

# From Whale Hunting to Whale Watching in Tonga: A Sustainable Future?

**Mark B. Orams**

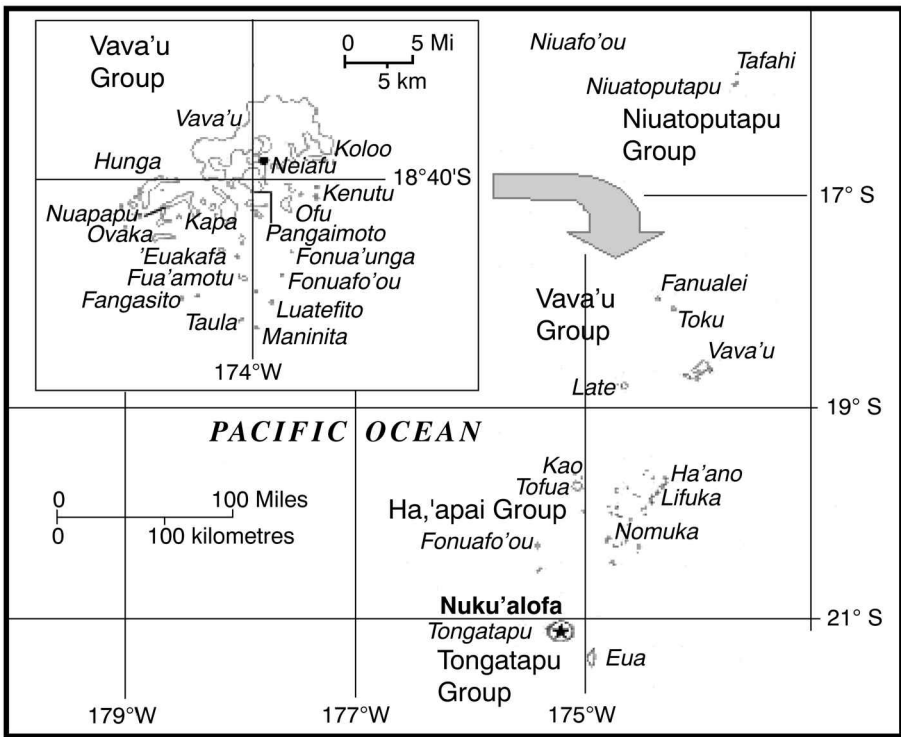
*Centre for Tourism Research, Massey University, Albany, Private Bag 102  
904, North Shore MSC, Auckland, New Zealand*

The Vava'u island group in the northern part of the Kingdom of Tonga in the South Pacific has a growing reputation as a whale-watching destination. The pro-whaling organisation, the World Council of Whalers, with some local people, has, however, been actively promoting a resumption of whaling in Tonga. This study assesses the attitudes and characteristics of 'whale tourists' to the islands. Seventy-eight per cent of all tourists arriving by air, and around half those arriving by yacht, went whale watching. Both types of visitor opposed whale hunting; both types said they would be less likely to visit the islands if whales were hunted there. Consequently, any resumption of whaling or change in the protected status of whales would be likely to displace a large proportion of current visitors to Vava'u, resulting in a serious 'opportunity cost'. It seems unlikely that a whale-watching industry could coexist with a lethal use of whales in Tonga.

## Introduction

Tonga is a small island nation (population around 100,000) in the South Pacific (Map 1). It is unique amongst South Pacific nations in that it is a constitutional monarchy currently ruled by King Taufa'ahau Tupou IV. The King represents a long history of ruling monarchs and his extended family and appointed representatives control the government of the kingdom (Keller & Swaney, 1998). Tonga is also an intensely religious society. Christianity is enshrined in the laws and constitution of the nation – the most obvious outward expression of this is the prohibition of commercial activities, work and organised sport on Sundays. Economically Tonga is dependent on agriculture, forestry, fishing and remittances (income sent from family members working overseas). It is, however, tourism that is often referred to as the 'economic star on the horizon' for Tonga (Keller & Swaney, 1998: 24).

In the 1960s and 1970s a small-scale whaling industry existed in Tonga where local villagers, mainly in the northern island group of Vava'u, hunted whales and utilised them as a source of food. These whaling practices were banned by royal decree in 1978 and whales have remained protected in Tongan waters since that time. In the past five years a fledgling whale-watching industry has become established in Vava'u and it appears to be making a major contribution to the development of tourism in the area. However, the pro-whaling organisation, the World Council of Whalers,<sup>1</sup> along with some locals, has been actively promoting a resumption of whaling practices in Tonga. Coincident with a visit from World Council of Whalers' representatives in late July 1999, a female humpback whale



**Map 1** The Vava'u island group in the Kingdom of Tonga

was butchered near the capital Nuku'olofa and the meat distributed for local consumption.

Consequently, tourism organisations and government officials in Tonga became concerned over the potential impact of a possible resumption of whaling practices in the area. As a result, a study was designed to provide an assessment of the attitudes and characteristics of 'whale tourists' who visit the island community of Vava'u where the majority of the whale-watching industry is located. It was also hoped that this study would provide a starting point for better understanding the growing whale-watching industry in the area.

**Tourism in Vava'u**

The Vava'u island group consists of around 50 small islands surrounding Vava'u island, the largest of the group. It is located in the northern part of the Kingdom of Tonga, 275 km north of Tongatapu. The main town in Vava'u is Neiafu, on the shores of the Port of Refuge harbour. There are a large number of small villages on both Vava'u and other islands although many islands are uninhabited.

Vava'u has, for many decades, been an important stopover for cruising yachts making their way through the South Pacific. More recently, Vava'u has also become well known as a specific tourist destination for visitors who travel by air. In 1997 it is estimated that Vava'u received 4460 holiday-makers by air, 345 cruise ship passengers and 1055 yacht-borne visitors (Orams, 1999). Tourism is highly seasonal in Vava'u with the June to October period the peak season. Almost all

yacht-borne visitors are confined to this period. Holiday-makers who come by air are more evenly distributed throughout the year, although peaks also occur over the June to October period.

Vava'u has been identified by many as the destination with the greatest potential for tourism in Tonga. The Tourism Council of the South Pacific (1997: 33) claimed that 'Vava'u is a world class attraction able to be promoted as a "must see"'. The natural attractions of Vava'u are those of a marine nature: coral reefs, islands, beaches, fish, birds, whales and dolphins. Other important attractions are the climate, the geographical location for yachts cruising the South Pacific (and safe anchorages and relatively easy navigation), the local people and culture. Vava'u is, primarily, a location holiday-makers visit for nature-based marine attractions and activities. The Tonga Visitors Bureau and the tourism industry recognise this and utilise images associated with these attractions to promote the area. For example, the recent branding of Tonga as 'Nature's Marine Adventureland' reflects this and utilises the strongly positive images associated with whales as a centre-piece.

### **Humpback whales and Vava'u**

The humpback whale (*Megaptera novaeangliae*) is a baleen whale belonging to the family Balaenopteridae. This family of six species contains several of the largest whales, and its members are commonly referred to as 'rorquals'. Humpback whales reach an average size of 15 metres and can weigh up to 48 tonnes at maturity. Humpback whales can be found in all oceans of the world. They are highly migratory and tend to prefer coastal waters during their annual migrations. The summer months are spent in nutrient-rich polar feeding grounds, and the winter months in more temperate breeding grounds.

Because of their tendency to migrate close to shore and because of their frequent activity at the surface, humpback whales are the most commonly 'watched' by humans worldwide (Hoyt, 2000). They are, however, classified as vulnerable (IUCN, 2000). Their numbers were severely reduced during the 'modern' 20th-century whaling era. Humpbacks are now protected in most parts of the world and there is evidence that populations in some areas are recovering slowly.

The sheltered, warm waters of the Vava'u island group have been an important breeding ground for humpbacks for centuries. It seems likely that these islands are an important breeding area for the population of humpbacks that once migrated close to the shores of New Zealand. This group of humpbacks sustained a significant whaling industry in New Zealand which, between 1911 and 1963, killed more than 3600 humpbacks. Many thousands more were killed on the Antarctic feeding grounds, including 48,000 illegally taken by the former Soviet Union in the 1950s and 1960s. By 1964 numbers of the New Zealand/Tonga humpbacks had been reduced from an estimated 10,000 to less than 250 whales (Donoghue, 2000). This collapse of the population reflected a worldwide trend in humpback numbers as a result of whaling activities. Despite dwindling numbers, whaling practices continued on a small scale in Tonga until 1978 when the King of Tonga imposed a prohibition on whaling. The protection provided by that decision possibly saved the humpbacks from complete extinction in Tongan waters. However, despite two decades of protection the numbers of whales

breeding in Tonga are still extremely low and concern remains over the survival of this group. In contrast to the humpbacks that migrate up the east and west coast of Australia, where a steady recovery in numbers is occurring (Queensland Department of Environment and Heritage, 1993), there is no evidence of a similar recovery in the New Zealand/Tonga group.

The South Pacific Humpback Whale Project, comprising a group of scientists examining population and genetic issues in the Tongan humpbacks, has been conducting field studies in Vava'u since 1993. Broad population estimates from this research show that the Tongan humpback population, an unknown proportion of which visits Vava'u, numbers around 'only a few hundred individuals' (Baker *et al.*, 1998: 731). The Tongan humpback population is, therefore, a small fraction of its original numbers and concern over its future survival is widespread (Donoghue, 2000).

### Study Objectives

Humpback whales are an important and growing tourism resource for Tonga, and particularly for Vava'u. They are heavily utilised in promotional material for the area and local operators report a growing number of 'whale tourists' visiting the location. There are five permitted whale-watching businesses. There is, however, no specific information regarding the state of the whale-watching industry in Vava'u. The following objectives therefore formed the basis for this research:

- (1) To provide an understanding of the characteristics and activities of tourists to Vava'u.
- (2) To consider the potential impacts on tourism of a resumption of whaling in Tonga.

### Methodology

The time available for fieldwork in Vava'u was limited for this study. The prime researcher spent one week based in the area from 27 August to 3 September 1999. As a result of this limited time-frame a multi-instrument approach was decided upon. First, secondary data were obtained from the Tonga Visitors Bureau. These data provided information on visitor arrivals in Vava'u over the past five years. This was used to structure the sample for the fieldwork. Furthermore, this overall annual information was applied to the results of the week's fieldwork so that an extrapolation to annual figures could be made.

Consequently, several important assumptions have been made with regard to this study. First, it is assumed that the data gathered during the week of fieldwork are an accurate representation of all tourists visiting Vava'u during that week. Second, it is assumed that the week during which data were collected was representative of the entire whale-watch season.

A self-reply questionnaire was the main data-gathering instrument utilised in this study. In addition, data from the Tonga Visitors Bureau were used to check the validity of the sample and to extrapolate results from the sample.

A sample of all holiday-making tourists to Vava'u was given a self-reply questionnaire. Responding to the questionnaires was voluntary and they were

written in English so non-English speakers were excluded from the sample. Questionnaires used a combination of closed and open-ended questions to elicit responses on matters of motivation, satisfaction and socio-demographic information. Respondents were also asked to agree/disagree on a five-point Likert-type scale with a series of statements designed to test a tourist's level of tolerance of whaling practices.

### Sample structure and representation

Every effort was made to ensure that the sample was representative. Self-reply questionnaires were administered to visitors waiting to board aircraft at Lupepau'u Airport. All aircraft-borne visitors exit Vava'u via this airport. Additionally, self-reply questionnaires were distributed to tourists at the three waterfront restaurant/café (Ana's, The Mermaid and The Bounty Bar) that were popular with tourists. Finally, approaches were made to yachts moored/anchored at four popular anchorages close to Neiafu. In each situation every tourist available was asked to participate in the study. A total of 51 questionnaires were completed by yacht-borne visitors and 85 by visitors travelling by air, resulting in a total sample of 136 questionnaires.

A comparison of a number of characteristics between the sample and data for tourists visiting both Vava'u and Tonga was, therefore, undertaken. Specifically, comparisons between the countries of origin for holiday-makers were made and chi-square tests showed no significant differences (aircraft holiday makers:  $\chi^2 = 4.45$ ,  $df = 3$ ,  $p = 0.217$ , yacht-borne visitors:  $X^2 = 1.626$ ,  $df = 3$ ,  $p = 0.654$ ). Similarly, comparisons between the access modes were undertaken and no significant difference was found between the sample and the overall data for Vava'u ( $\chi^2 = 0.303$ ,  $df = 1$ ,  $p = 0.582$ , correction for continuity applied). It seems reasonable, therefore, to accept the assumptions regarding the representiveness of the sample. While the sample is relatively small ( $n = 136$ , representing 5.3% of the 2575 holiday-makers who visited Vava'u during the whale-watching season) an analysis of the sample with the limited data available on tourists to Tonga shows that the sample is not dissimilar from the population targeted for this study.

### Potential sources of bias

It is important in any piece of research to explicitly recognise potential sources of bias and, if possible, to consider those biases in terms of the findings of the study. The fundamental assumptions of this study – that the sample is representative of a typical week in the Vava'u whale-watching season and that the week sampled is representative of the entire season – are a potential source of bias. Weather during the week of fieldwork was unusually windy and on two of the seven days it rained for much of the day. The results of this weather were twofold. First, most commercial whale watch cruises were cancelled for the latter half of the week. This, of course, reduced the numbers of holiday-makers and yacht cruisers who went out whale watching. Thus, the estimates regarding the numbers of whale-watchers may be lower than normal. No adjustment has been made for this as the decision was made to err on the conservative side for estimations whenever possible. Second, a larger than usual number of yachts was anchored in Port of Refuge Harbour during the week as many were waiting for the weather to settle before continuing on their voyages. This was fortunate as it

allowed easier access to yacht cruisers for their inclusion in the sample. The analysis of the sample has shown it to be representative in this regard (proportion of yacht-borne visitors to holiday-makers travelling by aircraft) and, as a consequence, this issue is not seen as problematic for the study.

An additional potential source of bias is the exclusion of non-English speakers from the sample. Only two questionnaires were refused for language reasons, although a number of respondents who spoke English as a second language may have struggled with interpreting the questionnaire correctly. The number of respondents whose English was poor is, however, estimated to be less than ten and, therefore, this is not considered to be a major problem.

Children under the age of 15 were not included in the sample. As a result their views are not represented in this study. There were, however, few children visiting Vava'u during the study period.

## **Research Findings**

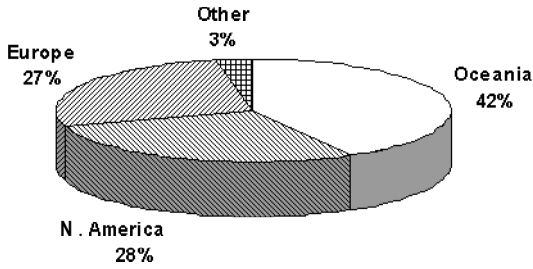
There are two distinct groups of holiday-makers to the Vava'u area, those who travel by aircraft and those that travel by yacht. During the winter months (July–October) around 60% of holiday-makers in Vava'u travel by air while 40% arrive on cruising yachts (95% of these are cruising sail-boats, 5% are 'motor-yachts'). These two groups, yacht-borne visitors and holiday-makers travelling to Vava'u by aircraft, are reported separately here and comparisons, where useful, are made.

### **Characteristics of holiday-makers to Vava'u**

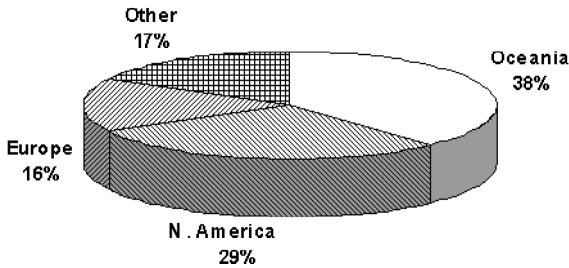
Countries in the Oceania region, particularly New Zealand and Australia, are the most common countries where visitors to Vava'u normally reside. Europeans and North Americans are also common (Figures 1 and 2). What is noticeable are the low numbers of Asians visiting the area. This is most likely related to the low level of tourism infrastructure in Vava'u and the lack of package tours to the area, a tourism mode frequently used by Asian tourists. The attractions, activities and remote nature of Vava'u are better suited to free and independent travellers. Europeans, North Americans, Australians and New Zealanders are more familiar with this style of travel.

As would be expected for a relatively remote destination, holiday-makers to Vava'u tend to stay for a long period of time. Holiday-makers who travelled by aircraft stay an average of 9.7 days and yacht-borne visitors 33 days. It should be noted, however, that while yacht-borne visitors do stay for long periods, the mean reflects a number of yachts that stayed for extended periods. Two yachts, for example, stayed in Vava'u for the entire winter season – 150 days. The shortest time any yacht stayed for was five days. Most typically, yachts visited for between two and four weeks.

The great majority (61%) of yacht-borne visitors were couples with no children. Surprisingly, for such a distant destination, 14% of yachts were crewed by a solo individual. The mean number of crew-members onboard yachts was 2.7 adults and 0.2 children. Holiday-makers who travelled by aircraft tended to travel in larger groups with an average of 5.4 adults, but the mean number of children was still small (0.04). Vava'u tends to be visited by those in the 21–30-year



**Figure 1** Normal residence for air holiday-makers to Vava'u



**Figure 2** Normal residence for yacht visitors to Vava'u

age cohort and the over-50 cohort. Typically, these groups have either yet to start a family or have reached the age when their children leave home. The gender of aircraft-borne holiday-makers is equally balanced, 49% being male and 51% female. However, males are more common on yachts visiting the area; 55% of this population being male and 45% female. This gender difference is explained by the 14% solo-crewed yacht visitors, all of whom were male.

A high proportion of Vava'u holiday-makers classify their occupations as professional/managerial (55% of aircraft-borne holiday-makers and 43% of yacht-borne visitors). The number of retired yacht-borne visitors is also quite high (22%).

As would be expected with a predominance of professional/managerial occupations, the incomes of holiday-makers to Vava'u are also relatively high (Figure 3). Similarly, holiday-makers to Vava'u can be considered as highly educated (Figure 4). This is to be expected with regard to yacht-borne visitors, as the income and expertise required to navigate a vessel over open ocean is high. Consequently, this kind of activity is predominantly undertaken by well-educated and 'well off' people.

### Travel modes

All holiday-makers who travelled to Vava'u by aircraft utilised Royal Tongan Airlines during their trip. Royal Tongan is the only airline that maintains a regular service to Vava'u and, consequently, holiday-makers travelling by air connect from another airline to Royal Tongan at Tongatapu or they fly with a

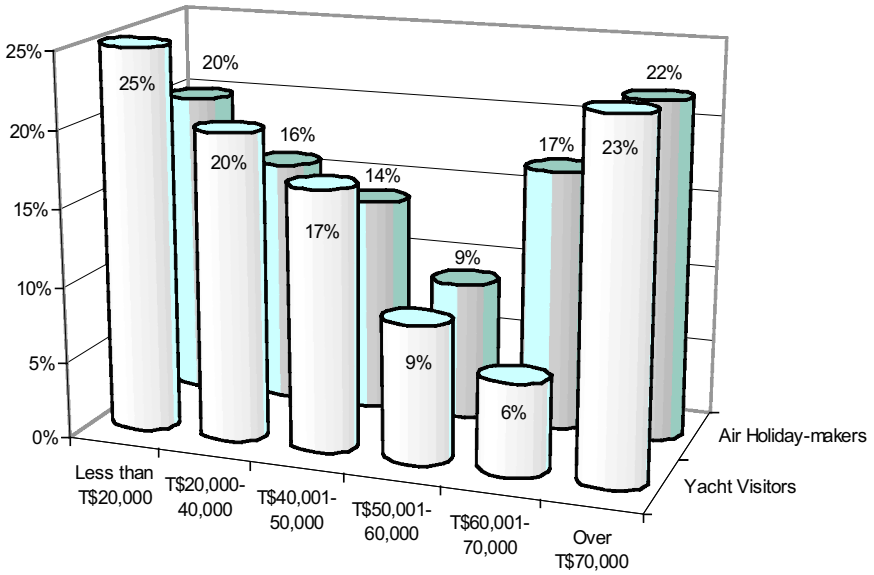


Figure 3 Incomes of respondents<sup>2</sup>

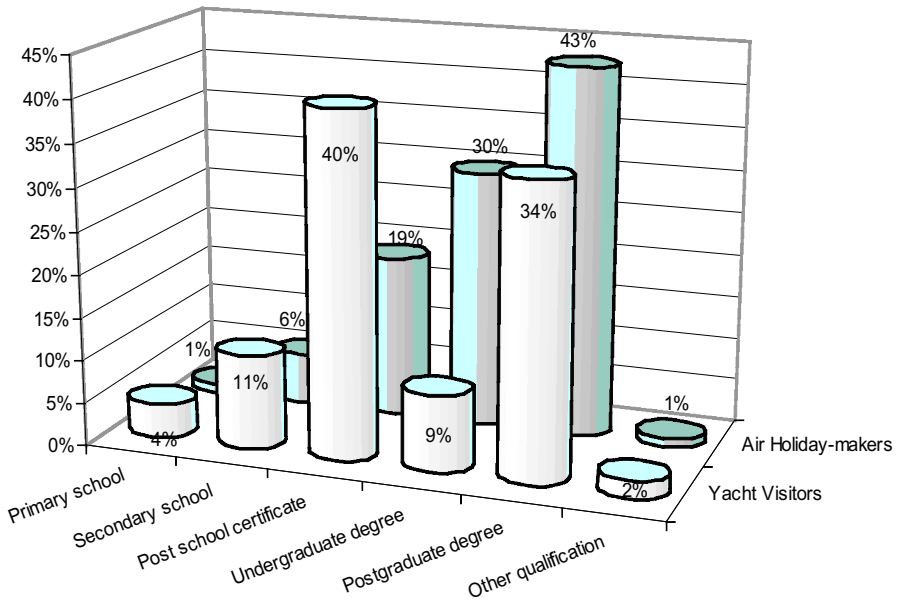


Figure 4 Educational backgrounds of respondents

code-share partner such as Air New Zealand or Air Pacific. Some aircraft-borne holiday-makers are able to fly on a Royal Tongan ticket from New Zealand, Fiji and Australia where regular services are offered (either with a Royal Tongan aircraft or in cooperation with a code-share partner). It is clear that Royal Tongan Airlines is a significant contributor to and beneficiary of tourism to Vava’u.

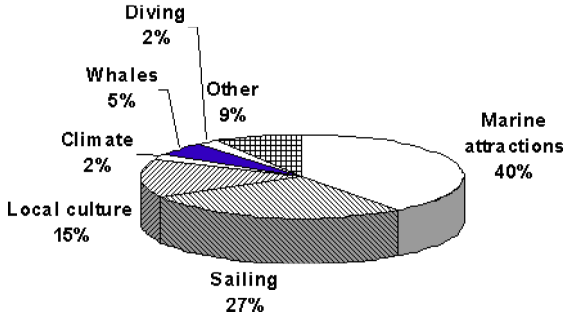


**Accommodation**

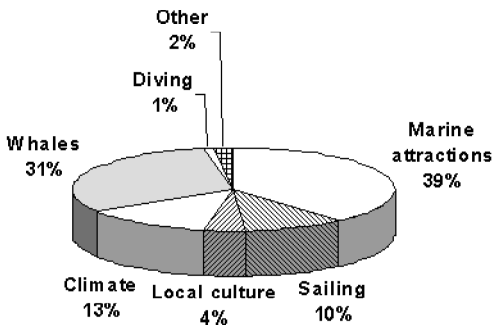
Yacht-borne visitors to Vava’u did, of course, stay on board their vessels. Data on holiday-makers travelling by air also reveal the importance of Vava’u as a destination for those beginning sailing holidays. These visitors utilise land-based accommodation for a few days after arrival while they provision the yacht, then use charter yachts for the majority of their stay (35% of respondents). As a result, the percentage of respondents indicating that they stayed in hotels (14%) may be under-represented in the results. The remaining accommodation types are spread amongst resorts (28%) and guest houses (19%).

**Motivations, attractions and alternatives**

The motivation for visiting Vava’u, and respondents’ views on the important attractions of the area, is consistent in that marine attractions dominate. Predictably, for yacht-borne visitors, sailing is high in importance with regard to their motivation for visiting Vava’u. For the great majority, Vava’u forms part of a wider cruise of South Pacific islands. It did appear that Vava’u is one of the favourite stops for ‘yachties’ visiting the South Pacific because it offers safe anchorages, easy navigation, consistent breezes and marine attractions and friendly local people. Clearly, the main motivation for visiting Vava’u and the main attractions of the area are features of the high quality marine environment. Specific features and activities such as sailing, diving, fishing and the presence of whales are also important attractions for some visitors. Interest in the local culture, the area’s climate and the recommendation of friends were also influential (Figures 5 and 6).



**Figure 5** Attractions in Vava’u important to yacht visitors



**Figure 6** Attractions in Vava’u important to air holiday-makers

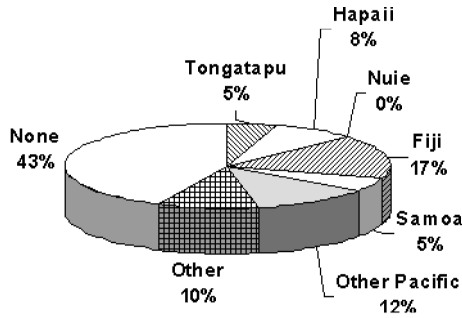


Figure 7 Alternative destinations considered by air holiday-makers

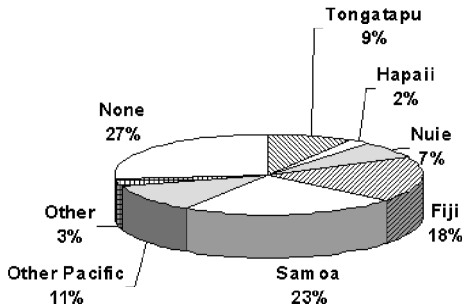


Figure 8 Alternative destinations considered by yacht visitors

Holiday-makers usually consider a variety of destinations for their vacation. An analysis of these alternatives provides an indication of the main competitors for a destination. In the case of Vava’u many respondents, surprisingly, stated that they did not consider other destinations (27% of yacht-borne visitors and 43% of aircraft-borne holiday-makers). Nevertheless, the majority of visitors did consider alternative destinations for their holiday, the most common of these being Fiji (18% of yacht-borne visitors and 17% of aircraft-borne holiday-makers). Samoa is an important competitor for yacht-borne visitors (23%) but does not appear to be so for those travelling by aircraft (5%). It is interesting that other Tongan destinations did not feature strongly (Figures 7 and 8).

**Activities undertaken and satisfaction**

The activities undertaken by holiday-makers to Vava’u are closely related to the attractions of the area. The great majority of activities are marine based. However, souvenir shopping, attending cultural performances and walking are also popular. Table 1 shows that snorkelling is the most frequently undertaken activity with almost all holiday-makers to Vava’u (89%) going snorkelling at some stage during their stay in the area. Similarly, swimming and relaxing are also popular activities. Predictably, 94% of yacht-based visitors went sailing, but almost half of the holiday-makers who travelled to Vava’u by aircraft also went

**Table 1** Activities undertaken by holiday-makers to Vava'u

	Name of activity																		
	Snorkel	Swimming	Relax	Whale watch	Photography	Sightsee	Walk	Sailing	Sunbathing	Attend cultural performance	Boat trip	Souvenir shopping	Fish	Attend church	Scuba dive	Other	Windsurf	Water-ski	Jetski
% of air holiday-makers who participated	98%	92%	84%	80%	72%	64%	59%	46%	63%	43%	59%	42%	31%	25%	18%	20%	1%	1%	0
% of yacht visitors who participated	71%	78%	71%	49%	63%	61%	69%	94%	16%	55%	22%	44%	41%	33%	32%	14%	8%	4%	0
% of total who participated	89%	87%	80%	70%	69%	63%	62%	62%	47%	47%	47%	43%	34%	28%	23%	18%	6%	3%	0

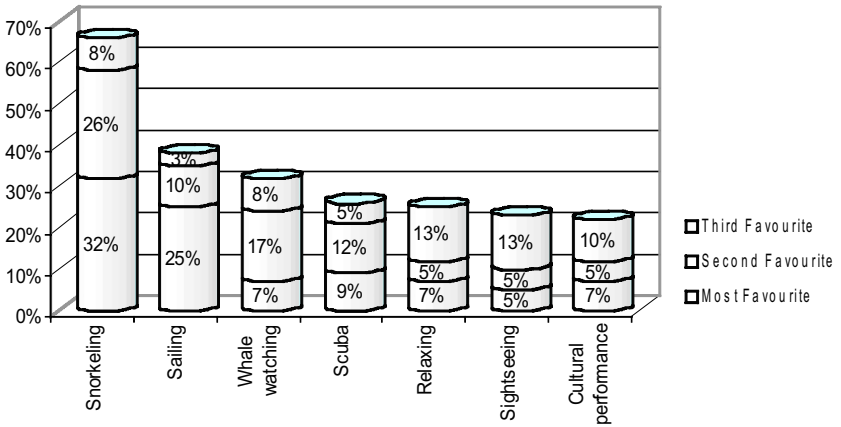


Figure 9 Favourite activities of yacht visitors in Vava'u

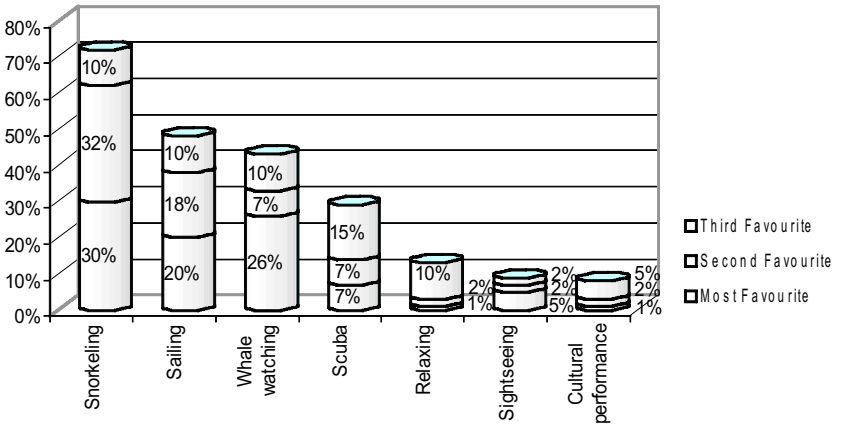
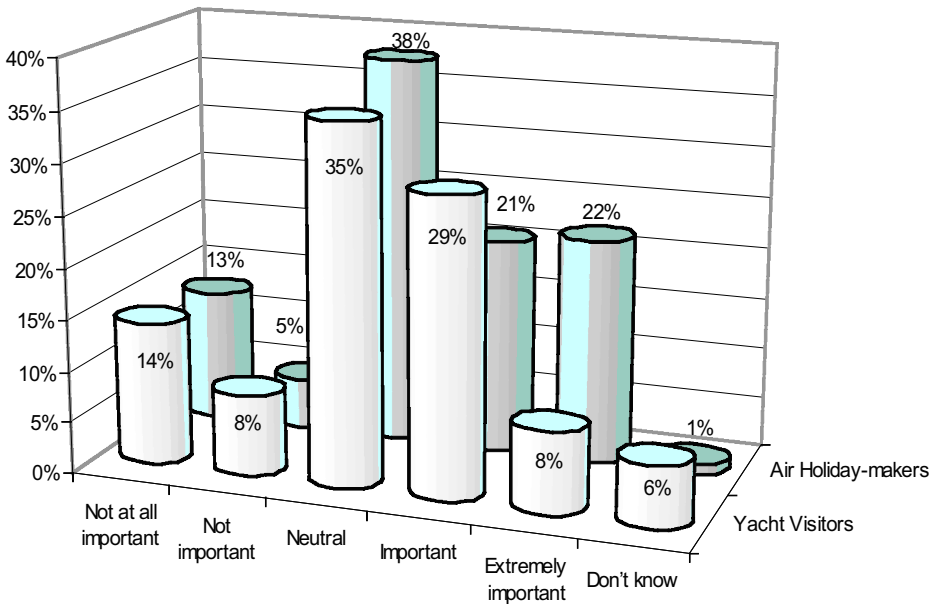


Figure 10 Favourite activities of air holiday-makers in Vava'u

sailing, reflecting the significant influence of the charter yacht operations in Vava'u. A significant activity mentioned by respondents and categorised in the 'other' category was sea-kayaking.

As is typical of most research conducted on the satisfaction of tourists, the great majority report a high level of satisfaction with their experience (89% of aircraft-borne holiday makers and 92% of yacht-borne visitors report being extremely satisfied or satisfied with their visit to Vava'u). More revealing is the selection of respondents' favourite activities. Snorkelling again dominates, with 30% of aircraft-borne holiday-makers and 32% of yacht-borne visitors indicating this was their favourite activity (Figures 9 and 10). Additionally 32% and 26% respectively selected snorkelling as their second favourite activity. As expected, yacht-borne visitors ranked sailing highly as a favoured activity but aircraft-borne visitors also ranked sailing highly – this despite the fact that only 46% of them actually went sailing during their visit. The third most favoured activity was whale watching.



**Figure 11** Importance of whales in choosing to visit Vava'u

### Whale watching

The importance of whales as a reason for visiting Vava'u varies considerably (Figure 11). In general terms, whales are less important to yacht-borne visitors than those arriving by aircraft. However, 43% of aircraft-borne holiday-makers and 37% of yacht-borne visitors considered whales to be important or extremely important in their decision to visit Vava'u. Additionally, a number of respondents indicated that they were not aware of the presence of whales in Vava'u and thus, while they were not an important reason for their decision to come to Vava'u, they were a significant contributor to the enjoyment of their stay in the area.

What is significant in the context of this study are the large numbers of visitors to Vava'u who went whale watching. Over half of all aircraft-borne holiday-makers (56%) went on a commercial whale-watch trip during their stay in the area. A further nine per cent intended to do so before leaving. Almost all charter yacht holiday-makers (35% of aircraft-borne holiday-makers chartered yachts) watched whales from their yacht at some stage during their holiday. Thus, 78% of all visitors travelling by aircraft went whale watching during their stay. This constitutes a significant proportion of all the aircraft-borne holiday-makers to Vava'u. Whale watching is, therefore, an important activity for holiday-makers in Vava'u.

A small proportion (4%) of yacht-borne visitors went whale watching with a commercial whale-watch operation. Thirty-two per cent had watched whales from their own yachts, and a further 29% claimed that they intended to go whale-watching during their stay in Vava'u. Respondents from yachts indicated that their whale watching activities were usually casual rather than deliberate. More specifically, if whales were sighted during a sailing trip then they would stop and watch. However, few yachts specifically set out on a cruise to watch

whales. Nevertheless, 'yachties' indicated that whales were viewed extremely positively and that whale watching was a 'favourite' activity (see Figure 9) for many while cruising (in Vava'u and elsewhere).

It appears from an overview of the data and from discussions and observation whilst in Vava'u that there are three main 'segments' with regard to the importance of whales for visitors to the area. The first group can be labelled 'hard-core whale enthusiasts'. This group is relatively small but their prime motivation for visiting Vava'u is to watch whales. This group constitutes 22% of the aircraft-borne holiday-makers and eight per cent of yacht-borne visitors.

The second group are those for whom whales constitute part of the overall attraction of Vava'u and for whom whales are moderately important or neutral in terms of their decision to visit Vava'u. These people tend to choose to visit Vava'u for the high quality marine environment and related marine activities and whales are part of this overall experience. They constitute 59% of aircraft-borne holiday-makers and 64% of yacht-borne visitors. The third group were those visitors who were unaware of the presence of whales in the area before their arrival and for whom whales were not important in selecting Vava'u as a holiday destination (18% of aircraft-borne holiday-makers and 22% of yacht-borne visitors). They do, however, generally view the whales as an added bonus to their trip.

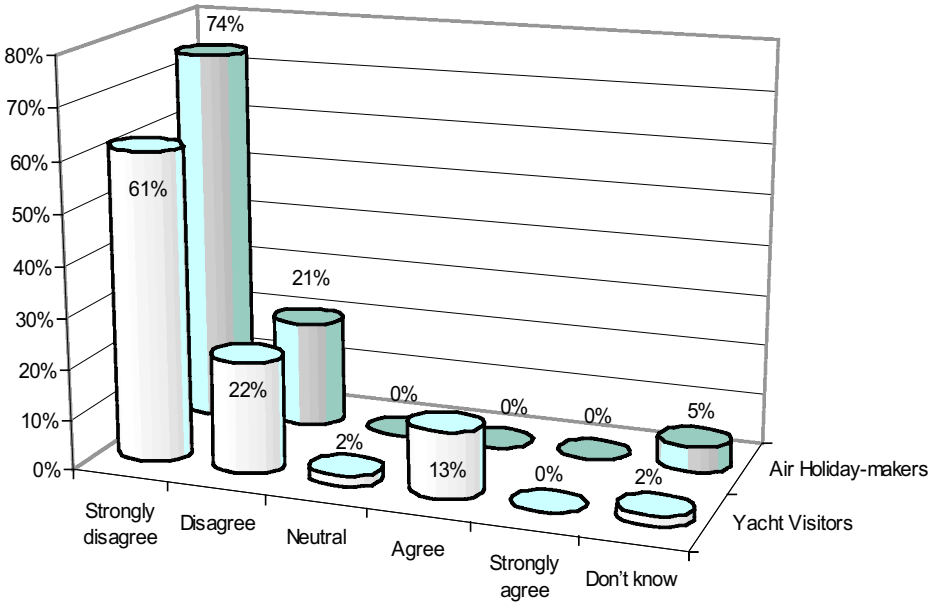
### **Attitudes towards whaling**

A series of attitudinal statements was presented to respondents in the questionnaire and their level of agreement/disagreement solicited. The results are heavily skewed indicating a high level of consistency across respondents. Both yacht-borne visitors (83%) and aircraft-borne holiday makers (95%) are opposed or strongly opposed to the commercial hunting of whales (Figure 12). While the level of opposition to indigenous hunting of whales for local consumption is not as great, it is still strong for aircraft-borne holiday-makers (62%) but more evenly distributed amongst yacht-borne visitors (Figure 13). Respondents were also asked to consider whether the hunting of whales at a particular location would reduce their likelihood of visiting that area, with 62% of yacht-borne visitors and 78% of aircraft-borne holiday-makers agreeing that it would (Figure 14). Finally, a specific statement testing respondents' propensity to visit Vava'u if whales were hunted there was used. Again, this revealed a strong level of consistency across respondents with 65% of yacht-borne visitors and 73% of aircraft-borne holiday-makers agreeing that they would be less likely to visit Vava'u if whales were hunted there (Figure 15).

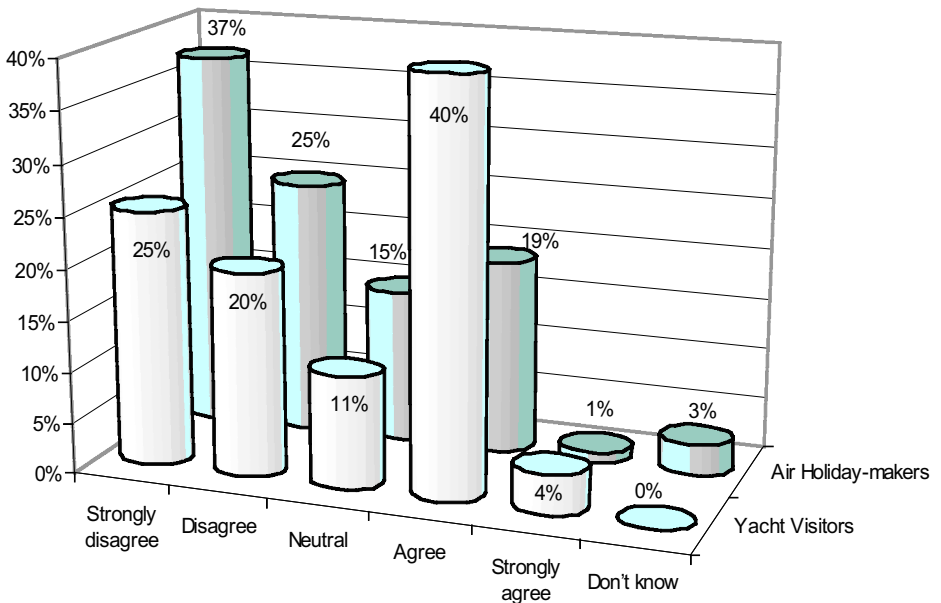
These attitudinal tests show, not surprisingly, that the great majority of visitors to Vava'u are opposed to any consumptive use of whales. This is important, because it reveals that any change in the protected status of whales and resumption of whaling practices, even on a small scale, might displace a large proportion of the current visitors to Vava'u.

### **Conclusions**

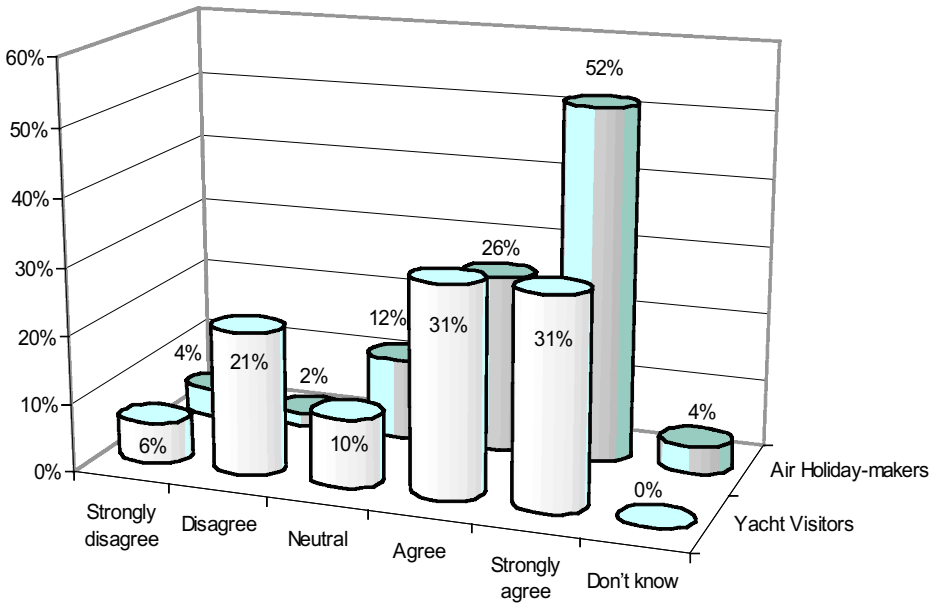
Tourism is an important industry for the Kingdom of Tonga. It has been clearly identified by the Tongan government, and by previous research, that tourism



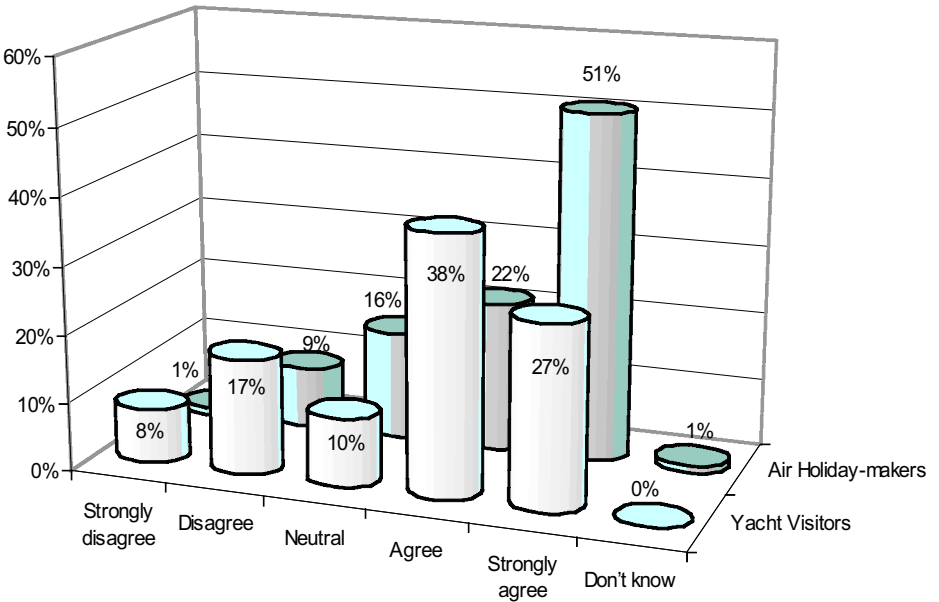
**Figure 12** Level of agreement/disagreement with the statement: 'The commercial hunting of whales is acceptable'



**Figure 13** Level of agreement/disagreement with the statement: 'Hunting of whales by indigenous people for food is acceptable'



**Figure 14** Level of agreement/disagreement with the statement: 'I would be less likely to holiday at a location where whales were hunted'



**Figure 15** Level of agreement/disagreement with the statement: 'I would be less likely to holiday in Vava'u if whales were hunted there'



has significant potential to contribute to an improved future for the Tongan people (Tourism Council of the South Pacific, 1997).

The King of Tonga's decision in 1978 to provide protection for humpback whales in Tongan waters has proved to be an enlightened one. The royal decree protecting whales has allowed the development of a whale-watching industry that has become economically significant for the islands, contributing an estimated US\$550,000 gross to the Vava'u economy in 1999 (Orams, 1999). It is, therefore, an industry that is assisting Tonga to realise its tourism potential.<sup>3</sup>

In the context of the global growth of the whale-watching industry, Vava'u appears to be in its infancy as a whale-watching destination. It could, however, experience significant growth over the coming decade. The demand for high quality natural experiences, particularly those based on large charismatic animals like whales appears to be limitless. Vava'u is well placed to cater for this demand. It is a location blessed by a tropical climate, it has clear, clean water, it already has an established market in areas where 'ecotourism' experiences are popular (North America, western Europe, Australia and New Zealand), and it is fortunate to host one of the whale species most popular for tourism. The competitive advantage that the humpback whales give Vava'u is significant. Tonga's main competitors for tourism are other South Pacific island nations, such as Fiji and Samoa. Each of these possesses similar qualities to Tonga – warm climates, high quality marine environments and friendly Polynesian cultures. What Tonga has, which they do not, are humpback whales easily accessible for tourism. This is a major attraction for visitors to Vava'u and to Tonga. This competitive advantage is well recognised and utilised in promotional campaigns for Tonga. Studies conducted on the tourism industry in Tonga refer to the importance of whales as a tourism attraction for the area. For example, the Kingdom of Tonga Tourism Sector Review completed in 1995 by the Tourism Council of the South Pacific (Kendell, 1995) identifies whale watching as an area with significant potential for Tonga.

Experiences at other remote tourism destinations have shown that tourism destination choice is very fickle. Changes beyond the control of the tourism industry can have a major detrimental impact on tourism arrival numbers. For example, the political unrest in Fiji as a result of the military coup in 1987 devastated the tourism industry in the area virtually overnight (Waters, 1990). Similarly, Hurricane Hugo in the Caribbean in 1989 resulted in a major drop-off in tourism numbers (Miller, 1990). Tourists who travel large distances for holidays have a wide variety of alternative destinations and, as a result, they change their choice of holiday destination very quickly if there is any perceived risk or problem in the area – or even in neighbouring areas. This is an important point, because it indicates that what happens elsewhere in Tonga, and indeed in other South Pacific islands, will influence tourism arrivals in Vava'u.

The lessons from other whale-watching locations around the world are valuable for Vava'u. The findings of this study are consistent with those other locations. Whale watchers are typically well educated, are from upper socio-economic groups and are strongly conservation minded (Constantine, 1999; Forestell & Kaufman, 1990; Duffus & Dearden, 1990; Forestell, 1990). These tourists spend more on their holidays than most and are sensitive to environmental and ethical issues. This study has shown that whale watchers in Vava'u are

similarly inclined. This has important implications for Vava'u as a tourism destination. The great majority of current holiday-makers to Vava'u are attracted by the pristine marine environment, the relatively undeveloped nature of the area and the genuine natural experiences they can have there. Experiencing whales is an important component of those experiences for many. It is, therefore, important to recognise the environmentally sensitive views of many of these visitors because it indicates that any change in the protected status of whales and resumption of whaling practices, even on a small scale, may displace a large proportion of the current visitors to Vava'u. Thus, there is a potential opportunity cost with regard to use of the whales in Vava'u. It appears highly unlikely that a whale-watching industry could coexist with the hunting of whales in Vava'u.

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### Correspondence

Any correspondence should be directed to Dr Mark B Orams, Centre for Tourism Research, Massey University, Albany, Private Bag 102 904, North Shore MSC, Auckland, New Zealand (m.b.orams@massey.ac.nz).

### Notes

1. The World Council of Whalers is an international non-governmental organisation, established in 1997, headquartered on Vancouver Island, British Columbia, Canada. Its goal is to support sustainable whaling worldwide. For further details see: [www.worldcouncilofwhalers.com](http://www.worldcouncilofwhalers.com)
2. Total percentages in some of the Figures do not total 100% due to rounding.
3. There is no reliable information for the economic potential of a resumption of whale hunting on Vava'u. Statistics from the period prior to 1978 are now of little value as times, techniques, prices and markets have changed. The value of the whale meat from the single whale slaughtered symbolically in 1999 is unknown.

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