



AUSTRALIAN AGRIBUSINESS GROUP
MARKET OVERVIEW –
THE AUSTRALIAN ABALONE INDUSTRY

Independent Assessment – November 2006

Industry Snapshot

- Abalone is Australia's fourth most valuable fisheries export (Section 1).
- The main two abalone species harvested in Australia are the blacklip abalone and the greenlip abalone (Section 2).
- Major abalone producing countries include Australia, China, Taiwan, Japan, South Africa, Mexico, New Zealand, the USA and Chile (Section 3).
- Major abalone consuming countries have substantial Asian populations (Section 3).
- Australia's major abalone producing states are Tasmania, Victoria and South Australia. New South Wales and Western Australia also produce abalone. (Section 4).
- Australia is a net exporter of abalone, with nearly of legitimately harvested abalone sold into Asian markets (Section 4).
- The value of abalone exports is expected to increase slightly to 2009-10 (Section 6).

1 Introduction

Belonging to the family of molluscs abalone are large marine snails or gastropods with a hard ear-shaped shell and a muscular foot. They inhabit Australia's rock shorelines, from shallow water to depths of forty to fifty metres, from tropical to cold waters. As light evading animals abalone attach themselves to shady parts of rocks with their suction foot, which has a suction force of more than 4,000 times that of their body weight ¹.

Abalones have succulent meaty bodies placing them in high demand on dinner tables around the globe ¹. Abalone is considered a traditional food in Asian culinary cuisine and therefore the major markets have a common thread of an Asian population base ².

Australian abalone fisheries are managed by quota systems, and have been described as one of the last sustainable wild abalone fisheries in the world. The development of abalone aquaculture in Australia has trended towards the development of land based systems to allow total control over growing systems compared to conventional sea based systems that are more potentially subject to climatic extremes.

There is also a large amount of illegal poaching of abalone in Australia ⁴. Abalone is Australia's fourth most valuable fisheries export after rock lobster, tuna and pearls. The major abalone producing states are Tasmania, Victoria and South Australia. Western Australia and New South Wales also harvest wild abalone.

2 Producing Regions In Australia

Of the approximately fifty species of abalone living in the world today, at least twenty three of these occur in Australia. In southern Australia only the two largest species are harvested; the greenlip (*Haliotis laevis*) and the blacklip (*Haliotis ruber*) ¹.

Blacklip are distributed around Tasmania and across southern Australia on suitable rocky bottoms. Blacklip abalone also occurs on rocky reefs in both exposed and sheltered waters. Their distribution is variable but less patchy than greenlip abalone ⁵ (Figure 1).

Greenlip abalone is very patchy in their distribution and occurs across southern Australia. Greenlip abalone in Tasmania tend to frequent less complex and patchy reefs and are most abundant along the north coast and around the Bass Strait islands ⁵ (Figure 1).

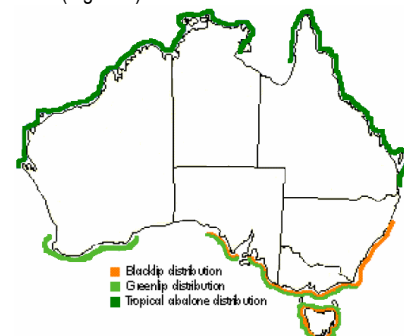


Figure 1 - Abalone distribution in Australia ¹

The aquaculture of blacklip and greenlip abalone is located in Tasmania, South Australia and Victoria ⁷. At present there is no wild harvesting or aquaculture of tropical abalone in Australia and very little worldwide ⁸.

Although the majority of abalone production in Australia is through the harvesting of wild abalone, aquaculture production is growing. Aquaculture production has risen from 2% of domestic production during 2002-03 to 5% of domestic production in 2004-05 ⁷. The world market for aquaculture abalone is primarily for live individuals in the size range 50-100 mm ⁴.

3 International Supply and Demand

Over the past two decades wild caught production has fallen in the main producing countries, including Australia and the demand for abalone has been growing rapidly, especially in China. Hence, the creation of the relatively new industry of abalone farming. To date though, the increase in world cultured production has done no more than offset this fall in wild caught production ⁴.

Due to the increase in cultured production and the continued increases in illegal wild catch, the overall world supply of abalone is approaching the record highs seen in the mid 1970s. During 2002 it was estimated that 45% of the global abalone market consisted of abalone harvested from the wild, whilst 38% originated from aquaculture and 16% from illegal catching ³.

The major abalone producing countries of both farmed and wild harvest abalone, not including the illegal catch, are Australia, China, Taiwan and Japan (Figure 2).

Tasmania is the largest producing state of abalone (both wild harvest and aquaculture), representing 46% of total domestic production. Victoria and South Australia are the other major producing states with 27% and 18% of production respectively (Figure 3) ⁷.

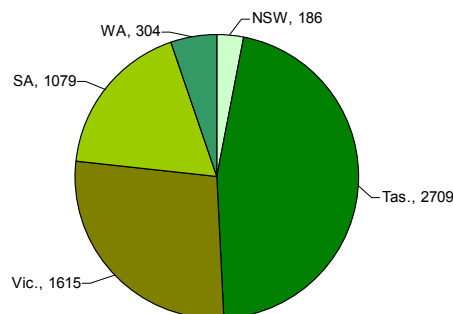


Figure 3 - State by state production of abalone 2004-05 ⁷

Nearly all of Australia's legally caught abalone (90-95%) is sold to Asian markets, with only a small amount sold on the domestic market ¹⁰. Live product is usually sold direct to a distributor in Hong Kong, Singapore or Japan. Canned or fresh-frozen product is sold to local abalone processors who then sell to wholesalers in Asia ⁴.

Total domestic production of abalone has increased over the previous few years. This has been due to increased sophistication of wild harvesting techniques and the increasing amount of abalone aquaculture (Figure 4).

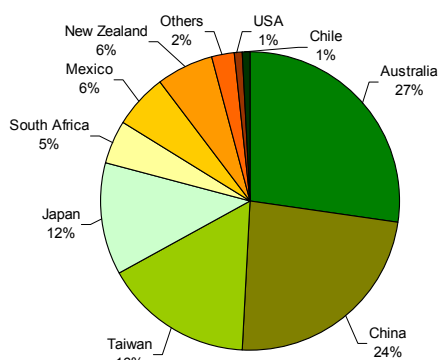


Figure 2 - Major abalone producing countries (not including illegal catch) ³

The two countries where illegal harvesting is most prevalent are Australia and South Africa, with an estimated 1,000 tonnes and 850 tonnes respectively caught illegally each year. Japan, Mexico, New Zealand and the USA also have illegal harvesting problems ⁹.

The principal countries producing cultured abalone are China, Taiwan, South Africa and Japan. Several other countries including Australia, the USA, Chile, and Mexico also have abalone aquaculture industries ³. China's abalone aquaculture production is reaching its limits due to the limited suitable sites for development ¹.

The major consumption countries tend to have substantial Asian population bases, particularly significant Chinese populations. Hence, Hong Kong, China, Japan, Taiwan, Singapore and the US are major abalone consuming countries.

4 Australian Supply and Demand

Abalone is a quota managed fishery; with a restricted number of operating licences in the wild harvest sector. The Australian abalone quota (wild catch) harvested in 2004-05 was estimated to be 5,592 tonnes ⁷.

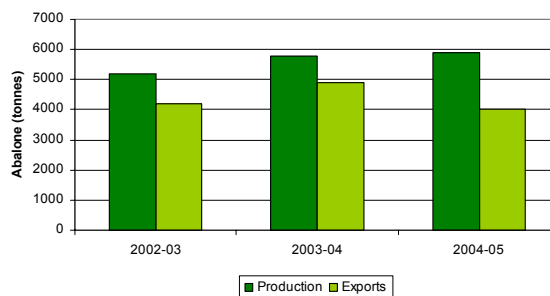


Figure 4 - Australian production and exports of abalone 2002-03 to 2004-05 ⁷.

Australia is a net exporter of abalone, with the value of exports rising by 6% between 2000-01 and 2004-05 ¹². This increase in value has been driven by increasing prices since the SARS epidemic, the strengthening of the principle abalone markets and the development of the 'live market' in recent years, which produces a premium price compared to canned product (Figure 4 & Figure 5) ⁷.

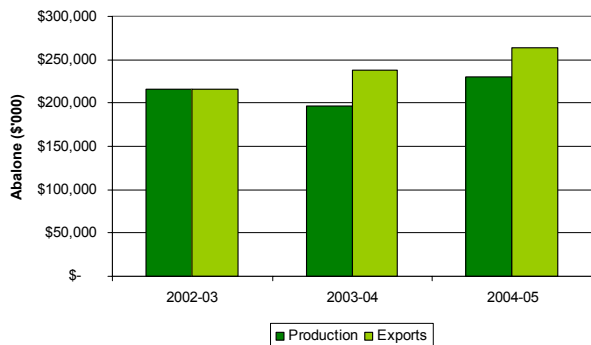


Figure 5 - The value of Australian production and exports of abalone 2002-03 to 2004-05 ⁷

Australian abalone is exported to South East Asia – Hong Kong, Japan, China, Taiwan and Singapore – as well as to a lesser extent North America, UK and Europe ². The importance of these export markets has changed over the last decade. While the importance of Japan has decreased over this period, the importance of Taiwan and Hong Kong has increasing significantly. The demand in the Chinese live abalone market has seen an increasing portion of the catch going to China as the end destination point ⁵ (Figure 6).

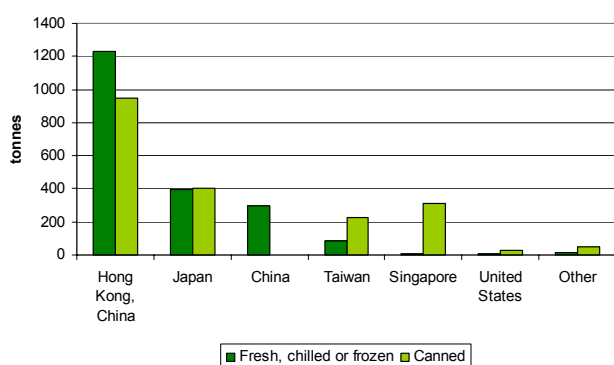


Figure 6 - Australian abalone exports by destination ⁷

Australia is the major supplier of wild caught abalone to international markets, supplying almost 50% of the world's supply competing with product from South Africa, New Zealand and Mexico. In addition to wild caught abalone there is an increasing quantity of product entering the market from aquaculture ventures, both land and sea-based in not only Australia but China, South Africa and South America as well ².

During 2006 there was an outbreak in Victoria of a Herpes like virus, ganglioneuritis. The virus has been found in both wild abalone stocks and abalone farms in Victoria. This is the first time that the virus has been found in Australian waters. It has had a significant impact on the Victorian abalone industry, particularly within abalone aquaculture. Intensive land and sea based farming situations have seen up to 50% mortality rates and consequently have had to destroy all abalone to reduce the chance of reinfection. Fisheries Victoria and the Department of Primary Industries have been working closely with the farms involved to research the disease and find robust screening and control measures ¹⁵.

5 Possible Price Scenarios

The future of world abalone prices will be affected by factors on both the supply and demand sides of the market, however prices are only forecast to move within a limited range.

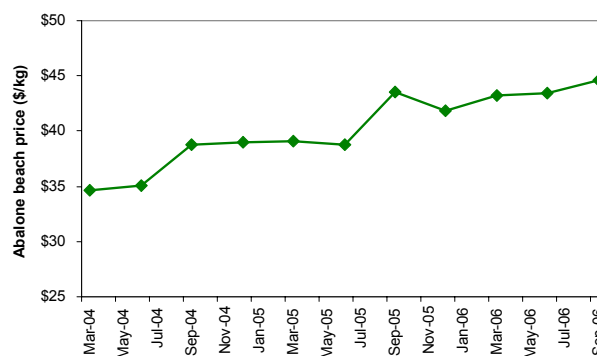


Figure 7 – Australian abalone beach prices March 2004 – September 2006 ⁵

Abalone beach prices are the average price paid by the processors to abalone quota holders. This is the price used for calculating royalty payable to the government. Australian abalone beach prices have been rising steadily since March 2004, with the latest beach price \$44.65/kg ⁵.

6 Future Outlook and Conclusions

Abalone is currently harvested mainly from managed quota fisheries in Australia. Aquaculture production of abalone is expected to increase significantly over the next few years as production from farms in Victoria, South Australia, Tasmania and Western Australia comes on stream. However, it is expected that wild fisheries will continue to provide the bulk of production in the medium term ¹⁴.

The development of the aquaculture of tropical abalone is currently being held back due to difficulties with breeding. When tropical abalone can be successfully farmed, the aquaculture of tropical abalone will become a high value seafood export product for northern Australia ⁸.

A major challenge for the industry is its ability to continue to foster the resource and manage the fishery in a long-term sustainable manner. This involves managing illegal abalone harvesting, as poaching is a major threat to the industry.

Abalone aquaculture has tended to produce a smaller product than wild abalone and requires separate marketing. The industry is demonstrating an ability to market the smaller farmed product through the development of niche markets ¹¹, such as, the 'cocktail abalone' ⁵.

The value of abalone exports is expected to increase to 2009-10 due to forecast increased production from aquaculture operations and an expected slight depreciation of the Australian dollar against the US dollar ¹⁴.

Further development of the domestic abalone market development is centred on finding Chinese specialist distributors who are capable of penetrating the market ¹¹.

The post harvest and marketing sector also faces the challenge of maintaining prices for product and maintaining position and strength in the international market. The effect of SARS reduced unit export unit returns and reinforced the importance of marketing issues to this industry.



7 References

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