The Parliament of the Commonwealth of Australia

CULLING OF LARGE FERAL ANIMALS IN THE NORTHERN TERRITORY

Report by the Senate Select Committee on Animal Welfare

June 1991

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MEMBERS OF THE COMMITTEE

Appointment of the Committee

The Committee was formed on 17 November 1983 and reappointed on 22 February 1985, 22 September 1987 and 9 May 1990.

Members

Senator Bryant Burns, Queensland, *Chairman* (from May 1990)

Senator David Brownhill, New South Wales, *Deputy Chairman* (from July 1985)

Senator Robert Bell, Tasmania (from May 1990)

Senator Paul Calvert, Tasmania (from September 1987)

Senator Barney Cooney, Victoria (from July 1985)

Senator Nick Sherry, Tasmania (from August 1990)

A list of former members of the Committee appears at Appendix 1 to this report.

Committee Secretary

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LIST OF ABBREVIATIONS

AAC	Australian Agricultural Council
ANZFAS	Australian and New Zealand Federation of Animal Societies
ANPWS	Australian National Parks and Wildlife Service
BRR	Bureau of Rural Resources
BTEC	Brucellosis and Tuberculosis Eradication Campaign
DPIE	Department of Primary Industries and Energy
NCCAW	National Consultative Committee on Animal Welfare
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SCAW	Sub-Committee on Animal Welfare
VPC	Vertebrate Pests Committee

RECOMMENDATIONS AND MAJOR CONCLUSIONS

Chapter 2: Responsibility for Management and Control of Feral Animals

Recommendation 1: that the Department of Primary Industries and Energy publish Model Codes of Practice on Animal Welfare in a more compact, durable and professional format. The Committee further recommends that the Department, in conjunction with State and Territory Governments, ensure that these Codes are readily available to interested parties, including government and non-government personnel. (paragraph 2.18)

Chapter 3: The Impact on the Northern Territory of Large Feral Animals

Conclusions: On the basis of evidence presented during the inquiry, the Committee is left in no doubt that feral animals pose a major problem. In particular, horses, buffalo and other large feral animals have a significant adverse impact on the environment of the Northern Territory. This manifests itself in degradation of the landscape and destruction of vulnerable Australian species of flora and fauna. Feral animals also have the potential to exacerbate problems arising from the introduction of exotic diseases.

Although in many instances the impact of feral animals is patently obvious and widely recognised, the Committee considers that quantitative research should be undertaken on the agricultural and environmental damage caused by individual species of feral animals. Specifically, the Committee considers that research should investigate the densities of feral populations, impacts and concomitant economic effects. In the Committee's view, such research would provide a better understanding of the damage caused by feral animals and might result in more practical and humane strategies of control. (paragraphs 3.45 and 3.46)

Recommendation 2: that the Commonwealth Government, through its various research and funding agencies, extend research into the agricultural, environmental and economic impact of feral animals. (paragraph 3.47)

Chapter 4: Evidence on the Need to Control Feral Animals

Conclusions: The Committee agrees with the overwhelming opinion expressed in evidence that feral animals and, in particular, large feral animals in the Northern Territory, such as horses, buffalo and donkeys, must be controlled. Ideally, total eradication should be the goal of control programs.

In the Committee's view, animal welfare considerations must be taken into account when programs are developed to control or eradicate feral animals. In particular, the Committee considers that specific methods of control must be implemented in a manner that causes a minimum of suffering to animals. (paragraphs 4.20 and 4.21)

Chapter 5: Current Methods of Control

Muster and Transport — Buffalo

Conclusions: The Committee recognises that the Australian National Parks and Wildlife Service places considerable importance on animal welfare considerations. Nevertheless, the Committee is of the view that the Service must take a more positive role to safeguard the welfare of feral animals and, in particular, buffalo removed by private contractors from Kakadu National Park. (paragraph 5.33)

Recommendation 3: that the Australian National Parks and Wildlife Service let contracts for removal of feral animals only to those private contractors who can satisfy the Service that they pay due attention to the welfare of animals. Additionally, contracts for the removal of feral animals should contain provisions for immediate termination if there is evidence of maltreatment or inattention to the welfare of stock. (paragraph 5.34)

Muster and Transport — Horses

Conclusions: On the basis of evidence presented during the inquiry, the Committee registers strong concerns about the welfare of feral horses being transported, particularly over long distances. The Committee considers that the prolonged stress and trauma associated with this practice is unconscionable and cannot be condoned. The inherent welfare problems involved in handling, transporting and holding feral horses are sufficient to raise serious questions about their continuing use in the export horse meat trade. (paragraph 5.55)

Recommendation 4: that the Minister for Primary Industries and Energy, in consultation with other members of the Australian Agricultural Council, review the continuing use of feral horses in the export horse-meat industry, with particular regard to animal welfare issues associated with this industry. (paragraph 5.56)

Conclusion: If feral horses continue to be transported and used for commercial purposes, the Committee considers that the study by the Bureau of Rural Resources entitled **Welfare of Horses Being Transported** contains positive recommendations on improvements to the welfare of feral horses being transported. (paragraph 5.57)

Recommendation 5: that the Minister for Primary Industries and Energy, in consultation with other members of the Australian Agricultural Council, consider, and where appropriate, implement the recommendations contained in the working paper by the Bureau of Rural Resources on the **Welfare of Horses Being Transported**. (paragraph 5.58)

Conclusion: If feral horses continue to be transported and used for commercial purposes, the Committee reaffirms its view that **the Model Code of Practice for the Welfare of Animals: Destruction or Capture, Handling and Marketing of Feral Livestock Animals** should be published in an authoritative format and made readily available. (paragraph 5.59)

Conclusion: The Committee places on record its strong concerns about the use of double-decked vehicles to transport feral horses. The Committee intends to address this matter in greater detail in its forthcoming report on Transport of Livestock within Australia. (paragraph 5.60)

Helicopter Shooting

Conclusions: Having observed the rugged and inaccessible terrain that feral animals inhabit in the Northern Territory, the Committee recognises that the preferred and most humane method of shooting from the ground is seldom a feasible method of controlling large populations of feral animals. Under these circumstances, the Committee considers that shooting from helicopters is the only practical method of control. In the Committee's view, helicopter shooting represents the most humane method of controlling feral animals in inaccessible locations.

This conclusion weighs heavily with the Committee, as several witnesses recognised that helicopter shooting will invariably result in the inhumane death of some animals. This reality, however, must be weighed against the threat feral animals pose to native flora and fauna, the environment and public health. It must also be balanced against the distressing and agonising death of thousands of feral animals occasioned by drought and starvation.

Having considered all the evidence, the Committee is convinced that helicopter shooting of feral animals should continue. Nevertheless, it recognises, as was suggested in evidence, that "it is the best of a bad lot".

It is the Committee's view that procedures associated with helicopter shooting must be improved. These improvements will ensure a professional, responsible approach to helicopter shooting and in turn reduce the possibility of animals suffering. (paragraphs 5.81 to 5.84)

Chapter 6: Concerns about Helicopter Shooting

Training of Shooters

Conclusions: The Committee is satisfied that the Northern Territory Government recognises the importance of proper training and testing of personnel involved in the shooting of feral animals from helicopters and conducts specific programs to achieve this objective. The Committee considers that the Northern Territory Government and its agencies should maintain the highest possible standards in training and marksmanship, in order to minimise the suffering of animals. The Committee encourages similar training programs in other States involved in feral animal control by helicopter shooting. (paragraph 6.11)

Accreditation of Shooters

Conclusions: The Committee is of the view that only personnel approved by government authorities should shoot feral animals from helicopters. This should apply to government officers and private individuals. The Committee's conclusion on this matter is based on two considerations.

Firstly, evidence to the Committee confirmed that there are considerable risks and dangers associated with helicopter shooting. In order to ensure the safety of all personnel, it is highly desirable that only shooters with appropriate skills and experience are involved in these operations.

Secondly, in the Committee's view, it is essential that the welfare of animals, and in particular the elimination of woundings and associated suffering, should be a primary objective of helicopter culling operations. This objective can only be achieved if responsible and highly skilled personnel are used.

In order to ensure that only properly trained and authorised shooters are involved in helicopter culling operations, the Committee considers that a system of accreditation or licensing is necessary. Such a system would enhance safety and animal welfare considerations and foster a professional and responsible approach to helicopter shooting. (paragraphs 6.16 to 6.19)

Recommendation 6: that the Commonwealth, Northern Territory and other State Governments introduce accreditation or licensing schemes for government and non-government personnel involved in helicopter culling operations. (paragraph 6.20)

Supervision of Shooting

Conclusions: The Committee considers that all helicopter shooting of feral animals must be supervised and co-ordinated by government authorities. In the Committee's view, this supervision should include appropriate notification, approval, monitoring and reporting mechanisms. (paragraph 6.24)

Strategies for Control

Conclusion: The Committee concludes that programs to control feral animals should be planned, systematic and sustained. In the Committee's view, strategies with these features will result in more effective control and will heighten awareness of animal welfare responsibilities. (paragraph 6.33)

Recommendation 7: that the Minister for Primary Industries and Energy, in consultation with other members of the Australian Agricultural Council, examine ways in which feral animal populations, reduced by activities associated with BTEC, may continue to be controlled following the completion of BTEC in 1992. (paragraph 6.35)

Firearms and Ammunition

Conclusion: The Committee endorses the view that only firearms and ammunition that are suitable for the species and appropriate for the task should be used in the culling of feral animals. (paragraph 6.40)

Wounding of Animals

Conclusions: The Committee recognises that the shooting of feral animals, particularly from helicopters, may result in injury and suffering to some animals. It is imperative that this suffering is kept to a minimum. The Committee considers that a professional and responsible approach to helicopter shooting will achieve this objective. The Committee also considers that data should be compiled on apparent cause of death, particularly when field post-mortems are conducted on feral animals. (paragraph 6.47)

Fly-Back Procedures

Conclusions: In the Committee's view, prompt follow-up procedures are necessary to ensure that feral animals shot from helicopters have been killed.

The Committee accepts that existing instructions and codes on helicopter shooting recognise the need for this procedure. However, the Committee considers that procedures to supervise helicopter shooting and, in particular, reporting mechanisms advocated by the Committee, should include confirmation of fly-back procedures by the pilot and shooter involved in the operation. (paragraphs 6.54 and 6.55)

Chapter 7: Long-term Control Methods: Fertility Control

Recommendation 8: that the Commonwealth Government, through relevant Departmental, industry and research agencies and inter-governmental arrangements, accord priority to research into non-lethal, humane and long-term methods of control of feral animals. (paragraph 7.34)

Chapter 8: National Perspective on the Control of Feral Animals

Recommendation 9: that the Minister for Primary Industries and Energy assess current and proposed mechanisms for national co-ordination of measures to alleviate the problems associated with vertebrate pests, including feral animals. (paragraph 8.21)

Recommendation 10: that the Minister for Primary Industries and Energy, in consultation with relevant Commonwealth, State and Territory Ministers, consider the establishment of a national committee or task force to provide a concerted and co-ordinated approach to the control or elimination of feral animals. (paragraph 8.22)

PREFACE

Terms of Reference

In November 1983, the Senate established a Select Committee to inquire into and report upon the following matter:

> the question of animal welfare in Australia, with particular reference to:
>
> (a) interstate and overseas commerce in animals;
>
> (b) wildlife protection and harvesting;
>
> (c) animal experimentation;
>
> (d) codes of practice of animal husbandry for all species; and
>
> (e) the use of animals in sport.

To date, the Committee has presented seven reports to the Senate. These are:

Export of Live Sheep from Australia	1985
Dolphins and Whales in Captivity	1985
Kangaroos	1988
Animal Experimentation	1989
Sheep Husbandry	1989
Intensive Livestock Production	1990
Racing Industry (Interim Report)	1990

On 31 May 1990, the Senate resolved that the Committee inquire into and report upon the implications for animal welfare of the culling of large feral animals in the Northern Territory. The Senate also resolved that the Committee should present its report on or before the last sitting day of the Autumn sittings in 1991.

Conduct of the Inquiry

Following the referral of the inquiry to the Committee, advertisements calling for submissions were placed in major national and metropolitan newspapers.

The Committee received 16 submissions. A list of individuals and organisations that made specific submissions on the culling of large feral animals in the Northern Territory appears in Appendix 2. The Committee also considered relevant sections of the 593 general submissions lodged with the Committee since 1983, and in particular relevant evidence presented to the Committee's concurrent inquiry into the transport of livestock within Australia.

The Committee held six public hearings. These were as follows:

Darwin:	21 November 1990
Alice Springs:	22 November 1990
Sydney:	30 November 1990
Canberra:	10 December 1990
Melbourne:	14 December 1990
Canberra:	17 December 1990

The witnesses who appeared before the Committee are listed in Appendix 3.

Members of the Committee inspected buffalo habitats in Kakadu National Park, the Gagudju Association's buffalo project in the Park and received briefings on the management and control of feral animals in Kakadu from officers of the Australian National Parks and Wildlife Service, Jabiru. Committee members received briefings on feral horses from officers of the Conservation Commission of the Northern Territory in Alice Springs and inspected habitats of feral horses in central Australia. The Committee also visited the abattoir at Peterborough in South Australia where feral horses are received and processed for the export horse-meat trade.

Acknowledgments

The Committee expresses its appreciation to those who made written submissions to the inquiry and who co-operated with the Committee by giving public evidence. Those who made submissions but did not appear before the Committee may be assured that their submissions have been taken into account in the writing of this report.

The Committee is grateful for the assistance of those who arranged inspections and conducted briefings. In particular, the Committee wishes to thank Mr Andrew Skeat, Director-North, Kakadu National Park, Australian National Parks and Wildlife Service, Mr David Lindner, an adviser to the Gagudju Association and Dr Ken Johnson, Mr David Berman and Mr Ross Bryan, officers of the Conservation Commission of the Northern Territory in Alice Springs.

Bryant Burns
Chairman

The Senate
Canberra
June 1991

Members of the Committee at Kakadu National Park.
(LtoR)Mr Andrew Skeat (ANPWS), Senator Bryant Burns, Mr David Lindner (Gagudju Association) and Senators Paul Calvert, Robert Bell and Barney Cooney.

CHAPTER 1

LARGE FERAL ANIMALS IN THE NORTHERN TERRITORY

Introduction

1.1 The Northern Territory, which covers over one-sixth of the Australian continent, contains a variety of habitats in which numerous species of wildlife live. These habitats range from the tropical north or Top End to the arid desert regions in the south. Several feral animals, including large mammals, inhabit these regions. Maps showing national distribution of large feral animals appear at Appendix 4.

1.2 Feral animals in the Northern Territory include introduced wild animals such as rabbits, foxes and deer. They also include livestock which have reverted to the wild after being kept domestically. Feral livestock include buffalo, cattle, horses, donkeys, camels and pigs. Table 1.1, on the following page, shows population estimates of large feral animals in the Northern Territory. As is the case with other parts of Australia, the climate and topography of the Territory are harsh and often unforgiving. Droughts can devastate feral animal populations. In the process of struggling for survival in these conditions, feral animals can cause substantial damage to the environment and economic loss to primary producers and to the nation.

1.3 In its evidence to the Committee, the Northern Territory Government recognised that the abundance and variety of feral animals in the Territory are unparalleled anywhere in the world and that it has a major feral animal problem.[1] Mr Graeme Davis, Principal Wildlife Management Officer, Conservation Commission of the Northern Territory, explained the extent of the problem in the following terms:

> We have far and away the largest feral animal problem in Australia. It ranks amongst the worst in the world in terms of the numbers and the range of species of feral animals.[2]

1.4 In the following section of the report, the Committee reviews evidence on the origins, distribution and abundance of several large feral animals that are found in the Northern Territory.

Water Buffalo

1.5 Water buffalo (bubalus bubalis) are large animals, standing on average 180 cm high at the shoulder at maturity and weighing between 450 and 1180 kg.[3] They organise into small, tightly knit matriarchal family groups. For most of the year, cows and calves are segregated from bulls, that live in bachelor herds or singly.

Table 1.1: Population Estimates of Large Feral Animals in the Northern Territory (1990)

SPECIES	REGION	POPULATION ESTIMATE
Buffalo	Arnhem Land	65803 ± 6251
	Darwin	48669 ± 9662
	Katherine/Tennant Creek	8130 ± 2260
Camels	Tennant Creek	157 ± 242
	Alice Springs	4664 ± 1462
	Simpson Desert	10723 ± 5592
Donkeys	Victoria River District	64162 ± 11228
	Gulf Region	5860 ± 3207
	Tennant Creek	5118 ± 3079
	Alice Springs	6156 ± 3151
Horses	Darwin	13432 ± 5234
	Victoria River District	25960 ± 5478
	Gulf Region	30100 ± 5750
	Tennant Creek	27260 ± 3712
	Alice Springs	54772 ± 8961

Note: Information supplied to the Committee by the Northern Territory Government is based on several published reports on aerial surveys of feral animals conducted between 1986 and 1989.

Source: *Evidence*, Northern Territory Government, p. 52.

1.6 Buffalo are wallowing herbivores, grazing in areas close to water on plants such as water couch and phragmites. During wet seasons, buffalo use regular routes to swim and walk between high grounds where they graze.[4]

1.7 Water buffalo were introduced into the Territory's Top End in 1825 as beasts of burden and a source of food. Soon after, buffalo went wild and their numbers increased. Buffalo numbers, however, were contained through hunting for buffalo hides. Following the collapse of this market in the mid-1950s, the buffalo population increased rapidly. In 1985, the number of buffalo in the Northern Territory was estimated at 340,000. The Northern Territory Government advised the Committee that buffalo numbers, based on aerial surveys conducted in 1989, have been reduced to between 105,000 and 140,000.[5]

"Large feral animals, particularly water buffalo present an unacceptable environmental and health threat in Kakadu National Park". Evidence, ANPWS, p. 526.

Horses

1.8 Horses (equus caballus) arrived in Australia just over two hundred years ago with the first European settlers on the east coast of the continent. Domestic horses that escaped or were released became established in the wild and by the 1830s "bush horses" were plentiful in the hills around Sydney. The number of uncontrolled horses increased as pastoral development spread. It has been suggested that feral horses, or brumbies, had reached the Northern Territory by the 1870s.

1.9 Areas within the Northern Territory are well suited for breeding horses. In the late nineteenth century, stations, particularly in central Australia, were established to supply army remounts. However, with the demise of mounted cavalry after the First World War, many of these horses "were simply left to roam free".[6]

1.10 Feral horses form either harems or bachelor groups. Generally, a harem consists of an adult male, one or more adult females and their offspring. The Committee was advised that a stallion may control as many as 14 mares. Bachelor groups consist of two-to-four-year-old males which have been forced out of family groups.

1.11 Feral horses are highly adapted for fast, free movement across open grassy areas. This mobility allows horses to graze further from water than cattle. The Committee was told that feral horses can walk up to 50 km from water to feed. Horses feed predominantly on grasses and their incisor teeth allow them to graze close to the ground. Unlike cattle, horses do not ruminate and therefore have more time to be selective during grazing. In central Australia, feral horses predominate in rugged terrain with permanent water but prefer grassy flats when food is available. They are opportunistic feeders, eating emergent and submergent plants, roots, bark, buds and fruit.

"After rain, when there is grass everywhere, horses will be found on the flats close to water eating the most palatable species of grass". Evidence, Conservation Commission of the Northern Territory, p. 122.

1.12 It has been estimated that there could be 300,000 to 600,000 feral horses in Australia.[7] Australia's feral horse population is significantly greater than that of any other continent, the next largest population existing in North America, where there are 40,000 to 80,000. In the Northern Territory alone, there are approximately four times as many wild horses as there are in the United States of America.[8]

1.13 In the early 1980s, there were about 200,000 feral horses in the Territory, 80,000 of which were located in central Australia around Alice Springs. The Northern Territory Government advised the Committee that feral horse numbers in the region of Alice Springs are now approximately 54,000.[9]

Cattle

1.14 European cattle breeds (bos taurus) and humped zebu breeds (bos indicus) were introduced into Australia for beef production. Some of these cattle have become feral while others are unmanaged because of economic constraints on mustering. The number of feral cattle in the Northern Territory has been reduced significantly as a result of recent stock disease measures and modern mustering techniques. It is thought that there are still approximately 100,000 feral cattle in the Territory.

1.15 Banteng cattle (bos javanicus) were imported from Java over 150 years ago to the Cobourg Peninsula of the Northern Territory. Unlike other feral animals in the Territory, banteng cattle have not spread into other regions. There are now about 3,000 banteng cattle on the Cobourg Peninsula.[10]

Camels

1.16 Camels (camelus dromedarius) were imported into Australia in the middle of the nineteenth century and used extensively in the exploration and development of the arid interior. Following the mechanisation of transport in the 1920s, the use of camels declined. Camels which were abandoned or escaped from stations adapted readily to arid areas of the Simpson Desert and west of Alice Springs into the Gibson and Great Sandy Deserts of Western Australia.

1.17 The camel stores fat reserves in its hump for use during times of stress and its broad-padded feet allow it to travel in sand. The camel has other anatomical and physiological features that allow it to occupy successfully the drier regions of the Australian interior. These features include body temperature control, minimal water loss though excretion and rapid rehydration.[11]

1.18 Australia is now the only country in the world that has wild camels. Current population estimates, based on aerial surveys, indicate that there are over 25,000 camels in the Northern Territory.[12]

Donkeys

1.19 In the 1860s, donkeys (equus asinus) were imported into the Northern Territory for use in teams for freight haulage and as pack animals. They were used in central Australia and also in areas such as the Victoria River District where poisonous plants restricted the use of horses. Improved roads and mechanised transport resulted in fewer uses for donkeys. Abandoned or released donkeys multiplied and by the late 1960s there were feral donkeys in most districts of the Northern Territory, the Kimberley and Pilbara regions of Western Australia as well as parts of South Australia and Queensland.[13]

1.20 Donkeys thrive in areas unsuitable for horses and cattle. They eat a wider range of vegetation and graze further away from water. The Northern Territory Government has estimated that the population of feral donkeys in the Northern Territory may be as many as 90,000 head.[14]

Pigs

1.21 Australia is the only continent without a native pig population. However, following their introduction as a source of food by the early European settlers, feral pig (sus scrofa) populations became established in most climatic regions of Australia. Significant numbers of feral pigs are now found in western Victoria, through New South Wales and Queensland and across northern Australia, from Cape York to the Kimberleys.

1.22 Feral pigs eat a wide range of food, including crops and pastures, and prey on lambs and small native animals. They wallow and root around the margins of waterholes and swamps, destroying vegetation and damaging the root systems of trees.

1.23 The number of feral pigs in Australia has not been determined but it is thought that it is in the millions. The Northern Territory's pig population, concentrated in the tropical north, is probably in the hundreds of thousands.[15]

Other Feral Animals

1.24 Although evidence to the Committee concentrated on the feral animals referred to in previous paragraphs, several other feral animals inhabit areas of the Northern Territory. These feral animals include rabbits, foxes, goats and cats.

ENDNOTES

1. *Evidence*, Northern Territory Government, p. 51.
2. *ibid.*, p. 4.
3. *Evidence*, Australian National Parks and Wildlife Service, p. 516.
4. Australian National Parks and Wildlife Service and Bureau of Rural Resources, *Feral Animals in Australia*, AGPS, Canberra, 1990, p. 8.
5. *Evidence*, Northern Territory Government, p. 52.
6. Australian National Parks and Wildlife Service and Bureau of Rural Resources, *op.cit.*, p. 2.
7. *ibid.*
8. Conservation Commission of the Northern Territory, *Environment 90 — Feral Horses in the Northern Territory*, Palmerston, 1990, pp. 1-2.
9. *Evidence*, Northern Territory Government, p. 52.
10. *ibid.*, p. 6.
11. *ibid.*, p. 4.
12. *ibid.*, p. 52.
13. Australian National Parks and Wildlife Service and Bureau Rural Resources, *op.cit.*, p. 3.
14. *Evidence*, Northern Territory Government, p. 52.
15. Australian National Parks and Wildlife Service and Bureau of Rural Resources, *op.cit.*, p. 7.
    Conservation Commission of the Northern Territory, *Environment 90 — Feral Pigs in the Northern Territory*, Palmerston, 1990, pp. 1-2.

CHAPTER 2

RESPONSIBILITY FOR MANAGEMENT AND CONTROL OF FERAL ANIMALS

Introduction

2.1 Under the federal system of government in Australia, State and Territory Governments have legislative and administrative responsibility for the prevention of cruelty to animals. The States and Territories are primarily responsible for the control of feral animals and associated animal welfare matters.

2.2 Because of this constitutional separation of powers, the role of the Commonwealth Government in animal welfare and in particular feral animal control is limited. The Commonwealth Government is concerned with international aspects of animal welfare and can take action under its legislation to protect the welfare of animals being exported or imported and livestock within export slaughter facilities. It also facilitates the development of a national perspective on animal welfare issues.

2.3 The Commonwealth Government, through the Australian National Parks and Wildlife Service (ANPWS) also has specific responsibilities for the control of feral animals in national parks, including Kakadu National Park and Uluru (Ayers Rock-Mount Olga) National Park in the Northern Territory.

2.4 In this chapter of the report, the Committee reviews the role of the Commonwealth Government and relevant legislative and administrative arrangements of the Northern Territory Government for the control and management of feral animals in the Territory.

Role of the Commonwealth Government

2.5 As indicated above, the Department of Primary Industries and Energy and ANPWS do have specific responsibilities in relation to the control of feral animals in Australia.

Department of Primary Industries and Energy (DPIE)

2.6 Several sections of the Department have responsibilities relating to animal welfare and in particular feral animal management.

2.7 The Livestock and Pastoral Division of the Department provides policy advice to the Minister for Primary Industries and Energy.[1] It also is represented on, and provides secretariat services to, several consultative committees on animal welfare including the National Consultative Committee on Animal Welfare (NCCAW). Currently, NCCAW, whose membership includes representatives of

Commonwealth, State and Territory Governments and other interested organisations, is considering the issue of feral animal management. As part of this review, the consultative committee convened a conference on alternative methods of controlling feral animals in February 1991.[2]

2.8 The Livestock and Pastoral Division of the Department is also responsible for disease control in livestock. This includes co-ordination of the national Brucellosis and Tuberculosis Eradication Campaign (BTEC).[3] Although individual States and Territories are responsible for the operation of the campaign, a national BTEC Committee establishes national policies and monitors progress and expenditure.[4] The operation of the campaign in the Northern Territory is considered in a later section of this chapter.

2.9 The Division is also involved in exotic disease preparedness. A national strategy, entitled AUSVETPLAN, has been developed to provide a systematic and integrated planning approach to effective management of exotic animal disease emergencies in Australia.[5]

2.10 Another section of DPIE, the Bureau of Rural Resources, provides scientific and technical support to the Minister and other areas of the Department. The Bureau has recently published a bulletin on the management of feral animals entitled **A Role for Fertility Control In Wildlife Management?** In 1990, the Bureau also published a working paper on **Welfare of Horses Being Transported**. Amongst other things, this paper addresses issues relating to the transport of feral animals to abattoirs.

2.11 The Australian Quarantine and Inspection Service is responsible for animal welfare in relation to animal imports and exports and at abattoirs.[6]

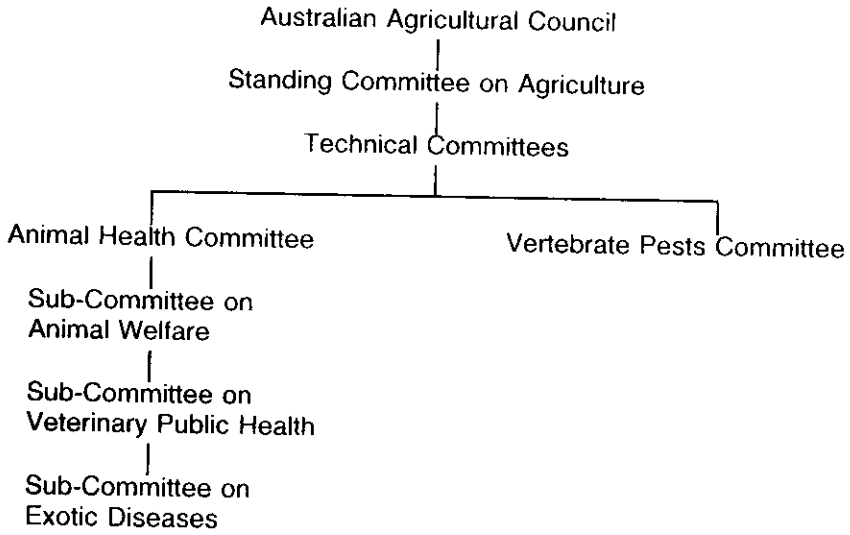
Commonwealth-State Co-ordination

2.12 As stated in the introduction to this chapter, the Commonwealth Government is also concerned with the development of a national perspective on animal welfare issues. This is achieved through the auspices of the Australian Agricultural Council (AAC), comprising the Commonwealth, State and Territory Ministers for Agriculture.[7] The Council co-ordinates national interests in agriculture and also considers matters relating to animal welfare. The structure of the AAC and its committees that address animal welfare matters is shown in Figure 2.1.

2.13 The Council, through its Standing Committee, has established a Sub-Committee on Animal Welfare (SCAW) and a Vertebrate Pests Committee (VPC).

2.14 SCAW develops and reviews model codes of practices for the welfare of animals. The Sub-Committee developed, and in July 1989 the Australian Agriculture Council endorsed, the *Model Code of Practice for the Welfare of Animals: Destruction, or Capture, Handling and Marketing of Feral Livestock Animals*. This is one of several codes on aspects of animal welfare adopted and published by the AAC.[8]

Figure 2.1: Australian Agricultural Council and Relevant Committees



Source: Handbook to Australian Agricultural Council.

2.15 Mr James Jenkins, Assistant Secretary, Animal Welfare Branch, Department of Primary Industries and Energy, explained the role of these Codes. He stated:

> Wide consultation with industry and interested parties, including animal welfare groups, takes place during the drafting and revision of codes. The codes endorsed by the AAC are intended as models to enable the States to develop codes of practice to meet their individual needs. The extent to which the codes are modified before being implemented at State level varies.[9]

2.16 The Committee welcomes the development of codes of practice on animal welfare and, in particular, the recent adoption by the Australian Agricultural Council of the code of practice relating to feral livestock animals. Nevertheless, during the inquiry, the Committee was concerned to hear evidence about the availability of this and other codes of practice.

2.17 The Committee pursued this matter and understands that the code of practice relating to feral animals and other animal welfare codes have not been distributed widely. In particular, the Committee was advised that these codes are not available from Australian Government Publishing Service Bookshops. It also notes that these codes have not been printed and presented in a professional format. In the Committee's view, this diminishes the impact and authority of the

important information contained within these Codes. The Committee also considers that it would be beneficial to publish the Codes as compact and durable manuals.

2.18 *The Committee recommends that the Department of Primary Industries and Energy publish Model Codes of Practice on Animal Welfare in a more compact, durable and professional format. The Committee further recommends that the Department, in conjunction with State and Territory Governments, ensure that these Codes are readily available to interested parties, including government and non-government personnel.*

2.19 As shown in Figure 2.1, the AAC has also established a Vertebrate Pests Committee. This Committee co-ordinates and reviews matters relating to vertebrate pests, with particular reference to their control or eradication. It also examines arrangements for research, training, administration and control.[10] In the final chapter of this report, the Committee discusses in detail existing and proposed mechanisms for national co-ordination of problems associated with feral animals.

Australian National Parks and Wildlife Service

2.20 The Commonwealth Government, through the National Parks and Wildlife Service, exercises control over feral animals located in Kakadu and Uluru National Parks. ANPWS is responsible for the management of Kakadu National Park in the Top End and Uluru (Ayres Rock-Mount Olga) National Park in central Australia. These Parks are managed in accordance with the *National Parks and Wildlife Conservation Act 1975*. Uluru National Park and Stages I and II of Kakadu National Park are included in the World Heritage list under the *Convention Concerning the Protection of the World Cultural and Natural Heritage*.[11]

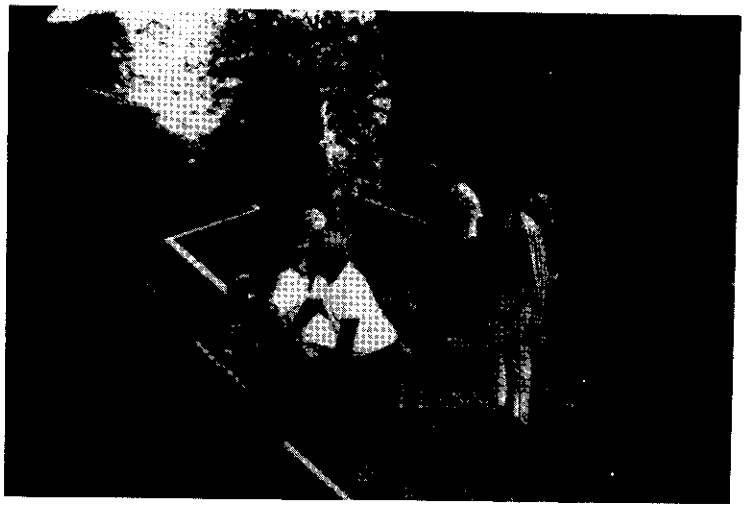
2.21 Uluru and parts of Kakadu are Aboriginal freehold land which is leased to the Director of ANPWS. As the management authority responsible for Kakadu and Uluru, ANPWS is obliged to protect the cultural and natural assets of these areas.

2.22 Water buffalo, cattle, pigs and horses are found in Kakadu, while camels occur within Uluru. In its submission, ANPWS stated that it "actively fosters feral animal control programs" in these National Parks and throughout Australia. It also regulates the importation of live animals and plants in accordance with the *Wildlife Protection [Regulation of Imports and Exports] Act 1982*.[12]

2.23 Both national parks in the Northern Territory are managed in accordance with Plans of Management which are approved by the Commonwealth Parliament.[13]

2.24 The current plan of management for Kakadu, which expires on 31 December 1991, specifically addresses the control of feral animals in the Park. The plan incorporates a long-term objective of eradication of all feral

animals as humanely as possible. ANPWS advised the Committee that it fully supports the BTEC program and has taken steps to comply with all destocking notices for Kakadu served by the Northern Territory Government.[14]



Members of the Committee inspecting art sites in Kakadu National Park. The sites are considered to be amongst the oldest known art sites in the world.

"Buffalo seeking shelter during the heat of the day and the wet season trample shelther deposits and smear mud over, or scrape away the pigment and loose rock from painted surfaces as they rub their bodies against the rock". Evidence, ANPWS, p. 521.

2.25 The plan of management for Uluru National Park does not contain specific prescriptions for the management of large feral animals. It states, however, that "camels will be controlled".[15]

Responsibilities of the Northern Territory Government

2.26 As indicated previously, the Northern Territory Government is primarily responsible for the management and control of feral animals found within its borders.

Legislative Position

2.27 In its submission, the Northern Territory Government stated that the legal responsibility for the management of feral animals in the Northern Territory is complex.[16] Mr Graeme Davis, an officer of the Conservation Commission of the Northern Territory, explained:

> There is no feral animal legislation as such in the Territory. Responsibilities are somewhat confused ... Feral animal management has basically been delegated to the [Conservation] Commission [of the Northern Territory] as a co-ordinating authority only by ministerial direction in the Territory and by administrative direction ... The Commission is charged with co-ordinating the applications and development of policy regarding what species should be concentrated on for control programs.[17]

2.28 In the Northern Territory, ownership of feral animals is vested in the owner or lessee of the land on which they occur. Accordingly, the Conservation Commission is responsible for feral animals on lands under its control. It also encourages pastoralists, Aborigines and other landholders to undertake control programs. The Government provides advice on property management and stocking rates and has assisted property owners to control excessive populations.[18]

2.29 Unless specific pest or disease problems are identified, there is no general requirement for landowners to control feral animals. The Northern Territory Government's submission added that, unless feral animals are either an economic resource or a significant problem, landowners apply minimal effort towards their management.[19]

2.30 Three Acts of the Northern Territory legislature, relating to the management and control of feral animals, were drawn to the attention of the Committee. These are:

- *Territory Parks and Wildlife Conservation Act*, under which the Government can order a property owner to take action to control feral animals, provided the animal has been declared a pest and the land in question has been declared a pest control area. The Northern Territory Government advised the Committee that no action under the Act has been undertaken in respect of private property.[20] Officers told the Committee that the Northern Territory Government preferred a "co-operative" approach[21] with landowners, based on "persuasion, encouragement and inducement".[22]
- *Stock Diseases Act*, under which the Government can order the control of feral animals for the purposes of disease control. This legislation is the basis of controls on cattle and buffalo under the national Brucellosis and Tuberculosis Eradication Campaign. BTEC is discussed in detail later in this chapter.[23]
- *Soil Conservation and Land Utilisation Act*, under which the Government may require the removal of excess stock, including feral animals, if stocking rates result in soil degradation.[24]

2.31 The Northern Territory Government has recognised that the legislative basis for the control of feral animals may need to be clarified. In evidence to the Committee, Mr Davis stated:

> Something that the Territory is addressing now is that perhaps there should be some legislative base ... the disease aspects [of feral animal control] are quite clearly catered for, but the need to control feral animals for economic and environmental reasons and who is responsible for that, are not clearly established.[25]

2.32 The Committee was told that the principal legislation on animal welfare in the Northern Territory, the *Prevention of Cruelty Act*, is being revised. This revision is likely to incorporate into legislation the Code of Practice relating to the welfare of feral animals. According to Mr Bryce, this will "give more teeth to the code of practice, particularly when we are talking about enforcing it with members of the public rather than with government officials".[26] The Committee was advised that legal responsibility for the management of feral animals in the Northern Territory is currently being reviewed by Dr Goff Letts, the chairman of an inquiry into feral animals, conducted in 1979.[27]

2.33 The Committee welcomes the initiatives of the Northern Territory Government to clarify and consolidate the legislative position relating to the control of feral animals.

Programs for Control

2.34 Currently the Northern Territory Government has four programs relating to the control of large feral animals. These are:

- Brucellosis and Tuberculosis Eradication Campaign;
- Exotic Disease Preparedness;
- Feral Animal Management; and
- Commercial Harvesting Industry.

2.35 These programs are discussed in the following sections of the chapter.

Brucellosis and Tuberculosis Eradication Campaign

2.36 BTEC is a major national program aimed at the eradication of brucellosis and tuberculosis (TB) from Australia's cattle and buffalo populations. The campaign, which is the largest animal disease eradication program conducted in Australia, is scheduled for completion in 1992 at a cost of $706 million. The program is funded by the cattle industry (50 per cent), with contributions from the Commonwealth [30 per cent] and State and Territory Governments (20 per cent).[28] The national program was designed initially to protect human health and reduce production losses. The need to protect Australia's export markets has also become an important reason for the program.[29]

2.37 In July 1989, Australia was declared free of bovine brucellosis after a 19-year program costing $350 million.[30] Programs in the Northern Territory were concentrated in the south and on the Barkly Tablelands. Mr Allen Bryce, Acting

Director, Veterinary Technical Services, Northern Territory Department of Primary Industry and Fisheries explained the reasons behind the success of the brucellosis program. He stated:

> Part of the reasons that we have managed to eradicate brucellosis from Australia, and particularly from the Territory, while we are still struggling with TB, is the fact that brucellosis was not a large problem in the northern part of the Territory. It is a cattle disease [and not a buffalo disease]. ... we did not have feral animal population control as being a major part of the brucellosis program. As a result, brucellosis was eradicated much more readily than TB.[31]

2.38 TB eradication commenced in the Northern Territory in the early 1980s and has been complicated by the incidence of TB in feral buffalo and cattle. A three-pronged approach for the eradication of TB in cattle and buffalo has been adopted in the Territory.

2.39 Firstly, herds are tested, reactors removed and then re-tested until free from infection. Infected herds are traced by checking stock for infection after slaughter at abattoirs. Further information on herds may be gained by testing stock or carrying out autopsies on properties. This approach also involves the placing of animals free from infection into controlled herds. Secondly, if testing and associated controls do not eliminate infection, the infected herd is "destocked" and sent to abattoirs for slaughter. Thirdly, if it is impractical to destock an infected herd to abattoirs, stock are destroyed on the property.[32]

2.40 Where there is evidence that TB is not present in a feral livestock population, destocking of animals to abattoirs for slaughter or destruction is unnecessary. Mr Derek Wells, Senior Veterinary Officer, Department of Primary Industry and Fisheries, told the Committee that the aim of the BTEC program is to eradicate disease in stock and that, in relation to feral livestock, "we are not removing all uncontrolled populations, we are only removing those populations that have disease".[33]

2.41 In 1989, 49,000 head were removed to abattoirs, 11,000 were tested into controlled herds and 73,000 were destroyed in aerial destocking operations.[34]

Exotic Disease Preparedness

2.42 The second program of control of feral animals in the Northern Territory relates to exotic disease preparedness. This involves the capacity to detect and, if necessary, deal with outbreaks of animal diseases that do not normally occur in Australia.

2.43 The Northern Territory Government's submission stated that it is essential to have in place contingency plans and procedures to eradicate or control diseases in feral animals. In evidence to the Committee, Mr Bryce observed that there are large populations of feral cattle, buffalo and pigs in the coastal areas of the Northern Territory which provide "potential entry points for exotic diseases

such as foot-and-mouth disease, screw-wormfly and swine fever". Feral populations of horses and donkeys also provide potential reservoirs for major exotic diseases.[35]

Feral Animal Management

2.44 The Conservation Commission of the Northern Territory co-ordinates and implements programs aimed at controlling the environmental impact of feral animals on pastoral and reserved lands.

2.45 While most controls in recent years have been associated with culling of feral cattle and buffalo for BTEC purposes, the Northern Territory Government advised the Committee that, under this program, the Commission has removed significant numbers of horses from parks and reserves as well as pastoral leases in central Australia, near Alice Springs.[36]

Commercial Harvesting Industry

2.46 Feral animals are also harvested for commercial purposes. For example, the buffalo industry in the Northern Territory is based on harvesting feral livestock from remote, undeveloped areas of the Top End, particularly in Arnhem Land.

2.47 In 1988-89, the buffalo industry generated $8.2 million in revenue from sales to abattoirs. With declining numbers of feral animals owing to destocking under BTEC, some stockowners are developing domesticated buffalo enterprises. The Northern Territory Government is promoting the development of a domesticated disease-free industry through a Buffalo Development Scheme.[37]

2.48 Feral horses from central Australia are also harvested for commercial purposes. Horses are mustered, trapped and transported to Peterborough in South Australia for slaughter and export.

2.49 Thirty thousand horses are processed through the abattoir at Peterborough, 20 to 25 per cent of which are feral horses.[38] The Committee was told that export earnings from the Peterborough abattoir amount to $30 million per annum.[39]

ENDNOTES

1. *Evidence*, Department of Primary Industries and Energy, pp. 475-476.
2. *ibid.*, p. 478.
3. *ibid.*, p. 479.
4. *Submission*, Brucellosis and Tuberculosis Campaign Committee, p. 1.
5. *Evidence*, Department of Primary Industries and Energy, p. 479.
6. *ibid.*, p. 475.
7. *ibid.*, p. 476.
8. *ibid.*, pp. 476-477.
9. *ibid.*, p. 477.
10. *ibid.*, p. 496.
11. *Evidence*, Australian National Parks and Wildlife Service, pp. 513-514.
12. *ibid.*, p. 514
13. *ibid.*
14. *ibid.*, p. 521.
15. *ibid.*, p. 515.
16. *Evidence*, Northern Territory Government, p. 53.
17. *ibid.*, p. 6.
18. *ibid.*, p. 54.
19. *ibid.*
20. *ibid.*
21. *ibid.*, p. 7.
22. *ibid.*, p. 37.
23. *ibid.*, p. 54.
24. *ibid.*
25. *ibid.*, p. 37.
26. *ibid.*, p. 16.
27. *ibid.*, p. 53.
28. *ibid.*, p. 56.
29. *Committee Document*, Brucellosis and Tuberculosis Eradication Campaign National Strategic Plan, pp. 1-2.

30. *Evidence*, Northern Territory Government, p. 56.

31. *ibid.*, p. 35.

32. *ibid.*, p. 58.

33. *ibid.*, p. 17.

34. *ibid.*, p. 58.

35. *ibid.*, p. 13; p. 55; p. 61.

36. *ibid.*, p. 63.

37. *ibid.*, p. 57.

38. *Hansard*, Senate Select Committee on Animal Welfare, Transport of Livestock in Australia, 24 April 1991, Metro Meats Limited, p. 687.

39. *ibid.*, pp. 678-679.

CHAPTER 3

THE IMPACT ON THE NORTHERN TERRITORY OF LARGE FERAL ANIMALS

Introduction

3.1 Most submissions lodged with the Committee recognised that feral animals, including those in the Northern Territory, have a significant adverse impact on the environment, public health and rural industries. For example, the Royal Society for the Prevention of Cruelty to Animals, Australia, (RSPCA Australia) stated:

> Feral animal groups pose one of the largest single threats to the whole nation, to the landscape and to the conservation of the more vulnerable Australian native species of flora and fauna. [They] also threaten the continuing viability of large numbers of Australian industries ...[1]

3.2 Other submissions and evidence given at public hearings expressed similar views. Commenting specifically on the impact of feral horses in the Northern Territory, the Australian Equine Veterinary Association told the Committee that control of brumbies "is an issue of national importance and urgency".[2]

3.3 However, doubts were expressed about the adverse impact of feral animals. The Australian and New Zealand Federation of Animal Societies (ANZFAS), recognised that feral animal populations "may cause agricultural or environmental damage" but maintained that "alleged damage" needs to be independently assessed and proven.[3]

3.4 In this chapter of the report, the Committee discusses the nature and extent of the impact of large feral animals in the Northern Territory. In particular, the Committee addresses the environmental, public health and economic impact of feral horses and buffalo.

Environmental Impact

3.5 It is difficult to generalise about the environmental impact of large feral animals in the Northern Territory. This is because of differing climatic and geographic conditions within the Territory and differences in population, distribution and habits of specific feral animals. For example, evidence presented to the Committee suggests that the environmental impact of water buffalo in the Top End has been "markedly adverse" and "very substantial"[4], whereas the impact of feral camels in Central Australia is more subtle.[5]

3.6 Nevertheless, Mr Bryce, an officer of the Northern Territory Department of Primary Industry and Fisheries, evaluated the environmental threat in the following terms:

> Buffalo and pigs are the most environmentally dangerous. Pigs probably will have to rate above buffaloes now and this is likely to be the case for the next 10 to 15 years. In central Australia, rabbits are the most dangerous, followed by horses. It would be fair to say that rabbits would be far and away the biggest problem ... Foxes are also significant.[6]

3.7 The Northern Territory Government maintains that the impact of feral animals on the environment is "widely accepted" and "in many instances patently obvious".[7] According to the Territory Government, feral animals reduce the productivity of land, degrade the natural environment and compete with native flora and fauna. Similar evidence was presented by government agencies and other interested groups. In particular, the Australian Conservation Foundation emphasised that feral animal control is necessary in order to preserve the biological diversity of Australia's natural environment.[8]

3.8 As indicated previously, the Committee also received evidence that disputed the nature and extent of the environmental damage caused by feral animals. The South Australian Federation of Animal Societies stated:

> Many of us believe that the impact of these animals on the environment is grossly exaggerated by those for whom the protection of the environment is a means to both earning a living and furthering their political agenda aiming at controlling everyone and everything. As for expert opinion on the environment, diametrically opposite views may usually be obtained by suitably picking the experts".[9]

3.9 In the following section of the report, the Committee considers the evidence it received on the environmental impact of horses, buffalo and other large feral animals in the Territory.

Horses

3.10 In its submission, the Australian Equine Veterinary Association stated that the feral horse "poses an enormous and well documented environmental threat in Northern Australia".[10] In support of this view, the Association referred the Committee to studies on feral horses in central Australia undertaken by the Conservation Commission of the Northern Territory.

3.11 When in Alice Springs, the Committee received briefings and was accompanied on inspections by Mr David Berman, the author of several of these studies. Mr Berman described the environmental impact of feral animals in central Australia in the following terms:

> Horses, like cattle, help denude large areas, force macropods ... from the areas that they have been feeding in. The horses foul waterholes with their carcasses when they die during drought and they can cause accelerated gully erosion.[11]

3.12 Mr Berman stated that there are very few areas of pasture in central Australia that can avoid the influence of feral horses. He explained that after rains, horses and cattle are found on flatlands close to water, feeding on palatable grasses. When this vegetation is removed, horses and cattle will move out from the waterholes. Feral horses, however, tend to move out more quickly than cattle. They search for better quality grasses whereas cattle have broader diets and will browse on the leaves of trees. Horses are also able to traverse difficult and hilly terrain and have been known to walk up to 50 kilometres from water to feed. By the time cattle need to move from the flatlands, horses have removed palatable vegetation in surrounding areas.[12]

3.13 In his evidence to the Committee, Mr Berman summarised the conclusions of his studies on feral horses in central Australia. He stated:

> During these studies we felt that there was a need to control feral horse numbers for environmental reasons because of the damage they are doing, to protect them from eating themselves out of house and home and dying of starvation during drought. I have seen many waterholes where there are 70 or 80 carcasses [of horses] that have perished during drought because they have run out of food or the waterhole has dried up. To avoid that situation, the horse numbers have to be kept lower.[13]

Buffalo

3.14 The Australian National Parks and Wildlife Service advised the Committee that large feral animals, particularly water buffalo, present an unacceptable environmental threat in Kakadu National Park. The potential of this impact was described as "devastating".[14] The Service stated that environmental impacts of buffalo include:

- vegetation damage through grazing and trampling;
- soil compaction;
- saltwater intrusion into low-lying freshwater swamps through breaching of natural levee banks by swim channels;
- wallowing and erosion;
- siltation and pollution of water bodies;
- noxious weed dispersal; and
- impact on other animals through modification of habitat.[15]

3.15 In its submission, ANPWS cited several scientific studies undertaken at Kakadu supporting its evidence to the Committee.[16]

3.16 During inspections in Kakadu, members of the Committee observed areas of the Park that have sustained significant and obvious damage from buffalo. Mr Andrew Skeat, an officer of ANPWS at Kakadu, presented historical material demonstrating adverse changes to the hydrology of the ecosystem in the Park. The Committee was also shown areas that have regenerated following the removal of buffalo.

3.17 In its submission to the Committee, the Northern Territory Government expressed similar concerns about the environmental impact of water buffalo on areas under its jurisdiction in the Top End. Officers of the Government expressed the view that if buffalo numbers are not reduced to manageable levels, "widespread environmental and ecological changes" would result throughout the Top End of the Northern Territory.[17]

Other Large Feral Animals

3.18 Evidence presented to the Committee also recognised that other large feral animals have an effect on the environment.

3.19 For example, the environmental impact of feral donkeys on the Victoria River Downs, an area in the north-west of the Territory, has been profound and well documented.[18] Little is known about the impact of camels on the environment of the arid areas in central Australia. This also seems to be the case with feral pigs, even though they are recognised by many as posing the most significant threat in the foreseeable future.[19]

Impact on Native Fauna and Flora

3.20 The Central Australian Conservation Council expressed concern about the influence of feral animals, including horses, on endangered native species in central Australia.

3.21 The Council maintains that proportionally, arid Australia has experienced the greatest species decline of any region in the world. According to the Council, forty-two per cent of all arid zone mammals are threatened and 14 species are extinct. This decline has resulted from the damage and fragmentation of the habitat of native species. Massive populations of feral animals, including horses, are largely responsible for the destruction of critical habitat.[20]

3.22 The Council provided the Committee with the following list of threatened or extinct mammals of the Australian arid and semi-arid zone.

Table 3.1: Threatened or extinct mammals of the Australian arid and semi-arid zone

Inland Western Quoll	Red-tailed Phascogale
Long Tailed Dunnart	Julia Creek Dunnart
Numbat	Golden Bandicoot
Western Barred Bandicoot	Desert Bandicoot*
Lesser Bilby*	Pig-footed Bandicoot*
Desert Rat-kangaroo*	Burrowing Bettong
Mala [Rufous Hare-wallaby]	Eastern Hare-wallaby*
Banded Hare-wallaby	Central Hare-wallaby*
Central Rock-rat*	Crescent Nailtail Wallaby*
Alice Springs Mouse*	Gould's Mouse
Lesser Stick-nest Rat*	Greater Stick-nest Rat
Long-tailed Hopping Mouse*	Short-tailed Hopping Mouse*
Pebble-mound Mouse	Dusky Hopping-mouse
Sandhill Dunnart	Kowari
Northern Hairy-nosed Wombat	Bilby
Central Brushtail Possum	Brush-tailed Bettong
Bridled Nailtail Wallaby	Black-footed Rock-wallaby
Yellow-footed Rock-wallaby	Ghost Bat
Shark Bay Mouse	White-footed Rabbit-rat*
Big-eared Hopping Mouse*	

* Indicates species that are extinct.

Source: Central Australian Conservation Council, *Threatened Mammals in Arid Australia*, p.3

3.23 Ms Nanette Smibert, Co-ordinator of the Council, described the effect of 80,000 feral horses in central Australia. She observed:

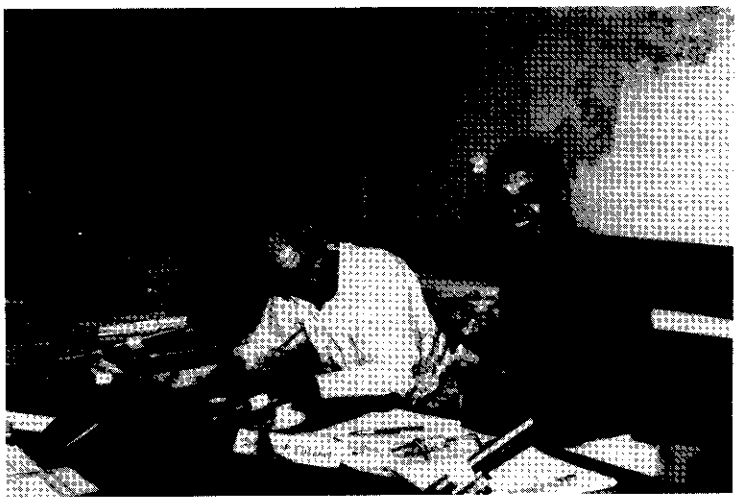
> They eat, they trample, use up the water, pollute the water; they cause very serious land and water degradation ... Land degradation means loss of habitat for native species.[21]

3.24 The Council concluded that "feral animals must be culled" but indicated that better controls, adequate resources and co-ordination across whole regions are needed.[22]

3.25 Representatives of the Council who appeared before the Committee maintained that "control measures for feral animals will be supported nationally and internationally if the full situation is understood".[23] An appreciation of broader issues, and in particular the plight of native species, would resolve any conflict between concerns for animal welfare and conservation.

3.26 The Council also stressed the need for "better [public] education and better targeting of education" on all of the issues involved in the culling of large feral animals.[24]

3.27 Dr Ken Johnson, Principal Wildlife Research Officer, Conservation Commission of the Northern Territory, also presented evidence on extinct and endangered native mammals, such as the rufous hare wallaby and the bilby.



At the Committee's public hearing in Alice Springs, officers of the Conservation Commission of the Northern Territory tabled a bilby.

"There does not seem to be one single cause for bilbies becoming extinct. There are layers of different impacts and feral animals have been a very significant part of that". Evidence, Conservation Commission of the Northern Territory, p. 121.

3.28 He expressed the view that the impact of feral animals on native mammals in central Australia over the last 50 years has been a "a disaster"[25] and that "feral animals have [played] a very significant part".[26] Although foxes and rabbits have been particularly implicated in this process, Dr Johnson advised the Committee that, "anything that eats grass ... puts extra stress upon [native species]".[27]

Land Management

3.29 The evidence presented to the Committee on the environmental impact of large feral animals raises the associated issues of land management and stocking rates.

3.30 Officers of the Northern Territory Government recognised that "many of the environmental impacts ... are purely the result of too many animals on a particular area of land, whether they be managed or unmanaged animals".[28] Therefore, there is a direct relationship between stocking levels, feral animal populations, and the capacity of the land to maintain them.[29] Mr Davis explained:

> At the moment, there are properties that are running large numbers of ferals and trying to ignore the fact that there are those numbers of ferals. They are saying, 'This property can run 40,000 head of cattle', and they are running 40,000 head of cattle when in fact the total stocking [with feral cattle or cattle equivalents] is probably 120,000.[30]

3.31 Dr Owen Williams, Regional Veterinary Officer with the Territory's Department of Primary Industries and Fisheries, maintained that pastoralists are now more aware of the land degradation and the need for sustainable usage of land. He advised the Committee that pastoralists "are now counting their stocking rates [including feral animal numbers] ... so that pasture quality is maintained". According to Dr Williams, a concerted program of education over the last 15 years has brought about a "major change in the philosophy of pastoralists" on stocking rates.[31]

Health Impact

3.32 Feral animals, particularly horses and buffalo in the Northern Territory, are recognised as potential entry points and reservoirs for major exotic diseases.

3.33 The Northern Territory Government advised the Committee that feral cattle, buffalo and pigs in coastal regions provide potential entry points for exotic diseases such as foot-and-mouth disease, screw-worm fly and swine fever. These populations, as well as feral horses and donkeys, are also potential vectors for diseases that do not occur normally in Australia.[32]

3.34 The Committee questioned officers of the Northern Territory Government on how an outbreak of an exotic disease might occur. Mr Allen Bryce, Acting Director, Veterinary Technical Services, Department of Primary Industry and Fisheries, responded:

> There are a number of possibilities ... We have got a large coastal population of feral horses, pigs and cattle. There is passing sea traffic. There is the possibility of refugee boats, or even fishing boats, carrying a goat or the possibility of any passing shipping dumping garbage overboard, either of which could be a carrier of, say, foot-and-mouth disease. The chances are not great but the effects of an outbreak could be catastrophic.[33]

3.35 The Committee also received evidence from other contributors that an outbreak of exotic diseases would be devastating to Australia's economy and, in particular, its export trade.[34] Mr Bryce elaborated on this matter in his evidence to the Committee. He stated:

> If [for example] we had a foot-and-mouth disease outbreak today, and we eradicated it today, it would affect our exports of livestock products, and would probably extend to other products ... It would affect those export markets for months, possibly years afterwards, as we would have to establish to the satisfaction of our trading partners that our efforts to eradicate the disease had been completely successful.[35]

3.36 The Territory Government recognised that it is difficult to quantify the likelihood of a particular exotic disease establishing itself in feral animals. According to the Government, the potential for an outbreak of exotic disease in feral animals exists and poses problems for effective control.[36] Mr Graeme Davis, an officer of the Conservation Commission of the Northern Territory explained:

> An exotic disease which occurs first in feral livestock populations may be difficult to detect because of the isolation of the populations, the fact that they are, by definition, unmanaged and uncontrolled ... Once those diseases are detected, it may be very difficult to eradicate or control them.[37]

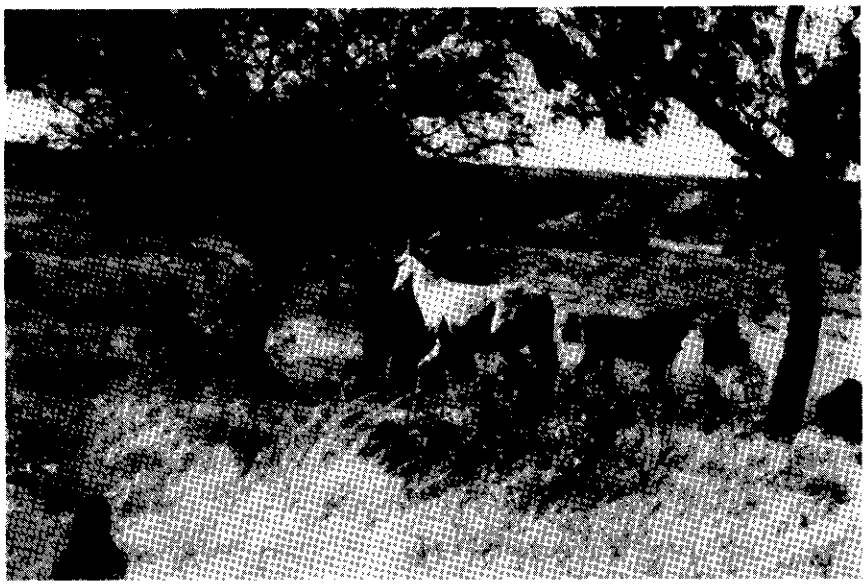
Economic Impact

3.37 The Northern Territory Government recognised that feral animals can have a positive economic impact. Feral animals, particularly cattle, buffalo and horses, have been mustered and trapped for domestication, abattoir processing or pet meat. For example, over 80 per cent of buffalo removed from the Northern Territory between 1983 and 1986 were removed by commercial operators. Officers of the Northern Territory Government told the Committee that "the Government has a policy of commercially utilising any wild animals it can".[38]

3.38 The Territory Government also recognised that feral animals have a significant negative impact on the pastoral industry in terms of stocking levels and productivity. For example, evidence to the Committee maintained that 100 feral horses remove forage which could support 45 to 128 cattle. The Government indicated that it has been estimated that the pastoral industry could be losing about $90 million per annum as a result of feral animal activity in the Northern Territory. This estimate does not include the hidden costs of long-term environmental degradation.[39]

3.39 The Government submission concluded that, although there are some positive economic benefits associated with feral animals, costs far outweigh benefits.[40]

3.40 In relation to feral animals, RSPCA Australia recognised that feral animals "threaten the continuing viability of large numbers of Australian industries that depend upon continuing growth and freedom from competition in the rural environment".[41]



Feral Donkey with Cattle

Research on Impact of Feral Animals

3.41 It was recognised by most contributors to the inquiry that more research on the impact of feral animals is necessary.

3.42 Dr Peter O'Brien, Principal Research Scientist, Bureau of Rural Resources, told the Committee that there is relatively little comprehensive, quantitative data on the impact of feral animals. He suggested that "there is a need for much more extensive long-term studies of impact".[42]

3.43 The Northern Territory Government expressed a similar view. It noted that, although the impact of feral animals is "widely accepted, relatively few detailed or rigorous studies have been conducted".[43]

3.44 Animal welfare groups including RSPCA Australia and ANZFAS also supported further research on the impact of feral animals on the environment. ANZFAS also recommended that studies ascertain the extent of alleged agricultural damage and resulting economic impact.[44]

Conclusions

3.45 On the basis of evidence presented during the inquiry, the Committee is left in no doubt that feral animals pose a major problem. In particular, horses, buffalo and other large feral animals have a significant adverse impact on the environment of Northern Territory. This manifests itself in degradation of the landscape and destruction of vulnerable Australian species of flora and fauna. Feral animals also have the potential to exacerbate problems arising from the introduction of exotic diseases.

3.46 Although in many instances the impact of feral animals is patently obvious and widely recognised, the Committee considers that quantitative research should be undertaken on the agricultural and environmental damage caused by individual species of feral animals. Specifically, the Committee considers that research should investigate the densities of feral populations, impacts and concomitant economic effects. In the Committee's view, such research would provide a better understanding of the damage caused by feral animals and might result in more practical and humane strategies of control.

3.47 *The Committee recommends that the Commonwealth Government, through its various research and funding agencies, extend research into the agricultural, environmental and economic impact of feral animals.*

ENDNOTES

1. *Evidence*, RSPCA Australia, p. 242.
2. *Evidence*, Australian Equine Veterinary Association, p. 217.
3. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 350.
4. G. Letts, *Feral Animals in the Northern Territory*, Government Printer, Darwin, 1979, p. 16.
5. *Evidence*, Northern Territory Government, p. 34.
6. *ibid.*, p. 25.
7. *ibid.*, p. 53.
8. *Submission*, Australian Conservation Foundation, p. 2.
9. *Submission*, South Australian Federation of Animal Societies, p. 2.
10. *Evidence*, Australian Equine Veterinary Association, p. 217.
11. *Evidence*, Conservation Commission of the Northern Territory, p. 124.
12. *ibid.*
13. *ibid.*, p. 125.
14. *Evidence*, Australian National Parks and Wildlife Service, p. 516.
15. *ibid.*, pp. 516-520.
16. *ibid.*
17. *Evidence*, Northern Territory Government, p. 29.
18. *ibid.*, p. 34.
19. *ibid.*
20. *Evidence*, Central Australian Conservation Council, p. 81.
21. *ibid.*, p. 103.
22. *ibid.*, p. 105.
23. *ibid.*, p. 89.
24. *ibid.*, p. 91.
25. *Evidence*, Conservation Commission of the Northern Territory, p. 119.
26. *ibid.*, p. 121.
27. *ibid.*
28. *Evidence*, Northern Territory Government, pp. 4-5.

29. *ibid.*, p. 30.

30. *ibid.*

31. *ibid.*, p. 135.

32. *ibid.*, p. 61.

33. *ibid.*, p. 33.

34. *ibid.*, p. 12.
Evidence, Australian Equine Veterinary Association, p.217.

35. *Evidence*, Northern Territory Government, p. 33.

36. *ibid.*, p. 61.

37. *ibid.*, p. 13.

38. *ibid.*, p. 9.

39. *ibid.*, p. 51.

40. *ibid.*

41. *Evidence*, RSPCA Australia, p. 242.

42. *Evidence*, Department of Primary Industries and Energy, p. 502.

43. *Evidence*, Northern Territory Government, p. 53.

44. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 350.

CHAPTER 4

EVIDENCE ON THE NEED TO CONTROL FERAL ANIMALS

Introduction

4.1 In the previous chapter, the Committee concluded that large feral animals have a major, adverse impact on the Northern Territory. In this chapter, the Committee reviews evidence on the need to control these feral animals and related moral, ethical and animal welfare issues.

4.2 Given the national and international debate associated with culling programs conducted in Australia, the Committee considers that it is important to record the views on these issues presented by various interested parties to the inquiry. The Committee also records general conclusions.

Views on Control of Feral Animals

4.3 Animal welfare groups that presented evidence to the Committee were not opposed to the culling of feral animals. Indeed, most organisations advocated the eradication of feral animals from the Australian environment. These organisations, however, registered strong concerns about the current methods used to control the populations of feral animals. In particular, helicopter shooting of feral animals was perceived by some as a cruel and inhumane method of control.

4.4 RSPCA Australia strongly favours the destruction and culling of feral animals.[1] The Society gave the following reasons for its views:

> Not only is it important to cull feral species from the point of view of preserving uniquely Australian species, it is also important from the point of view of preserving a broader genetic heterogeneity. Another important reason for culling feral animals is to preserve a lifestyle in Australia for the human species.[2]

4.5 In evidence to the Committee, Dr Hugh Wirth, President of the Society, stated unequivocally that "there is no position in Australian environmental systems for feral animals".[3] He went on to say, however, that feral animals, as sentient creatures, deserve to be eradicated or reduced in number by humane methods.[4]

4.6 In its submission to the Committee, the Australian and New Zealand Federation of Animal Societies recognised that "there may be a case for reducing the number of feral animals in a particular area".[5] When questioned on the control of feral animals, including horses, Ms Glenys Oogjes, Director of ANZFAS, replied:

> We certainly have no problem with the elimination of the horses ... We come at it purely from an animal welfare point of view. If the animals are there, and it is a very hard life for them and they are seen as causing a problem, then their eradication is, from a welfare point of view, a better idea.[6]

4.7 The Federation, like RSPCA Australia, expressed strong concerns about current methods of control including helicopter shooting and transport to abattoirs for slaughter.

4.8 Conservation groups, including the Australian Conservation Foundation and the Central Australian Conservation Council, are concerned about the damage feral animals cause to Australia's unique flora and fauna and support controlled and humane programs of control.[7]

4.9 Biblical references were also referred to the Committee as guidance on this issue. The Calvinistic Political and Social Association indicated that "animals were and are given for food" and mankind has "dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth". According to the Association, this dominion must be balanced with responsibility. The Association concluded that culling can be an effective way of stopping damage to a certain environment and over-population of a certain animal in a particular area.[8]

4.10 The Committee also thought it important to hear the views of Aborigines on the culling of large feral animals in the Northern Territory. Accordingly, representatives of the Central Land Council were invited to give evidence at public hearings held in Alice Springs.

4.11 The Committee was advised that dramatic changes in land use have occurred since white settlement of the Territory. Although feral animals have contributed to these changes, Aborigines now perceive these animals as "an attractive alternative source of food, income and employment and ... as part of a modified economic resource base for Aboriginal people".[9] Many Aborigines are reluctant to give their consent to the eradication of a valuable resource. Feral animals are considered a part of the country, and not as exotic animals that "do not belong". The damage done by feral animals is perceived largely on a localised level and widespread, more subtle land degradation is not recognised as a major problem.[10]

4.12 Mr David Alexander, Co-ordinator Land Management, Central Land Council, told the Committee that, in general, Aboriginal people consider that feral animals need to be "managed, domesticated and looked after" rather than eradicated.[11] He observed, however, that there is not an "Aboriginal point of view", but "many different views" on these issues.[12]

4.13 Representatives of the Council stressed the need for consultation with Aboriginal people on feral animal control. According to the Council, Aborigines, as owners of large areas of the Northern Territory, should be involved in the decision-making process on feral animals.[13]

4.14 Other submissions lodged with the Committee also recognised that some feral animals should have a place in the Australian environment. For example, it was suggested to the Committee that brumbies, along with buffalo, camels, donkeys and cattle, are part of the twentieth century Australian environment and that it should be possible for them "and our beautiful nation to live together and accommodate each other".[14] Brumbies, and in particular the wild descendants of horses developed for use in the First World War, were recognised as an integral part of Australia's heritage.[15]

Government Policies

4.15 The Commonwealth Government's position is that the number of introduced wild species, including feral horses, need to be reduced periodically to levels that are compatible with the conservation of the environment and the welfare and long-term survival of all animals which share their habitat.[16]

4.16 The Government, through various agencies, has also published several statements on the culling of feral animals. For example, in 1990, the Australian National Parks and Wildlife Service and the Bureau of Rural Resources produced a broadsheet entitled **Feral Animals in Australia**. This publication states that "because feral animals did not evolve in Australia, they have no place in the Australian environment or agriculture and must be controlled".[17]

4.17 In 1989, the Department of Foreign Affairs produced a fact sheet for international use entitled **The Management of Feral Horses in Australia**. This publication recognises the need to reduce the numbers of these animals. The information sheet states:

> The threat to Australian wildlife is now so great that culling of feral animals is vital ... Feral horses destroy feed, cause soil erosion, damage fences on pastoral properties and could act as a potential reservoir of exotic diseases. Under these circumstances, feral horses must be considered a threat to Australia's national priorities.[18]

4.18 The Northern Territory Government also maintains that the control of large feral animals is essential.

4.19 Officers of the South Australian Government supported the total elimination of feral animals. For example, Dr Geoffrey Neumann, Principal Veterinary Officer, South Australian Government stated:

> We should have in place policies which say we are going to eliminate [the feral animal] problem. Unpleasant though it may be, in that it may have some animal welfare connotations, it should be a one-way trip and we should not be culling feral animals 20 years down the track.[19]

Conclusions

4.20 The Committee agrees with the overwhelming opinion expressed in evidence that feral animals and, in particular, large feral animals in the Northern Territory, such as horses, buffalo and donkeys, must be controlled. Ideally, total eradication should be the goal of control programs.

4.21 In the Committee's view, animal welfare considerations must be taken into account when programs are developed to control or eradicate feral animals. In particular, the Committee considers that specific methods of control must be implemented in a manner that causes a minimum of suffering to animals.

4.22 In the next chapter of the report, the Committee considers current methods of control.

ENDNOTES

1. *Evidence*, RSPCA Australia, p. 233; p. 327.
2. *ibid.*, p. 242.
3. *ibid.*, p. 319; p. 327.
4. *ibid.*, p. 319.
5. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 349.
6. *ibid.*, p. 374.
7. *Submission*, Australian Conservation Foundation, p. 1.
   Evidence, Central Australian Conservation Council, p. 89.
8. *Submission*, Calvinistic Political and Social Association, pp. 1-2.
9. *Evidence*, Central Land Council, p. 157.
10. *ibid.*, p. 159.
11. *ibid.*, p. 159; p. 197.
12. *ibid.*, p. 205.
13. *ibid.*, p. 196.
14. *Submission*, Ms S. Rowley, p.2.
15. *ibid.*
16. *Correspondence*, Department of Primary Industries and Energy, 8 January 1991.
17. Australian National Parks and Wildlife Service and Bureau of Rural Resources, *Feral Animals in Australia*, Canberra, 1990, p. 2.
18. Department of Foreign Affairs and Trade, *The Management of Feral Horses in Australia*, Fact Sheet, No. 26, July 1989, p.1.
19. *Hansard*, Senate Select Committee on Animal Welfare, Transport of Livestock within Australia, 23 April 1991, South Australian Government, p. 617.

CHAPTER 5

CURRENT METHODS OF CONTROL

Introduction

5.1 Several methods of control are used to control large feral animals. These methods of control include muster and transport to slaughter or domestication, ground shooting and helicopter shooting.

5.2 Of all the issues raised in evidence, the methods employed to control large feral animals attracted the most concern. Over recent years, this concern has prompted national and international protests about the perceived cruelty of control methods used in Australia, particularly the shooting of feral horses and buffalo from helicopters.

5.3 The Committee recognises that sections of the Australian community are concerned about control methods used in this country. The Commonwealth Department of Primary Industries and Energy also advised the Committee that international concerns have the capacity to damage Australia's international image and the potential to affect adversely the tourist industry and export trade.[1]

5.4 In this chapter, the Committee considers the following matters:

- implementation of methods of control;
- muster and transport of feral animals; and
- helicopter shooting.

Implementation of Methods of Control

5.5 Although the procedures adopted to control large feral animals depend on the species involved, methods used to control horses and buffalo follow a similar pattern.

5.6 Firstly, commercial use of feral animals is encouraged. Some animals are mustered and trapped for domestication or introduction into controlled herds. Most, however, are mustered, yarded and transported to abattoirs for slaughter, processing and sale. Buffalo and horse-meat from the Top End have been supplied to local and overseas markets for human consumption and pet meat. Horse-meat from central Australia is exported for human consumption. Commercial use is viable when animals are abundant and readily accessible.[2]

5.7 The submission of the Australian National Parks and Wildlife Service confirmed that the preferred option of ANPWS is for feral cattle and buffalo to be mustered for sale or slaughter at an abattoir.[3]

5.8 Usually, mustering of feral horses is done by helicopters. Trapping is centred around natural or artificial waterholes and therefore is more effective during dry periods when there are fewer watering points and better ground access for transport.

5.9 Commercial use of large feral animals is not always possible. For example, the numbers of feral animals may make the operation uneconomic. Rough and inaccessible terrain also makes mustering from the ground and air difficult. Additionally, not all feral animals have an economic use. For example, the Committee was advised that feral horses from central Australia cannot be used for pet meat. A toxin from **indigofera** plants, which grow in the area and are eaten by feral horses, accumulates in horse-meat and is poisonous to dogs.[4]

5.10 Secondly, when harvesting is uneconomic, lethal methods of control are applied. Lethal methods include "shooting to waste" from the ground and from helicopters.

5.11 Shooting from the ground is "often considered the most effective and often the only method for humanely destroying feral animals".[5] This view, expressed by the Northern Territory Government, is supported by animal welfare groups such as RSPCA Australia. Based on its work with ANPWS in relation to the culling of kangaroos, the Society considers that one bullet placed in the brain of an animal where it stands can only be considered a humane death.[6]

5.12 Information papers on the control of feral animals prepared by the Commonwealth Department of Primary Industries and Energy also recognise that shooting from the ground is the most humane method of culling, especially when the marksman and target are both stationary.[7] The Committee concurs with these views.

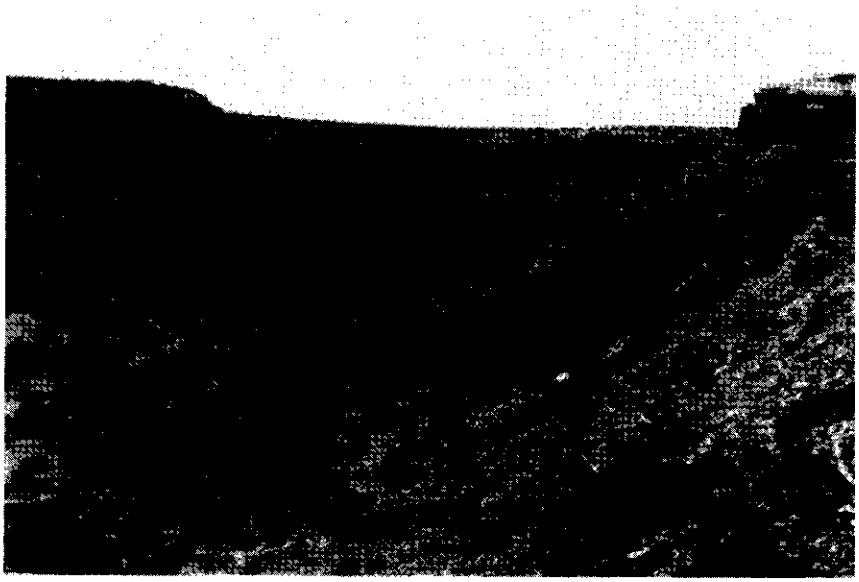
5.13 According to the Northern Territory Government, shooting from the ground is implemented when foot or vehicle access is good, the control area is small and the temperament of the animal allows a close approach.[8] It is impractical where large-scale control is required, access is difficult and rapid pursuit by vehicle is impossible. The Territory Government maintains that shooting from the ground is "only applicable to very restricted areas in the Northern Territory". Therefore, control by shooting from helicopters is necessary.[9]

5.14 According to the Territory Government, shooting from helicopters "is the end of the queue in terms of the choice of methods used".[10] The submission from the Northern Territory Government identified three prerequisites for shooting from helicopters. These are:

- commercial possibilities have been exhausted;
- mustering and trapping methods fail or are not possible because terrain is inaccessible except from the air; and
- suitably trained pilots and shooters are available.[11]

5.15 Mr Graeme Davis from the Territory's Conservation Commission stressed that a significant proportion of feral horses and buffalo have been mustered for commercial use. He added:

> Killing from helicopters is certainly not the only option. Unfortunately, it is the only method that remains once commercial utilisation has been completed ... If we are to effect reasonable reductions in numbers, helicopter culling is the only method we currently have at our disposal.[12]



Rugged and inaccessible terrain west of Hermannsburg, Northern Territory.

"Shooting from the ground is impractical in most instances where large scale control is required, where access is difficult and rapid pursuit by foot or vehicle is impossible". Evidence, Northern Territory Government, p. 65.

5.16 The Northern Territory Government maintains that culling of large feral animals is carried out with due regard for the welfare of animals involved. According to the Government, the control methods involve the lowest level of suffering which current technology can provide, consistent with effective control.[13]

5.17 The Government maintains that the transporting of feral animals, particularly horses, or their instantaneous death by gunshot from the field is relatively humane when compared with death by starvation or thirst.[14]

5.18 Officers of the Territory Government advised the Committee that personnel involved in the control of feral animals adhere to the Model Code Of Practice on the Welfare of Feral Animals adopted by the Australian Agricultural Council in 1989.[15]

5.19 Animal welfare groups raised significant concerns about current control methods. For example, ANZFAS maintains that all methods currently used to control feral animals have severe problems and reliance on them hinders the development of humane, non-lethal, long-term strategies.[16]

5.20 In response to questions from the Committee on the relative merits of current control methods, representatives of the animal welfare organisation indicated that it was not possible to choose between them "because we reject them".[17] Ms Oogjes added, however, that if feral animals were mustered as part of a control operation "my opinion is that they should be yarded and shot [with a silencer] rather than subjected to the rigours of transportation".[18] Dr John Auty, Honorary Technical Adviser, ANZFAS, offered the following comment:

> I am a simplistic fellow. I say, shoot them in the head, on the ground, when you have an opportunity shot, and keep on doing it and keep on doing it.[19]

5.21 The Federation registered its opposition on animal welfare grounds to the transport of feral animals, particularly feral horses, and helicopter shooting. These matters are considered in the following sections of this chapter.

Muster and Transport of Feral Animals

5.22 As indicated previously, feral buffalo and horses are mustered, yarded and transported to abattoirs by commercial operators.

Buffalo

5.23 Officers of the Northern Territory Government explained the basis of the buffalo harvesting industry. Mr Bryce stated:

> Traditionally, ... the buffalo industry has been based not on farming of livestock but on harvesting of feral livestock. The simple principle is that you go out once a year ... and take out the animals that you can catch and that are marketable and the remaining animals become your breeding population.[20]

5.24 Although helicopters are used at times, feral buffalo are usually rounded up by bull catchers — stripped down four-wheel-drive vehicles.

5.25 As a result of the BTEC program, the buffalo harvesting industry is currently in a "dormant phase".[21] Officers of the Territory Government, however, predicted that the industry would be re-established.[22]

5.26 The Committee questioned officers of the Territory Government on the animal welfare aspects of the buffalo harvesting industry. Mr Bryce observed that economics and self-regulation play a role in safeguarding animal welfare. He explained:

> Economics obviously comes into it. It is not useful to muster animals if you get them into a yard and find it is impossible to get them to an abattoir, for example. That is the general aim, so a good stockman is going to get a better return from his operation by treating animals in a humane manner ... Often they are contractors who are doing a job and they are not going to be employed if they have a bad reputation for the way they present animals once they have been mustered".[23]

5.27 He also advised the Committee that the Model Code of Practice relating to feral animals applies to private commercial operators in the buffalo harvesting industry as well as government personnel. It was suggested that when the harvesting industry resumes the code should be distributed and its importance promoted to the industry.[24] The Committee has addressed this matter in Chapter 2 of the report.

5.28 The Committee also questioned officers of the Australian National Parks and Wildlife Service about the removal of buffalo from Kakadu National Park.

5.29 Officers of the Service advised that contracts are let by public tender for the live capture and removal of stock from the Park by private contractors. The Northern Territory Department of Primary Industry and Fisheries usually supervises these procedures.[25]

5.30 An example of one of these contracts, tabled in evidence to the Committee, contains the following conditions:

- stock shall be handled or destroyed in a humane manner;
- as soon as practicable after capture, all stock shall be transported to the abattoir; and
- while stock are awaiting transport or slaughter, proper and adequate food and water shall be provided.[26]

5.31 Although contracts for the removal of stock address animal welfare considerations, ANPWS raised concerns about procedures associated with the muster and transport of buffalo. For example, the submission of ANPWS contained the following description of mustering operations in Kakadu.

> Mustering operations entail the running up of stock by helicopters with sirens. These animals are concentrated towards a trap, where they are herded into a yard by four-wheel-drive vehicles. From the yard, animals may be loaded and transported directly to the abattoir or to another holding yard. In some situations, stock have endured holding in yards for up to seven days before reaching the abattoirs. During the operation, animals are often stressed as they

> may be rammed by vehicles, prodded with electronic shocks, branded and held in yards where at times conditions are unsuitable.[27]

5.32 ANPWS also indicated that stock officers have observed losses due to poor condition, constriction, dehydration, injuries incurred during capture and heat stress.[28]

Conclusions

5.33 The Committee recognises that the Australian National Parks and Wildlife Service places considerable importance on animal welfare considerations. Nevertheless, the Committee is of the view that the Service must take a more positive role to safeguard the welfare of feral animals and, in particular, buffalo removed by private contractors from Kakadu National Park.

5.34 *The Committee recommends that the Australian National Parks and Wildlife Service let contracts for removal of feral animals only to those private contractors who can satisfy the Service that they pay due attention to the welfare of animals. Additionally, contracts for the removal of feral animals should contain provisions for immediate termination if there is evidence of maltreatment or inattention to the welfare of stock.*

Horses

5.35 Feral horses in the region of Alice Springs are mustered and transported to an abattoir at Peterborough in South Australia. The horse-meat is exported for human consumption. The Committee addresses issues relating to the transport of livestock, including feral horses, in a forthcoming report.

5.36 Several witnesses who appeared before the Committee were opposed to the muster and transport of horses. For example, the Australian Equine Veterinary Association maintains that the transport of captured feral horses over distances of up to 3,000 kilometres to abattoirs for the horse-meat trade "is untenable and inhumane".[29] The Association explained its view on this matter in the following terms:

> This experience would be a significant stress for a domestic horse used to travelling but must be quite horrific for a trapped wild horse.[30]

5.37 The Association considers that the inherent problems in the handling, shipping and holding of feral horses are sufficient to stop the use of feral horses in the export horse-meat trade.[31]

5.38 According to the Association, the percentage of the export horse-meat trade that is supplied by feral horses has fallen from about 80 per cent to about 25 per cent.[32] Representatives of the Association told the Committee that the

domestic horse population, "so many of which are neglected, undernourished or foundered", could supply this market.[33] The use of domesticated horses for this purpose was also supported by RSPCA Australia.[34]

5.39 Although recognising the need to control feral animals, ANZFAS is opposed to the commercial utilisation of wildlife, particularly the transport and slaughter of feral equines. The Federation stated that "there is much opportunity for abuse — deliberate or inadvertent — of transported animals". According to ANZFAS, economic or resource-based arguments should not take precedence over the welfare of feral animals. Transport to distant slaughter facilities is not consistent with due regard to animal welfare and therefore cannot be supported.[35] Ms Oogjes of ANZFAS expressed concern about transport methods and the long distances involved and described the whole process as "quite horrific".[36]

5.40 This view is not shared by other animal welfare organisations, such as the Australian Federation for the Welfare of Animals, which considers that problems with feral animals would be reduced "if the feral animal has a cash value for its meat and an industry can be built around the culling of these animals".[37]

5.41 Although it supports the commercial utilisation of feral animals, the Northern Territory Government recognised that the transport of horses "appears cruel" and "conditions for horses during transport should be looked at to identify where improvements could be made".[38]

5.42 The Committee notes that the Bureau of Rural Resources has conducted a study on this matter entitled **Welfare of Horses being Transported**. Although information from particular abattoirs shows that between 0.5 and 3.00 per cent of horses die or are injured significantly, direct observation of consignments to abattoirs indicate that this figure may be as high as 18 per cent.[39]

5.43 The report concludes that improvements in the welfare of transported horses are necessary. The report identifies five major areas of reform including:

- vehicle design;
- rationalisation of State legislation;
- licensing of transporters with penalties for breaches of animal welfare guidelines;
- new abattoirs close to areas of mustering; and
- further research, including research into double-decked transport of horses.[40]

5.44 The report of the Bureau of Rural Resources identifies several concerns that were also raised with the Committee during its inquiry.

5.45 Firstly, the use of double-decked trucks is seen by many as inhumane as horses on the lower deck cannot raise their heads above wither height. This results in higher levels of stress and injuries. Proponents of double-deckers argue that injuries occur on the top deck no more frequently than on single-deckers where conditions are similar. It is also maintained that horses selected for size can be transported in double-deckers without any increased injury problems. These views are supported by a study conducted in 1987 by Mr John Lapworth, an officer of the Queensland Department of Primary Industries.[41]

5.46 The Committee notes that double-deck transport of horses was banned in New South Wales in 1987 and that an on-going review is being conducted in Queensland.

5.47 Secondly, welfare problems occur as a result of the long distances that horses must travel. The report of the BRR indicates that horses from the Gulf of Carpenteria are transported by train to Brisbane and by truck to Peterborough in South Australia. They are also transported to Peterborough from the Northern Territory and Western Australia.[42]

5.48 The South Australian Government advised the Committee that Peterborough is likely to be the only horse abattoir left in Australia and that feral horses are likely to be transported hours in excess of the current guidelines contained in the Model Code of Practice. It was suggested that a network of rest or emergency stops on major transport routes, rostering of two drivers on long trips to eliminate driver rest stops and further education programs would contribute to improved treatment of animals.[43]

5.49 Thirdly, although there seems to be a degree of self-regulation in the industry, particularly on the part of the management of abattoirs, "certain people employed in the horse transport industry do not place a high degree of importance on the welfare of the animals they are transporting".[44]

5.50 As part of its inquiry into the transport of livestock within Australia, the Committee went to Adelaide to hear evidence from State Government officials. It also went to Peterborough to inspect the abattoir and to hear evidence from a representative of Metro Meats Limited, the proprietor of the abattoir. During the course of the public hearings, evidence was given on the use of feral horses in the export horse-meat trade.

5.51 Dr Mary Barton, Chairperson of the South Australian Animal Welfare Advisory Committee expressed strong concerns about the transport of feral horses. She commented that "there are pretty disastrous animal welfare issues in trying to transport wild horses, especially if Peterborough is going to be the one place that is going to be slaughtering them".[45] In advocating the elimination of feral animals, Dr Neumann, an officer of the South Australian Government observed that "it is important that we do not make an industry out of the culling of feral animals".[46]

5.52 Mr Peter Hubbard, the Manager of the Metro Meats' abattoir at Peterborough, rejected claims that the transport of feral horses over long distances was inhumane. He advised the Committee that "if there were a serious problem with the transportation of animals over long distances, there would have been a lot more action a lot sooner".[47] According to Mr Hubbard, the Peterborough abattoir has encouraged the highest standards in transportation, holding, feeding and managerial control of feral horses. These standards are supervised by a Commonwealth veterinarian at the abattoir. Mr Hubbard stated:

> I believe that the results we are achieving today are far superior to those being achieved currently for beef, sheep or, indeed pigs. Having achieved those results I therefore feel that the industry is exhibiting that it can self-regulate.[48]

5.53 Of the 30,000 domestic and feral horses slaughtered at Peterborough annually, approximately 60 are dead on arrival. Mr Hubbard observed that this rate compared more than favourably with the attrition rate of other livestock being transported to slaughter.[49]

5.54 When questioned on the stress and trauma associated with the transport of feral horses, Mr Hubbard replied that the horses are slaughtered in sound condition and that the dressing of meat does not show signs of stress resulting from long journeys.[50]

Conclusions

5.55 On the basis of evidence presented during the inquiry, the Committee registers strong concerns about the welfare of feral horses being transported, particularly over long distances. The Committee considers that the prolonged stress and trauma associated with this practice is unconscionable and cannot be condoned. The inherent welfare problems involved in handling, transporting and holding feral horses are sufficient to raise serious questions about their continuing use in the export horse-meat trade.

5.56 *The Committee recommends that the Minister for Primary Industries and Energy, in consultation with other members of the Australian Agricultural Council, review the continuing use of feral horses in the export horse-meat industry, with particular regard to animal welfare issues associated with this industry.*

5.57 If feral horses continue to be transported and used for commercial purposes, the Committee considers that the study by the Bureau of Rural Resources entitled **Welfare of Horses Being Transported** contains positive recommendations on improvements to the welfare of feral horses being transported.

5.58 *The Committee recommends that the Minister for Primary Industries and Energy, in consultation with other members of the Australian Agricultural Council, consider, and where appropriate, implement the recommendations contained in the working paper by the Bureau of Rural Resources on the* ***Welfare of Horses Being Transported****.*

5.59 If feral horses continue to be transported and used for commercial purposes, the Committee reaffirms its view that the **Model Code of Practice for the Welfare of Animals: Destruction or Capture, Handling and Marketing of Feral Livestock Animals** should be published in an authoritative format and made readily available.

5.60 The Committee places on record its strong concerns about the use of double-decked vehicles to transport feral horses. The Committee intends to address this matter in greater detail in its forthcoming report on Transport of Livestock within Australia.

Helicopter shooting

5.61 During the inquiry, the most contentious issue related to the shooting of feral animals from helicopters. This method of control has also been perceived by overseas animal welfare groups as cruel and inhumane. The Committee, therefore, considers that it is important to record in some detail the evidence on this difficult and emotive issue.

5.62 According to the Territory Government, shooting from helicopters "can be quick, effective and relatively humane method" of controlling large feral animals".[51] Helicopters can approach feral animals closely, facilitating a clearer and more accurate shot than may be possible from the ground. Helicopters also allow speedy follow-up and dispatch when animals are wounded. Similar comments on heiicopter shooting were expressed by the Australian National Parks and Wildlife Service.[52]

5.63 The Territory Government considers that culling operations conducted by Government personnel from helicopters are "of a very high standard" and "result in a quick, humane death".[53] Remoteness and difficult terrain make helicopter shooting, in most instances, the only practical and cost-effective method of control. The Northern Territory is of the view that helicopter shooting must remain available to authorities as an option in feral animal control.[54]

5.64 The Department of Primary Industries and Energy also recognises that, in certain instances, helicopter culling is the "preferred and humane method" of controlling large species, such as horses, donkeys, buffalo and pigs, when they congregate in remote, rugged and inaccessible terrain.[55] To be humane, helicopter shooting must be correctly planned and conducted by well-trained and competent government or government-supervised personnel.[56]

5.65 In relation to Kakadu National Park, which is managed by a Commonwealth Government agency, officers of ANPWS confirmed the approach noted in previous paragraphs. When questioned by the Committee on the need for helicopter shooting in the Park, Mr Hill replied:

> We do not believe, at this stage, given the extent of the area we have to cover and the distribution of buffalo, that there is any real alternative to [helicopter shooting] in the foreseeable future.[57]

"During dry times, I have seen up to 300 feral horses waiting to get a drink at one waterhole ... when that water hole dries up the horses die if they know no other water hole". Evidence, CCNT, p. 126.

5.66 During the inquiry, the Committee travelled to the Northern Territory and took evidence from several witnesses involved in practical, day-to-day aspects of feral animal control, including helicopter shooting.

5.67 The Committee spent an afternoon with Mr David Lindner, an officer of the Gagudju Association in Kakadu and a person with many years' experience with feral animals. When questioned about control methods, Mr Lindner observed:

> If I were a buffalo and I had to go out by the whim of man, I would prefer to go out being shot from a helicopter.[58]

5.68 Mr Ross Bryan, an officer of the Conservation Commission of the Northern Territory, is a "horse lover", races horses and has been associated with horses all his life. He told the Committee that his job is to shoot feral horses.[59]

5.69 When questioned about the relative merits of control methods, Mr Bryan concurred with the proposition that shooting from helicopters is "the quickest and most efficient" control method currently available.[60]

5.70 Mr David Berman, an officer of the Territory's Conservation Commission and the author of several studies on feral horses in central Australia, impressed the Committee with his concern for the welfare of these animals. Mr Berman found it difficult to assess, on animal welfare grounds, the relative merits of shooting horses from helicopters and mustering. In relation to helicopter shooting, he observed that "it would be a very quick [death] for most of them".[61] He stressed, however, that the trauma associated with these methods of control did not compare with the agony associated with horses dying from thirst or disease during periods of drought.[62]

5.71 Members of the Committee were impressed with the sincerity and the unanimity of views expressed independently by these witnesses.

5.72 RSPCA Australia recognised that there are "positive and negative" aspects to current methods of control but indicated that the Society is adamantly opposed to the killing of animals from moving platforms and, in particular, helicopters.[63] When questioned on this view, however, Dr Wirth replied:

> There are a number of cases where eradication of feral animals from, say, a helicopter, might be condoned by the RSPCA. That, first and foremost, would be where there is no other method currently available. Secondly, where the people who are the shooters from the moving platform are properly trained with respect to the difficulties of shooting from that moving platform. Thirdly, where the weapons that are used are the correct weapons, ballistically speaking, for the job in hand. I have to say that the RSPCA's experience ... has usually been that the people involved are not trained for the job at hand. In other words, their accuracy as sharpshooters leaves much to be desired, they have chosen the wrong weapons for the job in hand and they have not taken into account the variable problems of a moving platform.[64]

5.73 When questioned further on the position of RSPCA Australia, Dr Wirth elaborated in the following terms:

> Perhaps I have not phrased it correctly. The RSPCA is of the opinion that moving platforms, as a general rule, should never be used, rather than just a blanket disallowance. But in certain circumstances where there is no other alternative, and provided all safeguards are in place, such as I have described, we would not stand in the way of that.[65]

5.74 RSPCA Australia emphasised that endorsement of helicopter shooting encourages the "quick fix" response rather than co-ordinated, planned and supervised programs based on the welfare of the animals.[66]

5.75 The issue of helicopter shooting was also raised with representatives of the Australian and New Zealand Federation of Animal Societies. When questioned on evidence concerning helicopter shooting and whether "it had its place" as a control method, Ms Oogjes responded:

> Not a long-term place, no. If there is reliance on that method to the exclusion of trying to develop new methods, we do not accept it; we do not believe that all animals are going to be killed humanely. Obviously, it is true that in some areas that is the only way to make access. But that is only the reason it has developed; that does not mean that it is a good way to do things. We certainly cannot accept it on a long-term basis.[67]

5.76 When questioned further on the Federation's view on how an immediate and perceived feral animal problem should be addressed, Ms Oogjes responded:

> What we are saying is that if a government, or any organisation that authorised feral animal reductions, is going to rely on these inhumane methods, then it must also make active contributions to looking for long-term solutions [such as fertility control]. It is in its own interest as well as the animal welfare interest.[68]

5.77 The Federation concluded that current methods are "fatally flawed"[69] and that political commitment and meaningful research support should be given to humane, non-lethal methods of feral animal population control and in particular fertility control. The Committee addresses alternative control methods in the following chapter.

5.78 The Australian Veterinary Association, incorporating the Australian Equine Veterinary Association, expressed the view that, on the balance of current evidence, strictly controlled helicopter shooting presents the most humane technique for a large-scale culling program of feral horses.[70]

Conclusions

5.79 The Committee has recorded in detail the evidence it received on the shooting from helicopter of large feral animals, particularly in the Northern Territory. This evidence highlights the difficult, complex and emotive issues associated with this method of control. The Committee commends those who presented this evidence and in particular the animal welfare groups for their candid and considered responses.

5.80 Clearly, helicopter shooting is repugnant to both RSPCA Australia and ANZFAS. The Committee, however, gained the clear impression that representatives of both bodies who appeared at public hearings accepted, with

considerable reluctance, that professional and responsible helicopter culling operations may be necessary as a last resort where no other method is available.

5.81 Having observed the rugged and inaccessible terrain that feral animals inhabit in the Northern Territory, the Committee recognises that the preferred and most humane method of shooting from the ground is seldom a feasible method of controlling large populations of feral animals. Under these circumstances, the Committee considers that shooting from helicopters is the only practical method of control. In the Committee's view, helicopter shooting represents the most humane method of controlling feral animals in inaccessible locations.

5.82 This conclusion weighs heavily with the Committee, as several witnesses recognised that helicopter shooting will invariably result in the inhumane death of some animals. This reality, however, must be weighed against the threat feral animals pose to native flora and fauna, the environment and public health. It must also be balanced against the distressing and agonising death of thousands of feral animals occasioned by drought and starvation.

5.83 Having considered all the evidence, the Committee is convinced that helicopter shooting of feral animals should continue. Nevertheless, it recognises, as was suggested in evidence, that "it is the best of a bad lot".

5.84 It is the Committee's view that procedures associated with helicopter shooting must be improved. These improvements will ensure a professional, responsible approach to helicopter shooting and in turn reduce the possibility of animals suffering. These matters are addressed in detail in the following chapter.

ENDNOTES

1. *Evidence*, Department of Primary Industries and Energy, p. 477.
2. *Evidence*, Northern Territory Government, p. 63.
3. *Evidence*, Australian National Parks and Wildlife Service, p. 580.
4. *Evidence*, Northern Territory Government, pp. 63-64.
5. *ibid.*
6. *Evidence*, RSPCA Australia, p. 321.
7. *Correspondence*, Department of Primary Industries and Energy, 8 January 1991, p. 9.
8. *Evidence*, Northern Territory Government, p. 65.
9. *ibid.*, p. 72.
10. *ibid.*, p. 9.
11. *ibid.*, p. 65.
12. *ibid.*, p. 9.
13. *ibid.*, p. 72.
14. *ibid.*, p. 65.
15. *ibid.*, p. 67.
16. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 378.
17. *ibid.*, p. 387.
18. *ibid.*
19. *ibid.*, p. 388.
20. *Evidence*, Northern Territory Government, p. 15.
21. *ibid.*
22. *ibid.*, p. 16.
23. *ibid.*, p. 21.
24. *ibid.*, p. 16.
25. *Evidence*, Australian National Parks and Wildlife Service, p. 522.
26. *ibid.*, pp. 543-562.
27. *ibid.*, p. 522.
28. *ibid.*, p. 523.

29. *Evidence*, Australian Equine Veterinary Association, p. 217.

30. *ibid.*

31. *ibid.*

32. *ibid.*, p. 223.

33. *ibid.*, p. 217.

34. *Evidence*, RSPCA Australia, p. 328.

35. *Evidence*, Australian and New Zealand Federation of Animal Societies, pp. 358-359.

36. *ibid.*, p. 376.

37. *Submission*, Australian Federation for the Welfare of Animals, p. 3.

38. *Evidence*, Northern Territory Government, p. 65.

39. Bureau of Rural Resources, *Welfare of Horses Being Transported*, BRR, Canberra, 1990, p. 3.

40. *ibid.*, pp. 4-5.

41. J. Lapworth, *Double Deck Transport of Horses, May 1987.*

42. *ibid.*, p. 12.

43. *Submission*, South Australian Government, p. 1.

44. Bureau of Rural Resources, *op.cit.*, p. 39.

45. *Hansard*, Senate Select Committee on Animal Welfare, Transport of Livestock within Australia, 23 April 1991, South Australian Government, p. 617.

46. *ibid.*

47. *Hansard*, Senate Select Committee on Animal Welfare, Transport of Livestock in Australia, 24 April 1991, Metro Meats Ltd, p. 679.

48. *ibid.*, p. 678.

49. *ibid.*, p. 686.

50. *ibid.*, p. 694.

51. *Evidence*, Northern Territory Government, p. 65.

52. *Evidence*, Australian National Parks and Wildlife Service, p. 525.

53. *Evidence*, Northern Territory Government, p. 72.

54. *ibid.*

55. *Correspondence*, Department of Primary Industries and Energy, 8 January 1991, p. 1.

56. *ibid.*

57. *Evidence*, Australian National Parks and Wildlife Service, p. 581.

58. *Confirmed statement to Committee*, Mr D. Lindner, 19 November 1990.

59. *Evidence*, Conservation Commission of the Northern Territory, p. 126.

60. *ibid.*, p. 144.

61. *ibid.*, p. 140.

62. *ibid.*, p. 125; p. 141.

63. *Evidence*, RSPCA Australia, p. 321.

64. *ibid.*, p. 323.

65. *ibid.*

66. *ibid.*, p. 324.

67. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 394.

68. *ibid.*, p. 394.

69. *ibid.*, p. 378.

70. *Evidence*, Australian Equine Veterinary Association, pp. 221-222.

CHAPTER 6

CONCERNS ABOUT HELICOPTER SHOOTING

Introduction

6.1 Several witnesses, including groups strongly opposed to helicopter shooting, identified procedures that could be improved in order to minimise the suffering of animals. These procedures fall broadly into the following categories:

- training of shooters;
- accreditation of shooters;
- supervision of shooting;
- strategies for control; and
- operational matters.

6.2 In this chapter, the Committee examines these issues in order to ensure that the most professional and responsible approach to helicopter culling operations is adopted.

Training of Shooters

6.3 Most witnesses recognised that, if helicopter shooting is to proceed at all, it must be conducted by highly-trained, competent personnel. This will ensure that a high percentage of "clean kills" is achieved, thereby reducing the number of woundings and associated suffering.

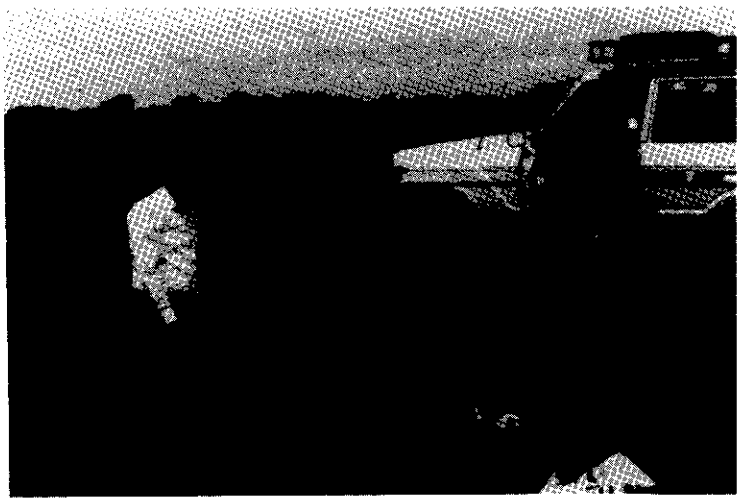
6.4 The Committee received conflicting evidence on training procedures for government personnel involved in helicopter shooting operations in the Northern Territory. For example, RSPCA Australia told the Committee that "people involved [in helicopter shooting] are not trained for the job at hand ... their accuracy as sharpshooters leaves much to be desired".[1] ANZFAS also expressed concern that the training of shooters does not involve shooting from "moving vehicles and with a moving target".[2] According to ANZFAS, "there is training but it is from the ground using standard 50 metres with balloons in the distance".[3]

6.5 The Northern Territory Government informed the Committee that it is standard procedure that only those shooters who have undertaken a course of training and are deemed competent to shoot from helicopters are permitted to do so.[4] Officers of the Government indicated that all staff are made aware of, and adhere to, the Code of Practice and the Territory's **Procedures and Guidelines For Shooting Feral Animals** .[5]

6.6 Training and refresher courses include written and practical examinations on firearms safety, firearms skills including marksmanship, helicopter shooting skills and animal welfare considerations.[6]

6.7 Mr Graeme Davis, an officer of the Government, expressed confidence in the procedures and guidelines for the shooting of feral animals from helicopters. He stated:

> I have been very happy with the way these programs have been implemented and the skill of the staff over the years. It has obviously been an evolving process. We all started at the bottom of the learning curve 15 years ago ... but over the last 5 to 6 years — and particularly in very recent years — there is a very high competence amongst staff in skilled marksmanship.[7]



Senator Bryant Burns, Mr Ross Bryan, Mr Antal Soos and Mr David Berman at Hermannsburg Airstrip, Northern Territory.

6.8 Mr Ross Bryan, an officer of the Conservation Commission in Alice Springs, told the Committee that officers have to go through a strict training course. He observed that "the end result has to be a 100 per cent pass ... in theory and also on a range and shooting out of a helicopter".[8]

6.9 Mr Bryan gave the Committee the following description of training methods from helicopters:

> We go out and fly in a helicopter and shoot out of a helicopter. We have got a life size buffalo outline in marine ply and there is a little hole for the heart and lung area [approximately six inches in diameter]. There are four on one run, two buffalo heads hidden

among the trees for another area and four on another run. The pilot flies over and we have got to get three rounds within that heart and lung area on each of the animals, two rounds in the heads and three on the other run. If that is not 100 per cent, we do not pass.[9]

6.10 ANPWS advised the Committee that shooting in Kakadu National Park is undertaken by experienced, conscientious marksmen who undergo intensive training before live shooting.[10] Two qualified Aboriginal rangers with over ten years experience conduct shooting of feral animals from helicopters.[11]

Conclusions

6.11 The Committee is satisfied that the Northern Territory Government recognises the importance of proper training and testing of personnel involved in the shooting of feral animals from helicopters and conducts specific programs to achieve this objective. The Committee considers that the Northern Territory Government and its agencies should maintain the highest possible standards in training and marksmanship, in order to minimise the suffering of animals. The Committee encourages similar training programs in other States involved in feral animal control by helicopter shooting.

Accreditation of Shooters

6.12 The Committee was concerned to receive evidence suggesting that unauthorised personnel may undertake helicopter shooting operations to cull feral animals. For example, Dr Melanie O'Flynn, Director, Animal Welfare Unit, Department of Primary Industries and Energy, stated that "there is nothing to necessarily stop landowners hiring a helicopter and going up with untrained marksmen and blazing away".[12] Similar evidence was presented by RSPCA Australia.[13]

6.13 Although "nearly all helicopter shooting is conducted by Government employees",[14] the Northern Territory Government confirmed that there is no legislation which prevents non-government personnel engaging in helicopter shooting operations.[15] The Government, however has indicated that authorities are unaware of any specific instances of unauthorised individuals shooting from helicopters.[16]

6.14 The Committee understands that the Government encourages landowners to use authorised personnel in helicopter culling operations. If the property owner provides the helicopter and the fuel, the Government will provide an expert shooter and ammunition at no cost. The Committee was told that in most cases, this arrangement is adopted[17] , as the relatively high costs involved in helicopter operations limit private culling activities.[18]

6.15 As noted above, shooting in Kakadu National Park is undertaken by two qualified Aboriginal rangers, each with approximately ten year experience in shooting large feral animals in the Park.[19]

Conclusions

6.16 The Committee is of the view that only personnel approved by government authorities should shoot feral animals from helicopters. This should apply to government officers and private individuals. The Committee's conclusion on this matter is based on two considerations.

6.17 Firstly, evidence to the Committee confirmed that there are considerable risks and dangers associated with helicopter shooting. In order to ensure the safety of all personnel, it is highly desirable that only shooters with appropriate skills and experience are involved in these operations.

6.18 Secondly, in the Committee's view, it is essential that the welfare of animals, and in particular the elimination of woundings and associated suffering, should be a primary objective of helicopter culling operations. This objective can only be achieved if responsible and highly skilled personnel are used.

6.19 In order to ensure that only properly trained and authorised shooters are involved in helicopter culling operations, the Committee considers that a system of accreditation or licensing is necessary. Such a system would enhance safety and animal welfare considerations and foster a professional and responsible approach to helicopter shooting.

6.20 *The Committee recommends that the Commonwealth, Northern Territory and other State Governments introduce accreditation or licensing schemes for government and non-government personnel involved in helicopter culling operations.*

Supervision of Shooting

6.21 Concerns were expressed about the overall control and supervision of helicopter operations, even though competent and skilled personnel may be in attendance. For example, Dr Wirth, President of RSPCA Australia, stated that culling programs must be controlled by government authorities.[20] He elaborated:

> [If you are going to have helicopter shooting] ... we have no opposition to governments using contractors for the base work of culling provided the contractors are subject to government controls ... Unless there are proper controls, you cannot rely on welfare in culling.[21]

6.22 The Australian Equine Veterinary Association also stressed that helicopter shooting operations must be part of a program, under very strict control, with skilled and trained shooters.[22]

6.23 The Committee notes that these views are shared, at least in principle, by the Northern Territory Government. In its Procedures and Guidelines for Shooting Feral Animals, the Government recognises that "helicopter culling operations should be authorised and supervised by the appropriate Territory authority".[23]

The Committee notes, however, that under current regulatory arrangements in the Territory, non-government personnel may conduct helicopter culling operations without government control, co-ordination or supervision.

Conclusions

6.24 The Committee considers that all helicopter shooting of feral animals must be supervised and co-ordinated by government authorities. In the Committee's view, this supervision should include appropriate notification, approval, monitoring and reporting mechanisms.

Strategies for Control

6.25 Evidence presented to the Committee emphasised that culling operations, including those that use helicopters, need to be properly planned and co-ordinated. It was suggested that long-term strategies on a local, regional and national basis are necessary.

6.26 Dr John Plant, President-elect, Australian Veterinary Association, identified one situation where the need for planning and co-ordination is obvious, but essential. He stated:

> It is no good cleaning horses out of four properties and then having a 2,000 square mile property in the middle where the owner is not doing anything and where the horses will repopulate and undo all the good work.[24]

6.27 Although the need for planning and co-ordination was recognised, several witnesses criticised the *ad hoc* approach to culling operations. For example, Dr John Auty of ANZFAS, described culling operations including helicopter shooting as "stop-go" in nature.[25] He explained:

> People go out and cull thousands of animals. The following year they go out and cull thousands of animals. The next year, for reasons best known to the organisations, they do not go out and cull animals ... if you are going to substantially reduce feral animals over time, you have to keep up constant pressure[26] ... you are not going to eliminate horses or donkeys [by this stop-go approach].[27]

6.28 It was suggested to the Committee that a donkey control program conducted in the Victoria River District in the Northern Territory between 1981 and 1984 exemplifies the need for proper planning and co-ordination. At that time, 83,000 donkeys were removed at a cost of $750,000. Because of a lack of follow-up control, the numbers of donkeys are now similar to those that existed before the program began.[28]

Feral Donkeys.

6.29 Although the timing of control programs should be an important element of strategic control, RSPCA Australia stated that this has not always been the case. In the Society's view, "half the time, the program to remove the animals is not carried out at the best possible time when the population is at its lowest ebb".[29] Breeding, climatic cycles and inter-related matters should be taken into account when planning control programs.

6.30 It was also recognised that, where possible, control strategies should be based on research on the population densities, movements and behavioural patterns of feral animals. In this regard, the Committee notes the important research undertaken by Mr Bill Dobbie and Mr David Berman on feral horses in Central Australia. This research is based on the close observation and documentation of feral horse groups. Their work suggests that feral horses in central Australia have an affinity with a specific area or "home range", centred around permanent waterholes. Therefore, overall strategies to control feral horses should concentrate on specific, defined home ranges, centred around permanent waterholes rather than a particular property or specific regions.[30]

6.31 The need for strategic and sustained programs of control was recognised by the Northern Territory Government. In particular, officers of the Government suggested that, following the completion of disease control activities associated with BTEC in 1992, programs of control should be implemented to ensure that feral populations do not become unmanageable again. Mr Davis stated:

> We maintain that now that populations are down to very low levels there should be programs in place to maintain populations ... and preferrably to bring populations within management.[31]

6.32 Mr Davis observed, however, that the Northern Territory Government did not have the resources to "really tackle the feral problem across the Territory in a scientific and methodical way."

Conclusions

6.33 The Committee concludes that programs to control feral animals should be planned, systematic and sustained. In the Committee's view, strategies with these features will result in more effective control and will heighten awareness of animal welfare responsibilities.

6.34 Although primarily a disease control program, BTEC operations in the Northern Territory have reduced significantly the number of feral buffalo, cattle and horses. The Committee considers that the benefits of these operations in relation to feral animal control should not be squandered.

6.35 *The Committee recommends that the Minister for Primary Industries and Energy, in consultation with the Australian Agricultural Council, examine ways in which feral animal populations, reduced by activities associated with BTEC, may continue to be controlled following the completion of BTEC in 1992.*

Operational Matters

6.36 As indicated in the introduction to this chapter, concerns were expressed about day-to-day aspects of helicopter shooting of feral animals. These are:

- firearms and ammunition;
- woundings of animals; and
- fly-back procedures.

Firearms and ammunition

6.37 RSPCA Australia informed the Committee that it is not unusual for helicopter shooters to use inappropriate firearms and ammunition.[32] According to the Society, it is essential that the "right weaponry" appropriate to individual species is used.[33]

6.38 The Committee heard persuasive evidence rebutting assertions that inappropriate firearms and ammunition are used. In its submission to the Committee, the Northern Territory Government recognised that "appropriate and suitable weapons and ammunition" should be used in shooting feral animals on the ground and from a helicopter. The Government stated:

> Weapons such as the Springfield M14 and MIA, LIAI, SLR, Heckler and Koch M91 in .308 calibre [are suitable]. For helicopter shooting, spot on/aim point sights or 2x quality telescopic sights may be useful. Hard pointed jacketed projectiles 170 grain or heavier should be used. Two weapons should be carried by shooters at all times.[34]

6.39 ANPWS advised the Committee that strict animal welfare guidelines are established for helicopter shooting operations in Kakadu National Park. These guidelines address appropriate firearms and ammunition.[35]

Conclusion

6.40 The Committee endorses the view that only firearms and ammunition that are suitable for the species and appropriate for the task should be used in the culling of feral animals.

Wounding of Animals

6.41 Animal welfare groups registered strong concerns about the cruelty associated with helicopter shooting. In particular, these groups maintain that inaccurate shooting, resulting in woundings and suffering, are an inherent part of helicopter operations. Dr Wirth of RSPCA Australia explained:

> We have been adamantly opposed to the killing of animals from moving platforms because the beauty, if I can put it that way, of the unexpected bullet hitting the brain more often than not does not occur because of lack of accuracy from the moving platform.[36]

6.42 ANZFAS also observed that preferred frontal or temporal head shots are almost impossible from helicopters. The current practice of shooting at the heart and lung area can result in spinal injuries which immobilise the animal and make it difficult to ascertain from the air whether the animal is dead. ANZFAS added that even the best marksmen may miss and when death is not immediate the animal will suffer extreme pain.[37]

6.43 Formal and informal evidence from Government officers conceded that helicopter operations do not result in clean kills for all animals. For example, the Northern Territory Government advised the Committee that most, but not all, first shots result in an instant kill.[38]

6.44 ANPWS also indicated that despite intensive training, stringent procedures and the best endeavours of experienced marksmen and pilots "it must be accepted that a small number of animals are wounded and then cannot be found".[39]

6.45 The Committee understands that estimates of the number of animals wounded in helicopter shooting operations vary. Anecdotal evidence suggests that the rate may be between 10 and 15 per cent.[40] The Committee sought

additional information on this matter from the Northern Territory and the ANPWS. However, the Government and the Service do not collect data on clean kills as opposed to woundings.[41]

6.46 The Committee did obtain a report on a helicopter culling of feral horses conducted at Loves Creek in the Territory in 1986. Post-mortems carried out on 196 horses showed that "a few had obviously not been killed directly by the first bullet".[42] The report also recorded the following observation:

> Actual cause of death in most of the 196 examined was exsanguination from the heart or lung major vessels. The remnant died from cerebral trauma associated with neck shots.[43]

Conclusions

6.47 The Committee recognises that the shooting of feral animals, particularly from helicopters, may result in injury and suffering to some animals. It is imperative that this suffering is kept to a minimum. The Committee considers that a professional and responsible approach to helicopter shooting will achieve this objective. The Committee also considers that data should be compiled on apparent cause of death, particularly when field post-mortems are conducted on feral animals.

Fly-back Procedures

6.48 In order to minimise suffering of animals wounded in helicopter culling operations, prompt follow-up procedures are necessary to ensure that these animals are killed as soon as possible.

6.49 This procedure is supported by the Northern Territory Government. The Government maintains that "any animal inadvertently wounded must be followed up and killed before any further groups are targeted and shot".[44] A deliberate policy of "over-kill" is followed and an average of 4.1 rounds are used per animal.[45]

6.50 Mr Ross Bryan, an experienced helicopter shooter, described the procedures associated with helicopter culling. He stated: If you come across a run of horses — say, 10 or 12 — you come down and start from the tail end, shoot forward and then come back around and make sure that every animal is dead. There is no keeping going because another horse is galloping off on its own. We fly back and those animals are shot [again].[46]

6.51 Animal welfare groups were sceptical of fly-back or follow-up procedures. Dr Merran Evans of ANZFAS told the Committee that, although this procedure is endorsed officially, it is not followed in practice.[47] The additional costs associated with follow-up procedures "are too expensive and that is why it is not used".[48] Dr Evans also suggested that, when implemented, the policy of overkill is used to validate welfare aspects of control.[49]

6.52 The Committee sought a response to this evidence from the Northern Territory Government. The Government advised that "there are clear instructions" for government shooters to fly back and check that animals shot are dead.[50] Pilots and shooters effectively monitor each other to ensure that the task of checking is carried out from the air.[51]

6.53 Similar evidence was presented by the Australian National Parks and Wildlife Service in relation to helicopter shooting of buffalo in Kakadu National Park. ANPWS advised that strict animal welfare guidelines are set for all operations. These guidelines stipulate that any animal wounded must be followed up and killed before moving on.[52] ANPWS also applies an overkill strategy, using two extra rounds to ensure that each animal has been killed.[53]

Conclusions

6.54 In the Committee's view, prompt follow-up procedures are necessary to ensure that feral animals shot from helicopters have been killed.

6.55 The Committee accepts that existing instructions and codes on helicopter shooting recognise the need for this procedure. However, the Committee considers that procedures to supervise helicopter shooting and, in particular, reporting mechanisms advocated by the Committee, should include confirmation of fly-back procedures by the pilot and shooter involved in the operation.

ENDNOTES

1. *Evidence*, RSPCA Australia, p. 323.
2. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 381.
3. *ibid.*
4. *Evidence*, Northern Territory Government, p. 67.
5. *ibid.*
6. *ibid.*, p. 59; p. 127.
7. *ibid.*, p. 9.
8. *Evidence*, Conservation Commission of the Northern Territory, pp. 126-127.
9. *ibid.*, pp. 129-130.
10. *Evidence*, Australian National Parks and Wildlife Service, p. 523.
11. *Correspondence*, ANPWS, 31 January 1991, p. 1.
12. *Evidence*, Department of Primary Industries and Energy, p. 506.
13. *Evidence*, RSPCA Australia, p. 333.
14. *Evidence*, Northern Territory Government, p.67.
15. *Correspondence*, Northern Territory Government, 8 March 1991, p. 1.
16. *ibid.*
17. *Evidence*, Northern Territory Government, p. 38.
18. *ibid.*, p. 67.
19. *Evidence*, Australian National Parks and Wildlife Service, p. 523.
20. *Evidence*, RSPCA Australia, p. 333.
21. *ibid.*
22. *Evidence*, Australian Equine Veterinary Association, p. 222.
23. *Evidence*, Northern Territory Government, p. 76.
24. *Evidence*, Australian Equine Veterinary Association, p. 225.
25. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 373.
26. *ibid.*
27. *ibid.*, p. 380.

28. *Evidence*, Northern Territory Government, p. 42.

29. *Evidence*, RSPCA Australia, p. 327.

30. *Evidence*, Conservation Commission of the Northern Territory, p. 64.

31. *Evidence*, Northern Territory Government, pp. 47-48.

32. *Evidence*, RSPCA Australia, p. 323.

33. *ibid.*, p. 330.

34. *Evidence*, Northern Territory Government, p. 76.

35. *Evidence*, Australian National Parks and Wildlife Service, p. 523.

36. *Evidence*, RSPCA Australia, p. 321.

37. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 354.

38. *Evidence*, Northern Territory Government, p. 67.

39. *Evidence*, Australian National Parks and Wildlife Service, p. 254.

40. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 355.

41. *Correspondence*, Australian National Parks and Wildlife Service, 31 January 1991, p.2.
Correspondence, Northern Territory Government, 8 March 1991, pp. 2-3.

42. *Correspondence*, Department of Primary Industries and Energy, 8 January 1991, p. 4.

43. *ibid.*, p. 5.

44. *Evidence*, Northern Territory Government, p. 76.

45. *ibid.*, p. 67.

46. *Evidence*, Conservation Commission of the Northern Territory, p. 128.

47. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 383.

48. *ibid.*

49. *ibid.*

50. *Correspondence*, Northern Territory Government, 31 March 1991, pp. 2-3.

51. *ibid.*

52. *Evidence*, Australian National Parks and Wildlife Service, p. 523.

53. *ibid.*

CHAPTER 7

LONG-TERM CONTROL METHODS: FERTILITY CONTROL

Introduction

7.1 ANZFAS and other witnesses who appeared before the Committee maintain that a humane, practical and long-term approach to feral animal management is required. The Committee was told that this could be achieved through fertility control methods.

7.2 This position is based on the view that current methods of control are "fatally flawed".[1] Lethal control methods are applied as a response to overpopulation of a species and therefore address the symptom rather than the source of the feral animal problem. The current approach to feral animal management, apart from being inhumane, perpetuates the problem as it is based on *ad hoc* and short-term reduction methods.[2]

7.3 According to ANZFAS, fertility control methods recognise breeding as the source of the feral animal problem. Control of the source, rather than the symptom of the problem, will result in humane and sustained management of feral animals.[3]

7.4 Although fertility control received unanimous "in principle" endorsement, several witnesses raised concerns about its feasibility. For example, the Northern Territory Government maintains that, at present, fertility control is "impractical" and "prohibitively expensive". The Government's view is that fertility control will only become an option for feral animal control when a fertility agent is developed which is species-specific, harmless to humans, sufficiently long-acting, automatically administered and cheap.[4]

7.5 In this chapter, the Committee considers evidence on fertility control, its feasibility and effectiveness and the need for further research.

Fertility Control

7.6 Fertility is the ability to reproduce and fecundity is a measure of the number of offspring produced. Fertility control is defined as any technique that reduces offspring and includes a reduction in fertility or fecundity. Fertility control of animals may involve the following mechanisms:

- Chemosterilants, which are chemicals that cause permanent or temporary sterility, reduce the number of offspring or alter the fertility of offspring produced.

- Immunisation, which raises antibodies against sperm or reproductive hormones in order to inhibit reproduction. Immunosterilisation stimulates an animal's immune system to block production of hormones necessary for the completion of the reproductive cycle. Immunocontraception stimulates an animal's immune system to block fertilisation.
- Genetic engineering, which uses specific recombinant viruses to deliver foreign genes that disrupt reproduction.
- Hormone agonists, which inhibit the release of reproductive hormones.[5]

7.7 It has been recognised that fertility control is perceived as being more humane and morally acceptable than current lethal control methods. This is because fertility control acts to reduce birth rates rather than increase mortality rates.[6]

Feasibility of Fertility Control

7.8 Dr Mary Bomford, Senior Scientist, Bureau of Rural Resources, provided the Committee with her recent review of the role of fertility control entitled **A Role for Fertility Control in Wildlife Management?**

7.9 The review is based on an extensive assessment of the published literature on tests of fertility control in wildlife and provides the first comprehensive scientific assessment of the use of fertility control for wildlife management.[7]

7.10 In an important section of the review, Dr Bomford evaluates the practical applications of fertility control techniques to the management of wild animal pests in Australia.[8] The feasibility of fertility control techniques is assessed against the following seven criteria:

1. the availability of a drug or technique that will temporarily or permanently sterilise target animals, leading to reduced recruitment to the population;
2. a delivery mechanism that allows an adequate proportion of the target population to be treated, including widespread and abundant animals in areas with poor access;
3. a treatment effect on the target population that is of sufficient magnitude, rapidity and duration to achieve the objective of damage control;
4. no undesirable side effects on the target species, such as welfare problems caused by toxicity or behavioural changes;

5. the drug, the technique or the delivery mechanism and handling process are target-specific, so that non-target species, or people handling the drug, are not affected;

6. no build up of environmental or food-chain residues that are toxic or polluting, nor release of genetically engineered organisms that upset environmental balance; and

7. the program is cost-effective in terms of cost of treatment versus savings in damage, or in relation to the cost of alternative conventional control programs.[9]

7.11 After considering these matters, Dr Bomford concludes that "antifertility agents will not be a panacea".[10] The best use of fertility control as a population management tool may be to use it to slow population recovery or stabilise numbers after conventional methods have been used to reduce numbers. The overall conclusion of the review is that the present role of fertility control is extremely limited.[11]

7.12 In reaching these conclusion, Dr Bomford considered three significant aspects of fertility control. These are:

- availability of a drug or technique;
- effective delivery system; and
- population dynamics.

Drugs and Techniques

7.13 The review of fertility control by the Bureau of Rural Resources concluded that there are no chemosterilant drugs that can be field-delivered to cause permanent, humane, non-toxic sterility in both sexes of target wildlife species. Most drugs and techniques reviewed only cause temporary sterility and require repeat doses to be effective.[12]

7.14 The review recognised that the potential for population management by fertility control would be greatly increased if permanent sterilants, effective after a single dose, became available or if genetic engineering allowed the passive spread of sterilants by infectious organisms. Currently, no such sterilants are available.[13]

7.15 Dr Bomford told the Committee that research is being conducted in this area. She stated:

> There is some research under way at CSIRO [by Dr C.Tyndale-Biscoe] on genetic engineering whereby they insert genes into a live virus that will sterilise the animal, immunise it against its own reproductive hormones. The virus will spread that gene passively to the population, so it overcomes some of the problems of delivery technique. But these processes are in early

> developmental stages ... it is too early to assess whether they are likely to be successful for fertility control, and certainly they are not available for use in the near future.[14]

7.16 The review also concluded that the use of agonists or immunisations against reproductive hormones has potential, but even if developed, the expense of application would limit use to small groups of intensively managed animals.[15]

Delivery Mechanisms

7.17 The lack of mechanisms to deliver fertility drugs or techniques to an adequate proportion of the target population is a major obstacle to control of feral animal populations. Current mechanisms for delivery include surgical implantation, repeated injections or daily doses in food or drink.[16]

7.18 The Bureau of Rural Resources told the Committee that these options are not feasible for widespread and abundant feral populations and, in particular, those living in remote and inaccessible areas. Dr Bomford summarised the views of several witnesses to the inquiry when she stated:

> This is one of the major problems for fertility control in wildlife management in Australia, largely because our animals are so numerous and widespread and often in such remote areas, that getting a drug or technique out into the wild population would be extremely expensive and technically difficult.[17]

7.19 In evidence to the Committee, Mr David Berman, an author of several studies on feral horses in central Australia, also expressed the view that fertility control will only be feasible if a drug with long-term effects and appropriate delivery methods are developed. He concluded that "it will be a long time before it could have any possible use in central Australia".[18]

7.20 The Committee was advised that research on delivery mechanisms is being undertaken in Australia. For example, work is proceeding on microcapsules with three different time-release patterns to overcome the requirement of multiple injections.[19] Research is also being developed on automatic delivery systems, including an automated trap-door device triggered by animals going to water or other sites.[20]

Population Dynamics

7.21 The Committee was told that most tests on antifertility drugs and techniques examine effects on reproduction rather than on population dynamics. Models that have been developed to predict the effect of sterilising populations overestimate the efficacy of sterilising as a means of population control.[21]

7.22 The review of fertility control by the Bureau of Rural Resources examined the comparative effects of culling or sterility on populations and concluded:

> For most pest populations, fertility control is likely to be less effective at reducing numbers than conventional [lethal] techniques ... fertility control is likely to be of more value for preventing or reducing the rate of growth of pest populations that have been reduced to levels well below their uncontrolled density by other means, such as drought, disease or conventional control.[22]

7.23 This evidence suggests strongly that, even if scientific and practical aspects of fertility control are developed successfully, current lethal methods must continue to play a role in population control.

7.24 Several witnesses expressed concern about animal welfare issues associated with the introduction of fertility control and, in particular, possible adverse effects on social dynamics and behavioural patterns of feral animals. For example, animal welfare problems may arise if harem structures of feral horses are altered by the application of fertility control methods.

7.25 In its evidence to the Committee, ANZFAS maintained a more optimistic view on the future of fertility control. The Federation told the Committee that scientists working "in this emerging field of research" reported "positive results" to a recent international conference in Melbourne.[23] ANZFAS recognised that this research is in the developmental stage but added that "just sitting back and saying that it is too difficult in Australia will not solve the problem ... there must be a vigorous attempt at finding long-term solutions".[24]

The Need for Research

7.26 Although the current limitations of fertility control were recognised, most submissions supported further research into fertility control.

7.27 Ms Glenys Oogjes, Director of ANZFAS, summarised the views of several witnesses when she stated:

> I see fertility control as more of a long-term result, but it has to start right now ... While some of these methods may take, say, five years to develop, others even ten years or more, if we do not start now it will not happen in five years time ... We see the results as somewhere down the track but we see it as so important that the research should be given a boost right now.[25]

7.28 ANZFAS expressed the view that the Commonwealth Government should demonstrate a positive commitment to non-lethal, long-term control methods. In particular, the Government should take a leading role in funding further research into fertility control.[26] According to ANZFAS, "it is in their interests, as well as the animals' interests, to look into long-term control".[27]

7.29 The review of fertility control by the Bureau of Rural Resources also recognises that the long-term potential of fertility control will depend on the successful outcome of research, development and extension.[28] The review

identifies several promising research directions, including the development of genetically engineered viruses to spread sterility-inducing agents through pest populations.[29]

Conclusions

7.30 The Committee acknowledges that a practical, long-term mechanism of fertility control would be the ideal means of managing feral animal populations. The reality, however, is that such a mechanism does not exist and that, for some time to come, conventional methods based on lethal controls will continue to play a significant role in feral animal management. Furthermore, evidence indicates that a feasible fertility control mechanism would be more effective on populations that have already been reduced significantly by other means, including conventional methods of control.

7.31 The Committee welcomes the comprehensive and timely review of the role of fertility control in wildlife management conducted by the Bureau of Rural Resources. Although the review concludes that the present role of fertility control in wildlife management is extremely limited, it identifies some promising areas of research into non-lethal, long-term control methods.

7.32 In the Committee's view, the review provides a valuable framework for policy development and future directions in research. It will also encourage informed and considered debate on conventional and alternative methods for feral animal control.

7.33 As the nature and extent of the feral animal problem in Australia is unique, the Committee considers that Commonwealth, State and Territory Governments should take a leading role in research into feasible, non-lethal and long-term solutions.

7.34 *The Committee recommends that the Commonwealth Government, through relevant Departmental, industry and research agencies and inter-governmental arrangements, accord priority to research into non-lethal, humane and long-term methods of control of feral animals.*

ENDNOTES

1. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 378.
2. *ibid.*
3. *ibid.*, p. 367.
4. *Evidence*, Northern Territory Government, p. 66.
5. *Evidence*, Bureau of Rural Resources, pp. 422-431.
6. *ibid.*, p. 417.
7. *ibid.*, p. 413.
8. *ibid.*, pp. 440-446.
9. *ibid.*, p. 440.
10. *ibid.*, p. 446.
11. *ibid.*, p. 418.
12. *ibid.*, p. 431.
13. *ibid.*
14. *ibid.*, p. 482.
15. *ibid.*, p. 431.
16. *ibid.*
17. *ibid.*, p. 482.
18. *Evidence*, Northern Territory Government, p. 146.
19. *Evidence*, Bureau of Rural Resources, p. 429.
20. *ibid.*
21. *ibid.*, p. 417.
    ibid., p. 484.
22. *ibid.*, p. 439.
23. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 389.
24. *ibid.*, p. 394.
25. *ibid.*, p. 371.
26. *ibid.*, p. 350.
27. *ibid.*, p. 369; p. 394.

28. *Evidence*, Bureau of Rural Resources, p. 418.

29. *ibid.*, p. 417.

CHAPTER 8

NATIONAL PERSPECTIVE ON THE CONTROL OF FERAL ANIMALS

Introduction

8.1 Although the Committee's terms of reference relate specifically to "large feral animals in the Northern Territory", evidence from several witnesses indicated that a co-ordinated national approach to the control of these and other feral animals is necessary. It was noted that, as the problems posed by feral animals are not confined to individual States or Territories, a co-ordinated national approach to a national problem is required.

8.2 This national approach would not infringe on the legislative and administrative responsibilities of the States and Territories. It was recognised, however, that the Commonwealth Government, as "an honest broker" is in an ideal position to co-ordinate these activities on a national level.

Co-ordinated National Approach

8.3 It was suggested to the Committee that a national perspective on feral animal control would have at least four advantages. Firstly, it would encourage a co-ordinated and planned approach to the control of feral animals. The Central Australian Conservation Council stated that "piecemeal efforts at control are totally inadequate".[1] According to the Council, control measures, backed by adequate resources and co-ordination across whole regions need to be put in place right across the nation.[2]

8.4 Other witnesses, including RSPCA Australia, also recognised the need for better co-ordination and planning. On this matter, RSPCA Australia observed:

> Presently, the responsibility for culling feral animals rests in a diverse group of people and organisations. There does not appear to be national co-ordination or planning and frequently culling programs are embarked upon for local political reasons at the wrong time and in the wrong way using the wrong resources.[3]

8.5 Secondly, a national perspective on the management and control of feral animals would facilitate the collection and exchange of information. For example, it was recommended that a national data bank comprising details of damage and population information on feral animals should be developed. According to RSPCA Australia, this information would assist planning and "provide some consciousness within the community about the amount of effort required to control the feral animal".[4]

8.6 Thirdly, national co-ordination of research will result in a more concerted effort to address the problems posed by feral animals. On this matter, RSPCA Australia observed:

> The present haphazard funding and lack of co-ordinated studies on control techniques and biology of feral animals in Australia suggest that we are merely fumbling rather than recognising this problem as being one of national importance requiring concerted action.[5]

8.7 Fourthly, a national approach to the control of feral animals will promote understanding of the feral animal problem and foster confidence in the strategies adopted to address the problem. This would be achieved by enhancing consultative processes and extending national and international education programs.[6]

"Pigs are omnivorous, consuming plant fruits, shoots and tubers, native fauna and carrion. Pigs are potential vectors of several exotic diseases, including swine fever and foot and mouth disease". Evidence, ANPWS, p. 521.

8.8 ANZFAS and RSPCA Australia presented evidence on how consideration of feral animal problems might be enhanced. ANZFAS recommends the establishment of an Animal Damage Advisory Council, within the Department of Primary Industries and Energy. The principal objective of this Council would be the promotion of long-term, humane, and where possible, non-lethal population control of feral animals.[7]

8.9 RSPCA Australia maintains that a peak national committee on feral animals should be established. According to the Society, there is no co-ordination between the peak bodies in the agricultural and conservation areas, namely the Australian Agricultural Council and the Council of Nature Conservation Ministers.[8] Dr Wirth of RSPCA Australia explained the role of this peak national committee in the following terms:

> I would prefer the Commonwealth to act as the honest broker in this regard, to set up some form of national committee which incorporates all the major players ... In that way there can be achieved a central repository of information, a central repository of impetus to research new methods of culling ... and a means of co-ordinating eradication of feral animals between neighbouring States ... [9]

8.10 RSPCA Australia considers that a national committee on feral animals would encourage a "unity of purpose"[10] and a sense of urgency to a "massive" national problem.[11]

8.11 Although not addressing the specific issue of a national approach to feral animal control, the Australian Conservation Foundation observed that a high degree of political will, commitment and action to address the feral animal problem has been lacking in the past and that "inaction is no longer an option".[12]

Existing and Proposed Mechanisms for Co-ordination

8.12 The Commonwealth and the States have been active in vertebrate pest control for many years and there are existing mechanisms and activities in place for co-ordination. The Committee was advised that these mechanisms and activities are being enhanced.[13]

8.13 Dr Peter O'Brien, the representative of the Department of Primary Industries and Energy on the Vertebrate Pests Committee, reviewed existing and proposed mechanisms for national co-ordination. He advised that the Vertebrate Pests Committee of the Australian Agricultural Council presents reports and provides advise to the Commonwealth and State Ministers for Agriculture on the management of these pests. The Vertebrate Pests Committee comprises representatives of State and Territory government agencies, the Australian National Parks and Wildlife Service, the Department of Primary Industries and Energy, CSIRO and the Ministry of Agriculture and Fisheries, New Zealand.[14]

8.14 This Committee meets annually and "discusses a wide range of issues".[15] Current activities include a review of the use of 1080 in Australia, consideration of the importation and keeping of exotic vertebrates and organisation of the 9th Australian Vertebrate Pests Conference in April 1991.[16]

8.15 Dr O'Brien also advised that the Bureau of Rural Resources has a major role in this area and identified several projects undertaken by the Bureau on vertebrate pest management in Australia.[17] These projects include:

- preparation of an atlas of the distribution and abundance of introduced animals in Australia;
- development of criteria for assessing the risks posed by exotic vertebrates;
- assessment of the commercial use of pest animals in Australia;
- participation in recent reviews of rabbit, rodent and bird pest research; and
- participation in the assessment of viral haemorrhagic disease of rabbit control.[18]

8.16 According to Dr O'Brien, the Bureau has recognised the need for "a more strategic approach to vertebrate pest management".[19] It has obtained funds from within the Department "to develop comprehensive strategic management plans for the major vertebrate pests in Australia, taking account of environmental, economic and welfare issues and giving support and effect to government initiatives in land degradation, tree planting and sustainable development".[20] In addition, the Minister for Primary Industries and Energy and the Minister for the Arts, Sport, the Environment, Tourism and Territories have asked their Departments to develop a proposal which will expand and improve this initiative on strategic vertebrate pest control.[21]

8.17 A further initiative relates to the National Consultative Committee on Animal Welfare. The Committee was informed that the Consultative Committee, which provides advice to the Minister for Primary Industries and Energy, has established a Feral Animal Working Group.[22] The Group has the following terms of reference:

- identify Australia's problem feral animal species and other important introduced pest animals;
- identify the extent and nature of agricultural, environmental and other damage; and
- provide advice on potential avenues for research on humane, cost-effective methods for controlling these populations, including fertility control, and on the priority, implementation and funding of research.[23]

8.18 Having heard evidence on existing and proposed mechanisms for co-ordination, the Committee questioned officers of the Department of Primary Industries and Energy on the need for a national approach to feral animal control. In response to a question on whether Australia has an overall plan to counter large feral animals, Dr Peter O'Brien agreed that "there has been a lack of long-term planning for vertebrate pest management in this country".[24] Dr O'Brien observed, however, that "the Vertebrate Pests Committee is the appropriate mechanism" for national co-ordination. He added:

> [The new initiative] called strategic vertebrate pest control aims to develop plans which can then be implemented at the State level. That is a way of resourcing the activities of the Vertebrate Pests Committee. I guess what I am saying is that the structure is there but it needs better resourcing to do its job properly. I think its terms of reference are appropriate. I think that vertebrate pest management is in State hands ... Certainly State legislation is appropriate and potentially effective.[25]

Conclusions

8.19 The Committee is of the view that there is an urgent need for a co-ordinated, national approach to the control of feral animals and considers that the Commonwealth Government, in consultation with the States and Territories, should facilitate an appropriate forum to achieve this objective.

8.20 The Committee notes current mechanisms and recent initiatives for national co-ordination of the management and control of feral animals. Nevertheless, the Committee is concerned that these arrangements appear to be fragmented and do not provide a focus for a concerted and co-ordinated approach to the control of feral animals in Australia.

8.21 *The Committee recommends that the Minister for Primary Industries and Energy assess current and proposed mechanisms for national co-ordination of measures to alleviate the problems associated with vertebrate pests, including feral animals.*

8.22 *The Committee further recommends that the Minister for Primary Industries and Energy, in consultation with relevant Commonwealth, State and Territory Ministers, consider the establishment of a national committee or task force to provide a concerted and co-ordinated approach to the control or elimination of feral animals.*

ENDNOTES

1. *Evidence*, Central Australian Conservation Council, p. 81.
2. *ibid.*
3. *Evidence*, RSPCA Australia, p. 252.
4. *ibid.*, p. 253.
5. *ibid.*
6. *ibid.*, pp. 338-339.
   Submission, Australian Conservation Foundation, p. 2.
7. *Evidence*, Australian and New Zealand Federation of Animal Societies, p. 361.
8. *Evidence*, RSPCA Australia, p. 334.
9. *ibid.*
10. *ibid.*
11. *ibid.*, p. 337.
12. *Submission*, Australian Conservation Foundation, p. 2.
13. *Correspondence*, Bureau of Rural Resources, 17 December 1990, p. 1.
14. *Evidence*, Bureau of Rural Resources, p. 496.
15. *Correspondence*, Bureau of Rural Resources, 17 December 1990, p. 2.
16. *ibid.*
17. *Evidence*, Bureau of Rural Resources, p. 497.
18. *Correspondence*, Bureau of Rural Resources, 17 December 1990, p. 2.
19. *Evidence*, Bureau of Rural Resources, p. 498.
20. *Correspondence*, Bureau of Rural Resources, 17 December 1990, pp. 2-3.
21. *ibid.*, p. 3.
22. *ibid.*
23. *ibid.*
24. *Evidence*, Bureau of Rural Resources, p. 499.
25. *ibid.*, pp. 501-502.

APPENDIX 1

FORMER MEMBERS OF THE SELECT COMMITTEE

Senator Ray Devlin, Tasmania
- Member September 1987 to June 1990
- Chairman August 1989 to June 1990

Senator Jack Evans, Western Australia
- Member December 1983 to June 1985

Senator George Georges, Queensland
- Chairman December 1983 to June 1987

Senator Jean Hearn, Tasmania
- Member December 1983
- June 1985

Senator John Morris, New South Wales
- Member September 1987 to May 1990
- Chairman September 1987 to August 1989

Senator Norm Sanders, Tasmania
- Member August 1985 to March 1990

Senator the Hon. Doug Scott, New South Wales
- Member December 1983 to June 1985

Senator John Siddons, Victoria
- Member July 1985 to August 1985

APPENDIX 2

INDIVIDUALS AND ORGANISATIONS THAT PROVIDED THE COMMITTEE WITH SUBMISSIONS

Australian and New Zealand Federation of Animal Societies, Collingwood, Victoria

Australian Conservation Foundation, Fitzroy, Victoria

Australian Equine Veterinary Association, Artarmon, New South Wales

Australian Federation for the Welfare of Animals, Blacktown, New South Wales

Australian National Parks and Wildlife Service, Canberra, Australian Capital Territory

Brucellosis and Tuberculosis Eradication Campaign Committee, Canberra, Australian Capital Territory

Bureau of Rural Resources, Canberra, Australian Capital Territory

Calvanistic Political and Social Association, Albany, Western Australia

Central Australian Conservation Council Inc., Alice Springs, Northern Territory

Central Land Council, Alice Springs, Northern Territory

Hugo, Mrs R., Aldinga Beach, South Australia

Northern Territory Government, Darwin, Northern Territory

Rowley, Ms S., Bungonia, New South Wales

RSPCA Australia Inc., Canberra, Australian Capital Territory

South Australian Federation of Animal Societies, Hackney, South Australia

South Australian Government, Adelaide, South Australia

APPENDIX 3

WITNESSES WHO APPEARED BEFORE THE COMMITTEE

Australian and New Zealand Federation of Animal Societies, Collingwood, Victoria

- Dr J. Auty, Member
- Dr M. Evans, Honorary Technical Adviser
- Ms G. Oogjes, Director

Australian National Parks and Wildlife Service, Canberra, Australian Capital Territory

- Mr M. Hill, Deputy Director
- Mr R. Jenkins, Manager, Co-ordination, Marine and International Section of the Office of Wildlife Conservation

Australian Veterinary Association including the Australian Equine Veterinary Association, Artarmon, New South Wales

- Dr C. Bassett, President
- Dr P. Ellis, Member of Executive Committee
- Dr J. Plant, President-elect

Central Australian Conservation Council, Alice Springs, Northern Territory

- Mr M. Guggisberg, Committee Member
- Ms N. Smibert, Coordinator

Central Land Council, Alice Springs, Northern Territory

- Mr D. Alexander, Coordinator Land Management
- Miss L. Alford, Land Management Officer

Department of Primary Industries and Energy including the Bureau of Rural Resources, Canberra, Australian Capital Territory

- Dr M. Bomford, Senior Scientist, BRR
- Mr J. Jenkins, Assistant Secretary, Animal Health and Welfare Branch, Livestock and Pastoral Division
- Dr P. O'Brien, Principal Research Scientist, BRR
- Dr M. O'Flynn, Director, Animal Welfare Unit, Animal Health and Welfare Branch

Northern Territory Government, Darwin, Northern Territory

Conservation Commission of the Northern Territory,

- Mr D. Berman, Ecologist, Alice Springs
- Mr R. Bryan, Senior Wildlife Ranger, Alice Springs
- Mr G. Davis, Principal Wildlife Management Officer, Darwin
- Dr K. Johnson, Officer-in-Charge, Flora and Fauna Unit, Alice Springs

Department of Primary Industry and Fisheries

- Mr A. Bryce, A/Director, Veterinary Technical Services, Darwin
- Mr D. Wells, Senior Veterinary Officer, Darwin
- Dr O. Williams, Regional Veterinary Officer, Alice Springs

RSPCA Australia Inc., Canberra, Australian Capital Territory

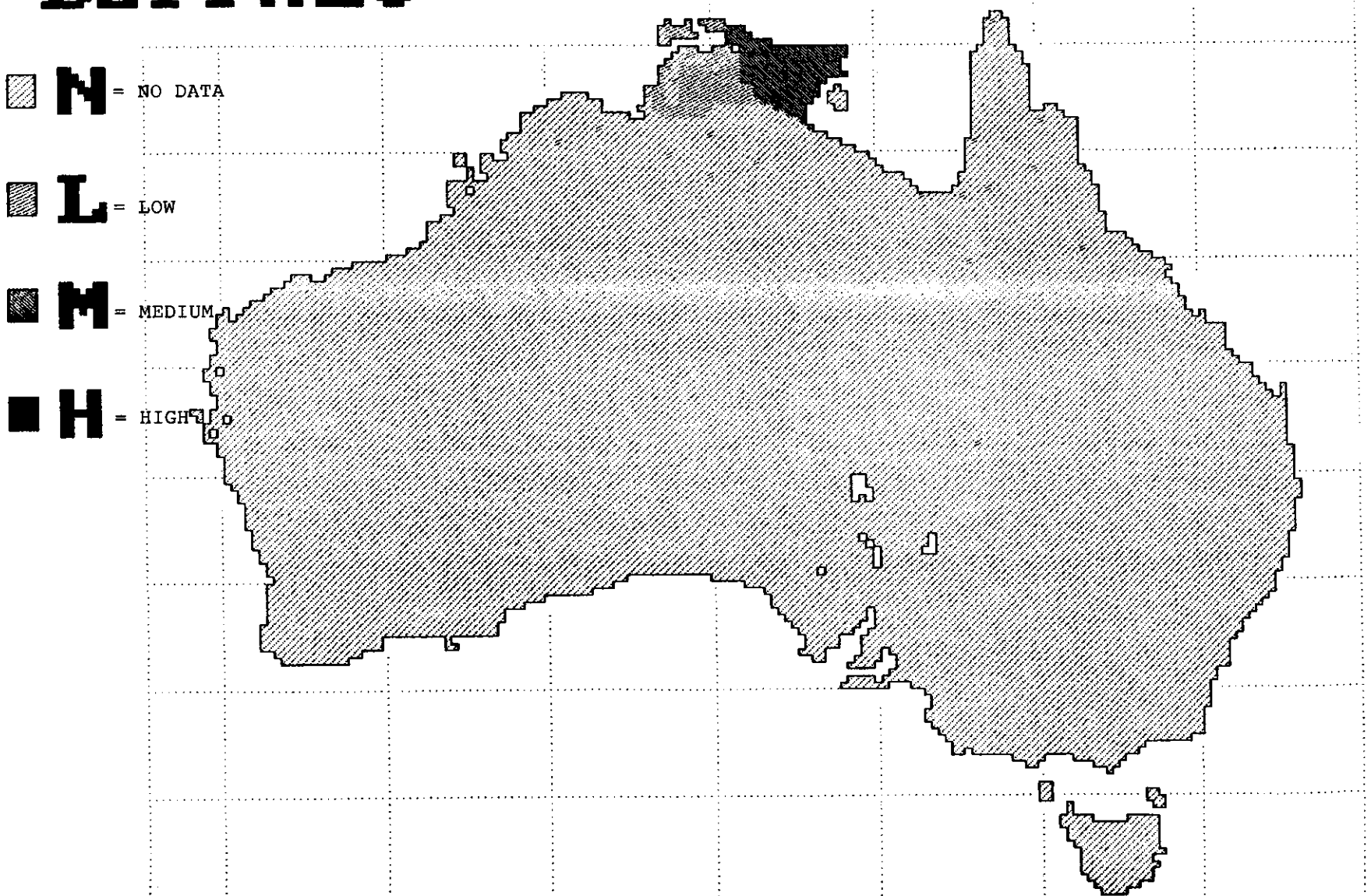
- Dr H. Wirth, President
- Mr C. Wright, Executive Officer

APPENDIX 4

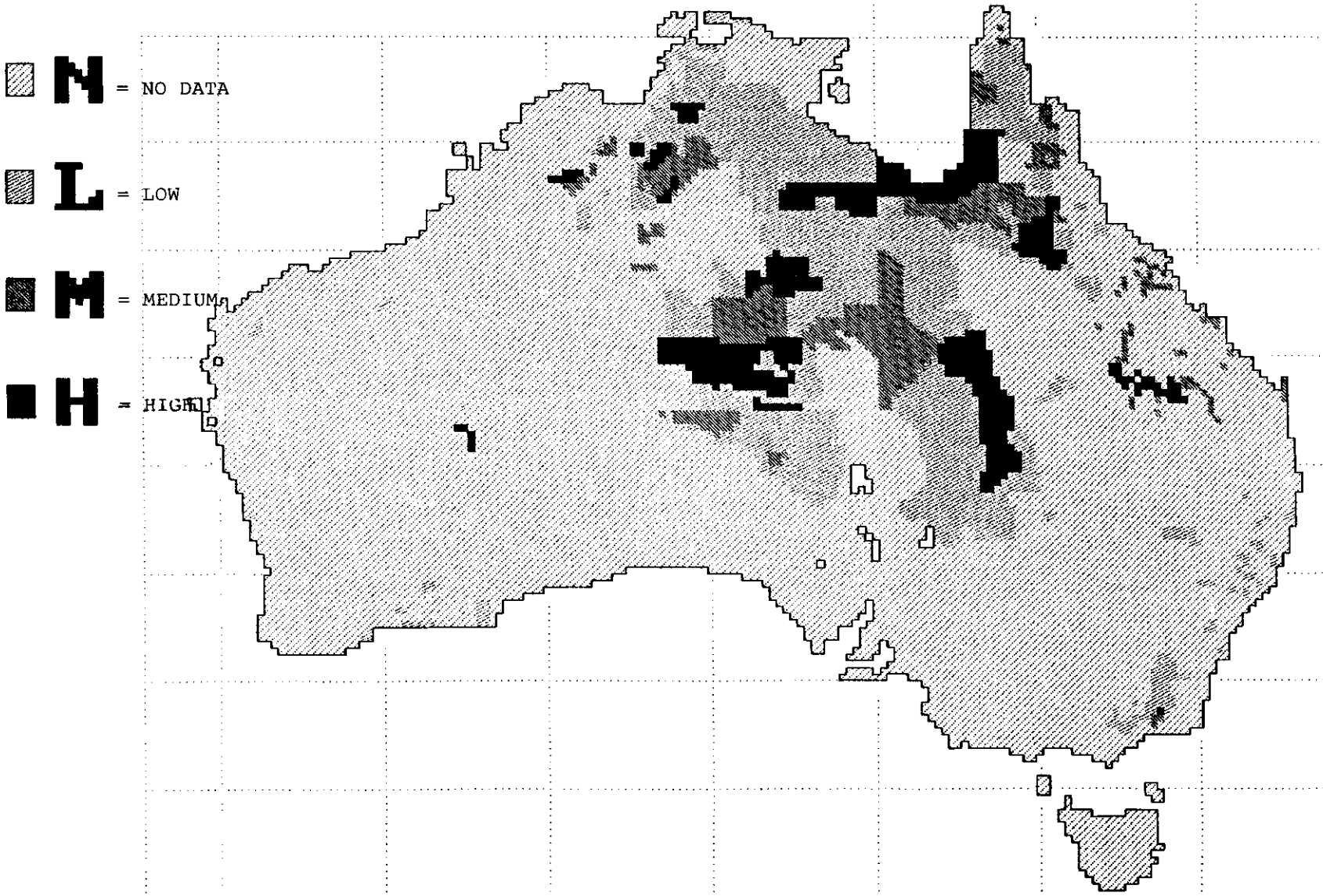
MAPS SHOWING NATIONAL DISTRIBUTION OF LARGE FERAL ANIMALS

Source: Wilson, G., Dexter, N., O'Brien, P., Bomford, M., *Feral Animals in Australia: Distribution of our mammal pests.* Bureau of Rural Resources (forthcoming publication).

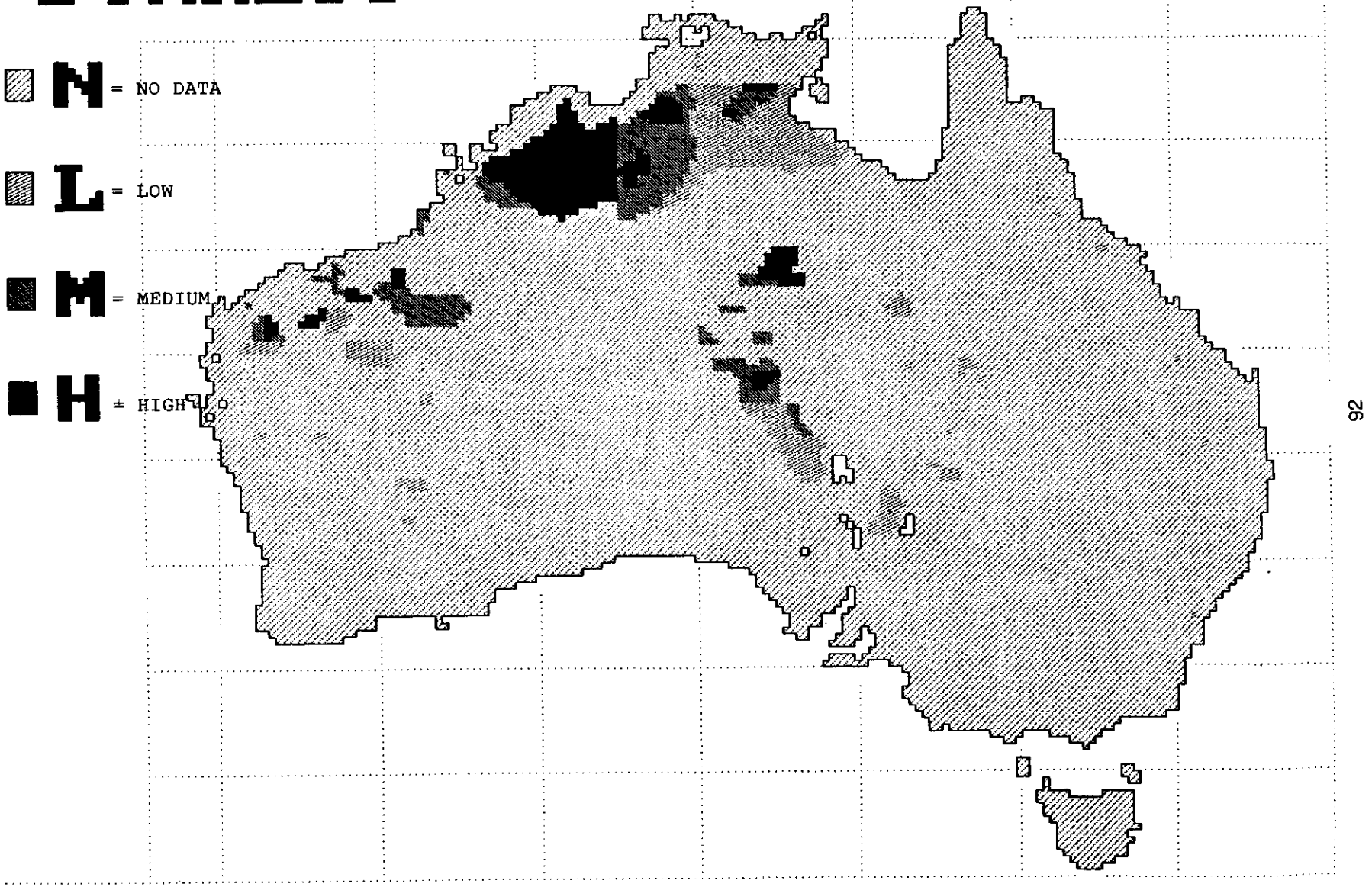
BUFFALO



HORSES



DONKEYS



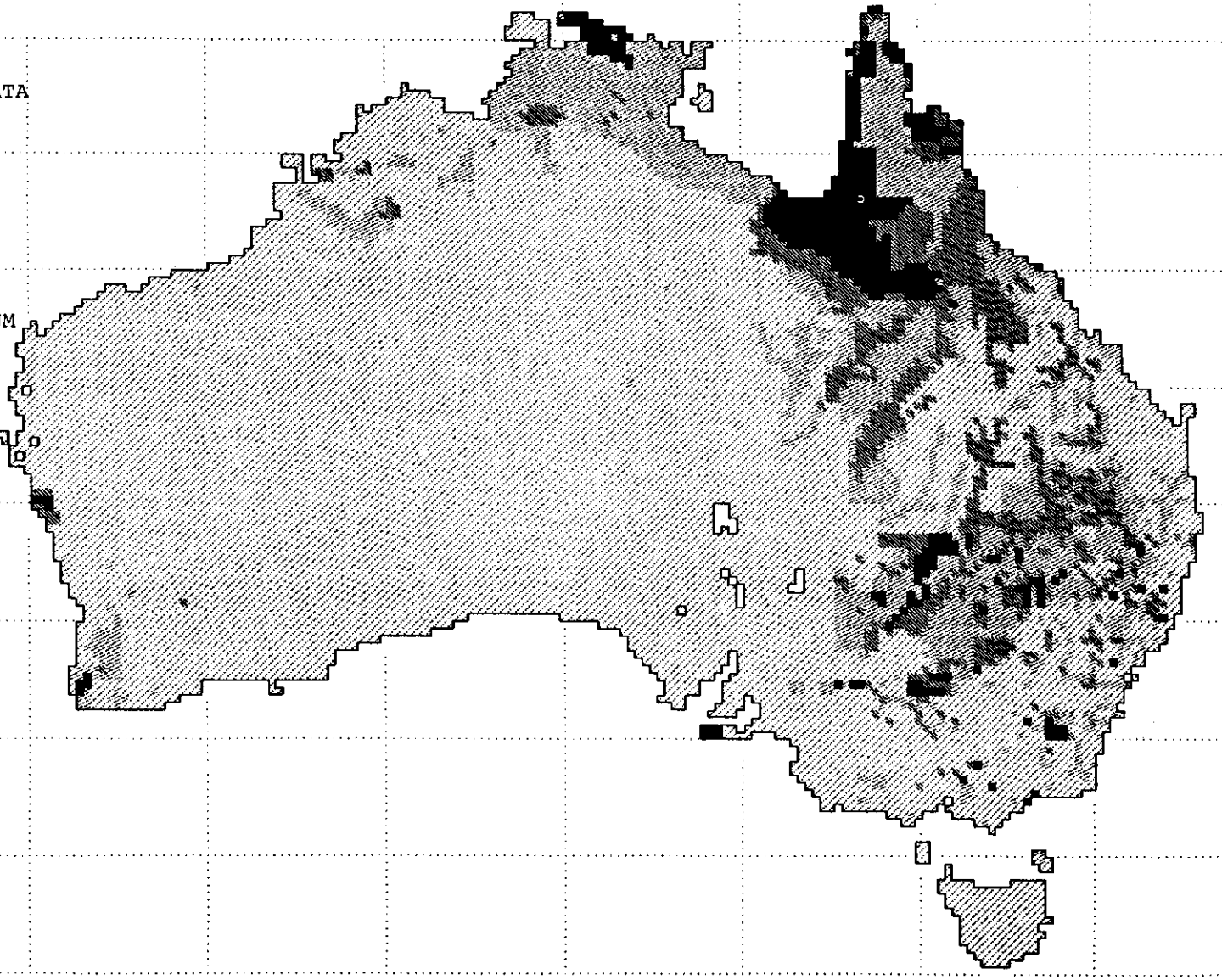
PIGS

N = NO DATA

L = LOW

M = MEDIUM

H = HIGH



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CAMELS