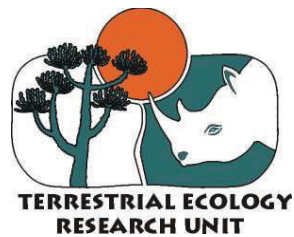


**PROFILES, PERCEPTIONS AND OBSERVATIONS OF  
VISITORS TO THE ADDO ELEPHANT NATIONAL PARK:  
2004/2005**

**A.F. Boshoff, G.I.H. Kerley, M. Landman and M. Bradfield**

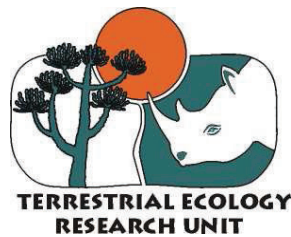


**Terrestrial Ecology Research Unit  
Nelson Mandela Metropolitan University  
Port Elizabeth**

**Report No. 53  
May 2006**

**PROFILES, PERCEPTIONS AND OBSERVATIONS OF  
VISITORS TO THE ADDO ELEPHANT NATIONAL PARK:  
2004/2005**

**A.F. Boshoff, G.I.H. Kerley, M. Landman and M. Bradfield**



**Terrestrial Ecology Research Unit  
Nelson Mandela Metropolitan University  
Port Elizabeth**

**Report No. 53  
May 2006**

## CONTENTS

Introduction .....	1
Methods .....	1
Results and Discussion	
<u>Respondents' profile</u>	
Home language, gender and age .....	2
Origin .....	3
Educational qualification .....	5
Occupation .....	5
<u>Analyses</u>	
Reasons for visiting the park .....	5
Frequency of visits to SA parks and reserves .....	10
Prior knowledge of animals in the park .....	11
Effect of hypothetical presence of alien animal species on the park experience/Level of support for the introduction of alien animal species ..	13
Views on the re-introduction of two large carnivores .....	18
Importance of the "Big Five" .....	20
Members of the "Big Five" seen .....	21
Use of the "hop-on" guide service.....	21
Use of the commercial game-drive service .....	22
Summary of main findings .....	24
Acknowledgements .....	27
References .....	27
Appendices	
1. Original questionnaire .....	29
2. Abridged questionnaire (for interviews).....	32
3. Data .....	33

## INTRODUCTION

The opinions, perceptions and observations of visitors provide an important source of information to guide planners and managers of protected areas (national parks and nature reserves). This information can relate to a range of issues that might affect the quality of the experience of the visitor to a protected area. It can also be used to assess the views and support of visitors regarding a range of wider conservation and associated economic issues.

Questionnaire and interview surveys are widely used as a means of obtaining information from visitors to national parks and other wildlife areas e.g. Preston & Fuggle (1987, 1988), Bennett & Jooste (1989), Barnes (1996), Barnes *et al.* (1999), Preston & Campbell (1995), Preston & Siegfried (1995), Findlay (1997), Radder (2000), Hoffman *et al.* (2003), Kerley *et al.* (2003), Ormsby & Kaplin (2005), Wilson & Tisdell (2005).

Since 1990, four visitor questionnaire surveys have been conducted in the Addo Elephant National Park (AENP), managed by South African National Parks, near the village of Addo in the Eastern Cape. The first, carried out by Vial (1996), measured the levels of expectation, requirements and satisfaction of visitors. The second, conducted by Geach (1997) focused on certain socio-economic aspects. The third collected information on visitor spending, as part of a broader study to estimate the socio-economic impact of the AENP on the surrounding communities (Saayman & Saayman 2005). Relevant outcomes of the Vial (1996) and Geach (1997) studies are further interpreted and discussed in Kerley *et al.* (2003). The current report deals with a fourth survey, which expands somewhat on some of the objectives of the survey conducted by Vial (1996).

The objective of the present study, conducted in the AENP, was two-fold: First, to obtain general information from visitors - more specifically on their knowledge of the parks' animals prior to their visit, their opinions on large carnivore re-introductions, their views on the importance of the Big Five species, the members of the Big Five seen by them, and their use of game-viewing services, during their visit.

Second, to obtain visitors' views on the presence of alien (non-indigenous) animal species in the park. This encapsulates the following aspects: (i) sensitivity to the consequences of alien species for the conservation of biodiversity in the park, (ii) appreciation of the value of the park for protecting indigenous species and ecosystems, and (iii) the possible influence of alien species on patronage of the park in the future.

## METHODS

A two-page questionnaire (Appendix 1) was handed to visitors, as they passed through the checkpoint at the main park entrance gate, over two periods: August to October 2004 (austral late winter-spring) and January to March 2005 (austral summer). A total of 2 500 questionnaires was handed out during each of these two periods. No attempt was made to stratify the sample, i.e. questionnaires were handed to all visitors until the supply was exhausted. Completed forms were returned prior to respondents leaving the park; some forms were mailed subsequent to respondents' departure from the park.

In order to understand response patterns detected in a preliminary analysis of the responses to questions 8-10, 100 visitors were interviewed on these three questions and

an abridged questionnaire (Appendix 2) was completed by the interviewers themselves. The interviews were conducted during late September and early October 2005. The data were captured into an MS-Excel spreadsheet, thereby enabling convenient sorting by, and within, the various response categories. We used simple chi-square goodness-of-fit and contingency tables to test for association between variables. Significance was assessed at the 95% confidence level.

## **RESULTS AND DISCUSSION**

A total of 853 (34%) of the 2500 questionnaires given out in 2004, and 830 (33%) of the 2500 given out in 2005, were completed and returned. These totals represent 3% and 1.9% of the total number of visitors to the park, respectively.

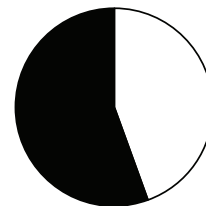
It should be noted that not all respondents answered all questions in the questionnaire. Data are reported as 2004 or 2005 data, or as pooled data (2004+2005). Raw data are presented in Appendix 3. Table and Figure numbers reflect the question numbers in the full questionnaire (Appendix 1).

### **RESPONDENTS' PROFILE**

#### **QUESTION 1: THE HOME LANGUAGE, GENDER AND AGE OF RESPONDENTS**

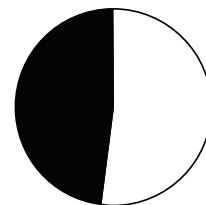
The home language, gender and age data of respondents is summarised in Tables 1a-1c, respectively (Appendix 3), and illustrated in Figures 1a-1c, respectively.

**Figure 1a: The home language of respondents (by %: 2004+2005 data) (Shaded-Other; Open-English).**

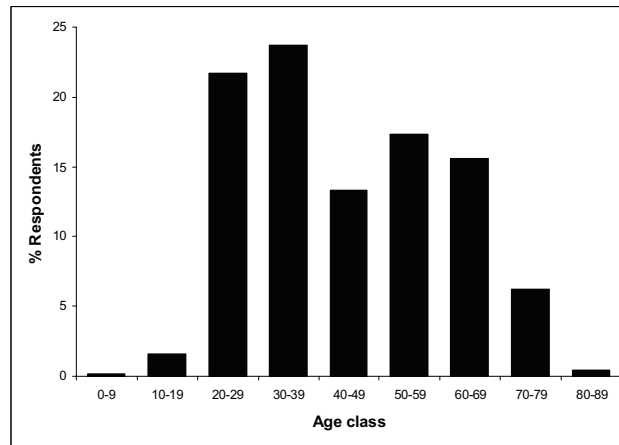


Overall (2004+2005 data), English was the home language of 44.5% of the respondents (Figure 1a). The fact that the questionnaire was in English only apparently did not deter those respondents whose home language is not English from completing it, as a higher proportion of non-English speakers completed the questionnaire, than did English speakers.

**Figure 1b: The gender of respondents (by %: 2004+2005 data) (Shaded-Female; Open-Male).**



Overall (2004+2005 data), men and women formed similar proportions ( $\chi^2_1=2.31$ ;  $P=0.13$ ) of the respondents (Figure 1b). Note, however, that the respective gender proportions in the 2004 data are reversed in the 2005 data (Table 1b: Appendix 3).



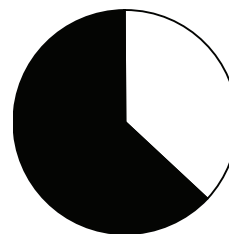
**Figure 1c: The age profile of respondents, by age class (2004 + 2005 data).**

Overall, the highest proportions of respondents, per age class, came from the 20-29 and 30-39 year old categories (Figure 1c).

**QUESTION 2: ORIGIN OF RESPONDENTS.**

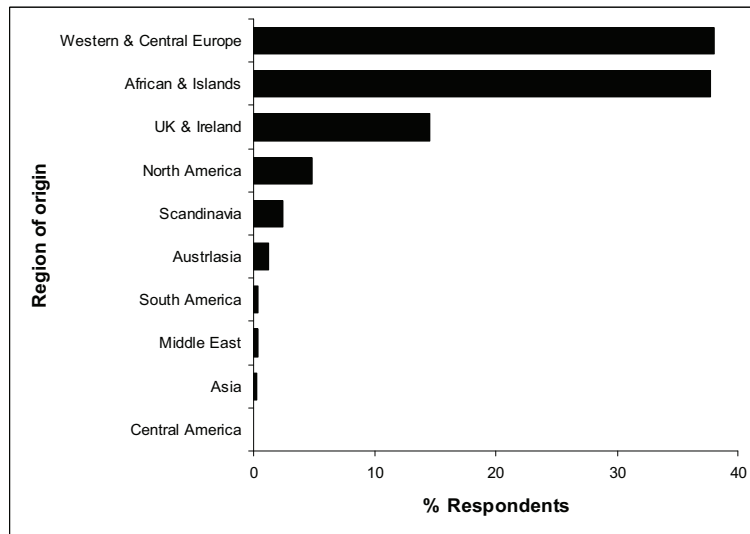
The country of origin of respondents (i.e. South Africa (SA) versus non-SA) is summarized in Table 2a (Appendix 3) and illustrated in Figure 2a.

**Figure 2a: Country of origin of respondents (by %: 2004+2005 data): SA (open); non-SA (shaded).**



Overall (2004+2005 data), approximately two-thirds (63%) of the respondents were visitors to South Africa (Figure 2a). In the study by Vial (1996) only 46.4% of respondents were from outside South Africa. This suggests that foreign visitors form a higher proportion of park visitors than was the case in 1996 ( $\chi^2_1=42.02$ ;  $P < 0.05$ ), two years after South Africa's change to a democratic government.

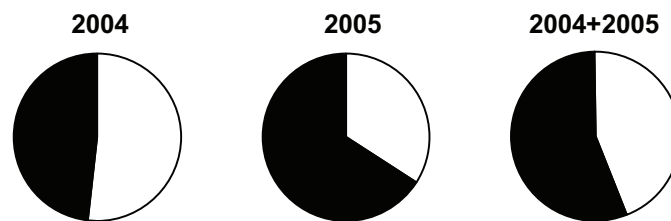
The world regions and countries of origin of respondents (2004+2005 data) are summarized in Table 2b (Appendix 3); the regions are illustrated in Figure 2b.



**Figure 2b: World regions of origin of respondents (by %: 2004+2005 data).**

Western and Central Europe matches Africa and its islands as the major origin of the respondents, followed by the UK and Ireland (Figure 2b). Germany was the major country of origin of foreign respondents, followed by England. In the survey conducted by Vial (1996), Germany (41.6%) was also the major country of origin of foreign respondents.

The origin of respondents within South Africa is summarized in Table 2c (Appendix 3) and illustrated in Figure 2c.

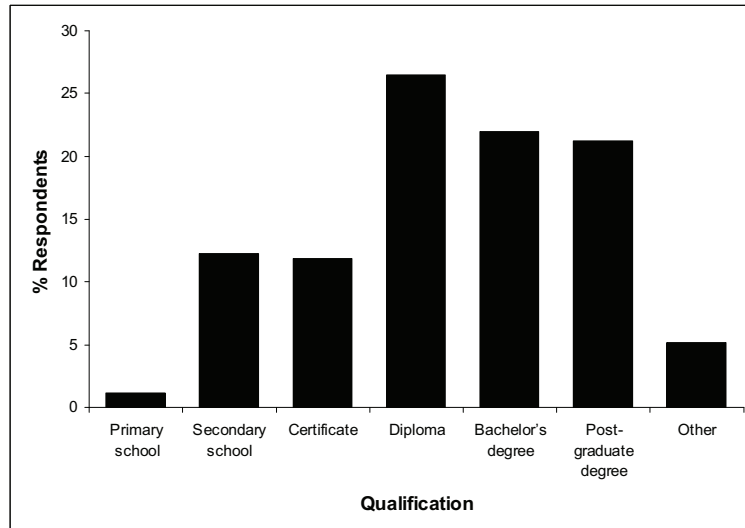


**Figure 2c: Origin of respondents within South Africa (by %) (Shaded-Non-local; Open-Local).**

Overall (2004+2005 data), significantly more ( $\chi^2_1=8.88$ ;  $P<0.05$ ) non-local South Africans completed the questionnaire than did local (i.e. live <125 km from the park) ones (Figure 2c). Note, however, that the proportions of each category are reversed between the 2004 and the 2005 data, with significantly more ( $\chi^2_1=7.27$ ;  $P<0.05$ ) non-local visitors during the mid-summer season. The latter period incorporates part of the summer holiday season and is a popular time for non-local people to visit the area.

### QUESTION 3: EDUCATIONAL QUALIFICATIONS OF RESPONDENTS.

The educational profile of respondents is summarized in Table 3 (Appendix 3) and illustrated in Figure 3.



**Figure 3: Educational qualifications of respondents (by %: 2004+2005 data).**

Overall, the majority of the respondents comprise persons who possess a high educational qualification; 43% of respondents had a bachelors or post-graduate degree, and 38% had a certificate or diploma (Figure 3).

### QUESTION 4: OCCUPATIONS OF RESPONDENTS.

Based on the nature of the responses, it was decided to exclude these data from the report.

## ANALYSES

### QUESTION 5: RESPONDENT'S REASONS FOR VISITING THE PARK.

Respondents' reasons for visiting the park, and the level of importance attached to each reason, are summarized in Tables 5a (2004 data) and 5b (2005 data) (Appendix 3), and illustrated in Figures 5a-5e.



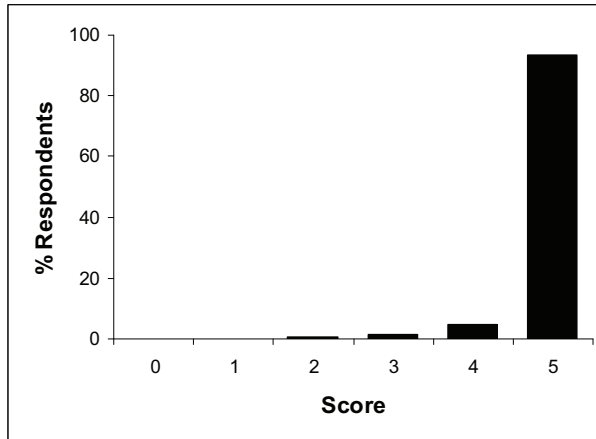


Figure 5a: Respondent's reasons for visiting the park (by %: 2004+2005 data): "To see the animals". 0=Not important, 5=Very important.

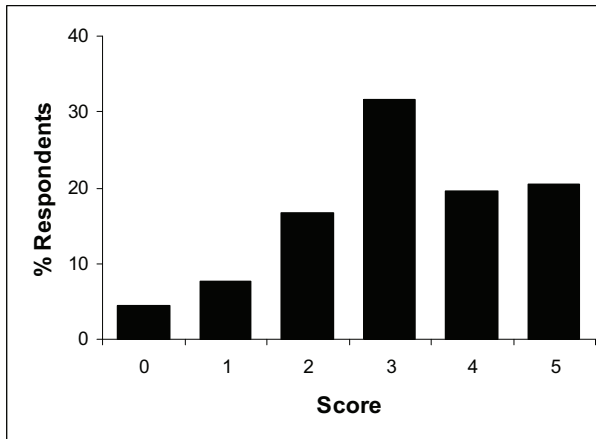


Figure 5b: Respondent's reasons for visiting the park (by %: 2004+2005 data): "To see the vegetation". 0=Not important, 5=Very important.

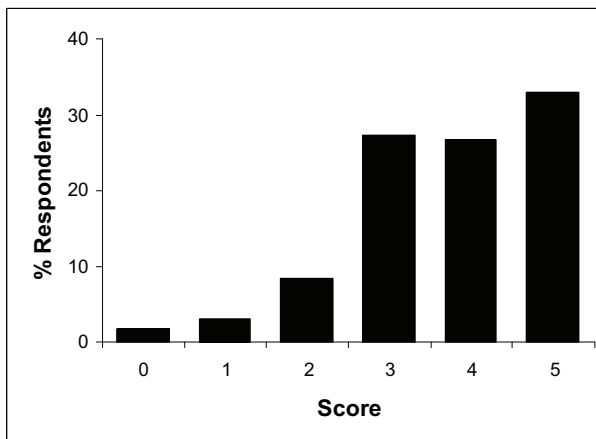
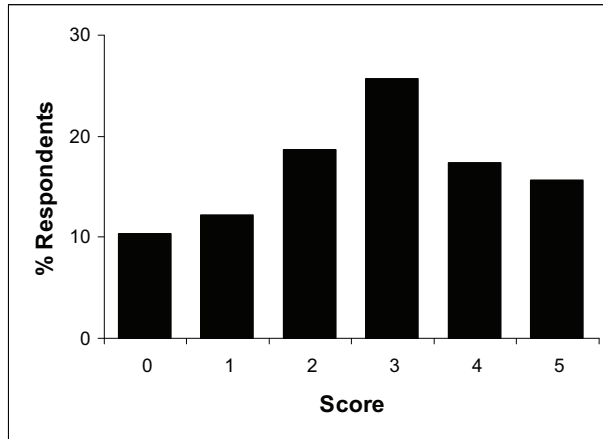
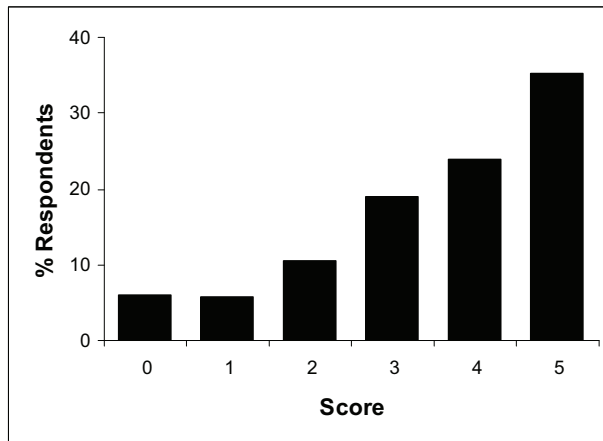


Figure 5c: Respondent's reasons for visiting the park (by %: 2004+2005 data): "To see the scenery". 0=Not important, 5=Very important.



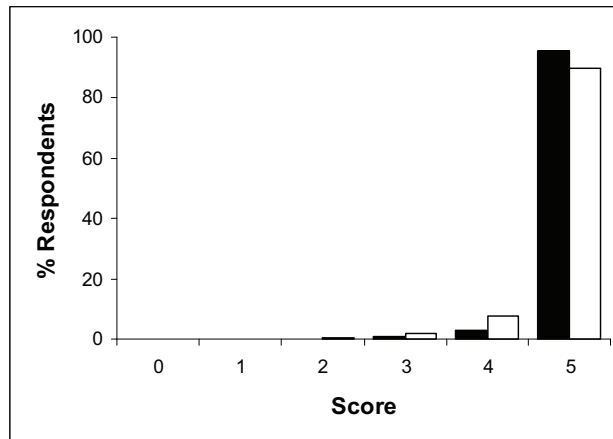
**Figure 5d: Respondent’s reasons for visiting the park (by %: 2004+2005 data): “To enjoy the climate”. 0=Not important, 5=Very important.**



**Figure 5e: Respondent’s reasons for visiting the park (by %: 2004+2005 data): “To enjoy the peace and quiet”. 0=Not important, 5=Very important.**

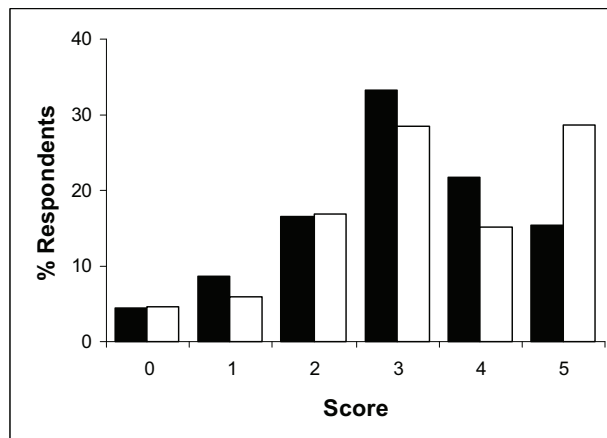
The information in Figures 5a-5e, indicates, overwhelmingly (> 90% “very important” rating), that the respondents visited the park primarily to see the animals. For none of the other reasons investigated was a score of higher than 35% (“very important”) achieved. Interestingly, 78% of respondents considered “peace and quiet” to be an important reason to visit the park.

The respondents’ reasons for visiting the park, and the degree of importance attached to them, are compared between South Africans and foreign visitors in Tables 5c-5g (Appendix 3) and in Figures 5f-5j.



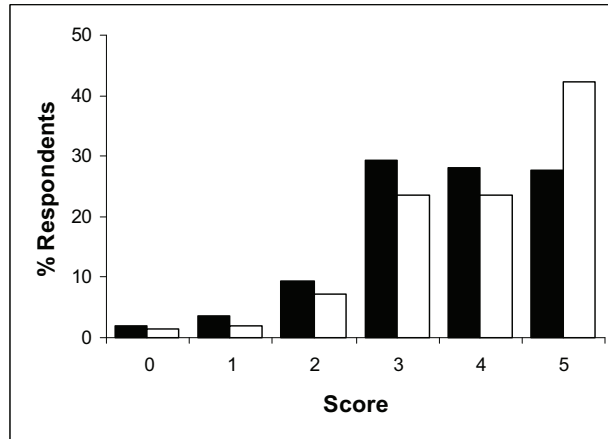
**Figure 5f: Reasons for visiting the park: comparison between origin of visitor (SA-open bars vs Non-SA-shaded bars) (by %: 2004+2005 data): “To see the animals”. 0=Not important, 5=Very important.**

A higher proportion of foreign visitors, as compared to South Africans ( $\chi^2_1=1.08$ ;  $P=0.30$ ), considered seeing the animals as a “very important” reason for visiting the park (Figure 5f).



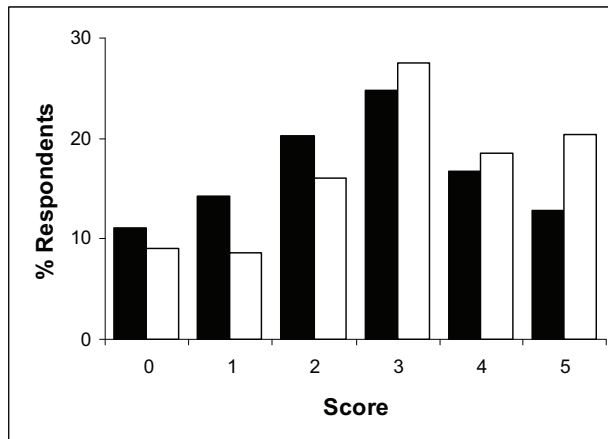
**Figure 5g: Reasons for visiting the park: comparison between origin of visitor (SA-open bars vs Non-SA-shaded bars) (by %: 2004+2005 data): “To see the vegetation”. 0=Not important, 5=Very important.**

Significantly more South Africans, as compared to foreign visitors ( $\chi^2_1=21.16$ ;  $P<0.05$ ), considered seeing the vegetation as a “very important” reason for visiting the park (Figure 5g).



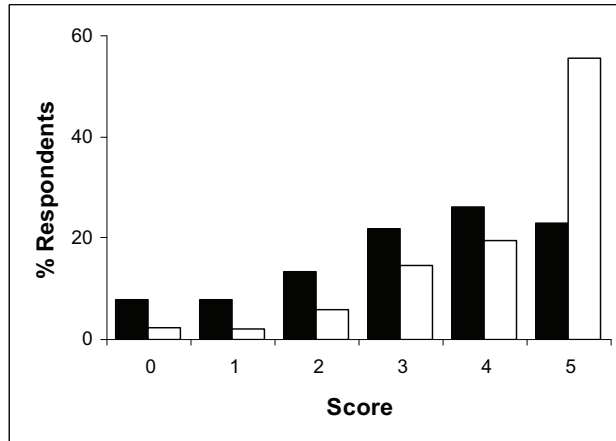
**Figure 5h: Reasons for visiting the park: comparison between origin of visitor (SA-open bars vs Non-SA-shaded bars) (by %: 2004+2005 data): "To see the scenery"**

Significantly more South Africans, as compared to foreign visitors ( $\chi^2_1=17.11$ ;  $P<0.05$ ), considered seeing the scenery as a "very important" reason for visiting the park (Figure 5h).



**Figure 5i: Reasons for visiting the park: comparison between origin of visitor (SA-open bars vs Non-SA-shaded bars) (By %: 2004+2005 data): "To enjoy the climate". 0=Not important, 5=Very important.**

Significantly more South Africans, as compared to foreign visitors ( $\chi^2_1=8.94$ ;  $P<0.05$ ), considered enjoyment of the climate as a "very important" reason for visiting the park (Figure 5i).



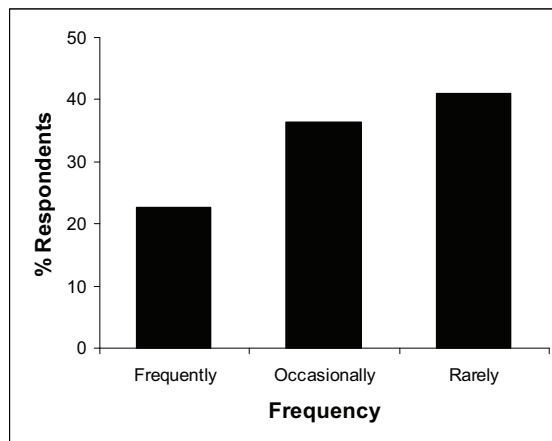
**Figure 5j: Reasons for visiting the park: comparison between origin of visitor (SA-white bars versus Non-SA-black bars) (by %: 2004+2005 data): “To enjoy the peace and quiet”. 0=Not important, 5=Very important.**

Significantly more South Africans, as compared to foreign visitors ( $\chi^2_1=78.02$ ;  $P<0.05$ ), considered enjoyment of the peace and quiet as a “very important” reason for visiting the park (Figure 5j).

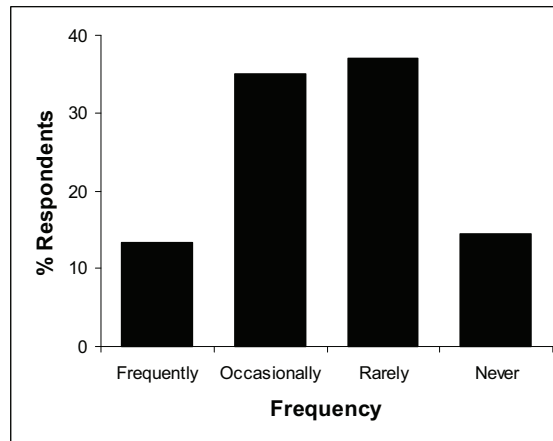
The information in Figures 5f-5j suggests that “seeing the animals” is the primary factor that attracts foreign visitors, and to a lesser extent South Africans, to the park. South Africans, however, generally attached greater levels of importance to attractions other than the animals.

**QUESTION 6: FREQUENCY OF RESPONDENTS’ VISITS TO SOUTH AFRICA’S PARKS AND RESERVES**

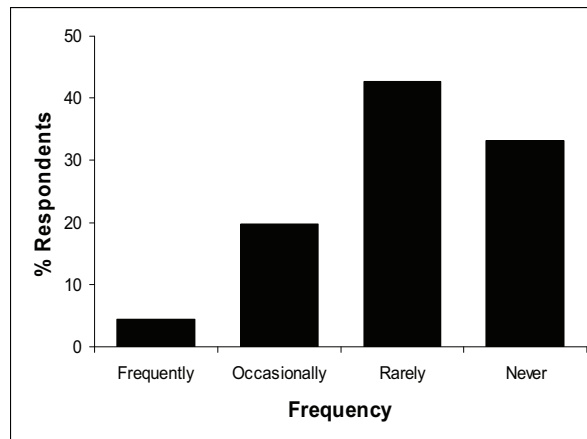
The frequency of respondents’ visits to South Africa’s national parks, provincial parks and reserves, and private reserves, is summarized in Tables 6a-6c, respectively (Appendix 3), and illustrated in Figures 6a-6c, respectively.



**Figure 6a: Frequency of respondents’ visits to South Africa’s national parks (by %: 2004+2005 data).**



**Figure 6b: Frequency of respondents' visits to South Africa's provincial parks and reserves (by %: 2004+2005 data).**



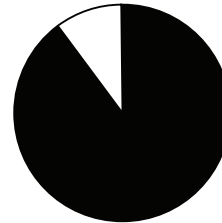
**Figure 6c: Frequency of respondents' visits to South Africa's private reserves (by %: 2004+2005 data).**

Overall (2004+2005 data), 23% of respondents visited South Africa's national parks "frequently", 13% visited its provincial parks and reserves "frequently" and 4.5% visited its private reserves "frequently" (Figures 6a-6c). This information suggests that the national parks are the country's most popular venue for visitors (SA and foreign) seeking a wildlife experience.

**QUESTION 7: KNOWLEDGE, PRIOR TO VISIT, OF WHICH ANIMALS RESPONDENTS EXPECTED TO SEE IN THE PARK.**

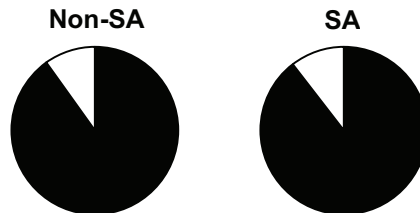
Respondents' knowledge, prior to their visit, of which animals they expected to see in the park is summarized in Table 7a (Appendix 3) and illustrated in Figure 7a.

**Figure 7a: Knowledge, prior to their visit, of which animals respondents expected to see in the park (by %: 2004+2005 data) (Shaded-Had knowledge; Open-No knowledge).**



Almost 90% of respondents claimed to have had knowledge, prior to their visit, of what animals they might see in the park (Figure 7a)

Respondents' knowledge, prior to their visit, of which animals they expected to see in the park is summarized, according to origin of respondent, in Table 7b (Appendix 3) and illustrated in Figure 7b.



**Figure 7b: Knowledge, prior to their visit, of which animals respondents expected to see in the park: comparison between origin of visitor (by %: 2004+2005 data) (SA versus non-SA) (Shaded-Had knowledge; Open-No knowledge).**

The level of claimed knowledge by respondents, prior to their visit, of which animals they expected to see in the park, is the same ( $\chi^2_1=0.05$ ;  $P=0.83$ ) for South Africans and for foreign visitors (Figure 7b).

The source of respondents' information about which animals they expected to see in the park is summarized in Table 7c.

**Table 7c: Source of respondents' information about which animals they expected to see in the park (multiple answer selections per respondent).**

Source of information	2004 (n=708*)		2005 (n=743*)		2004+2005	
	No.	%	No.	%	No.	%
Wildlife guide books	384	55.8	377	50.7	761	52.4
TV	160	23.3	190	25.6	350	24.1
Internet	117	17	156	21	273	18.8
Other	287	41.7	303	40.8	590	40.7

[\* number of respondents that answered this question]

“Wildlife guide books” were the respondents’ most prominent source of information. In Table 7c, the source of information category “Other” includes previous visits to the park. Overall, visitors to the park claimed to have had good prior knowledge of what animals they might see in the park (Figure 7a), and in this regard there was no difference between South African and foreign visitors (Figure 7b). This information was obtained from a variety of sources (Table 7c), with “wildlife guide books” being the most prominent.

**QUESTION 8: HOW DID THE PRESENCE OF ALIEN [ANIMAL] SPECIES AFFECT THE EXPERIENCE OF THE RESPONDENTS, HAD SUCH SPECIES BEEN PRESENT DURING THEIR VISIT ?**

and

**QUESTION 9: DID THE RESPONDENTS SUPPORT THE INTRODUCTION OF ALIEN [ANIMAL] SPECIES TO THE PARK ?**

Given the interconnectedness of the responses to Questions 8 and 9, in both the questionnaires and in the interviews, they have been integrated for the purposes of analysis, interpretation and discussion.

Contradictory responses (see Table 8/9a).

The breakdown of responses to Questions 8 and 9, according to whether or not a response was contradictory, is summarized in Table 8/9a. An example of a contradictory response is where a respondent may indicate in Question 8 that his or her experience in the park would have been diminished by the presence of alien animal species but then indicates in Question 9 that he or she favours the introduction of alien animal species.

**Table 8/9a: Breakdown of contradictory and non-contradictory responses to the questions “how would the presence of species that did not occur in the area naturally [=aliens] affect your experience in the park ?” and “would you support the introduction of animals to the park that are not natural to the area ?”.**

Category	2004		2005		2004+2005		Interviews	
	No.	%	No.	%	No.	%	No.	%
Contradictory responses	277	36.6	275	36	552	36.3	20	20
Non-contradictory responses	479	63.4	488	64	967	63.7	80	80
n	756		763		1519		100	

There was no difference ( $\chi^2_1=0.04$ ;  $P=0.85$ ) in the proportion of contradictory responses (36%) for the 2004 and 2005 questionnaire data (Table 8/9a). However, in the interview data this proportion decreases to 20%. This may reflect the fact that interviewers were requested to assist respondents if they indicated confusion with one or both of these two questions. It is known that the interview technique, where the interviewer is on hand to explain things to the interviewee, delivers superior information to the self-administered questionnaire method (Aaker *et al.* 2004).

Within the “contradictory” category, the majority of respondents in the 2004 dataset (76%), in the 2005 dataset (75%), and in the interview dataset (65%), indicated that aliens (had they been present) would **not** have affected their experience but were



**opposed** to the introduction of aliens. This could perhaps be interpreted to mean that these respondents would have accepted any aliens that had been present but were opposed to the specific action of introducing further aliens. However, the data cannot substantiate or repudiate this interpretation.

Notwithstanding the above, it is perhaps cause for concern that so many respondents provided contradictory responses, thereby indicating a lack of understanding or knowledge of the real issues posed by the questions.

No further analyses were conducted on the “contradictory” category data.

Non-contradictory responses:

The breakdown of non-contradictory responses to Questions 8 and 9 are summarized in Table 8/9b.

**Table 8/9b: Breakdown of non-contradictory responses to the questions “how would the presence of species that did not occur in the area naturally [=aliens] affect your experience in the park ?” and “would you support the introduction of animals to the park that are not natural to the area ?”.**

Category	2004		2005		2004+2005		Interviews	
	No.	%	No.	%	No	%	No.	%
Diminished experience, do not want aliens	192	40.1	174	35.7	366	37.8	29	36.3
No effect on experience, aliens acceptable	145	30.3	134	27.5	279	28.9	15	18.8
Experience enhanced by aliens, aliens acceptable	142	29.6	180	36.9	322	33.3	36	45
n	479		488		967		80	

*1. Respondents indicating that the presence of alien animals would have diminished their experience and that they were opposed to the introduction of alien animals.*

Respondents in this category formed around 37% of all respondents in the non-contradictory group, with the questionnaire and interview data providing similar ( $\chi^2_2=5.69$ ;  $P=0.06$ ) results (Table 8/9b). These data are further investigated below for possible independent influences of country of origin, educational qualification and age.

a) Country of origin.

The responses not in favour of presence of alien animal species, according to country of origin (SA vs non-SA), are summarized in Table 8/9c.

**Table 8/9c: Responses not in favour of presence of alien animal species: according to country of origin (SA vs non-SA).**

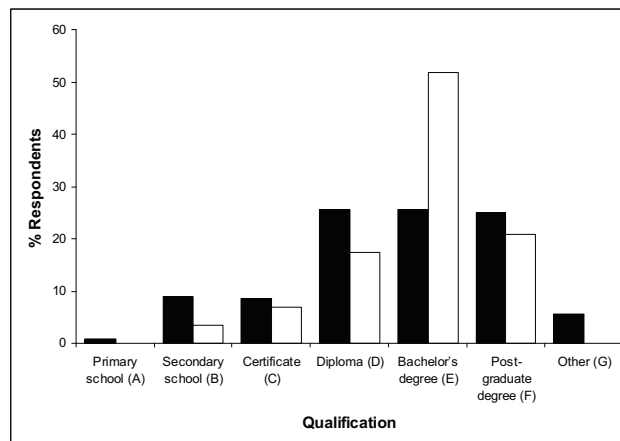
Origin	2004		2005		2004+2005		Interviews	
	No.	%	No.	%	No.	%	No.	%
SA	69	36.1	53	30.8	122	33.6	13	44.8
Non-SA	122	63.9	119	69.2	241	66.4	16	55.2
n	191		172		363		29	

Overall (2004+2005 data), two-thirds (66%) of respondents who indicated their opposition to the presence of alien animal species were foreigners; this proportion reduced to 55% in the interview data (Table 8/9c). These outcomes suggest that foreign visitors possess a higher awareness than South Africans of the main reason for the existence of national parks – namely to protect indigenous species and ecosystems (i.e. biodiversity). Consequently, South African National Parks and other formal conservation authorities in South Africa, and the South African National Biodiversity Institute, need to address this issue through an appropriate awareness campaign, aimed especially at South Africans.

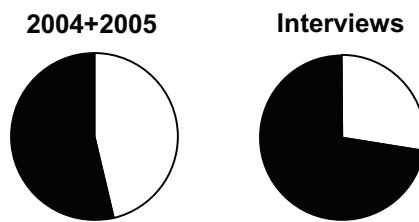
**b) Educational qualification.**

The proportions of respondents, according to educational qualification, that are not in favour of the presence of alien animal species, are summarized in Tables 8/9d and 8/9e (Appendix 3), and illustrated in Figures 8/9d and 8/9e.

Since there is no difference between the 2004 and 2005 data ( $\chi^2_6=12.04$ ;  $P=0.06$ ), these data can be pooled. The proportion of respondents in each category is similar for the 2004+2005 and interview datasets ( $\chi^2_6=10.51$ ;  $P=0.11$ ).



**Figure 8/9d: Responses not in favour of the presence of alien animal species, according to educational qualification (by %): 2004+2005 data (Shaded bars) and interview data (Open bars).**

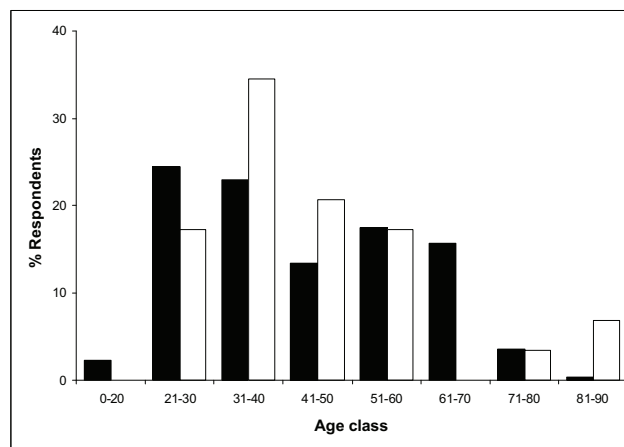


**Figure 8/9e: Responses not in favour of presence of alien animal species, according to educational qualification (by %): highest (Shaded-Bachelors or post-graduate degree) vs lowest (Open-School, certificate, diploma) educational qualifications: 2004+2005 and interview data.**

A higher proportion ( $\chi^2_1=1.56$ ;  $P=0.21$ ) of the “Bachelors or post-graduate degree” category grouping in Figure 8/9e (2004+2005 data) expressed the view that the presence of alien animal species would have diminished their experience in the park and that they are not in favour of their introduction. This pattern was even more pronounced ( $\chi^2_1=4.97$ ;  $P=0.03$ ) in the interview data (Figure 8/9e). This finding suggests a positive correlation between educational level and level of support for management of national parks in accordance with international biodiversity principles and practices.

**c) Age class**

The responses not in favour of the presence of alien animal species, according to age class, are summarized in Table 8/9f (Appendix 3) and illustrated in Figure 8/9f.



**Figure 8/9f: Responses not in favour of presence of alien animal species, according to age class (Shaded-2004+2005; Open-Interviews).**

In the questionnaire data, the highest proportions of respondents who were not in favour of the presence of alien animal species fall within the 21-30 and 31-40 age classes, whereas in the interview data they fall within the 31-40 and 41-50 age classes (Figure 8/9f).

2. Respondents who indicated that the presence of alien animals would not have affected their experience, and who support their introduction.

and

3. Respondents who indicated that the presence of alien animals would have enhanced their experience, and who support their introduction.

Respondents in these two categories, combined, formed around 60% of all respondents in the non-contradictory group (Table 8/9b). In other words, the majority of the respondents in this broad category (non-contradictory) did not appear to be sensitized to the issue of indigenous versus non-indigenous (alien) species and the primary role of national parks to protect the former. South African National Parks, other formal conservation authorities, South African National Biodiversity Institute and environmental education and tertiary education agencies should take note of this finding, which is depressing, given the fact that alien animals are considered to be one of the top three threats to the persistence of world's biodiversity, and are responsible for nearly 75% of vertebrate extinctions in the world (Atkinson 1989); alien species are also considered a major threat to biodiversity in South Africa (Macdonald 1989, Preston & Siegfried 1995).

Although the two studies are not directly comparable, our findings and those of Preston & Fuggle (1987) suggest that little progress has been made in the past 25 years as regards the level of knowledge of park visitors about alien species; in the latter study, conducted in 1982, only 10% and 53% of respondents noted alien birds and alien mammals, respectively, in three South African nature reserves. From their data, Preston & Fuggle (1987) concluded that "visitors' understanding of reserve management is particularly limited" and recommended that interpretation programmes in nature reserves should include "intensive efforts to .....integrate ecological and environmental interrelationships ....". Our results clearly confirm that there is still much to be achieved in this regard.

Our findings enable us to strongly support the plea by Kerley *et al.* (2003) for the importance and value of biodiversity (including ecosystems) in our protected areas to be aggressively promoted to visitors. Given that the protection of biodiversity is the primary function of the AENP, it is recommended that a prominent expanded statement to this effect should be included in the documentation that is handed to all visitors.

The scenario sketched above is not limited to South Africa. For example, a survey of visitors to a Canadian national park revealed that their knowledge about how to preserve wildlife or protect an ecosystem was low; they focused mainly on larger life, such as bison, and appeared to show little interest in birds and smaller wildlife (Chapman 2003).

A selection of paraphrased comments, noted by the interviewers, which indicate support for the introduction of alien animal species, is provided in Appendix 3.

We were unable to locate any references dealing with visitor's opinions and perceptions regarding the presence of alien species in national parks, anywhere in the world.

**QUESTION 10: RESPONDENTS' ATTITUDE TO RECOMMENDING TO OTHERS PRIVATE PARKS AND RESERVES THAT CARRY ALIEN ANIMAL SPECIES.**

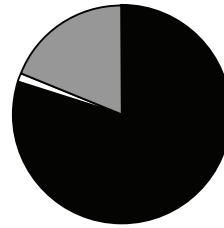
The questionnaire and interview data indicated that this question confused many respondents. Consequently, the data are not presented here.

**QUESTION 11: RESPONDENTS' VIEWS ON THE RE-INTRODUCTION OF LARGE CARNIVORES (LIONS AND HYAENAS)**

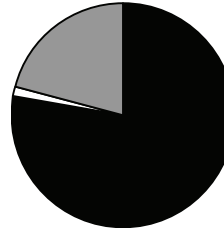
Respondents' views on whether the re-introduction of lions and (spotted) hyaenas to the park is good or bad for the ecology of the park, and for tourists in the park, are summarized in Tables 11a-11d (Appendix 3); the 2004+2005 data are illustrated in Figures 11a-11d.



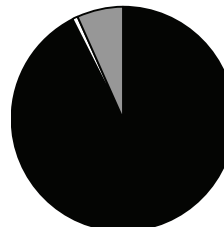
**Figure 11a: Respondents' views on the re-introduction of large carnivores (by %: 2004+2005 data): Are lions good for the ecology of the park ? (Black-Yes; White-No; Grey-Not sure).**



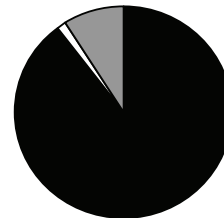
**Figure 11b: Respondents' views on the re-introduction of large carnivores (by %: 2004+2005 data): Are hyaenas good for the ecology of the park ? (Black-Yes; White-No; Grey-Not sure).**



**Figure 11c: Respondents' views on the re-introduction of large carnivores (by %: 2004+2005 data): Are lions good for tourists in the park ? (Black-Yes; White-No; Grey-Not sure).**



**Figure 11d: Respondent's views on the re-introduction of large carnivores (by %: 2004+2005 data): Are hyaenas good for tourists in the park ? (Black-Yes; White-No; Grey-Not sure).**



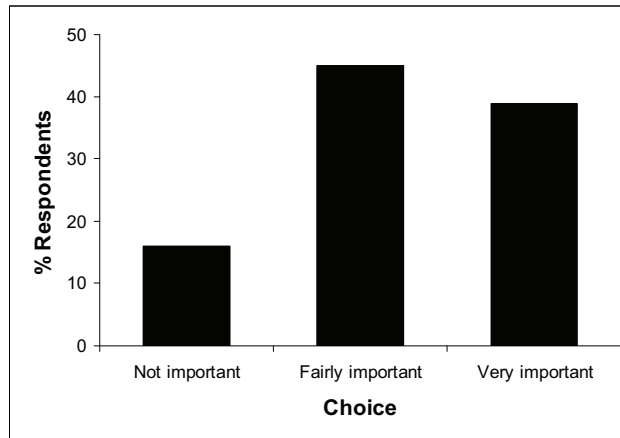
Respondents strongly (>77% of responses) considered that the re-introduction of lions is good for the ecology of the park, and for the tourists who visit it (Figures 11a and 11b). Interestingly, a sizeable proportion (around 20%) responded to these questions with a "Not sure" choice.

In the case of the hyaenas, respondents overwhelmingly (around 90% of responses) considered that their re-introduction is good the ecology of the park, and for the tourists who visit it (Figures 11c and 11d). In this case, there was a relatively low proportion (<9% of responses) with a "Not sure" choice.

The possible reasons for the difference in the "Not sure" responses for lion and hyaena may be worth further investigation in a future survey.

**QUESTION 12: IMPORTANCE OF THE “BIG FIVE” TO RESPONDENTS.**

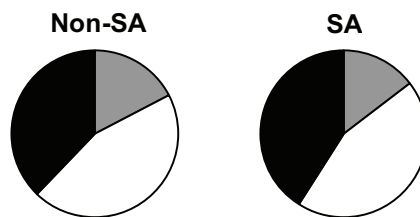
The importance of the “Big Five” to respondents is summarized in Table 12a (Appendix 3) and illustrated in Figure 12a.



**Figure 12a: Importance of the “Big Five” to respondents (by %: 2004+2005 data).**

More respondents considered the “Big Five” to be “Not important” and “Fairly important” (together) than to be “Very important” (Figure 12a). This finding is noteworthy, given that tourists to parks are widely considered to focus on a few large, charismatic faunal species e.g. see Goodwin & Leader-Williams (2000), Chapman (2003) and the discussion in Kerley et al. (2003).

The importance of the “Big Five” to respondents, according to country of origin (SA vs non-SA) is summarized in Table 12b (Appendix 3) and illustrated in Figure 12b.

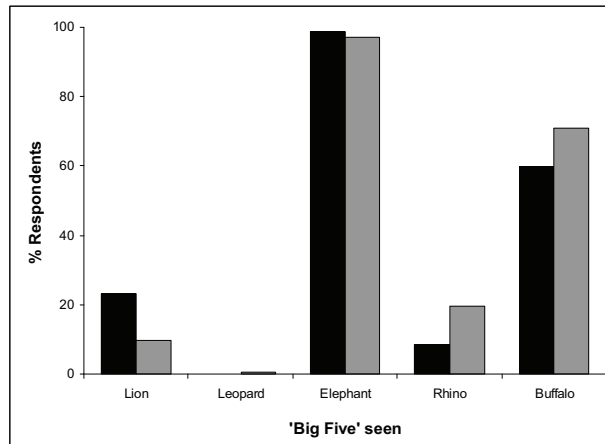


**Figure 12b: Importance of the “Big Five” to respondents (by %: 2004+2005 data): comparison between country of origin (SA versus non-SA): (Grey-Not important; White-Fairly important; Black-Very important).**

There is no difference ( $\chi^2_2=2.53$ ;  $P=0.28$ ) in the views expressed by South African and foreign visitors as regards the importance of the “Big Five” to them (Table 12b: Appendix 3). However, a higher proportion of foreign visitors, compared to South Africans, considered that seeing the “animals” was an important reason to visit the park (Figure 5f). This suggests that all animals, and not particularly the “Big Five”, are the attraction for foreign visitors.

**QUESTION 13: MEMBERS OF THE “BIG FIVE” SEEN.**

The members of the “Big Five” seen by respondents are reported in Table 13 (Appendix 3) and illustrated in Figure 13.



**Figure 13: Members of the “Big Five” seen by respondents (by %) (multiple answer selections per respondent). (Black-2004 data, Grey-2005 data)**

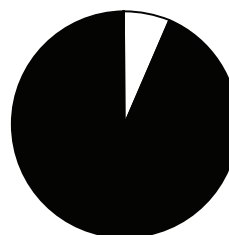
Overall (2004+2005 data), elephant (>97%) was by far the most frequently sighted member of the Big Five, followed by buffalo (65%) (Table 3: Appendix 3). Lion and rhino were sighted relatively infrequently (<17%). Only 0.3% of respondents sighted leopard, a shy species that has not been recorded in the tourist area until 2004, when a single animal was released there by parks staff.

There is a significant difference ( $\chi^2_4=87.81$ ;  $P<0.05$ ) between the 2004 and 2005 datasets (Table 13: Appendix 3); this is considered to be related to the influences of a number of park management actions (e.g. park expansion, animals moved, predator-prey interactions), and, in some cases, to natural seasonal movement patterns of the animals; detailed explanations are beyond the scope of this report. Interestingly, a small (2.1%, overall) proportion of visitors did not see any elephants (Table 13, Figure 13); in the study by Vial (1996), 2.8% of respondents did not see elephants.

**QUESTION 14: USE OF THE “HOP-ON” GUIDE SERVICE.**

The use of the “hop-on” guide service by respondents is summarized in Table 14a (Appendix 3) and illustrated in Figure 14a.

**Figure 14a: Use of the “hop-on” guide service by respondents (by: 2004+2005 data) (Shaded-Did not use the service; Open-Used the service).**

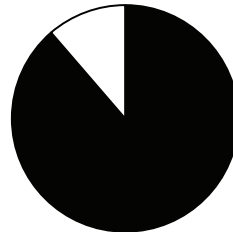




Relatively few (<10%) of the respondents used the service; fewer respondents used the service in 2005 than in 2004 (Figure 14a).

The effect on the experience of those respondents who used the “hop-on” guide service is summarized in Table 14b (Appendix 3) and illustrated in Figure 14b.

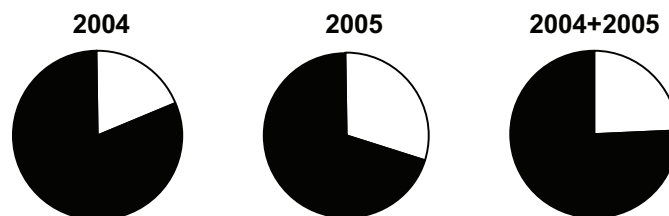
**Figure 14b: Use of the “hop-on” guide service by respondents (by %: 2004+2005 data): effect on experience of those who used it (Shaded-Improved the experience; Open-Did not improve the experience).**



Only a small proportion of the respondents used the “hop-on” service but for them it significantly improved ( $\chi^2_1=56.45$ ;  $P<0.05$ ) their park experience (Figure 14b). This corroborates the findings by Kerley *et al.* (2003), namely that self-guided tours provide an impoverished experience for visitors, as compared to guided tours. It would be worth investigating the possible reasons for the service not improving the park experience of 11% of respondents who used it (Figure 14b).

#### **QUESTION 15: USE OF THE COMMERCIAL GAME-DRIVE SERVICE.**

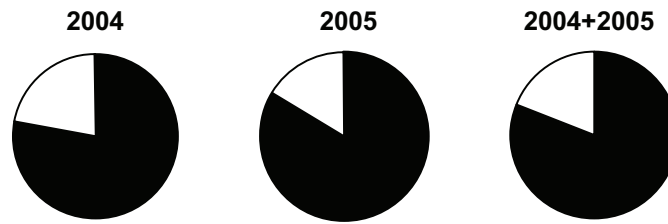
The use of the commercial game-drive service by respondents is summarized in Table 15a (Appendix 3) and illustrated in Figure 15a.



**Figure 15a: Use of the commercial game-drive service by respondents (by %) (Shaded-Did not use the service; Open-Used the service).**

Overall (2004+2005 data), only 24.5% of respondents used the service; however, usage increased from 2004 to 2005 (Figure 15a).

The effect on the park experience of respondents who used the commercial game-drive service is summarized in Table 15b (Appendix 3) and illustrated in Figure 15b.



**Figure 15b: Use of the commercial game-drive service by respondents (by %): effect on experience of those who used it (Shaded-Improved experience; Open-Did not improve experience).**

The commercial game-drive service significantly improved ( $\chi^2_1=89.85$ ;  $P<0.05$ ) the park experience for those respondents who used it (Table 15b); the level of improvement increased from 2004 to 2005 (Figure 15a). This corroborates the findings of Kerley *et al.* (2003), namely that self-guided tours provide an impoverished experience for visitors, as compared to guided tours.

The main reason for the low level of use of the “hop-on” guide service is considered to be a general lack of marketing of this service. The appointment of a Marketing Officer in October 2005 is likely to promote the use of this service.

In general, the low levels of use of the “hop on” and commercial game-drive services by respondents are not well understood. It may be that because they generally have a high level of education, and claim a good knowledge of the animals that they might see in the park, that they feel that a guide service is not necessary. Alternatively, the additional cost of the service may be a contributing factor. These aspects require detailed investigation.

## SUMMARY OF MAIN FINDINGS

### Respondents' profile

- The fact that the questionnaire was in English only did not deter those respondents whose home language is not English from completing it.
- Men and women formed similar proportions of the respondents.
- The highest proportions of respondents came from the 20-29 and 30-39 year age class categories.
- Approximately two-thirds (63%) of the respondents were visitors to South Africa, compared to 46.4% in a study conducted less than two years after South Africa's change to a democratic government, a time of great political uncertainty. This provides evidence of the link between the influence of the political state of a country on foreign tourists to its shores.
- Western and Central Europe matches Africa and its islands as the major origin of the respondents, followed by the UK and Ireland. Germany was the major country of origin of foreign respondents, followed by England.
- Overall, more non-local South Africans completed the questionnaire than did local ones (i.e. live <125 km from the park). This pattern was particularly marked during the mid-summer season, which incorporates part of the summer holiday season, a popular time for non-local people to visit the area.
- The majority of the respondents comprises persons who possess a high educational qualification; 43% of respondents had a Bachelors or post-graduate degree, and 38% had a certificate or diploma.

### Analyses

- Overwhelmingly (> 90% "very important" rating), the main reason provided by respondents for visiting the park was "to see the animals". For none of the other reasons investigated was a score of higher than 35% achieved.
- A higher proportion of foreign visitors, as compared to South Africans, considered seeing the animals as a "very important" reason for visiting the park. Whilst "seeing the animals" was the primary reason for South African to visit the park, they attached greater levels of importance to attractions other than the animals (vegetation, scenery, climate, peace and quiet) than did the foreign respondents.
- Overall, 23% of respondents visited South Africa's national parks "frequently", 13% visited its provincial parks and reserves "frequently" and 4.5% visited its private reserves "frequently". This suggests that the national parks are the country's most popular venue for visitors (SA and foreign) seeking a wildlife experience.

- Almost 90% of the respondents claimed to have had knowledge, prior to their visit, of what animals they might see in the park. The data do not, however, distinguish between first-time and returning visitors. This level of claimed knowledge is the same for South Africans and for foreign visitors. Wildlife guide books” were given as the most prominent source of information.
- 36% of questionnaire respondents and 20% of interviewees provided contradictory responses to the questions “How would the presence of species that did not occur in the area naturally [=aliens] affect your experience in the park ?” and “Would you support the introduction of animals to the park that are not natural to the area ?”, thereby indicating a worrisome lack of understanding or knowledge of the real issues posed by the questions.
- Interviews appear to be more appropriate/successful for information gathering than self-completed questionnaires.
- Overall, 66% of questionnaire respondents, and 55% of interviewees, who indicated their opposition to the presence of alien animal species were foreign visitors. This indicates that foreign visitors possess a higher awareness than South Africans of the main reason for the existence of national parks – namely to protect indigenous species and ecosystems (i.e. biodiversity).
- A higher proportion of the “Bachelors or post-graduate degree” educational qualification category expressed the view that the presence of alien animal species would have diminished their experience in the park and that they are not in favour of their introduction. This pattern was more pronounced in the interview data than in the questionnaire data. This suggests a positive correlation between educational level and level of support for management of national parks in accordance with international biodiversity principles and practices.
- In the questionnaire data, the highest proportions of respondents who were not in favour of the presence of alien animal species fall within the 21-30 and 31-40 age classes, whereas in the interview data they fall within the 31-40 and 41-50 age classes.
- The majority of the respondents were not sensitized to the issue of indigenous versus non-indigenous (alien) species, and to the primary role of national parks to protect the former. South African National Parks, other formal conservation authorities, the South African National Biodiversity Institute and environmental education and tertiary education agencies should take note of this finding, which is depressing, given that alien plants and animals are considered as one of the three top threats to the persistence of the worlds’ biodiversity.
- Little progress appears to have been made in the past 25 years in South Africa regarding the level of knowledge of park visitors about alien species, ecological and environmental interrelationships and park management.
- Our findings strongly support the plea by Kerley *et al.* (2003) for the importance and value of biodiversity (including ecosystems) in our protected areas to be aggressively promoted to visitors. Given that the protection of biodiversity is the primary function of the park, it is recommended that a prominent expanded

statement to this effect should be included in the documentation that is handed to all visitors.

- Respondents felt strongly that the re-introduction of lions and hyaenas is good for the ecology of the park, and for the tourists who visit it.
- More respondents considered the “Big Five” to be “Not important” and “Fairly important” (together) than to be “Very important”. This contradicts current dogma that tourists to parks tend to focus on a few large and charismatic faunal species.
- There is no difference in the views expressed by South African and foreign visitors as regards the degree of importance of the “Big Five” to them. However, the higher proportion of foreign visitors, compared to South Africans, that considered that seeing the “animals” was an important reason to visit the park, suggests that all animals, and not particularly the “Big Five”, are the attraction for foreign visitors.
- Elephant (>97%) was by far the most frequently sighted member of the “Big Five”, followed by buffalo (65%). Lion and rhino were sighted relatively infrequently (<17%). Only 0.3% of respondents sighted leopard; this was most likely an individual that was released in the tourist area by park staff. A small (2.1%, overall) proportion of visitors did not see any elephants; a similar finding was made in a mid-1990s survey.
- A significant difference between the 2004 and 2005 datasets for members of the “Big Five” recorded is considered to be related to the influences of a number of park management actions (e.g. park expansion, animals translocation, predator-prey interactions), and, in some cases, to natural seasonal movement patterns of the animals.
- The “hop-on” guide service and the commercial game-drive service in the park significantly improved the park experience for those respondents who used them, thereby corroborating the findings of an earlier survey, namely that self-guided tours provide an impoverished experience for visitors. However, both services exhibited low levels of use, for reasons that require further investigation.

## ACKNOWLEDGEMENTS

Our grateful thanks go to:

AENP management staff who assisted in distributing blank, and receiving completed, questionnaires.

Robyn Woods and Jared Jager, Nature Conservation students, for conducting the interviews.

Lucius Moolman, AENP warden, for his support for the survey.

Laetitia Radder, NMMU, and Wayne Linklater, Victoria University of Wellington, New Zealand, for bringing certain literature to our attention.



Michelle Hearne and Tracey Milne of TERU, NMMU, for assistance with data capture.

## REFERENCES

- Aaker, D.A., Kumar, V. & Day, G.S. 2004. Marketing Research. 8<sup>th</sup> Edition. New Jersey: John Wiley & Sons. pp 244-245.
- Atkinson, I. 1989. Introduced animals and extinctions. In: Conservation for the Twenty-first Century (eds D. Western and M. Pearl), New York: Oxford University Press. pp 54-75.
- Barnes, J.I. 1996. Economic characteristics of the demand for wildlife viewing tourism in Botswana. *Dev. Sth Africa* 13: 377-397.
- Barnes, J.I., Schier, C. & Van Rooy, G. 1999. Tourists' willingness to pay for wildlife viewing and wildlife conservation in Namibia. *S. Afr. J. Wildl. Res.* 29: 101-111.
- Bennett, J.A. & Jooste, C.J. 1989. Southern parks – Tourism survey conducted. *Custos* 17: 29-31.
- Chapman, R.J. 2003. Memorable wildlife encounters in Elk Island National Park. *Human Dimensions of Wildlife* 8: 235-236.
- Findlay, K.P. 1997. Attitudes and expenditures of whale watchers in Hermanus, South Africa. *S. Afr. J. Wildl. Res.* 27: 57-62.
- Geach, B.G.S. 1997. The Addo Elephant National Park as a model of sustainable land use through ecotourism. M.Sc. thesis. University of Port Elizabeth, Port Elizabeth, South Africa.
- Goodwin, H.J. & Leader-Williams, N. 2000. Tourism and protected areas – distorting conservation priorities towards charismatic megafauna. In: A. Entwistle & N. Dunstone (eds), *Priorities for the conservation of mammalian diversity: has the panda had its day ?* (pp 257-275). Conservation Biology Series, Cambridge University Press, Cambridge.
- Hoffman, L.C., Crafford, K., Muller, N. & Schutte, De W. 2003. Perceptions and consumption of game meat by a group of tourists visiting South Africa. *S. Afr. J. Wildl. Res.* 33: 125-130.
- Kerley, G.I.H., Geach, B.G.S. & Vial, C. 2003. Jumbos or bust: do tourists' perceptions lead to an under-appreciation of biodiversity ? *S. Afr. J. Wildl. Res.* 33: 13-21.
- Macdonald, I.A.W. 1989. Man's role in changing the face of southern Africa. In: B.J. Huntley (ed.). *Biotic diversity in southern Africa: concepts and conservation*. Cape Town: Oxford University Press. pp 51-77.
- Ormsby, A. & Kaplin, B.A. 2005. A framework for understanding community resident perceptions of Masoala National Park, Madagascar. *Env. Cons.* 32: 156-164.
- Preston, G.R. & Fuggle, R.F. 1987. Awareness of conservation issues among visitors to three South African nature reserves. *J. Env. Educ.* 18: 25-29.

- Preston, G.R. & Fuggle, R.F. 1988. Profiles and preferences of visitors to three South African nature reserves. *S. Afr. J. Wildl. Res.* 18: 1-5.
- Preston, G.R. & Campbell, H. 1995. Reactions of visitors to four South African nature reserve camps toward charging for facilities and measures on a user-pays basis that incorporates social costs. *S. Afr. J. Wildl. Res.* 25: 57-64.
- Preston, G.R. & Siegfried, W.R. 1995. The protection of biological diversity in South Africa: profiles and perceptions of professional practitioners in nature conservation agencies and natural history museums.
- Radder, L. 2000. Expectations of kudu hunters in the Eastern Cape: a value chain constellation. *S. Afr. J. Wildl. Res.* 30: 129-133.
- Saayman, M. & Saayman, A. 2005. Socio-economic impact of the Addo Elephant National Park. Institute for Tourism and Leisure Studies & School of Economics, University of the North-West, Potchefstroom. Unpublished Report to South African National Parks. *S. Afr. J. Wildl. Res.* 25: 49-56.
- Vial, C. 1996. Levels of expectation, requirements and satisfaction of visitors viewing wildlife at Addo Elephant National Park, South Africa. *Terrestrial Ecology Research Unit*. Report No. 6. 22 pp.
- Wilson, C. & Tisdell, C. 2005. Knowledge of birds and willingness to support their conservation: an Australian case study. *Bird. Cons. Int.* 15: 225-235.

**APPENDIX 1  
ORIGINAL QUESTIONNAIRE**

 <p><b>South African NATIONAL PARKS</b></p>	<h2 style="margin: 0;">QUESTIONNAIRE</h2> <p style="font-size: small; margin: 5px 0;">We apologise to visitors speaking Afrikaans, Xhosa, German, Dutch and other languages for the fact that, owing to financial constraints, this questionnaire has been produced only in English.</p>	 <p><b>TERRESTRIAL ECOLOGY RESEARCH UNIT</b></p>
--	--	---

The Terrestrial Ecology Research Unit, University of Port Elizabeth, in collaboration with South African National Parks, is conducting a survey of visitors to the **Addo Elephant National Park**. Your opinion is of great value to future park planning and management activities.

It would be greatly appreciated if you would take a few minutes to complete this simple anonymous questionnaire and to hand it in at Reception or at the Main Gate before you depart.

If you wish to be informed about the outcome of this project, please visit the Addo website at [www.addoelephantpark.com/index.html](http://www.addoelephantpark.com/index.html)

Thank you for your assistance in this important survey.

1. Home language ? ..... Gender ?  *Male*  *Female* Age ? .....
2. Where do you live ? Nearest town..... Country.....
3. What is your highest qualification ?

<i>Primary school</i>	<i>Diploma</i>	<i>Other (specify)</i>
<i>Secondary school</i>	<i>Bachelor's degree</i>	.....
<i>Certificate</i>	<i>Post-graduate degree</i>	.....

4. What is your occupation ?

<i>Student</i>	<i>Farmer, fisherman, hunter</i>	<i>Other (specify)</i>
<i>Blue-collar worker</i>	<i>Financial sector</i>	
<i>Professional, technical</i>	<i>Executive, managerial</i>	.....
<i>Clerical, retail, sales</i>	<i>Retired</i>	.....
<i>Mining, construction</i>	<i>Unemployed</i>	
<i>Environment</i>		



5. What are your reasons for visiting Addo ? [0 = not important; 5 = very important]

<i>To see the animals ?</i>	0	1	2	3	4	5
<i>To see the vegetation ?</i>	0	1	2	3	4	5
<i>To see the scenery ?</i>	0	1	2	3	3	5
<i>To enjoy the climate ?</i>	0	1	2	3	4	5
<i>To enjoy peace and quiet ?</i>	0	1	2	3	4	5

6. Do you visit South Africa's:

a) National parks	<i>Frequently ?</i>		<i>Occasionally ?</i>		<i>Rarely ?</i>	
b) Provincial parks & reserves	<i>Frequently ?</i>		<i>Occasionally ?</i>		<i>Rarely ?</i>	<i>Never ?</i>
c) Private reserves	<i>Frequently ?</i>		<i>Occasionally ?</i>		<i>Rarely ?</i>	<i>Never ?</i>

**Please turn over to Page 2**

7. Prior to your visit to Addo, did you know what types of animals you might see ?

Yes  No

If "Yes", where did you obtain most of your information ? (*tick*)

Wildlife guide books	<input type="checkbox"/>	<i>Other (specify)</i> ..... .....
TV programmes	<input type="checkbox"/>	
Internet	<input type="checkbox"/>	

8. All the types of animals that are now present in Addo are natural to the area - they occurred in the park and surrounding areas thousands of years ago.

If animals that do not occur in the area naturally (i.e. they come from other parts of South Africa or Africa) had been present in the park during your visit, would this have: (*tick one*)

- a) *diminished your experience in the park ?*
- b) *not affected your experience in the park ?*
- c) *improved your experience in the park ?*

9. Would you support the introduction of animals into Addo that are not natural to the area ?  Yes  No

10. If you visited a park or private reserve that carried species that are not natural to the area, and this diminished your wildlife experience, would you recommend the park/reserve to your friends and colleagues ?  Yes  No

11. Lions and Spotted Hyaenas, which last roamed the Addo area in the 19<sup>th</sup> century, have recently been re-introduced to the Park.

In your opinion is this:	Lions			Hyaenas		
	Yes	No	Not sure	Yes	No	Not sure
(a) good for the ecology of the park ?						
(b) good for tourists to the park ?						

12. How important are the “Big Five” (lion, leopard, elephant, rhino, buffalo) for your game-viewing experience at Addo ?

*Not important*       *Fairly important*       *Very important*

13. Which members of the “Big Five” did you see during your visit to Addo ?

*Lion*       *Leopard*       *Elephant*       *Rhinoceros*       *Buffalo*

14. During your visit to Addo did you hire the services of a “hop-on” guide ?  *Yes*  *No*

If “Yes”, did it  *improve* or  *not improve* your experience ?

15. During your visit to Addo did you make use of a commercial game-drive service ?

*Yes*       *No*

If “Yes”, did it  *improve* or  *not improve* your experience ?       *Yes*       *No*

**Thank you for your time !**

Please hand in your completed questionnaire at **Reception** or at the **Main Gate** before you depart.

(If you forget to do so, please mail it to The Director, TERU, University of Port Elizabeth, P O Box 1600, Port Elizabeth 6000, South Africa)

**APPENDIX 2  
ABRIDGED QUESTIONNAIRE**



The Terrestrial Ecology Research Unit, University of Port Elizabeth, in collaboration with South African National Parks, is conducting a survey of visitors to the **Addo Elephant National Park**. Your opinion is of great value to future park planning and management activities.

Thank you for your assistance in this important survey, by answering the following questions.

1. Home language ? ..... Gender ?  Male  Female Age ?  
.....

2. Where do you live ? Nearest town.....  
Country.....

3. What is your highest qualification ?

<i>Primary school</i>		<i>Diploma</i>		<i>Other (specify)</i>
<i>Secondary school</i>		<i>Bachelor's degree</i>		.....
<i>Certificate</i>		<i>Post-graduate degree</i>		.....

4. All the types of animals that are now present in Addo are natural to the area - they occurred in the park and surrounding areas thousands of years ago.

If animals that do not occur in the area naturally (i.e. they come from other parts of South Africa or Africa) had been present in the park during your visit, would this have: (tick one)

- d) *diminished your experience in the park ?*
- e) *not affected your experience in the park ?*
- f) *improved your experience in the park ?*

5. Would you support the introduction of animals into Addo that are not natural to the area ?

Yes  No

6. If you visited a park or private reserve that carried species that are not natural to the area, and this diminished your wildlife experience, would you recommend the park/reserve to your friends and colleagues ?  Yes  No

**APPENDIX 3  
DATA**

**Table 1a: The home language of respondents.**

Language	2004		2005		2004+2005	
	No.	%	No.	%	No.	%
English	351	41.5	393	47.6	744	44.5
Other	495	58.5	433	52.4	928	55.5
n	846		826		1672	

**Table 1b: The gender of respondents.**

Gender	2004		2005		2004+2005	
	No.	%	No.	%	No.	%
Male	415	54.1	394	49.7	809	52
Female	350	45.8	398	50.3	748	48
n	765		792		1557	

**Table 1c: The age of respondents, by age class.**

Age class (yrs)	2004		2005		2004+2005
	No.	%	No.	%	No.
0-9	1	0.1	1	0.1	2
10-19	15	1.9	11	1.4	26
20-29	192	24.5	153	18.9	345
30-39	204	26	174	21.5	378
40-49	124	15.8	88	10.9	212
50-59	129	16.4	147	18.2	276
60-69	82	10.4	166	20.5	248
70-79	33	4.2	65	8	98
80-89	3	0.3	4	0.5	7
n	783		809		1592

**Table 2a: Country of origin of respondents: SA vs non-SA**

Origin	2004		2005		2004+2005	
	No.	%	No.	%	No.	%
SA	339	40	278	33.8	617	37
Non-SA	507	60	545	66.2	1052	63
n	846		823		1669	

**Table 2b: World regions or countries of origin of respondents (2004+2005 data).**

<b>Region/continent</b>	<b>Country (n=38)</b>	<b>No. (n=1655)</b>
Africa + islands	Botswana	1
	Mauritius	1
	Namibia	4
	Reunion	1
	South Africa	618
<b>Total</b>		<b>625</b>
Asia	Hong Kong	1
	Philippines	3
	Singapore	1
<b>Total</b>		<b>5</b>
Australasia	Australia	17
	New Zealand	4
<b>Total</b>		<b>21</b>
Central America	Mexico	1
<b>Total</b>		<b>1</b>
Middle East	Israel	5
	UAE	1
<b>Total</b>		<b>6</b>
North America	Canada	24
	USA	56
<b>Total</b>		<b>80</b>
Scandinavia	Denmark	8
	Finland	1
	Norway	7
	Sweden	25
<b>Total</b>		<b>41</b>
South America	Argentina	5
	Uruguay	1
<b>Total</b>		<b>6</b>
UK + Ireland	England	153
	Ireland	9
	Scotland	15
	UK	60
	Wales	4
	<b>Total</b>	
Western + Central Europe	Austria	8
	Belgium	36
	Croatia	1
	Czech Rep	4
	France	31
	Germany	346

	Greece	2
	Holland	12
	Italy	18
	Luxembourg	4
	Netherlands	116
	Spain	6
	Switzerland	53
	<b>Total</b>	<b>629</b>

**Table 2c: Origin of respondents within SA.**

Origin within SA	2004		2005		2004+2005	
	No.	%	No.	%	No.	%
Local*	176	51.9	95	34.2	271	43.9
Non-local	163	48.1	183	65.8	346	56.1
n	339		278		617	

\*live <125 km from the park

**Table 3: Educational profile of respondents.**

Highest qualification	2004		2005		2004+2005
	No.	%	No.	%	No.
Primary school	10	1.2	8	1	18
Secondary school	87	10.7	109	13.6	196
Certificate	83	10.2	107	13.4	190
Diploma	212	26.1	215	26.9	427
Bachelor's degree	179	22	175	21.9	354
Post-graduate degree	182	22.4	160	20	342
Other	59	7.3	25	3.1	84
n	812		799		1611

**Table 5a: Respondents' reasons for visiting the park. 2004 data. 0=Not important, 5=Very important.**

Reason for visit	n =	0		1		2		3		4		5	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
To see the animals	849	0	0	0	0	3	0.4	15	1.8	39	4.6	792	93.3
To see the vegetation	793	31	3.9	68	8.6	129	16.3	268	33.8	141	17.8	156	19.7
To see the scenery	802	7	0.9	27	3.4	77	9.6	245	30.5	204	25.4	242	30.2
To enjoy the climate	781	90	11.5	97	12.4	163	20.9	196	25.1	134	17.2	101	12.9
Peace and	803	48	6	49	6.1	101	12.6	162	20.2	179	22.3	264	32.9

quiet													
-------	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 5b: Respondent's reasons for visiting the park. 2005 data. 0=Not important, 5=Very important.**

Reason for visit	n =	0		1		2		3		4		5	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
To see the animals	822	2	0.2	0	0	1	0.1	7	0.9	40	4.9	772	94
To see the vegetation	750	38	5.1	49	6.5	127	16.9	218	29.1	159	21.2	159	21.2
To see the scenery	756	20	2.6	21	2.8	54	7.1	179	23.7	210	27.8	272	36
To enjoy the climate	741	67	9	89	12	120	16.2	196	26.5	131	17.7	138	18.6
Peace and quiet	763	44	5.8	40	5.2	63	8.3	135	17.7	195	25.6	286	37.5

**Table 5c: Reasons for visiting the park: comparison between origin of visitor (SA vs Non-SA) (2004+2005 data): "To see the animals"**

Score	Non-SA		SA	
	No.	%	No.	%
0	1	0.1	1	0.2
1	0	0	0	0
2	0	0	4	0.7
3	11	1.1	11	1.8
4	32	3.1	46	7.5
5	1001	95.8	551	89.9
n	1045		613	

**Table 5d: Reasons for visiting the park: comparison between origin of visitor (SA vs Non-SA) (2004+2005 data): "To see the vegetation"**

Score	Non-SA		SA	
	No.	%	No.	%
0	43	4.4	26	4.7
1	84	8.6	33	6.0
2	161	16.5	94	17.0
3	326	33.3	158	28.5
4	213	21.8	84	15.2
5	151	15.4	159	28.7
n	978		554	

**Table 5e: Reasons for visiting the park: comparison between origin of visitor (SA vs Non-SA)  
(2004+2005 data): "To see the scenery"**

Score	Non-SA		SA	
	No.	%	No.	%
0	19	1.9	8	1.4
1	36	3.7	11	2.0
2	91	9.3	40	7.1
3	289	29.4	132	23.5
4	277	28.2	133	23.7
5	271	27.6	238	42.3
n	983		562	

**Table 5f: Reasons for visiting the park: comparison between origin of visitor (SA vs Non-SA)  
(2004+2005 data): "To enjoy the climate"**

Score	Non-SA		SA	
	No.	%	No.	%
0	108	11.1	49	9.1
1	139	14.3	46	8.5
2	197	20.3	86	16.0
3	241	24.8	148	27.5
4	162	16.7	100	18.6
5	124	12.8	110	20.4
n	971		539	

**Table 5g: Reasons for visiting the park: comparison between origin of visitor (SA vs Non-SA)  
(2004+2005 data): "To enjoy the peace and quiet"**

Score	Non-SA		SA	
	No.	%	No.	%
0	77	7.9	14	2.4
1	77	7.9	12	2.1
2	130	13.3	33	5.7
3	213	21.8	84	14.6
4	258	26.4	112	19.4
5	224	22.9	321	55.7
n	979		576	



**Table 6a: Frequency of respondents' visits to South Africa's national parks.**

Frequency of visits	2004		2005		2004+2005
	No.	%	No.	%	No.
Frequent	198	25	162	20.8	360
Occasional	295	37	279	35.8	574
Rare	310	38	339	43.5	649
n	803		780		1583

**Table 6b: Frequency of respondents' visits to South Africa's provincial parks and reserves.**

Frequency of visits	2004		2005		2004+2005
	No.	%	No.	%	No.
Frequent	93	12	106	14.5	199
Occasional	282	37	239	32.7	521
Rare	286	38	263	36	549
Never	92	12	123	16.8	215
n	753		731		1484

**Table 6c: Frequency of respondent's visits to South Africa's private reserves.**

Frequency of visits	2004		2005		2004+2005
	No.	%	No.	%	No.
Frequently	37	5	29	4	66
Occasionally	159	21	132	18.1	291
Rarely	311	42	319	43.6	630
Never	240	32	251	34.3	491
n	747		731		1478

**Table 7a: Knowledge, prior to visit, of which animals respondents expected to see in the park.**

Knowledge status	2004		2005		2004+2005	
	No.	%	No.	%	No.	%
Had knowledge	708	89	743	91	1451	89.8
No knowledge	91	11	74	9.1	165	10.2
n	799		817		1616	

**Table 7b: Knowledge, prior to their visit, of which animals respondents expected to see in the park: comparison between origin of visitor (SA vs non-SA).**

Knowledge status	2004				2005				2004+2005	
	Non-SA		SA		Non-SA		SA		Non-SA	SA
	No.	%	No.	%	No.	%	No.	%	No.	No.
Had knowledge	415	87.6	287	90	492	92	245	88.8	907	532
No knowledge	59	12.4	32	10	43	8	31	11.2	102	63
n	474		319		535		276		1009	595

**Table 8/9d: Responses not in favour of the presence of alien animal species, according to educational qualification.**

Category	2004		2005		2004+2005	Interviews
	No.	%	No.	%	No.	No.
Primary school (A)	2	1.1	1	0.6	3	0
Secondary school (B)	17	8.9	15	8.8	32	1
Certificate (C)	12	6.3	19	11.2	31	2
Diploma (D)	49	25.8	43	25.3	92	5
Bachelor's degree (E)	44	23.2	48	28.2	92	15
Post-grad degree (F)	49	25.8	41	24.1	90	6
Other (G)	17	8.9	3	1.8	20	0
n	190		170		360	29

**Table 8/9e: Responses not in favour of presence of alien animal species, according to educational qualification: highest vs lowest educational qualifications.**

Grouping of categories (see Table 8/9d for codes)	2004		2005		2004+2005	Interviews
	No.	%	No.	%	No.	No.
A-D	80	46.2	78	46.7	158	8
E-F	93	53.8	89	53.3	182	21
n	173		167		340	29

**Table 8/9f: Responses not in favour of presence of alien animal species, according to age class.**

Age class	2004		2005		2004 +2005	Interviews
	No.	%	No.	%	No.	No.
0-20	5	2.9	3	1.8	8	0
21-30	54	30.9	30	17.8	84	5

31-40	40	22.9	39	23.1	79	10
41-50	27	15.4	19	11.2	46	6
51-60	24	13.7	36	21.3	60	5
61-70	19	10.9	35	20.7	54	0
71-80	5	2.9	7	4.1	12	1
81-90	1	0.6	0	0	1	2
n	175		169		344	29

**Selection of paraphrased comments, noted by the interviewers, which indicate support for the introduction of alien animal species**

“Acceptable – as long as they do not affect the environment” (several responses)

“Then we do not have to go from park to park to see other species”

“Its nice to see as many species as possible [in one park]”

“Not in favour but it would be nice if they [aliens] were there for the children to see” (two responses)

“We’ve come a long way and want to see as many species as possible [in this park]”

“The more species the better, as long as they are indigenous to South Africa” (two responses)

“Aliens are acceptable – as long as they are happy [in the park]”

“As long as they are ecologically researched”

**Table 11a: Respondents’ views on the re-introduction of large carnivores: Are lions good for the ecology of the park ?**

Choice	2004		2005		2004+2005
	No.	%	No.	%	No.
Yes	644	81	617	78.6	1261
No	7	0.9	12	1.5	19
Not sure	145	18.2	156	19.9	301
n	796		785		1581

**Table 11b: Respondents’ views on the re-introduction of large carnivores: Are hyaenas good for the ecology of the park ?**

Choice	2004		2005		2004+2005
	No.	%	No.	%	No.
Yes	606	79	581	77.1	1187
No	8	1	13	1.7	21
Not sure	155	20	160	21.2	315
n	769		754		1523

**Table 11c: Respondents' views on the re-introduction of large carnivores: Are lions good for tourists in the park ?**

Choice	2004		2005		2004+2005
	No.	%	No.	%	No.
Yes	694	93	671	91.8	1365
No	8	1	7	1	15
Not sure	44	6	53	7.3	97
n	746		731		1477

**Table 11d: Respondent's views on the re-introduction of large carnivores: Are hyaenas good for tourists in the park ?**

Choice	2004		2005		2004+2005
	No.	%	No.	%	No.
Yes	657	91	623	88.5	1280
No	8	1	14	2	22
Not sure	60	8	67	9.5	127
n	725		704		1429

**Table 12a: Importance of the "Big Five" to respondents.**

Choice	2004		2005		2004+2005
	No.	%	No.	%	No.
Not important	153	18.7	109	13.4	262
Fairly important	362	44	372	45.9	734
Very important	305	37.2	330	40.7	635
n	820		811		1631

**Table 12b: Importance of the "Big Five" to respondents: comparison between country of origin (SA vs non-SA).**

Importance	2004				2005				2004+2005	
	Non-SA		SA		Non-SA		SA		Non-SA	SA
	No.	%	No.	%	No.	%	No.	%	No.	No.
Not important	100	20.4	53	16.3	74	14	34	12.3	174	87
Fairly important	221	45.2	139	42.6	237	44.9	131	47.3	458	270
Very important	168	34.4	134	41.1	217	41.1	112	40.4	385	246

**Table 14a: Use of the “hop-on” guide service by respondents.**

Category	2004		2005		2004+2005
	No.	%	No.	%	No.
Used the service	70	9	39	4.9	109
Did not use the service	744	91	763	95.1	1507
n	814		802		1616

**Table 14b: Use of the “hop-on” guide service by respondents: effect on experience of those who used it.**

Category	2004		2005		2004+2005
	No.	%	No.	%	No.
Improved experience	55	88.7	31	88.6	86
Did not improve experience	7	11.3	4	11.4	11
N	62		35		97

**Table 15a: Use of the commercial game-drive service by respondents.**

Category	2004	2005	2004+2005
	No.	No.	No.
Used the service	93	144	237
Did not use the service	397	334	731
n	490	478	968

**Table 15b: Use of the commercial game-drive service by respondents: effect on experience of those who used it.**

Category	2004	2005	2004+2005
	No.	No.	No.
Improved experience	70	120	190
Did not improve experience	20	24	44
n	90	144	234