

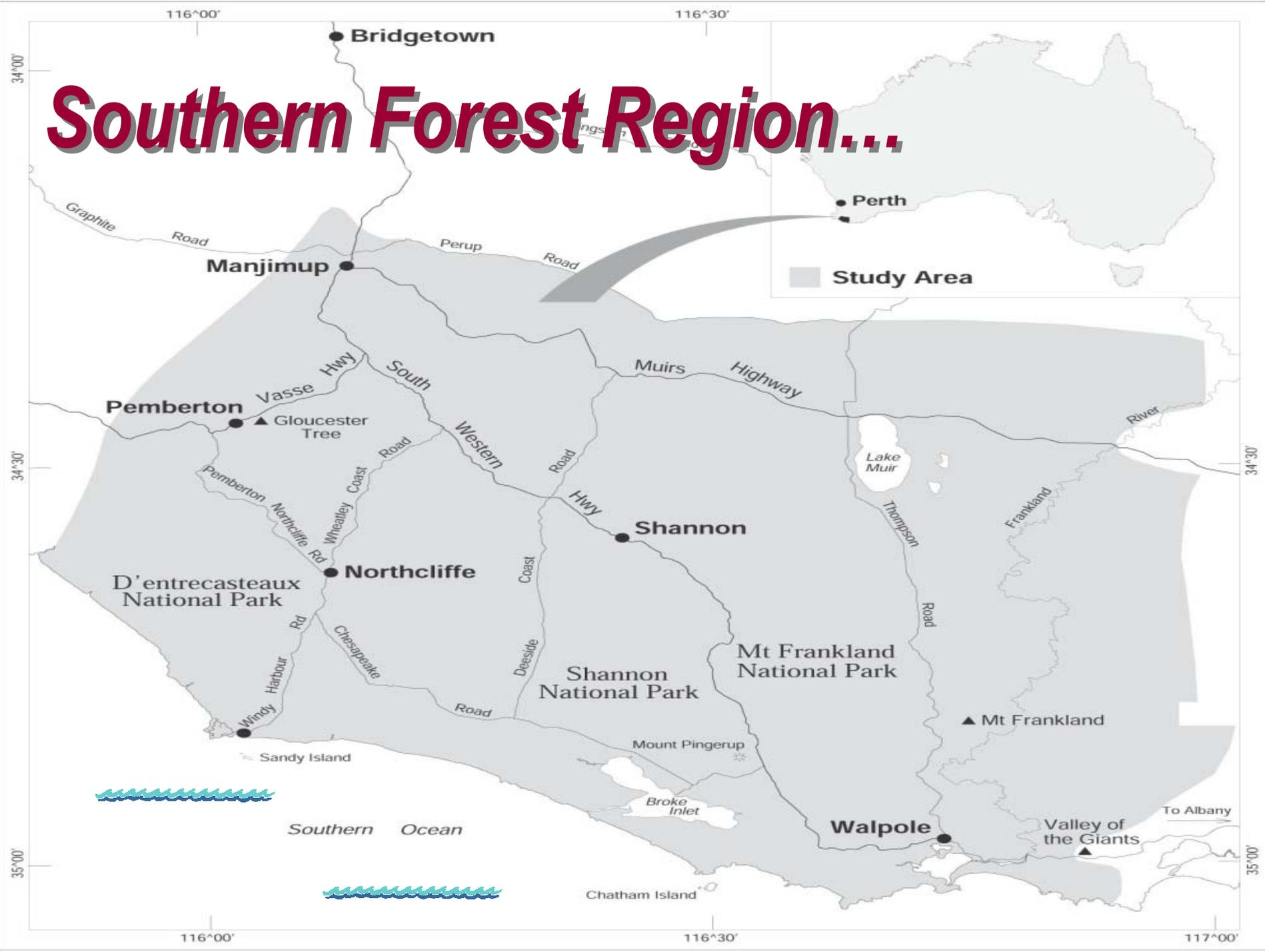


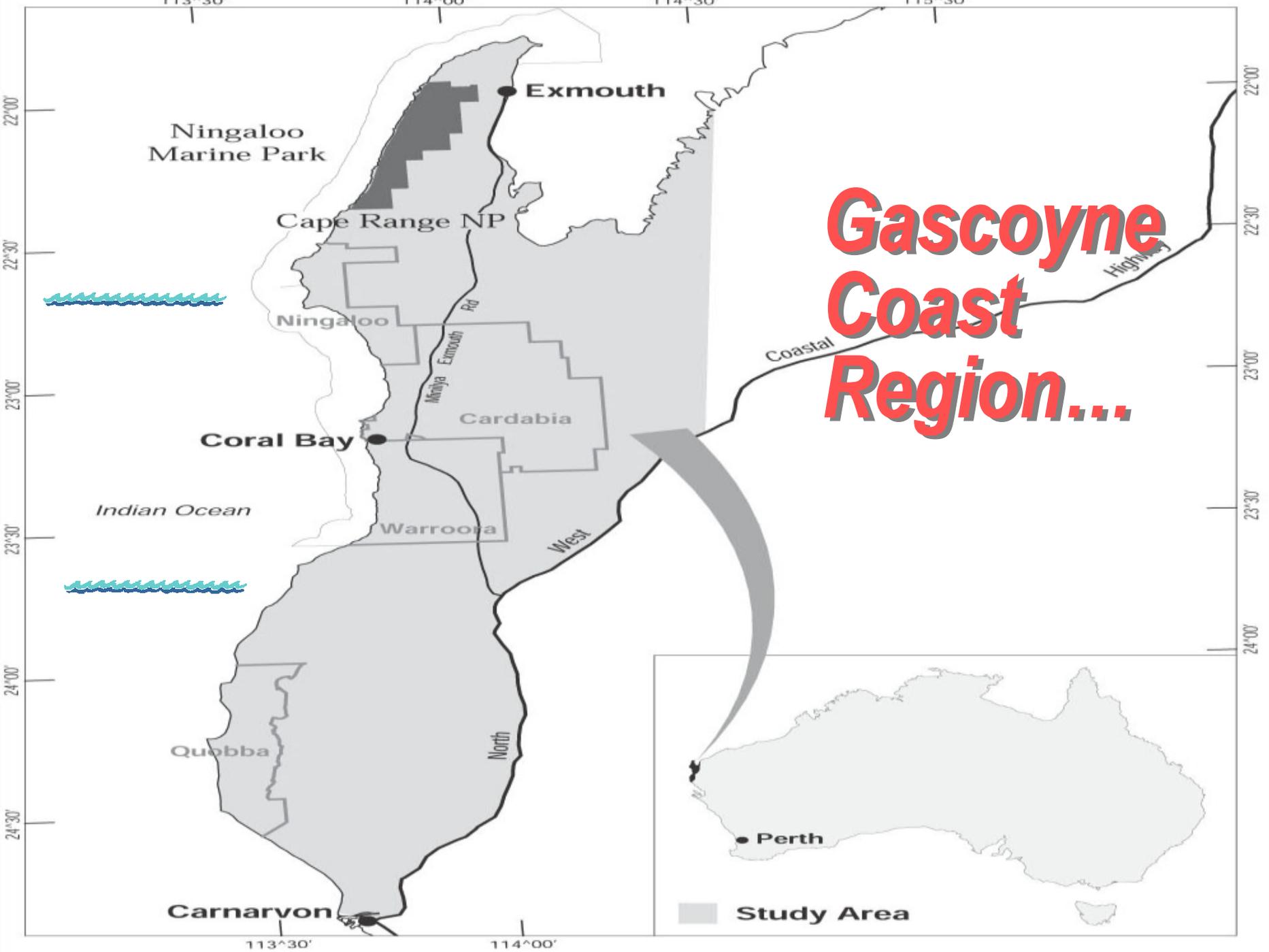
# Assessment of the Economic Value of Recreation and Tourism in Western Australia's National Parks and Forests

# Research Objectives

- To provide an estimate of the annual tourist expenditure in two regions known for their unique natural attractions.

# Southern Forest Region...





# Gascoyne Coast Region...



■ Study Area



# Objectives (cont'd)

- To provide recommendations for the collection, compilation and analysis of visitation data to recreation sites that will facilitate more accurate, reliable and comparable information for agency decision making.

# Economics and Natural Area Tourism

- The annual growth in international participation in natural area tourism in Australia is 4.5% per annum.(Chua 2001)
- In the domestic market, nearly 6% of day trips and 13% of overnight trips included a visit to a NP and or bush walk.(Chua 2001)



# ***Contribution of natural area tourism to WA's economy....***

- Has had little recognition and is under-valued.
- Tourism & Recreation in these areas has not been assessed in an objective systematic way.



## *Thus...*

- In a climate where public funds are finite, these measurements can be utilised to support decision-making in the area of resource commitment and budget allocation to promote the sustainable management of natural areas.



# Measuring the value of Tourism & Recreation

- There are a variety of methodologies
- Each one has their advantages & disadvantages
- And each suit different types of projects



# Why the DTF does not support the use of multipliers?

- “These multipliers have significant shortcomings, including a potential for double counting”
- “Multipliers can be considered as a method of inflating the output of an industry to more impressive levels”

Source: December 2000 Australian Economic Summary by DTF



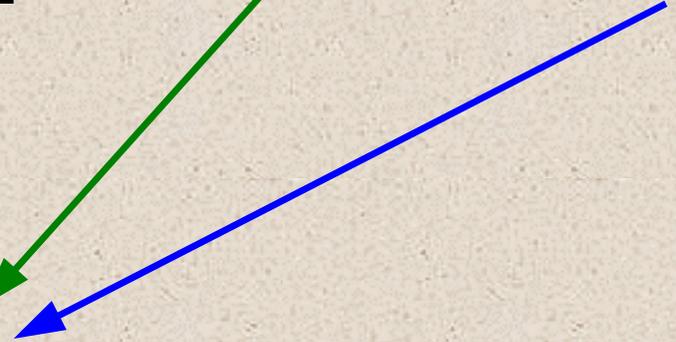
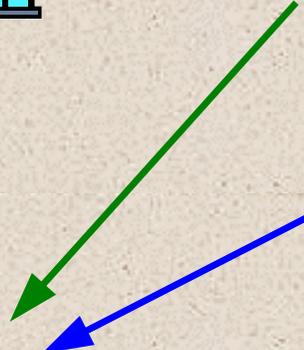
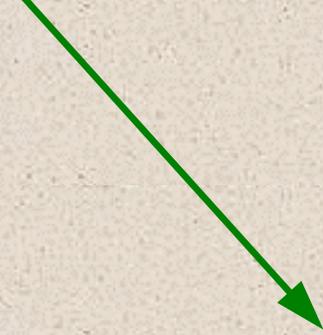
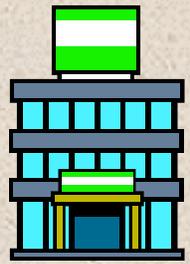
Visitor Spending

Retail & Service

Wholesale

Manufacturer

Other Suppliers



Employees





## How we did it?

- A representative sample was obtained by distributing questionnaires to places of accommodation, visitor centres and NP checkpoints.
- Tourists were asked to record their amounts of expenditure on different items during their stay in the selected regions.

# How much are you spending?



Expenditure Item (\$AUS)	Per day In the Region
<b>Accommodation</b>	\$AUS
<b>Travel</b> (air fares, bus fees, car hire, fuel, etc)	\$AUS
<b>Food &amp; drinks</b>	
■ In local hotels / restaurants	\$AUS
■ In local stores / supermarkets	\$AUS
<b>Activities</b> (National Parks fee, sightseeing trips, etc)	\$AUS
<b>Equipment</b> (purchased for your trip, including film, fishing gear, etc)	\$AUS
<b>Other</b> (clothing, merchandise, souvenirs, etc)	\$AUS

*How many people do the figures cover?*





**Plus...**

**How long are you  
staying in the region?**



**What is your normal  
place of residence?**



**Why you originally decided to come to this region on your holiday?**



**What activities have you done or plan to do during your holiday in the region?**





**If the natural environments did not exist, would you have chose to:**



- Travel to the region anyway
- Stay at home
- Travel elsewhere in WA
- Travel to another Australian state
- Travel to another country

# Estimating direct tourist spend

- **Attribution factor**

% of visitor expenditure that could be attributed to the 'Natural Environments'



# Cont'd

- **Substitution factor**

Occurs when the opportunity to visit 'Natural Environments' generates expenditure that would not otherwise have not occurred.





# *Case study regions...*



# *Survey distribution...*

## **Southern Forest Region**

- A total of **446** visitor groups were surveyed during the April school holiday.

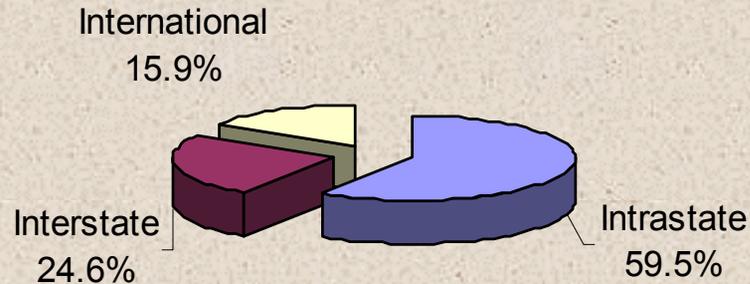
## **Gascoyne Coast Region**

- A total of **373** visitor groups were surveyed during the Easter school holidays – arrival of whale sharks.

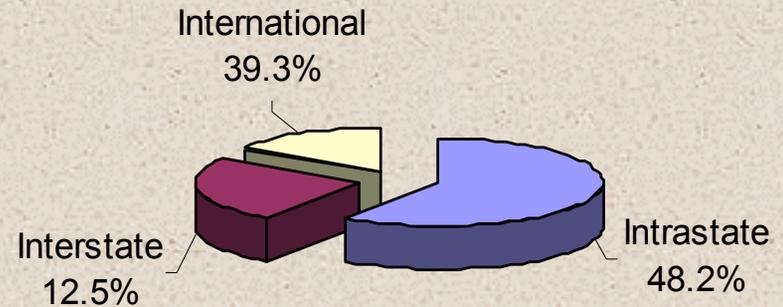
# Visitor survey findings....

## Where do visitors normally reside?

**Southern Forest Region**



**Gascoyne Coast Region**





# How long do visitors stay?

## Southern Forest Region

- 62% stayed 1-3 days
- The average length of stay was 3.9 days.

## Gascoyne Coast Region

- 48% stayed 4-7 days
- The average length of stay was 12.8 days.



# Why do they choose the region for a holiday?

## Southern Forest Region

- The Natural Environment (26.7%)
- Tree Top Walk/Gloucester Tree (23.3%)
- Forests (21.4%)

## Gascoyne Coast Region

- Snorkelling & diving (26.5%)
- Ningaloo Marine Park (22%)
- The Natural Environment (17.6%)
- Swimming with whale sharks (14.6%)



# What activities do visitors undertake?

## Southern Forest Region

- Sightseeing (31.9%)
- Tree Top Walk/Gloucester Tree (25.5%)
- Bushwalking (22.1%)

## Gascoyne Coast Region

- Snorkelling from the shore (29.7%)
- Swimming with whale sharks (18.6%)
- Diving from a boat (10.2%)



# Would visitors have chosen to travel elsewhere if the natural environments of the region did not exist?

Options	SFR	GCR
Travel elsewhere in WA	64.4%	68.5%
Travel to the region anyway	26.4%	13.0%
Travel to another Australian state	5.7%	9.5%
Travel to another country	1.4%	3.3%
Stay at home	2.1%	5.7%

# Visitor expenditure in the region per person/ per day

Expenditure item	SFR	GCR
Accommodation	\$35.80	\$12.30
Travel	\$10.20	\$10.30
Activities	\$6.10	10.90
Food & drink restaurants/hotels	\$14.00	\$4.80
Food & drink supermarkets	\$8.00	\$8.20
Equipment	\$7.70	\$7.10
Other	\$7.90	\$3.30
<b>Total</b>	<b>\$89.70</b>	<b>\$56.90</b>



## Southern Forest Region

$201.100 \times \$89.70 \times 12.8\text{days} = \mathbf{70.5 \text{ million}}$

- 80% Natural Environments No1 reason of visit
- 90% activities were nature-based
- 95% ranked forest as important in attracting them to the region

Attribution factor **88%**

70.5 million x 88% = **61.9 million**

Substitution factor **9.2%**



**\$5.7 million** is the estimated annual expenditure attracted to or retained due to the ‘Natural environments’



**\$61.9 – \$70.5 million**

# Gascoyne Coast Region

232.600 x \$56.90 x 12.8days= **169.4 million**

- 90% Natural Environments No1 reason of visit
- 94% activities were nature-based

Attribution factor 92%

169.4 million x 92% = **155.9 million**

Substitution factor 18.5%



\$28.8 million is the estimated annual expenditure attracted to or retained due to the 'Natural environments'



**\$155.9 – \$169.4 million**

# Objective 2

- To provide recommendations for the collection, compilation and analysis of visitation data to recreation sites that will facilitate more accurate, reliable and comparable information for agency decision making.



# Money Generation Model - Short Form

(Enter inputs in yellow/shaded cells)

	Visitor segments				Total
	Local	NL-Day	Motel	Camp	
<b>Step 1: Enter Recreation Visits and Segment Shares</b>					
Recreation Visits	25,000	25,000	25,000	25,000	100,000
Shares	25%	25%	25%	25%	100%

	Visitor segments				Total
	Local	NL-Day	Motel	Camp	
<b>Step 2: Convert visits to party nights by segment</b>					
<b>Enter conversion parameters</b>					
Length of stay in area (days/nights)	1.0	1.0	2.7	3.5	
Average party size	2.0	2.1	2.3	2.6	
Park entries per trip	1.0	1.0	2.0	2.0	Restore defaults

<b>Conversions computed below</b>					
Party nights in area	12,500	11,905	14,674	16,827	55,906
Percent of activity to include	0%	100%	100%	100%	
Party nights included in impact analysis	-	11,905	14,674	16,827	43,406

**Step 3: Choose spending averages: On a per party night basis**

Select generics from dropdown list or enter manually

Park- Medium spending ▼

	Local	NL-Day	Motel	Camp
Average spending per party night	38.11	45.08	165.94	65.69

<b>Total spending computed below</b>					
	Local	NL-Day	Motel	Camp	Total
Total spending (\$000's)	-	537	2,435	1,105	4,077
Percent	0%	13%	60%	27%	100%

**Step 4: Choose Regional economic multipliers**

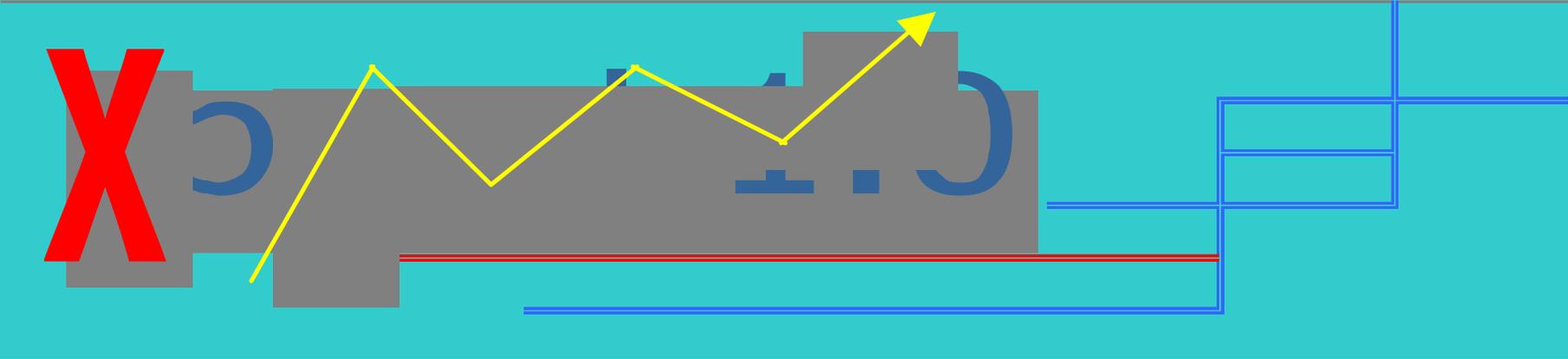
Select from dropdown list by type of region

Rural ▼

Direct effect ratios		Total effect multipliers	
Capture rate	74%	Sales Type SAM	1.32
Income/sales	0.34	Total Income/direct sales	0.45
Jobs/ MMsales	31.46	Total jobs/direct sales	36.76
Value added/sales	0.51	Total Value added/direct sales	0.71

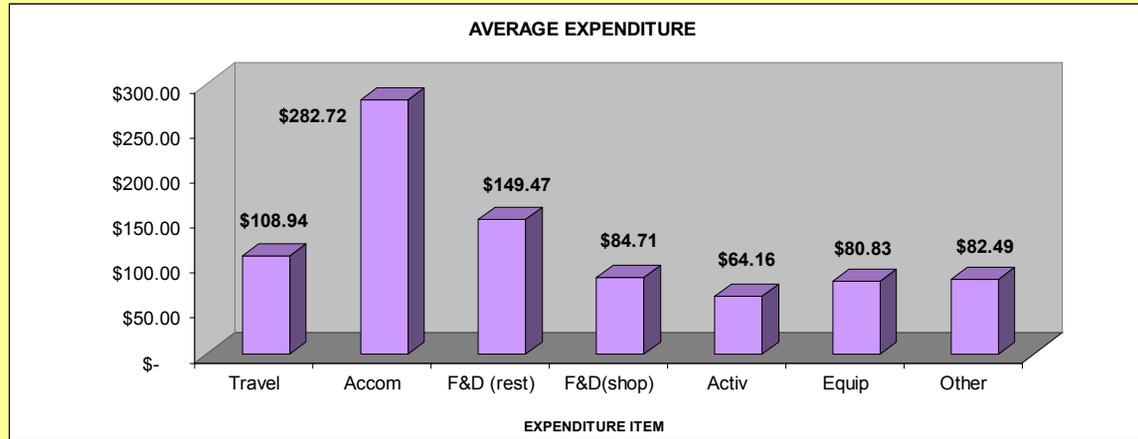
**Step 5: Economic Impacts Computed below**

	Visitor segments				Total
	Local	NL-Day	Motel	Camp	
<b>Spending captured</b>	\$ -	\$ 400	\$ 1,813	\$ 823	\$ 3,036
<b>Direct Economic effects</b>					
Sales (\$000's)	-	399.58	1,812.95	823.00	\$ 3,036
Personal Income (\$000's)	-	135.89	616.56	279.89	\$ 1,032
Jobs	-	13	57	26	96
Value added (\$000's)	-	205.16	930.84	422.56	\$ 1,559
<b>Total Economic Effects</b>					
Sales (\$000's)	-	528.25	2,396.74	1,088.01	\$ 4,013
Personal Income (\$000's)	-	178.75	811.02	368.17	\$ 1,358
Jobs	-	14.69	66.64	30.25	112
Value added (\$000's)	-	284.45	1,290.60	585.87	\$ 2,161





# Expenditure



Average No of people

**2.71**

	334	327	261	269	312	78	141	
<b>N</b>	334	327	261	269	312	78	141	
<b>Max</b>	1000	2000	1000	1000	700	1000	1000	
<b>Min</b>	10	17	4	3	1	2	1	
<b>St.dev</b>	141.44	266.35	141.28	103.31	74.58	173.78	129.92	<b>Total</b>
<b>Mean</b>	\$ 108.94	\$ 282.72	\$ 149.47	\$ 84.71	\$ 64.16	\$ 80.83	\$ 82.49	\$ 853.32
<b>Σ</b>	\$ 36,385.00	\$ 92,448.00	\$ 39,012.50	\$ 22,787.50	\$ 20,019.00	\$ 6,304.50	\$ 11,631.75	\$ 228,588.25

DOMESTIC									
ID		Travel	Accom.	Food&Drinks	Food&Drinks	Activities	Equipment	Other	No.Peopl.
1	DOMESTIC		500	150	200		60	30	4
2	DOMESTIC	100	165	100	100	75	50	50	6
3	DOMESTIC		300	100	100		50	50	2
4	DOMESTIC	150		300	300	60	50		2
5	DOMESTIC	20	44	20	20	20		10	2
6	DOMESTIC		60						1
7	DOMESTIC	720	720						2
8	DOMESTIC	300	75	75				20	2
9	DOMESTIC	150	300	400		50		300	2
10	DOMESTIC	100	200	100	100	30	50		3
11	DOMESTIC	250	595			40		500	2
12	#####								
13	DOMESTIC	40	360		30	20	10		4
14	DOMESTIC	120	20	20	25	50			2
15	DOMESTIC	50	240			40	60		3
16	DOMESTIC	140	400	150	50	100		100	4
17	DOMESTIC	25	480	100	150	9			3
18	DOMESTIC		75		15	60		10	2
19	DOMESTIC	60	1500	700	200		330	200	3
20	DOMESTIC	11	120	100	10			36	1
21	DOMESTIC	100	400	200	100	50			4
22	DOMESTIC	50	200	100	100	10	50	10	2
23	DOMESTIC	350	189	280		49		5	1
24	DOMESTIC	140	210	245	70				1

## Summary Report

**Study area: Southern Forest Region**  
**Period: Apr 2003**  
**Overnight visitors: 201,000**  
**Expenditure attributable to Natural Environments: 88%**

Average days  
**3.91**

Average group size  
**2.71**

Average Nights  
**2.91**

**Expenditure on:**

1- Travel in the region	\$	<b>10.28</b>
2- Accommodation in the region	\$	<b>35.85</b>
3- Food&Drink in local hotels/restaurants	\$	<b>14.11</b>
4- Food&Drink in local stores	\$	<b>7.99</b>
5- Activities in the region	\$	<b>6.06</b>
6- Equipment in the region	\$	<b>7.63</b>
7- Others	\$	<b>7.79</b>
<b>Total expenditure per person per day</b>		<b>\$ 89.70</b>

Average expenditure per person/ per day	<b>89.7</b>
Overnight visitors	<b>201,000</b>
Average length of stay (days)	<b>3.9</b>
<b>Total Direct Expenditure (\$million)</b>	<b>70.5</b>
Attribution factor (%)	<b>88%</b>
<b>Attribution of visitor expenditure (\$million)</b>	<b>61.9</b>





*Thanks...*

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