

## **Seafood Production on Kangaroo Island**

Kangaroo Island is expected to produce around 370 tonnes worth of seafood over 2000/2001 worth in excess of \$10 million. The vast majority of this wealth is generated through the wild catch sector, with the Lobster and Abalone sectors. Despite only represents around 1/10th of the gross industry turnover, aquaculture exhibits the most room for industry and economic growth.

### **AQUACULTURE**

Aquaculture in SA is a developing industry, with a number of sea and land based industries operating. Sea based farms are concentrated in the Spencer Gulf waters and including Southern Bluefin Tuna, Yellowtail Kingfish, Salmon, and Mulloway. Land based aquaculture is dominated by Freshwater crayfish operations, with other species including Trout, Barramundi and Native Finfish.

The official number of aquaculture licence holders on Kangaroo Island is 134, with 121 of these land based licence holders. In comparison to other regional areas of South Australia Kangaroo Island has the most number of aquaculture licence holders (excluding the Eyre Peninsula). The following report has been sourced from surveys and ongoing communications with key producers on Kangaroo Island.

Majority of land-based operations are Marron and Yabbie farms, with two Abalone farms and 10 Oyster leases. These sectors produce a total volume of approximately 64 tonnes, which is valued at ~\$1 million (2000/01). Expansion in operations over the short term will see production levels rise strongly over the next few years, as is detailed below.

#### **Oysters**

The oyster industry is a relatively new industry on Kangaroo Island. The Island was home to one of the State's first sole subtidal oyster farmers in Eastern Cove, despite this industry growth and development has been entirely in intertidal culture. Pacific oysters are cultured in two locations, American River and Western Cove. There are currently 10 licence holders, with 1 operator located at American River and 9 at Western Cove. Production systems include intertidal and subtidal, with BST (bags, lines, and posts) and rack and rail (posts, rails and baskets or trays).

In a similar trend to the marron industry only 50% of licence holders are currently operational, however a further 30% have been operational at some time in the past 5 years. The decline can be attributed to a lack of time and funding, which stems from many licence holders entering the oyster industry to diversify their existing businesses.

Total production volumes for 2000/01 are likely to be around 13,500 dozen valued at around \$50,625 (using price per dozen \$4.00, Eyre Peninsula

Aquaculture Manual), with forecasted production rates expected to expand increase to 170,000 dozen in 2002 valued at approximately \$641,250.

### **Abalone**

There are two registered Abalone farms located at Smith Bay, with a possible third operation to be established in the future. Abalone production is currently ~35 tonnes, with expected increases to 200 and 300 tonnes by 2007 and 2011, respectively. Green and Black Lip abalone are both currently being culture on Kangaroo Island. Culturing technology includes the use of raceways, maze tanks, and pipe systems. The Island has a significant advantage to many other sites in South Australia, with summer water temperature peaking at 22-23°C, which is the upper temperature limit for abalone. This reduces summer mortalities and allows operators to continue feeding through the warmer months of the year. The abalone industry is economically important to the Island – it employs 20 people, and involves significant capital expenditure and commitment. Several other ideal abalone sites have been identified along the North Coast by a SARDI investigation a few years ago (March 1998).

### **Marron/ Yabbie Farms**

The two primary land-based aquaculture species are Marron and Yabbies (*Cherax tenuimanus* and *Cherax destructor*). Marron (originally from south-west Western Australia) is one of the largest freshwater crayfish in the world. Most Marron production on KI comes from semi-intensive earth dams or ponds. Yabbies are smaller freshwater crayfish and were introduced to KI earlier this century possibly in the 1920's (M. Geddes, Uni of Adelaide personal communication 2001). There are 121 licenced land based aquaculture farmers, however only 29% of them are currently operational. A further 9% have been operational, but have stopped farming due to either their operation not being viable or change of business direction. And approximately 6% have never been operational.

There is currently approximately 80 ha that is dedicated to marron farming on the Island (10 ha increase since 2001), which house over 600 ponds. The relatively small area presently being used for farming can be directed accounted for by 80% of farmers culturing marron to diversify their income, with only 4 farms operating solely as an aquaculture business. Through the early 1990s production was approximately 2 tonnes per annum however there has been an upward trend in production of marron between 1989 to 99 when production was estimated at around 7 tonnes. In 2001 production was reported at ~15.5 tonnes (~200 kg/ha), with industry expecting an increase to ~20.5 tonnes, and 36 tonnes, by 2002 and 2007, respectively.

Industry feedback lists time and insufficient funds as the main reasons behind lower than expected yields (based on per ha of water farmed). Other issues include rising energy costs, short growout season (water temperatures), and poaching.

## **FISHING (wild catch)**

The Lobster, Abalone and Marine Scale Sectors dominate the Kangaroo Island Seafood Industry. The combined catch of these sectors over 2000/2001 is estimated at about 346 tonnes, which is valued in excess of 10 million.

### **Rock Lobster**

Twenty boats currently operate out of Kangaroo Island. The total volume of the KI catch is expected to be around 250 tonnes. The average value (wharf prices) of the lobster at \$32/kg delivers a net Farm Gate value of between \$8-9 million. Although the catch volumes have declined over the present season, average wharf prices have increased (around \$1.5/kg).

Kangaroo Island Rock Lobster industry is currently evaluating different measures to value-add to lobster (via storage, packaging and additional processing) in an attempt to increase quality and revenue. The industry generates 64 full-time jobs on the Island from November-April (58 direct and 6 processing). Through their significant level of investment and job creation the Rock Lobster industry is a vital industry on Kangaroo Island.

### **Line/Scale Fishing**

There are 21 professional marine scale fishers working on Kangaroo Island, with a total production of approximately 62 tonnes (discussions with industry personnel). Although fish prices will vary significantly, at an average level of \$7/kg, the estimated wharf value is \$555,000.

### **Marine Wild Catch Abalone**

Six abalone operations are based around Kangaroo Island, which collects approximately 36 tonne of Abalone per annum. Although prices have fluctuated considerable over the season, with at an average price of \$40 per kg (shell weight), the industry turnover can be estimated at \$1.4million in 2000/01.

Note;

The Wild Catch information was compiled from Rob Esvelt (July 2001) information