# *Whale-watching Tourists in West Scotland*

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**In 2000, a survey was conducted on whale-watching tourists in west Scotland. Slightly more females went whale-watching than expected and generally whale-watchers were middle-aged, although there was a notable proportion of younger participants. Whale-watchers were more likely to be accompanied by children than general tourists. Whale-watchers were also predominantly middle-class and well-educated. Most (83.8%) were British, a quarter of which were Scottish. Seventy per-cent were repeat visitors to the area. Sixty-two per cent of whale-watchers stated that they were on their first whale-watching trip, and of those who had been whale-watching before, the majority (43.3%) had done so in the UK (90.4% in Scotland). Most whale-watchers (81.4%) had previously been aware of the occurrence of cetaceans in West Scotland and 75.2% could correctly name at least one local species; the most commonly cited species being the minke whale (31.7%). However, fewer than half of the tourists were aware of whale-watching opportunities in the region and 40% of whale-watchers had only become aware of whale-watching opportunities when they arrived in the area, demonstrating a need to publicise and promote the availability of whale-watching trips in West Scotland.**

**Keywords:** Whale-watching; whale-watchers; tourism; Scotland

## *Introduction*

The waters around west Scotland have the greatest abundance and diversity of whales and dolphins (cetaceans) in the UK, and arguably the greatest in northern Europe. To date, 24 species of cetacean have been reported in this region (Parsons *et al.*, 1999; Shrimpton & Parsons, 2000), with the most commonly sighted cetacean species being harbour porpoises, minke and killer whales and bottlenose, common, white-beaked and Risso's dolphins (Boran *et al.*, 2000; Evans *et al.*, 1993; Shrimpton & Parsons, 2000). The west coast of Scotland is also the location of a rapidly developing whale-watching industry.

Whale-watching can be defined as any commercial enterprise which provides for the public to see cetaceans in their natural habitat. It is important to note that although the generic term 'whale' watching is used, the term

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also encompasses the watching of other cetacean species, such as dolphins and porpoises.

Globally, the whale-watching industry is young – the first whale-watch boat started commercially in 1955 along the south Californian coast. For the next 20 years, whale-watching increased at a gradual pace until the mid-1980s, when it expanded rapidly. In the late 1980s, countries such as Australia, New Zealand, Canaries, Japan and Norway started commercial whale-watching, followed by Hong Kong, Taiwan and Iceland in the 1990s (Hoyt, 2001).

Whale-watching has increased in all aspects (volume, revenue generated, number of countries involved) in recent years. This sector of the tourism industry has grown at an annual rate of 12.1% through the 1990s and by 13.6% per year from 1994 to 1998 (Hoyt, 2001).

Such is the growth of the whale-watching industry that, at present, the economic benefits of whale-watching as a form of commercial exploitation of cetaceans overshadow and far outweigh the economic benefits of hunting whales, even in the most active whaling nation, Japan. For example, Kyodo Senpaku, the company which conducts Japan's whaling programme, has an annual income of only £28 million, of which £6.3 million is a subsidising grant from the Japan Whaling Association (Economist, 2000). Whale-watching in Japan is now valued at £23 million (converted from the dollar value in Hoyt, 2001), thus exceeding the economic value of commercial whale hunts.

The first British commercial whale-watching operation began in west Scotland in 1989 on the island of Mull (Hoyt, 2001), although boat tours prior to this date frequently saw cetaceans during their activities. The industry was slow to start: in 1991, only 400 tourists were involved in whale-watching in the UK, generating a total income of £192,000. However, by 1994, there were seven full-time whale- and dolphin-watching operators established in Scotland and west Wales with an additional 14 companies engaged in whale-watching on a part-time basis (Hoyt, 1994), taking 15,000 tourists whale-watching and generating an estimated £6.5 million in that year (Arnold, 1997; Hoyt, 1995). By 1998, this had risen to an estimated 40–44 UK operators (Hoyt, 2001), taking 121,125 people whale-watching and generating £1,142,000 in direct expenditure (i.e. ticket sales) with an estimated total expenditure of £5 million (Hoyt, 2001).

Even though the whale-watching industry in Scotland is relatively young, during the period this current study was conducted, there were over 35 tour operators advertising whale-watching operations on the west coast of Scotland. Moreover, these operations alone were estimated to generate over £7.8 million in revenue to rural communities in this area (Parsons *et al.*, 2003).

Woods-Ballard *et al.* (2003) described the average whale-watching business in Scotland as run by a local operator who has been conducting boat tours for over 11 years. The operations were also described as typically being small businesses supporting fewer than five full-time, locally-resident staff (Woods-Ballard *et al.*, 2003). The majority of these operators say that they follow a code of conduct to minimise their impacts on the cetaceans that they are watching (Parsons & Woods-Ballard, 2003; Woods-Ballard *et al.*, 2003).

Unlike other destinations around the world, UK and Scotland-based whale-watching tends to be peripheral to most tourists' motivations for visiting an area, adding value to a holiday rather than being the main reason for it. Despite the diversity and accessibility of cetaceans in British waters, and the rapid growth of the whale-watching industry, cetaceans have not been seen as a major tourism resource by national tourism bodies, and thus promotion of whale-watching activities has been minimal. However, studies have shown that whales can be a significant draw for tourists and a quarter of all whale-watchers in west Scotland have come to the area specifically to go whale-watching (Parsons *et al.*, 2003).

A variety of research projects has been conducted to assess and address the impacts of whale and dolphin watching on the marine mammals (e.g. Bejder *et al.*, 1999; Berrow & Holmes, 1999; Blane & Jaakson, 1994; Corkeron 1995), but there is still a lack of knowledge about the participants in those tours. The few studies in this area include Amante-Helweg (1995), Muloin (1998), Orams (2000), Finkler (2001), and Lück (2003). However, there have been no studies on the nature of whale-watchers in Scotland. The aim of this current paper is to determine who goes whale-watching in west Scotland, what motivates them to do so, and to discover the current level of local and tourism awareness of cetaceans in west Scotland. This will provide important baseline information essential for the management and development of this industry.

## Materials and Methods

Three study regions were identified for the investigation of the profile of whale-watching tourists in west Scotland (Figure 1): the Sleat Peninsula (Isle of Skye), Arisaig (Lochaber) and Tobermory (Isle of Mull). These regions were chosen as all three regions were rural communities reliant on tourism and were also the base for established whale-watching businesses.

### Whale-watcher survey

Five whale-watching operations participated in the study, distributing questionnaires onboard their vessels during the period from 14 June to 31 July 2000 (6 weeks), covering the main tourist season. Before the commencement of the survey, researchers met with each operator to discuss the background to the study and its aims and objectives. Questionnaires were left with the operators to distribute to passengers and the completion of the forms was, therefore, dependent on the willingness of the skipper/crew to distribute them at an appropriate time during the trip. Operators were enthusiastic about distributing the questionnaires, because it provided passengers with 'something to do' on the journey back to harbour. To ensure that questionnaires were distributed to the entire complement of passengers on every trip, researchers closely monitored the operators and completed questionnaires were collected by researchers on the return to shore. This ensured a high questionnaire completion rate (>90%), with a total of 324 returned questionnaires during this period.

### Tourist survey

In order to determine the type of person who goes whale-watching in the region, it was important to be able to compare whale-watcher data with information about the type of tourist visiting the region. Although a number of

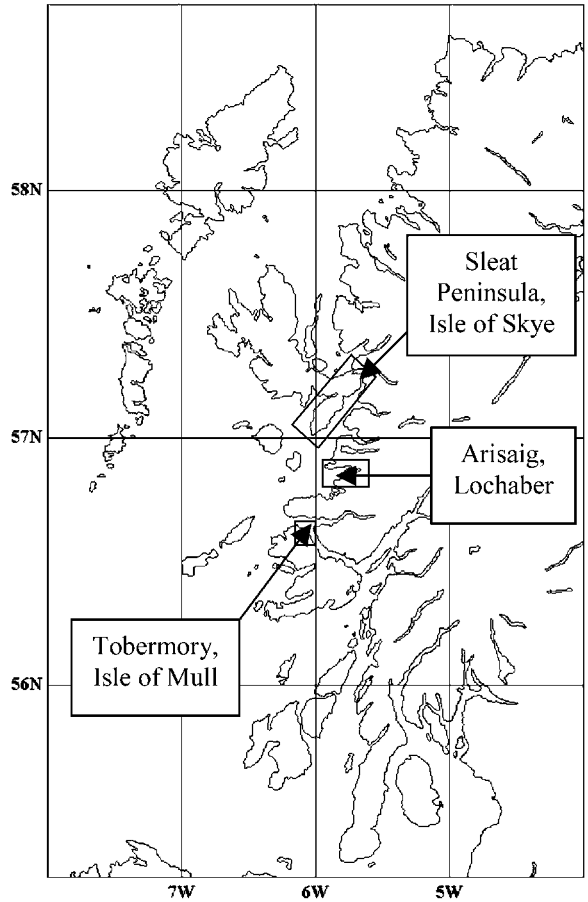


**Figure 1** Map of west Scotland showing the survey areas

visitor surveys had been conducted previously on a regional basis (e.g. Highlands and Islands Enterprise, 2000) there was insufficient data available at the local level to make direct comparisons. Therefore, data were also collected from general visitors to each of the study sites mentioned above (Figure 1). Owing to the small size of each site, only one interview point was necessary for Arisaig and Mull, although two interview points were used on Skye (Table 1). Interview points were carefully chosen as a place where most visitors would pass and may have time to complete a questionnaire. The tourist questionnaires were designed to be completed by an interviewer on a face-to-face basis. Respondents were selected on a 'next person to pass the interviewer after completion of the previous interview' basis. This method aimed to create an unbiased sample of visitors. Very few tourists refused to be interviewed, resulting in a high response rate (>75%). Data were collected between 1 and 31 July 2000 and interviews were undertaken every day of the week between 10 a.m. and 5 p.m. In total, 673 interviews were conducted during the study period.

**Table 1** A summary of interview points and sample distribution

| *Region* | *Survey site* | *Interview point* | *No. of interviews* |
|---|---|---|---|
| Skye | Kyleakin | On the main street, by the pier | 128 |
| | Armadale | At the ferry terminal | 137 |
| Arisaig | Arisaig | Outside the Land, Sea and Island Visitor Centre | 210 |
| Mull | Tobermory | Outside the Tourist Information Centre | 198 |
| Total | | | 673 |

## Results

## Whale-watching Tourist Profile: Who Goes on Whale-watching Tours in West Scotland?

### Age and gender

There was a slight male bias in the general tourist sample (57.3% male; 42.7% female). Conversely, the majority of whale-watchers were female (51.4%), with 48.6% male whale-watchers. The ages of respondents on whale-watch trips varied from the general sample, with a slightly higher proportion of younger people taking whale-watching trips (Table 2). This could be due to boat trips having less appeal for older, less active people. However, it should be noted that 30% of the whale-watchers sampled were over 50, and the profile generally suggests a more mature tourist.

### Group size and composition

Fewer than 8% of general tourists were visiting alone and the majority were travelling without children (73%). Slightly less than one in five respondents were travelling with children. Of those visitors who took whale-watching trips, one in three (29.4%) were with children (10% more than general tourists).

### Socioeconomic groupings

Previous studies have shown that, in general, visitors to Scotland and the Highlands (Table 3) tend to have an up-market, middle-class profile, with the

**Table 2** A comparison of age distribution between whale-watchers and general tourists

| *Age category* | *Whale-watchers (%)* | *General tourists (%)* |
|---|---|---|
| <20 | 3.9 | 1.5 |
| 20–29 | 16.9 | 13.3 |
| 30–39 | 21.1 | 17.4 |
| 40–49 | 27.4 | 25.8 |
| 50–59 | 20.2 | 26.8 |
| Over 60 | 10.5 | 15.1 |
| | $n = 361$ | $n = 667$ |

**Table 3** A comparison of socioeconomic status between whale-watchers and general tourists surveyed in this study and tourist profiles recorded by previous studies

| *Socioeconomic category* | *Whale-watchers (%)* | *General tourists (%)* | *Highlands* (%)* | *Scotland** (%)* |
|---|---|---|---|---|
| AB | 42.8 | 47.8 | 35 | 39 |
| C1 | 46.6 | 35.5 | 35 | 36 |
| C2 | 9.9 | 9.2 | 19 | 15 |
| DE | 0.8 | 7.6 | 11 | 9 |
| | $n$ = 264 | $n$ = 544 | $n$ = 3301 | $n$ = 1833 |

The responses of 'housewife' and 'retired' are not included, as insufficient information was given in order to accurately place these respondents in social class categories.
**Source*: System Three (1999)
***Source*: System Three (2000)

majority of visitors being of the A, B and C1 social classes (definitions of these social classes are summarised in Table 4). The three areas surveyed as part of this study showed an even higher proportion (83.3%) of visitors falling in the ABC1 category. This proportion is much higher than would be expected, as only 48% of the total UK population belongs to socioeconomic groups A, B or C1 (with only 21% of the UK population in the AB category). This suggests that visitors to the survey areas are more likely to have higher incomes than the average visitor. This pattern was exaggerated further in the whale-watcher profile; almost nine out of 10 people were from the middle classes (89.4%) and almost half (42.8%) were social class category AB.

**Table 4** Definitions of socioeconomic categories

| *Socioeconomic category* | *Social status* | *Examples of professions* |
|---|---|---|
| A | Upper middle class | Accountant, lawyer, editor, doctor, professor, senior civil servant, bank manager, board director, pilot, farmer with 10+ employees. |
| B | Middle class | Teacher, civil servant, journalist, pharmacist, area sales manager, newly qualified professional, self-employed with 5–24 employees. |
| C1 | Lower middle class | Nurse, bank clerk, secretary, receptionist, salesman, foreman, police sergeant, self-employed with small business. |
| C2 | Skilled working class | Farm worker, bricklayer, plumber, painter, bus driver, shop assistant, police constable. |
| D | Semi-/unskilled working class | Gardener, fisherman, milkman, miner, cleaner, traffic warden, taxi driver. |
| E | Subsistence level | Part-time clerical workers, casual labourers, unemployed, pensioner. |

### Level of education

The age at which people leave school provides an indication of their future earning capacity and can also be used as an index of the level of knowledge possessed. The majority of whale-watchers (62.9%) left formal education after the age of 21, suggesting that they received qualifications to a university degree level and therefore their earning potential and level of general knowledge should be relatively high. Twenty-two per cent of the general tourists left formal education at the age of 16, and 17% at the age of 18. Of the whale-watchers' sample, 20.8% left formal education at the age of 16, and 16.3% at the age of 18. The whale-watchers' profile did not vary significantly from the general tourist profile.

### Nationality

The majority of visitors to the three survey sites were British (Table 5). The British market accounted for 69.8% of respondents to the tourist questionnaire. This supported previous visitor surveys in the Highlands region and official visitor information for Scotland (Table 5). Overseas visitors made up 18% of the overall Scottish visitor numbers (column 5, Table 5). Comparatively high proportions of these visitors visit the Highland region (column 4, Table 5). Germans and Americans represent the largest proportion of overseas visitors to Scotland (Scottish Tourist Board, 2000). The general tourist survey reflected this, where one in three respondents were from overseas. Also the proportion of respondents to the tourist survey from the USA, Germany and Australasia were similar to the Highlands survey, indicating that the sampling method generated an accurate representation of the market.

The nationality of whale-watchers was markedly different from that of the general tourist population. Over 80% (83.8%) of whale-watchers came from the UK. Only 24.9% of whale-watchers were from Scotland, whereas 58% came

**Table 5** The nationality of whale-watchers and general tourists surveyed in this and previous studies

| *Nationality* | *Whale-watchers (%)* | *General tourists (%)* | *Highlands* (%)* | *Scotland** (%)* |
|---|---|---|---|---|
| Scottish | 24.9 | 29.9 | 26 | 36 |
| Rest of UK | 58.0 | 39.9 | 44 | 46 |
| Overseas | 17.1 | 30.2 | 40 | 18 |
| North America | 3.4 | 8.1 | 8 | 5 |
| Germany | 2.5 | 5.7 | 6 | 2 |
| Australasia | 1.5 | 3.4 | 3 | 1 |
| Scandinavia | 0.8 | 2.8 | N/A | N/A |
| Other European | 6.4 | 9.0 | N/A | N/A |
| Other | 2.5 | 1.2 | N/A | N/A |
| | $n$ = 357 | $n$ = 669 | $n$ = 3301 | $n$ = 11.9 million |

**Source*: System Three (1999)
***Source*: Tourism Facts and Figures (2000)

from the rest of the UK. The percentage of overseas visitors going whale-watching (17%) was almost half the proportion of overseas visitors recorded in the general tourist survey. This suggests that overseas visitors are not inclined to take whale-watching trips during their stay.

## Length of stay

Those respondents staying away from home were asked to indicate how many nights they would be staying in the area. The results are shown in Figure 2. The mean length of stay for the whale-watchers (6.4 nights) was higher than that of the mean length of stay for the general tourists (4.8 nights). This is reflected in the difference between the modal averages for each group (two nights for tourists and seven nights for whale-watchers) and suggests that on average people visit the area for relatively short periods of time. Those people who are staying for longer are more likely to take a whale-watching trip, or may have come to the area specifically for whale-watching. However, 33% of respondents were staying for only two or three nights and still had time to go whale-watching. A whale-watching trip would, therefore, have been the focus of the visit for these individuals, suggesting that they may have made a special effort to come to the area to go whale-watching.

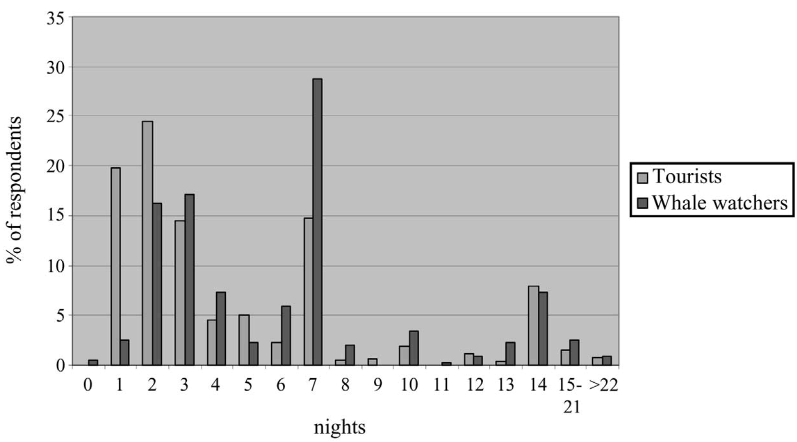


**Figure 2** A comparison of the length of stay of general tourists and whale-watchers

The types of accommodation used by general tourists and whale-watchers provide an indication of the amount of money accruing to the local economy. The results showed that whale-watchers favoured 'bed and breakfast'-style guesthouses and self-catering accommodation over campsites or hostels (Table 6). Therefore, the indirect spend from whale-watchers would be relatively high, and slightly greater than general tourists.

## Type of holiday

Survey respondents were asked to specify the type of holiday they were taking. The majority of respondents to both samples were on an independent touring holiday, i.e. visiting more than two destinations during their trip (54.8% of the whale-watchers; 67.6% of the general tourists). The percentage of whale-watchers that were based in one location was slightly higher than

**Table 6** A comparison of the types of accommodation used by general tourists and whale-watchers

| *Accommodation type* | *Whale-watchers (%)* | *General tourists (%)* |
|---|---|---|
| Bed and breakfast guesthouse | 27.8 | 31.9 |
| Tent/caravan | 17.8 | 21.3 |
| Hotel | 14.0 | 15.5 |
| Self-catering | 25.4 | 13.5 |
| Hostel | 2.9 | 6.1 |
| Friends and relatives | 6.7 | 4.6 |
| Onboard own boat | 0.6 | 4.1 |
| Holiday home | 4.7 | 3.0 |
| | $n$ = 342 | $n$ = 658 |

in the general tourist group (38.4% and 28.2%, respectively). This corresponds with the longer length of stay and higher proportion of self-catering accommodation chosen by whale-watchers.

A small proportion of the whale-watchers (6.8%) were on previously arranged package tours, which was higher than the proportion of package tourists from the general tourist group (4.2%). Nine of these were on week-long whale-watch itineraries with one boat operator, and four respondents were on a wildlife package of which whale-watching was one component.

Respondents were asked if they had visited the region previously and if so how many times before. Over two-thirds of respondents of both samples had visited the area before. For whale-watchers, 36.8% had visited from 1–5 times previously, 14.7% had visited between 6 and 10 times and 34.9% had visited west Scotland 11 or more times. General tourists showed a similar profile although, on average, general tourists had previously visited the region slightly more frequently than whale-watchers (1–5 times: 31.6%; 6–10 times: 14.4%; 11+ times: 49.4%). Similar results were found for tourists in the Highland region (1–5 times: 55%; 6–10 times: 18%; 11+ times: 26.4%; System Three, 1999), although whale-watchers and general west Scotland tourists in the current study displayed a higher number of return visits than the Highland visitor survey.

The proportion of overseas visitors on their first visit to western Scotland was almost double that of the domestic visitors (49% from the general tourist group and 35% from the whale-watcher group) as shown in Figure 3. Conversely the percentage of visitors on their first visit to western Scotland, who live in another region of Scotland, was considerably lower than the average for all respondents. This demonstrates that overseas visitors are less likely to return to Scotland but are more likely to go whale-watching on a first visit. Tourists from the UK, and in particular Scotland, are less likely to go whale-watching on their first visit to west Scotland. Of those visitors who had visited the region before, over one third of both survey groups had visited fewer than six times (32% for tourists, 37% for whale-watchers; Table 7). Almost half of

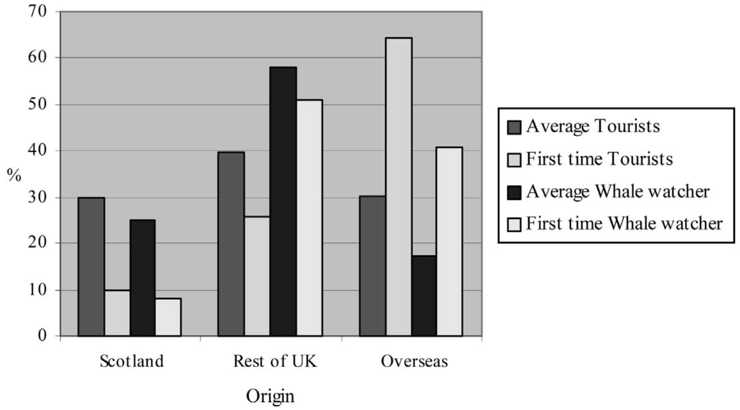


**Figure 3** Origin of respondents who are visiting western Scotland for the first time (compared to the average for both sample groups (whale-watchers and general tourists))

**Table 7** Location of whale-watchers' and general tourists' second holidays

| *Holiday location* | *Whale-watchers (%)* | *General tourists (%)* |
|---|---|---|
| UK | 27.7% | 26.8% |
| Europe | 32.3% | 31.3% |
| Outside Europe | 23.2% | 20.1% |
| Don't know/abroad | 16.8% | 21.8% |
| | $n$ = 220 | $n$ = 418 |

the general tourist group (49%) had visited more than 10 times. This figure was slightly less for whale-watchers (35%).

### Other holidays taken

About two-thirds of both general tourists and whale-watchers were taking more than one holiday during the year (65.4 and 64.3%, respectively). This suggests two things: that respondents choose to spend their disposable income on travel (which may be relatively high) and also that the current trip may not be the main holiday of the year (which is also indicated by an average length of stay of 2 days for general tourists). Over half the total respondents who were taking other holidays were taking holidays abroad, although only one in five respondents were venturing outside Europe (Table 7).

### Had whale-watchers been whale-watching before?

Of the 324 whale-watchers surveyed, 62% were on their first whale-watching trip. Thus, two-thirds of people were seeing whales for the first time. Of the 201 first-time whale-watchers, 83% were from the UK (including Scotland). This corresponds with the overall proportion of whale-watchers from the UK (83%); therefore, UK visitors are no more likely to take whale-watching trips in Scotland for the first time than overseas visitors. Of the 118 respondents who had been whale-watching before, 46% had only been whale-watching once, although the average number of whale-watching trips taken previously was 2.7 trips.

Seven respondents had been whale-watching more than eight times previously. One respondent had been whale-watching 15 times prior to the survey. Those who were frequent whale-watchers (i.e. more than five) tended to use Scottish whale-watching operations (in the Moray Firth, Mull, Durness and Arisaig). The UK was the location that had been previously visited most often, in terms of whale-watching destinations (Table 8). Of the 52 respondents who had been whale-watching in the UK, only five (9.6%) had been whale-watching outside of Scotland.

### Whale-Watcher Motivation: Why Do Tourists Go Whale-Watching?

Whale-watchers and general tourists were both asked to rate the importance of a number of features as factors in choosing west Scotland as their holiday destination. The importance was rated on a scale of 1 to 5 where a score of 1 indicated that the factor was not at all important in their decision, and a score of 5 was very important in the decision.

The results (Table 9) demonstrate that all of the factors, except outdoor pursuits, were considered to be important motivators for people to visit western Scotland. Both the cultural and natural components of Scotland's heritage appear to be influential to both groups. Scotland's wildlife played a greater part in attracting whale-watchers to west Scotland than general tourists. Neither group considered outdoor pursuits to be important motivational factors (Table 9).

Respondents were also asked to state any other factors that were important in their decision to visit the area. Fifty-four whale-watchers and 20 general tourists stated other factors were important and these are summarised in Table 10.

Whale-watchers were asked to choose two reasons why they went on a whale-watching trip. Passengers were also given an open-ended section to express any other reasons that were not listed. The results are summarised in

**Table 8** The location of previous whale-watching trips taken by whale-watchers

| *Location of previous whale-watching trips taken* | % |
|---|---|
| United Kingdom | 43.3 |
| North America | 19.2 |
| Europe | 15.8 |
| Australia/New Zealand | 10.0 |
| Africa | 5.8 |
| Asia | 4.2 |
| South America | 1.7 |
| | $n$ = 120 |

**Table 9** Importance of various factors in the motivation of tourists and whale-watchers for visiting west Scotland (1, not at all important; 5, very important)

| *Motivational factor* | *Whale-watchers (mean ranking value)* | *General tourists (mean ranking value)* | *Significant difference? ($n = 674, p < 0.05$)* |
|---|---|---|---|
| Landscape | 4.52 | 4.75 | Yes |
| Seascape | 4.38 | 4.47 | Yes |
| Wildlife | 4.33 | 3.69 | Yes |
| Culture | 3.29 | 3.66 | Yes |
| Visiting friends and relatives | 3.59 | 3.41 | Yes |
| Outdoor pursuits | 1.91 | 1.67 | Yes |
| | $n = 324$ | $n = 674$ | |

**Table 10** Other motivational factors for whale-watchers and general tourists in their decision to visit west Scotland

| *Motivational factor* | *Whale-watchers (%)* | *General tourists (%)* |
|---|---|---|
| Remoteness | 10.2 | 0.3 |
| Peace/Quiet | 1.9 | 1 |
| Business | 0.3 | 0 |
| Golfing | 0 | 0.3 |
| Other | 4.3 | 1.3 |
| No response | 82.3 | 97.1 |
| | $n = 324$ | $n = 674$ |

Table 11. One third of responses were that they specifically wanted to see whales and dolphins. In that way, whale-watch operators have a marketing advantage. Over 50% of respondents appear to have an interest in wildlife. Just over one in 10 respondents simply enjoyed a day out on a boat as part

**Table 11** A summary of why whale-watching trips were taken

| *Motivational factor* | % |
|---|---|
| Had always wanted to see whales and dolphins in the wild | 33.3 |
| Enjoyed wildlife-watching trips | 23.3 |
| Enjoyed boat trips when on holiday | 11.4 |
| Wanted to see the scenery | 9.8 |
| An opportunity to take photographs | 5.2 |
| The children wanted to do it | 5.0 |
| Trip was recommended to me | 4.6 |
| Looking for an excursion | 4.2 |
| Other reason (asked to specify) | 1.8 |
| Wanted to learn more about marine conservation | 1.4 |

of their holiday or used the boat trip as an opportunity to see the area. Although almost 30% of respondents were travelling with children, only 5% considered the children's desire to take the trip as the main reason to take the trip.

## The Level of Awareness of Cetaceans in West Scotland

The majority of respondents in the two sample groups were aware of the occurrence of cetaceans in west Scottish waters (81.4% of the whale-watchers and 71.7% of the general tourists). As would be expected, a higher proportion of whale-watchers also knew about cetaceans in west Scotland before coming to the area.

### Knowledge of local cetaceans

The two sample groups were asked to name three locally occurring cetacean species to measure their knowledge of cetaceans in the area. Whale-watchers understandably had the highest accuracy when naming locally occurring cetacean species. Seventy-five per cent of whale-watchers could name at least one species, 33% could accurately name three (Table 12). Thus, the whale-watchers' knowledge was significantly higher than that of the general tourist group. Only 46% of general tourists could name one or more species of cetaceans. However, the data do not indicate whether this knowledge was acquired prior or during their trip.

Of the cetacean species named, the minke whale, bottlenose dolphin and harbour porpoise were the three most commonly cited species and indeed they are the most commonly observed species in the coastal waters of the three survey sites. Thirty-two per cent of whale-watchers named minke whales, a species which is the focus of most of the whale-watching trips in the survey areas.

The level of local knowledge of cetaceans varied between the three survey sites: 70% of Skye tourists were unable to name a single local cetacean species, 46% were unable to name a single species in Arisaig, and only 32% of Mull tourists could not name any local cetacean species. This clearly demonstrates that there is a greater awareness of local cetaceans in Arisaig and Mull compared to the Isle of Skye. This is probably because whale-watching and other forms of marine wildlife tourism are more developed on Mull (whale-

**Table 12** A summary of the accuracy demonstrated by the respondent groups in naming locally occurring cetacean species

| | *Whale-watchers (%)* | *General tourists (%)* |
|---|---|---|
| No correct answers | 24.9 | 54.1 |
| 1–3 Correct answers | 75.2 | 45.9 |
| 1 Correct | 20.3 | 22.6 |
| 2 Correct | 22.2 | 15.3 |
| 3 Correct | 32.7 | 8.0 |
| | $n = 370$ | $n = 673$ |

watching in Scotland was first established on the island in 1989 and is now an important part of the island's economy (Warburton, 1999; Warburton *et al.*, 2000)), whereas whale-watching is relatively new on Skye.

#### Visitors' awareness of whale-watching opportunities

Respondents were asked whether they were aware of whale-watching opportunities before they arrived in western Scotland. Even though 71% of visitors were aware of cetaceans in the area, only half (44%) of the general tourist group knew about the opportunities for whale-watching trips before their arrival in the region. In comparison, 81% of whale-watchers were aware that cetaceans occurred in the region, but still only 65% knew about the possibility of taking whale-watching trips before they arrived in west Scotland.

## Discussion

### Whale-watching Tourist Profile: Who Goes on Whale-watching Tours in West Scotland?

Tourists choosing whale-watching trips have been studied previously in a number of locations and, in general, whale-watchers in west Scotland were similar in profile to whale-watchers in other countries. The majority of whale-watchers in the current study were middle-aged with 58% of whale-watchers being over 40 years old. Likewise, Warburton *et al.* (2000) noted that 71% of marine wildlife tourists and whale-watchers on Mull were from 30 to 60 years of age. Pearce and Wilson (1995) noted that the majority of whale-watchers in New Zealand were relatively young, i.e. 20–34 years old. However, Duffus (1988) and Muloin (1996) reported that the average ages of whale-watchers in British Columbia (Canada) and Hervey Bay (Queensland, Australia) were older: 41 and 42, respectively. The Hervey Bay whale-watchers typically ranged from 36 to 50 years of age, which also matches the middle-aged profile reported in this study.

As in this current study, whale-watchers in other study locales have a similar female bias. On the Isle of Mull, 61% of whale-watchers and marine wildlife tourists were female (Warburton *et al.*, 2000). Whale-watcher profiles in Japan (Hoyt, 2001) and Queensland, Australia (Muloin, 1996) were said to tend towards more female passengers, and whale-watcher data showed that 55 and 63% of whale-watchers in British Columbia (Duffus, 1988) and California (Tilt, 1987), respectively, were female. Moreover, Finkler (2001) found that 56.4% of Orca-watchers in the San Juan Islands were female, as were 58.1% of participants in dolphin tours in New Zealand (Lück, 2003).

A higher proportion of the tourists who took whale-watching trips were accompanied by children than would be expected from the general tourist profile, i.e. 29.4% of whale-watchers were with children vs. 19.4% of the general tourists interviewed. This suggests that whale-watching boat trips may appeal to family groups. This also seems to be reflected in the slightly younger age distribution of whale-watching respondents.

The fact that whale-watchers in general tend to be more affluent than the average tourist is echoed in several studies. In this study, 89% of whale-watchers were considered to be middle-class (ABC1), and the fact that 63%

of whale-watchers take more than one holiday during the year, also demonstrated that they were relatively affluent. Hoyt (2001) describes whale-watchers in Victoria, Australia and Canada as being tourists that spend more money than the average tourist. Tilt (1987) and Forestell and Kaufman (1990) reported that whale-watchers in California and Hawaii (respectively) were affluent, whilst Duffus (1988) documented that 68% of British Columbia whale-watchers earned more than CAN$40,000 per year. Iñíguez *et al*. (1998) described that in order to go on a whale-watching trip at Penı́ninsula Valdés (Argentina), tourists would have to spend from US$660 to US$1000, making these trips the province of the wealthy. It seems, therefore, that whale-watching as an activity may appeal to those of a higher, wealthier, social class. Or, perhaps, the relatively high price of whale-watching trips in comparison to other excursions means that visitors with less disposable income are less able to afford the trips, resulting in a bias toward a more affluent tourist.

The high proportion of whale-watchers in west Scotland attaining higher education (63%) has been echoed in other studies on this type of tourist. Forestell and Kaufman (1990) reported that whale-watchers in Hawaii were well-educated. In California, 79% of whale-watchers had attained at least 4 years of college education (Tilt, 1987). In British Columbia and San Julián (Argentina), the proportion of tourists holding university degrees was 51 and 72%, respectively (Duffus, 1988; Fundación Cethus, 1999). More recently, Lück (2003) noted that almost three-quarters of participants in swim-with-dolphins tours in New Zealand had university qualifications (40.9%), or other tertiary qualifications (polytechnic 12.4%; vocational or trade/professional qualification 11.1%).

The whale-watcher profile in west Scotland demonstrated a large domestic (British) market (82.9%), in particular when compared to the proportion of domestic tourists in the general tourist sample (69.8%). In comparison, the most developed whale-watching market (New England) has a domestic market of 75.4% (Hoyt, 2001). Queensland in Australia has a 70% domestic whale-watching market, whereas in New Zealand, only 40% of whale-watchers were domestic tourists (Hoyt, 2001). One of the smallest domestic whale-watching markets in the world, however, is Alsaka (Hoyt, 2001): in an industry which generates over US$122 million, only 1% of the whale-watchers are actually from Alaska.

There may be several reasons why fewer overseas visitors go whale-watching:

(1) the cost of the trip (especially as the strength of the pound increases the relative cost of whale-watching trips for overseas visitors);
(2) a lack of foreign language marketing material/advertisements;
(3) overseas visitors may be running on a tight schedule, or may be visiting as part of a package, which would not allow the flexibility of going on whale-watching trips; or
(4) overseas visitors are not interested in going whale-watching in Scotland and would choose a country with a higher international profile for whale-watching trips (such as New Zealand).

It should be noted, however, that foreign visitors are sometimes under-represented in tourism surveys due to linguistic difficulties, because they do not understand the questions being asked of them or decline to be surveyed. However, as no one approached during the whale-watching survey declined to answer due to language difficulties, this lack of overseas respondents reflects a real deficiency in this sector of the tourism market. Also, the high response rates suggest that all nationalities on whale-watch tours are adequately represented.

From the analysis of the number of times tourists had visited the area before, it was apparent that whale-watching appeals not only to those visitors who are discovering the region for the first time but also to regular visitors. Moreover, a relatively high proportion (36.4%) of the whale-watchers in west Scotland had been on whale-watching trips before. Muloin (1996) reported that 22% of whale-watchers in Hervey Bay, Australia had also been also whale-watching before. The fact that several of the whale-watchers had been on repeated whale-watching trips (and one respondent had been whale-watching 15 times) is encouraging for the industry, as it suggests that tourists do not feel that going whale-watching is a 'once in a lifetime' experience. Warburton *et al*. (2001) suggested that as whale-watchers will frequently take multiple trips, a 'whale-watching trail' (similar to the 'Malt Whisky Trail') could perhaps be marketed, encouraging tourists to take several whale-watching excursions during their holiday, each in a different part of Scotland.

In addition, the fact that many of the tourists, both general and whale-watching, are visiting Scotland as a secondary, or additional holiday has an implication for the marketing of whale-watching tours. Whale-watching should not try and compete with the overseas resorts as main holiday destinations, but should emphasise whale-watching as an activity for a second holiday or long-weekend break.

### *The level of awareness of cetaceans in west Scotland*

This study suggests that whale-watchers in west Scotland tend to be more environmentally aware than the general tourists, with a greater knowledge of environmental issues and the occurrence of local species (75% of whale-watchers could identify a local cetacean species compared to only 46% of general tourists). The data collected by Warburton *et al*. (2000) reinforces the opinion that Scottish whale-watchers and marine wildlife tourists are environmentally aware: 58% were members of environmental organisations, 91% were regularly involved with one or more wildlife-related activity and 18% were involved in voluntary work for environmental organisations. These tourists also possessed more up-to-date information on threats faced by cetacean populations (Warburton *et al*., 2000). In comparison, only 13% of whale-watchers in Hervey Bay (Australia) belonged to an environmental or conservation group (Muloin, 1996). Lück (2003) found that only 4.1% of participants in swim-with-dolphins tours in New Zealand were members of various environmental organisations, however, he reported a very high degree of environmental values and attitudes among these respondents. Generally, there is insufficient information on the level of environmental awareness in whale-watching tourists, but one would assume that they would also be more environmentally aware than the average non-whale-watching tourist.

This level of cetacean awareness has two main implications for the Scottish whale-watching industry. First, that whale-watching tour operators could prioritise their promotional efforts by advertising in specialist wildlife magazines or through targeted mailshots to members of environmental organisations. Second, with whale-watching being more sensitive to environmental impacts, it would be expected that whale-watchers are more responsible in their actions, as well as being discerning in terms of using operators with good practice. Tour operators would need to ensure that they are as knowledgeable as possible about the behaviour and biology of the species being watched and that they abide by a whale or marine wildlife-watching code of conduct at all times.

The level of awareness of whale-watching opportunities in west Scotland also has implications for industry promotion. Despite nearly three quarters of tourists being aware of the fact that cetaceans occur in the area, only half of them realised that there were opportunities to see these cetaceans in the wild on whale-watching tours. This suggests that although visitors knew that cetaceans were in the region, their expectations of seeing them were relatively low, i.e. that cetaceans were relatively rare or elusive. Whale-watching, it seems, is not directly associated with a trip to Scotland. Although levels of awareness of these two issues were higher in whale-watching tourists, a similar trend was also observed. Hence, although the general awareness of whales and dolphins is quite high in both groups, it appears that many visitors do not make the link between cetaceans occurring in the region and the opportunities for taking whale-watching trips. Therefore, whale-watching as a potential draw to the region is not being used effectively at the moment. The fact that almost 40% of whale-watchers only found out about whale-watching opportunities when they arrived in the area suggests that local promotion is a key factor in attracting customers. General awareness-raising of whale-watching opportunities on a wider scale may encourage more people to visit the region in order to view marine wildlife.

### Whale-watcher motivation: Why do tourists go whale-watching?

The tourists interviewed in this study stated that the main motivations for visiting the west Coast of Scotland were the landscape, seascape and wildlife. It was interesting to note that a relatively large proportion of whale-watchers stated that the remoteness of the region was a key factor in their motivation to visit west Scotland. Strangely, this was not reflected in the general tourist group. This suggests that the type of person who goes whale-watching may also appreciate the 'wilderness' atmosphere which west Scotland presents. Infrastructural improvements to bring more whale-watchers into the region may actually deter some elements of the current whale-watching market by making the region more accessible to mainstream visitors.

However, Parsons *et al*. (2003) reported that 23% of whale-watchers in west Scotland visited the region specifically to go whale-watching. Moreover, 13.1% of general tourists who were aware of the opportunities of whale-watching in west Scotland stated that this had influenced their decision to come to the region (Parsons *et al*., 2003; Warburton *et al*., 2001). On the east coast of Scotland, 28% of tourists visiting the Moray Firth stated that opportunities to see the resident population of bottlenose dolphins were the sole reason for their trip (Arnold, 1997). Although these figures represent significant numbers of tourists being drawn to the area, they are still low in proportion when compared to other whale-watching areas.

For example, in Newfoundland an estimated 25% of whale-watchers only visited the region to go whale-watching and for the remaining 75%, whale-watching constituted a major motivational factor in their visit, with only a few tourists spontaneously deciding to go on whale-watching trips (Hoyt, 2001). The Newfoundland Department of Tourism, Culture and Recreation (1998) reported that the interest in whale-watching in all tourists to the region was high, with 83% expressing an interest in going on whale-watching trips. An estimated 80% of whale-watchers in north Vancouver had visited the area entirely or mainly to go whale-watching, with whale-watching being a major motivational factor in the decision to visit in a further 15% (Hoyt, 2001). Only 5% of whale-watchers in this region had impulsively decided to take a trip (Hoyt, 2001).

Orams (1999) reported that 70% of tourists visiting Vava'u on Tonga went whale-watching and of these, 22% that had entered the island of Tonga by air and 8% that were visiting by yacht were 'hard-core' whale enthusiasts. For a further 59% of those tourists entering by air and 64% entering by yacht, watching whales was a significant part of the attraction of Tonga as a holiday destination (Orams, 1999). In addition, a notable section of tourists were classed as 'incidental whale-watchers' (18% of air and 22% of yacht visitors) who were unaware of whale-watching opportunities prior to their holiday, but for whom whale-watching was an added bonus (Orams, 1999). Orams (1999) also reported that, for 43% of air holiday-makers and 37% of yacht visitors, whales were important or extremely important motivational factors for their visit to Tonga.

## Conclusions

Cetaceans can be a considerable draw for tourists, but from the information presented in this study it is suggested that although there is an awareness of cetaceans occurring in the waters of west Scotland, there is less of an awareness of the opportunities to go whale-watching in the area. This is borne out by the relatively high percentage of whale-watchers who only discover the opportunities for going whale-watching when they arrive in the region. This suggests that the marketing of whale-watching on the west coast of Scotland is, at present, at a very low level. By increasing public awareness of cetaceans in the region, and by using cetaceans in tourism marketing campaigns, the proportion of tourists coming to the region specifically for whale-watching can be increased. In particular, foreign tourists are currently a market that is not being reached by the whale-watching industry and promotional materials (in particular materials produced in a variety of languages) distributed and advertised abroad may attract an increased number of international tourists to Scotland.

The affluent background of whale-watchers means that these tourists have greater disposable income than so-called 'mass tourists' who come in greater numbers and spend proportionally less on their holiday destinations. Moreover, as the tourists are well-educated, environmentally aware and display a high level of return visits, they are the type of tourist that should be attracted to rural Scotland, i.e. per head they bring more to the economy, with less of a detrimental impact on the region's unique environment.

However, it should be noted that increased marketing of whale-watching in west Scotland, although beneficial for the whale-watching industry and rural coastal communities, should be conducted in a carefully managed fashion. The uncontrolled growth in whale-watching operations could be detrimental to cetaceans, and also other marine wildlife species. The key is sustainable and sensitive development; whale-watching should develop as part of the diversification of the tourist experience, with the clear knowledge that cetaceans are the resource upon which the industry relies and, therefore, must be respected.

## Acknowledgements

This project was kindly funded by the Department for Environment, Food and Rural Affairs (Defra) of the UK Government who has, moreover, given permission for the publication of the results of this project in this journal. Some of the data in this paper are also summarised in a report by Warburton, Parsons, Woods-Ballard, Hughes and Johnston, presented to Defra in July 2001.

The authors wish to thank all the whale-watching operators and visitor centre managers who assisted us with this project. We also thank all the tourism industry professionals who kindly agreed to be interviewed during this study. In addition, we wish to thank Anne Martin, Murdo Grant, Peter Fowler, Brennen Fairbairns and Jeremy Matthews for the assistance that they gave to the project researchers.

We wish to thank Dr. Naomi Rose, Dr. Jonathan Gordon, Dr. Harold Goodwin, Professor Jack Matthews and Felicity Hansen and two anonymous reviewers for kindly commenting on draft versions of this report. We also thank Vickie Whitehead and Mark O'Sullivan for all their assistance, support and advice with this project.

Finally, we wish to thank all the many whale-watchers, tourists and members of the Scottish communities surveyed during this project for their assistance.

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