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# **ECONOMICS, ECOLOGY AND THE ENVIRONMENT**

**Working Paper No. 164**

**Are tourists rational? Destination decisions  
and other results from a survey of visitors to a  
North Queensland natural site – Jourama Falls**

**by**

**Clem Tisdell**

**June 2010**



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<sup>1</sup> Draft Chapter 7 for the book *Economics of Nature Based Tourism and Conservation*, co-authored with Clevo Wilson to be published by Edward Elgar. Feedback is welcome.

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The research for ACIAR project 40 has led in part, to the research being carried out in this current series.

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# **Are tourists rational? Destination decisions and other results from a survey of visitors to a North Queensland natural site – Jourama Falls**

## **ABSTRACT**

This paper reports on and interprets the results of a survey of visitors to the Jourama Falls Section of the Paluma Range National Park located in Northern Queensland. It reports, amongst other things, on how much knowledge visitors to the site had about it before their visit, the procedures they adopted in deciding to visit it and how generally they go about deciding to visit tourist sites when on holidays. The results are consistent with those predicted by theories of bounded rationality and behavioural economics. Information is also provided on the value visitors placed on attractions at the Jourama Falls sites, their attitudes to the private supply of tourist/visitor services and facilities in national parks, the importance of wildlife as an attraction to visitors at this site and their knowledge of it. In addition, the attitudes of visitors to facilities, camping procedures, environmental issues and activities at this site are assessed as well as the acceptability to respondents of an entrance fee. A halo, proximity or local existence effect was observed in relation to wildlife present at Jourama Falls but not visible.

**Keywords:** Austrian School of Economics, behavioural economics, bounded rationality, camping procedures, decisions to visit tourist attractions, entrance fee to national parks, Jourama Falls, mahogany glider, mental accounting, national parks, neoclassical economics, Paluma Range national park, private versus public supply of facilities, proximity effect, transaction cost theory, wildlife valuation.

**JEL Codes:** L83, Q00, Q26, Q57.

# **Are tourists rational? Destination decisions and other results from a survey of visitors to a North Queensland natural site – Jourama Falls**

## **1. Introduction**

Neoclassical economic theory assumes that consumers are rational and well informed, and this theory has provided the basis for many economic models of tourist and recreational demand. For example, this theory provides the underpinning of the travel cost method of determining the demand and valuation of outdoor recreational sites as well as valuation of natural sites based on tourist demand to visit these. However, there has been virtually no empirical study of the extent to which the above assumptions of neoclassical theory are satisfied in tourist contexts. In addition, very little consideration has been given to how bounded rationality (Tisdell, 1996) is likely to influence the way in which tourists make decisions about which destinations to visit, especially in cases where these destinations have not been visited before. In some cases, the majority of visitors (tourists) to a natural site have not visited it previously. Therefore, it is an experiential good for such visitors.

We wanted to select a natural site for survey of visitors where it was likely that the majority of visitors would not have visited it previously. Therefore, the Jourama Falls Section of Paluma Range National Park in North Queensland (located between Ingham and Townsville) was selected for this purpose. Our hunch that it would have a majority of first-time visitors was, in fact, proven to be correct.

The survey of visitors to Jourama Falls had several purposes. These were:

- (1) to determine how knowledgeable visitors were about the site before visiting it, how they decided to visit it, and how they go about deciding to visit destinations generally when they are on holidays;
- (2) to ascertain the value they placed on their visit and their assessment of the general attractions of this site;
- (3) to find out their attitudes to the private supply of tourist/visitor services and facilities in national parks;

- (4) to collect information about the importance of wildlife at this site to visitors, and about their knowledge of this wildlife;
- (5) to obtain general information about attitudes of visitors to facilities, camping procedures, environmental issues and activities at this site, and
- (6) to determine the attitudes of respondents to an entrance fee.

In addition, general socio-economic information about the visitors was collected. A copy of the survey form is appended to this article.

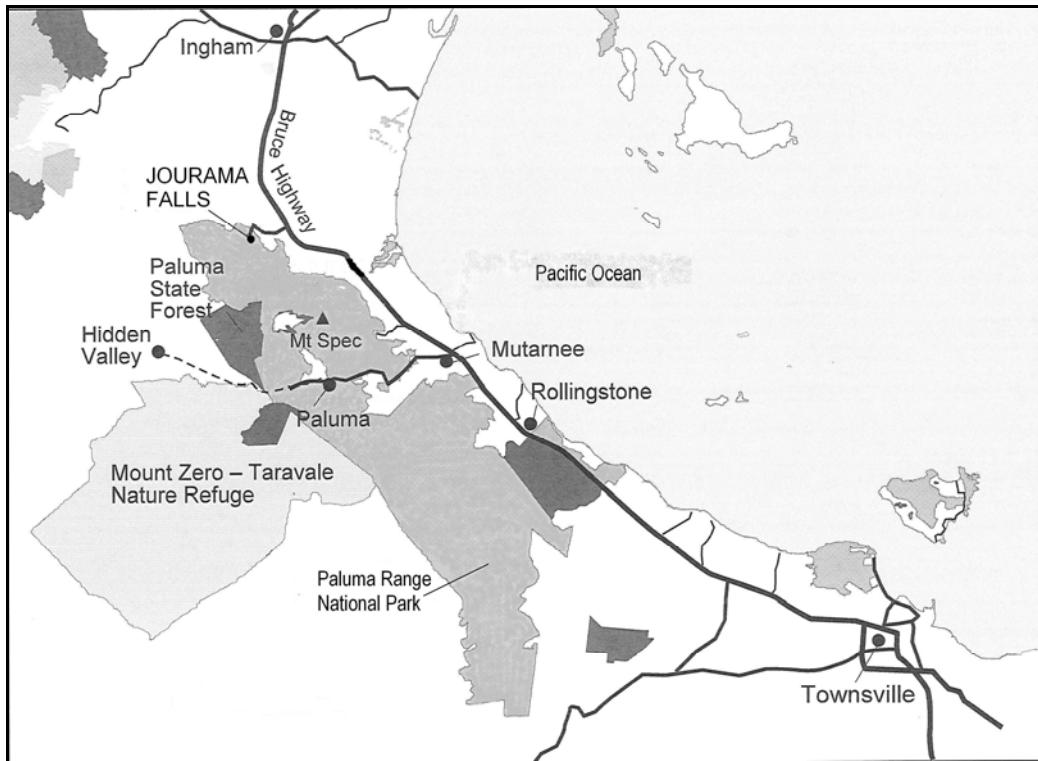
After providing some background information on the Jourama Falls Section of Paluma Range National Park, this article outlines the nature of the survey, the location of the residence of respondents, whether they were on holidays, whether they had visited the site before and whether they were day visitors or campers. The socioeconomic features of respondents are also summarised and subsequently, the five features listed above are each considered in turn.

## **2. Background Information on the Paluma Falls Section of Paluma Range National Park**

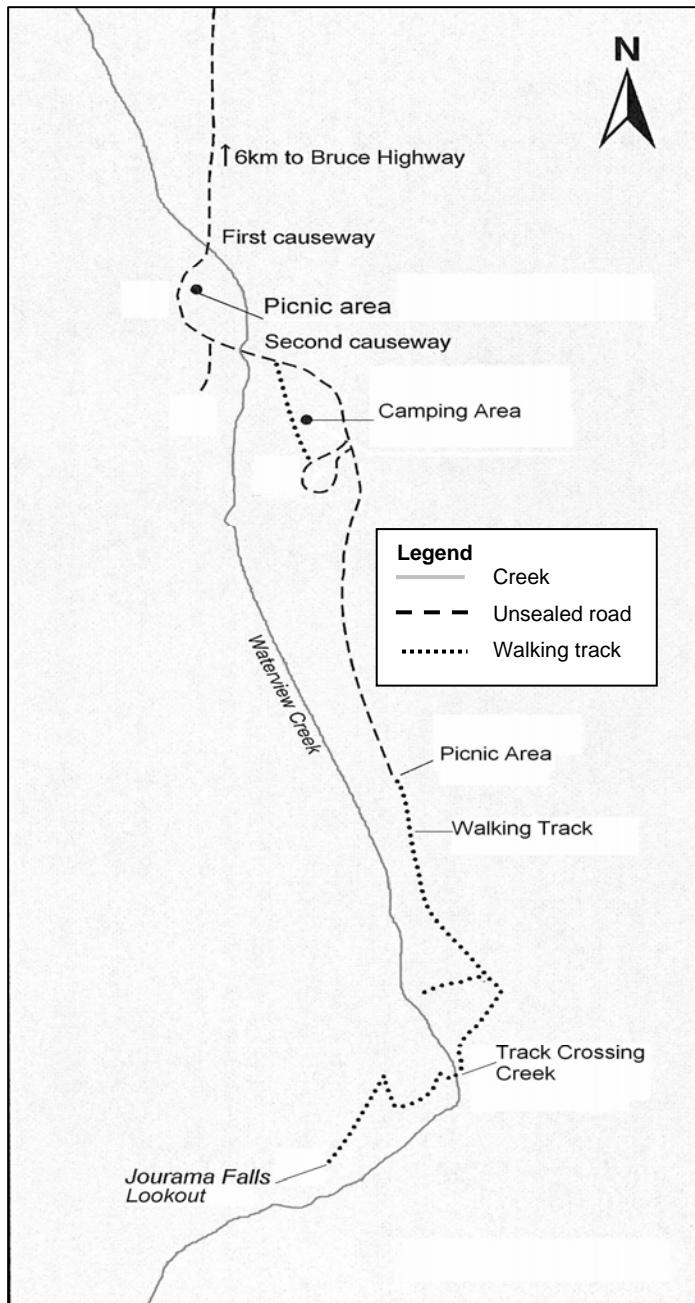
The Jourama Falls Section of the Paluma Range National Park is located at the north-eastern edge of this park. Travelling via the Bruce Highway, it is 91km north of Townsville and 24km south of Ingham. It is reached by travelling 6km west by unsealed road from the Bruce Highway. The Queensland Department of Environmental Resources, DERM, (2008a) in which the Queensland Parks and Wildlife Service is located, describes its special features as follows:

‘Fringed by rainforest, Waterview Creek tumbles down many picturesque cascades and rapids, offering beautiful spots to relax, camp, walk and enjoy watching birds, butterflies and other native wildlife’.

The general location of the Paluma Falls Section of Paluma Range National Park is shown in Figure 1, and Figure 2 provides a ‘mud’ map of this site. Another portion of this park that is an attraction to visitors is the Mount Spec Section. It is, however, quite separate from Jourama Falls Section as far as access is concerned.



*Figure 1 A rough map showing the general location of the Jourama Falls Section of the Paluma Range National Park based on data from the Department of Environmental Resource Management (2008b). The black areas represent state forests and the mid-grey area towards the centre of this map specifies Paluma Range National Park.*



**Figure 2** Map of Jourama Falls area based on data from Department of Environmental Resource Management (2008b).

Most of Paluma Range National Park is included in the Wet Tropics World Heritage Area. Its Jourama Falls Section is located in this World Heritage area, which consists of discontinuous areas from Cooktown in the north to Townsville in the south.

Paluma Range National Park is a large national park of 107km<sup>2</sup>. Its value for conserving wildlife is enhanced by adjoining nature refuges, especially the large Mount Zero-Taravale

refuge of the Australian Wildlife Conservancy. This wildlife sanctuary covers an area of 60,000 hectares and contains several threatened species. It does not as yet cater for recreational visitors. The Australian Wildlife Conservancy is a non-profit organization which mainly acquires and manages properties to help conserve Australia's threatened wild species and natural ecosystems (Australian Wildlife Conservancy, no date).

As can be seen from Figure 2, the main feature integrating the Jourama Falls area is the Waterview Creek. Man-made features and assigned uses of this area stretch along the basin of this creek in a linear fashion. The access road and then the walking track to the Jourama Falls lookout basically follow the alignment of this creek. Also picnic spots and the camping area are located in the vicinity of this creek. The nature of the topography and the restricted space available limits the carrying capacity of this site for camping numbers and for day visitors.

### **3. An Outline of the Nature of the Survey and Characteristics of Respondents**

#### *The nature of the survey*

Survey forms were distributed to day visitors and campers at the Jourama Falls site on our behalf by Jane Devlin, the wife of the park ranger, starting in the second half of 2004 and finishing on 11 January, 2005. In total, 451 completed survey forms were obtained. Those to whom the survey forms were distributed were given a postage paid self-addressed envelope in which to return their completed questionnaires. Distribution of forms was based on convenience but was done so as to include a substantial number of both day visitors and campers. Of the 451 respondents, 55.7% were day visitors, 40.4% were campers and 4% did not answer this question.

#### *Place of residence of respondents*

The majority of respondents were from Australia (67.2%) but a large percentage (31.9%) consisted of overseas visitors. Only 0.9% of respondents failed to indicate whether they were from Australia or from overseas. There were visitors from all Australian states but the majority 66.01% were from Queensland. Victoria accounted for 12.54% of respondents and New South Wales for 11.55% of respondents. The overseas respondents were mainly from

Europe. Germany accounted for 37.5% of these, the UK for 18.8% and the Netherlands for 12.8%. No Asian countries were represented.

#### *Whether on holidays and length of their visit*

When asked if they were on holidays, 77% of respondents said 'Yes' and 21% said 'No'. No answer was received from 2% of the respondents. Thus most of the respondents were tourists on holidays. Those who were not were probably day-visiting recreationists from nearby towns.

Most of the respondents (55.7%) were day visitors, but 37.7% stayed one night and a further 2.7% camped for more than one night at this site.

#### *Previous visits to the site*

Most of the respondents (69%) had not visited this site before. Of the 138 respondents who had visited the area before, most had visited it several times. Therefore, there were two groups – those who had previous knowledge of the site and those (the majority) who did not.

#### *Gender of respondents*

Respondents were asked the gender of the person filling out the survey form. Approximately, an equal number of forms were completed by males and females. According to the respondents, 46.1% of the forms were completed by females, 45.2% by males, 6.7% by both and 2% did not respond to this query.

#### *Age of respondents*

Figure 3 provides data on the age of respondents. The largest group consists of persons aged 21-30 years. The skew of the age distribution is towards the younger age group. On the whole, visitors to Jourama Falls are younger than those visiting Lamington National Park and Antarctica.

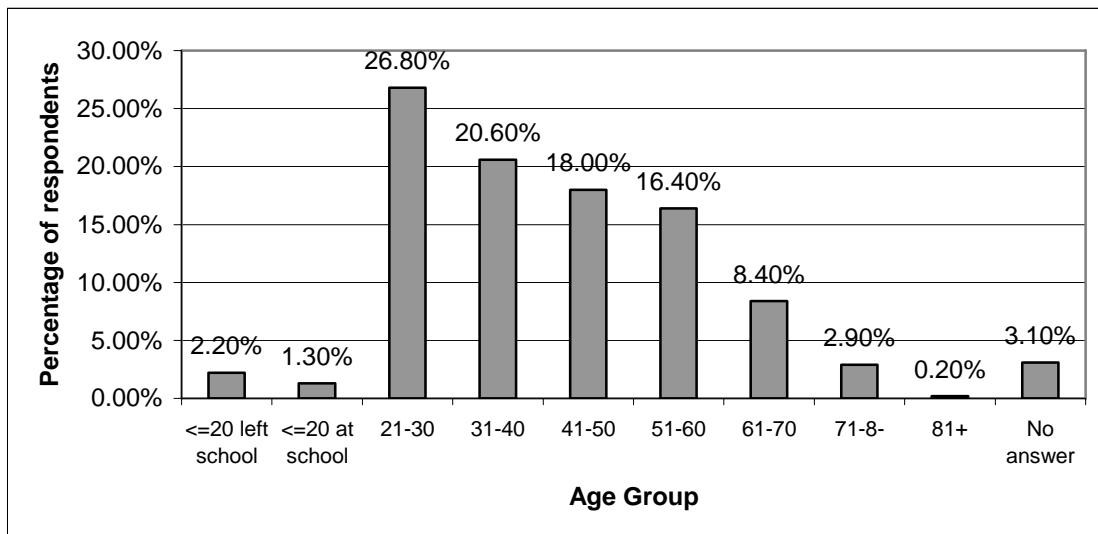


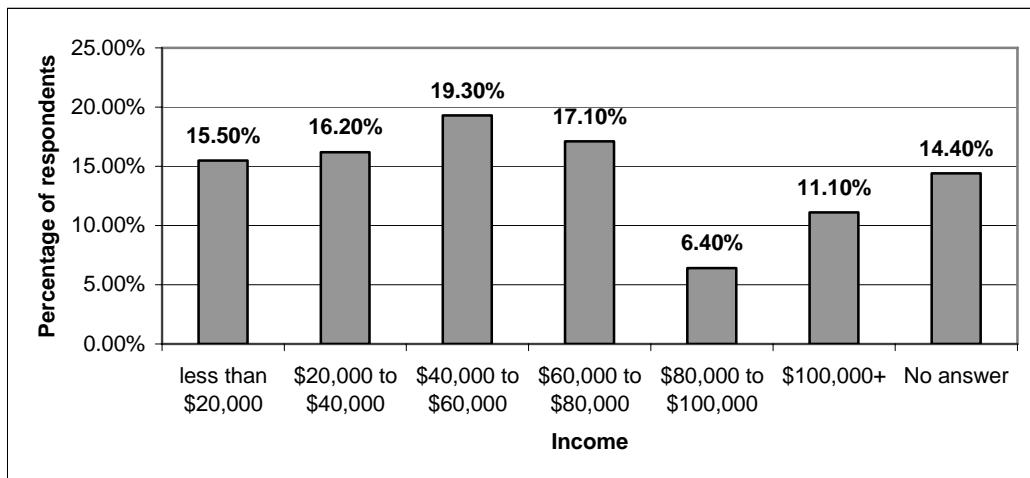
Figure 3 The age distribution of respondents to the Jourama Falls survey.

#### *Level of education*

Most of the respondents were well educated. More than half had university degrees (53.9%) and 20.2% had a trade certificate or diploma.

#### *Approximate level of family income*

The majority of respondents said that their family income is less than AUD\$60,000 per year. The distribution of their responses is shown in Figure 4. On the whole, the family income of the Jourama Falls respondents appears to be lower than that for visitors to Lamington National Park and particularly visitors to Antarctica. This may be, in part, because the visitors to Jourama Falls, on average, are younger.

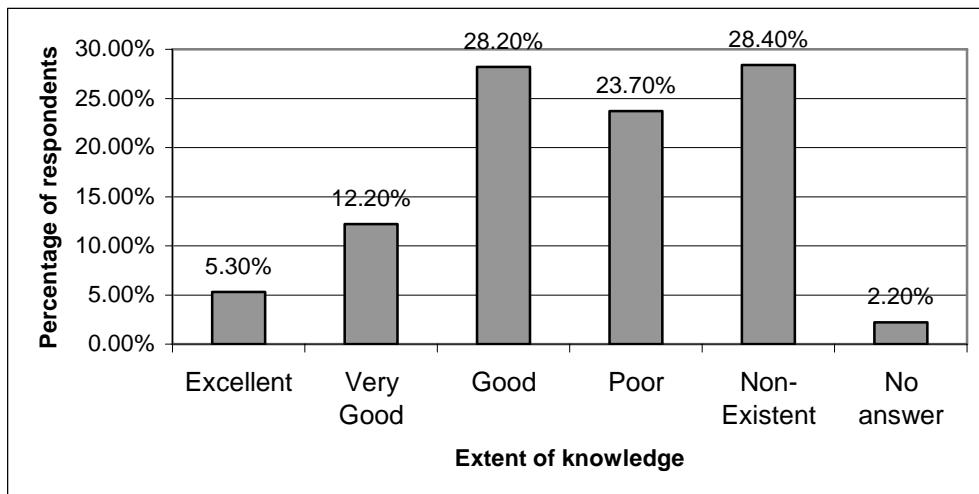


*Figure 4 The distribution of the stated approximate family income before tax of the respondents to the survey in Australian dollars.*

#### **4. Visitors' Knowledge about the Site and the Process of destination Choice by Visitors**

##### *Prior knowledge of the site*

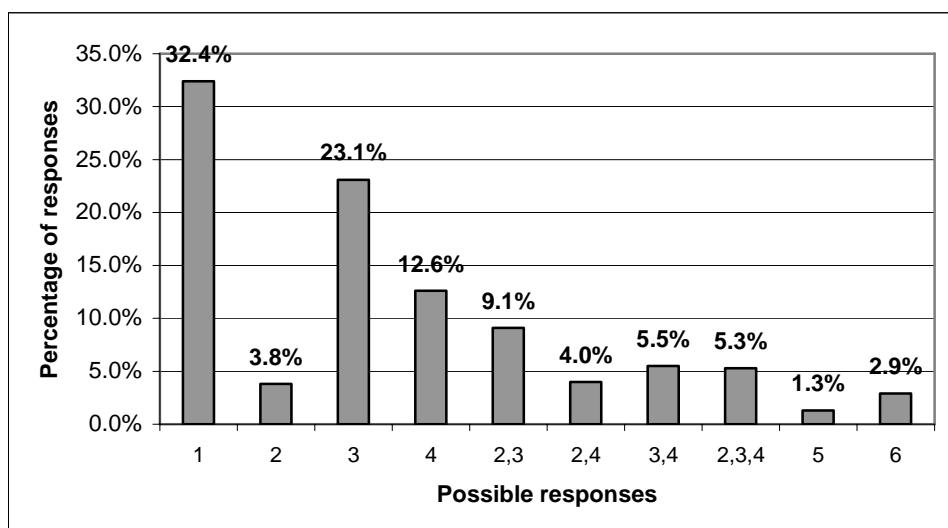
As mentioned earlier, 69% of respondents had not visited Jourama Falls before the survey was conducted. Those surveyed were asked: 'before leaving on this visit to Jourama Falls, how would you rate your knowledge of the site?' Respondents could answer excellent, very good, good, poor or non-existent. Just over half (52.1%) of respondents said that their prior knowledge of the site was poor or non-existent and 2.2% did not reply. Only 17.5% of respondents rated their knowledge of the site prior to their visit as excellent or very good. This group consisted mostly of repeat visitors. The distribution of responses is shown in Figure 5. Clearly the assumption of neoclassical economic theory that tourists can be assumed to be well informed about alternative travel destinations or tourist sites was not satisfied in this case.



*Figure 5 The stated extent of the knowledge of those surveyed of the Jourama Falls site prior to their leaving home.*

#### *Deliberate decision to visit this site before leaving home*

Respondents were asked whether they made a conscious decision to visit Jourama Falls before they left home (see Question 8a). Only 32.4% of respondents said they had and these were mainly repeat visitors. About 43% of respondents indicated that they only decided to visit this site after travelling to this region or area and 27.4% indicated that they visited this site almost by chance. The distribution of responses is indicated in Figure 6.



*Figure 6 The distribution of responses about where and how decisions were made by respondents to visit Jourama Falls.*

The following were some of the comments received:

- Saw sign, read about it in *Lonely Planet* and turned in.
- Road sign.
- Intended to visit accessible national parks.
- Wished to revisit this national park area again.
- Recommended by friends.

*Where and when decisions are made to visit holiday attractions*

Respondents were asked to tick one of the following options describing how they make their holiday decisions:

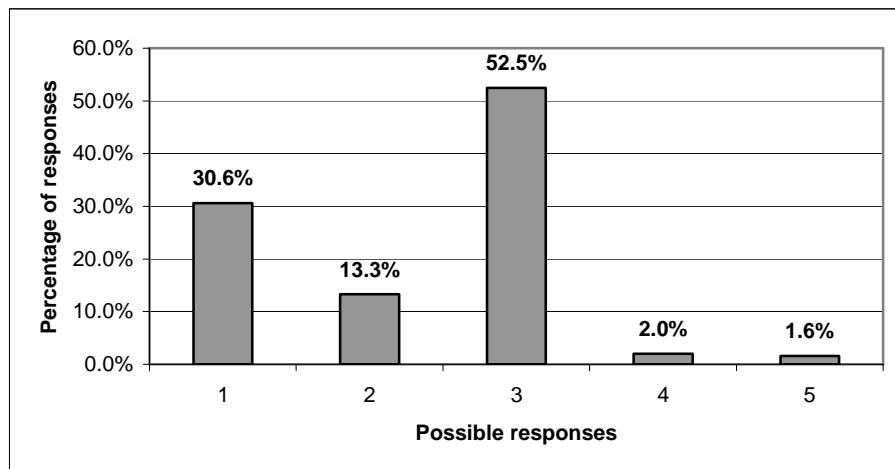
- “When on holidays I usually only decide on most places to visit in a holiday area/region after I arrive in the holiday region.
- I generally decide on most places to visit in a holiday area/region I am going to before I leave home on holidays.”

The majority of respondents (62.1%) said that they usually decided on most places to visit after arriving in a holiday region, whereas 33.3% of respondents said they decided on most places to visit before leaving home and 4.7% did not respond. Although the procedure adopted varied, most respondents seem to decide on the holiday region or general holiday route they wish to take and then only make decisions about specific places to visit after arriving in a tourist area. A multi-stage (or at least a two-stage) decision-making process is involved. This procedure reflects limits (bounds) on decision-making and accords with the type of behaviour predicted by some behavioural economists. See, for example, the discussion by Thaler (1999) of mental accounting and the suggestion of Tisdell (1972, p.333).

*When is information gathered about holiday attractions?*

Respondents indicated that (*on the whole*) they gathered most of their information about attractions in a holiday region after arriving there. Most (52.5%) said that they gathered about an *equal* amount of information about the visit in a holiday region before they left home, 30.6% stated that they gathered most of their information when in the holiday region

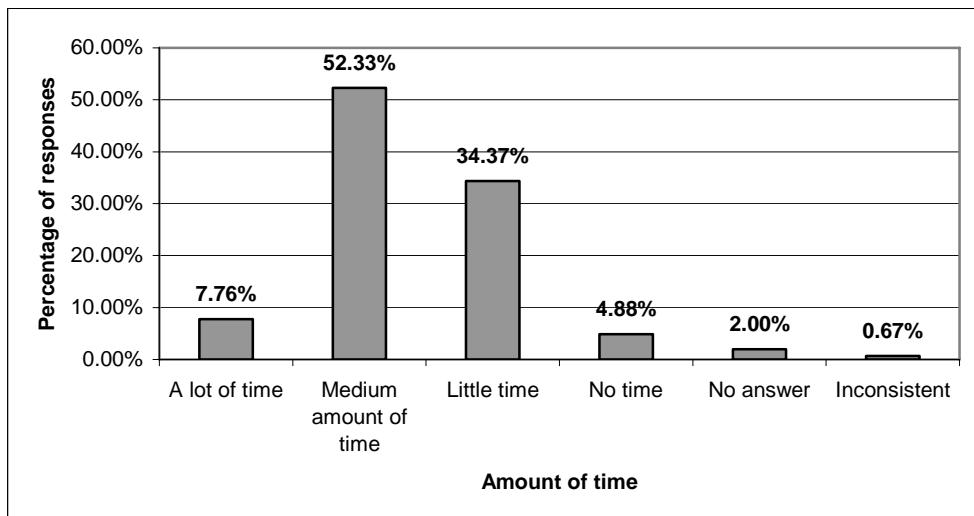
whereas only 13.3% indicated that they gathered most of their information about holiday attractions before leaving home. Either no response or inconsistent responses were received from 3.6% of the sample. The distribution of responses is shown in Figure 7.



*Figure 7 Distribution of the pattern of information gathering by respondents about tourist attractions prior to visiting a holiday region and while there.*

#### *Amount of time spent in gathering information about tourist places and attractions when on holidays in a region*

Respondents were asked to assess the amount of time they spent on gathering information about tourist places and attractions when in a region. They were given four options: (1) a lot of time; (2) a medium amount of time; (3) little time; and (4) practically no time. Just over half of respondents (52.33%) said they spent a medium amount of time on this gathering of information. On the other hand, 37.23% stated that they spent little or practically no time doing this and only 7.76% responded that they spent a lot of time in gathering this information. The distribution of responses is shown in Figure 8.



*Figure 8 The distribution of the stated amount of time which respondents said they spend in gathering information about tourist places and attractions when on holidays in a region.*

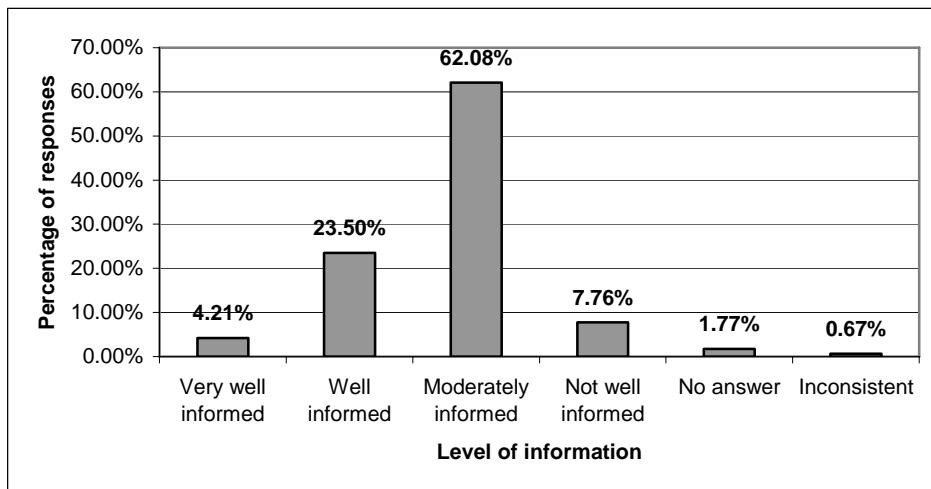
*Responses of respondents about how well informed they are before visiting tourist attractions*

Respondents were asked to tick the item that best applied to them in relation to the following statement:

“When I am on holidays in a region, before I visit its tourist places or attractions

- I am usually very well informed.
- I am moderately informed about what they have to offer.
- I am not well informed.”

Respondents most frequently (62.09%) said they were moderately informed. Only 27.71% said they were very well informed or well informed. Some (7.76%) said they were not well informed. The distribution of responses is shown in Figure 9. It seems that during their holidays visitors to tourist attractions are much less well informed overall than neoclassical economic theory supposes.



*Figure 9 Distribution of the extent to which respondents said they were informed about tourist places and attractions prior to visiting these.*

#### *Discussion of travel destination choices by tourists*

The prior knowledge of tourists or visitors to tourist attractions can vary considerably. In the case of some tourist attractions, as illustrated by visits to Jourama Falls, the majority of visitors have no or poor information about the attraction. Chance can also play a significant role in decisions to visit such tourist sites. Tourism models (such as the travel cost model) based on neoclassical economics tend to ignore such cases.

Neoclassical economics (unlike the Austrian School of Economics) pays little attention to the processes involved in economic decision-making. Our survey gave attention to the processes involved in deciding to visit tourist destinations. It found that a diversity of approaches are adopted by tourists. Some tourists gather much information prior to their journey and pre-plan it in detail. Most follow an intermediate path and a few tourists do little advance planning of the tourist attractions they would visit. Most (but not all) information about tourist sites was said to be gathered after reaching a tourist region. Neoclassical economic theory fails to take account of the diverse way in which tourists make their travel decisions and the degree of variation in the prior knowledge that visitors have of different tourist attractions. There is a need to develop theories that allow for these considerations.

## 5. The Value Visitors Placed on their Visit to Jourama Falls and their Assessment of its General Attractions

### *Value to respondents of the site, their cost and mode of transport to Jourama Falls*

The majority of respondents (93.8%) said it was worth their cost and effort to visit Jourama Falls, 4.0% said it was not and 2.2% did not respond. Most respondents stated that they spent less than AU\$30 to visit this site, that is less than \$30 more than they would have otherwise spent. This is because a visit to Jourama Falls involves a short detour from the Bruce Highway. The Bruce Highway is Queensland's main coastal road, and for many travellers their visit to Jourama Falls was a side trip. However, a few respondents stated that they spent over AU\$100 to visit the site.

Those surveyed were asked how much more they would have been prepared to pay to visit the site. A large number (46.1%) did not answer this question, possibly because to them it was hypothetical. Of those answering, 14% were not prepared to pay any more but around 40% indicated they would pay more but mostly this was an amount of less than AU\$30. This suggests that for most visitors their surplus from the visit was not high.

Most respondents indicated that they travelled less than an extra 30kms to visit Jourama Falls, but a small percentage (around 25%) travelled further. Most arrived by car (75.4%) or by campervan (20.8%).

### *The relative importance of features and facilities at the Jourama Falls site*

Respondents were asked to rate the features listed in the final column of Table 1 as: very important, important or unimportant. The distribution of responses received is shown in Table 1. The majority of respondents rated all the listed features as important or very important for their enjoyment of the site. However, the comparative weight placed on their importance varied. Assigning 2 to very important, 1 to important and zero to unimportant or no answer, the weighted averages of the importance of the selected features of the site as assessed by respondents is shown in Table 2. The natural setting of the site topped the list followed by the waterfall, the walking track and the natural vegetation. Further down the list in order of reduced importance came the possibility of camping, wild animals (apart from

birds), birds, and swimming possibilities. Available picnic facilities were rated the least important feature.

*Table 1 The distribution of the responses of the sampled visitors about the importance for their enjoyment of selected features of the Jourama Falls site.*

Feature	Very important	Important	Unimportant	No answer	Total
Natural setting	70.1%	25.7%	1.6%	2.7%	100%
Waterfall	62.5%	29.5%	5.1%	2.9%	100%
Walking track	55.7%	34.6%	6.7%	3.1%	100%
Vegetation	48.1%	42.8%	4.9%	4.2%	100%
Wild animals <sup>(a)</sup>	38.4%	44.8%	11.1%	5.8%	100%
Swimming possibilities	45.5%	30.8%	20.8%	2.9%	100%
Possibility to camp	45.9%	27.9%	22.8%	3.3%	100%
Birds	35.5%	45.2%	15.3%	4.0%	100%
Picnic facilities	31.5%	34.8%	27.9%	5.8%	100%

*Table 2 The weighted average of 'enjoyment' obtained by respondents from features of the Jourama Falls site where very important is assigned a weight of two, important a weight of one, an unimportant or no answer a weight of zero.*

Feature	Index of importance for enjoyment
Natural setting	1.68
Waterfall	1.54
Walking track	1.46
Vegetation	1.39
Wild animals (birds excluded)	1.22
Swimming possibilities	1.22
Possibility to camp	1.20
Birds	1.16
Picnic facilities	0.98

From Table 1, it is evident that visitors to Jourama Falls varied considerably in what they regarded as important features at this site. For example, considerable variation in features rated as 'very important' is evident from the relevant column in Table 1. Clearly, the Jourama Falls site caters for visitors with **varied** interests in its attractions. These interests can conflict to some extent. For example, it is evident that for some visitors the possibilities

for camping and swimming at this site are more important than the presence of wild animals, including birds.

*Attitudes to additional accommodation possibilities at this site and to their private commercial supply*

Those surveyed were asked 'In addition to camping possibilities here, would you like to see some other accommodation possibilities such as a few cabins or a guest house inside the Jourama Falls site?' They could answer 'yes', 'no' or 'unsure'. The majority of respondents (82.9%) were opposed to this possibility, 6.9% favoured it, 8.4% were unsure about it, and 1.8% did not respond. The main concern of opponents was that it would detract from the natural setting of the site.

Those surveyed were also asked whether they would be opposed to, favour or be unconcerned about the private commercial supply of such accommodation facilities in a limited area of the Jourama Falls site. More than three-quarters of respondents (77.6%) were opposed to this and only 6.9% said they favoured it. About an eighth (12.6%) of the sample was unconcerned about this possibility and 3.8% did not respond.

It can be concluded that there is strong opposition by the respondents to additions to accommodation facilities at the Jourama Falls site. An important reason given was that it would detract from the natural setting of the site. Opposition to development of the site remained strong independently of whether or not the extra accommodation facilities were to be supplied by private commercial businesses.

## **6. Attitudes to the Private Supply of Tourist/Visitor Services and Facilities in National Parks**

A social and political issue in Queensland (and in many other jurisdictions) is the extent to which the private supply of tourist/visitor services and facilities should be allowed in national parks. From previous research, we found that some visitors to national parks in Queensland are strongly opposed to such commercial development in or close to national parks. This survey gave us an opportunity to discover more about the attitude of respondents to the possible private supply of tourist/visitor services and facilities in national parks.

*Support in principle for private provision of facilities in national parks*

Those surveyed were asked 'Do you believe that private operators should in principle be allowed to build and operate facilities for tourists/visitors within a limited area of national parks if the government does not provide such facilities?' The majority of respondents (70.3%) were opposed on principle to this possibility, about one-sixth (16.6%) favoured it, 10.6% were unsure about it and no answer was obtained from 2.4% of the sample.

Opponents mentioned the following as their reasons for opposing private supply of facilities in national parks:

- The primary role of parks should be conservation.
- Being commercialized, the park loses part of its natural beauty.
- Natural parks are not for profit.
- Attract the wrong sort of people.
- Environmental impact (including traffic, noise, need for electricity and sanitation).
- Private operators go against the principle of a national park.
- Tourist invasion.
- People visit national parks for nature not for shops.

The main reasons give by those who believe that private operators should be allowed within a limited area of national parks were:

- Governments tend to under fund national parks so this could be a good alternative.
- Huge tourism potential – the more visitors the greater the dollar value.
- As long as the area can support it, private operators can enlarge the public appreciation.
- As long as private operators don't spoil an area, it is alright.
- Shops, toilets make for an all round visit, especially if you are older. Go for a walk and have a coffee.

*Observations on the responses to the above question*

The main concern of those who opposed any private commercial enterprise in national parks seem to be that it would detract from their natural attributes and compromise conservation

objectives. This was borne out by the responses to Question 16 outlined below. Many of those who supported commercial development within national parks qualified their answer by indicating that it is acceptable if it does not ‘spoil the area’.

Note that if the same survey were conducted in a national park where private commercial facilities are available, it is possible that there would be more support for their provision. This is because some sorting of visitors may occur on the basis of the availability of such facilities. Those who like their availability may be attracted to sites where these facilities are supplied and deterred from visiting sites when they are unavailable.

*Circumstances in which respondents said they would be more supportive of the private commercial supply of facilities and services for tourists/visitors in national parks*

Respondents were asked whether their support for the private commercial supply of facilities for tourists/visitors in national parks would be greater if any of the following applied:

- (1) Nature conservation is not compromised.
- (2) The area for private development is very limited.
- (3) Private developer buys extra land and adds it to the national park to compensate for any tourist/visitor development.
- (4) Fees are charged by the government to private operators/developers in national parks in Queensland and these are used for improvements in national parks.

Respondents could tick more than one possibility.

No answer was given by 24.8% of the sample. The most important consideration was that ‘nature conservation be not compromised’. Most of those in the sample (61.4%) ticked this option and 49.2% said they are more likely to favour a private development possibility if it was very limited. More than a third (37.3%) of the sample said they would be more supportive of this development if condition 4 were satisfied. Only 30.8% said that they would be more supportive of private development if the offset option (Condition 3) were met. Although the offset option has been favoured by some economists, it may lack widespread public support.

A further question (Question 17, see Appendix to this article) was asked to elicit additional information from respondents to their attitudes to private commercial facilities in national parks. The answers tended to support the results from Question 16. However, it emerged from Question 17 that the majority of those who were not opposed to commercial facilities in Queensland national parks, preferred them to be outside but nearby, such parks.

## **7. The Valuation of Wildlife at this Site and Knowledge of it**

The Department of Environment and Resource Management (2008c) highlights the birds and animal species present at Jourama Falls as an attraction for visitors. Particular attention was given in this survey to the knowledge that respondents had of the wildlife present at the Jourama Falls site and their assessment of its importance to them. This was done since one of our research projects at the time was studying the economics of conserving Australia's tropical wildlife species. The mahogany glider (*Petaurus gracilis*) was singled out for special attention because it is present in the Jourama Falls section of Paluma Natural Park, and is rare and endangered. We had studied the economics of conserving it in the Ingham area (Tisdell et al., 2005).

### *The importance of the possibility of seeing wildlife at this site*

Respondents were asked to indicate whether the possibility of seeing wildlife at the Jourama Falls site was very important for them, important or unimportant. Most (52.1%) said it was very important, 39.9% said it was important and 1.8% did not answer this question. Only 6.2% of respondents said it was unimportant. These results ascribe a higher degree of importance to this feature than that reported in Table 1. Nevertheless, the possibility of seeing wildlife still remains less important than the natural setting of the site and the waterfall.

### *A 'halo' or proximity effect*

Respondents were asked if they agreed, disagreed or were unsure about the following statement: 'Even if I do not see much wildlife at this site, it adds to my satisfaction to know that there is much more wildlife around here'. Nearly all respondents (89.6%) agreed with this statement, only 3.8% disagreed and 4.7% said they were unsure. No response was

received from 2% of those sampled. Just under three-quarters of the respondents said that they had seen interesting wildlife during their visit.

The reason why such a high proportion of respondents said that it would add to their satisfaction to know that there is much more wildlife at this site than they have seen is unknown. It may reflect a combination of localized existence value, or the ‘halo effect’ of being in the proximity of relatively abundant wildlife. The results indicate that the halo or proximity factor can have a substantial impact on the satisfaction obtained by visitors to a natural site.

#### *Matters relating to the mahogany glider*

Only 60.3% of respondents said that they knew of the mahogany glider. A large percentage (37.7%) did not know of it at all and 2.0% did not respond to this query. Only 6.4% of respondents said they had seen it in the wild. This is probably not surprising because it is nocturnal, it is rare and has a limited geographical distribution.

The majority of respondents (72.3%) said that before their visit that they did not know that the mahogany glider was present at Jourama Falls, 26.6% said they knew this and 1.1% did not respond.

Respondents were asked: ‘Does just knowing that it (the mahogany glider) is around this site, add to your satisfaction from visiting this site?’ Nearly three quarters (74.7%) of the respondents said yes, 22.0% said no and 3.3% did not answer. Once again, the association of the site with the presence and conservation of wildlife at the site appeared to add to the value of the visit for most visitors despite the focal wildlife not being seen. This may be akin to the value of visits to cultural sites that have historical associations, even when there is little visual evidence of this past history.

Although most respondents said that they did not know of the mahogany glider prior to visiting Jourama Falls, 81.2% of respondents said they did hear something about it during their visit to Jourama Falls and the remainder did not respond. Most (78.2%) said they would have liked to have learnt more about it but 21.3% did not want to learn more, and 5.5% did

not respond to this question. Not all visitors to natural sites want to be educated about nature. Some do not appreciate the educational aspect associated with ecotourism.

*Attitudes to the conservation of the mahogany glider*

When asked whether they in favour of programmes to conserve the mahogany glider 78.49% of respondents said yes. Only 2.22% said no and the remainder were either unsure, indifferent or gave no answer. On the other hand, only 36.59% of respondents said that if asked to make a one-off donation to support the conservation of the mahogany glider that they would donate. Altogether, 33.04% of respondents said they were unsure, 23.73% said no and 6.65% did not answer this question. Because payment vehicle was proposed, this proposal was hypothetical.

Reluctance to donate appears to have been influenced by three main factors.

1. Those who lived outside Queensland (either overseas or in another Australian state) were less likely to say they would donate.
2. Those on a low level of income expressed an unwillingness to donate.
3. Uncertainty about how the money might be spent led to some respondents not being willing to provide a donation.
4. Uncertainty about the nature of the mahogany glider also reduced willingness of some respondents to donate. This was a similar problem to that observed in some of our other studies (Tisdell et al., 2007; Wilson and Tisdell, 2007).

Comments of respondents that did not promise to contribute funds to conserve the mahogany glider included:

- How would the money be spent?
- Entrance fee should go towards it.
- Already contribute to wildlife fund.
- Low income – Currently tight budget.
- Government funding should cover nature conservation.
- It is the Australians' concern to protect their wildlife.
- We live interstate and support our own national parks.

- Taxes pay for this.
- No idea what the mahogany is.

*Demand for information provision about wildlife and for guided wildlife walks at Jourama Falls*

Only 53% of respondents said that they would like to have an interpretive centre at Jourama Falls providing information about the life and ecology of wildlife present at this site. About a quarter of respondents (22.4%) did not want such a centre, 20.4% were unsure about whether they would like to have it, and 4.2% did not answer. Furthermore, only 51.4% said they would visit such a centre. The remainder of this sample either said no (5.1%), were unsure (10.4%) or did not answer (28%). This underlines the point that only a fraction of visitors to natural sites are interested in learning a lot about wildlife present at these sites. Visitors vary in their attitudes to this. However, assuming that the suggested interpretation centre was a good standard, respondents proposed on average an entrance fee per adult of AU\$5.58, for children AU\$1.62, and for pensioners AU\$3.54.

*Guided walks to look for wildlife*

With the exception of birds, most Australian wild animals are nocturnal or can only be readily seen in the early morning or late afternoon. The appreciation of them can be enhanced by guided walks. This is especially true of the mahogany glider which frequents the Jourama Falls site. With this in mind, respondents were asked 'Do you think it would be a good idea to have guided spotlighting walks to look for gliders and other wildlife around this site?' The majority of respondents (53.44%) said yes, but a quarter (25.5%) said no with the remainder being unsure or not answering this question. Consequently, opinion was divided.

It was estimated that a guided wildlife walk would take about 1½ hours. Respondents were told this. If the walk was during the day, 37% of respondents said they would be interested to participate, 35% would not take part, 18% were unsure and 10% did not answer the question. Those who were interested most commonly said that they would be prepared to pay a sum exceeding AU\$5 and up to and including AU\$10 for participation.

Greater interest was displayed in the possibility of a guided wildlife tour in the late evening or night with spotlighting. In this case, 47.2% of the respondents said they would be interested to participate, 25.3% were not interested to do so, 16.6% were unsure and 10% did not answer. On the whole, the fee that they said they would be prepared to pay for the night walk was higher than for the day-time one. For example, the proportion of respondents prepared to pay more than AU\$10 to participate rose.

## **8. Miscellaneous Issues: Facilities, Camping and Procedures, Environmental Aspects, Activities and an Entrance Fee**

Those surveyed were asked about what facilities should be improved at Jourama Falls, about aspects of camping, any environmental problems that should be dealt with at this site, the activities they engaged in during their visit and whether or not there should be a vehicle entrance or parking fee for this site. Let us consider the responses.

### *Facilities that should be improved*

Only 28.4% of respondents said that facilities at this site should be improved, 62.3% said they should not be and 9.3% did not answer the question. Most respondents found the available facilities acceptable. Suggestions for improved facilities included the following:

- Information signs.
- Improve road into park.
- Hot showers.
- Track section up the creek.
- Tank for drinking water.
- Solar electricity to be able to have light in the kitchen.
- Facilities for elderly (Platforms, seats).
- Fireplaces.
- Toilets.
- Rubbish collection.
- More info boards about the falls and what wildlife is present.
- Garbage bags.

- Bigger camping area.

### *Camping*

Most of the respondents (51.7%) had not camped at Jourama Falls but 43.7% had and 4.7% did not indicate whether they had camped at this site. Although 56.5% of respondents thought the camping fees charged at Jourama Falls were reasonable (given what is offered), 3.5% did not think they were reasonable and a larger percentage (34.4%) said they did not know. Another 5.5% did not respond to this query. Only 11.1% (50) of the respondents said they would like better camping facilities than now. This amounted to around a quarter of those who had camped at the site. Of those who said they would like better camping facilities, the most frequently mentioned item was having access to hot showers, followed by water taps, lighting and rubbish bins. Only 43 of the 50 respondents who said that they would like extra camping facilities said they would be prepared to pay more than at present for these. It can be concluded that most campers at this site found the relatively primitive facilities provided for camping to be adequate.

At the time of this survey, Queensland Parks and Wildlife was in the process of introducing a new system for allocating camping sites in some national parks. Those who were surveyed were told 'For many national parks in Queensland it is no longer possible to self-register on site as previously, but it must be done in advance by internet or by phone with a booking number allocated in advance of your visit. The number is to be inserted in your campsite tag which is to be displayed at your campsite.' This was followed up by two questions. Respondents were asked if they would prefer the new system to the previous one. Most (63.2%) said they preferred the previous system, only 6% said they favoured the new system and the remainder did not answer or said they were unsure.

A further question was 'Which of the following possibilities of registering for a campsite in *all* national parks in Queensland (where camping is allowed) would you prefer?

- On-site (self-registration only).
- Off-site (book in advance only).
- Both options (self-registration or book in advance).'

Respondents were also invited to comment. The least frequently preferred option was off-site registration (2% of cases preferred it), and on-site registration was preferred by 23.1% of respondents. The possibility with the greatest support was both options. This was favoured by 67.2% of respondents. No reply was obtained from 7.8% of the respondents.

The main objection to off-site booking was that for most respondents it was too restrictive. Most did not decide where they were going to camp very much in advance of doing so and therefore, favoured flexibility in booking their camping sites. These results also reflect the findings reported in Section 4 that many travellers do not plan their travel in detail and in advance before arriving at a locality. Consequently, their travel decisions are less purposive than many economic models of behaviour of tourists assume.

#### *Environmental problems at this site*

Many more respondents said there were no environmental problems at this site (212 or 47%) compared to those who said there were (47 or 10.4%). About a third (33.7%) of respondents were unaware of whether such problems existed and 8.9% did not answer this question. Clearly, most visitors did not perceive the presence of environmental problems at this site. Those who perceived such problem mentioned the following:

- Many people leave their waste everywhere.
- Feeding wildlife.
- Rubbish left in the area due to lack of bins.
- Weeds.
- Track erosion.

#### *Activities engaged in*

Respondents were asked did they walk to the lookout and see Jourama Falls? This was a popular activity and was undertaken by 78.3% of respondents, but not by 18.8% of respondents. A few respondents (3.1%) did not answer this question. The main other activities which respondents said they engage in during their visit were:

- Walking.

- Swimming.
- Relaxing.
- Bird watching.
- Watching wildlife.
- Rock climbing.
- Picnicking.

*The possibility of an entrance fee*

The following propositions were presented to respondents: 'Visitor's facilities at Jourama Falls cost money to provide and maintain. Do you think there should be a vehicle entrance or parking fee to this site to pay for visitor's facilities?' The number of respondents saying no (263 or 58.3%) far outweighed those saying yes (96 or 21.3%). About 20.4% of respondents did not answer the question or said they were unsure. The strong opposition to fees for entering national parks mirrors responses obtained in our earlier surveys at Lamington National Park.

The comments received are interesting. Comments from those saying yes were as follows:

- Very small amount of money (about \$1 per car).
- Like NSW National Parks, everyone who uses the park should pay. Offer a yearly park pass.
- Fair enough to pay for something you want to see.
- This would restrict the number of people who just visit briefly.
- For day visitors.
- Annual fee.

Those opposed to the fee commented as follows:

- Should be funded by the government.
- Maybe parking fee for day users.
- All natural parks should be free.
- Cost more to administer than collect.

- Pay tax for this reason.
- Could increase camping fees.
- We would not have come in if there was a fee.
- National Parks are a public good.

Those who were unsure or gave us no answer provided the following comments:

- Gold coin donation.
- There should be a donation box at beginning of track.
- Would probably day-visit
- Would need more detail.

Some conflict of interests between campers and day visitors is apparent from the above comments. Some campers favour fees for day trippers to reduce their own fees. Some day trippers think that campers should be charged higher fees to pay for the available facilities.

## **9. An Overview and Discussion of the Findings**

While many of the findings in this article are specific to Jourama Falls, several are of general relevance. For example, it was found that a large percentage of respondents had not previously visited Jourama Falls and over a half said their prior knowledge of the site was poor or non-existent. Only a minority of respondents said that they intended to visit this site before they left home and indeed, 30% of respondents said that they visited this site almost by chance.

While it is unlikely that visits to and knowledge about all tourist sites are of this nature, it is unlikely that Jourama Falls is unique. When many visitors are first time visitors, as at Jourama Falls, and the site is not a major tourist attraction, lack of knowledge about it and limited decision-making of a purposive nature to visit it may be common. Therefore, one should be cautious in applying tourist models based on neoclassical economics (such as the travel cost method) to analyzing tourist demand for visiting such sites.

It was also found that in general tourists tend to make their decisions about what attractions to visit in a multistage sequential manner. This result is compatible with mental accounting models developed by behavioural economists. There is a tendency for tourists to firm-up their decisions and decide on what attractions to visit once they are in a region. Just over half of respondents said that they gathered about an equal amount of information about the attractions in a holiday region before visiting it and the remainder while in the region. Only 13.3% said that they gathered most of their information before leaving home on a holiday and 30.6% said that they gathered most of their information while on holiday. A diversity of approaches was evident, even though the gathering of about an equal amount of information before going on holidays and while on holidays was the most common strategy.

Only a minority of respondents said they were very well informed or well informed before visiting tourist attractions while on holiday. This is because tourists limited the amount of information they gathered before visiting a tourist attraction. It was found that the amount of time given to collecting information about attractions to visit varied considerably. Almost 40% of respondents said that they spent little or no time in collecting such information when on holidays. One could expect from the theory of bounded rationality that tourists would naturally restrict their collection of information about attractions by weighing up the extra costs and extra benefits of collecting additional information. However, the behaviour of individuals in this respect is likely to vary. Some may not take such a calculated approach and those who do may have very different subjective views on the costs and benefits involved.

In relation to their visit to Jourama Falls, most respondents said that it had been worthwhile. However, for the majority of visitors the extra cost of their visit was low. Only a minor detour in the journey of most along the Bruce Highway was involved, although a few visitors spent much more for the specific purpose of travelling to Jourama Falls to camp. The mixture of visitors to Jourama Falls consisted of day visitors (locals on a recreational outing, travellers detouring to explore this site) and campers (some of whom had visited the site before and had purposively come to visit it again). Some visitors came almost by chance.

The natural setting of the site and the waterfall were found to be the main attractions of the site. There was on the whole strong opposition to the provision of additional accommodation

facilities at the site, especially their private supply, mainly on the grounds that it would spoil the natural setting and compromise the conservation value of the site.

In general, strong opposition was expressed to the possibility of private enterprises supplying tourist services and facilities in national parks. A variety of reasons for such opposition were expressed but the main concern was that it would detract from their naturalness and compromise their conservation values. Respondents said they were more likely to support private commercial supply or facilities in national parks if the following conditions (ordered by declining frequency of support) were satisfied.

- (1) Nature conservation is not compromised
- (2) The area for private development is very limited.
- (3) Fees are charged by the government to private operators/developers in national parks and these are used for improvements in national parks.
- (4) Private developer buys extra land adds it to the national park to compensate for any tourist/visitor development.

As mentioned, the offset policy played the smallest role in making respondents more supportive of private developments in national parks.

Although the presence of wildlife was not valued as highly as some of the other features of the Jourama Falls site, it was nevertheless considered to be an ‘important or very important attraction’ by most respondents. A ‘star’ wildlife species present at Jourama Falls is the mahogany glider. However, around 60% of respondents were ignorant about the mahogany glider prior to their visit and almost three-quarters did not know that it was present at Jourama Falls. Although around 80% of respondents said that they did learn something about it while at Jourama Falls, it is not clear how much they learnt – probably little.

Interestingly a halo, proximity or local existence effect was observed. The majority of respondents said that even if they do not see much wildlife at the site, it adds to their satisfaction to know that there is much more wildlife present at Jourama Falls. Similarly, almost three-quarters of the respondents said that just knowing that the mahogany glider is

around this site would add to their satisfaction. This aspect has not been emphasized to any great extent in the literature.

While most respondents said they were supportive of programmes to conserve the mahogany glider, most were not prepared to contribute to a programme to conserve it for reasons outlined above.

Only 53% of respondents said they would like to have an interpretive centre at Jourama Falls to provide information about the life and ecology of wildlife present at the site, 35% expressed interest in participating in a guided wildlife walk during the day and 47% said they would be interested to join a guided wildlife walk in the late evening or at night using a spotlight. As in the survey at Lamington National Park, some visitors were interested in learning more about wildlife in the area but others were not.

Respondents made some (but limited criticism) of the facilities available at Jourama Falls and raised few environmental issues. Nevertheless, important problems were mentioned by a few respondents.

Several aspects of camping at this site were considered. From a general point of view, the most interesting information obtained was about different systems of allocating camping sites. The least support was for offsite pre-booking. There was greater preference for the option of coming to the site and obtaining camping space if available. The greatest support by far was for the option of either booking camping sites in advance or obtaining on arrival if available. The main reason for not wanting to book in advance is that most respondents did not have a firm prespecified travel schedule decided well in advance of their arrival in a locality. This supports the notion that the travel decisions of most tourists involve a sequential multi-stage process.

The question of charging a fee for entry to Jourama Falls proved to be contentious. The majority of respondents opposed the charging of a fee for reasons given above but some favoured it for reasons also specified above. It became clear from the responses that there was some conflict between day visitors and campers about the comparative fees which they ought to pay.

## 10. Conclusion

Although this case study might appear at first sight to be very specific, it has in fact raised a number of general issues. First it is clear that the rational deliberative model in which tourists are all very well informed about tourist attractions does not realistically apply to some (possibly many) situations. This type of model also overlooks the processes by which tourists gather information about tourist attractions and how they decide to visit particular attractions and places. Furthermore, this modelling fails to take account of the distribution of different behaviours that tourists exhibit because it assumes all are well-informed and are not restricted in their rationality. For example, it is limited in the way highlighted by theories of bounded rationality, of which transaction cost theory (Williamson and Masten, 1999) is an offshoot. The findings of psychological and behavioural economics (see, for example, Bowles, 2004; Kahneman and Tversky, 2000) are ignored when this type of theory is adopted. For example, some psychological factors may make some tourists very deliberative in their decision-making about their tourism choices while others do little forward planning of their tourist choices, and are more spontaneous in their decisions.

The main conclusion from this article is that tourists often do not display the type of rationality assumed in neoclassical economics. This does not in itself imply that they are irrational but it is clear that their rationality is bounded (see, for example, Tisdell, 1996, Ch.1). Furthermore, *diversity* exists among tourists about how they make their travel decisions. This is a phenomenon not taken into account in neoclassical economic theories. In addition, it has been discovered that a halo or local proximity effect (based on unobserved attractions, such as the presence of unseen wildlife) can strongly influence the value which tourists place on visiting a natural site. This phenomenon appears to have received little attention in the relevant literature.

## 11. References

Australian Wildlife Conservancy. (no date). About Australian Wildlife Conservancy. Accessed 28 Jan, 2010, from [www.australianwildlife.org/About-AWC.aspx](http://www.australianwildlife.org/About-AWC.aspx).

Bowles, J. (2004). *Microeconomics: Behavior, Institutions and Evolution*. Princeton University Press, Princeton, NJ.

Department of Environment and Resource Management. (2008a). Jourama Falls, Paluma Range National Park. Accessed 27 Jan, 2010, from [www.derm.qld.gov.au/parks/jourama-falls-paluma/index.html](http://www.derm.qld.gov.au/parks/jourama-falls-paluma/index.html).

Department of Environment and Resource Management. (2008b). About Jourama Falls, Paluma Range National Park. Accessed 27 Jan, 2010, from [www.derm.qld.gov.au/parks/jourama-falls-paluma/about.html](http://www.derm.qld.gov.au/parks/jourama-falls-paluma/about.html).

Department of Environment and Resource Management. (2008c). Nature, culture and history, Jourama Falls, Paluma Range National Park. Accessed 27 Jan, 2010, from [www.derm.qld.gov.au/parks/jourama-falls-paluma/culture.html](http://www.derm.qld.gov.au/parks/jourama-falls-paluma/culture.html).

Kahneman, D. and Tversky, A. (2000). *Choices, Values and Frames*. Cambridge University Press, Cambridge, UK.

Thaler, R.H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12, 183-208.

Tisdell, C.A. (1972). *Microeconomics: The Theory of Economic Allocation*. John Wiley, Sydney, New York, London, Toronto.

Tisdell, C.A. (1996). *Bounded Rationality and Economic Evolution*. Edward Elgar, Cheltenham, UK.

Tisdell, C.A., Swarna Nantha, H. and Wilson, C. (2007). Endangerment and likeability of wildlife species: How important are they for payment purposes for conservation? *Ecological Economics*, 60, 627-633.

Tisdell, Clem, Wilson, Clevo and Nantha, Hemanath Swarna (2005). Policies for saving a rare Australian glider: economics and ecology. *Biological Conservation*, 123(2), 237-248.

Williamson, O.E. and Masten, S.E. (1999). *The Economics of Transaction Costs*. Edward Elgar, Cheltenham, UK and Northampton, MA, USA.

Wilson, C. and Tisdell, C.A. (2007). How knowledge affects payments to conserve an endangered bird. *Contemporary Economic Policy*, 25, 226-237.

## **APPENDIX**

### **Questionnaire used for the visitors' survey of the Jourama Falls Section of Paluma Range National Park**



## VISITORS' SURVEY AT THE JOURAMA FALLS SECTION OF PALUMA RANGE NATIONAL PARK

Researchers (Clem Tisdell and Clevo Wilson) at The University of Queensland are conducting independent research on the valuation and economics of conserving Australia's tropical wildlife. This research is supported by the Australian Research Council. Please assist their research by completing this survey form and posting it within the next few days in the self-addressed (postage paid) envelope provided. Your answers will help with the better management and valuation of Australia's tropical wildlife and with improved valuation of this site.

Your answers will be appreciated and will be **CONFIDENTIAL**. One form should be completed by each independent visitor. If you are travelling jointly with another person or persons eg. in the same car ('a party'), **only one** form per party should be completed. Independently paying travellers eg. on a public bus, should complete separate forms.

Thank you  
*Clem Tisdell and Clevo Wilson*

### A: BACKGROUND INFORMATION

1. Name (optional): .....
2. Town or Nearest Town of Residence: ..... State: .....  
Country: ..... Postal Code (if resident in Australia): .....
3. Are you on holidays?  Yes  No
4. Have you visited this site before?  
 Yes  No  
*If Yes, how many times before? .....*
5. How many nights are you staying (did you stay) at this site? .....  
*(If you are **only** a day visitor put **zero**)*
6. What date did you arrive at this site? / ..... / ..... / .....  
*(dd) (mm) (yyyy)*

7. Before leaving on this visit to Jourama Falls, how would you rate your knowledge of this site?

Excellent     Very Good     Good     Poor     Basically Non-Existent

8. (a) Please tick if any of the following apply to you. **Note:** More than one possibility may apply.

I consciously decided to visit Jourama Falls before I left my home  
 I did not decide to visit this site before leaving my home  
 I am/was on holiday or touring, and only decided to visit Jourama Falls **after** I travelled to this region or area.  
 I decided to visit this site almost by chance

*Any comments:*.....  
.....

(b) Tick **one** of the following about holiday decisions:

When on holidays I usually only decide on **most** places to visit in a holiday area/region **after** I arrive in the holiday region  
 I generally decide on **most** places to visit in a holiday area/region I am going to **before** I leave home on holidays

*Any comment:*.....

(c) Tick the item in the following that best applies to you when going on holidays:

**Most** of my information about attractions to visit in a holiday region is usually obtained **after** I arrive there  
 **Most** of my information about places to visit in a holiday region is obtained **before** I arrive there  
 About an equal amount of information about attractions to visit in a holiday region is obtained **before** and **after** I arrive there

(d) Tick the items that best apply to you in each of the following statements:

When I am on **holidays** in a region, gathering information about its tourist places and attractions to visit:

I usually spend a lot of time  
 a medium amount of time  
 a little time  
 practically no time

Before visiting these:

I am usually very well informed  
 well informed  
 moderately informed about what they have to offer

<input type="checkbox"/> not well informed	
<b>9.</b> How did you find out about this site?	
<input type="checkbox"/> Information Centre <input type="checkbox"/> Travel Guide/Book <input type="checkbox"/> Queensland Parks and Wildlife Information <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Other (please specify) ..... <input type="checkbox"/> Sign on highway <input type="checkbox"/> Noticed on map <input type="checkbox"/> Travel Agent <input type="checkbox"/> Friends       .....	
<b>B: VALUE OF VISIT</b>	
<b>10.</b> Was visiting the Jourama Falls site worth your cost and effort? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>11. (a)</b> How much do you estimate that you (or if you are in a small party eg. in the same car and sharing, your whole party) spent <b>specifically</b> to make your visit to this site? (Do not include your camping fees, if camping) AUS\$ .....	
<b>(b)</b> How much more ( <b>extra</b> ) would you have been prepared to spend to make your recent trip to this site? AUS\$ .....	
<b>(c)</b> How much <b>extra</b> in total did you travel on your current journey in order to visit Jourama Falls? ..... kms	
<b>(d)</b> How did you travel to Jourama Falls?	
<input type="checkbox"/> By Car/4WD <input type="checkbox"/> By Public Bus <input type="checkbox"/> Motorcycle <input type="checkbox"/> Campervan <input type="checkbox"/> Other (please specify) .....	
<b>12.</b> Please indicate how important the following are at this site for your enjoyment of it. Tick appropriate boxes.	
Very Important      Important      Unimportant	
The waterfall <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
The birds <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
The wild animals (apart from birds) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
The vegetation <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Natural setting <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Possibility to camp <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Picnic facilities <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Walking track <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Swimming possibilities <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
List up to two <b>other</b> features of this site that are very important or important to you: (1) ..... (2) .....	
<b>13.</b> In addition to camping possibilities here, would you like to see some other accommodation possibilities such as a few cabins or a guesthouse inside the Jourama Falls site?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	

*Any comments for or against:*

(1) .....  
(2) .....

**14.** Would you be:

opposed to  
 favour, or  
 be unconcerned about

the private commercial supply of such accommodation facilities in a limited area of the Jourama Falls site (*Tick item that applies*). Please state your reasons and/or qualify your answer if necessary

(1) .....  
(2) .....

**C: ATTITUDE TO PRIVATE SUPPLY OF TOURIST/VISITOR SERVICES AND FACILITIES IN NATIONAL PARKS**

**15.** Do you believe that private operators should in principle be allowed to build and operate facilities for tourists/visitors (eg. accommodation, shops), within a **limited area** of national parks if the government does not provide such facilities:

Yes       No       Unsure

*Reasons for your choice:*

(1) .....  
(2) .....

**16.** My support will be greater (or my opposition will be less) to the private commercial supply of facilities and services for tourists/visitors in national parks if the following apply. You can tick more than one box.

Nature conservation is not compromised  
 The area for private development is very limited  
 Private developer buys extra land and adds it to the national park to compensate for any tourist/visitor development  
 Fees are charged by the government to private operators/developers in national parks in Queensland and these are used for improvements in national parks

*Any comments:* .....

**17.** Tick any of the following **if you agree** with these:

Private commercial provision of facilities in national parks can benefit visitors  
 Private commercial provision of facilities in national parks could be a useful source of income for the Queensland Parks and Wildlife Service  
 The public can benefit if there are suitable partnerships between Queensland Parks and Wildlife Service and private commercial operators  
 The public probably will **not** benefit if there are partnerships between the Queensland Parks and Wildlife Service and private industry  
 I am opposed to any commercial facilities **whatsoever** being provided in Queensland National Parks  
 While not opposed to some commercial facilities in Queensland National Parks, I prefer them to be outside, but nearby such parks

Any comments: .....

.....

.....

**D: WILDLIFE AT THIS SITE**

**18.** For me the possibility of seeing wildlife at this site is:

Very Important       Important       Unimportant

**19.** Even if I do not see much wildlife at this site, it adds to my satisfaction to know that there is much more wildlife around here

Agree       Disagree       Unsure

**20. (a)** Do you know of the mahogany glider?

Yes       No

**(b)** Have you seen it in the wild?

Yes       No

**21.** The mahogany glider is present in this area. Did you know that before your visit?

Yes       No

It is usually only seen at night with a spotlight and **is not** easy to find. Does just knowing that it is around this site, add to your satisfaction from visiting the site?

Yes       No

**22.** Did you see any interesting wildlife in this area during your visit?       Yes       No

Please identify (if possible) those that you have seen, **and** which are of special interest to you:

(1) .....      (3) .....  
(2) .....      (4) .....

**23.** Did you learn anything about mahogany gliders when you visited Jourama Falls?

Yes       No

*If Yes, what?* .....

**24.** Would you have liked to have learnt more about the mahogany gliders while you were visiting Jourama Falls?

Yes       No

25. Would you like to have an interpretative centre here about the life and ecology of wildlife (gliders plus others) present at this site?

Yes       No       Unsure

If Yes, would you have visited it?

Yes       No       Unsure

Assuming it was of a good standard, what would you suggest as an appropriate entrance fee?

Adult: \$ ..... Child/Schoolgoing: \$ ..... Pensioner: \$.....

Any comment: .....

26. (a) Are you in favour of programmes to conserve the mahogany glider?

Yes       No       Indifferent       Unsure

Any comment: .....

(b) If asked, would you be prepared to make a one-off donation to support the conservation of the mahogany glider?       Yes       No       Unsure

If Yes, what amount would you be prepared to donate? AUS\$ .....

Any comment: .....

27. Do you think it would be a good idea to have guided spotlighting walks to look for gliders and other wildlife around this site?

Yes       No       Unsure

Any comment: .....

28. If you could book on site or in advance **but must pay** to take part, would you be very interested to participate in a guided wildlife walk of about 1½ hours (run by a qualified guide) at this site:

(a) if it is available in the day       Yes       No       Unsure  
If Yes, how much would you personally consider paying to participate? AUS\$ .....

(b) if it is available in the late evening or night with spotlighting       Yes       No       Unsure  
If Yes, how much would you personally consider paying to participate? AUS\$ .....

**Note:** While some wildlife is bound to be seen, species and numbers are very unpredictable. On the night tour, there would be only a prospect of seeing the mahogany glider

## E: FACILITIES, PROCEDURES, ENVIRONMENTAL ISSUES AND ACTIVITIES

29. Are there any facilities that should be improved at this site in your opinion?

Yes       No

*If Yes, please list them in order of importance to you:*

(1) .....  
(2) .....

30. (a) Do you think that the camping fees at Jourama Falls are reasonable given what is offered?

Yes       No       Do not know

*Any comment: .....*

(b) Have you **ever** camped here **or** are you camping here?     Yes     No

31. Would you like to have better camping facilities at Jourama Falls?

Yes       No       Do not know

(a) **If Yes**, what would you like extra or better than now? .....

(b) **If Yes**, would you be prepared to pay more to camp here than now for these extras?

Yes       No

and if **Yes**, how much extra in Australian dollars would you be willing to pay per night for these extras?

AUS\$ .....

32. For many national parks in Queensland, it is **no longer** possible to self-register on site as previously, but it must be done in advance by internet or phone with a booking number allocated in advance of your visit. This number is to be inserted on your campsite tag which is to be displayed at your campsite.

(a) Do you prefer the new system to the previous one?

Yes       No       Unsure

(b) Which of the following possibilities of registering for a campsite in **all** national parks in Queensland (where camping is allowed) would you prefer?

On-site (self registration only)  
 Off-site (book in advance only)  
 Both options (self registration **or** book in advance)

*Any comment: .....*

**33.** Are there any environmental problems at this site that should be dealt with?

Yes       No       Unsure

If Yes, please list them in order of importance:

(1) .....  
(2) .....  
(3) .....

**34.** What were the main activities you engaged in during your visit?

(1) .....  
(2) .....  
(3) .....

**35.** Did you walk to the lookout and see Jourama Falls?

Yes       No

**36.** Visitors' facilities at Jourama Falls cost money to provide and maintain. Do you think there should be a vehicle entrance or parking fee to this site to help pay for these facilities and their upkeep?

Yes       No       Unsure

*Any comment: .....*

**F: BACKGROUND INFORMATION (only to be used for general processing of responses)**

**37.** Gender of person filling out the form?       Male     Female

**38.** To what age group do you belong?

<input type="checkbox"/> 20 or less (left school)	<input type="checkbox"/> 20 or less (at school)	<input type="checkbox"/> 21-30
<input type="checkbox"/> 31-40	<input type="checkbox"/> 41-50	<input type="checkbox"/> 51-60
<input type="checkbox"/> 61-70	<input type="checkbox"/> 71-80	<input type="checkbox"/> 81+

**39.** Indicate your highest educational qualification:

- Completed less than Year 12 at school or equivalent
- Completed Year 12 or equivalent at school
- Trade certificate diploma or equivalent
- Bachelor's degree or equivalent
- Post-graduate university degree or equivalent

**40.** Your approximate family income before tax per annum in Australian dollars

**Note:** This is **confidential** and is for **scientific research only**

<input type="checkbox"/> Less than \$20,000	<input type="checkbox"/> \$60,000 to \$80,000
<input type="checkbox"/> \$20,000 to \$40,000	<input type="checkbox"/> \$80,000 to \$100,000
<input type="checkbox"/> \$40,000 to \$60,000	<input type="checkbox"/> \$100,000 and over

**THANK YOU FOR YOUR CO-OPERATION**

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**PLEASE DO NOT FORGET TO POST YOUR COMPLETED FORM  
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THANKS FOR HELPING**



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