

Vancouver Island and Tasmania Tourism/Forestry Study

Research Problem

In many places the forestry industry is the target of criticism from environmental groups, politicians and the media. This opposition generally relates to a range of environmental issues that are associated with the industry such as, the harvesting of old growth or ecologically significant forests, development of logging roads, threats posed to wildlife and the sustainability of harvesting practices. These types of issues can lead to negative perceptions, which may ultimately impact the forestry industry.

Not only do these issues have the potential to negatively affect the forestry industry, but it could also have negative effects for other sectors that profit from forested landscapes, such as tourism. This is particularly true for regions that promote natural landscapes and outdoor activities to attract business to local communities. Examples of countries that use that use these types of images to promote tourism include Canada and Australia. This can be seen in marketing campaigns such as 'Supernatural British Columbia' and 'Pure Tasmania'. It is likely that destinations that promote natural features are particularly vulnerable to the negative perceptions often associated with forest industry impacts. Therefore this research aims to understand the effect that forestry can have on tourism image in destinations that market the natural environment.

Method

Conflict between the tourism and forestry industries is a common issue in parts of the world where these two sectors contribute to regional economies. However, certain aspects of these types of conflicts can differ from region to region. Therefore, this investigation was conducted using a comparative case study method to help gain a better perspective of the issue. Two regions where conflict between these two industries is evident include Vancouver Island, Canada and Tasmania, Australia. Therefore, these two locations were identified as suitable settings for this research.

To help understand the type of impact that forestry can have on tourism image in destinations that market the natural environment a number of self administered questionnaires were distributed at three tourist attractions in each of the two study regions. The three types of attractions included in this investigation include back-country hiking areas, front-country visitor centers and fishing lodges. The actual sites where data collection took place are shown in Table 1.

Table 1. Vancouver Island and Tasmania Data Collection Sites

Sample Group	Vancouver Island	Tasmania
<i>Back-country hiking</i>	West Coast Trail	Overland Track
<i>Front-country visitor center</i>	Pacific Rim Visitor Center	Cradle Mountain Visitor Center
<i>Fishing lodges</i>	Winter Harbour Fishing Lodges	Central Highlands Fishing Lodges

Vancouver Island Results

Response Rates

The response rates for Winter Harbour and West Coast Trail respondents were just below 70%. Response rate for Kwisis Visitor Centre participants was just below 50% (Table 2).

Table 2. Vancouver Island Response Rates

Site	Respondents	Refusals	Sample Size	Response Rate
<i>West Coast Trail</i>	165	71	236	69.92%
<i>Kwisitis Visitor Centre</i>	160	176	336	47.62%
<i>Winter Harbour Fishing</i>	64	29	93	68.82%
Total	389	276	665	58.50%

Country of Origin

Country of origin statistics were calculated for all sample groups with 362 out of 389 respondents (93.1%) reporting their country of origin. Most participants were Canadian residents. Apart from Canada the top six countries where respondents were visiting from include the United States, Germany, UK, Netherlands, France and Belgium. Country of origin distribution varied depending on the sample site (Table 3).

Table 3. Respondent Country of Origin

Country	West Coast Trail		Kwisitis Visitor Centre		Winter Harbour Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Canada</i>	126	84.56	71	47.02	11	17.74	208	57.46
<i>USA</i>	4	2.68	28	18.54	51	82.26	83	22.93
<i>Germany</i>	8	5.37	19	12.58	0	0.00	27	7.46
<i>UK</i>	7	4.70	5	3.31	0	0.00	12	3.31
<i>Netherlands</i>	0	0.00	8	5.30	0	0.00	8	2.21
<i>France</i>	1	0.67	6	4.00	0	0.00	7	1.93
<i>Belgium</i>	0	0.00	6	4.00	0	0.00	6	1.66
<i>Other</i>	3	2.01	8	5.30	0	0.00	11	3.04
Total	149	99.99	151	100.05	62	100.00	362	100.00

Gender Distribution

Gender information was calculated for all sample groups with 369 out of 389 respondents (94.86%) reporting their gender. The gender distribution at each site is depicted in Table 4.

Table 4. Respondent Gender Distribution

Gender	West Coast Trail		Kwisitis Visitor Centre		Winter Harbour Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Male</i>	96	63.16	73	46.79	57	93.44	226	61.25
<i>Female</i>	56	36.84	83	53.21	4	6.56	143	38.75
Total	152	100.00	156	100.00	61	100.00	369	100.00

There was a higher proportion of males who completed the questionnaire when compared to females. This can be attributed to the significantly higher number of males surveyed at the West Coast Trail and Winter Harbour data collection sites.

Age Distribution

Age information was calculated for all sample groups. Out of 389 respondents, 335 (86.12%) reported this information. The age of respondents ranged from 18 years old through to the age of 76. The average age of respondents was 40 years of age, however this varied between the three sample groups. Age distribution for each sample site is contained in Table 5.

Table 5. Respondent Age Distribution

Sample Group	n	Mean	Min.	Max.	Range
<i>West Coast Trail</i>	141	34.67	18	74	56
<i>Kwisitis Visitor Centre</i>	142	44.63	18	74	56
<i>Winter Harbour Fishing</i>	52	55.92	19	76	57
Total	335	42.19	18	76	58

Destination Image

To help understand the main elements that shape Vancouver Island's tourism image, respondents were asked to rate the importance of twenty items commonly associated with the Vancouver Island tourism industry. Ratings were given on a scale that ranged between 1 and 5, with 1 being not important and 5 being very important. These twenty items are listed in Table 6 and organized according to the importance ratings given by respondents. Therefore, the first item in the list was considered to be most important and the final item considered as least important. Overall importance ratings differed between the three sample groups. Numbers in brackets indicate the rank in importance of each item for the three sample groups.

Table 6. Destination Image Items

Item	n	Mean	West Coast Trail	Kwisitis Visitor Center	Winter Harbour Fishing
<i>Natural scenery</i>	386	4.78 ¹	4.84 (1)	4.85 (2)	4.45 (2)
<i>Parks & protected areas</i>	388	4.69 ¹	4.78 (2)	4.88 (1)	3.97 (3)
<i>Hiking</i>	388	4.35 ⁵	4.70 (3)	4.47 (4)	3.13 (11t)
<i>Unique/rare animals</i>	385	4.29 ³	4.25 (5)	4.53 (3)	3.81 (5)
<i>Camping</i>	389	3.98 ⁵	4.56 (4)	3.69 (10)	3.20 (10)
<i>Unique/rare plants</i>	389	3.87 ³	3.79 (7)	4.34 (5)	2.88 (16)
<i>Local food</i>	388	3.81 ⁹	3.70 (8)	4.02 (7)	3.59 (6)
<i>Aboriginal culture/history</i>	388	3.77 ³	3.67 (9)	4.16 (6)	3.08 (14)
<i>Tourist information centres</i>	388	3.63 ⁹	3.47 (12)	3.99 (8)	3.13 (11t)
<i>Transportation networks</i>	387	3.61 ⁸	3.84 (6)	3.53 (11)	3.25 (9)
<i>Nature-based tours</i>	388	3.60 ³	3.51 (11)	3.94 (9)	3.00 (15)
<i>Mild weather</i>	386	3.50 ²	3.59 (10)	3.43 (13t)	3.43 (7)
<i>Quality accommodation</i>	385	3.37 ⁷	3.10 (16)	3.48 (12)	3.83 (4)
<i>Colonial era history/structures</i>	387	3.34 ²	3.33 (13)	3.43 (13t)	3.11 (13)
<i>Quality Restaurants</i>	387	3.23 ²	3.16 (15)	3.25 (16)	3.39 (8)
<i>Festivals, concerts, markets, museums, etc.</i>	386	3.16 ²	3.17 (14)	3.26 (15)	2.87 (17)
<i>Fishing</i>	387	3.02 ⁶	2.83 (18)	2.51 (17)	4.80 (1)
<i>Diving/snorkeling</i>	385	2.59 ⁸	2.90 (17)	2.50 (18)	2.08 (20)
<i>Local wine, beer, etc.</i>	386	2.54 ²	2.59 (19)	2.47 (19)	2.58 (18)
<i>Nightlife/Entertainment</i>	388	2.05 ⁴	2.14 (20)	1.85 (20)	2.33 (19)

¹ Mean responses from Winter Harbour Fishing guests were significantly lower than the mean responses from WCT hikers and Visitor Centre guests.

² No significant differences found between groups.

³ Mean responses from Visitor Centre guests were significantly higher than the mean responses from WCT hikers. The mean responses for WCT hikers were significantly higher than the mean response for Winter Harbour Fishing guests.

⁴ Mean responses from Visitor Centre guests were significantly lower than responses from WCT hikers and Winter Harbour Fishing guests.

⁵ Mean responses from WCT hikers were significantly higher than those from Visitor Centre guests. Mean responses from Visitor Centre guests were significantly higher than those from Winter Harbour Fishing guests.

⁶ Mean responses from Winter Harbour Fishing guests were significantly higher than mean responses from WCT hikers and Visitor Centre guests.

⁷ Mean responses from WCT hikers were significantly lower than mean responses for Visitor Centre guests and Winter Harbour Fishing guests.

⁸ Mean responses from WCT hikers were significantly higher than mean responses from Visitor Centre guests and Winter Harbour Fishing guests.

⁹ Mean responses from Visitor Centre guests were significantly higher than mean responses from WCT hikers and Winter Harbour Fishing guests.

Although there are some differences between sample groups it is interesting to note the similarities between the three groups when considering the items that received the highest ratings. Although Winter Harbour fishing guests rated 'fishing' as most important, this was followed by 'natural scenery' and 'parks/protected areas'. Despite the importance that this group placed on fishing, they also seem to quite aware of Vancouver Island's reputation for natural scenery and protected areas.

Sensitivity to Forest Industry Impacts

In order to understand respondents degree of sensitivity toward forest industry impacts a scale was developed that contained twelve items. Six of these items were worded in a way that assessed the impact of forestry on tourism experience, while the other six items measured the impact that forestry has on outdoor recreational experience. In addition to this, half of the items included in the scale were worded negatively, while the other half contained positively worded items.

Sensitivity scores were then calculated for each participant. This was done by reverse coding all negatively worded items and adding the ratings given to produce a score out of 60. This was then divided by 12 to create an index out of 5. The possible scores that respondents could receive ranged between 1 and 5, with 1 representing a low degree of sensitivity and 5 representing a high degree of sensitivity to forest industry impacts. Comparisons between the three sample groups were then made. Analysis revealed that Winter Harbour fishing guests were much less sensitive to forest industry impacts when compared to West Coast Trail walkers and Kwisis Visitor Centre guests (Table 7).

Table 7. Sensitivity to Forestry Impacts

Sample Group	N	Mean	Min.	Max.	Range
<i>West Coast Trail</i>	151	3.72	2.08	5.00	2.92
<i>Kwisis Visitor Centre</i>	144	3.64	2.33	5.00	2.67
<i>Winter Harbour Fishing</i>	61	2.83	1.42	4.42	3.00
Total	356	3.54 ¹	1.42	5.00	3.58

¹Mean score from Winter Harbour fishing guests was significantly lower than WCT hikers and Kwisis Visitor Centre guests.

Exposure to Forestry Impacts

The amount that an individual is exposed to forestry impacts is likely to influence the degree to which their experience is affected. Therefore, the survey listed four types of forest industry impacts that visitors could potentially encounter while visiting Vancouver Island. These include harvested areas, tree plantations, logging trucks and saw/pulp mills. Respondents were asked to indicate whether or not they had observed each type of impact during their trip. The results of this analysis are contained in Table 8.

Table 8. Exposure to Forestry Impacts

Impact Type	West Coast Trail		Kwisitis Visitor Centre		Winter Harbour Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Harvested areas</i>	126	81.82	110	70.97	61	96.83	297	79.84
<i>Tree plantations</i>	76	49.35	78	50.32	57	90.48	211	56.72
<i>Logging trucks</i>	94	61.04	95	61.29	46	73.02	235	63.17
<i>Saw/pulp mills</i>	50	32.47	66	42.58	36	57.14	152	40.86

Analysis revealed that statistically significant relationships do exist between sample site and most of the forest industry impacts listed. However, the strength of these relationships were shown to vary depending on the type of forest industry impact. The only forest industry impact that did not reveal a statistically significant relationship with sample site was the presence of logging trucks. However, the prevalence of the other three impact types were shown to be associated with specific sample sites. The strongest relationship that was observed occurred between tree plantations and sample site, with Winter Harbour fishing guests being much more likely to encounter this type of impact than visitors to the other two sample sites. This was followed by harvested areas, which saw the likelihood of encountering this type of impact vary significantly between each of the three sample sites. Finally, the likelihood of observing saw/pulp mills was also shown to be associated with certain sample sites more than others.

Forestry Impact on Tourist Perceptions

The survey that was distributed to visitors contained a question that asked about the effect that specific forest industry impacts had on their perception of Vancouver Island as a tourist destination. The forest industry impacts listed in the survey include harvested areas, tree plantations, logging trucks and saw/pulp mills. This question was measured on a 5-point likert scale, with 1 being negative and 5 being positive. Analysis revealed that differences in opinion do exist depending on the type of forestry impact observed (Table 9).

Table 9. Forestry Impacts and Visitor Experience

Impact Type	n	Very negative % (1)	Negative % (2)	No Impact % (3)	Positive % (4)	Very Positive % (5)
<i>Harvested areas</i>	294	21.8	32.3	37.1	5.4	3.1
<i>Tree plantations</i>	208	4.3	7.2	38.5	31.3	18.3
<i>Logging trucks</i>	229	15.7	21.0	54.6	6.1	2.2
<i>Saw/Pulp Mills</i>	150	12.7	24.7	52.7	4.0	5.3

Out of the four types of forest industry impacts listed, harvested areas received the lowest rating with more than half of respondents (54.1%) indicating that observing these areas had a negative impact (rating of 1 or 2) upon their perception of Vancouver Island as a tourist destination. This was followed by saw/pulp mills (37.4%) and logging trucks (36.7%). Despite these findings, it appears that visitors were quite accepting of tree plantations with only 11.5% of respondents indicating that observing this type of impact had either a negative or very negative impact upon their perceptions.

Forestry Impact on Tourist Perceptions (Mean ratings according to sample group)

In addition to the differences in ratings found between the four types of forest industry impacts, a significant difference was also observed when comparing the ratings given to harvested areas by the three sample groups (Table 10).

Table 10. Forestry Impact and Visitor Experience According to Sample Group

Impact Type	Mean	West Coast Trail	Kwisitis Visitor Centre	Winter Harbour Fishing
<i>Harvested areas</i>	2.32 ¹	2.20	2.23	2.75
<i>Tree plantations</i>	3.47 ²	3.67	3.30	3.45
<i>Logging trucks</i>	2.54 ²	2.48	2.54	2.63
<i>Saw/Pulp Mills</i>	2.58 ²	2.38	2.57	2.89

¹ Mean responses for the Winter Harbour Fishing guests were significantly higher than the mean responses for WCT hikers and Visitor Centre guests.

² No significant differences found between groups.

Mean responses for harvested areas from the Winter Harbour fishing guests were significantly higher than the mean responses for the other two groups. This suggests that Winter Harbour Fishing guests were much less likely to have their perceptions influenced when observing harvested areas than West Coast Trail walkers and Kwisitis Visitor Centre guests. Despite this difference, no other statistically significant differences were found between the three sample groups when considering the other three types of forest industry impacts listed in the survey (tree plantations, logging trucks, saw/pulpmills).

Forest Management Preferences (Responses)

To help gain insight into the management preferences of visitors to Vancouver Island the survey contained a question listing five possible management options for Vancouver Island forests. Respondents were asked to rate their agreement with each option with 1 indicating a high level of agreement and 5 indicating a low level of agreement. The five management options presented in the survey are can be seen in Table 11.

Table 11. Forest Management Preferences

Management Option	n	Strongly Agree %(1)	Agree %(2)	Neither agree / disagree %(3)	Disagree %(4)	Strongly Disagree %(5)
<i>Make no changes to forest management practices, as forestry has minimal impact on scenic views.</i>	287	2.8	17.8	20.2	35.9	23.3
<i>Limit timber harvesting near roadways to preserve scenic views along transportation routes.</i>	332	21.4	49.7	16.3	10.8	1.8
<i>Limit timber harvesting near recreational areas to preserve scenic views at these sites.</i>	342	32.7	50.9	11.1	4.7	0.6
<i>Heavily restrict timber harvesting throughout all areas of Vancouver Island to preserve scenic views</i>	328	17.7	23.5	23.5	24.4	11.0
<i>Ban timber harvesting throughout all areas of Vancouver Island to preserve scenic views.</i>	315	7.9	7.9	16.8	39.0	28.3

When presented with the option of making no changes to forest management practices, 59.2% of respondents indicated that they either disagree or strongly disagree with this statement. This suggests that a high proportion of visitors would like to see some changes to forest management practices on Vancouver Island. Out of the forest management options presented to visitors, the limiting of harvesting near recreational areas to preserve scenic views received the most support, with 83.6% of respondents indicating that they either agree or strongly agree with this option. This was followed by the restriction of harvesting near transportation routes to preserve scenic views (71.1%). Despite the strong support for the restriction of timber harvesting in certain areas, very few respondents were outright opposed to the presence of the forest industry with only 15.8% of respondents indicating that they believe timber harvesting should be banned throughout Vancouver Island.

Forest Management Preferences (Mean ratings according to sample group)

Significant differences were also observed when comparing the acceptance ratings given by the three sample groups. These differences can be seen in Table 12.

Table 12. Forest Management Preferences According to Sample Group

Management Option	Mean	West Coast Trail	Kwisitis Visitor Centre	Winter Harbour Fishing
<i>Make no changes to forest management practices, as forestry has minimal impact on scenic views.</i>	3.59 ¹	3.81	3.51	3.31
<i>Limit timber harvesting near roadways to preserve scenic views along transportation routes.</i>	2.22 ²	2.30	2.06	2.43
<i>Limit timber harvesting near recreational areas to preserve scenic views at these sites.</i>	1.89 ³	1.83	1.78	2.32
<i>Heavily restrict timber harvesting throughout all areas of Vancouver Island to preserve scenic views</i>	2.88 ³	2.77	2.53	3.90
<i>Ban timber harvesting throughout all areas of Vancouver Island to preserve scenic views.</i>	3.72 ³	3.65	3.51	4.32

¹ Mean responses from WCT hikers were significantly higher than mean responses from Winter Harbour Fishing guests.

² Mean responses from Winter Harbour Fishing guests were significantly higher than mean responses from Visitor Centre guests.

³ Mean responses from Winter Harbour Fishing guests were significantly higher than Visitor Centre guests and WCT hikers

Winter Harbour fishing guests were much more likely than the other two sample groups to agree with the statement suggesting that no changes to forest management practices were needed. However, this group was less likely than the other two sample groups to support the final three management options presented (i. Limit harvesting near recreational areas; ii. Heavily restrict harvesting throughout Vancouver Island; iii. Ban harvesting throughout Vancouver Island). This seems to suggest that Winter Harbour fishing guests are more supportive of current forest management practices than are West Coast Trail walkers and Kwisitis Visitor Centre guests.

Summary

Based upon the above results, it appears that forestry in Vancouver Island does have the potential to negatively impact upon the tourism industry. This is supported by the fact that over half of the

respondents who participated in this study indicated that observing harvested areas negatively impacts upon their perception of Vancouver Island as a tourist destination. In addition to this, more than 1/3 of respondents indicated that saw/pulp mills and logging trucks have a negative impact upon their perceptions.

The fact that nearly 60% of respondents disagree with the statement suggesting that 'no forest management changes are needed on Vancouver Island' indicates that changes to forest management practices could improve the perceptions of tourists to Vancouver Island. When asked about preferred management options more than 80% of respondents indicated that they believe timber harvesting should be limited near recreational areas to preserve scenic views. Also, more than 70% of respondents support the idea of harvesting restrictions near roadways to preserve views along transportation routes.

Despite these findings, the degree to which tourism experience is affected seems to vary depending on tourist user group. Although differences were noted between all three sample groups, the most notable differences seemed to occur between Winter Harbour fishing lodge guests and the other two sample groups (West Coast Trail walkers and Kwisis Visitor Centre guests). Winter Harbour fishing guests were much less sensitive to forest industry impacts than the other two sample groups. In addition to this, Winter Harbour fishing guests were less likely than the other two sample groups to have their perceptions negatively affected when observing harvested areas. Lastly, Winter Harbour fishing guests were more likely than the other two sample groups to agree with the statement that 'no changes to forest management are needed.'

Tasmania Results

Response Rates

The response rates were highest for Overland Track walkers with a rate that was slightly higher than 85%. Response rates for Cradle Mountain Visitor Centre guests was just above 30%. Finally response rates for Central Highlands fishing guests was slightly below 15% (Table 13).

Table 13. Vancouver Island Response Rates

Site	Respondents	Refusals	Sample Size	Response Rate
<i>Overland Track</i>	157	27	184	85.33%
<i>Cradle Mountain Visitor Centre</i>	154	344	498	30.92%
<i>Central Highlands Fishing</i>	14	80	96	14.58%
<i>Total</i>	325	451	778	41.77%

Country of Origin

Country of origin statistics were calculated for each sample group with 314 out of 325 respondents (96.1%) reporting their country of origin. Most participants were Australian residents. Apart from Australia the top countries where respondents were visiting from include the Germany, UK, Canada, France, Netherlands, New Zealand and USA. Country of origin distribution varied depending on the sample site (Table 14).

Table 14. Respondent Country of Origin

Country	Overland Track		Cradle Mountain Visitor Centre		Central Highlands Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Australia</i>	113	75.33	103	68.67	13	92.86	229	72.92
<i>Germany</i>	11	7.33	9	6.00	0	0.00	20	6.37
<i>UK</i>	3	2.00	9	6.00	1	7.14	13	4.14
<i>Canada</i>	3	2.00	8	5.33	0	0.00	11	3.50
<i>France</i>	5	3.33	5	3.33	0	0.00	10	3.18
<i>Netherlands</i>	1	0.67	4	2.67	0	0.00	5	1.59
<i>New Zealand</i>	5	3.33	0	0.00	0	0.00	5	1.59
<i>USA</i>	5	3.33	0	0.00	0	0.00	5	1.59
<i>Other</i>	4	2.67	12	5.30	0	0.00	16	5.10
<i>Total</i>	150	99.99	151	100.05	14	100.00	314	99.98

Gender Distribution

Gender information was calculated for all sample groups with 316 out of 325 respondents (97.23%) reporting their gender. The gender distribution at each site is depicted in Table 15.

Table 15. Respondent Gender Distribution

Gender	Overland Track		Cradle Mountain Visitor Centre		Central Highlands Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Male</i>	84	54.90	59	39.60	11	78.57	154	48.73
<i>Female</i>	69	45.10	90	60.40	3	21.43	162	51.27
<i>Total</i>	153	100.00	149	100.00	14	100.00	316	100.00

Age Distribution

Age information was calculated for all sample groups. Out of 325 respondents, 293 (90.15%) reported this information. The age of respondents ranged from 19 years old through to the age of 80. The average age of respondents was 42 years of age, however this varied between the three sample groups. Age distribution for each sample site is contained in Table 16.

Table 16. Respondent Age Distribution

Sample Group	n	Mean	Min.	Max.	Range
<i>Overland Track</i>	144	38.99	19	70	51
<i>Cradle Mountain Visitor Centre</i>	137	43.85	20	77	57
<i>Central Highland Fishing</i>	12	60.83	23	80	57
Total	293	42.15	19	80	61

Destination Image

To help understand the main elements that shape Tasmania's tourism image, respondents were asked to rate the importance of twenty items commonly associated with the Tasmania tourism industry. Ratings were given on a scale that ranged between 1 and 5, with 1 being not important and 5 being very important. These twenty items are listed in Table 17 and organized according to the importance ratings given by respondents. Therefore, the first item in the list was considered to be most important and the final item considered as least important. Overall importance ratings differed between the three sample groups. Numbers in brackets indicate the rank in importance of each item for the three sample groups.

Table 17. Destination Image Items

Item	n	Mean	Overland Track	Cradle Mountain Visitor Center	Central Highlands Fishing
<i>Natural scenery</i>	324	4.82 ¹	4.84 (1)	4.81 (1)	4.69 (2)
<i>Parks & protected areas</i>	325	4.75 ²	4.83 (2)	4.70 (2)	4.36 (3)
<i>Unique/rare animals</i>	324	4.38 ¹	4.29 (5)	4.48 (3)	4.29 (4)
<i>Hiking</i>	324	4.29 ³	4.74 (3)	3.94 (6)	3.00 (15t)
<i>Unique/rare plants</i>	324	3.89 ¹	3.85 (7)	3.97 (5)	3.36 (11t)
<i>Tourist Information centres</i>	322	3.82 ⁴	3.63 (8)	4.05 (4)	3.46 (9)
<i>Camping</i>	324	3.81 ³	4.38 (4)	3.29 (14)	2.93 (17)
<i>Local food</i>	322	3.76 ⁴	3.61 (9)	3.90 (7)	4.00 (6)
<i>Transportation networks</i>	325	3.72 ³	4.04 (6)	3.46 (12)	3.00 (15t)
<i>Nature-based tours</i>	324	3.65 ¹	3.54 (10t)	3.78 (8)	3.36 (11t)
<i>Colonial era history/structures</i>	325	3.62 ¹	3.54 (10t)	3.70 (9)	3.64 (8)
<i>Quality accommodation</i>	325	3.40 ⁵	3.22 (13)	3.53 (11)	4.07 (5)
<i>Convict history</i>	323	3.28 ⁴	2.99 (16)	3.55 (10)	3.43 (10)
<i>Festivals, concerts, markets, museums, etc.</i>	325	3.19 ¹	3.27 (12)	3.10 (15t)	3.29 (13)
<i>Mild weather</i>	325	3.18 ⁴	3.02 (14)	3.33 (13)	3.21 (14)
<i>Quality restaurants</i>	324	3.09 ⁶	3.01 (15)	3.10 (15t)	3.93 (7)
<i>Local wine, beer, etc.</i>	323	2.85 ¹	2.82 (17)	2.82 (17)	2.57 (18)
<i>Fishing</i>	324	2.28 ⁶	2.20 (19)	2.12 (19)	4.93 (1)
<i>Diving/snorkeling</i>	324	2.26 ²	2.26 (18)	2.34 (18)	1.43 (20)
<i>Nightlife/Entertainment</i>	324	2.01 ¹	1.96 (20)	2.05 (20)	2.21 (19)

¹ No significant differences found between groups.

² Mean responses from Overland Track walkers and Cradle Mountain Visitor Centre guests were significantly higher than mean responses from Cradle Mountain fishing guests.

³ Mean responses from Overland Track walkers were significantly higher than mean responses from Cradle Mountain Visitor Centre guests and Central Highlands fishing guests.

⁴ Mean responses from Cradle Mountain Visitor Centre guests were significantly higher than mean responses from Overland Track walkers.

⁵Mean responses from Overland Track walkers were significantly lower than mean responses from Cradle Mountain Visitor Centre guests and Winter Harbour fishing guests.

⁶Mean responses from Central Highlands fishing guests were significantly higher than mean responses from Cradle Mountain fishing guests and Overland Track walkers.

Sensitivity to Forest Industry Impacts

To help understand respondents degree of sensitivity toward forest industry impacts a scale was developed which contained twelve items. Six items were worded in a way that assessed the impact of forestry on tourism experience, while the other six measured the impact that forestry has on outdoor recreational experience. Additionally, half of the items included in the scale were worded negatively, while the other half contained positively worded items.

Sensitivity scores were then calculated for each participant. This was done by reverse coding all negatively worded items and adding the ratings given to produce a score out of 60. This score was then divided by 12 to create an index out of 5. Scores that respondents could potentially receive ranged between 1 and 5, with 1 representing a low degree of sensitivity and 5 representing a high degree of sensitivity to forestry impacts. Comparisons between the three sample groups were then made. Analysis revealed that Overland Track walkers were much more sensitive to forest industry impacts when compared to Cradle Mountain Visitor Centre guests (Table 18).

Table 18. Sensitivity to Forestry Impacts

Sample Group	N	Mean	Min.	Max.	Range
<i>West Coast Trail</i>	139	3.87	2.25	5.00	2.75
<i>Kwisitis Visitor Centre</i>	131	3.58	2.25	5.00	2.75
<i>Winter Harbour Fishing</i>	14	3.44	2.50	5.00	2.50
Total	284	3.71 ¹	2.25	5.00	2.75

¹Mean score from Overland Track walkers was significantly higher than mean score from Cradle Mountain Visitor Centre guests.

Exposure to Forestry Impacts

The amount that an individual is exposed to forest industry impacts is likely to influence the degree to which their experience is affected. Therefore, the survey listed four types of forestry impacts that visitors could potentially encounter while in Tasmania. These include harvested areas, tree plantations, logging trucks and saw/pulp mills. Respondents were asked whether or not they had observed each type of impact during their trip. The results of this analysis are contained in Table 19.

Table 19. Exposure to Forestry Impacts

Impact Type	Overland Track		Cradle Mountain Visitor Centre		Central Highlands Fishing		Total	
	n	%	n	%	n	%	n	%
<i>Harvested areas</i>	66	43.42	126	83.44	13	92.86	205	64.67
<i>Tree plantations</i>	82	53.95	128	84.77	11	78.57	221	69.72
<i>Logging trucks</i>	33	21.71	86	56.95	13	92.86	132	41.64
<i>Saw/pulp mills</i>	28	18.42	55	36.42	5	35.71	88	27.76

Analysis revealed that statistically significant relationships do exist between sample site and each of the forest industry impacts listed. However, the strength of these relationships were shown to vary depending on the type of forestry impact observed. The strongest relationship that was observed occurred between harvested areas and sample site, with Cradle Mountain Visitor Centre and Central

Highland Fishing guests being much more likely to encounter this type of impact than Overland Track walkers. This was followed by logging trucks, which saw the likelihood of encountering this type of impact vary significantly between each of the three sample sites. Finally, the likelihood of observing saw/pulp mills was also shown to be associated with certain sample sites more than others. Tree plantations were also shown to be associated with specific sample sites with Overland Track walkers being much less likely to encounter this type of impact than the other two sample groups. Finally, saw/pulp mills were also associated with specific sample sites. However, this relationship was shown to be the weakest with Overland Track walkers having a lower likelihood than the other two sample groups of encountering this type of impact.

Forestry Impact on Tourist Perceptions

The survey that was distributed to visitors contained a question asking about the effect that specific forest industry impacts had on their perception of Vancouver Island as a tourist destination. The forest industry impacts listed in the survey include harvested areas, tree plantations, logging trucks and saw/pulp mills. This question was measured on a 5-point likert scale, with 1 being negative and 5 being positive. Analysis revealed that differences in opinion do exist depending on the type of forestry impact observed (Table 20).

Table 20. Forestry Impacts and Visitor Experience

Impact Type	n	Very negative % (1)	Negative % (2)	No Impact % (3)	Positive % (4)	Very Positive % (5)
<i>Harvested areas</i>	203	22.2	24.1	39.9	8.4	5.4
<i>Tree plantations</i>	218	8.3	10.1	48.6	17.9	15.1
<i>Logging trucks</i>	129	20.9	24.0	45.0	6.2	3.9
<i>Saw/Pulp Mills</i>	86	20.7	22.1	50.0	2.3	4.7

Of the four types of forest industry impacts listed, harvested areas received the lowest rating with nearly half of respondents (46.1%) indicating that observing these areas had a negative impact (rating of 1 or 2) upon their perception of Vancouver Island as a tourist destination. This was followed by logging trucks (44.9%) and saw/pulp mills (43.0%). Despite these findings, it appears that visitors were much more accepting of tree plantations with only 18.4% of respondents indicating that observing this type of impact had a negative effect on their perceptions.

Forestry Impact on Tourist Perceptions (Mean ratings according to sample group)

Despite the differences in ratings found between the four types of forest industry impacts, no significant differences were observed when comparing the ratings given by the three sample groups (Table 21).

Table 21. Forestry Impact and Visitor Experience According to Sample Group

Impact Type	Mean	Overland Track	Cradle Mountain Visitor Centre	Central Highlands Fishing
<i>Harvested areas</i>	2.51 ¹	2.34	2.59	2.54
<i>Tree plantations</i>	3.20 ¹	3.10	3.27	3.45
<i>Logging trucks</i>	2.48 ¹	2.13	2.62	2.38
<i>Saw/Pulp Mills</i>	2.48 ¹	2.56	2.52	1.60

¹ No significant differences found between groups.

Forest Management Preferences (Responses)

To help gain insight into the management preferences of visitors to Tasmania the survey contained a question listing five possible management options for forests in Tasmania. Respondents were asked to rate their agreement with each option with 1 indicating a high level of agreement and 5 indicating a low level of agreement. The five management options presented in the survey are can be seen in Table 22.

Table 22. Forest Management Preferences

Management Option	n	Strongly Agree %(1)	Agree %(2)	Neither agree / disagree %(3)	Disagree %(4)	Strongly Disagree %(5)
<i>Make no changes to forest management practices, as forestry has minimal impact on scenic views.</i>	234	3.0	18.8	17.5	36.8	23.9
<i>Limit timber harvesting near roadways to preserve scenic views along transportation routes.</i>	270	17.0	43.3	27.4	9.3	3.0
<i>Limit timber harvesting near recreational areas to preserve scenic views at these sites.</i>	284	32.4	46.8	14.8	4.6	1.4
<i>Heavily restrict timber harvesting throughout all areas of Vancouver Island to preserve scenic views</i>	266	22.9	22.9	28.2	20.3	5.6
<i>Ban timber harvesting throughout all areas of Vancouver Island to preserve scenic views.</i>	268	10.4	9.3	22.0	40.3	17.9

When presented with the option of making no changes to forest management practices, 60.7% of respondents indicated that they either disagree or strongly disagree with this statement. This seems to suggest that a high proportion of visitors would like to see some changes to forest management practices in Tasmania. Out of the forest management options presented to visitors, the limiting of harvesting near recreational areas to preserve scenic views received the most support, with 79.2% of respondents indicating that they either agree or strongly agree with this option. This was followed by the restriction of harvesting near roadways to preserve scenic views (60.3%). Despite the strong support for the restriction of timber harvesting in certain areas, very few respondents were outright opposed to the presence of the forest industry with only 19.7% of respondents indicating that they believe timber harvesting should be banned throughout all areas of Tasmania.

Forest Management Preferences (Mean ratings according to sample group)

One significant difference was observed when comparing the acceptance ratings given by the three sample groups. These can be seen in Table 23.

Table 23. Forest Management Preferences According to Sample Group

Management Option	Mean	Overland Track	Cradle Mountain Visitor Centre	Central Highlands Fishing
<i>Make no changes to forest management practices, as forestry has minimal impact on scenic views.</i>	3.60 ¹	3.64	3.50	4.17
<i>Limit timber harvesting near roadways to preserve scenic views along transportation routes.</i>	2.38 ¹	2.28	2.51	2.00
<i>Limit timber harvesting near recreational areas to preserve scenic views at these sites.</i>	1.96 ²	1.81	2.12	1.85
<i>Heavily restrict timber harvesting throughout all areas of Vancouver Island to preserve scenic views</i>	2.63 ¹	2.49	2.78	2.54
<i>Ban timber harvesting throughout all areas of Vancouver Island to preserve scenic views.</i>	3.46 ¹	3.36	3.54	3.67

¹No significant differences found between groups.

²Mean responses from Cradle Mountain Visitor Centre guests were significantly higher than mean responses from Overland Track walkers.

Cradle Mountain Visitor Centre guests were much more likely than Overland Track walkers to agree with the statement suggesting that harvesting should be limited near recreational areas to help preserve scenic views at these sites. However, no other significant differences were found between the three sample groups.

Summary

Based upon the above results, it appears that the forest industry in Tasmania does have the potential to negatively impact upon tourism. This is supported by the fact that almost half of the respondents who participated in this study indicated that observing harvested areas negatively impacts upon their perception of Tasmania as a tourist destination. In addition to this, more than 40% of respondents indicated that saw/pulp mills and logging trucks have a negative impact upon their perceptions.

The fact that over 60% of respondents disagree with the statement suggesting that 'no forest management changes are needed in Tasmania' seems to suggest that changes to forest management practices could improve the perceptions of tourists who visit Tasmania. When asked about preferred management options nearly 80% of respondents indicated that they believe timber harvesting should be limited near recreational areas to preserve scenic views. Also, more than 60% of respondents support the idea of harvesting restrictions near roadways to preserve views along transportation routes.

In addition to these findings, the degree tourism experience is affected was shown to vary according to sample site. However, it is important to note the small sample size from the Central Highlands fishing group. Although this limits the reliability of the findings from this group, the other two sample groups received a sufficient number of responses. Overland Track walkers were shown to be much more sensitive to forest industry impacts than the Cradle Mountain Visitor Centre guests. When it comes to having their perceptions influenced by forest industry impacts no significant differences were found between the sample groups. However, Cradle Mountain Visitor Centre guests were more likely than the other two sample groups to agree with the statement suggesting that harvesting should be limited near recreational areas to help preserve scenic views at these sites.