

## APPENDIX A

**Appendix A** Newspapers, newsletters and magazines in which appeals for wild dog sightings were published

| Publication                     | Type       | Language  | Circulation of publication |
|---------------------------------|------------|-----------|----------------------------|
| Africa Environment and Wildlife | Magazine   | English   | National                   |
| Farmers Weekly                  | Magazine   | English   | National                   |
| Game and Hunt                   | Magazine   | English   | National                   |
| The Natal Courier               | Newspaper  | English   | KZN <sup>a</sup>           |
| The Vryheid Herald              | Newspaper  | English   | KZN                        |
| The Zululand Observer           | Newspaper  | English   | KZN                        |
| Die Soutpansberger              | Newspaper  | Afrikaans | LP <sup>b</sup>            |
| The Letaba Herald               | Newspaper  | English   | LP                         |
| The Northern Post               | Newspaper  | English   | LP                         |
| The Phalaborwa Herald           | Newspaper  | English   | LP                         |
| The Phalagraph                  | Newspaper  | English   | LP                         |
| The Waterberg Newsletter        | Newsletter | English   | LP                         |
| The Lowvelder                   | Newspaper  | English   | LP, MP <sup>c</sup>        |
| Transvaal Game Association      | Newsletter | English   | LP, MP, NW <sup>d</sup>    |
| Die Bosvelder                   | Newspaper  | English   | LP, NW                     |
| The Lydenburg News              | Newspaper  | English   | MP                         |
| The Middelburg Observer         | Newspaper  | English   | MP                         |
| Die Noordwester                 | Newspaper  | English   | NW                         |
| Die Stellalander                | Newspaper  | Afrikaans | NW, NC <sup>e</sup>        |

<sup>a</sup> Kwa Zulu Natal

<sup>b</sup> Limpopo

<sup>c</sup> Mpumalanga

<sup>d</sup> North West

<sup>e</sup> Northern Cape

## APPENDIX B

### Appendix B Questionnaire used to assess the attitudes of ranchers

Dear Sir/Madam,

This questionnaire survey is being conducted as part of a wider study that aims to determine the costs and benefits associated with the conservation of African wild dogs (*Lycaon pictus*). This survey aims to determine the attitudes of you as landowners towards this species on private land, and the reasons behind these attitudes. Your assistance in completing this questionnaire survey would be greatly appreciated. Your answers will be anonymous and entirely confidential.

#### Section 1. Ranch Details

1. What is your position?

- Land owner
- Lease holder
- Manager
- Other, please specify

2. Please provide the following ranch details

Ranch name.....  
 Province.....  
 District.....  
 Nearest town.....  
 Distance to nearest town.....

3. What is the size of the property in hectares/acres?

4. Is your property part of a collaborative nature reserve (CNR) or conservancy?

5. If so, what is the size of the CNR or conservancy?

6. If the ranch is not part of a CNR, please provide the following details concerning the fencing on the property

Location of fencing.....  
 Height of fence.....  
 Number of strands.....  
 Is the fence meshed (Bonnox / Veldspan)?.....  
 Is the fence electrified?.....

7. What type of land borders your property?

- State land
- Communal land
- Forest land
- Cattle ranch
- Mixed cattle and game ranch
- Game ranch
- Other, please specify

8. Please indicate the relative importance of the following sources of income on your property

| Activity             | Important | Marginal | Zero |
|----------------------|-----------|----------|------|
| Trophy hunting       |           |          |      |
| Hunting lease rights |           |          |      |
| Ecotourism           |           |          |      |
| Live Game Sales      |           |          |      |
| Venison Sales        |           |          |      |
| Cattle               |           |          |      |
| Sheep                |           |          |      |
| Crops                |           |          |      |

9. Please indicate the severity of poaching on your property

(0=no poaching, 5=severe poaching)

0  1  2  3  4  5

10. If poaching occurs on your property, by what means does it occur?

| Poaching method     | % of total poaching |
|---------------------|---------------------|
| Snaring             |                     |
| Hunting with dogs   |                     |
| Shooting            |                     |
| Other, specify..... |                     |

#### Section 2. Predators

11. Which of the of following predators are regularly sighted on your property?

- Brown hyaena
- Caracal
- Cheetah
- Feral dogs
- Jackals
- Leopard
- Lion
- Spotted hyaena
- Wild dogs
- Others, please specify.....

12. Indicate how you feel about having (or how you would feel about having) each of the following species on your land by giving each species a score of 0-5 (0=Very negative, 5=Very positive).

| Species           | Score | Reason |
|-------------------|-------|--------|
| African wild dogs |       |        |
| Cheetahs          |       |        |
| Jackals           |       |        |
| Lions             |       |        |
| Leopards          |       |        |
| Spotted hyaenas   |       |        |

**Section 3. Wild Dogs**

13. How frequently is evidence of the presence of wild dogs seen on your property (including sightings, spoor, kills etc.)

14. If wild dogs occur on your land, how many do you estimate use the property?

15. Have wild dogs had pups on your land in the last five years?

16. If wild dogs occur on your land, what species do they prey upon most regularly?

- a).....
- b).....
- c).....

17. Given the choice between having wild dogs utilise your property as part of a larger home range, or not having them at all, which would you choose?

- Wild dogs utilising your property as part of their home range
- Wild dogs not utilising your property at all

APPENDIX C

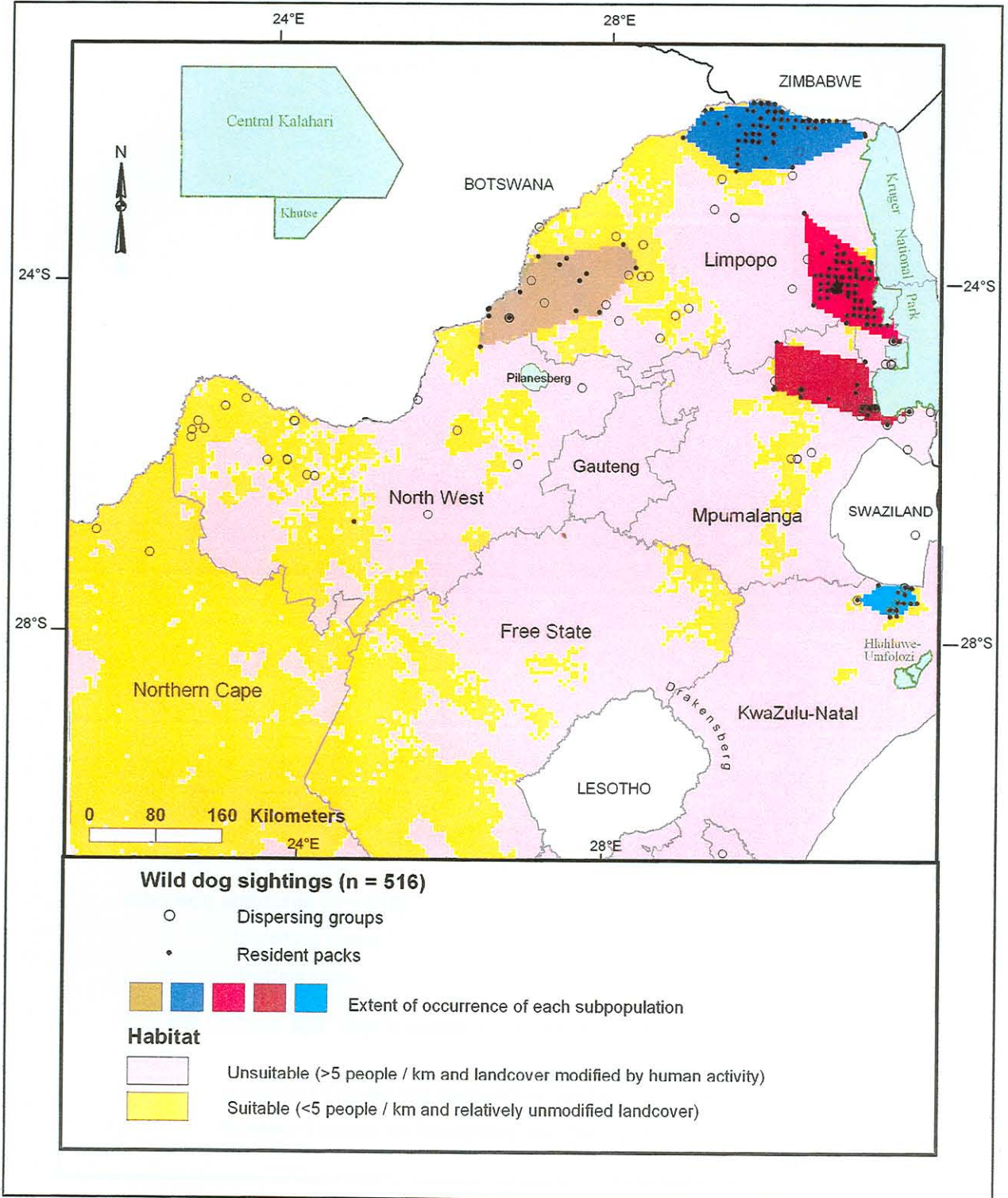
18. Why?

19. Please indicate whether you agree with the following statements

| Statement   | Yes | No | Don't know | Comments |
|---|-----|----|------------|----------|
| A. Wild dogs are a liability to a game farmer because they consume valuable game but provide no economic return.  |     |    |            |          |
| B. Wild dogs regularly kill more food than they need  |     |    |            |          |
| C. Wild dogs cause disruption of game herds and make them more skittish   |     |    |            |          |
| D. Wild dogs cause damage to fences during their hunting activities   |     |    |            |          |
| E. Wild dogs are a natural component of a healthy ecosystem   |     |    |            |          |
| F. Tourists are interested in seeing wild dogs  |     |    |            |          |
| G. Sufficient money can be made from marketing 'wild dog eco-tours' to compensate for the losses caused by their predation  |     |    |            |          |
| H. The demonstration of a way in which to make a sustainable profit from wild dogs would be sufficient incentive to encourage you to reintroduce wild dogs onto your property |     |    |            |          |

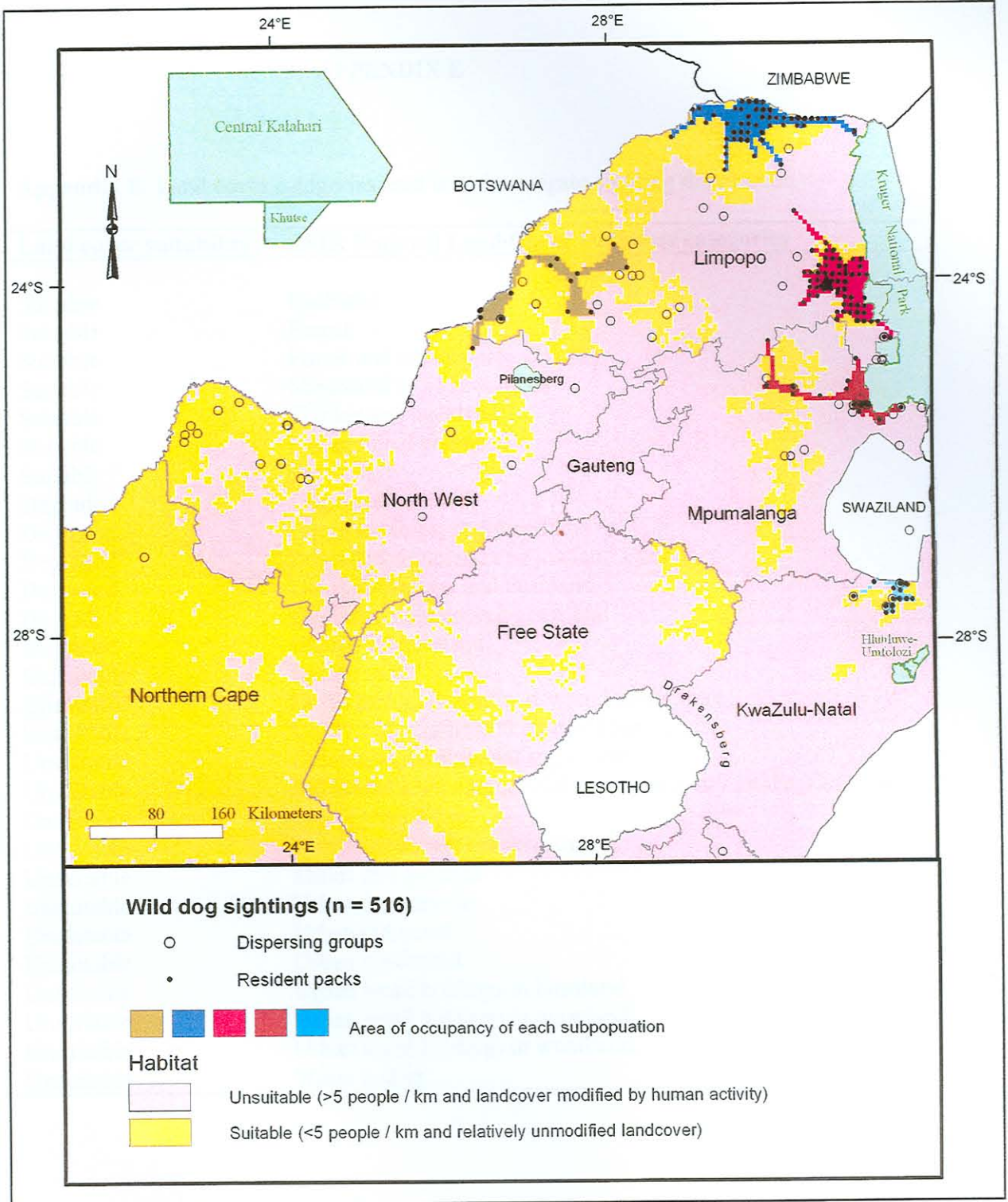
Appendix C: Maximizing the benefits of wild dogs  
 wild dogs are a liability to a game farmer because they consume valuable game but provide no economic return.

## APPENDIX C



Appendix C. Maximum area estimate of the geographic range of resident subpopulations of wild dogs outside protected areas in South Africa

## APPENDIX D



**Appendix D.** Minimum area estimate of the geographic range of resident subpopulations of wild dogs outside protected areas in South Africa

## APPENDIX E

### Appendix E Land cover categories used in to investigate sighting distribution

| Land cover suitability | CSIR National Land Cover Database categories                |
|------------------------|---|
| Suitable               | Herbland  |
| Suitable               | Forest  |
| Suitable               | Forest and woodland   |
| Suitable               | Shrubland and low Fynbos                                    |
| Suitable               | Thicket and bushland  |
| Suitable               | Unimproved grassland  |
| Suitable               | Wetlands  |
| Degraded               | Degraded herbland   |
| Degraded               | Degraded forest and woodland                                |
| Degraded               | Degraded shrubland and lowland Fynbos                       |
| Degraded               | Degraded thicket and bushland                               |
| Degraded               | Degraded unimproved grassland                               |
| Degraded               | Improved grassland  |
| Unsuitable             | Barren rock   |
| Unsuitable             | Cultivated, commercial dry land agriculture                 |
| Unsuitable             | Cultivated commercial irrigated agriculture                 |
| Unsuitable             | Cultivated, commercial sugarcane                            |
| Unsuitable             | Cultivated semi commercial subsistence dry land agriculture |
| Unsuitable             | Forest plantations  |
| Unsuitable             | Gullies and sheet erosion scars                             |
| Unsuitable             | Mines and quarries  |
| Unsuitable             | Urban commercial  |
| Unsuitable             | Urban industrial  |
| Unsuitable             | Urban residential   |
| Unsuitable             | Urban small holdings in bushland                            |
| Unsuitable             | Urban small holdings in grassland                           |
| Unsuitable             | Urban small holdings in woodland                            |
| Unsuitable             | Water bodies  |

## APPENDIX F

**Appendix F** The source of cost estimates for the reintroduction of wild dogs into private reserves, and for ecotourism schemes (addresses available from the author)

| Reference number | Organisation / company                                      |
|------------------|---|
| 1                | Rhino Fencing   |
| 2                | Harrop Allen Fencing  |
| 3                | Automobile Association of South Africa                      |
| 4                | Moller & Moller Guns & Sport                                |
| 5                | A survey of professional game-capture and sale teams (n=10) |
| 6                | De Wildt Cheetah Breeding Research Centre                   |
| 7                | Kruger National Park  |
| 8                | Wildlife Translocation Society of South Africa              |
| 9                | South African Veterinary Association                        |
| 10               | ANB Veterinary Suppliers                                    |
| 11               | Dan inject International (South Africa)                     |
| 12               | Wildlife Broking Services                                   |
| 13               | McCarthy Used Car Dealership                                |
| 14               | Biotrack  |
| 15               | Sirtrack  |
| 16               | Wildlife Materials  |
| 17               | University of Pretoria                                      |
| 18               | Field Guides Association of South Africa                    |
| 19               | Getaway Magazine  |



## APPENDIX G

Appendix G Questionnaire used to assess tourist's willingness to pay to see wild dogs

### African Wild Dog Conservation Tourist Questionnaire



The African wild dog (also known as the painted hunting dog) is a highly social wild carnivore, occurring in tight-knit packs of between 2-40. They have large round ears, blotched black, tan and white coats and long legs. African wild dogs were formerly very widespread across most of Africa. However, they have suffered a major reduction in their range and now occur in appreciable numbers in only 6 of the 39 countries in which they once occurred. As a result of this, the African wild dog is a highly endangered species. There are large areas of suitable habitat available for the reintroduction of African wild dogs in South Africa. However, wild dogs are unpopular with ranchers because they are perceived to be very expensive to keep, whilst yielding little or no financial return. Until a value is identified for wild dogs, the conservation status of the species in this country is unlikely to improve. In this questionnaire, we aim to see how interested you, as tourists, are in seeing wild dogs.

**SECTION 1. HOLIDAY DETAILS**

This section is aimed at obtaining a description of the type of holiday that you are on.

1. What is the duration of your stay at Ngala?

- Day Visitor
- 1-3 nights
- 4-5 nights
- 6-7 nights
- 8-10 nights
- 11-14 nights
- 15+ nights

2. How many days have you spent at Ngala on this trip so far?

- First day
- 1-3 nights
- 4-5 nights
- 6-7 nights
- 8-10 nights
- 11-14 nights
- 15+ nights

3. What type of accommodation are you staying in?

| Accommodation type         |                          |
|----------------------------|--------------------------|
| Hotel                      | <input type="checkbox"/> |
| Chalets                    | <input type="checkbox"/> |
| Other, please specify..... |                          |

4. Please indicate the size of your family/group on this trip in the box below

|                               |  |
|-------------------------------|--|
| Number of adults              |  |
| Number of children (under 16) |  |

5. Please estimate the costs of your visit to Ngala for your family/group in the table below. You can use any currency, but please specify the currency of your answer.

| Cost type             | Cost | Currency |
|-----------------------|------|----------|
| Airfare               |      |          |
| Ground transportation |      |          |
| Park entry            |      |          |
| Accommodation         |      |          |
| Miscellaneous         |      |          |

6. How many trips have you made to African Game parks/protected areas in the last five years, prior to this visit?

## SECTION 2. VIEWING PREFERENCE

*This section is aimed at determining your viewing preferences*

7. Please indicate which of the following species you have seen on this trip with a tick.

| Species             | Yes                      | No                       | Not sure                 |
|---------------------|--------------------------|--------------------------|--------------------------|
| African wild dog    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Black backed jackal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cheetah             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Leopard             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lion                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Spotted hyaena      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Please give each of the species listed in the table below a score of 0-5 in terms of the desire you have to see each on this trip (0=not at all, 5=very much so) by ticking the relevant box. If there are species not listed below that you would very much like to see, please include them under the 'other' boxes below and give them a score.

| Species          | 0                        | 1                        | 2                        | 3                        | 4                        | 5                        |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| African wild dog | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Buffalo          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cheetah          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Elephant         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Giraffe          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hippopotamus     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Impala           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Kudu             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Leopard          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lion             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Rhino            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sable            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Spotted hyaena   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Wildebeest       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Zebra            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Please give each of the following reserve characteristics a score of 0-5 in terms of how important they are to you on a trip to a wildlife area by ticking the relevant box (0=of no importance, 5=highly important).

|  | 0                        | 1                        | 2                        | 3                        | 4                        | 5                        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. The presence of attractive scenery      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. The presence of a high bird diversity   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. The presence of a high mammal diversity | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. The presence of a high floral diversity | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. The presence of the 'big 5' species     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| F. The presence of large predators         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. The presence of wild dogs               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

10. Did the presence of wild dogs at Ngala influence your decision to visit the park?

- Yes
- No

11. Have you ever seen wild dogs in the wild on previous trips to protected areas?

- Yes
- No

12. Prior to completing this questionnaire, were you aware that African wild dogs are endangered?

- Yes
- No

13. Although wild dogs are present at Ngala, you have less than 20% chance of seeing them during your stay. During three months in winter, wild dogs remain in the vicinity of a den in which they have pups. During this time, the location of African wild dogs is very predictable and guided trips to see them would be able to almost guarantee sightings. How much would you pay per person to go on an optional, small (6 person max) guided tour to a wild dog den, in order to improve your chance of seeing wild dogs to more than 90%? Such a trip would be conducted in a fashion designed to result in minimal disturbance to the African wild dogs. You can use any currency, but please specify the currency of your answer.

Amount.....

Currency.....

14. If you answered 0 for this question, please explain why below

### SECTION 3. PERSONAL DETAILS

*Finally, in this section, we would like to find out a little about you so that we can see how different people feel about the issues we are investigating*

15. Gender:  Male  
 Female

16. Age  10-20  
 20-30  
 30-40  
 40-50  
 50-60  
 60+

17. What is the current level of education that you have experienced?

- Didn't complete school
- Secondary school
- Tertiary (degree, diploma)
- Higher degree

18. What is your country of permanent residence?

19. If you are southern African, please state your town or city and province

Town/City.....

Province.....

Thank you very much for completing this questionnaire. Your contribution is important in enabling the completion of this research project and ultimately will be of benefit in the conservation of the wild dog.



# AFRICA

CCAFRICA SAFARI DESTINATIONS

CCAfrica supports African wild dog conservation. We would like to thank you for completing this questionnaire and contributing information towards African wild dog conservation-research. We would like to make it clear that the questions posed in this survey are of a purely hypothetical nature. CCAfrica does not and will not charge extra for African wild dog viewing opportunities.

## APPENDIX H

**APPENDIX H** The breakdown of expenditure upon the South African wild dog meta-population during 1996 – 2001 (ZAR in parentheses)

|                                    | Hluhluwe                | Karongwe                | Madikwe                 | Pilanesberg             | Venetia                 |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Initial reintroduction</b>      |                         |                         |                         |                         |                         |
| Fencing upgrade                    |                         |                         |                         | 8,889 (97,694)          | 26,055 (286,348)        |
| Holding facilities upgrade         |                         | 1,442 (15,848)          |                         | 2,785 (30,604)          | 3,410 (37,475)          |
| Community outreach                 |                         |                         |                         | 4,601 (50,561)          | 5,099 (56,037)          |
| Purchase / provision of dogs       |                         | 1,456 (16,000)          |                         |                         | 2,184 (24,000)          |
| Capture and care                   |                         | 865 (9,511)             |                         | 353 (3,883)             | 3,810 (41,875)          |
| Transport of dogs                  |                         | 1,304 (14,328)          |                         | 3,427 (37,664)          | 1,043 (11,463)          |
| Feeding in holding facility        |                         |                         |                         | 4,757 (52,283)          | 5,984 (65,760)          |
| Monitoring / research <sup>a</sup> |                         | 305 (3,351)             |                         |                         | 28,463 (312,804)        |
| Other                              |                         |                         |                         | 706 (7,758)             | 3,702 (40,691)          |
| <b>Maintenance</b>                 |                         |                         |                         |                         |                         |
| Holding facility upgrade           | 11,539 (126,812)        |                         |                         |                         |                         |
| Community outreach                 | 722 (7,936)             |                         |                         |                         |                         |
| Purchase / provision of dogs       |                         |                         | 9,876 (108,541)         |                         |                         |
| Capture and veterinary care        | 1,250 (13,737)          |                         | 6,818 (74,934)          |                         |                         |
| Transport of dogs                  | 898 (9,870)             |                         | 882 (9,689)             | 184 (2,020)             |                         |
| Feeding in holding facility        | 981 (10,777)            |                         | 1,319 (14,498)          | 3,046 (33,472)          |                         |
| Monitoring / research <sup>a</sup> | 41,687 (458,144)        | 23,923 (262,914)        | 21,144 (232,368)        | 19,173 (210,712)        |                         |
| Consultancy                        |                         |                         | 519 (5,703)             |                         |                         |
| <b>Total</b>                       | <b>57,077 (627,276)</b> | <b>29,295 (321,952)</b> | <b>40,558 (445,733)</b> | <b>47,921 (526,651)</b> | <b>79,750 (876,453)</b> |

<sup>a</sup> Including labour and mileage expenses incurred as a result of personnel attending Wild dog Advisory Group-South Africa meetings