


001281 

Department of Conservation and Land Management

BUNGLE BUNGLE NATIONAL PARK AND CONSERVATION RESERVE

VISITOR SURVEY

April - September 1987

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1.0 INTRODUCTION

The study area, the Bungle Bungle National Park and Conservation Reserve, is located in the Kimberley Region of Western Australia within the Halls Creek Shire. The combined area of Park and Reserve total 319,325 ha.

The National Park and Conservation Reserve were declared in March 1987 after the spectacular domes and gorges of the Bungle Bungle Range fired the enthusiasm of the media, the public and the tourism industry. The area is vested in the National Parks and Nature Conservation Authority, and is managed by the Department of Conservation and Land Management (CALM).

The Department convened a planning group comprising three CALM officers and representatives from the Shire of Halls Creek, the Tourism Commission and the Purnululu Aboriginal Corporation, representing the traditional owners of the area. It is the task of this planning group to compile a draft management plan for the area.

In order to gather information about visitor use patterns as well as to stimulate public involvement in the planning process, a visitor survey was conducted in the Park from April to September, 1987. This is the main tourism period during the Kimberley 'dry season'.

A parallel survey was conducted of people flying over the Park on commercial charter flights during that same period.

This report presents a summary of the responses to these surveys and discusses the findings and their implications for management.

1.1 AIM

The study sought to gather information about the people visiting the Bungle Bungle area and gain some understanding of their use of the Park.

1.2 OBJECTIVES

The objectives of the study were to:

- 1) define a profile of park visitors
- 2) identify patterns of visitor use
- 3) gather visitor attitudes and opinions about the Park
- 4) determine the implications for management which can be derived from this study

1.3 METHOD

Data Collection

Two visitor surveys were conducted during the 1987 visitor season. The first was a comprehensive survey of visitors to the Park over a six month period from April to September. Rangers were present in the Park almost continuously through this period, and they gave at least one visitor survey form to each group encountered, with an explanation of the aim and objectives of the study.

Before handing out the survey forms to visitors, the Park Ranger recorded his observations in the top right hand corner of the survey form, including the date, whether the vehicle was private or commercial and the number of vehicles, adults and children in the party. These data served as a check on the information being collected from the visitors themselves and helped to identify when multiple forms were received from one party.

Respondents were asked to complete the questionnaire (see Appendix 1) at the end of their visit and return it to their tour group leader, a Park Ranger or deposit it in a box which was clearly signposted and situated in a prominent position on the entrance/exit road.

A pilot study was conducted in the Park over the Easter period to assess the effectiveness of the questionnaire and distribution/collection techniques. On that first draft, Question 2 asked: "What is your age?". This proved to be a problem as people generally chose to answer as a group, so respondents were asked to provide the age of everyone in their group. This question was subsequently altered in the final copy of the form. All other questions were completed satisfactorily and with enthusiasm in the pilot study. Out of a total of 50 forms, 37 were returned; these pilot surveys were compiled and analysed together with all the other data and not treated separately again.

The second survey was a shortened version of the first, distributed to passengers flying over the Park on commercial charter flights. Each of the commercial airlines operating out of Kununurra and Halls Creek were asked to distribute forms to passengers on just one flight every nine days. Respondents were asked to complete the form at the end of the flight and return it to the Airline Pilot. This distribution and collection method proved to be most unreliable, as discussed in the following section.

Throughout the same period, pneumatic road traffic counters were used to monitor vehicle numbers on the two main access tracks to the Park; Spring Creek Track and the Osmond Valley Track. Members of the Purnululu Aboriginal Corporation are the traditional custodians of this area, and for the purposes of this study were not regarded as "visitors" to the Park. These people were therefore not required to complete the survey forms. CALM is working together with Purnululu members to determine their activities, attitudes and opinions for future management of the Park.

Data Processing

The visitor survey forms were encoded and the data entered onto a Perkin-Elmer computer using an SPSS-X program. The data was copied onto flexible disks which were used with a software program to produce the graphics in this report.

Data from the flight survey was sorted and analysed manually.

2.0 RESULTS

2.1 VISITOR SURVEY

Visitors to the Park showed an overwhelming support for the study. From the 967 forms distributed, a total of 909 were returned voluntarily; this is a remarkable 94% return rate.

A summary of participants responses is shown in Appendix 1 in the format of the visitor survey. Results are expressed as a proportion (%) of the total number of responses to that question.

Most questions were of the multiple choice, closed answer type. Questions 7 - 10, however, could all have more than one answer, so each given alternative is analysed separately as a proportion (%) of the possible total of all returned questionnaires.

Questions 11, 12 and 15 sought written comments from the respondents. These comments have been recorded and grouped according to similarity. The most frequently recurring comments are recorded in Appendix 1, and a fuller account is shown in Tables 2, 3 and 4.

2.2 FLIGHT SURVEY

As mentioned in the preceding section, distribution and collection of flight survey forms proved unsatisfactory and a total of only 124 forms were completed. This sample is not sufficiently large to be representative of all people who flew over the Park in 1987. No effort is made therefore to draw conclusions or make recommendations based on these data. It is presented in Appendix 2 in a simple summary. As in the visitor survey, results are expressed as a proportion (%) of the total number of responses.

2.3 ROAD TRAFFIC COUNTER

Recordings for each month on the two possible access routes are shown in Table 1. The Osmond Valley Track was closed by the pastoral leaseholder very early in the season, and use of this track required his permission, hence the number of vehicles passing this way were much less than those on the other track.

The traffic counter records one unit for every axle crossing it (+ or - 10% error). The results have been collected monthly and divided by four (4) to correct for two axles per vehicle, and allowing for both entry and exit of each vehicle. We thus have an estimated number of vehicles present in the Park.

TABLE 1. NUMBER OF VEHICLES IN BUNGLER NATIONAL PARK,
APRIL - SEPTEMBER 1987

MONTH	OSMOND VALLEY TRACK	SPRING CREEK TRACK	TOTAL
APRIL	-	24.25	24.2
MAY	20.25	80.75	101.00
JUNE	30.50	133.25	163.75
JULY	56.75	293.75	350.50
AUGUST	22.50	178.25	200.75
SEPTEMBER	23.00	149.75	172.75
TOTAL	153	860	1013
	15.1%	84.9%	(100%±10%)

Mean monthly data derived from pneumatic traffic counters on
each of the two possible access routes.

(NOTE - an estimated error of up to ± 10%)

3.0 DISCUSSION

3.1 Visitor Numbers

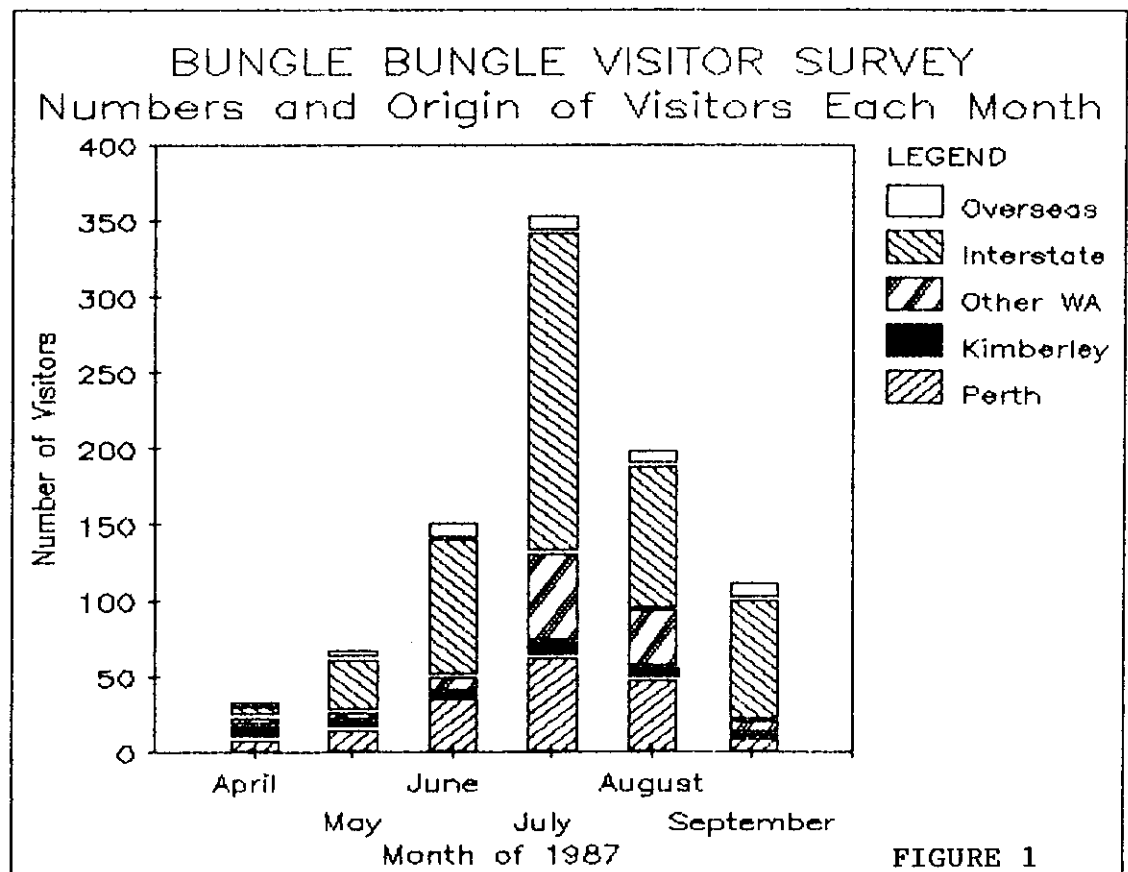
Having sorted the Rangers' observations and corrected for repeat recordings, the visitor survey responses come from an estimated total pool of 2,567 persons travelling in 696 vehicles.

These figures show the average number of persons/vehicle = 3.69.

The road traffic counter readings indicate that between April and September there were 1013 vehicles (+ 10%) in the Park. Some of these recordings would have been made by CALM vehicles (estimate about 60 total) and maybe a further 30 attributed to members of the Purnululu Aboriginal Corporation. This leaves us conservative estimate of 923 (+/- 10%) visitor's vehicles over the study period.

Using the average of 3.69 persons/vehicle, it is estimated the total number of visitors to the Bungle Bungle National Park during the April-September period was 3,400 (+ 10%).

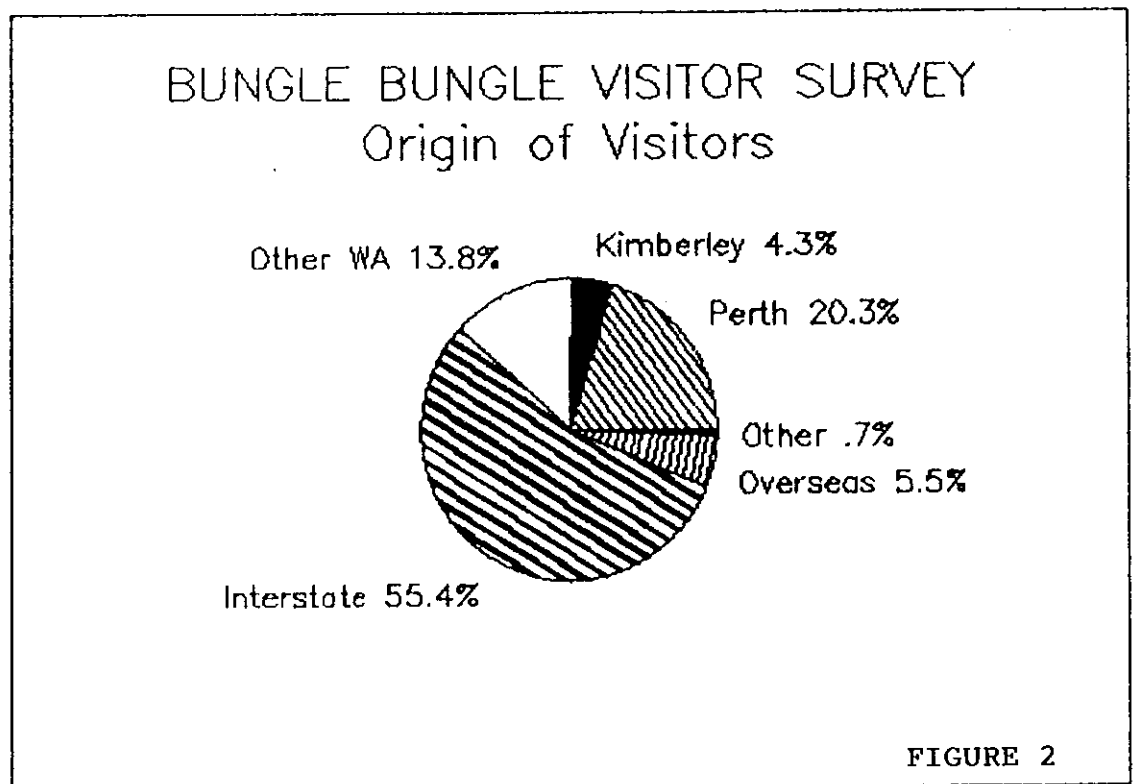
July was by far the busiest month, with visitor numbers rising to a sharp peak and dropping off again quickly through August and September (Figure 1 below). The overall average number of vehicles/day in the Park through the survey period was 5.3.



3.2 Visitor Origin

The majority of Park visitors come from interstate (55%). This contrasts with statistics produced by the Western Australian Regional Tourism Monitor (1986/87), which identifies only 33% of Kimberley visitors as being from Interstate. Perhaps this Park has special attraction for the around-Australia-traveller.

It is interesting to note from Figure 2, that only 4.3% of all respondents usually live in the Kimberley Region. Analysis of origin x month of visit also shows a greater than expected proportion of Kimberley residents visited the Park in April and May ($P \leq 0.05$) and less than expected in the peak visitor month of July ($P \leq 0.1$). This pattern is in keeping with those observed elsewhere (e.g. Leeuwin-Naturaliste National Park); local people tend to keep away from popular tourist destinations during peak periods. If the survey had been continued into October and November, it could have been expected that the proportion of Kimberley visitors would rise again. It is also interesting to note that a greater than expected ($P \leq 0.001$) number of Kimberley residents had been to the Park previously.



3.3 Age of Visitor

61% of Park visitors are between the ages of 26 - 60 years. This age distribution is similar to that observed in the flight survey sample.

The relatively few numbers of people below 16 and over 60 years can probably be attributed to the remote and rugged character of the Park. Perhaps the time and cost associated with travel in the Kimberley discourages parents from taking along children. The majority of travellers appear to be couples without children.

3.4 First Visit

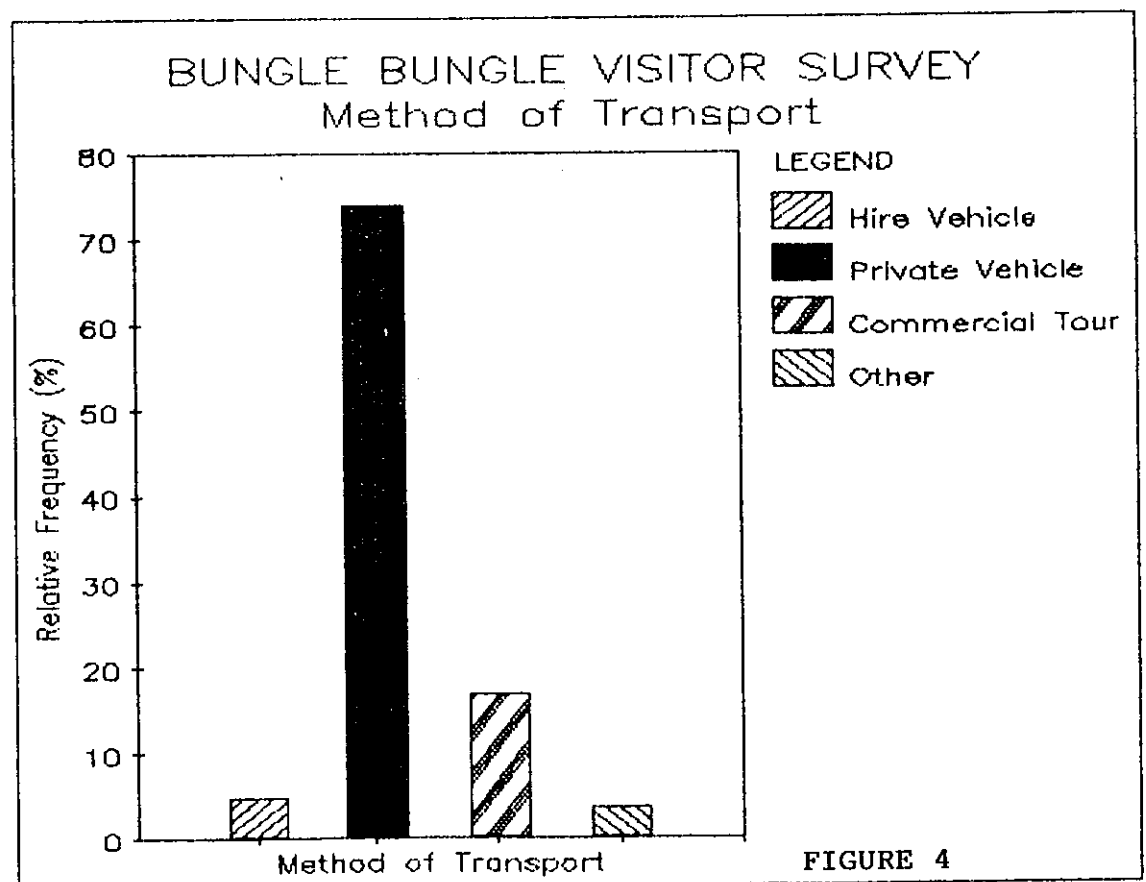
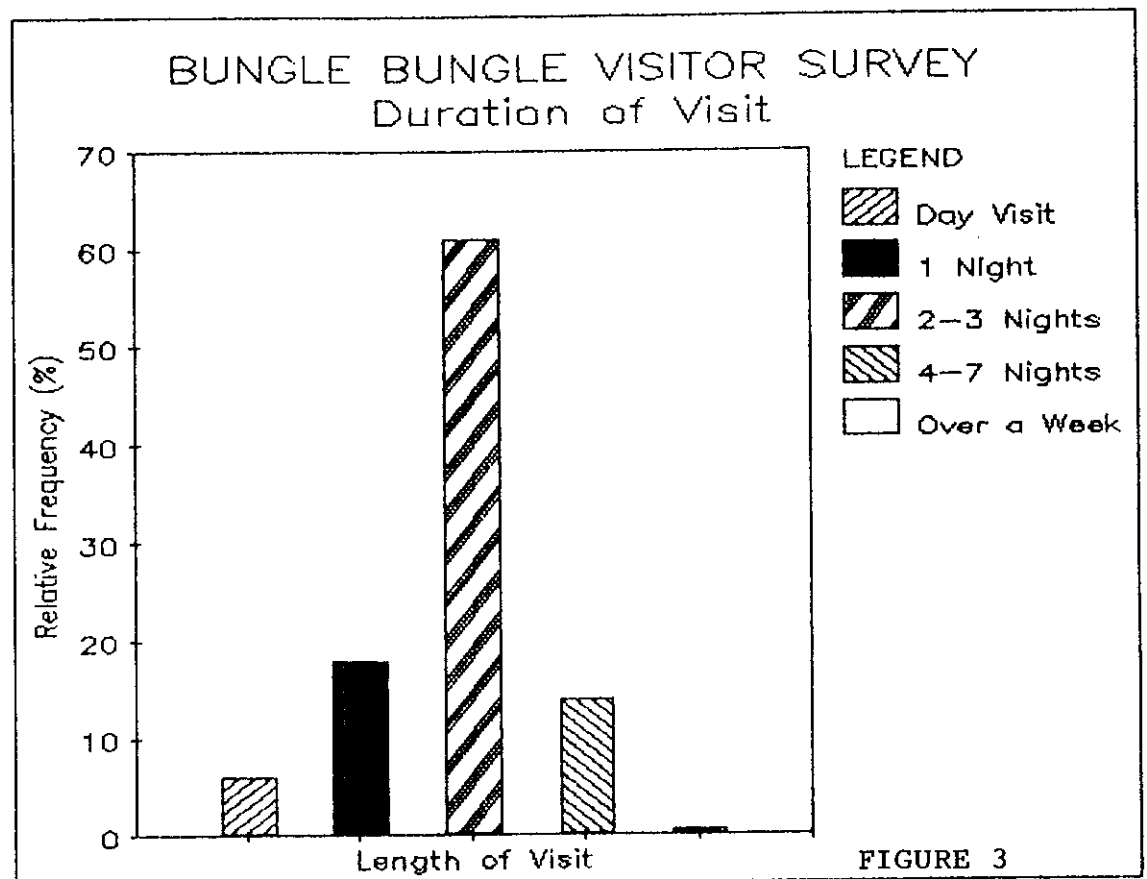
Nearly 95% of respondents were experiencing their first visit to the Bungle Bungle National Park. Of those few who had been before, most (42.9%) previous visits were in 1986, and none prior to 1980. (Note that members of the Purnululu Aboriginal Corporation were not requested to complete the survey forms).

3.5 Length of Visit

75.8% of surveyed visitors stayed in the Park more than one night (see Figure 3). This is to be expected considering the length of the journey into the Park, and also the large area to be seen and explored. The most popular stay was for 2 - 3 nights.

It is interesting to compare this result with studies in other Parks which show the average length of stay to be:

HAMERSLEY RANGE NATIONAL PARK	2.6 DAYS
YULARA (servicing ULURU NATIONAL PARK)	1.4 DAYS
KAKADU NATIONAL PARK	PRIVATE VISITORS 4.1 DAYS
	TOUR GROUPS 2.3 DAYS



3.6 Transport This Trip

The results of this survey parallel quite closely those produced by the W.A. Regional Tourism Research Monitor 1986/87:

MAIN MEANS OF TRANSPORT WITHIN W.A. (% Holiday/Recreation groups only)	KIMBERLEY TOTAL W.A.	
<hr/>		
AIR	3.4	3.4
COACH	18.9	11.4
PRIVATE VEHICLE	73.5	70.5
RENTED VEHICLE	2.4	6.5
OTHER	1.7	8.2

74% of all survey respondents travelled in private vehicles (See Figure 4). Access was largely restricted to four-wheel drive vehicles. A few people commented through the period of the survey that this restricted access provided a certain exclusivity for four-wheel drivers owners, however other people did have the option of a hire vehicle or commercial tour.

Only 17% of visitors surveyed travelled on commercial tours to Bungle Bungle in 1987. Tour companies have indicated that they expect their number to increase in future years. Surveys at Kakadu National Park show that 15% of visitors are on tours and 85% private, while at Uluru National Park in 1986 only 34% of visitors came in private vehicles, 52% by coach and 14% by aircraft. It is difficult to predict trends for the Bungle Bungle National Park so early in its tourist history, but it does seem likely that further marketing and increased availability of 4WD tours will lead more travellers to choose this option in the future. Relative to all other uses though this trend may not be so apparent.

3.7 Accommodation

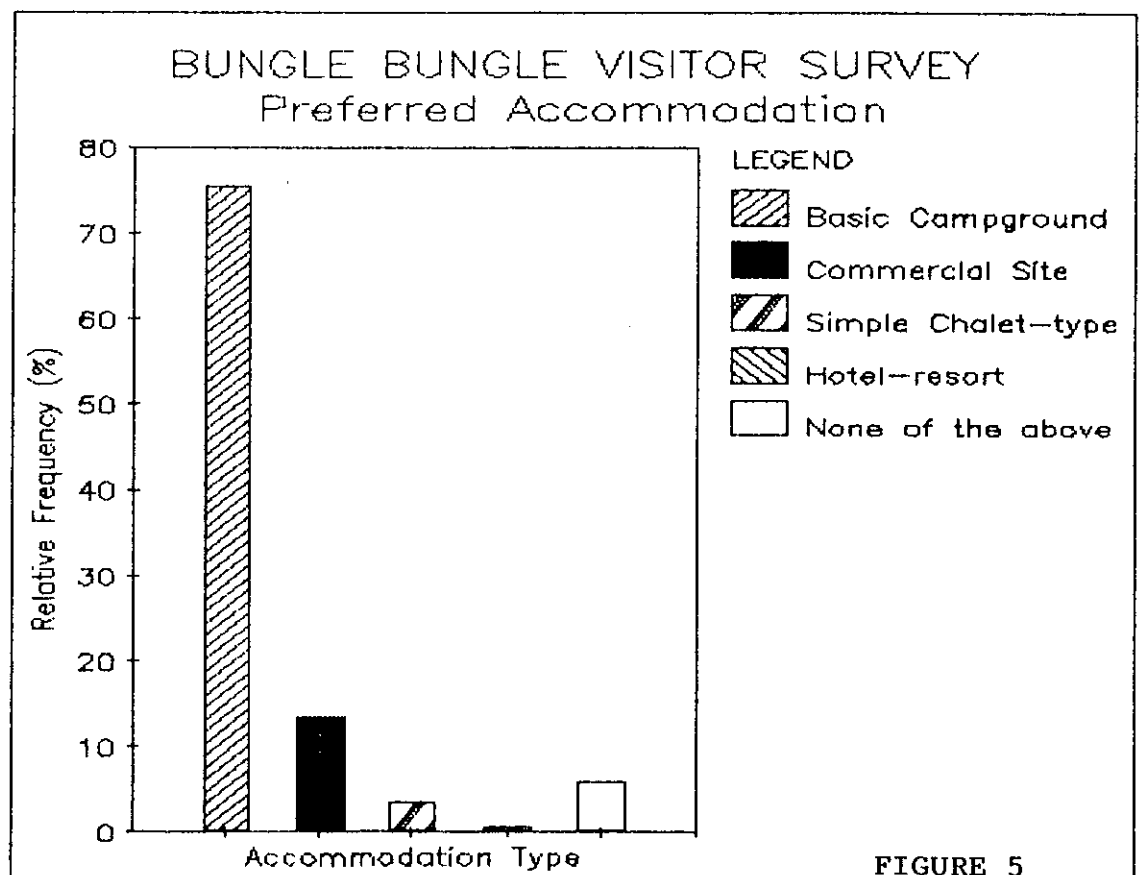
As can be seen from Figure 5 below, an overwhelming preference was shown for camping (89.3%) rather than chalets or hotel accommodation (4.5%), and by far the most people preferred a basic campground with minimal facilities.

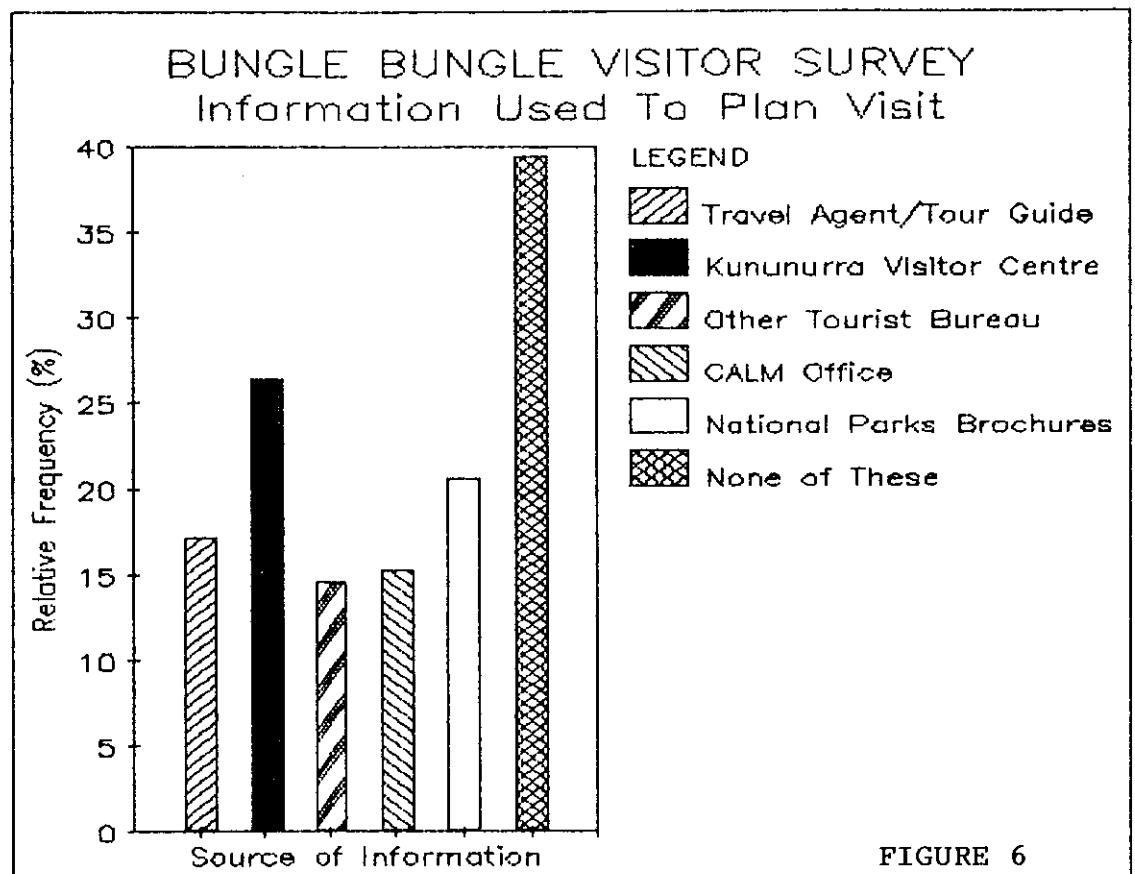
This response was in keeping with other sentiments expressed through the survey indicating visitors' appreciation of the natural undeveloped nature of the Park.

6% of visitors indicated that they wanted none of these options, evidently preferring to choose an isolated site of their own.

A surprising number of respondents (3.85%) in their "further comments" (question 15) made strong warnings against allowing this Park to develop the way of Uluru, with its Yulara townsite development.

Although we surveyed very few of those people flying over the Park, it is worth noting that of those who completed the questionnaire, 57% indicated a preference for camping.



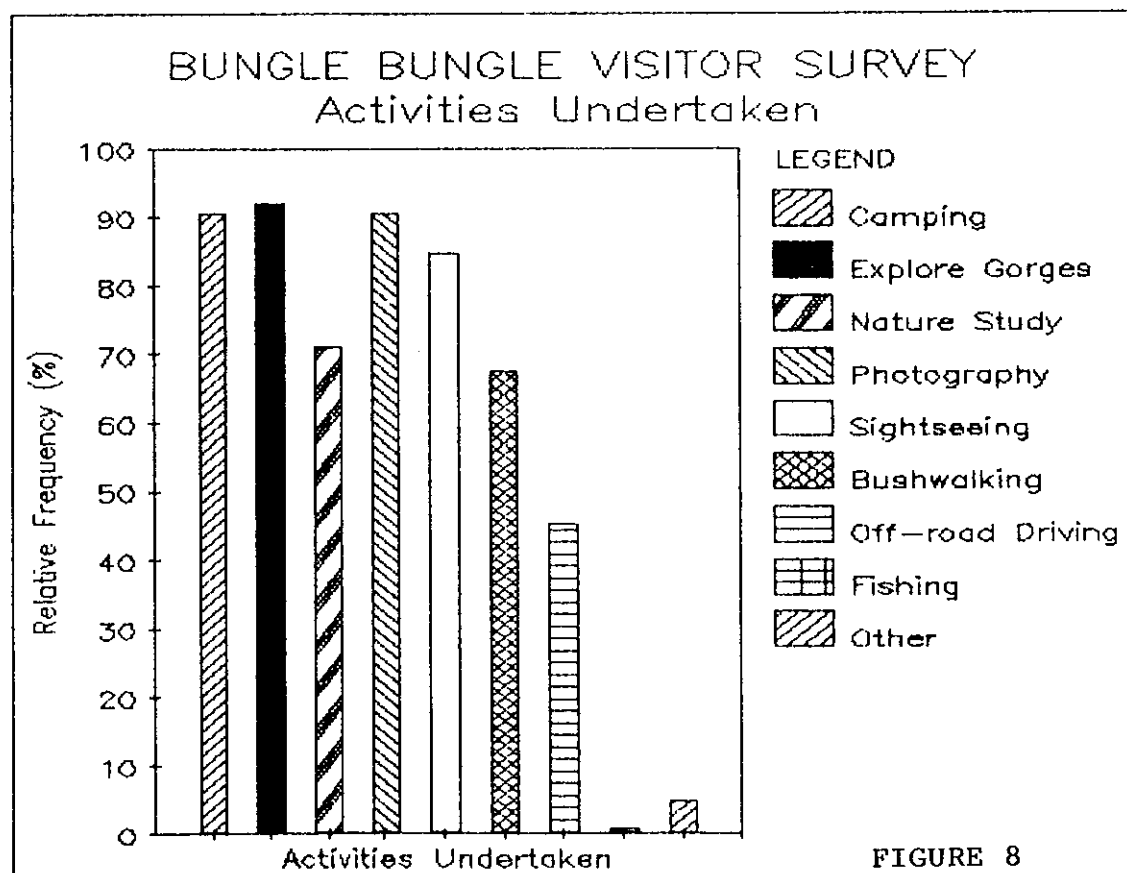
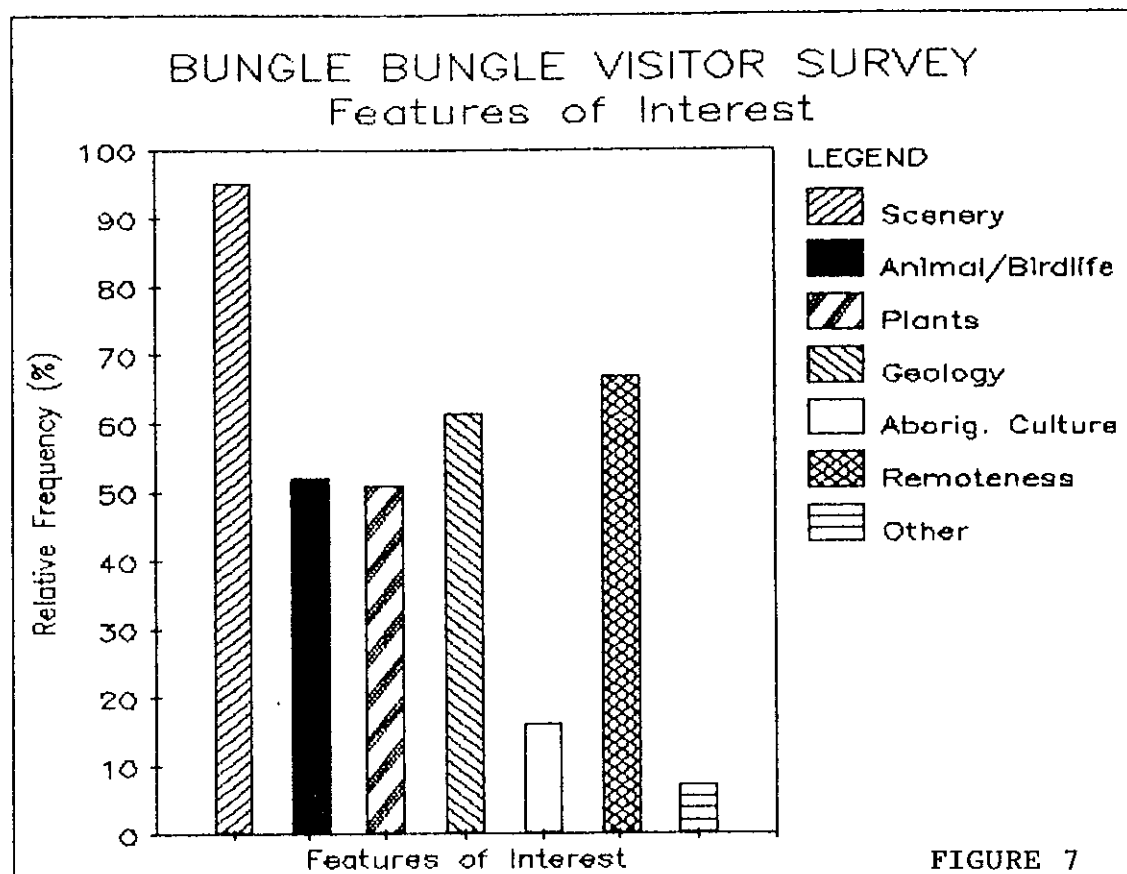


3.8 Pre-visit Information

Visitors were asked whether they obtained information to plan their trip from a number of well-known sources, and while some visitors used one or more of these information outlets, a high proportion of visitors (39.5%) indicated that they used none of these (see Figure 6 above). Some people volunteered on their forms that their information came from television, friends, newspaper articles, magazines, and in particular, 4WD magazines and clubs.

At the start of the 1987 season, very little general information had been written about the Bungle Bungle National Park. A standard brochure was printed before the peak season but it seems that 79% of visitors did not use it. Over the year, a number of newspaper articles and glossy magazine features were produced.

The second most frequently recorded 'dislike' (question 12) was "...insufficient signs, maps and information" (14.5%). Many of these comments were received early in the year. A number of signs and two information panels were installed during the visitor season.



3.9 Features of Interest

When asked which features of the Bungle Bungle particularly interested them, nearly all respondents (95.4%) indicated 'Scenery' (Figure 7). Similarly, when asked what they liked most about the Park (Question 11), the most frequently recorded response was 'Scenery' and/or 'Beauty'.

A high proportion of visitors also indicated an interest in natural history with 'Animal/birdlife', 'Plants' and 'Geology' all being scored by more than half the respondents. These features may attract even more interest and appreciation when improved interpretative and information facilities are provided in the Park.

Only 16% of respondents indicated 'Aboriginal Culture' as a feature of interest, but many wrote comments in the space beside this box, like: 'Where?'; 'None seen'; 'More info. required' and 'This area closed' (presumably referring to the Bull Creek area which was closed to visitors during the year to protect a burial site which had been desecrated). These comments, together with others at the end of the questionnaire suggest that there will be more interest in Aboriginal culture with increased involvement of Aboriginal people in park management.

Over the last decade at Kakadu National Park, recreational activities such as camping, boating and fishing are being replaced as the primary purpose of visit by appreciation of fauna, flora, Aboriginal art and landscapes (ANPWS, 1986 (1)). There is very little visitor attitude data of this type available from Uluru, however a study by the Australian Heritage Commission in 1985 showed that at least 64% of all visitors to the Park visited at least one of seven readily accessible art sites. (ANPWS, 1986, (2)).

7.5% of Bungle Bungle visitors noted additional points of interest such as: unspoilt; uniqueness; wilderness; naturalness; peacefulness; solitude; interesting 4WD and challenge.

3.10 Visitor Activities

The activities in which visitors participated during their visit clearly reflected the features which interested them the most. From Figure 8, one can see that 85% of respondents indicated 'Sightseeing' while more than 90% also indicated 'Photography', 'Exploring gorges' and 'Camping'. 'Bushwalking' and 'Nature appreciation' both scored very highly too.

One percent of respondents indicated they had fished during their visit. There are a couple of rather isolated waterholes in the Park at which Aboriginal people have traditionally camped and fished. It was not expected that many visitors would use these sites, and access is not encouraged.

45.4% of surveyed visitors indicated a positive response to 'Off-road driving'. A great many of these, however, changed the wording to 'Four Wheel Driving' and others added messages such as 'only on tracks'. It seems likely that most visitors did not indulge in cross-country driving. Indeed, the comments indicate that the majority of visitors found the designated tracks quite enough of a challenge for their vehicles and themselves.

A number of other activities were occasionally listed, including birdwatching, painting, drawing, vehicle repairs, helicopter scenic flight and meeting other people who appreciate the natural environment.

3.11 Places Visited

Question 10 was not answered as successfully by all respondents, evidently because some people were not able to orientate ground features with the given map. This is not surprising considering the vastness of the massif and the meandering nature of the tracks. In analysing this question, most maps were checked against the written comments and corrected for detail which was not shown on the map. This omission was very common for Echidna Chasm. Visitors to Echidna totalled about 54% of respondents. Visitors who went up Bull Creek earlier in the season, before it was closed, were able to show this place clearly (18%).

It appears that about 87% of all respondents visited the Piccaninny area; this may or may not have included a walk up to 'Cathedral Gorge'. It is possible that as many as 29% of respondents walked right up to Piccaninny Gorge, however, this figure seems rather high considering the length of this hike. It is suspected that quite a few people, not realizing the scale of the rock formations, in fact mistook 'Cathedral Gorge' for the major feature known as 'Piccaninny Gorge'.

Responses indicate that about 22% of visitors explored the Red Rock Creek area, and perhaps 11% went further north, around Osmond Creek. These figures appear consistent with Park Ranger observations.

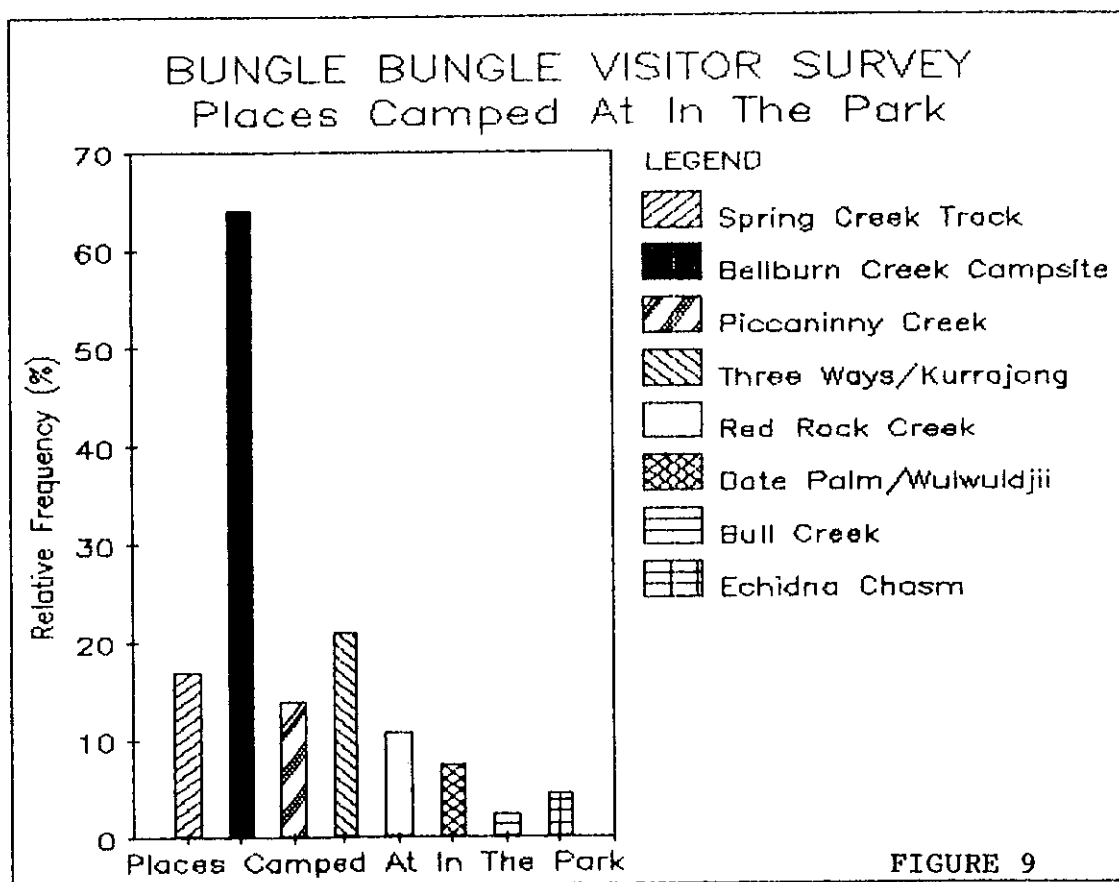
It is interesting to note that while most visitors enjoy the experience of remoteness and appreciate the Bungle Bungle area for its unspoilt beauty, most people still prefer to be guided to features and places of interest with signs and maps. Very few chose the more intrepid option, to explore the "unknown".

3.12 Places Camped

17% of respondents camped at least one night along the Spring Creek Track, probably most of these at Calico Spring, which is located outside the Conservation Reserve boundary, on Mabel Downs Station (Figure 9). Many of these people would have been breaking a long journey with a night's camp by the fresh water spring.

The most frequently used campsite was Bellburn (64%), where the Park Rangers were based, and where visitors were also able to obtain water from a bore fitted with a hand pump. This was the closest authorised campsite to Piccaninny Creek, the key destination for most Park visitors. Another campsite, named Kurrajong, was established just north of Three-Ways about mid-way through the year. This site was used by about 21% of visitors, and was probably more convenient for those people enjoying the northern features of the Park.

Various other locations were used also, especially earlier in the year before the two main campsites were established. The most commonly recorded were the Piccaninny area (14%) and the Red Rock Creek area (11%). People walking or hiking in the more remote parts of the Park made their own discrete, temporary campsites.



3.13 Access Routes

Statistics calculated from the road traffic counter indicate that over the period of the visitor survey, April to September, a total of 1013 vehicles (+ 10%) were in the Park. 15.1% of these used the Osmond Valley Track and 84.9% the Spring Creek Track. Because of the narrowness of the tracks it was not possible to separate entries and exits from the Park, but simply record total traffic movement.

There appears to be some discrepancy between these traffic counter recordings and the results of question 10(c), which indicate that only 2.2% of respondents came into the Park via the Osmond Valley Track and 4.6% went out that way.

There are three possible explanations for the differences in these statistics, and the true answer is probably a combination of them all:

- i) The traffic counter readings included vehicles of the Purnululu Aboriginal Corporation, who were not surveyed. These vehicles mostly used the Osmond Valley route, but they would have totalled at most about 2-3% of all vehicular traffic.
- ii) A significant number of people may not have admitted to using the Osmond Valley Track which had been closed by the pastoral leaseholder at the start of the season.
- iii) Those people who came in through this route were less likely to be encountered and hence surveyed, by the Rangers.

3.14 Return Visit

84% of respondents indicated an intention to visit Bungle Bungle again. This rather high proportion is probably quite unlikely to return, despite their enthusiasm. Looking at the number of people who have travelled in the Kimberley and Northern Territory on previous trips (question 14) it is reasonable to estimate that perhaps 20-30% of visitors may return.

If they do return to the Park another year, 24.1% of respondents would choose to travel by charter plane or helicopter (if available). More than 59% would prefer to return in a private vehicle. Only 6.9% of respondents indicate they would choose to return on a commercial tour.

3.15 Other Parks Visited

Visitors were asked whether they had visited a number of other National Parks in Western Australia and the Northern Territory, either on this trip or on a previous trip. Some very distinct patterns emerged from the results.

A little more than 50% of respondents had apparently travelled to the Bungle Bungle from the south, passing through Windjana Gorge ((56%), Tunnel Creek (52%), Geikie Gorge (54%) and Wolf Creek Crater (41%) National Parks. Another 30-35% of respondents had travelled to the Kimberley from the Northern Territory. The remaining 15% must be made up of people who live in the Kimberley (4.3%, see question 1) or who have chosen the East Kimberley as their specific holiday destination.

In order to discover whether there were any significant trends in the visitor patterns of travel, the results of question 1 (origin of visitor) were cross-tabulated with question 14 (other parks visited).

Most of the visitors of Kimberley origin were obviously on short (probably weekend) visits, as significantly fewer than expected ($P \leq 0.05$) of these people had visited any other parks this trip. Conversely, more than the expected proportion of Kimberley residents had visited the other WA parks, Keep River and Katherine Gorge previously ($P \leq 0.05$).

More Perth residents visited Geikie Gorge this trip than could be expected by chance, and more W.A. people (Perth and others) than expected had visited the other listed West Australian Parks previously; interestingly less than the expected proportion of W.A. people had visited any of the Territory Parks this trip ($P \leq 0.05$), indicating that most of these West Australian travellers apparently holiday in their own State.

Less than expected Interstate and Overseas visitors had been to the other Kimberley Parks previously, while a significant proportion of Interstate respondents had been to all of the listed Territory Parks on previous visits ($P \leq 0.05$).

These trends seem to indicate that the Kimberley region is just starting to receive a considerable proportion of the interstate (and perhaps overseas) travelling public.

3.16 Visitor Comments

Visitors to the Bungle Bungle were asked to list the things they liked and disliked about the Park and its present management. Furthermore, additional comments and suggestions made by visitors were recorded and analysed.

Tables 2 to 4 summarise respondents' likes, dislikes and suggestions/comments. Each table has been organized into broad topics for easier reference.

The majority of responses praised the magnificent scenery and physical beauty of the Bungle Bungle range, its gorges and chasms, flora and fauna, and the unspoilt wonders of the natural environment. The conservation ethic is prominent as the majority of comments requested that the Park be retained in its natural state with no development nor commercialisation. A significant proportion of visitors did however, feel discomfort from the dust, flies and prickles, and sometimes from the presence of other campers.

The condition of the access roads was a concern for many visitors. 26% of the respondents suggested that some roadwork is needed, primarily to reduce erosion of the tracks in such a fragile environment. Also, it was recommended that large tour groups should be discouraged by minimal road improvements allowing access to only four wheel drive vehicles. The sense of isolation and remoteness is apparently diminished by the presence of other campers, particularly large tour groups.

Many visitors were disappointed by the closure of the Osmond Valley Road. Consequently there were suggestions of improving the access by opening up more areas. Alternative exits or a ring road around the range were suggested by a few as were more walk trails to places of interest.

Respondents requested better information, signs and maps; suggestions included distances marked on roadsides, signposting, lengths and times of walks, signs advising campers to carry water and fuel, literature on park resources, history and aboriginal culture. Bungle Bungle National Park has only recently been gazetted and is a relatively 'young' park. Signs and interim information panels were installed in the Park during the year, but the demand for information evidently exceeded the supply.

The present management of the Park received many favourable comments. In particular, the courtesy and friendliness of the rangers (and their wives) was highly appreciated. A number of visitors recommended an increase in protection by employing more rangers, a proportion also expressed support for Aboriginal rangers.

Of those regulations enforced in the Park, the 'no campfires' rule had the greatest reaction. Respondents generally supported the reasons for not allowing fires but felt that some form of controlled campfires was desirable.

A significant proportion of visitors commented that camping facilities needed improvement. Specifically, water availability and the number of toilets needs to be increased. It was suggested that a toilet be installed at the Piccaninny car park, as this is the most frequently visited site. There was also concern at the lack of rubbish disposal facilities.

TABLE 2.

BUNGLE BUNGLE VISITOR SURVEY

"LIKES"

<u>Physical Features/Attractions</u>	<u>Number</u>	<u>% Total</u>
Scenery, beauty	461	50.71
Domes, formations, massif, rocks, geology		
gorges, chasms	429	47.19
Majesty, grandeur, unusual, unique	86	10.56
Waterholes	17	1.87
Colour	13	1.43
Aboriginal culture/art	5	0.55
<u>Natural Environment</u>		
Remoteness, isolation, tranquility, peace and quiet	328	36.04
Birds, flora, fauna	176	18.90
Unspoilt, natural, undeveloped, non-commercial	145	15.93
Few people, tour groups	63	6.92
Cleanliness, no litter/rubbish	51	5.60
Climate	6	0.66
No vandalism	4	0.44
Primitiveness	3	0.33
No mosquitoes	1	0.11
<u>Access/Road System</u>		
Access road, 4WD tracks	71	7.80
Flight over	25	2.75
Variety, freedom	12	1.32
Challenge getting there	2	0.22
Osmond Valley track	1	0.11
<u>Activities</u>		
Walking, exploring	40	4.39
Swimming	17	1.87
Bush camping	16	1.76
Photography	13	1.43
<u>Park Management</u>		
Rangers and wives	112	12.31
No dogs rule	4	0.44
Lack of facilities	3	0.33
National Park status	2	0.22
<u>Interpretation</u>		
Historic interest, age	4	0.44
Signs	4	0.44
Tour guide	3	0.33
<u>Facilities</u>		
Water/pump	28	3.08
Toilets	24	2.64

TABLE 3. BUNGLE BUNGLE VISITOR SURVEY
"DISLIKES"

<u>Physical Features/Attractions</u>	<u>Number</u>	<u>% Total</u>
Lack of swimming water	29	3.19
<u>Natural Environment</u>		
Bull dust	73	8.02
Flies, ants	72	7.91
Other campers, drivers, tour groups	27	2.97
Bindis, burrs, speargrass, spinifex, prickles	25	2.75
Lack of wildlife, fish	10	1.10
Feral animals, cows, donkeys	4	0.44
Climate	3	0.33
<u>Access/Road System</u>		
Access road, tracks, creek crossings	240	26.38
Vehicle restrictions, road closures	58	6.37
Closure of Osmond Valley	23	2.53
Roads too far from gorges	17	1.87
Long distance/drive	6	0.66
Wear and tear on vehicle	2	0.22
<u>Activities</u>		
Aircraft noise, dust, vibration	29	3.19
No place to climb	4	0.44
<u>Park Management</u>		
No campfires, BBQ's	127	13.96
Generators in campsites	22	2.42
Restricted access to Aboriginal sites and information	16	1.76
Erosion of tracks	14	1.54
Need more areas opened up	10	1.10
Possible development of park	10	1.10
Litter, rubbish	10	1.10
No dogs rule	8	1.10
Proposed entry fees	4	0.44
Attitude of rangers	4	0.44
<u>Interpretation</u>		
Insufficient signs, maps, information	132	14.51
Lack of information at tourist offices	8	0.88
<u>Facilities</u>		
Campsite	71	7.80
Need more/improved camping facilities	56	6.15
No rubbish disposal facility	46	5.05
Lack of drinking water	29	3.19
Rangers accommodation	4	0.44
No parking for vans/trailers	2	0.22
Water pump outlet too low	2	0.22
Toilets smell	2	0.22

TABLE 4.

BUNGLE BUNGLE VISITOR SURVEY
"FURTHER COMMENTS"

<u>Natural Environment</u>	<u>Number</u>	<u>% Total</u>
Retain park in natural state, no development, commercialisation	207	22.75
Do not make like Uluru, Yulara	35	3.85
Put on World Heritage list	8	0.88
Eradicate donkeys and cattle	4	0.44
<u>Access/Road System</u>		
Some roadworks needed	104	11.43
No improvement, keep 4WD	78	8.57
Improve access, open more areas	51	5.60
Ring road/alternative exit	20	2.20
Open Osmond Valley Road	19	2.09
Aerial access and/or tours	19	2.09
No airstrips	2	0.22
<u>Activities</u>		
More/better walk trails	27	2.97
Need a place to climb	3	0.33
Horse/camel/donkey treks	2	0.22
Guided tours by Rangers	2	0.22
<u>Park Management</u>		
Thanked/liked rangers and wives	81	8.90
Supports present management, loved it etc	70	7.69
More rangers needed, increase protection	31	3.41
Introduce permit system to limit visitors	22	2.42
Opposed to entry fees	17	1.87
Want Aboriginal rangers and interpretation	15	1.65
Separate areas for generators/tour groups	14	1.54
Support introduction of fees	12	1.32
More control of tour operators needed	9	0.99
cf. developments at Lawn Hill National Park, Queensland	4	0.44
Flexibility re dogs	4	0.44
Interested to see draft management plan	3	0.33
Improve ranger accommodation	2	0.22
<u>Interpretation</u>		
Information, signs, maps, literature unsatisfactory	92	10.11
More information in towns and highway	17	1.87
<u>Facilities</u>		
Improved facilities needed (toilets, showers, water)	60	6.59
Fireplaces, BBQ's needed	45	4.94
More campsites needed (north & south)	27	2.97
Rubbish facility needed	19	2.09
Firewood should be brought in/purchased	18	1.98
Present campsite unsatisfactory	15	1.65
Provide better central facility	6	0.66
Facilities for vans/trailers outside Park	6	0.66
In support of 'no bins'	4	0.44

4.0 CONCLUSION

The Bungle Bungle National Park with its spectacular scenery and remote location has captured the imagination of the travelling public. Relatively few people are actually getting into the Park at present, but those who have are so impressed that their word-of-mouth, together with increasing media attention, will guarantee greater visitor numbers in the future.

Those people who take the great trouble and effort required to reach the massif are vitally interested in its future management and protection. This is evidenced by the very high return rate (94%) of questionnaires and the great amount of detail and thought which were put into the comments.

Most visitors appear to be couples on extended holidays, probably travelling around Australia. Many visit other national parks on their trip. About 50% of visitors appear to travel up from the south, and about 30% across from the Northern Territory. More than half the visitors in 1987 were from interstate. Only 17% of respondents were on organized commercial tours, the rest were independent travellers.

The preferred style of accommodation is camping, with most people enjoying basic bush camping. Some visitors however, would appreciate the comfort of a commercial campsite with better facilities provided.

Virtually all visitors appreciated the intrinsic values of the natural environment, enjoying the camping and scenery and natural history. Most people visited "named" places, following well-established tracks and walk trails, but relatively few explored further afield or ventured into unmarked gorges.

Most visitors saw nothing of the Aboriginal cultural history of the Park, although many indicated an interest in finding out something. There was a general demand for information of all types in the Park, including maps, directional signs and interpretative information.

There is a potential challenge here for management to resolve: to maintain a natural, unspoilt, wilderness ambience, whilst providing suitable visitor facilities which enhance a safe, comfortable and informative trip.

From a management perspective, the major observations based on visitors' comments are:

1. Retain the Park in its natural state with no development nor commercialisation.
2. Some roadworks are required to reduce erosion of tracks.
3. More literature, information, maps and signs are needed.
4. Present campsites and facilities require improvement.
5. Increased involvement of Aboriginal people in park management will be appreciated.
6. Further road access and more walk trails are required.
7. Visitors enjoy a high level of contact with Park Rangers.

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BUNGLE BUNGLE NATIONAL PARK
VISITOR SURVEY

SUMMARY OF RESPONSES

1. Where do you usually live?

Perth	20.3%	Interstate	55.4%
Kimberley Region	4.3%	Overseas	5.5%
Other WA	13.8%	Other	0.7%

2. How many persons in your party belong to each of the following age groups?

less than 16 years	13.5%	16 - 25 years	13.0%
41 - 60 years	30.6%	26 - 40 years	30.7%
61 years and over	12.2%		

3a. Is this your first visit to the Bungle Bungle National Park?

Yes 94.5% No 5.4%

b. If No, in what year did you first see Bungle Bungle? 1986 (42.9%)

4. How long have you stayed in the Park this trip?

Day visit	6.2%	4 - 7 nights	14.0%
1 night	18.1%	More than 1 week	0.7%
2 - 3 nights	61.1%		

5. What method of transport did you use to visit the Park this trip?

Hire vehicle	5.0%
Private vehicle	74.1%
Commercial tour	17.1%

Other (Please specify) ..3.8%...Motorcycles...walkers.....

6. If a range of accommodation were available in the Park, would you choose to stay overnight at any of the following?

A basic campground with minimal facilities	75.6%
A commercial site with camping facilities provided	13.7%
Simple chalet-type accommodation	3.7%
An Hotel-resort	0.8%
None of the above	6.2%

7. In planning this trip to the Bungle Bungle National Park, did you obtain information from any of the following?

Travel Agent/Tour Operator	17.3%	Conservation and Land	
Kununurra Visitor Centre	26.6%	Management Office	15.4%
Other Tourist Bureau	14.7%	National Park Brochures	20.7%
		None of these	39.5%

8. Which features of the Bungle Bungle particularly interested you?

Scenery	95.4%	Geology	61.8%
Animal/birdlife	52.4%	Aboriginal culture	16.4%
Plants	51.2%	Remoteness	67.2%

Other (Please specify) .7.5%...Uniqueness...wilderness.....

9. In which activities did you participate during your visit to the Park?

Camping	90.8%	Sightseeing	85%
Exploring Gorges	92.3%	Bushwalking	67.7%
Nature Appreciation	71.3%	Off-road driving	45.4%
Photography	90.9%	Fishing	1.1%

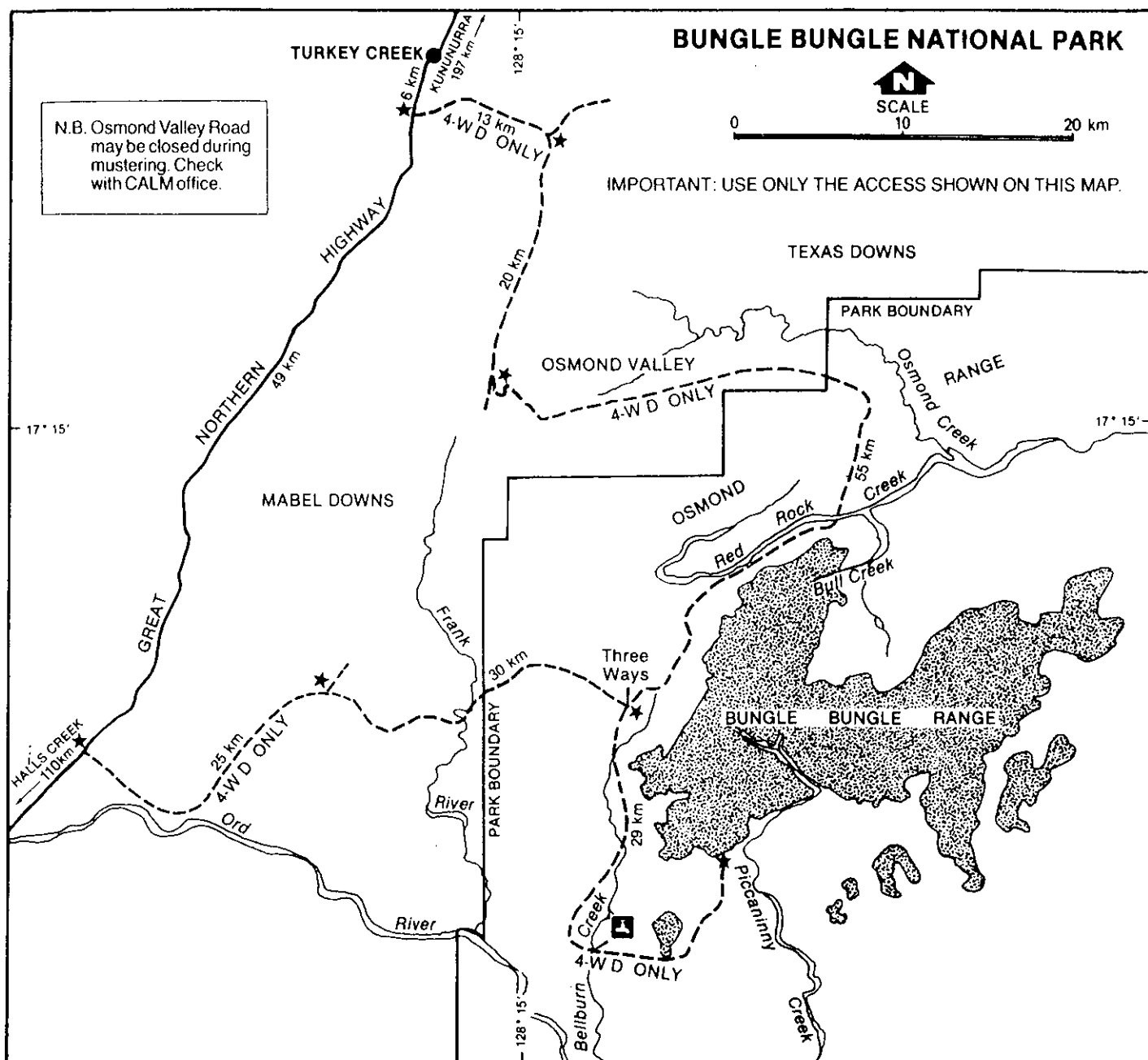
Other (please specify) ..5.1%...Swimming...birdwatching.....

10. On the following map

(a) please circle the places you have visited on this trip.

(b) mark with an asterisk (*), as accurately as possible, where you have camped overnight.

(c) indicate with arrows (—>) the direction you travelled on roads into and out of the park.



(10) OFFICE USE ONLY

a	()	()	()	()	()	()	()
b	()	()	()	()	()	()	()
c	()	()	()				
d	()	()	()				

See Tables 1.1 to 1.3 for results

11. What did you like most about the Park?

1. ...Scenery, beauty..... 50.7%
2. ...Domes, formations, Gorges..... 47.2%
3. ...Remoteness, isolation..... 36.0%

12. What did you dislike about the Park?

1. ...Access road, tracks, creek crossings..... 26.4%
2. ...Insufficient signs, maps, information..... 14.5%
3. ...No campfires, BBQ's..... 13.9%

13. a. Do you intend to visit Bungle Bungle again?

Yes 84.2% No 15.8%

b. If yes, what method of transport are you likely to choose?

Charter Plane	14.4%	Hire vehicle	5.1%
Helicopter	9.7%	Private vehicle	59.7%
Commercial tour	6.9%	Other (please specify)	4.1% Motorcycle

14. Please indicate if you have visited any of the following National Parks of Western Australia or the Northern Territory.

	a) This Trip	OR	b) Previously
Mirima (Hidden Valley)	33.6%		16.4%
Wolfe Creek Crater	40.9%		17.3%
Giekie Gorge	53.7%		27.2%
Windjana Gorge	56.1%		22.3%
Tunnel Creek	52.4%		20.6%
Keep River	20.2%		5.9%
Kakadu	35.5%		33.0%
Katherine Gorge	34.7%		42.6%
Kings Canyon	22.6%		31.7%
Uluru (Ayers Rock - Mt Olga)	31.2%		50.9%

15. Any further comments?

1. ...Retain in natural state, no development, commercialisation 22.8%
2. ...Some roadworks needed 11.4%
3. ...Information, signs, maps etc not satisfactory 10.1%
4. ...Thanked/liked Park rangers & spouses 8.9%
5. ...No improvement, keep 4WD 8.6%

TABLE 1.1 MOST POPULAR SITES VISITED IN THE PARK.

AREA VISITED IN PARK	RELATIVE FREQUENCY (%)
PICCANINNY AREA	87
ECHIDNA CHASM	54
RED ROCK CREEK AREA	23
BULL CREEK AREA	18
OTHER GORGES/AREAS	16
WULWULDJII/OSMOND CREEK	11

TABLE 1.2 CAMPSITES USED WITHIN THE PARK.

AREA CAMPED AT IN PARK	RELATIVE FREQUENCY (%)
BELLBURN CAMPSITE	64
THREE WAYS/KURRAJONG	21
SPRING CREEK TRACK	17
PICCANINNY CREEK AREA	14
RED ROCK CREEK AREA	11
DATE PALM/WULWULDJII/OSMOND CREEK	8
ECHIDNA CHASM	5
BULL CREEK AREA	3

TABLE 1.3 ACCESS ROUTES INTO AND OUT OF THE PARK.

ENTRANCE/EXIT ROADS	RELATIVE FREQUENCY (%)
ROUTE IN	
SPRING CREEK TRACK	97.8
OSMOND VALLEY TRACK	2.2
ROUTE OUT	
SPRING CREEK TRACK	95.4
OSMOND VALLEY TRACK	4.6



Conservation and
Land Management

BUNGLE BUNGLE NATIONAL PARK FLIGHT SURVEY

SUMMARY OF RESPONSES

1. Where do you usually live?

Perth	27.4%	Interstate	49.2%
Kimberley Region	3.2%	Overseas	15.3%
Other WA	4.0%	Other	0.8%

2. What is your age?

less than 16 years	0.8%	16 - 25 years	12.1%
41 - 60 years	38.7%	26 - 40 years	22.6%
61 years and over	25.0%		

3a. Is this your first visit to the Bungle Bungle National Park?

Yes 93.4% No 6.6%

b. If No, in what year did you first see Bungle Bungle? 19

One person in 1978 and a few others between 1983-1987

4. In planning this trip to the Bungle Bungle National Park, did you obtain information from any of the following?

Travel Agent/Tour Operator	40.0%	Conservation and Land	
Kununurra Visitor Centre	25.7%	Management Office	1.4%
Other Tourist Bureau	10.7%	National Park Brochures	5.7%
		None of these	16.5%

5. Which features of the Bungle Bungle particularly interest you?

Scenery	79.8%	Geology	42.7%
Animal/birdlife	9.7%	Aboriginal culture	13.7%
Plants	12.9%	Remoteness	46.0%
Other (Please specify)	...1.6%.....		

6. a. Do you intend to visit Bungle Bungle again?

Yes 56.8% No 43.2%

b. If yes, what method of transport are you likely to choose?

Charter Plane	16.9%	Hire vehicle	7.8%
Helicopter	14.3%	Private vehicle	38.9%
Commercial tour	20.8%	Other (please specify)	..1.3%.....

7. If a range of accommodation were available in the Park, would you choose to stay overnight at any of the following?

A basic campground with minimal facilities	34.9%
A commercial site with camping facilities provided	21.4%
Simple chalet-type accommodation	16.7%
An Hotel-resort	15.9%
None of the above	11.1%

8. Please indicate if you have visited any of the following National Parks of Western Australia or the Northern Territory.

	a) This Trip	OR	b) Previously
Mirima (Hidden Valley)	34.7%		5.6%
Wolfe Creek Crater	10.5%		5.6%
Giekie Gorge	32.3%		10.5%
Windjana Gorge	13.7%		4.0%
Tunnel Creek	11.3%		3.2%
Keep River	3.2%		2.4%
Kakadu	34.7%		21.0%
Katherine Gorge	44.3%		23.4%
Kings Canyon	10.5%		12.1%
Uluru (Ayers Rock - Mt Olga)	30.6%		37.1%

9. Any further comments?

....Excellent, enjoyed flight.....	12.9%
....Spectacular scenery, beauty.....	10.5%
....Fascinating experience.....	6.4%
....Do not commercialise Park.....	3.2%
....Keep as natural as possible.....	2.4%