

BRISBANE TRC

The Brisbane TRC consists of the main urban centre of Brisbane, including Caboolture in the north and the Russell-Macleay Island Urban Centres in the South. The Brisbane TRC also includes North Stradbroke Island including the localities of Point Lookout and Amity Point. Essentially, the Brisbane TRC consists of all towns and communities adjacent to Moreton Bay and while it may have been more reasonable to include distinct TRCs within the Brisbane TRC, the distribution sample locations did not permit this.

BUSINESS PROFILES

Location and Use of Ports

Table 11.1 shows the number of license holders within the Brisbane TRC and the number of survey respondents who reported having homeports within the TRC. On the basis of the sample count, it is estimated that there are 49 commercial harvesters within this TRC and a 95% confidence level that the correct population count of commercial harvesters within the TRC is between 41 and 61. Figure 11.1 shows the geographic location of this TRC.

Table 11.1 Location of Homeports

Town	Adj. Database Count	Sample Count	Estimated Count	Percent within TRC
Brisbane UC	34	28	41	84.3
Amity Point	0	1	2	3.9
Burpengary	1	1	2	3.9
Point Lookout	0	1	2	3.9
Deception Bay	2	1	2	3.9
Caboolture	1	0	0	0.0
Stradbroke Island	1	0	0	0.0
Bongaree	1	0	0	0.0
Dunwich	1	0	0	0.0
Total TRC	41	32	49	100.0
95% CI for Estimated TRC Count				41-61
Percent of Total Active License Holders in QLD				33.1%

Note: Brisbane UC includes Beenleigh, Brisbane, Bulimba, Carina, Cleveland, Eagleby, Redcliffe, Sandgate, Scarborough, Wynnum, Moreton Bay. Bongaree UC includes Bribie Island. Deception Bay UC includes Deception Bay. Dunwich Locality includes Dunwich.

Adjusted database count is based on the postal address as recorded in the licensing information, which may not be the homeport of the harvesting businesses. The adjusted database count reduces the count for latent license holders (22.5%)
The estimated count adjusts the sample count by the sampling fraction of 1.525.

Harvesters from other TRCs did not use Brisbane as a port whilst travelling to or from their harvest locations.

Harvesting Activity and Type

Table 11.2 shows the type of harvesting activity undertaken within the last year by harvesting businesses within the Brisbane TRC. The predominant harvesting activity was the collection of bloodworms, tubeworms, and/or yabbies (71%). Harvesters within this TRC also collected aquarium products (19.4%) and sandworms (9.6%). No trochus or seacucumber were collected.

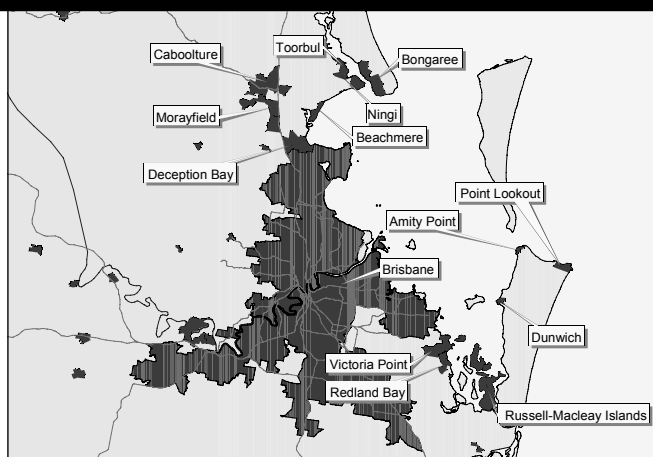


Figure 11.1 Location of the Brisbane TRC

Table 11.2 Type of Harvesting Activity

Harvest Type	Sample Count	Percent TRC
Bloodworms, tubeworms, yabbies	22	71.0
Aquarium fish, coral, shells, grit	6	19.4
Sandworms	3	9.6
Trochus and/or seacucumber	0	0.0
Total Sample	31	100.0

Note: This is a multiple response table where all rows are independent.

Table 11.3 shows the peak months for harvesting to be December to January, which is shorter than the Queensland peak season of October to January.

Table 11.3 Peak Harvesting Months During Past 12 Months

Months	Sample Count	Percent within TRC	Percent of QLD Fishery
January	11	34.4	37.6
February	3	9.4	18.8
March	3	9.4	15.3
April	5	15.6	21.2
May	0	0.0	12.9
June	4	12.5	18.8
July	6	18.8	28.2
August	5	15.6	31.8
September	7	21.9	28.2
October	3	9.4	30.6
November	5	15.6	34.1
December	16	50.0	48.2

Table 11.4 provides a more detailed description of the seasonal variation in harvesting activities by product. Aquarium harvesting was most common between June and August, which was earlier than the average Queensland season. Sandworm harvesting occurred mostly in July, September and December, although the average Queensland season was mostly December and January. Bloodworm harvesting for the Brisbane TRC occurred especially between September to April, which was a longer season than the average Queensland season of December and January.

Table 11.4 Seasonal Variations in Harvesting Activity

Months	Sample Count	Percent TRC	Percent of QLD
Aquarium fish, coral, grit and shells			
January	0	0	21.2
February	0	0	18.2
March	0	0	21.2
April	0	0	15.2
May	0	0	18.2
June	2	33.3	27.3
July	2	33.3	30.3
August	2	33.3	42.4
September	1	16.7	27.3
October	1	16.7	39.4
November	1	16.7	42.4
December	0	0	24.2
Sandworms			
January	1	33.3	54.5
February	0	0	9.1
March	0	0	9.1
April	1	33.3	36.4
May	0	0	18.2
June	1	33.3	27.3
July	2	66.6	36.4
August	1	33.3	27.3
September	2	66.6	27.3
October	0	0	27.3
November	0	0	18.2
December	2	66.6	63.6
Bloodworms, tubeworms, yabbies			
January	9	45	50.0
February	3	15	23.3
March	3	15	16.7
April	4	20	23.3
May	0	0	6.7
June	1	5	10.0
July	2	10	16.7
August	2	10	16.7
September	4	20	23.3
October	2	10	20.0
November	4	20	26.7
December	13	65	66.7

Location of Resource Use

Figure 11.2 shows the location of resource use by commercial harvesting operations in the Brisbane TRC. The location of resource use was mostly Moreton Bay, especially adjacent to Brisbane.

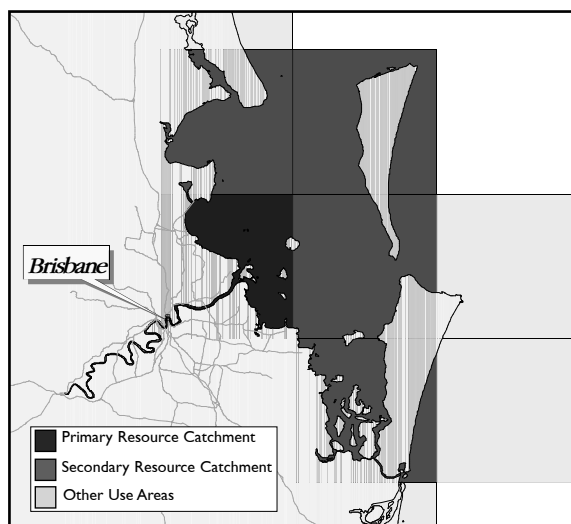


Figure 11.2 Brisbane TRC: Location of Resource Use

Harvesting Industry Employment

Table 11.5 identifies the number of harvesters within the Brisbane TRC. The majority of businesses had one full-time harvester (48.4%). Most businesses did not have part-time or casual employees. Nearly 10% of businesses had 4-5 full-time employees, however. The average number of full-time equivalent harvesters per business was 1.0. In total it is estimated that there were 53 harvesters in the Brisbane TRC.

Business Ownership and Size

Table 11.6 shows that businesses within the Brisbane TRC have been owned for an average of 11.5 years, with 56% of businesses being owned by the current owner for less than 10 years.

Table 11.7 shows the number of years the business has been operating regardless of ownership. The average number of years was 11.5 years, which was similar to that for all Queensland harvesting businesses (12.4 years).

Table 11.5 Number of Employees

Number of Employees	Full-Time Count	Full-Time Percent	Part-Time Count	Part-Time Percent	Casual Count	Casual Percent
0	11	35.5	24	77.4	23	74.2
1	15	48.4	4	12.9	6	19.4
2-3	2	6.4	3	9.4	2	6.4
4-5	3	9.7	0	0.0	0	0.0
6-10	0	0.0	0	0.0	0	0.0
10+						
Total Businesses	31	100.0	31	100.0	31	100.0
Total Employees	32		10		11	
Mean Number of Harvesters per Business		1.0				
Estimated Number Employed within the TRC		53				

Note: Part-time and casual employment is recorded as 0.5 when contributing to total employment.
 Total number of employees includes the owner-operator and is the number of full-time equivalent employees.
 Estimates of total employment based on an estimated 218 fishing businesses (Table 25.1)

Table 11.6 Number of Years of Current Ownership

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	7	21.9	21.9
6-10	11	34.1	56.3
11-15	7	21.7	78.1
16-20	3	9.3	87.5
21-25	1	3.1	90.6
26-30	2	6.2	96.9
31+	1	3.1	100.0
Total	32	100.0	
Mean Number of Years owned or operated			11.5
Difference of TRC Mean to QLD Population Mean (12.0)			-0.5

Note: Standard errors for number of years ownership (sample = 1.4; QLD population = 0.9).

Table 11.7 Number of Years Business has been Operating

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	7	21.9	21.9
6-10	11	34.1	56.3
11-15	7	21.7	78.1
16-20	3	9.3	87.5
21-25	1	3.1	90.6
26-30	2	6.2	96.9
31+	1	3.1	100.0
Total	32	100.0	100.0
Mean Number of Years owned or operated			11.5
Difference of Mean to Population Mean (12.4)			-0.9

Note: Standard errors for number of years operated (sample = 1.4; QLD population = 1.0)

Table 11.8 shows that the majority of harvesting businesses within this TRC operated with one boat (53.1%). Around 19% of businesses did not use a boat at all for their activities. The mean number of boats in the Brisbane TRC (1.2 boats) was less than the Queensland population mean (1.7 boats).

Table 11.8 Number of Boats Operated by Harvesting Business

Number of Boats	Sample Count	Percent within TRC
0	6	18.8
1	17	53.1
2	5	15.6
3	3	9.4
4+	1	3.1
Total Number of Businesses	32	100.0
Mean Number of Boats Operated		1.2
Difference of Mean to QLD Population Mean (1.7)		-0.5

Note: Standard errors for number of boats operated (sample = 0.2; QLD population = 0.1)

Table 11.9 shows the length of boats used by harvesting businesses in the Brisbane TRC. The majority of boats (79.5%) were small and varied in length between 2 and 6 metres. The mean length of boats and the mean of the largest boat owned (5.4m and 5.5m respectively) were substantially less than the mean Queensland lengths (7.4m and 7.6m) respectively.

Table 11.9 Length of Boats Operated by Harvesting Businesses

Length of Boat (metres)	Sample Count	Percent TRC
2-6	31	79.5
7-10	6	4.8
11-14	2	1.6
15-18	0	0.0
18-24	0	0.0
24+	0	0.0
Total Number of Boats	39	100.0
Mean Length of Boats Operated (metres)		5.4
Difference of Mean to QLD Population Mean (7.4)		-2.0
Mean Length of Largest Boat Operated (metres)		5.5
Difference of Mean to QLD Population Mean (7.6)		-2.1

Note: Standard errors for mean length of boats (sample = 0.5; QLD population=0.4)
Standard errors for mean length of largest boats (sample = 0.5; QLD population=0.4)

Value of Production and Location of Sales

Table 11.10 shows the wholesale value of all products sold by harvesting businesses within the Brisbane TRC for the 12 months prior to the survey. Some 81.3% of Brisbane TRC businesses earned less than \$50,000 and some 9.3% of harvesters in the Brisbane TRC had production values greater than \$150,000.

Harvest businesses in the Brisbane TRC had an estimated gross value of production of approximately \$1.0 million, which was approximately 9.8% of the total value of production of the Queensland commercial harvesting industry.

Table 11.10 Wholesale Value of Product (Annual value)

Wholesale Value (\$,000)	Sample Count	Sample Percent	Queensland Percent
Less than \$25	17	53.1	45.9
\$25-50	9	28.2	24.5
\$50-75	2	6.2	8.2
\$75-100	0	0.0	5.1
\$100-125	1	3.1	5.1
\$125-150	0	0.0	0.0
\$150-175	1	3.1	2.0
\$175-200	1	3.1	2.0
\$200+	1	3.1	7.2
Total	32	100.0	100.0
Median GVP for TRC			\$19,902
Estimated Total GVP for TRC			\$1,015,000
Estimated Total GVP for QLD Population			\$14,554,000
Percent of Total Queensland Production			9.8%

Note: Estimated TRC population total is based on the sample GVP total multiplied by the sampling fraction of 1.524
Queensland total GVP based on sampled GVP from all TRCs multiplied by the sampling fraction of 1.524

Table 11.11 shows the value and location of harvest sales for the Brisbane TRC. The total amount of product sold in Australia was estimated at \$920,000. Most of the product sold in Australia was sold to Brisbane (60.1%). Less than 10% of products were directly exported overseas, equating to an estimated \$95,000.

Table 11.11 Sales to Customers

Location	Sample Value of Sales (\$,000)	Percent of Sample	Estimate Value (\$,000)
Brisbane	781	60.1	553
Sydney	179	13.8	127
Maroochydore	156	12.0	110
Bribie Island	39	3.0	27
Beenleigh	31	2.4	22
Redcliffe	31	2.4	22
Point Lookout	30	2.3	21
Other towns (<1%)	52	4.0	37
Total Sales (in Aust.)	1,300	90.6	920
Total Sales (Overseas)	133	9.4	95
Total Sales	1,433	100.0	\$1,015

Note: The sample value of sales is based on GVP as reported by businesses in the survey.
The estimated value of business sales is proportionally distributed to all locations on the basis of sample percentages.

Source: CRC Reef (2000).

Business Expenditure

Table 11.12 shows that an estimated \$0.53 million was spent on business goods and services (excluding salaries and wages) by businesses in the Brisbane TRC over the previous year. The majority of this expenditure occurred in Brisbane (\$0.28 million). Nearly 35% of business expenditure was distributed to 35 other towns.

Table 11.12 Location of Business Expenditure (All costs, excluding salaries and wages)

Location of Expenditure	Sample Value of Expenditure (\$,000)	Percent of Sample	Estimated Expenditure (\$,000)
Brisbane	399	53.4	282
Redcliffe	87	11.7	62
Towns (35) <5%	260	34.9	184
Total Expenditure	747	100.0	529

Note: Business expenditure includes all non labour expenditure (ie. fuel, equipment, repairs etc)
Coefficients from the QLD input-output table for 1992-1993 indicate that expenditure on local intermediate purchases and imports, accounted for 52.1% of total revenue. The amount of business expenditure occurring within specific locations is based on 52.1% of the estimated GVP for the business.

HARVESTER PROFILES

Town of Residence

Table 11.13 indicates that harvesters within the Brisbane TRC resided primarily within Brisbane (77.5%).

Table 11.13 Town of Residence

Town of Residence	Sample Count	Percent of Sample
Brisbane	25	77.5
Amity Point	1	3.1
Beaudesert	1	3.1
Burpengary	1	3.1
Clontarf	1	3.1
Deception Bay	1	3.1
Kallangur	1	3.1
Murrarie	1	3.1
Total	32	100.0

Months Employed in the Harvesting Industry

Table 11.14 shows that the majority of harvesters within the Brisbane TRC were employed during most months of the year, and especially towards the end of the year, between September and December.

Table 11.14 Months Employed in the Harvesting Industry During Past 12 Months

Months	Owner/ Operators	All QLD Harvesters
January	81.3	85.4
February	81.3	91.3
March	87.5	84.4
April	87.5	82.3
May	87.5	85.4
June	81.3	82.3
July	84.4	86.5
August	90.6	87.5
September	96.9	89.6
October	87.5	87.5
November	93.8	90.6
December	87.5	90.6

Location of Household Expenditure

Table 11.15 shows the location of household expenditure in the harvesting industry. There were 38 towns that received some of the expenditure on household items. Most expenditure was in Brisbane (53.4%), and in Redcliffe (11.7%). The estimated total household expenditure spent by families in the Brisbane TRC was \$1.4 million.

Table 11.15 Town Location of Household Expenditure (All commodities and services)

Location of Expenditure	Sample Value of Expenditure (\$,000)	Percent Expenditure	Estimated Expenditure (\$,000)
Brisbane	482	53.4	734
Redcliffe	105	11.7	161
Wynnum	40	4.4	60
Beaudesert	28	3.1	43
Kallangur	28	3.1	43
Redland	23	2.6	36
Clontarf	23	2.6	36
Burpengary	22	2.5	34
Deception Bay	22	2.5	34
Cannon Hill	19	2.1	29
Other towns (28) (<2%)	108	12.0	165
Total Expenditure	\$902	100.0	1,375

Note: The sample total personal income for the Brisbane TRC was \$1,171,200 (average income multiplied by a sample size of 9). The Household Expenditure Survey for Queensland: 1993-1994 (ABS, 1996) indicates that for households in non-metropolitan areas 79% of gross weekly income was related to commodity and service purchases. Furthermore, of the total expenditure on commodities and services purchased by households, Queensland Input-Output tables indicate that 77% of expenditure occurs within Queensland, with the balance contributing to taxes and imports from outside Queensland. The sample value of expenditure was therefore calculated to be \$902,000. Estimated value of expenditure was calculated by multiplying the sample value of expenditure by 1.525

School and Employment Locations of Family Members

The town locations in which family members attended school or were employed are shown in Table 11.16. Most family members attended school or were employed in Brisbane (81.6%).

Table 11.16 School and Employment Locations of Family Members

Location of Employment or School	Sample Count	Percent of Sample
Brisbane	70	81.6
Amity Point	2	2.4
Beaudesert	3	3.6
Burpengary	1	1.2
Deception Bay	4	4.8
Kallangur	2	2.4
Total Family Members	82	100.0

Note: Counts and percentages based on all family members.

Owner-Operator Social and Demographic Profiles

Table 11.17 provides profile information of harvesters from the Brisbane TRC. For comparative purposes information is also provided for all harvesters throughout Queensland. Harvesters in the Brisbane TRC had lived longer in their town, worked significantly less hours per week, were less likely to own their own home, had less formal education, used business plans less, had partners less likely to have fulltime employment, had smaller families but higher dependency rates, and earned slightly more than the average Queensland harvester.

Table 11.17. Owner-Operator Profiles

Profile	Owner/ Operator	ALL QLD Harvesters
Estimated Number of Active Harvesters	49	163
Mean age of fisher	44.7	46.9
Age range	25-67	21.72
Percent males	100	93.9
Mean years resident in town	26.5	19.5
Mean number of years in harvesting industry	17.2	16.4
Median hours per week in harvesting industry	15	29
Percent moved town to retain employment	12.5	14.4
Percent currently employed in other industry	31.3	37.8
Percent previously employed in other industry	87.5	87.6
Housing tenure (%)		
Rent	40.6	33
Mortgage	28.1	24.7
Own home	31.3	42.3
Other (eg, live with parents, on boat)	0	0
Educational		
Year completed school (%)		
Primary school	15.6	13.7
Year 8	12.5	6.3
Year 9	9.4	10.5
Year 10	31.3	27.4
Year 11	9.4	9.5
Year 12	21.9	32.7
Percent completed trade or TAFE certificate	18.8	34.7
Percent completed industry or business course	18.8	11.9
Percent with business plan	12.5	29.6
Marital Status		
Percent married or relationship	65.6	64.3
Partner's Income*		
Full-time employment	22.7	39.1
Part-time employment	31.8	25.0
Casual employment	22.7	9.4
Not employed	22.7	26.6
Family Composition		
Mean family size	1.9	2.1
Estimated number of total family members	62	215
Dependency Ratios		
Age Dependency Ratio**	27.0	19.6
Elderly Dependency Ratio	1.1	2.3
Child Dependency Ratio	25.8	17.3
Family Member Industry Dependency Ratio***	12.4	14.7
Gross Individual Income (%)		
Less than \$16,000	16.7	25.0
\$16,000 - \$26,000	23.3	19.3
\$26,000 - \$36,000	16.7	15.9
\$36,000 - \$52,000	23.3	23.9
\$52,000 - \$78,000	10.0	8.0
Over \$78,000	10.0	8.0
Average Income (\$)	\$36,600	33,602

Note: *Percentage based on those harvesters with partners. Includes partner's income from all sources.

** The age dependency ratio is the number of children (below 15 years) and elderly persons (above 65 years) to every 100 persons in the population

***The industry dependency ratio is the number of persons in the family who are over 15 years of age and working in the harvesting industry (excluding the direct industry employee) as a proportion of all family members over 15 years of age.

Source: CRC Reef (2000).