal Harbour and King George Sound. Resource-sharing issues are a major constraint to access to lease sites in protected and productive areas. Additional lease area is being negotiated in the Southern Flats area of Cockburn Sound to give the Cockburn Sound mussel farmers more access to productive areas.

Annual Production

Production method(s)

Vertical rope and bag culture on longlines.

Production trends for year 1998/99

Increasing.

General Comments

Production levels for this species are related to dissolved nutrient levels which provide the basis for phytoplankton, the main food of mussels. Productive areas are therefore generally protected waters where nutrients from terrestrial sources raise the food levels above those in coastal waters dominated by the low-nutrient, tropical Leeuwin Current. A study reviewing the data on phytoplankton levels around the WA coastline, completed in 1997/98 by CSIRO and Curtin University in collaboration with Fisheries WA, will facilitate better planning for bivalve culture.

Marron Aquaculture

MANAGEMENT OVERVIEW

Changes made in 1995 to the regulations governing marron cultivation have resulted in more small farmers contributing to industry production. There have also been improvements in the production reporting system, which has resulted in a more realistic production report. During 1998/99, the marron regulations were further reviewed with the aim of simplifying the licensing framework.

COMPLIANCE AND COMMUNITY EDUCATION OVERVIEW

Aquaculture Development Officers and Fisheries Research Division staff continue to provide technical and development advice to the industry, as well as providing displays and information at field days, country shows and workshops. A number of new industry entrants were given in-field and administrative assistance during the year to obtain commercial licences.

Compliance service level to the industry from a Fisheries perspective was low in this period, however officers were associated with a number of investigations related to stealing of marron from farm dams. These investigations were carried out in conjunction with police.

RESEARCH OVERVIEW

Fisheries Research Division activities for marron farming during 1998/99 focused on providing expert technical advice to marron farmers on pond construction, pond management, broodstock management procedures and grow-out processes based on previous research findings. There has been a rapid expansion in the number of marron farms in the state and this is likely to continue.

In addition, basic research was completed to compare growth rates of blue and black marron and to assess the effect of replacing a commercial freshwater crayfish

feed with a more expensive trout feed. Attempts to maintain the captive breeding population of the depleted Margaret River sub-species have been hindered by poor reproductive output.

Information from the various research and extension activities has been compiled into the following status report.

Industry Status Report

Main Features

Production current season (1997/98):

42 tonnes

Number of producers for year 1997/98:

197

Estimated annual value (to producers) for year 1997/98:

\$1,027,000

Production projection next year (1998/99):

40-50 tonnes

Production areas

Licensed purpose-built farms extend from east of Albany to Hutt River north of Geraldton, though the bulk of farms are concentrated in the higher-rainfall south-west coastal area. Legal-sized marron produced in farm dams can be sold through a licensed farmer or processor. Under-size farm marron can be sold by holding an unrestricted licence, which can only be obtained for a substantial area of pond development or on the performance criterion of a higher level of production per unit area.

Annual Production

Production method(s)

Semi-intensive farming in purpose-built earthen ponds; extensive farming in gully dams.

Production

The average industry annual yield of 600 kg/ha compares with 1,500-2,300 kg/ha/year from well constructed and managed semi-intensive ponds. For farm dams, the annual yield is about 100 kg/ha.

Extension and Information Transfer

Considerable effort has been made to ensure that information on aquaculture of marron is readily available to the public. Methods of communication included extension publications, seminars, workshops and field days. During 1998/99, a program of attendance at and detailed documentation of harvests and farming procedures was initiated to help evaluate the commercial applicability of agency extension advice. This will also indicate which site and management variables have the most influence on production.

General Comments

A significant number of new purpose-built marron farms have been developed during 1998/99 and should progressively contribute to expansion in State production. Development of a new farm to full production usually requires around three years. Many of these new farms will utilise the increased processing capacity now available through the Pemberton Aquaculture Producers (operating from a facility at the South West Freshwater Research and Aquaculture Centre). This processing group is now providing a coordinated marketing arrangement for many of the new producers.

Yabby Aquaculture

MANAGEMENT OVERVIEW

Yabby production has continued on an extensive basis by trapping from existing farm dams. Management and licensing arrangements have not changed significantly over the past year. Aquaculture Development Officers stationed in Geraldton, Narrogin and Albany are assisting industry development through the provision of information on production techniques and the results of FRDC-funded research.

In March 1999, the presence of the protozoan *Thelohania* was detected in Western Australian yabbies. Following investigation of the outbreak, it was determined that the disease had become widespread in Western Australia and was likely to have been within the State for a number of years. There is no public health issue associated with the disease, and arrangements for ongoing management are currently being developed.

COMPLIANCE AND COMMUNITY EDUCATION OVERVIEW

South-west freshwater aquaculture fisheries are serviced by Fisheries Officers based in Esperance, Albany, Bunbury, Mandurah, Fremantle and Geraldton to ensure continuation of a high level of awareness of, and compliance with, management rules.

Aquaculture Development Officers stationed at Geraldton, Narrogin and Albany provide extension services to farmers producing yabbies, as well as providing displays and information at country shows and workshops.

Low levels of compliance are directed at this industry group, however compliance officers were involved in disease control and monitoring during the recent *Thelohania* outbreak.