

# 7 TOWNSVILLE TRC

The Townsville TRC consists of the main urban centre of Townsville, Magnetic Island and Charters Towers.

## BUSINESS PROFILES

### Location and Use of Ports

Table 7.1 shows the number of license holders within the Townsville TRC and the number of survey respondents who reported having homeports within the Townsville TRC. On the basis of the sample count, it is estimated that there are 8 commercial harvesters within this TRC and that there is a 95% likelihood that the correct population count of commercial harvesters within the Townsville TRC is between 3 and 13. Figure 7.1 shows the geographic location of this TRC.

Table 7.1 Location of Homeports

Town	Adj. Database Count	Sample Count	Estimated Count	Percent within TRC
Townsville	5	5	8	100.0
Total TRC	5	5	8	100.0
95% Confidence Interval for Estimated TRC Count				3-13
% of Total Active License Holders in QLD				5.2%

*Note: Townsville Urban Centre includes all suburbs within the Townsville UC and the suburbs of Pallarenda, Alligator Creek, Magnetic Island, Alice River and the Bohle Plains. 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*

One other harvesting business used the port of Townsville when travelling to or from harvesting areas. This harvester had their homeport in Cairns.

### Harvesting Activity and Type

Table 7.2 shows the type of activities undertaken by harvesting businesses from the Townsville TRC over the previous year. The collection of aquarium fish, coral, shells and/or grit was the primary activity (83.3%). A smaller percentage of businesses from the Townsville TRC harvested trochus and/or seacucumber (16.7%). Sandworms, bloodworms, tubeworms, yabbies or tourist collections were not harvested by businesses in this TRC.

Table 7.2 Type of Harvesting Activity

Harvest Type	Sample Count	Percent in TRC
Aquarium fish, coral, shells, grit	5	83.3
Trochus and/or seacucumber	1	16.7
Tourist collections	0	0.0
Sandworms	0	0.0
Bloodworms, tubeworms, yabbies	0	0.0
Total Sample	6	100.0

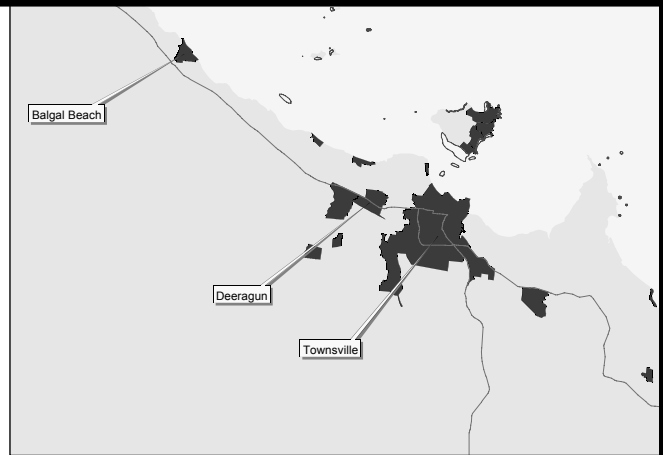


Figure 7.1 Location of the Townsville TRC

Table 7.3 shows that the peak season for harvesting within the Townsville TRC was October. This was earlier and shorter than the overall Queensland peak season, which was between October and January.

Table 7.3 Peak Harvesting Months During Past 12 Months

Months	Sample Count	Percent within TRC	Percent of QLD Fishery
January	0	0.0	37.6
February	0	0.0	18.8
March	0	0.0	15.3
April	0	0.0	21.2
May	0	0.0	12.9
June	0	0.0	18.8
July	1	20.0	28.2
August	1	20.0	31.8
September	1	20.0	28.2
October	2	40.0	30.6
November	1	20.0	34.1
December	1	20.0	48.2

A detailed description of the seasonal variation in harvesting for the Townsville TRC is not provided here since the sample sizes were too small for this information.

### Location of Resource Use

Figure 7.2 shows the location of resource use by commercial harvesting operations in the Townsville TRC. The location of resource use is predominantly around the reefs closest to Townsville. The catchment is relatively small.

### Harvesting Industry Businesses

Table 7.4 identifies the number of harvesters that operated within the Townsville TRC over the previous year. The majority of businesses had one part-time and/or casual employees (inc. the owner-operator). Twenty percent of businesses had between 6-10 casual employees, which brought the average number of fulltime equivalent harvesters per business to 1.6. Only 40% of businesses had a fulltime operator. In total it is estimated that there were 21 harvesters operating within the Townsville TRC.

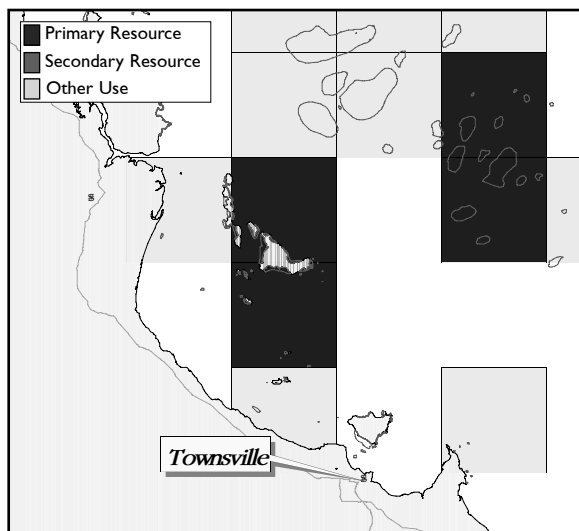


Figure 7.2 Townsville TRC: Location of Resource Use

### Business Ownership and Size

Table 7.5 shows the number of years the current owner has operated the harvesting business. Businesses within the Townsville TRC have been owned for an average of 12.2 years, which is similar to the Queensland average (12.0 years). All businesses had been owned for at least 6 years..

Table 7.5 Number of Years of Current Ownership of the Harvesting Business

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	0	0.0	0.0
6-10	2	50.0	50.0
11-15	1	25.0	75.0
16-20	1	25.0	100.0
21-25	0	0.0	0.0
26-30	0	0.0	0.0
31+	0	0.0	0.0
Total	4	100.0	100.0

Mean Number of Years owned 12.2  
Difference of TRC Mean to QLD Mean (12.0) +0.2

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

Table 7.4 Number of Employees

Number of Harvest Employees	Full-Time Count	Full-Time Percent	Part-Time Count	Part-Time Percent	Casual Count	Casual Percent
Nil	3	60.0	2	40.0	1	20.0
1	2	40.0	3	60.0	3	60.0
2-3	0	0.0	0	0.0	0	0.0
4-5	0	0.0	0	0.0	0	0.0
6-10	0	0.0	0	0.0	1	20.0
10-20	0	0.0	0	0.0	0	0.0
20+	0	0.0	0	0.0	0	0.0
Total Businesses	5	100.0	5	100.0	5	100.0
Total Harvesters	2		3		9	
Mean Number of Harvesters per Business			1.6			
Estimated Number Employed within the TRC			21			

Note: Part-time and casual employment is recorded as 0.5 when contributing to total employment.. Total number of harvesters includes the respondent. Estimates of total employment based on an estimated 8 harvesting businesses (Table 7.1)

Source: CRC Reef (2000)

Table 7.6 shows the number of years harvesting business have been operating (regardless of ownership) in the current town. The average business had been established for 12.2 years, which is similar to the Queensland average (12.4 years). There was no difference between the mean number of years that the business has been operating, and the number of years that harvesters have been in business, indicating that the majority of businesses within the Townsville TRC have been set-up by the current harvesters.

Table 7.6 Number of Years Business has been Operating

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	0	0.0	0.0
6-10	2	50.0	50.0
11-15	1	25.0	75.0
15-21	1	25.0	100.0
21-25	0	0.0	0.0
26-30	0	0.0	0.0
31+	0	0.0	0.0
Total	4	100.0	100.0

Mean Number of Years owned or operated 12.2  
Difference of Mean to Population Mean (12.4) -0.2

Note: Standard errors for number of years operated (sample = 1.6; QLD population = 0.46)

Source: Reef CRC (2000)

Table 7.7 shows that all harvesting businesses within this TRC operated with one boat (100%). This was less than the Queensland average of 1.4 boats.

Table 7.7 Number of Boats Operated by Harvesting Businesses

Number of Boats	Sample Count	Percent within TRC
1	4	100.0
2	0	0.0
3	0	0.0
4+	0	0.0
Total Number of Businesses	4	100.0

Mean Number of Boats Operated 1.0  
Difference of Mean to QLD Mean (1.4) -0.4

Note: Standard errors for number of boats operated (sample = 0.0; QLD population = 0.05)

Table 7.8 displays the length of boats operated by businesses within the Townsville TRC. There were no vessels measuring less than 6m. Boats varied in length between 7 metres and 24 metres. The average boat from this TRC (11.4m), and also the average largest length (11.4m) were larger than the QLD average (7.2m and 7.6m respectively).

**Table 7.8 Length of Boats Operated by Harvesting Businesses**

Length of Boat (metres)	Sample Count	Percent TRC
2-6	0	0.0
7-10	1	25.0
11-14	1	25.0
15-18	1	25.0
18-24	1	25.0
24+	0	0.0
<b>Total Number of Boats</b>	<b>4</b>	<b>100.0</b>
<b>Mean Length of Boats Operated (metres)</b>		<b>11.4</b>
<b>Difference of Mean to QLD Mean (7.2)</b>		<b>+4.2</b>
<b>Mean Length of Largest Boat Operated (metres)</b>		<b>11.4</b>
<b>Difference of Mean to QLD Mean (7.6)</b>		<b>+3.8</b>

*Note:* Standard errors for number of boats operated (sample = 2.6; QLD population = 0.5). Standard errors for mean length of largest boats (sample = 0.5; QLD population=0.4)

### Value of Production and Location of Sales

Table 7.9 shows the wholesale value of all products sold by harvesting businesses within the Townsville TRC for the 12 months prior to the survey. Fifty percent of businesses earned less than \$25,000. Townsville harvest businesses were predominately smaller businesses than the Queensland average, since no business earned more than \$100,000.

Harvest businesses in the Townsville TRC had an estimated gross value of production of approximately \$0.25 million, which is approximately 1.8% of the total value of production of the Queensland commercial harvesting industry.

**Table 7.9 Wholesale Value of Product (Annual value)**

Wholesale Value (\$,000)	Sample Count	Sample Percent	Queensland Percent
Less than \$25	2	50.0	45.9
\$25-50	1	25.0	24.5
\$50-75	0	0.0	8.2
\$75-100	1	25.0	5.1
\$100-125	0	0.0	5.1
\$125-150	0	0.0	0.0
\$150-175	0	0.0	2.0
\$175-200	0	0.0	2.0
\$200+	0	0.0	7.2
<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>

Median GVP for TRC	\$31,250
Estimated Total GVP for TRC	\$258,300
Estimated Total GVP for QLD Population	\$14,554,000
Percent of Total Queensland Production	1.8%

*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 7.10 shows the value and location of sales of harvesting products from the Townsville TRC. The total estimated value of sales from within the Townsville TRC was \$258,000. All products were sold within Australia, and were generally sold within Townsville (30%), Cairns (25%), Sydney (21%), Mackay (10%) and Melbourne (7.5%).

**Table 7.10 Sales to Customers**

Location of Sales	Sample Value of Sales (\$'000)	Percent of Sales	Estimated Sales (\$'000)
Townsville	51	30.0	79
Cairns	43	25.0	65
Sydney	35	21.0	55
Mackay	17	10.0	25
Melbourne	13	7.5	19
Toowoomba	8	5.0	12
Adelaide	2	1.2	3
<b>Total Sales (in Aust.)</b>	<b>169</b>	<b>100.0</b>	<b>258</b>
<b>Total Sales (O'seas)</b>	<b>0</b>	<b>0.0</b>	<b>0</b>
<b>Total Sales</b>	<b>\$169</b>	<b>100.0</b>	<b>\$258</b>

*Note:* The sample value of sales is based on GVP as reported by businesses in the survey. The estimated value of business sales (Table 7.12) is proportionally distributed to all locations on the basis of sample percentages.

### Business Expenditure

Table 7.11 indicates that approximately \$135,000 was spent on business goods and services (excluding salaries and wages) over the previous year by businesses within the Townsville TRC. The majority of this expenditure occurred in Townsville (84%) and Lucinda (10%).

**Table 7.11 Town Location of Business Expenditure (All costs, excluding salaries and wages)**

Location of Expenditure	Sample Value of Expenditure (\$'000)	Percent of Sample	Est. Value of Expenditure (\$'000)
Townsville	75	84.4	114
Lucinda	9	10.0	13
Innisfail	2	2.0	3
Cooktown	1	1.4	2
Ingham	1	1.4	2
Brisbane	1	0.8	1
<b>Total Expenditure</b>	<b>88</b>		<b>135</b>

*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 7.13 indicates that all harvesters within the Townsville TRC resided within Townsville.

**Table 7.13 Town of Residence**

Town of Residence	Sample Count	Percent of Sample
Townsville	5	100.0
<b>Total</b>	<b>5</b>	<b>100.0</b>

## Months Employed in the Harvesting Industry

Table 7.13 shows that the majority of owner-operators were predominately employed in the harvesting industry between July and December, especially September. Only 20% of harvesters were employed during April.

Table 7.13 Months Employed in the Harvesting Industry During Past 12 Months

Months	Owner/ Operators	All QLD Harvesters
January	60.0	85.4
February	60.0	91.3
March	80.0	84.4
April	20.0	82.3
May	60.0	85.4
June	60.0	82.3
July	80.0	86.5
August	80.0	87.5
September	100.0	89.6
October	80.0	87.5
November	80.0	90.6
December	80.0	90.6

## Location of Household Expenditure

Table 7.14 shows the location of household expenditure in the Townsville TRC. All annual household expenditure over the last year was spent in Townsville (\$0.16 million).

Table 7.14 Town Location of Household Expenditure (All commodities and services)

Location	Sample Value of Expenditure (\$'000)	Percent of Sample	Estimated Expenditure (\$'000)
Townsville	104	100.0	159
<b>Total Expenditure</b>	<b>104</b>	<b>100.0</b>	<b>159</b>

*Note: The sample total personal income for the Townsville TRC was \$135,000 (60% of respondents did not volunteer this information, thus the average income (\$27,000) was multiplied by the sample number, 5). 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 \$104,000. Estimated value of expenditure was calculated by multiplying the sample value of expenditure by 1.525*

## School and Employment Locations of Family Members

Table 7.15 shows that all family members within the Townsville TRC attended school or were employed within Townsville.

Table 7.15 School and Employment Locations of Family Members

Location	Sample Count	Percent of Sample
Townsville	20	100.0
<b>Total Family Members</b>	<b>20</b>	<b>100.0</b>

*Note: Counts and percentages based on all family members.*

## Owner-Operator Social and Demographic Profiles

Table 7.16 provides a social profile of harvesters from within the Townsville TRC. For comparative purposes information is also provided for all harvesters throughout Queensland. Harvesters from the Townsville TRC were slightly older (between 41-55years), more likely to be female, had lived in the same town for longer, worked less hours per week, were more likely to own their own home, had a higher formal education, were more likely to be married, had a higher number of dependents, and earned less than the average Queensland harvester.

**Table 7.16. Owner-Operator Profiles for the Townsville TRC**

Profile	Owner/ Operators	All QLD Employees
Estimated Number of Active Harvesters	8	154
Mean age of fisher	49.8	46.9
Age range	41-55	21-72
Percent males	80.0	93.9
Mean years resident in town	25.3	19.5
Mean number of years in harvesting industry	13.0	16.4
Median hours per week in harvesting industry	12.0	29.0
Percent moved town to retain employment	0.0	14.4
Percent currently employed in other industry	40.0	37.8
Percent previously employed in other industry	100.0	87.6
Housing tenure (%)		
Rent	20.0	33.0
Mortgage	20.0	24.7
Own home	60.0	42.3
Other (eg, live with parents, on boat)	0.0	0.0
Educational		
Year completed school (%)		
Primary school	0.0	13.7
Year 8	0.0	6.3
Year 9	0.0	10.5
Year 10	40.0	27.4
Year 11	0.0	9.5
Year 12	60.0	32.7
Percent completed trade or TAFE certificate	40.0	34.7
Percent completed industry or business course	20.0	11.9
Percent with business plan	40.0	29.6
Marital Status		
Percent married or relationship	80.0	64.3
Partner' Income*		
Full-time employment	25.0	39.1
Part-time employment	25.0	25.0
Casual employment	25.0	9.4
Not employed	25.0	26.6
Family Composition		
Mean family size	3.0	2.1
Estimated number of total family members	15.0	215
Dependency Ratios		
Age Dependency Ratio**	30.0	19.6
Elderly Dependency Ratio	0.0	2.3.0
Child Dependency Ratio	30.0	17.3
Family Member Industry Dependency Ratio***	10.0	14.7
Gross Individual Income (%)		
Less than \$16,000	50.0	25.0
\$16,000 - \$26,000	0.0	19.3
\$26,000 - \$36,000	50.0	15.9
\$36,000 - \$52,000	0.0	23.9
\$52,000 - \$78,000	0.0	8.0
Over \$78,000	0.0	8.0
<b>Average Income (\$)</b>	<b>\$27,000</b>	<b>\$33,602</b>

Note: \* Percentage based on those fishers with partners. Includes partners 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 harvest industry (excluding the direct industry employee) as a proportion of all family members over 15 years of age.

