

# Visitors to Cape Reinga: site use and management implications

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## CONTENTS

Abstract	5
<hr/>	
1. Introduction	6
<hr/>	
2. Methods	7
<hr/>	
2.1 Traffic record	7
2.2 Visitor survey	8
<hr/>	
3. Results	9
<hr/>	
3.1 What is the daily use and estimated peak numbers of people visiting Cape Reinga between 10 a.m. and 2 p.m. during the peak summer period?	9
3.2 What is the profile (place of origin, age) of the visitors at the Cape Reinga site during the peak summer period?	10
3.3 Does the profile (country of origin, area of New Zealand of origin, age) of people visiting Cape Reinga match those provided by official statistics for visitors to Northland?	10
3.4 What are visitors' reasons for visiting and what do they do while at Cape Reinga?	11
3.5 How do New Zealand and international visitors use and perceive the site? In what way are their uses and perceptions similar or different?	11
3.6 What proportion of visitors arrives as part of tour groups?	15
3.7 Is crowding considered by some visitors to be a problem and where, specifically, on the site?	16
<hr/>	
4. Discussion	18
<hr/>	
5. Acknowledgements	20
<hr/>	
6. References	20
<hr/>	
Appendix 1	
<hr/>	
Survey form	21
<hr/>	
Appendix 2	
<hr/>	
People surveyed, by age and country (as stated by person surveyed)	23
<hr/>	
Appendix 3	
<hr/>	
Grouping of visitors surveyed according to place of origin, and whether or not they were on a tour ( $n = 1355$ )	24



# Visitors to Cape Reinga: site use and management implications

Lynnell Greer

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## ABSTRACT

Cape Reinga is an important cultural and spiritual site in New Zealand, especially for Maori. It is administered by the Department of Conservation, in partnership with Ngati Kuri. International visitors comprise c. 59% of the peak summer visitors. The majority of visitors are either less than 39 years or more than 50 years old, and approximately half visit on a tour. Domestic visitors are mainly under 49 years old and are more likely to visit by car. Site usage differs little between New Zealanders and international visitors; and the majority visit Cape Reinga for sightseeing. At the site, approximately 81% of visitors stay near the car park and lighthouse. When the number of visitors at the Cape Reinga site exceeds 150, up to 20% feel that parts of the site are crowded. Future development and management must enable Cape Reinga to absorb the projected growth in visitor numbers and reduce perceived crowding while retaining the cultural and landscape values of the site.

Keywords: New Zealand, Cape Reinga, Ngati Kuri, tourism, survey

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# 1. Introduction

Cape Reinga is one of the most important spiritual and cultural sites in New Zealand, particularly for Maori, but also for other New Zealanders. Located at the northern end of the North Island of New Zealand, it is considered by Maori to be the 'spiritual pathway' for spirits departing New Zealand. Cape Reinga is administered by the Department of Conservation (DOC) in partnership with Ngati Kuri as Kaitiaki. Cape Reinga is part of the national tourist route, and a large number of domestic and international tourists visit it each year, predominantly in summer.

The Cape Reinga site (Fig. 1) is managed primarily for visitors. The main DOC-administered facilities comprise a 7.6-km gravel access road off the end of State Highway One, a 2100-m<sup>2</sup> car park, a 6-panned toilet block, an amenity area, a path to the light house (842 m return), a walk to Te Werahi Beach (40 min. return), a walk to and from Tapotupotu Bay Campground (2.5 hours one-way). Cape Reinga is also a stopping point on the Cape Reinga Coastal Walkway (2-3 days).

A number of management issues had become apparent at Cape Reinga over recent years. For example, the surface of the track to the lighthouse had deteriorated to the extent that parts had shallow potholes (since upgraded in June 2004) and there was congestion arising from the limited parking and single path to the lighthouse. Because of these and other concerns, and the need to better manage the site, DOC met with Ngati Kuri, concessionaires and other members of the tourist industry to form a group (henceforth referred to as 'the group') to investigate various options for site development, including a visitor centre, parking that can cater for peak visitor numbers, reducing the impact of the site on the landscape, improving visitor flow and landscaping to enhance the site.

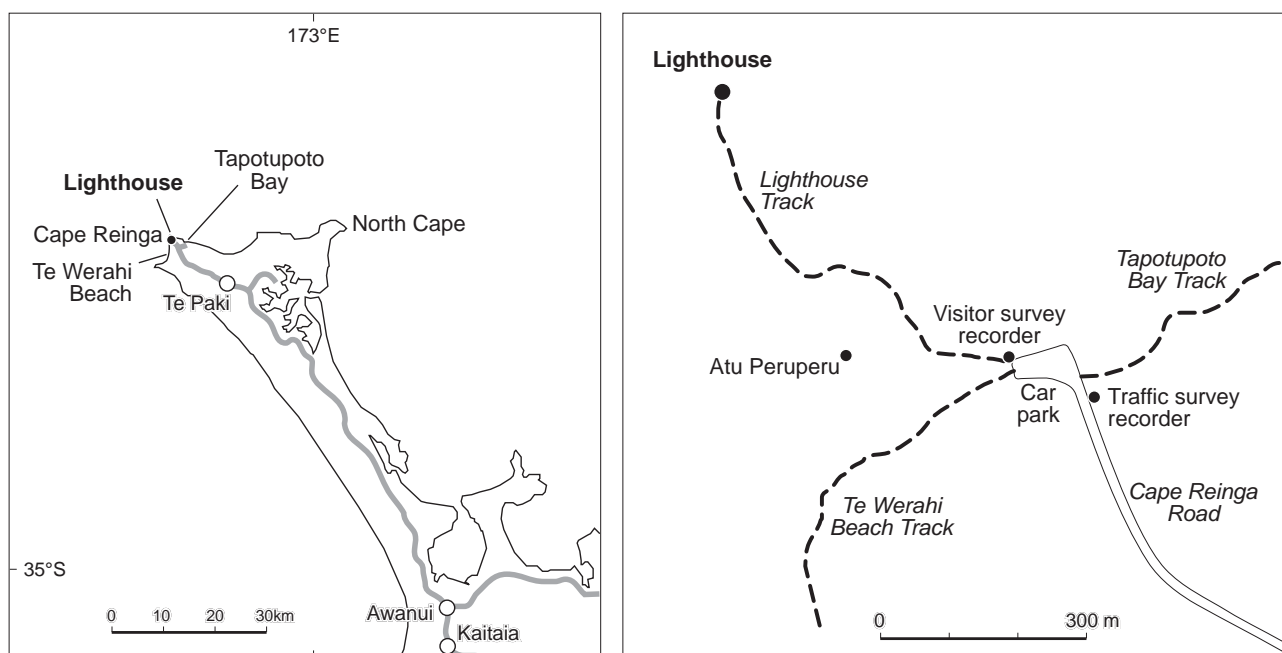


Figure 1. Maps showing location of Cape Reinga, main features of the site and survey recorder locations.

The group made a request for site management-based research in order to test the assumed main issues affecting the site, to determine people's reasons for visiting and how they used the site and facilities.

A visitor survey was carried out in the summer of 2003/04 (Greer & Beauchamp 2004). This report uses data gathered by the survey to address seven specific questions relating to the group's concerns:

- What is the daily use and estimated peak numbers of people visiting Cape Reinga between 10 a.m. and 2 p.m. during the peak summer period?
- What is the profile (place of origin, age) of the visitors at the Cape Reinga site during the peak summer period?
- Does place of origin (New Zealand, international) identified in this survey match those from other surveys of visitors to Northland?
- What are visitors' reasons for visiting and what do they do while at Cape Reinga?
- How do New Zealand and international visitors use and perceive the site? In what way are their uses and perceptions similar or different?
- What proportion of visitors arrives as part of tour groups<sup>1</sup>?
- Is crowding considered by some visitors to be a problem and where, specifically, on the site?

## 2. Methods

A survey was carried out at Cape Reinga by two people during the busiest part of the summer season (from 10 December 2003 to 30 January 2004, which includes the Christmas / New Year holiday period and the main part of the New Zealand primary and secondary school summer holiday period) between 10 a.m. and 2 p.m., 5 days a week. The 5-day monitoring periods varied through the 7-day weeks so that all days of the week were represented in the survey. The survey consisted of two parts—a traffic record and an interview visitor survey.

At the beginning of each day, the surveyors flipped a coin to decide who undertook the first hour of traffic recording and who carried out interviews for the visitor survey. The surveyors then changed tasks hourly after that, with the interviewer going to the traffic recording location to ensure that no cars missed being counted during the changeover.

### 2.1 Traffic record

At 10 a.m. each day the number and size and type of all vehicles in the car park was noted. The traffic recorder then recorded the numbers of each size and type of vehicle entering or leaving the car park in each 5-minute period until 2 p.m. At 2 p.m. the car park was counted again and the size and type of all vehicles noted.

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<sup>1</sup> For the purpose of this research, 'tour' means people travelling in vehicles from one of ten DOC-concessioned tour companies.

It was found that the 2 p.m. car park counts did not equal the total arrived at through the 5-minute counts. The main reason for this was that vehicles continued to come and go while the 2 p.m counts were being done (it was difficult to keep track of this and do the count). The 2 p.m. counts were subsequently disregarded as inaccurate and it was assumed that the total arrived at from the 5-minute counts provided an accurate representation of vehicles on site at 2 p.m. Analysis of the 5-minute counts data indicated that 10 out of 4918 vehicles movements appeared to have been missed. This anomaly was corrected for buses ( $n = 4$ ) by finding out the average staying time of the first buses to arrive on the site and 'adding' the bus in the appropriate 5-minute block based on the average. This was done because of the higher proportional impact that buses had on the visitor numbers at the site. The average time that other vehicle types were present at the site was unknown, so all other anomalies ( $n = 6$ ) were adjusted by putting the equivalent number of vehicles in the corresponding 'in' or 'out' 5-minute block to cancel the anomaly.

## 2.2 Visitor survey

The visitor survey form is shown in Appendix 1.

People approached for the visitor survey were chosen randomly and no one less than 16 years old was interviewed. Surveyors were provided with field sheets that had four columns of 50 random numbers between 1 and 6 for each hour surveyed per day. The surveyors used consecutive numbers from these sheets to select interviewees by counting people returning to the car park from the lighthouse. The surveyors were trained in this process on 10 December 2003. Data collected on this day was not used, and the number 6 was removed from the number sheets after this day.

The visitor survey asked interviewees how many people were in their group and what type of vehicle they came in. From this, it was possible to calculate the average number of people per vehicle size and type. To ensure people had not over-estimated the numbers of people in their group, or included a group distributed over multiple vehicles, group numbers were checked against the maximum passenger capability for each vehicle type. Any group numbers that exceeded this total were reduced to the maximum possible capacity for the vehicle type. The averages thus calculated were then applied back to the 5-minute vehicle counts to work out an estimate of the number of people on the site in each 5-minute unit, over each daily monitoring period and, ultimately, over the entire monitoring period.

Answers to the survey question on why people visited Cape Reinga were interpreted and grouped into the suggested or other collective reasons.

The Cape Reinga visitor profile developed from the survey results was compared with those obtained from the Tourism Research Council of New Zealand's International Visitor Survey 1997-2004 (Tourism Research Council 2004), the Domestic Travel Survey 2001 (Tourism Research Council 2002) and the New Zealand Statistics Census Usually Resident Population Count 2001 (Statistics New Zealand 2001). These surveys provided the most recent information that was directly comparable with the Cape Reinga survey.

For the purposes of this report it was assumed that the people interviewed in the Cape Reinga Survey were representative of the actual proportions of international and national visitors using the site. It was also assumed that 'the



site' was defined as beyond the western edge of the car park, as only people returning to the car park's western end (from the direction of the lighthouse, Atu Peruperu and Te Werahi Beach) were interviewed. This was the route most visitors were likely to take. People who did not leave the car park and toilet area or walked east (e.g. to the track to Tapotupotu Bay) were not included in the visitor survey.

### 3. Results

Over the thirty-seven days from 11/12/03 to 29/01/04, 1355 people were interviewed and 4918 vehicles were recorded at Cape Reinga between 10 a.m. and 2 p.m.

#### 3.1 What is the daily use and estimated peak numbers of people visiting Cape Reinga between 10 a.m. and 2 p.m. during the peak summer period?

The estimated number of people who visited Cape Reinga during the 4-hour period over the 37 days was 27 388 (Fig. 2). International visitors were the majority, making-up between 25% and 88% of visitors throughout the 37-day monitoring period. International visitors were the majority of visitors before Christmas and after the Auckland / Northland Anniversary day holiday (26 January 2004). Domestic visitors were the majority of visitors from 27 December until 4 January. This is likely to be the result of this being the New Zealand Christmas season / School holiday period.

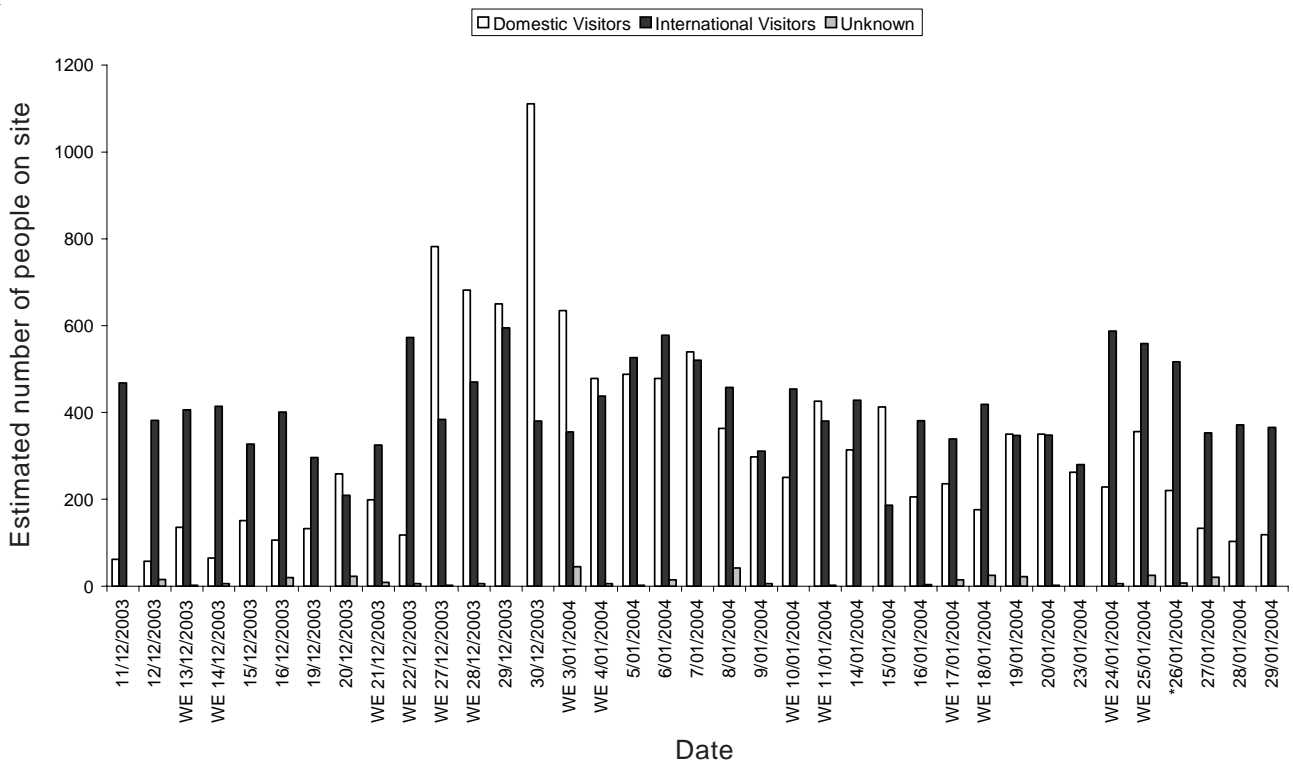
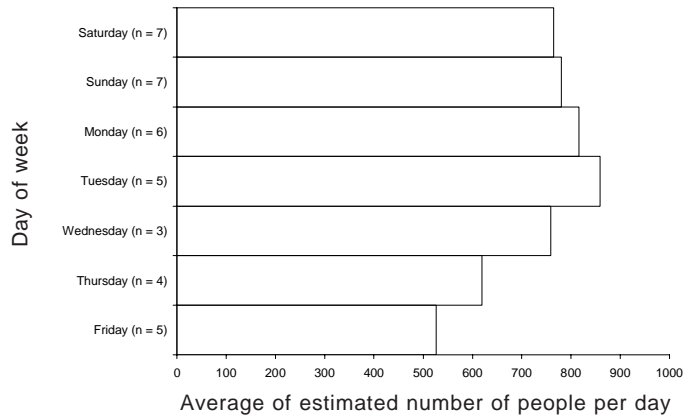


Figure 2. The estimated number of domestic and international visitors on site. WE refers to weekends.

\* Northland / Auckland Anniversary public holiday.

There was not an obvious weekend peak, apart from Auckland / Northland Anniversary weekend (Fig. 2); however, when the monitoring data was averaged over days of the week, the largest number of users turned up during the Saturday to Tuesday period (Fig. 3). Per week, the Christmas / New Year week had the largest number of people, and the greatest daily number of visitors was recorded on 30 December (1491). Unfortunately, recordings were not made for 1 and 2 January and therefore were not available for comparison.

Figure 3. Estimated average number of visitors per day of the week.



### 3.2 What is the profile (place of origin, age) of the visitors at the Cape Reinga site during the peak summer period?

This is addressed in the following section (Section 3.3).

### 3.3 Does the profile (country of origin, area of New Zealand of origin, age) of people visiting Cape Reinga match those provided by official statistics for visitors to Northland?

The full individual country of origin and age breakdown of those persons interviewed is given in Appendix 2. International visitors were the majority of people ( $n = 778$  of 1355 interviewed) visiting Cape Reinga (Table 1A), and Europeans (34%,  $n = 266$ ) and people from the United Kingdom (29%,  $n = 224$ ) were the largest groups. The proportions of international visitors to Cape Reinga are not the same as those provided by the International Visitor Survey 1997–2004 for visitors to Northland in general. Comparison with the Cape Reinga data showed more Europeans and people from the United Kingdom visited Cape Reinga, and fewer Australians and people of other nationalities.

Seventy-four percent of the international visitors ( $n = 778$ ) were aged between 20 and 49 years. The largest numbers (58%) of international visitors were in the 20–29 and 30–39 years age groups. This differs a bit from the demographics obtained by the International Visitors Survey 1997–2004 for visitors to Northland (Tourism Research Council 2004), where visitors were mainly in the 20–29 years and over 50 years age groups.

Domestic visitors ( $n = 577$ ) were mainly from Auckland (50%,  $n = 286$ ) (Table 1B). The survey found that a higher proportion of the New Zealanders living south of Auckland were visiting Cape Reinga than expected when compared with the demographics provided by the Domestic Travel Survey 2001 (Tourism Research Council 2002). Although 17% of Northlanders make overnight ‘tourist’ visits within Northland (Tourism Research Council 2002), very few go to Cape Reinga. The largest age group of New Zealanders visiting the site was the 40–49 years age group, which was the second smallest age category for international visitors.

TABLE 1. AGE, ORIGIN AND NUMBERS OF SURVEYED VISITORS TO CAPE REINGA COMPARED WITH EXPECTED VALUES BASED ON TOURISM RESEARCH COUNCIL OF NEW ZEALAND'S INTERNATIONAL VISITOR SURVEY 1997-2004 [IVS] ( $n = 1\ 733\ 722$ ) AND DOMESTIC TRAVEL SURVEY 2001 [DTS] VISITORS TO NORTHLAND ( $n = 12\ 055$ ). PERCENTAGES IN PARENTHESES.

A. INTERNATIONAL VISITORS ( $n = 778$ ), B. DOMESTIC VISITORS ( $n = 577$ )

<b>A</b>								
COUNTRY OF ORIGIN	AGE GROUP (years)						SURVEY	IVS
	16-20	20-29	30-39	40-49	50-59	60+		
Europe	4	114	91	30	18	9	266 (34%)	163 (21%)
UK	5	60	44	18	52	49	228 (29%)	178 (23%)
Australia	2	21	18	23	22	14	100 (13%)	217 (28%)
USA	3	16	9	10	10	13	61 (8%)	78 (10%)
Asia	2	25	10	5		1	43 (6%)	54 (7%)
Canada	2	9	4	6	4	15	40 (5%)	31 (4%)
Other		22	12	3	1	2	40 (5%)	54 (7%)
Total	18 (2%)	267 (34%)	188 (24%)	95 (12%)	107 (14%)	103 (13%)	778 (100%)	
IVS	23 (3%)	210 (27%)	140 (18%)	101 (13%)	148 (19%)	163 (21%)		

<b>B</b>								
NZ AREA OF ORIGIN	AGE GROUP (years)						SURVEY	DTS
	16-20	20-29	30-39	40-49	50-59	60+		
Northland	11	65	87	87	25	11	286 (50%)	375 (65%)
Auckland	7	31	43	64	24	12	181 (31%)	98 (17%)
Rest of North Island		17	11	15	15	8	66 (11%)	98 (17%)
Rest of NZ	4	11	8	12	6	3	44 (8%)	9 (2%)
Total NZ	22 (4%)	124 (22%)	149 (26%)	178 (31%)	70 (12%)	34 (6%)	778 (100%)	
DTS	58 (10%)*	104 (18%)	121 (21%)	110 (19%)	87 (15%)	104 (18%) <sup>†</sup>		

\* The census age group is 15-19 years.

<sup>†</sup> The census age group is 60-79 years.

### 3.4 What are visitors' reasons for visiting and what do they do while at Cape Reinga?

This is addressed in the following section (Section 3.5).

### 3.5 How do New Zealand and international visitors use and perceive the site? In what way are their uses and perceptions similar or different?

Analysis of the survey data showed that people visited Cape Reinga for 20 specific reasons (Table 2). The most common reason was for sightseeing and other passive recreation uses. Less than 5% of the people visiting this site used it for active recreation. Of the 20 people who went to Cape Reinga for walking / tramping, only 6 had walked there; the rest had arrived by private vehicle. Duration of visitors' time spent at the site is unknown.

This study was biased towards those visitors who returned to the car park from the west, although this is the route most visitors would take. Ninety-seven percent of the visitors interviewed went to the lighthouse or used the track to the lighthouse (Fig. 4). Atua Peruperu, a small hillock to the west of the car park, was reasonably popular, with a third of both domestic and international visitors surveyed visiting it. Slightly more international visitors went to both Atua Peruperu and Te Werahi Beach than domestic visitors.

TABLE 2. WHY DID PEOPLE GO TO CAPE REINGA? REASONS GIVEN BY PEOPLE SURVEYED ( $n = 1355$ ). PERCENTAGES IN PARENTHESES.

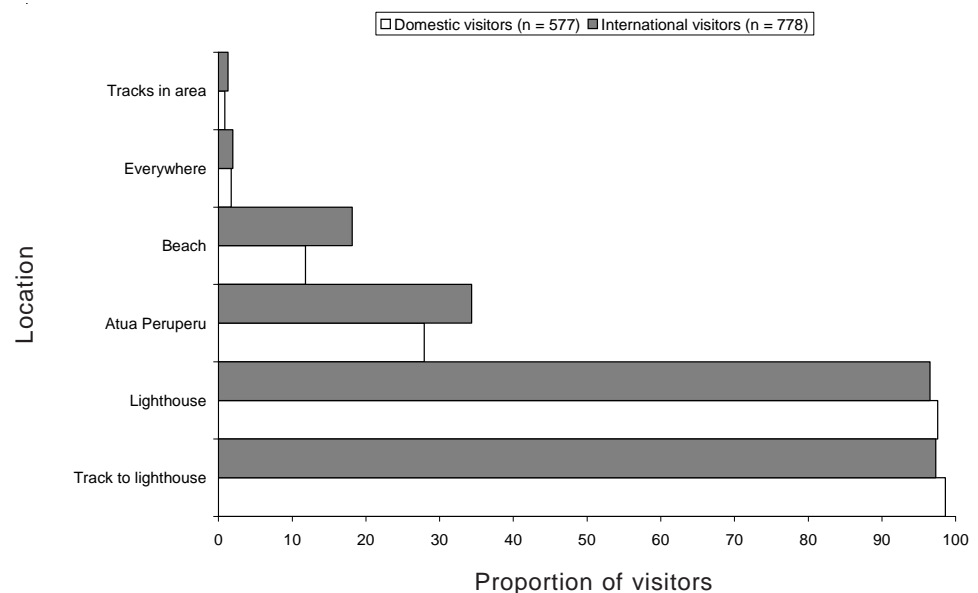
REASON FOR VISITING CAPE REINGA	INTERNATIONAL VISITORS	DOMESTIC VISITORS	NUMBER OF PEOPLE SURVEYED
Sightseeing*†	487	597	1084 (80%)
Road end*	137	243	380 (28%)
Showing someone or being shown	120	18	138 (10%)
Oceans meeting*	21	98	119 (9%)
Lighthouse*	39	72	111 (8%)
Recommended / advertising	13	97	110 (8%)
Maori culture*	30	40	70 (5%)
Walking / tramping*‡	7	13	20 (2%)
90 Mile Beach / surfing / sand dunes / swimming	4	11	15 (1%)
Camping	6	1	7 (1%)
Work	4	1	5 (< 1%)
Fishing*	2	2	4 (< 1%)
Mystical / spiritual	2	2	4 (< 1%)
Post Office / postcards		2	2 (< 1%)
Sand boarding		2	2 (< 1%)
Study		1	1 (< 1%)
Bird watching		1	1 (< 1%)
Family research		1	1 (< 1%)
Writing a book	1		1 (< 1%)

\* Suggested reasons on survey form.

† 'Sightseeing' is the total of all reasons given that were equivalent, e.g. part of tour, etc.

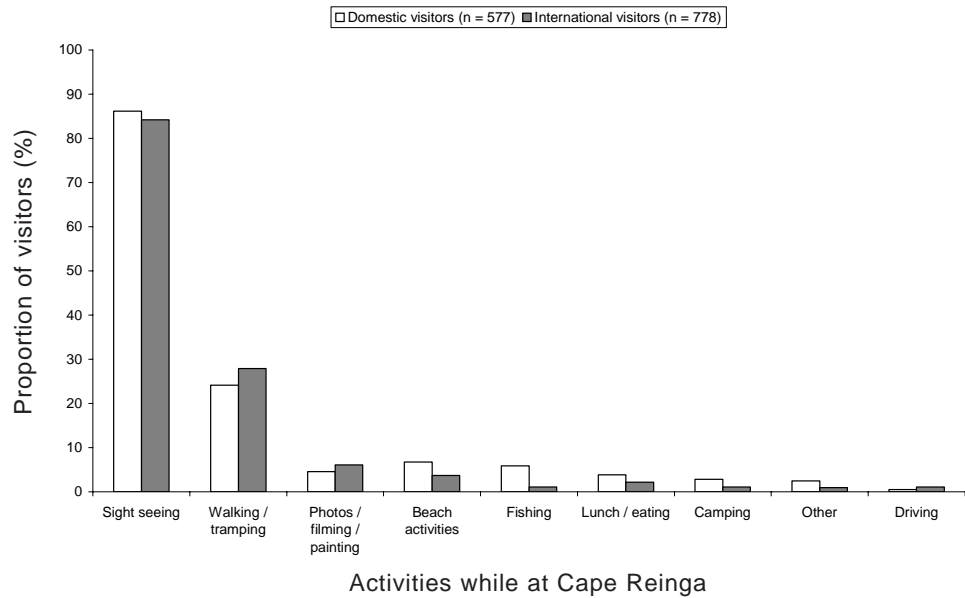
‡ No distinction was made between walking and tramping.

Figure 4. Where domestic and international visitors went while at Cape Reinga.



Most activities undertaken at Cape Reinga were passive, and reflected the initial reasons for visiting the site (Fig. 5). The questions asked about activities at the site appear to have been misunderstood by some visitors, who appear to have included their activities on the whole of the Aupouri Peninsula of which Cape Reinga is part. This is evident when the grouped comments 'beach activities' included swimming and kayaking; and 'driving' included 4-wheel driving (non-grouped comments). The tramping / walking response was also confused, as

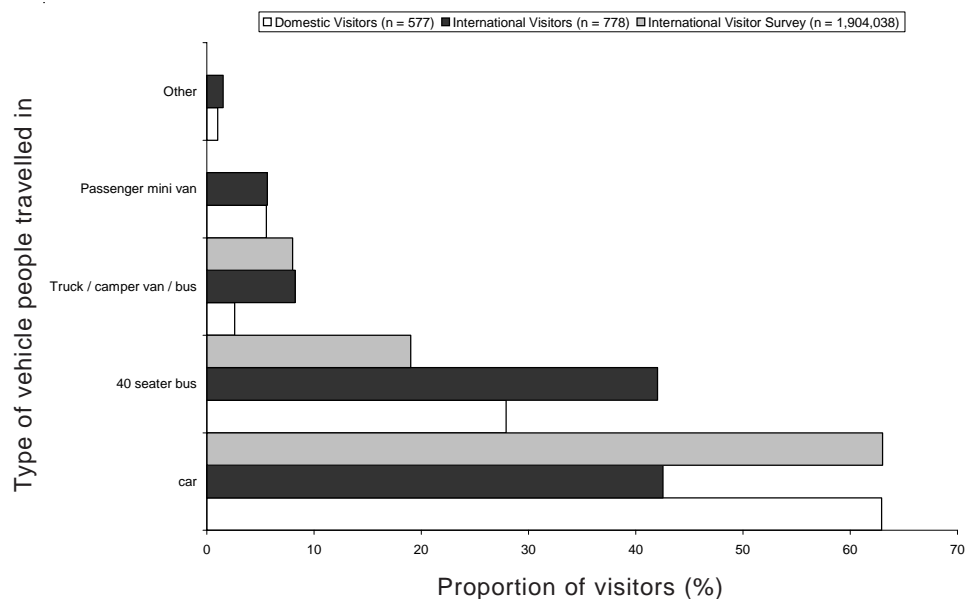
Figure 5. Activities of domestic and international visitors while at Cape Reinga.



people who were on a tour, and therefore had no time to go beyond the lighthouse, had listed their activity on site as walking / tramping. Although there were marginally more international visitors in this activity category, the confusion appeared in New Zealanders' replies as well. It is interesting that only 4 people went to Cape Reinga specifically to fish, but 42 people fished while they were there.

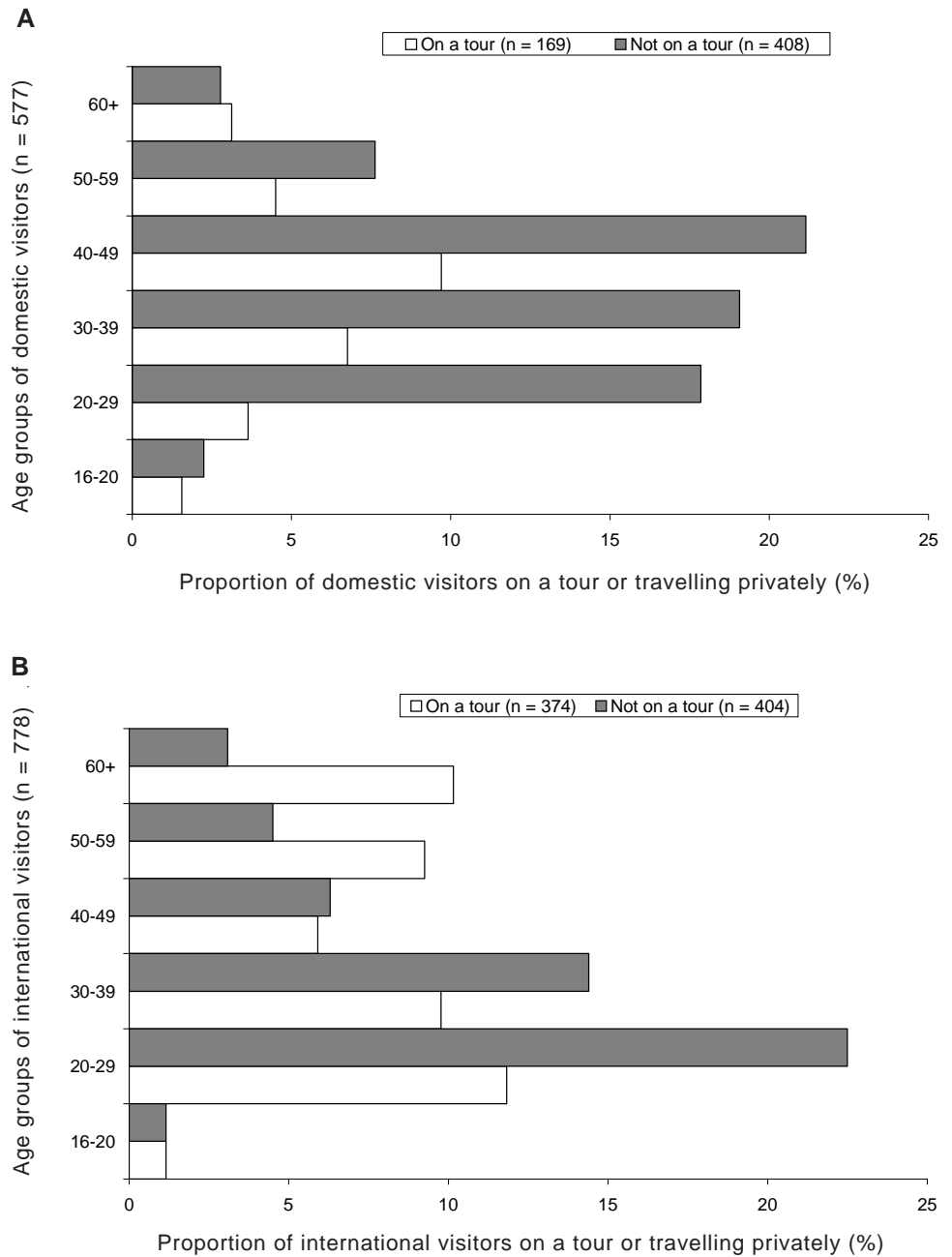
International visitors ( $n = 778$ ) were equally split between taking a car (43%) or bus (42%) to the site (Fig. 6). The International Visitor Survey 1997–2004 showed 60% of international visitors to Northland used a car and a further 8% used camper vans. The proportion of people using cars to get to Cape Reinga was lower than that in the survey for Northland in general (Fig. 6). It seems likely that some tourists may be choosing to take a bus tour rather than driving to Cape Reinga, probably because of the gravel road and the opportunity to go on the beach that the tour provides. New Zealanders were more likely to take a car (63%) to Cape Reinga than international visitors.

Figure 6. The proportion of international and domestic visitors who travelled in each vehicle type, including the International Visitor Survey from Tourism Research Council, New Zealand, Northland Region for comparison



New Zealanders less than 60 years old were more likely to take private transport than a tour to Cape Reinga (Fig. 7A). Most international visitors were not travelling independently to Cape Reinga (Fig. 7B). International visitors in the younger age groups were more likely to be on tours than New Zealanders of the same age.

Figure 7. The proportion of visitors on a tour or travelling privately in relation to age.  
**A.** Domestic visitors.  
**B.** International visitors.



As would be expected, New Zealanders surveyed (85%,  $n = 577$ ) were more likely to know that the Cape Reinga area was sacred to Maori than international visitors (79%,  $n = 778$ ). International visitor knowledge levels were similar no matter how they arrived at Cape Reinga ( $\chi^2 = 2.52$ ,  $df = 1$ , ns). However, New Zealanders on a tour were more likely to know the site is sacred for Maori than people who travelled independently ( $\chi^2 = 48.88$ ,  $df = 1$ ,  $P < 0.05$ ), regardless of where they came from in New Zealand (Table 3).

TABLE 3. THE NUMBERS OF SURVEYED VISITORS WHO KNEW THAT THE SITE WAS SACRED TO MAORI, AND HOW THEY TRAVELLED TO THE SITE. PERCENTAGES IN PARENTHESES.

COUNTRY GROUP	OVERALL NUMBER WHO KNEW THE SITE IS SACRED TO MAORI	NUMBER ON A TOUR WHO KNEW THE SITE IS SACRED TO MAORI	NUMBER NOT ON A TOUR WHO KNEW THE SITE IS SACRED TO MAORI
NZ (domestic) visitors	577 (85%)	169 (89%)	408 (83%)
International visitors	778 (79%)	374 (86%)	404 (72%)

### 3.6 What proportion of visitors arrives as part of tour groups?

Of the visitors surveyed, 543 (40%,  $n = 1355$ ) were brought to Cape Reinga by a tour company. Nearly half of the international visitors visited Cape Reinga on a tour while the proportion was 1 in 3 or 4 for New Zealanders, depending on where they came from within New Zealand (Fig. 7A, B; Appendix 3).

The survey questioned 1355 people. The people surveyed said they were travelling with 17 979 'other' people. Of this total, 15 335 were on tours (84%,  $n = 1355$ ) (Table 4). However, caution is required when interpreting this figure, as many people from the same tour were frequently interviewed, so that numbers are likely to be overestimated. If we used the number of tour vehicles and the estimates from average passengers carried we get 14 142 (52%) as the estimated number of people on site who travelled with a tour (Table 5). This

TABLE 4. THE NUMBERS OF VISITORS SURVEYED BY VEHICLE TYPE, AND NUMBERS IN THEIR GROUPS, TOTAL NUMBERS OF DIFFERENT VEHICLE TYPES ON SITE DURING THE SURVEY PERIOD, AND ESTIMATED NUMBERS OF VISITORS ASSOCIATED WITH THEM. PERCENTAGES IN PARENTHESES.

VEHICLE TYPE	NUMBER OF PEOPLE SURVEYED	TOTAL NUMBER OF PEOPLE IN GROUP	AVERAGE NUMBER OF PEOPLE IN VEHICLE	NUMBER OF VEHICLES NOTED	ESTIMATED NUMBER OF PEOPLE ON SITE
Car	694 (51%)	2179 (12%)	3.1	3849 (78%)	11 932 (44%)
40-seater bus	488 (36%)	15 052 (84%)	30.8	430 (9%)	13 244 (48%)
Truck / camper van / bus	79 (6%)	201 (1%)	2.5	381 (8%)	953 (3%)
Passenger mini van	76 (6%)	513 (3%)	6.8	159 (3%)	1081 (4%)
Other total	18 (1%)	34 (< 1%)	1.8	99 (2%)	178 (< 1%)
Total	1355 (100%)	17 979 (100%)		4918 (100%)	27 388 (100%)

TABLE 5. ESTIMATED NUMBERS OF INTERNATIONAL AND DOMESTIC VISITORS ON TOURS, BY VEHICLE TYPE. PERCENTAGES IN PARENTHESES.

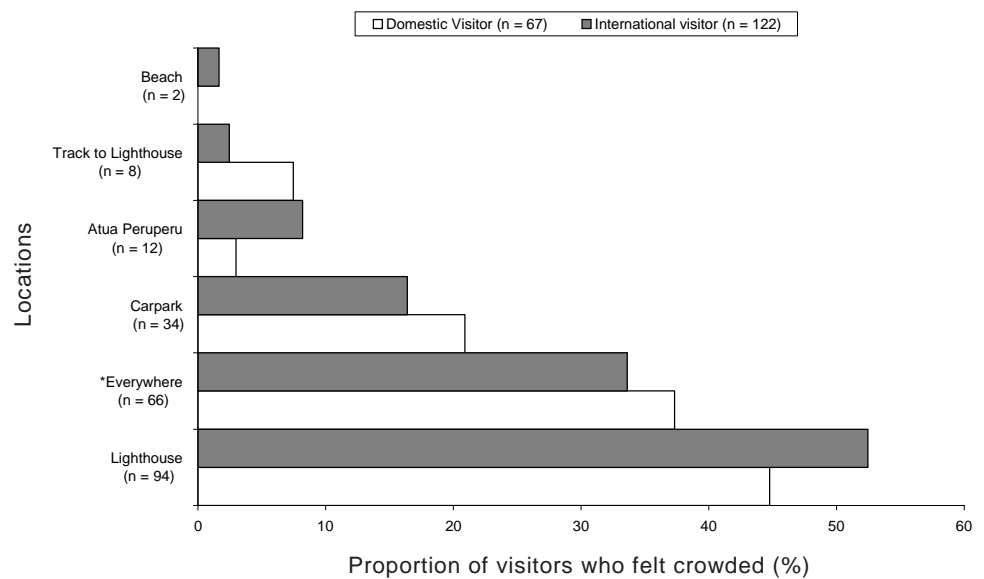
VEHICLE TYPE	PEOPLE ON SITE	PEOPLE ON A TOUR	PEOPLE NOT ON A TOUR	DOMESTIC VISITORS	INTERNATIONAL VISITORS
Car	11 932 (44%)	358	11 574	6241	5691
40-seater Bus	13 244 (48%)	13 244	0	4369	8875
Truck / camper van / bus	953 (3%)	0	953	181	772
Passenger mini van	1081 (4%)	541	541	455	626
Other	178 (< 1%)	0	178	59	119
Total	27 388 (100%)	14 142 (52%)	13 246 (48%)	11 306 (41%)	16 082 (59%)

number should also be used in context of the 37 days surveyed. Figure 2 shows that a substantially higher proportion of the visitors are international, and if this is typical of the rest of the year then up to 84% of visitors to the site are international.

### 3.7 Is crowding considered by some visitors to be a problem and where, specifically, on the site?

Crowding was perceived as an issue at one or more specific locations at the Cape Reinga site by 189 (14%) of the people interviewed. Most of these people felt crowded when near the lighthouse (85%), the car park (53%) and Atua Peruperu (41%) (Fig. 8). The majority of the people who felt crowded felt the experience would be improved if there were fewer people on site (139 or 74%).

Figure 8. Perceptions of crowding at specific locations at Cape Reinga, derived from visitors interviewed who expressed perceptions of crowding ( $n = 189$ ). \*Everywhere is not included in the other locations' results.



The estimated number of people on site at the time that a person perceived the site to be crowded appeared to be density-independent and ranged from 28 to 460 people. Approximately 7% of visitors felt crowded below the average occupancy of 156.9 (SE = 2.85,  $n = 715$ ) people. When estimated numbers on site exceeded 150, about 21% ( $n = 688$ ) of visitors interviewed considered that the site was crowded at one or more locations (Fig. 9).

The number of people the interviewees were travelling with had no effect on the perception of crowding. Although the type of vehicle people arrived in did not have an influence on the perception of crowding, the number of buses present did. More visitors perceived crowding as bus numbers increased (Table 6).

Table 7 shows that as age of visitors increased, their perceptions of crowding decreased. Crowding was perceived most in the 20–39-year age group.



Figure 9. The proportion of visitors interviewed who felt crowded ( $n = 189$ ), in relation to the number of people on site.

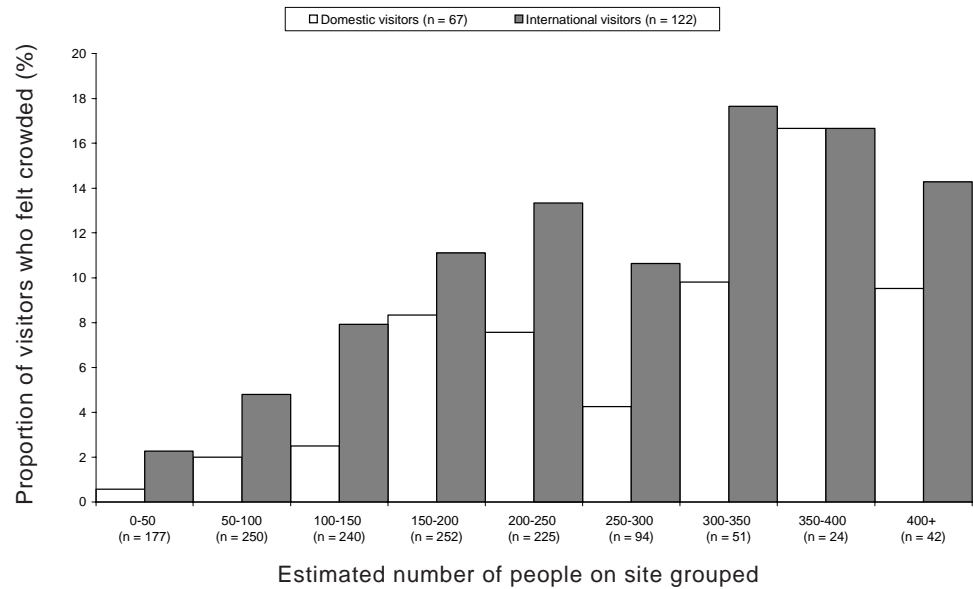


TABLE 6. THE NUMBER OF BUSES ON SITE RELATED TO PERCEPTIONS OF CROWDING. PERCENTAGES IN PARENTHESES.

NUMBER OF BUSES ON SITE	NUMBER OF PEOPLE INTERVIEWED	NUMBER OF PEOPLE WHO PERCEIVED CROWDING
0	355	17 (5%)
1	229	27 (12%)
2	203	28 (14%)
3	207	46 (22%)
4	143	22 (15%)
5	99	17 (17%)
6+	119	32 (27%)

TABLE 7. PERCEPTIONS OF CROWDING. RESPONSES TO THE QUESTION 'ARE THERE TOO MANY PEOPLE?' PERCENTAGES IN PARENTHESES.

AGE GROUP (years)	NUMBER INTERVIEWED	NUMBER ANSWERING YES
16-20	40	8 (20%)
20-29	391	76 (19%)
30-39	337	53 (16%)
40-49	273	28 (10%)
50-59	177	17 (10%)
60+	137	7 (5%)
Total	1355	189 (14%)

## 4. Discussion

At present Cape Reinga is generally a passive tourist recreation site for both domestic and international visitors who give their main reason for visiting as sightseeing (80%). This is backed up by what the people surveyed actually did on the site, which was sight-seeing (84%) and walking to the lighthouse—an 842-m return walk (97%). Less than 18% ventured beyond the lighthouse or Atua Peruperu area, possibly because of time constraints associated with tour bus schedules. However, it is important to remember that the study was confined to four hours in the middle of the day, so we don't know who visited or how they used the site outside this period. For example, visitors intending to use some of the longer tracks may have arrived earlier in the day.

International tourists to Northland appear to choose to leave their cars and take bus tours to visit Cape Reinga. The majority of older people—approximately 45 years old for international visitors or 60 years old for domestic visitors—and a high number of younger people (mainly international visitors) visit Cape Reinga on such tours. There are likely to be for a number of reasons for this—not wishing to drive the gravel road, the long distance, or the opportunity to fit a number of activities or places into a 1-day trip.

Less than 4% of the international visitors who visit Northland visit Cape Reinga (International Visitor Survey 1997-2004). This may indicate that there are issues associated with this site's location or remoteness or other perceptions that deter these visitors from going there. It may also indicate that the number of visitors to the site has the potential to increase substantially, which would place pressure on the infrastructure. The reasons why so few of Northland's international visitors make it to Cape Reinga needs to be investigated.

The site's capacity will depend on what management determines to be the threshold at which significant numbers of visitors have negative experiences of the site. At present crowding perceptions at the site seem to become significant (20% of visitors experiencing crowding) when the estimated numbers of people at the site are over 150. Most people feel crowded at the lighthouse and the car park / Atua Peruperu, with only slight fewer feeling crowded on the track to the light house. Management options should be considered to limit the perception of crowding, including spreading the peak use of the site and hence reducing numbers on the site, or designing facilities for better flow of visitors to minimise congestion and maximise the feeling of having fewer people around. The main limitations on the later approach could be the lack of area available due to the terrain and constraints related to the spiritual and cultural significance of the site.

The proportions of domestic and international visitors to cape Reinga varied over the 37-day sampling period. Cape Reinga is a considerable distance from almost everywhere else in New Zealand, so longer holiday periods are probably used by the majority of New Zealanders when planning a trip there. Many New Zealand parents have compulsory holidays or take time off work during school holidays to be with their children, particularly over Christmas, and most younger visitors to Cape Reinga will only be there because they have been taken

by their parents. Thus, in assessing visitation during the summer period, most domestic visitors are likely to arrive during the Christmas holiday part of the longer school summer holiday period, and not the periods either side. Outside this period, international visitors are likely to make up a higher proportion of Cape Reinga's visitors. Overall, this survey showed that international visitors (estimated 59%) outnumber New Zealanders (41%) at Cape Reinga—even though the survey corresponded with the main summer period.

The Tourism to Northland Region report (Tourism Research Council 2004) states that international visitors make up 20.8% of tourists in Northland, and domestic visitors 79.2%. In our survey, international visitors to Cape Reinga (est. 59%) outnumbered domestic visitors (est. 41%), even at the peak time for domestic holidays. The results of the two surveys indicate that while most tourists in the Northland region are domestic, only a few of these domestic tourists are presently visiting Cape Reinga. This may be because a visit to Cape Reinga is seen as a 'once-in-a-lifetime' experience by most New Zealanders; particularly because of its distance from other holiday sites or main attractions in Northland. Also, Cape Reinga may not be of sufficient interest to many New Zealanders to entice them to visit once, let alone make return visits (although 120 ( $n = 577$ ) domestic visitors stated that they were being shown the site by someone else). The reasons why domestic visitors to Northland generally don't visit Cape Reinga may need investigation to better understand the visitation levels at the site.

The Tourism Research Council (2002) is projecting 10.2% domestic and 44.5% international visitor growth to Northland by 2009. Increases of this degree could have a large impact at Cape Reinga. It is estimated that numbers on the site would increase by 280–328 additional people in the 4-hour period from 10 a.m. to 2 p.m. It is very likely that overall daily visitor numbers at Cape Reinga will increase, particularly as a result of the expected increase in international visitors, who make up the bulk of visitors to Cape Reinga.

Cape Reinga is an iconic site in New Zealand. It has great cultural significance and beauty. Because of this, its future development needs to be approached with care. The pressure of increased usage (growth in visitor numbers to Northland is expected to be approximately 10% for domestic and 44% for international visitors from 2002 to 2009) is cause for concern because of the sensitivity of the site and because some visitors already perceive crowding at key locations on the site. Future development at Cape Reinga must involve planning and design to improve visitor flow, reduce congestion at key view points and enable the site to absorb projected growth in visitor numbers; whilst retaining the significance of the site.

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## 6. References

- Greer, L.; Beauchamp, T. 2004: Cape Reinga Visitor Survey 2003. Unpublished internal report, Northland Conservancy, Department of Conservation, Whangarei, New Zealand.
- Tourism Research Council 2004: Tourism to Northland Region Report. Tourism Research Council, Wellington, New Zealand using International Visitor Demographics by Region Visited, based on the International Visitor survey 1997–2004 database.  
[www.trcnz.govt.nz](http://www.trcnz.govt.nz) (viewed 1 May 2004).
- Tourism Research Council 2002: Domestic Travel Survey 2001. Tourism Research Council, Wellington, New Zealand.  
[www.trcnz.govt.nz](http://www.trcnz.govt.nz) (viewed 1 May 2004).
- Statistics New Zealand 2001: New Zealand Statistics Census Usually Resident Population Count 2001.  
[www.stats.govt.nz](http://www.stats.govt.nz) (viewed 1 May 2004).

# Appendix 1

## **Survey form**



# Cape Reinga Visitor Survey

ID No. \_\_\_\_\_ Date \_\_\_\_\_  
Time of day \_\_\_\_\_ Day of week \_\_\_\_\_

Hi, my name is Sarah/Gemma, I'm doing a survey for the Department of Conservation, to help future visitors at Cape Reinga. Would you mind if I asked you a few questions? – It'll only take a minute or two.

- How many adults are in your group (including yourself & drivers)?  
Number of children? \_\_\_\_\_
- Are you on a tour?    No    Yes – which company?  
\_\_\_\_\_
- What kind of vehicle did you come in?  
 Truck/Campers Van / Bus  
 Car  
 Passenger Mini van  
 40 seater Bus  
 Other (motor bike/cycle)? \_\_\_\_\_
- Why did you come to Cape Reinga? (you can have multiple answers)  
 Lighthouse     Part of tour     Road End  
 Sightseeing     Walking / tramping     Fishing  
 Maori Culture     Oceans meeting  
 Other \_\_\_\_\_
- Where did you go on your visit to Cape Reinga?  
(you can have multiple answers)  
 Lighthouse     Car park     Beach  
 Saddle     Everywhere     Other \_\_\_\_\_  
 Track to lighthouse
- Do you feel there are too many people at Cape Reinga?  
No-go to 8                      Yes-go to 7a/7b

- Where did you feel there were too many people? (you can have multiple answers)  
 Lighthouse     Car park     Beach     Track to lighthouse  
 Saddle     Everywhere     Other \_\_\_\_\_
- If there were fewer people would your experience be improved?  
 No     Yes
- What activities are you doing while at Cape Reinga? (you can have multiple answers)  
 Walking/Tramping     Sight Seeing     Fishing  
 Tour activities     Other \_\_\_\_\_
- Do you know this is a sacred site to Maori?     Yes     No
- Do you live permanently in New Zealand?     Yes     No  
If No - which country are you from? \_\_\_\_\_
- If New Zealand     Northland     Auckland  
 Rest of North Island     Other than North Island
- Age Group     under 20     20-29     30-39     40-49     50-59  
 60+
- A Visitor Centre is to be built at Cape Reinga in the future. What information and facilities would you like to see in the Visitor Centre? (if detailed put PTO and continue over page)  
 \_\_\_\_\_  
 \_\_\_\_\_

**THANK YOU FOR YOUR ASSISTANCE**

# Appendix 2

## People surveyed, by age and country (as stated by person surveyed)

COUNTRY	AGE (y)						TOTAL
	< 20	20-29	30-39	40-49	50-59	60+	
Argentina			1	1			2
Australia	2	21	18	23	22	14	100
Austria		6	4	1			11
Belgium		1	5	2	1		9
Brazil		3	2				5
Britain					1		1
Canada	2	9	4	6	4	15	40
Chile		1					1
China	2	9	1				12
Cook Islands				1			1
Cyprus					1		1
Czech Republic		1					1
Denmark		5	1		1	2	9
England	4	35	31	11	37	31	149
Europe		1	1				2
Fiji			1				1
Finland					1		1
France		6	1	2	3		12
Germany	3	32	28	11	2	3	79
Hong Kong		1					1
Hungary			2				2
India		1				1	2
Iran			1				1
Ireland		5	10	2			17
Israel		16	2				18
Italy		4	7		2		13
Japan		8	2				10
Korea		5	4	2			11
Liechtenstein		1					1
Malaysia				1			1
Netherlands	1	10	14	8	3	3	39
Northern Ireland					1	1	2
Norway		1					1
New Zealand	22	124	149	178	70	34	577
Poland		1	1				2
Portugal		1			1		2
Samoa				1			1
Saudi Arabia			1				1
Scotland		2	4	2	5		13
Singapore			1				1
Slovenia		2					2
South Africa		2	3		1	2	8
South Korea			2	1			3
Spain		2	3				5
Sweden	10	1	1		13		
Switzerland		23	12	3	2	1	41
Taiwan		1					1
Thailand			1				1
Turkey			1				1
United Kingdom		23	8	6	10	11	58
USA	3	16	9	10	10	13	61
Venezuela			1				1
Wales	1		1	1	1	1	5
TOTAL	40	391	337	273	1777	137	1355

# Appendix 3

## Grouping of visitors surveyed according to place of origin, and whether or not they were on a tour ( $n = 1355$ )

### International visitors

COUNTRY OF ORIGIN	ON A TOUR	
	YES	NO
Europe	86	180
United Kingdom	143	85
Australia	55	45
U.S.A.	30	31
Asia	25	18
Canada	23	17
Middle East	7	13
South American	2	7
Africa	3	5
Pacific	0	3
Total international ( $n = 778$ )	374 (48%)	404 (52%)

### Domestic visitors

ORIGIN WITHIN NEW ZEALAND	ON A TOUR	
	YES	NO
Auckland	82	204
Northland	13	53
Other than North Island	14	30
Rest of North Island	60	121
Total domestic ( $n = 577$ )	169 (29%)	408 (71%)