Ross Lobegeiger Report to Farmers Aquaculture production summary for Queensland 2013-14

Dedication

In 2011 there was widespread support for the renaming of this report to the *Ross Lobegeiger Report to farmers*. This change was to help acknowledge and honour the pivotal role that Ross played in developing and supporting the Queensland aquaculture industry. As Supervising Extension Officer, Ross provided the aquaculture industry with almost 20 years of dedicated service. Ross was responsible, as co-author, for producing the very first annual edition of this report in 1991. He then went on to produce a total of 19 issues. As such, Ross Lobegeiger's name has become intrinsically linked with the report and it seems only fitting for the publication to continue to carry his name.

Tragically, Ross Lobegeiger passed away on Saturday 9 October 2010. Ross was such a well-known and enormously liked individual that his loss has been felt deeply by a great many people from all facets of Ross' extensive social and professional network, including the aquaculture industry.



This publication has been compiled by Michael Heidenreich of Fisheries Queensland, Department of Agriculture, Fisheries and Forestry.

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Contents

| 1.0 Overall value and production | 2 |
|---|---|
| 2.0 Aquaculture sector production and value | 4 |
| 3.0 Regional Summary | 6 |

i

1.0 Overall value and production

The total value of the Queensland aquaculture industry increased 7.8%, with the value of production increasing from \$87.6 million in 2012–13 to \$94.5million in 2013–14. This increase was largely due to a 27% increase achieved by the barramundi (*Lates calcarifer*) sector, with the value barramundi sector rising from \$19.7 million to \$25.1 million.

In 2013–14, the total value of fisheries production in Queensland increased by 2.5% to \$276.5 million. While the total value of aquaculture production increased in 2013–14, the wild harvest fishery in Queensland had remained at \$182 million in 2013–14 (Table 1). Therefore, the relative importance of aquaculture to Queensland's total fisheries production has only increased marginally, from 32.9% in 2012–13 to 34.2% in 2013-14. Similar trends in Queensland's fisheries and aquaculture production can be seen in the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) figures (Note: difference in ABARE figures to Queensland figures due to ABARE exclusion of hatchery production that is sold to supply aquaculture grow out operations).

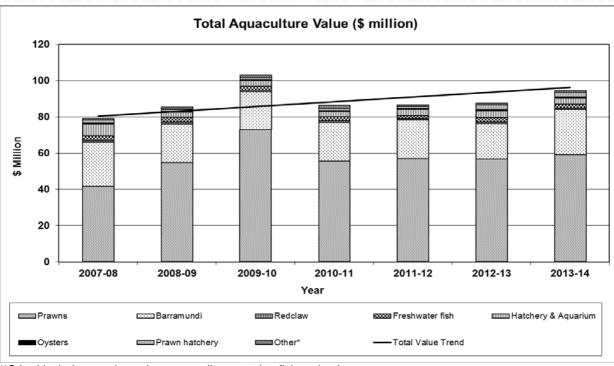
Table 1: Queensland fisheries production – gross value (2008-09 to 2012-13).

| | | Queensland figures ⁽¹⁾ | | | | | | |
|---------|-----------------------|-----------------------------------|-----------------|--|--|--|--|--|
| Year | Total fisheries (\$m) | Aquaculture (\$m) | Aquaculture (%) | | | | | |
| 2008–09 | 308.5 | 85.5 | 27.7 | | | | | |
| 2009–10 | 325.7 | 103.0 | 31.6 | | | | | |
| 2010–11 | 275.9 | 86.3 | 31.3 | | | | | |
| 2011-12 | 276.8 | 86.6 | 31.5 | | | | | |
| 2012-13 | 269.5 | 87.6 | 32.5 | | | | | |
| 2013-14 | 276.5 | 94.5 | 34.2 | | | | | |
| | | ABARES figures ⁽¹⁾ | | | | | | |
| Year | Total fisheries (\$m) | Aquaculture (\$m) | Aquaculture (%) | | | | | |
| 2008–09 | 306.6 | 83.6 | 27.3 | | | | | |
| 2009–10 | 323.3 | 100.6 | 31.1 | | | | | |
| 2010–11 | 273.5 | 83.9 | 30.6 | | | | | |
| 2011-12 | 275.7 | 83.1 | 31.3 | | | | | |
| 2012-13 | 265 | 82.9 | 31.2 | | | | | |
| 2013-14 | 272.5 | 90.6 | 33.2 | | | | | |

⁽¹⁾ The Queensland figures include hatchery production for farm stocking and impoundment stocking. Farm stocking details and product supplied to aquaculture growout operations are excluded from the figures used by ABARES.

Sources: ABARES and Fisheries Queensland, part of the Department of Agriculture Fisheries and Forestry

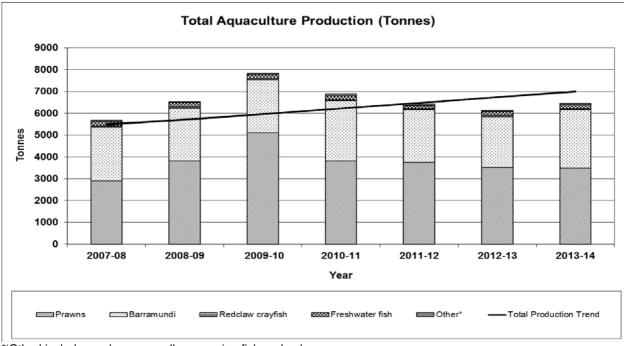
The trend of aquaculture industry growth in Queensland over the past seven (7) years can be seen in Figure 1. The most valuable sectors of the Queensland Aquaculture Industry continue to be prawn and barramundi respectively. Actual dollar value of each sector is given in Table 2. Acknowledging that there will always be some degree of fluctuation between years (due to climatic issues etc.), there is still a clear trend that the overall industry value has been increasing at a rate of 4.5% per annum since1999 -2000 (Figure 1). Gains in value in the 2013-14 financial year has been in the barramundi and prawn sectors. The edible oyster, prawn hatchery sectors are holding steady, and the value declined for redclaw, hatchery and aquarium, freshwater fish and other sectors.



^{*&#}x27;Other' includes pearls, crabs, sea scallops, marine fish and eels.

Figure 1: Trend in value (\$million) of Queensland aquaculture production.

In 2013-14, there was an increase in total production compared to the previous year (2012-13). This positive sign indicates that the industry is starting to recovery from the environmental impacts it had sustained in 2010. While the overall production tonnage has decreased since 2009-10, the long term fifteen (15) year average has the industry still increasing at a rate 5.5% per annum (Figure 2). Actual production figures (tonnes) for each sector are given in Table 3.



^{*&#}x27;Other' includes crabs, sea scallops, marine fish and eels.

Figure 2: Trend in Queensland aquaculture total production (tonnes).

2.0 Aquaculture sector production and value

Queensland's marine prawn industry produces three species of prawns—black tiger (*Penaeus monodon*), banana (*P. merguiensis*) and kuruma (*P. japonicus*). Production in the prawn sector decreased by 0.9% (from 3518.7 tonnes in 2012–13 to 3487.09 in 2013-14), while the value increased by 4.0% (from \$59.3 million in 2012–13 to \$61.7 million in 2013-14). This increase in value was helped by the average price increasing from \$16.08/kg in 2012–13 to \$16.93/kg in 2013–14. Hatchery sales of prawns for the year were \$2.7 million, which was the same as the previous year. The number of producing farms increased from 19 farms in 2012-13 to 22 farms 2013-14.

Barramundi production increased by 15.6%, with 2319 tonnes sold in 2012-13 and 2682 tonnes sold in 2013-14. The value of the barramundi sector increased by 27.4%, from \$19.7 million in 2012–13 to \$25.1 million in 2012–13. Over this period the average price (whole fish basis) increased by 10.3%, from \$8.48/kg to \$9.36/kg. The majority of barramundi production is in pond-based systems. The number of producing farms increased from 20 to 23.

| Table 2. | Queensland aquaculture | nroduction - gross | value by sector (\$ million). |
|-----------|------------------------|-----------------------|-------------------------------|
| i abie 2. | Queensianu addacuiture | : 01000000001 — 01088 | value by Sector (5 Hillion). |

| | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011-12 | 2012-13 | 2013-14 |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Prawns (includes prawn hatchery) | \$43.0 | \$55.8 | \$74.3 | \$56.9 | \$57.9 | \$59.3 | \$61.7 |
| Barramundi | \$24.3 | \$21.4 | \$20.7 | \$21.2 | \$21.3 | \$19.7 | \$25.1 |
| Redclaw crayfish | \$1.1 | \$1.1 | \$1.0 | \$0.9 | \$0.9 | \$0.8 | \$0.7 |
| Freshwater fish | \$2.3 | \$2.6 | \$2.2 | \$2.2 | \$1.7 | \$2.5 | \$2.2 |
| Hatchery and aquarium | \$6.6 | \$2.7 | \$3.2 | \$2.9 | \$3.4 | \$3.8 | \$3.4 |
| Edible oysters | \$0.6 | \$0.5 | \$0.5 | \$0.5 | \$0.5 | \$0.5 | \$0.5 |
| Other (1) | \$2.4 | \$1.5 | \$1.2 | \$1.7 | \$0.9 | \$1.1 | \$0.9 |
| Total | \$80.3 | \$85.5 | \$103.0 | \$86.3 | \$86.6 | \$87.6 | \$94.5 |

^{*} Not available for publication (included in 'Other')

The freshwater fish growout sector currently produces silver perch (*Bidyanus bidyanus*), jade perch (*Scortum barcoo*), Murray cod (*Maccullochella peelii peelii*) and Australian bass (*Macquaria novemaculeata*). The total production of freshwater fish (species other than barramundi) was 180.4 tonnes, which has decreased from the 196.8 tonnes produced in 2012–13. The value of the sector also decreased to \$2.2 million, down from \$2.5 million 2012-13.

Silver perch production has increased this reporting season to 97.2 tonnes, up from 94.6 tonnes for 2012-13. The value of the silver perch sector remained the same as 2012-13 at \$1.1 million. Jade perch production decreased from 59.4 tonnes in 2012–13 to 50.6 tonnes for 2013-14. The value of jade perch sales totalled at \$567, 000, with an average price of \$11.21/kg. While Murray cod remains a significant contributor to the freshwater fish sector, in 2013–14 only a few growers produced Murray cod and detailed production data cannot be published due to client confidentiality.

Production of the redclaw crayfish (*Cherax quadricarinatus*) sector decreased by 13.7% (from 40.8 tonnes in 2012-13 to 35.2 tonnes in 2013-14). Value of the redclaw sector decreased to \$676 000 (down from \$760 000 in 2013–14). The number of producing farms increased from 23 to 27 for 2013–14. Average prices increased from \$18.62/kg in 2012–13 to \$19.182/kg.

⁽¹⁾ Includes marine fish, eels, crabs and pearls in some years.

Table 3: Queensland aquaculture production (tonnes) by sector.

| | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011-12 | 2012-13 | 2013-14 |
|------------------|---------|---------|---------|---------|---------|---------|---------|
| Marine prawns | 2888 | 3821 | 5115 | 3822 | 3751 | 3518.7 | 3487.1 |
| Barramundi | 2464 | 2400 | 2410 | 2746 | 2416 | 2319.1 | 2681.7 |
| Redclaw crayfish | 65 | 68 | 57 | 52 | 41 | 40.8 | 35.2 |
| Freshwater fish | 198 | 192 | 177 | 177 | 135 | 196.8 | 180.4 |
| Other * | 58 | 39 | 63 | 101 | 73 | 65 | 62 |
| Total | 5673 | 6520 | 7822 | 6898 | 6416 | 6140 | 6446.4 |

^{* &#}x27;Other' includes marine fish, eels, sea scallops and crabs.

The hatchery sector, producing native fish fingerlings and ornamental aquarium species, sold 12.9 million fish during 2013–14; this was 18.4% less than the 15.8 million fish sold during 2012–13. The value of the hatchery sector declined, from \$3.8 million for 2012-13 to \$3.4 million for 2013-14.

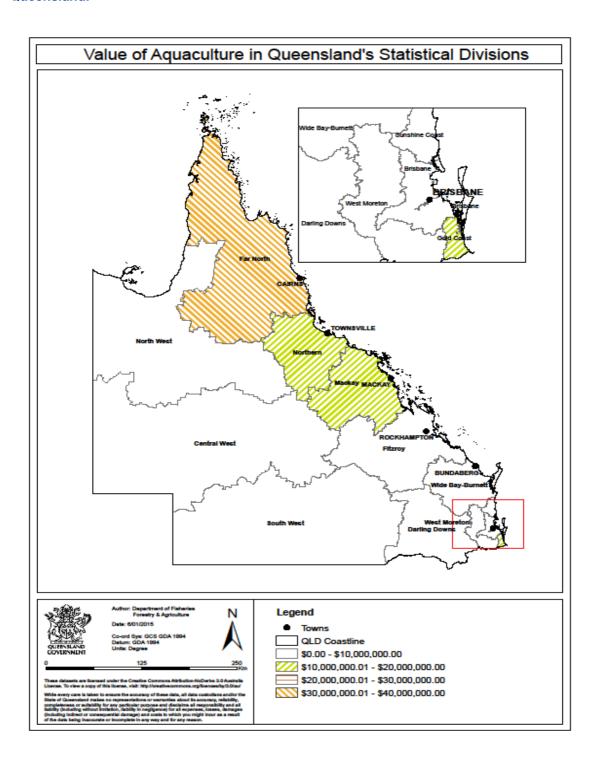
Total edible oyster production has decrease by 9%, from 113,005 dozen in 2012-13 to 102,676 dozen in 2013-14. The value of the edible oyster industry decreased from \$531,359 in 2012-13 to \$522,101. Average price per dozen of oysters has decreased from \$4.70 to \$4.52.

The combined Queensland aquaculture industry employed 450.9 full-time equivalents (FTEs)—calculated by combining numbers of permanent and casual labour. This equates to a decrease in staff of 15.6 FTEs in 2012–13. The prawn farming sector was the largest employer at 242.9 FTE workers or 53.9% of the industry's total labour force.

3.0 Regional Summary

Information has been analysed to provide a regional overview of the aquaculture industry in Queensland. The regions are based on the statistical divisions adopted by the Australian Bureau of Statistics (ABS). Figure three depicts the statistical divisions (Far Northern, Northern, Gold Coast and Mackay) which account for the majority of the industry value and production.

Figure 3. Value of Aquaculture for each Australian Bureau of Statistics statistical division within Queensland.



Information presented in table 4 was compiled from the annual production returns received from registered aquaculture authority holders. Table 4 demonstrate how some of the major production parameters such as production, ponded area and labour are divided between the respective ABS Queensland statistical divisions

Table 4: Production, ponded area and employment-Queensland Aquaculture industry (2013-14).

| Statistical Division | Production (tonnes) | Ponded Area (Hectares) | Employment (FTE) |
|----------------------|---------------------|------------------------|------------------|
| Brisbane | 5.2 | 0.9 | 38.9 |
| Darling Downs | 47.6 | 18.7 | 8 |
| Far North | 2803.6 | 409.1 | 151.1 |
| Fitzroy | 70.3 | 30.2 | 17.1 |
| Gold Coast | 978.2 | 123.4 | 55.7 |
| Mackay | 1267.8 | 62.2 | 68.9 |
| North West | 0.5 | 0.8 | 2.5 |
| Northern | 1092.3 | 96.8 | 60.5 |
| South West | 0 | 0 | 0 |
| Sunshine Coast | 0 | 16 | 3.9 |
| West Moreton | 17.1 | 9 | 8.7 |
| Wide Bay-Burnett | 163.8 | 98.6 | 35.6 |
| Total | 6446.4 | 865.5 | 450.9 |