

6 CAIRNS TRC

The Cairns TRC consists of the main urban centre of Cairns and several smaller surrounding urban centres including those of the Northern Beaches, Gordonvale, Kuranda and Smithfield.

BUSINESS PROFILES

Location and Use of Ports

Table 6.1 shows the number of license holders within the Cairns 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 21 commercial harvesters within this TRC and a 95% certainty that the correct population count of harvesters within the TRC is between 15 and 31. Figure 6.1 shows the geographic location of the Cairns TRC.

Table 6.1 Location of Homeports

Town	Adj. Database Count	Sample Count	Estimated Count	Percent within TRC
Cairns UC	19	14	21	100
Cairns Nthn Beaches	3	0	0	0
Manunda	2	0	0	0
Edmonton	2	0	0	0
Bungalow	1	0	0	0
Gordonvale	1	0	0	0
Deeral	1	0	0	0
Kuranda	1	0	0	0
Mareeba	1	0	0	0
Total TRC	31	14	21	100
95% Confidence Interval for Estimated TRC Count				15-31
Percent of Total Active Licence Holders in QLD				13.6%

Note: Cairns Urban Centre includes all suburbs of Cairns. Cairns Northern Beaches Urban Centre includes Clifton Beach, Palm Beach, Trinity Beach and Yorkey's Knob. 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.

Source: CRC Reef (2000).

In addition to the use of Cairns as a homeport, two other harvesters used Cairns as a port when travelling to or from harvesting areas. These businesses had their homeports in Innisfail and Port Douglas.

Fishing Activity and Type

Table 6.2 shows the types of harvesting activities undertaken within the last year for the Cairns TRC. Activities have been categorised so that aquarium fish, coral, shells, grit and sand are grouped together (aquarium products), trochus and seacucumber are grouped together, and bloodworms, tubeworms and yabbies are grouped together. The aquarium group represents the primary harvesting activity (84.6%) for the Cairns TRC, followed by trochus and seacucumber (7.7%), and tourist collections such as crown-of-thorns (7.7%). Sandworms, bloodworms, tubeworms or yabbies were not collected from the Cairns TRC.

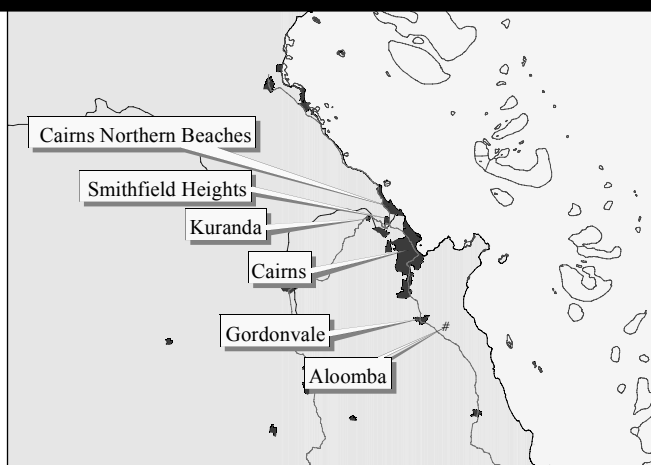


Figure 6.1 Location of the Cairns TRC

Table 6.2 Type of Harvest Activity (during last 12 months)

Fishing Type	Sample Count	Percent TRC
Aquarium fish, coral, shells, grit	11	84.6
Trochus and/or seacucumber	1	7.7
Tourist collections	1	7.7
Sandworms	0	0
Bloodworms, tubeworms, yabbies	0	0
Total Sample	13	100.0

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

Table 6.3 shows that the peak months for harvesting activity within the Cairns TRC were between August and November. This was shorter than the overall Queensland harvest season, which peaked between October and January.

Table 6.3 Peak Harvest Months During Previous 12 Months

Months	Sample Count	Percent within TRC	Percent of QLD Fishery
January	2	14.3	37.6
February	2	14.3	18.8
March	2	14.3	15.3
April	3	21.4	21.2
May	1	7.1	12.9
June	1	7.1	18.8
July	3	21.4	28.2
August	6	42.9	31.8
September	5	35.7	28.2
October	5	35.7	30.6
November	5	35.7	34.1
December	2	14.3	48.2

Table 6.4 provides a more detailed description of the seasonal variation in harvesting activities. Aquarium fish, grit and shell harvesting was most common in October and November, which was towards the end of the Queensland season.

Table 6.4 Seasonal Variations in Harvest Activity

Months	Sample Count	Percent within TRC	Percent QLD Fishery
Aquarium Fish, Coral, Shells, Grits and Sands			
January	2	25.0	21.2
February	2	25.0	18.2
March	2	25.0	21.2
April	3	37.5	15.2
May	1	12.5	18.2
June	1	12.5	27.3
July	1	12.5	30.3
August	3	37.5	42.4
September	3	37.5	27.3
October	4	50.0	39.4
November	5	62.5	42.4
December	2	25.0	24.2

Note: *Trochus and Seacucumber information not provided since sample size is too low.*

Location of Resource Use

Figure 6.2 shows the location of resource use by commercial harvesting operations in the Cairns TRC. From Figure 6.2 it can be seen that most harvesting occurred on the reefs nearest to Cairns.

Harvest Industry Employment

Table 6.5 identifies the number of harvesters within the Cairns TRC. The majority of businesses had one employee (the owner-operator), although two businesses had more than 10 full-time employees. There was little part-time or casual employment by these businesses, although one business employed more than 20 part-time employees.

As a result of this skew, the average number of employees per business was 10.2. The median number of full-time employees was 1.0, and the median number of part-time and casual employees was 0.0. In summary it is estimated that there were 218 full-time equivalent employees in the harvesting industry within the Cairns TRC over the last year.

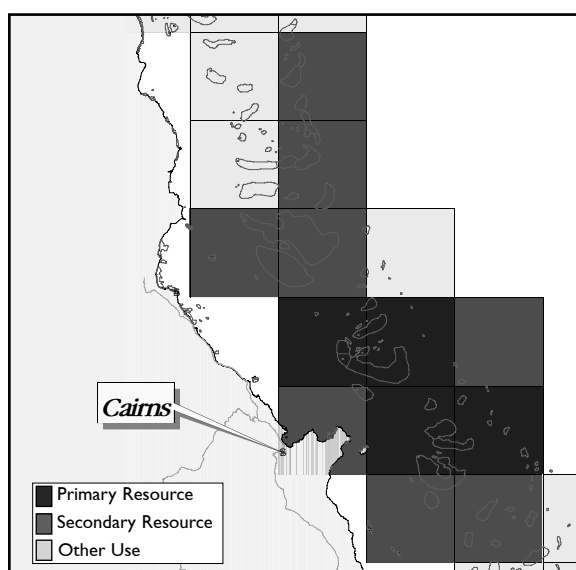


Figure 6.2 Cairns TRC: Location of Resource Use

Business Ownership and Size

Table 6.6 shows the number of years the current owner-operator had owned the harvesting business. Nearly 65% of businesses had been owned for less than 10 years. Over 70% had been owned between 26-30 years. On average, businesses within the Cairns TRC had been owned for 10.4 years. The average Queensland harvesting business has been owned for nearly two years longer (12.0 years).

Table 6.6 Number of Years of Current Ownership of the Harvest Business

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	4	28.5	28.5
6-10	5	35.5	64.3
11-15	3	21.3	85.7
16-20	1	7.1	92.9
21-25	0	0.0	92.9
26-30	1	7.1	100.0
31+	0	0.0	100.0
Total	14	100.0	100.0

Mean Number of Years owned or operated	10.4
Difference of TRC Mean to QLD Mean (12.0)	-1.6

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

Table 6.7 shows that the average number of years harvesting businesses had been operating was 12.4 years, which was the same as the Queensland average (12.4 years).

Table 6.7 Number of Years Business has been Operating

Number of Years	Sample Count	Percent within TRC	Cumulative Percent
1-5	3	21.4	21.4
6-10	6	42.6	64.3
11-15	3	21.4	85.7
16-20	0	0.0	85.7
21-25	0	0.0	85.7
26-30	1	7.1	92.9
31+	1	7.1	100.0
Total	14	100.0	100.0

Mean Number of Years owned or operated	12.4
Difference of Mean to Population Mean (12.4)	0

Note: *Standard errors for number of years operated (sample = 1.6; QLD population = 1.0)*

Table 6.8 shows that the majority of harvesting businesses within the Cairns TRC operated one boat (64.3%). The average number of boats owned by harvest businesses in the Cairns TRC (1.8 boats) was higher than the Queensland average (1.4 boats).

Table 6.5 Number of Employees

Number of Employees	Full-Time Count	Full-Time Percent	Part-Time Count	Part-Time Percent	Casual Count	Casual Percent
Nil	1	7.1	9	64.3	11	78.6
1	7	50	2	14.3	2	14.3
2-3	2	14.2	1	7.1	1	7.1
4-5	2	14.2	1	7.1	0	0.0
6-10	0	0.0	0	0.0	0	0.0
10-20	1	7.1	0	0.0	0	0.0
20+	1	7.1	1	7.1	0	0.0
Total Businesses	14	100.0	14	100.0	14	100.0
Total Employees	81		58		4	
Mean Number of Employees per Business				10.2		
Median Number of Full-time Employees per Business				1.0		
Median Number of Part-time & Casual Employees per Business				0.0		
Estimated Number Employed within the TRC				218		

Note: Part-time and casual employment was recorded as 0.5 when contributing to total employment.
Total number of employees includes the respondent.

Table 6.8 Number of Boats Operated by Harvest Businesses

Number of Boats	Sample Count	Percent within TRC
1	9	64.3
2	3	21.4
3	1	7.1
4+	1	7.1
Total Number of Businesses	14	100.0
Mean Number of Boats Operated		1.8
Difference of Mean to QLD Population Mean (1.4)		0.4

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

Table 6.9 shows the frequency distribution for the length of boats within the Cairns TRC. The majority of vessels (32%) operated by businesses in the Cairns TRC were between 11 and 14 metres. A significant amount (24%), however, were between 2-6m. The mean length of boats (10.6m) was considerably greater than the mean length of all QLD vessels (7.4m).

Table 6.9 Length of Boats Operated by Harvest Businesses

Length of Boat (metres)	Sample Count	Percent within TRC
2-6	6	24.0
7-10	7	28.0
11-14	8	32.0
15-18	2	8.0
18-24	2	8.0
24+	0	0.0
Total Number of Boats	25	100.0
Mean Length of Boats Operated (metres)		10.6
Difference of Mean to QLD Population Mean (7.4)		+3.2
Mean Length of Largest Boat Operated (metres)		9.3
Difference of Mean to QLD Population Mean (7.6)		+1.7

Note: Standard errors for mean length of largest boat (sample = 1.4; QLD population=0.4). Mean length of largest boat is smaller than the mean length of boats because of the large number of multiple and large-sized vessels removed for the analysis of the mean length of largest boat.

Source: CRC Reef (2000).

Value of Production and Location of Sales

Table 6.10 shows the wholesale value of all products sold by harvesting businesses within the Cairns TRC for the twelve months prior to the survey. The profile for the Cairns TRC was markedly different to the overall profile for Queensland. In the Cairns TRC there was a significantly higher percentage of businesses (28.6%) with production values in excess of \$200,000, compared to the Queensland profile (7.2%).

Harvest businesses in the Cairns TRC had a gross value of production of approximately \$7.8 million. This was approximately 53.6% of the total value of production of the Queensland harvesting industry for the previous year.

Table 6.10 Wholesale Value of Product (Annual value)

Wholesale Value (\$,000)	Sample Count	Sample Percent	Queensland Percent
Less than \$25	3	21.4	45.9
\$25-50	2	14.3	24.5
\$50-75	2	14.3	8.2
\$75-100	2	14.3	5.1
\$100-125	0	0.0	5.1
\$125-150	0	0.0	0.0
\$150-175	1	7.1	2.0
\$175-200	0	0.0	2.0
\$200+	4	28.6	7.2
Total	14	100.0	100.0
Median GVP for TRC			\$76,250
Estimated Total GVP for TRC			\$7,804,000
Estimated Total GVP for QLD Population			\$14,554,000
Percent of Total Queensland Production			53.6%

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

Table 6.11 shows the value and the location of sales for the Cairns TRC for the sample of 14 businesses, and the total population within the Cairns TRC. Over 67% of harvest products were exported overseas, estimated at \$5.2 million, although it is probable that some of the sales to overseas markets occurred firstly within Cairns. Melbourne and Sydney were the main customers of harvesting product from the Cairns TRC. The value of sales within Australia was estimated at \$2.5 million.

Table 6.11 Sales to customers

Location of Sales	Sample Value of Sales ('000)	Percent of Sample	Estimated Sales (\$'000)
Melbourne	500	25.8	758
Sydney	328	17.0	500
Cairns	305	15.7	463
Adelaide	300	15.5	45
Perth	217	11.2	329
Brisbane	152	7.8	230
Mount Isa	129	6.6	195
Gold Coast	7	0.3	10
Total Sales (in Aust.)	1,669	32.6	2,529
Total Sales (O'seas)	3,451	67.4	5,260
Total Sales	\$5,120	100.0	\$7,804

Note: The sample value of sales is based on GVP as reported by businesses in the survey

Business Expenditure

Table 6.12 shows that approximately \$4 million was spent by businesses in the Cairns TRC on business goods and services (excluding salaries and wages) over the previous year. The majority of this expenditure occurred in Cairns (\$3.7 million) and Gladstone (\$0.3 million).

Table 6.12 Town Location of Business Expenditure (All costs, excluding salaries and wages).

Location of Expenditure	Sample Value of Expenditure ('000)	Percent of Sample	Value of all Expenditure ('000)
Cairns	2,427	91.0	3,700
Gladstone	190	7.1	289
Brisbane	18	0.7	28
Other towns (<0.5%)	34	1.2	49
Total Business Expenditure	\$2,668	100.0	\$4,066

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.

OWNER-OPERATOR PROFILES

Town of Residence

Table 6.13 shows that all harvesters within the Cairns TRC resided within Cairns (100%).

Table 6.13 Town of Residence

Town of Residence	Sample Count	Percent of Sample
Cairns	14	100.0
Total	14	100.0

Months Employed in the Harvest Industry

Table 6.14 indicates that the majority of owner-operators within the Cairns TRC were employed in the harvesting industry throughout the previous year (minimum of 85.7% during any one month), and especially April, May and December. The majority of harvesters in Queensland were generally more likely to be employed in the months of November, December, and February.

Table 6.14 Months Employed in the Harvest Industry During the Past 12 Months

Months	Owner Operators	All QLD
January	85.7	85.4
February	85.7	91.3
March	85.7	84.4
April	92.9	82.3
May	92.9	85.4
June	85.7	82.3
July	85.7	86.5
August	85.7	87.5
September	85.7	89.6
October	85.7	87.5
November	85.7	90.6
December	92.9	90.6

Location of Household Expenditure

Table 6.15 shows the location of household expenditure derived from employment in the harvesting industry. It was estimated that \$0.55 million was spent on household commodities and services. As might be expected, Cairns attracted over 97% (\$0.54 million) of all annual employee household expenditure, with only minor seepage to Port Douglas (1.2%) and other minor towns (1.1%).

Table 6.15 Town Location of Household Expenditure (all commodities and services)

Location of Household Expenditure	Sample Value of Expenditure (\$'000)	Percent of Sample	Estimated Expenditure (\$'000)
Cairns	352	97.7	536
Port Douglas	4	1.2	6
Other minor towns	4	1.1	6
Total Expenditure	\$360	100.0	\$548

Note: The sample total personal income for the Cairns TRC was \$467,000. 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 \$359,600. 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 and were employed are shown in Table 6.16. As might be expected, the Cairns urban centre (92.6%) was the primary town location for school and employment.

Table 6.16 School and Employment Locations of Family Members

Location of Employment or School	Sample Count	Percent of Sample
Cairns	39	92.6
Perth	2	4.9
Gympie	1	2.4
Total Family Members	42	100.0

Note: Counts and percentages based on all family members.

Owner-Operator Social and Demographic Profiles

Table 6.17 provides owner-operator profile information for the Cairns TRC. For comparative purposes, information is also provided for all harvesters throughout Queensland. Harvesters within the Cairns TRC tended to be younger, worked more hours per week, had a higher level of formal and business education, were less likely to be married, had more family members involved in the business, and earned considerably more than harvesters throughout Queensland.

Table 6.17 Owner-Operator Profiles for the Cairns TRC

Profile	Owner-Operators	All QLD Employees
Estimated Number of Harvesters	21	154
Mean age of fisher	44.6	46.9
Age range	27-57	21-72
Percent males	92.3	93.9
Mean years resident in town	11.4	19.5
Mean number of years in harvesting industry	13.7	16.4
Median hours per week in harvesting industry	55.0	29.0
Percent moved town to retain employment	15.4	14.4
Percent currently employed in other industry	30.8	37.8
Percent previously employed in other industry	75.0	87.6
Housing tenure (%)		
Rent	30.8	33
Mortgage	30.8	24.7
Own home	38.5	42.3
Other (eg, live with parents, on boat)	0.0	0.0
Educational		
Year completed school (%)		
Primary school	15.4	13.7
Year 8	0.0	6.3
Year 9	0.0	10.5
Year 10	23.1	27.4
Year 11	0.0	9.5
Year 12	61.5	32.7
Percent completed trade or TAFE certificate	53.8	34.7
Percent completed industry or business course	21.4	11.9
Percent with business plan	46.2	29.6
Marital Status		
Percent married or relationship	38.5	64.3
Partner's Income*		
Full-time employment	40.0	39.1
Part-time employment	20.0	25.0
Casual employment	0.0	9.4
Not employed	40.0	26.6
Family Composition		
Mean family size	2.1	2.1
Estimated number of total family members	41	215
Dependency Ratios		
Age Dependency Ratio**	20.2	19.6
Elderly Dependency Ratio	0.0	2.3
Child Dependency Ratio	20.2	17.3
Family Member Industry Dependency Ratio***	23.8	14.7
Gross Individual Income (%)		
Less than \$16,000	18.2	25
\$16,000 - \$26,000	9.1	19.3
\$26,000 - \$36,000	18.2	15.9
\$36,000 - \$52,000	27.3	23.9
\$52,000 - \$78,000	9.1	8.0
Over \$78,000	18.2	8.0
Average Income (\$)	\$42,454	\$33,602

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.