(Research Into Deer Genetics and Environment Incorporated)

Wild Deer In Queensland Discussion Paper.

Red deer *(Cervus elaphus)*

Wild caught stag - Elgin Vale district, 1981

Author : Clark McGhie

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Section 1.

Aim

The aim of this discussion paper is to ;

1. Recognise participants in the wild deer issue,
2. Detail the history behind the introduction of deer to Queensland,
3. Outline both the historic deer areas and the areas of new releases,
4. Provide information on the possible threats posed by wild deer,
5. Provide information on the actual and potential benefits of deer,
6. Suggest possible management options.
7. Present the RIDGE management policy for wild deer in Queensland.

Section 2 R.I.D.G.E. Inc

Objects of Association.

The objects for which the association is established are:-

a. To research the impact that deer have on the environment and to develop and implement management strategies both solely and in conjunction with Government Departments or agencies and private organisations and individuals.

b. To identify the genetic path of Australia's wild deer herds and develop and implement strategies to improve their potential and secure their future.

c. To promote the recreational, economic and historical value of deer.

d. To foster better relations between Government Departments, landowners and hunters.

e. To promote availability of hunting opportunities.

Section 3.

A Brief History of the RIDGE group.

The group known as RIDGE (Research into Deer Genetics and Environment) was initiated in 1992 as a non-profit organisation open to all interested parties, with the aim of instigating a self funding, self regulating and sustainable management system for wild deer in Queensland.

The group has actively promoted management techniques such as strategic fencing, cropping and pasture rotation, combined with hunting for venison and trophies along with seasonal herd culling, to provide a balance within wild deer herd which is acceptable to land users.
(McGhie and Watson 1995, attachment 2)

These management principles have been based on information and research from other countries, as well as information gathered from Australian Government Departments, Sporting Clubs, private individuals and research conducted directly by the group itself. All management principles are currently being evaluated and refined under actual field conditions.

RIDGE actively supports cooperation between landowners and hunters by providing legal access through a balloted hunting system. This system provides the opportunity for gathering data and educating new hunters towards an ethical approach to hunting while at the same time allowing the participating landowners to obtain a financial reward from wild deer on their land. This system has received widespread support from local authorities and other land users.

The RIDGE group's ongoing research strategy is funded largely from money raised within the group, while personal from Queensland Universities and private individuals carry out this research.

RIDGE membership is growing steadily and has representation from the majority of deer interest groups within Australia.

Section 4.

Participants.

The recognised present and historic stakeholders involved with wild deer within Queensland are listed below. These include those from which RIDGE draws its membership, to Government Departments past and present and other organisations, clubs and individuals.

a. Landowners within and adjacent to the wild deer areas of Queensland.
b. Hunters both private and as members of clubs and organisations both locally and abroad including:-
   Australian Bowhunters Association, (ABA)
   Australian Deer Association, (ADA)
   Australian Deer Research Foundation. (ADRF)
   Australian Hunters Incorporated, (AHI)
   Buckmasters,
   Nepean Hunters Club,
   New South Wales Deerstalkers, (NSWDSA)
   New Zealand Deerstalkers Association, (NZDA)
   Safari Club International, (SCI)
   Quality Deer Management Association of America, (QDMA)

c. Queensland Government Departments including:-
   Department of Primary Industries and Fisheries (DPI&F)
   Department of Natural Resources and Mines, (DNR&M)
   Environmental Protection Agency, (EPA)
   Queensland National Parks and Wildlife Service, (QNPWS)
   Department of Employment, Economic Development and Innovation (DEEDI)
   Biosecurity Queensland
   Sunwater,
   Regional Councils,

d. Other organisations:-
   Ag-force,
   Deer Industry Association of Australia, (DIAA)
   Department of Primary Industries, Water and Environment Tasmania, (DPIWE)

Section 5. Overview of Wild and Domesticated Deer in Queensland

5.1 Introduction to the Wild

(An Introduction to the Deer of Australia, Bentley 1998)

Red Deer *(Cervus elaphus)*

The first red deer were brought into Queensland in 1873. Initially there were two stags and four hinds presented to the Queensland Acclimatisation Society which was operating with Government consent at that time. These animals were gifts from Queen Victoria to the people of Queensland for their food and recreation.

This first release was at Cressbrook near Esk. In total 9 animals (being 6 females and 3 males) were introduced and they originated from German, English and Scottish bloodlines.

Fallow Deer *(Dama dama)*

The first shipment of six fallow deer arrived in Queensland from Tasmania during 1865. They were held in Brisbane by the Queensland Acclimatisation Society prior to their release at Westbrook, the Darling Downs and Warwick during the period 1870 to 1872. Another liberation was made at Pikedale in 1890.

Chital Deer *(Axis axis)*

The Queensland Acclimatisation Society released chital deer on the Darling Downs during 1870 but there is no evidence that this herd survived. A further introduction of 2 stags and 2 hinds from Ceylon was made at Maryvale Station, on the Burdekin River by pioneer and explorer, Mr William Hann in 1886.

Chital deer numbers in the historic range around these properties, Maryvale, Niall, Bluff Downs etc, (attachment 1) increased due to favourable seasons and only limited trapping pressure during the 90's.

Continuous drought conditions for many years has seen some individual herds suffer significant losses but has also caused the spread of Axis deer into new areas. Localised professional shooting for venison and control measures have reduced populations significantly in other areas.

Hinchinbrook Island

The Queensland Government released 2 red deer males and 2 females on Hinchinbrook Island during or about the year 1900, as future food for castaway sailors. A further liberation of 1 stag and 1 hind was made during 1915 or 1916. These animals were protected under an Act of Parliament.
It is unclear if any animals still remain from this original liberation.

Chital Deer *(Axis axis)*

Red deer *(Cervus elaphus)*

Rusa Deer *(Cervus timoriensis moluccensis)*

Moluccan Rusa deer still remain on Prince of Wales and Friday Islands at the tip of Cape York Peninsular from a liberation in 1912. Between 8 and 10 deer were introduced to Friday Island with full permission from the Federal Government by Mr N H Hockings.

Small herds have established on some other adjacent islands but numbers have remained relatively low due to heavy local hunting, some harvesting for deer farming, Government culling and the seasonal availability of feed supplies.

These are the only herd of rusa deer in Queensland with historic links to the initial legal liberations of deer during the later part of the 19th century. They also have strong values to the local traditional owners, the Kaurareg, who have a history of trade with the Malay people which dates back many centuries.

RIDGE feels that due to these factors, the actual herd size and present distribution of this herd requires further research in the near future for an accurate estimation of their potential as a recourse or threat.

There are at least six recent releases of Javan rusa *(Cervus timoreinsis)* and hybrid strains across Queensland which have established with varying degrees of success. (Section 5.3 New releases of deer)

Javan Rusa deer *(Cervus timoriensis)*

Deer Farming.

Wild deer have been caught and confined by landowners since soon after their initial liberation. This was done as more of a novelty rather than for any economic gain, however deer capture and farming for profit started in earnest during late 1977.

Farmers wishing to capture deer were required to apply for a permit from QNPWS (attachment 11 – 13) were subject to strict restrictions and were required to pay a royalty to the Government for each deer taken. A permit to make captured deer "Farmed Deer" and a further fee was also required. (attachments 14 – 17)

From the 1st October 1985, deer farmers were required to be licensed with the DPI for an annual fee of $15. There were three main categories of licence,

- Feral area,
- Non-feral area
- Combined. (attachment 19)

Farmed deer were required to be earmarked and ear-tagged, strict fence height requirements were set and movement restrictions were imposed. (DPI circular 1985, attachments 18, 19) As the majority of deer farmers were also existing cattle producers within the established "Feral" deer areas, there was constant pressure on Government Departments to relax restrictions that were seen as stifling the deer industry.

- Fence height requirements,
- Movement restrictions,
- Trapping restrictions,
- Hunting restrictions,
- Non-feral area restrictions. (attachment 4)

The *Deer Farming Act 1985* stayed in force until 1995. Once repealed, it allowed for substantial movement of deer into areas formerly restricted by legislation. This has helped to create present problems that exist with numerous new feral populations.

5.2 Present Position.
Description of Wild Deer Areas

Wild Deer in Historical Areas.

Since the end of the deer-trapping era in the early 1990's, there has been a slow recovery in wild deer numbers in line with 1995 RIDGE estimates. In many areas, local opinion suggests that deer numbers have reached a plateau due to increased hunting pressure brought about by the de-listing of deer from Protected Fauna to "Feral" in 1994. (McGhie and Watson 1995,) (attachment 2)

The "Feral" range of the Red, Fallow and Axis Deer herds in Queensland were defined under the *Deer Farming Act of 1985.* (Gov. Gazette, 1985, pages 383-84.) (attachment 9)

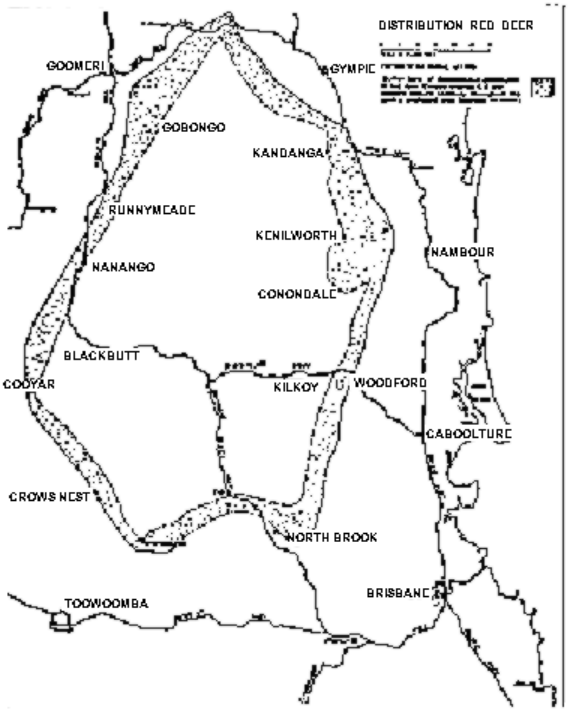
During 1978, A.K.Searle QNPWS, detailed the distribution of red deer in the Queensland Agricultural Journal. (Fig; 1, page 11)
M.S. Parker and A.K. Searle did this again in 1980 and 1981. They described the herds then as being "stable". (Queensland Agricultural Journal, pages 11-17*)*

The Red Deer range was again defined for the Conservation Through Sustainable Use of Wildlife Conference at the University of Queensland in 1995 as being essentially similar to the 1985 description. (McGhie and Watson) (Fig; 2, page 11)

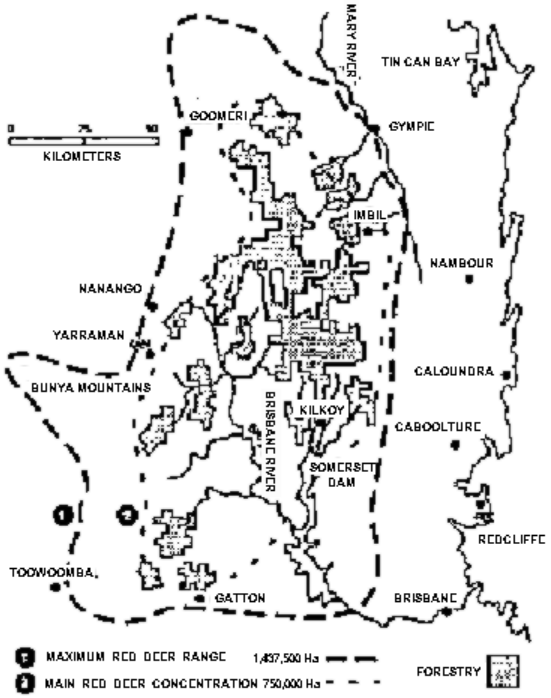
The existing core red deer range as detailed under the *Deer Farming Act of 1985*, is estimated at (+/-) 750,000 ha with an overall population of between 8-10,000 animals in 1991. (QNPWS 1991)

Present population estimates stand at between 10,000 – 15,000 animals in the same area. (McGhie and Watson 1995) This estimate does not include any deer originating from recent releases outside of the designated "Feral" areas, nor does it include new releases of other species of deer in the historic area.

Figure; 1



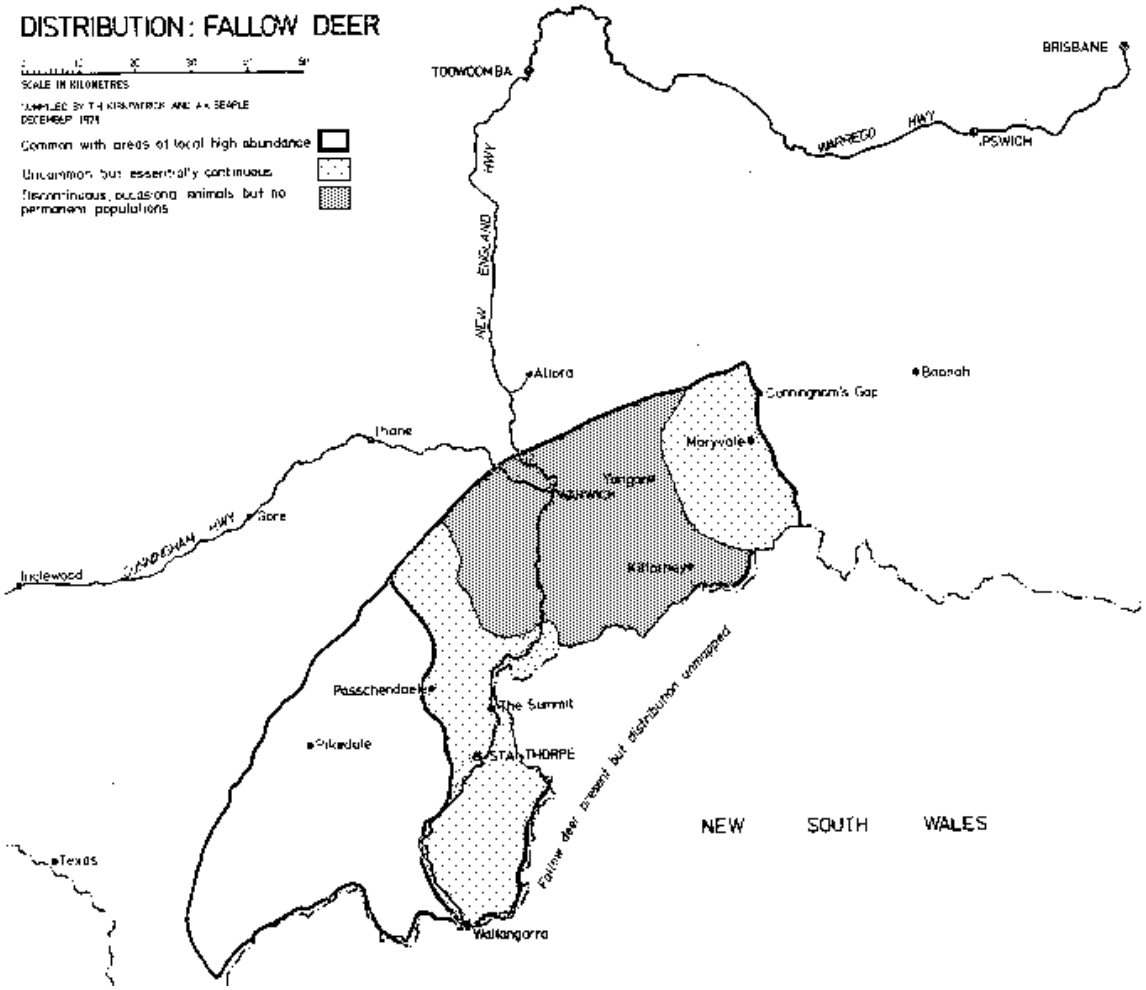
Figure; 2



Fallow Deer *(Dama dama)*

The present range of fallow deer in Queensland remains very similar to what was described by Parker and Searle in 1978. (Fig 3) Fallow deer populations have increased noticeably in some areas and have reduced considerably in others. It is felt that overall, fallow deer numbers in Queensland have stayed constant since the end of deer trapping in 1992 at approximately 1800 to 2500 head.

Figure 3



Fallow deer *(Dama dama)*

5.3 New Releases of Deer

Prior to 1991 there were very few releases of farmed deer into new or existing deer areas due to the very high prices paid for deer as breeding stock for the deer industry. Drought, fluctuating prices and reduced restrictions within the deer industry made deer affordable for some hunters to purchase and release for future hunting.

In some areas, deer farmers faced with drought and low prices simply released their deer. There are now new releases of deer throughout the whole State. These animals, being far less wary and far more familiar with built up areas, have brought deer and deer related issues into the public arena.

There are now releases of additional species including Javan Rusa, Moluccan Rusa, Sambar (plus Hybrids of all 3 species) Red/Elk hybrids and Blackbuck antelope. These populations have been evaluated as part of the Pest Status Review Series undertaken by Peter Jesser.
(Department of Natural resources and Mines 2005).

5.4 Attitudes towards Wild Deer

a) Landowners

The attitude of landowners towards deer has always been changeable, with feelings ranging from indifference through to outright hatred. Some landowners changed from an attitude of dislike for the deer, competing for their pasture with domestic stock, to one of vigorous protection once they were seen as being valuable to the deer farming industry. Most landowners have always accepted or tolerated the presence of wild deer as long as their numbers were at a manageable level.

Negative attitudes have been shown towards deer due to the following perceptions:

- Their ability to carry and transport cattle ticks.
- Their ability to become a significant feral pest.
- Them becoming future vectors of diseases. (attachment 3),

b) Deer Farmers

There remains strong confidence in the deer farming industry amongst its supporters. These people recognise that increased support for their industry and improvements in market prices would herald immediate demand for additional breeding stock which could be sourced from wild or newly released populations.

c) Hunters

The attitude of hunters towards deer has generally been more constant with an overwhelming desire shown for their continued presence as a Game species. This can be attributed to the long and constant link that many Australian families have with deer and deer hunting, especially amongst those of European or Celtic decent. In some cases, traditional hunting practices linked with wild deer go back at least 5 generations in this country, with an unbroken European tradition stretching back further than can be traced.

Some hunters have felt that they possess an unwritten right to hunt deer wherever they can be found. When faced with what was seen as unworkable restriction imposed by Government during the organised hunting seasons, this attitude has led to the establishment of a recognised sub-culture of poaching. (McGhie and Watson, 1995) (attachment 2)

This feeling of disenchantment with Government over hunting and the management of deer has led to the level of new releases of deer now seen across Australia. The vast majority of deer hunters now are comfortable with the idea of game management, which would include the need to obtain permission for access from landowners and to pay fair compensation for animals harvested.

d) Government Departments

General Overview

Since wild deer were proclaimed as “Introduced Fauna” under the *Fauna Conservation Act 1952*, (attachment 5) the attitude of Government Departments towards them has changed significantly due mainly to the attitudes of the different political parties in power at the time and the personal feelings of individual ministers. Red deer were once held in such regard as to be place on the Coat of Arms for Queensland.
(attachments 3 to 23)

Deer have been fully protected since 1952 and severe penalties were in place for anyone apprehended taking deer illegally but a recognised illegal harvest continued. (Parker and Searle 1982) (attachment 6)
During 1976, an “Open Season” for hunting was trialled with limited success.
In 1979 a regular hunting season was instigated with hunters required to complete an application form for both a permit and for deer tags (attachments 7,8,9) before being issued with a licence. This required landowners to state that there was damage being caused by deer, which required their removal under a section 25 permit. This caused many landowners to feel that they were making a false declaration, creating reluctance and negative attitudes towards the system. (attachment 10)

Department of Environment and Heritage

In July 1991, the then Minister for Environment and Heritage, the Hon Pat Comben stated “…deer will remain protected fauna in this State for the foreseeable future.” (Boyland 1991, attachment 20)

By September 1992 however, the decision to exclude deer from the new *Nature Conservation Act* was released to the media. “..my department will not be treating this kindly animal anything like the very destructive feral pig or feral cat.” (Comben 1992, attachment 21)

In a letter to a landowner in June 1992, the Executive Director, Department of Environment and Heritage, Dan Gillespie stated
“I share your view that there are benefits to be realised from the promotion by responsible hunting organisations of ethical hunting practices.” (Gillespie 1992, attachment 22)

In a letter from the Premiers Office in November 1992, the assurance was given that “There are no plans for Government agencies to eradicate deer on Crown lands in Queensland.” (Mickel 1992, attachment 23)

Regional Councils

There has always been a high level of support for a sustainable approach towards wild deer management within Regional Councils throughout the historic wild deer areas. Prior to wild deer being excluded from the *Nature Conservation Act 1993,* considerable support was offered by Councils towards some protected status remaining on wild deer within historic boundaries as defined by QNPWS (Order in Council 1985, attachment 1)

Mayor of Kilcoy Shire, Mr A Brown stated " It is ludicrous in the extreme to say that lifting all protection on deer will have no great impact." (Brown 1994, attachment 24 - 28)

Department of Primary Industries and Forestry

As there has never been any hunting allowed on Forestry in Queensland as it has been in other States like Tasmania and Victoria, wild deer have been seen as a nuisance or even a threat to young tree plantations. Against advice from the Premiers Office, the DEH and QNPWS, widespread culling of deer escalated in Forestry areas after the *Fauna Conservation Act* was changed. The actual damage caused by wild deer in these areas has never been quantified, but could be seen as more economic than environmental.

It is estimated that between 30 – 40% of the core historic red deer area is either Forestry or Forestry Leasehold country.

Department of Lands

Under DPI and Department of Lands Legislations, deer were not allowed to be farmed above the 17th parallel, nor adjacent to Forestry areas or National Parks due to the concern with deer escaping and creating feral populations. (Dept of Lands 1992, attachments 18, 19)

The attitude of Government Ministers was extremely negative towards wild deer. In a letter to the Hon Molly Robson, Minister for the Environment and Heritage, 1993, the then Minister for Lands, Mr G N Smith said "..the economic and environmental risks posed by feral deer outweigh any beneficial uses." " …are considered to be minor pests at present, with certain species possibly having the potential to become more costly and destructive pests in the future." (Smith 1993, attachment 3)

Department of Natural Resources, Mines and Water

The department of Natural Resources, Mines and Water is working towards a resolution that will be satisfactory to all stakeholders interests. It is clear that a "one size fits all" approach to deer management in Queensland will not be appropriate.

You can be assured that the Department is conscious of the importance of red deer within their historic range in terms of cultural heritage, as well as supplementing a landholder's income through recreational hunting.

(Dr B Wilson, DNRMW, 2006)

Section 6 Strategic Plan - Research

Over the past 18 years, since its inception, the RIDGE group has been working towards an overall management strategy for wild deer, realising that such a strategy must be backed up by accurate, realistic and sensible research. (attachment 29)
Due to restrictions on funding, the red deer herd of the Brisbane/Mary and Burnett watersheds was selected as the initial research subject. Once initial research was underway on this species, the northern chital deer and far North Mollucan rusa herds would be studies.

The areas which RIDGE identified as the most pertinent for research include:-

- Herd size and population densities.
- Natural Increase.
- Sex ratios.
- Predation and limiting factors.
- Nutritional, Parasitic and Health status.
- Migration and seasonal habits.
- Age distribution.
- Genetic diversity.
- Value to the community.
- Problems associated with new releases.
- Law and Order.

Section 7 Methodology

To achieve accurate results, in the shortest possible time, with limited funding, RIDGE has utilised both the scientific community and private individuals in conjunction with Government Departments and organisations to compile data.

Research Coordinators

RIDGE research was initially coordinated by Dr Graham Hall,
Head of the Game Unit, Dept; of Primary Industries, Water and Environment, Tasmania.
Dr Hall's role was to assess the list of research topics, prioritise and set parameters. Dr Hall compiled data gathered by hunters, landowners and compared it with aerial surveys.

Recent research has been carried out in conjunction with Dr Andrew Moriarty from the University of Western Sydney under the guidance of Dr Tony English.

Environmental Scientist

The environmental scientist used by RIDGE for landowner surveys was Mr Ted Pedersen.

Landowners and Hunters

RIDGE recognises the important role landowners and hunters can play in the collection of relevant data. Specially designed data collection forms are carried into the field by each hunter after they have gone through a training session conducted by members of the RIDGE executive.

Section 8

Research Topics

Following are details of each area of deer research conducted by RIDGE to date. Additional details not included in each section are referenced and can be found at the end of this paper.

Initial research programs were conducted only on the red deer population but subsequent programs have been initiated on both the chital herds of Charters Towers and the rusa deer within the Torres Strait.

Aerial verification of ground based data on herd size and movements.

8.1

Herd Sizes / Population Densities

a) Landowner and Hunter Data

RIDGE has sourced information from landowners and hunters over the past 18 years, on properties across the Brisbane, Mary and Burnett river systems.. The aim has been to accurately estimate;

- A historic growth rate.
- The overall herd size.
- Movement patterns.

Some families have lived on or around their present properties since deer were first released and their notes and recollections give a good basis for estimations. This data was collated by Dr Graham Hall, taking into consideration inherent problems with anecdotal opinions.

b) Wave Expansion

It appears certain that red deer populations expanded across these watersheds in what is commonly called a “Wave”. Populations would build up in a certain area, usually around a creek system, before moving reasonably rapidly into another, leaving behind a resident population. This would continue until a natural or man-made barrier was reached.

It would appear all the historic deer herds within Queensland reached these barriers within the first 100 years of liberation and little movement has been achieved by these herds since then. (with the exception of new releases)

Which animals are more likely to move, what age group and which sex are questions RIDGE research aims to provide.

c) Peak Density

Red deer populations appear to have reached a peak between 1960 and 1970, before dropping back in the face of escalating pressure from trapping and hunting. Once deer trapping stopped, pressure from hunting continued to increase especially since deer were rejected from the *Nature Conservation Act 1992.*

d) Drought

Severe drought sequences over the entire red deer range from 1991 to 2003 has also had a considerable effect on deer numbers and has forced them into far more confrontation with landowners due to feed shortages.

e) Natural Boundaries

Compared to the early 1900's, there are now more definite natural boundaries for red deer due to residential expansion along the East coast and around the outskirts of Brisbane, Ipswich, Gatton and Toowoomba. More heavily cultivated and cleared country from Oakey, through to Dalby, Kingaroy, Murgon and to the top of the known range at Ban Ban Springs has made any expansion (without human intervention) into these areas extremely difficult.

f) Population Estimate

RIDGE estimates put wild red deer numbers close to or slightly above the 1970 peak at 10 – 15,000 animals across a total range of less than 1.5 million hectares. It is estimated that over 95% of the total wild red deer population live in an area less than 750,000 hectares. It is also recognised that there are clear differences in herd densities within this area caused by towns, heavily cleared areas, major dams and also areas which can remain without good feed or water reserves for extended periods.

This suggests a realistic core area of around 500,000 hectares and an overall population density of between 1:30 – 1:40 / ha, within the core area.

g) Helicopter Surveys

A Robinson R44 helicopter has been used to verify ground based data collected from hunters and landowners. Deer density estimations are made on selected quadrats of approximately 1000 ha by an independent assessor. The estimates are based on existing data and kept confidential from the helicopter pilot and observers. These quadrats are then flown using successful aerial capture methods developed over these same areas between 1980 and 1991.

All animals seen were videotaped and left undisturbed, giving a very high success rate on sightings. Presently, RIDGE is compiling this data on an overall G.I.S mapping program, which will eventually give the most accurate estimation of wild red deer numbers ever made.

8.2

Sex Ratios

a) Hunter Preferences

Sex ratios also fluctuate across the whole range which seems to be a factor associated more with pressure from hunting and meat shooting than any other. Due to a preference by hunters to shoot more males as trophies, a preference by meat shooters for “spikers” or younger aged stags and a possible ability for females to live longer than males, in many areas there can be far more females than males.

b) Juvenile Sex Ratio

Data collected from capture operations, deer hunters, deer farmers both in Australia and New Zealand, as well as Europe, suggest that the sex ratio of new born fawns is usually close to 50/50 with some seasonal fluctuations each way. There is a possibility that there is a higher level of juvenile mortality amongst males than females and this is an area presently under research by RIDGE. (Snavely, 1997)

c) Herd Viability

Just what effect a low level of male deer within a herd has on the overall performance is not entirely clear. Research suggests that the best sex ratio is 1:2 or even 1:1 (1 male to 1 female) but in areas of high juvenile mortality, questions remain unanswered. In many areas, RIDGE is promoting a reduction in overall female numbers and a reduction in young stag harvesting.

d) Sex Ratios Recorded

During the last 8 seasons, data collected suggests sex ratios within research areas of between 1:1 and 1:5 stags to hinds. Hunter accuracy with data collection is seen as quite high as most sightings are during a time when animals are highly visible. The main observation asked from hunters, is simply to count antlered and non-antlered animals as this is the most obvious distinction between the sexes. By counting known age stags with their first antlers or “spikes” provides another very accurate gauge of the number of male progeny that has survived from the previous year.

8.3

Predation and Limiting Factors

a) Predation

The main recognised predators of wild deer apart from man, are;

- Dingo *(Canis familiaris dingo).*
- Wedge-tail eagle *(Aquila audax).*
- Scrub Tick *(Ixodes holocyclus).*

Comparing fawn survival rates of red deer in countries or islands without predators, to those witnesses in Queensland indicate differences. (McGhie and Watson 1995).

Aerial counts conducted by RIDGE so far have shown the lowest fawn survival rates in areas where the most dingos were seen. (Hall, 2000)

There is considerable anecdotal evidence from farmers and hunters to substantiate these claims however it may be possible that more than one "predator' may be involved at any one time. For example, a young fawn weakened by ticks may be more vulnerable to a dingo or eagle.

Areas burnt by landowners just prior to the fawning season of red deer will attract hinds. Often fawns are born into areas of low cover, which provides a perfect hunting ground for predators.

b) Drought

Areas suffering from drought will have far greater concentrations of heavily pregnant females and newly born fawns around remaining water supplies. Older females are often in a weakened state, have lower lactation and produce weaker and often out of season fawns.

c) Trophy Hunting

Historically, there has been a growing harvest of deer by hunters throughout the red deer range since their releases in the late 1800's. This harvest has escalated since 1970 due in part to increased awareness of deer areas amongst the general public due to coverage in magazines and books.

The inception of hunting clubs and trophy scoring systems heralded the start of competitions and trophy registrars. When this was combined with far better access into deer areas, better four wheel drive vehicles, rifles, G.P.S systems and the lessening of penalties for illegal shooting, we are now witnessing the highest ever harvest of wild deer for trophies by recreational hunters.

d) Personal-Use of Venison

Harvesting of venison for personal use has also become far more popular over the past 20 years and is also now at it's highest level. Most venison animals are now taken with the consent of landowners but there is a recognised illegal trade in "black-market" venison

e) Game-meat Harvesting

Game meat harvesting of deer is legal in Queensland by licensed operators but has been limited by low market prices and lack of supply. The majority of harvesting so far has been carried out on the Chital deer at Charters Towers as well as some Fallow deer at Stanthorpe and a small quantity of red deer also.

f) Environmental Effects

Climatic conditions and feed types have long been considered as possible limiting factors on wild deer compared to their native environment. This has not been found to be overly significant under deer farming conditions but RIDGE has instigated research into this possibility under wild conditions.

g) Genetic Effects

Research conducted in Scotland has suggested that levels of inbreeding can have significant negative effects on reproduction.
(Slate et al, 2000)

How this relates to wild populations is not clear but it is suspected that many areas of the red deer range have some level of inbreeding due to the limitations of the original release animals and hunter selection. RIDGE has instigated research into wild red deer by collecting samples for DNA testing.

8.4

Nutritional, Parasitic and Health Status.

a) Cattle Tick Research

Following concerns raised by landowners in 1998, with regard to the possibility of red deer posing a significant threat to cattle producers by spreading and hosting Cattle ticks (*Boophilus microplus),* it was decided by RIDGE to instigate a research program.

The University of Queensland, Gatton College was commissioned to carry out the research with Prof Gordon Dryden as supervisor and Neal Finch as research assistant. RIDGE group provided the funding and RIDGE balloted hunters helped with the collection of samples.
(Finch, 1999)

This research found that although red deer do carry cattle ticks, it is at a lower level than cattle and could be linked with the level of cattle husbandry on the properties they co-habit on.
(Finch, 1999)

Previous research carried out by the CSIRO and DPI suggests that deer are a low level host and that tick viability on deer is also far lower. Research in American found that Cattle Tick can be eradicated from an area without the need for existing deer populations to be removed.
(George,1997)

b) Nutritional Status Study

During 2002, a study was again commissioned through the University of Queensland Gatton College, to look at the nutritional Status of wild red deer. This research was supervised by Prof Gordon Dryden with Neal Finch as research assistant. Neal was conducting this study as part of his Honour degree and it was funded jointly by Gatton College and funds raised by RIDGE group.

Research so far has shown that wild red deer carry low levels of parasites, free from any known disease and are nutritionally on par with any other population in the world.
(Finch, 2000)

8.5

Migration and Seasonal Habits

a) Local Opinions

Opinions vary amongst landowners and hunters as to how far wild deer travel and what sex or age group of animals are likely to do so, and why. Anecdotal evidence from hunters suggest that wild deer can move many kilometres at times to raid a ripening grain crop, while at other times they can be seen perishing through lack of feed or water without attempting to shift.

Migration of older aged red deer stags and the homing desire of older aged hinds are commonly talked about but have never been quantified and it is in this area that RIDGE has been conducting research since 2001.

b) Radio Collaring Program

During May 2002, the first red deer stag was captured, collared and released under the RIDGE Wild Red Deer Radio Tracking Program. The protocol for this program was developed by RIDGE Research Coordinator, Dr Graham Hall, DPIWE, Tasmania in conjunction with professional hunter, Clark McGhie. (Hall, 2001)

A further 2 stags were collared during late 2002 and their movements recorded on a weekly basis. A further 5 animals were collared by January 2004 at regular intervals across the centre of the red deer range. All deer were collared with transmitters made by Sirtrack Industries with frequencies from 10 to 100. Signals were received with a 3 piece Yaggi antenna and receiver and recorded on computer and on a GPS.

The aim of the project was to;

- Radio collar 10 male and female red deer.
- Provide a continuos supply of information on their habits, genetic ability and movement patterns.
- Compile data over a 5 year period using GIS mapping strategies.

This information was collated by Dr Graham Hall and the program was funded by RIDGE membership fees, donations from hunter groups and individual landowners. It is hoped to be able to extend this research to include Fallow and Chital deer as funding allow in the future.

c) Initial Results - Collared Stags

The second and third stags collared were 2 ½ and 3 ½ years old and lived in an area of less than 1.5 km radius after their release. These animals were observed repeatedly showing no disruption or irritation from the collars they were wearing.
(Hall, 2003)

The original stag collared was 5 ½ year old when released back to the wild and stayed in an area of less than 1 km radius for exactly 1 year with a group of other younger aged stags. This animal then moved quickly across an area of agricultural land and took up residence 2 km away with other stags of his own age group in a similar area of habitat.
(Hall, 2003)

It is suggested that mature stags will roam a seasonal route sourcing better feed supplies before returning to their mating areas in early March.

RIDGE group members applying a radio collar to a wild red deer stag.
L to R: Dr K Watter, D Trott, C. McGhie, P. Power and K. McGhie

d) Tagging Program

When RIDGE group first began, a number of red deer females were captured ,collared or tagged and released back into their home range. These animals were made known to landowners and hunters and their sightings recorded.

Since then other groups of females were also captured, tagged and placed with permission back on landowners properties. The habits and fate of these animals has also been noted and forms the basis for recording methods to be used for the Red Deer Tracking Program.

e) Initial Results- Tagged Females

The tagged red deer females have shown a reluctance to move more than 3 kilometres in any direction from their starting point with most travelling less than 2 km. The vast majority have spent the majority of their time in one watershed, some spending 10 years on the one range.

A RIDGE hunter shot a red deer hind for venison in 2003, in the same gully system where she was caught, tagged, photographed and released during late 1987. This animal was tagged as part of the Australian Deer Association, Calf Tagging Program, which was instigated in 1976.

It is felt that hinds will move if necessary sourcing better feed, during mustering operations, periods of intense hunting pressure or during fires but are normally very sedentary.

A red deer hind collared under the RIDGE radio tracking initiative

8.6

Age Distribution

Research in America suggests that when a predominance of older animals or same sex animals occurs, it can have a marked effect on the level of younger animals that remain in an area and on their potential.
(Snavely, 2002)

It seems possible that if a concentrated level of hunting has occurred for both trophy stags and young spikers for venison, it can eventually lead to an abundance of adult females and old males of poor genetic quality. Prior to fawning, mature hinds will exert extra pressure on the remaining spikers to leave the area and old aged stags will keep up constant pressure on them as well, compounding the problem further.

RIDGE data collected so far suggest a predominance of older aged females and older aged “cull” stags in areas that are past their prime i.e.: were at their best 20 – 30 years prior. Data collected from both male and female deer collected by RIDGE hunters, suggest an average age of 8.7 years.

In the case where a landowner may wish to earn an income from wild deer, it may not be viable due to a significant excess of female deer and poor quality stags, which can lead to a situation of no management, overgrazing and problems for neighbours.

It is suggested that a herd with an even sex ratio and an even age distribution will cause less trouble and be far more productive.
(Hall, 2003)

8.7

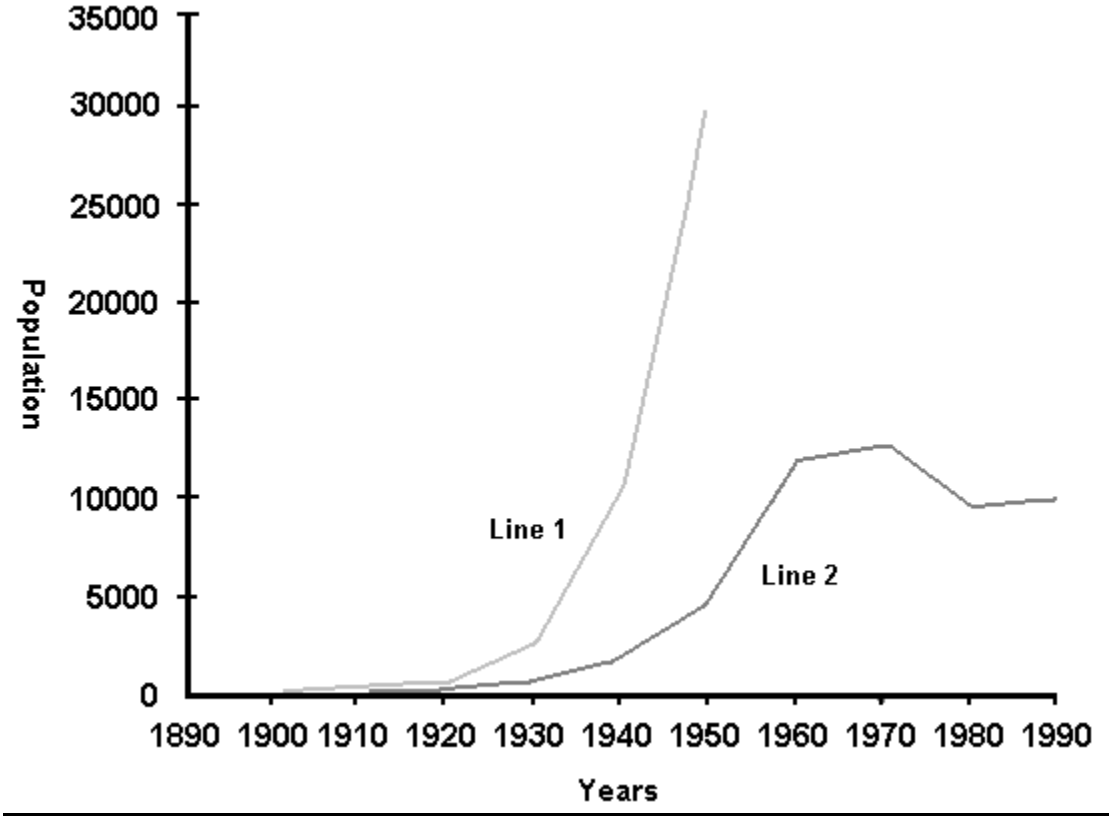
Natural Increase

a) Natural Increase Estimates

Insufficient data has been collected so far to give an accurate estimation of the natural increase within Fallow, Chital or Moluccan Rusa herds in Queensland but it is felt that an initial estimation can be achieved for red deer.

b) Population Growth

Research carried out during 1995, suggests that red deer in Queensland have increased since their release date in 1873, at a rate less than 10% per annum. (Line 2) In contrast, red deer in New Zealand have increased at a rate of at least 15% to 20% pa which explains the contrast in numbers that have been harvested in that country compared to Queensland.(Line 1) (McGhie and Watson 1995)



Estimated population growth of red deer herds based on conditions in: New Zealand (15% annual growth); and Queensland (10% annual growth).

c) Helicopter and Ground Data

Data collected so far suggests a fluctuating fawn survival rate that in some areas can be as high as 95% and as low as 10% in others. RIDGE research is investigating all possible reasons such as predation, feed stress, climatic conditions, parasites, possible diseases and inbreeding to name just a few. Initial estimates suggest an average annual fawn survival rate to maturity of between 30 to 40% of the total female herd.

d) RIDGE estimation of wild red deer natural increase.

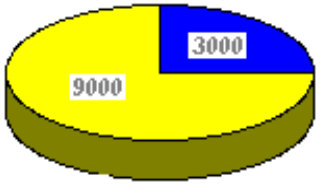
If a baseline estimation of the present wild red deer population was accepted as being 12,000 head (see section 8.7b), an estimate of the over natural increase can be formulated using the following parameters;

- A sex ratio of 1 male to 3 females.
- A conception rate at 75% of total female herd pa comprised of;
  - 2 % of the 1,500 weaner females conceiving, (Finch, 2000)
  - 70% of the 1,200 yearling females conceiving,
  - 95% of the 5,000 mature conceiving,
  - 85% of the 1,300 aged conceiving
- A fawn survival to maturity at 47% of the total conceptions (35% of the total female herd pa).
- A natural aged and accident mortality of 5% separate from fawn mortality. (5% of 12,000 = 600)
- A 30% male deer harvest, and 5% female deer harvest annually by hunters.

See next page for graphical representation of these estimates.

GRAPHICAL PROJECTION OF WILD RED DEER GROWTH RATE

MALES 25%



FEMALES 75%

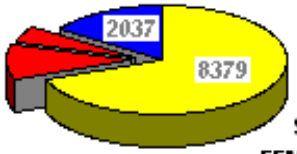
11%

HUNTER HARVEST

5%

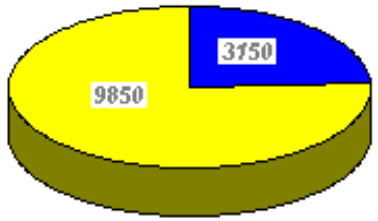
ADULT MORTALITY RATE
(due to natural causes)

SURVIVING
MALES 15%



SURVIVING
FEMALES 69%

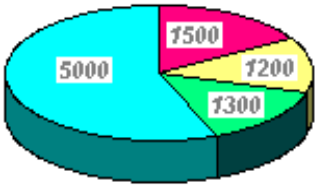
NEXT YEARS
MALES 24%



NEXT YEAR'S
FEMALES 76%

(CONCEPTION RATE)

FEMALE
BREEDING HERD



WEANERS 16% — 2% — 30

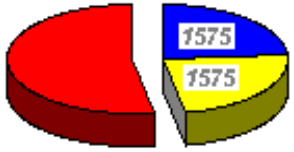
YEARLINGS 13% — 70% — 840

AGED 14% — 95% — 1105

MATURE 55% — 85% — 4750

PREDATION
MORTALITY 53%

SURVIVING MALE
PROGENY 23.5%



SURVIVING FEMALE
PROGENY 23.5%

MALE

30%

HUNTER HARVEST

5%

FEMALE

SURVIVING MALE
PROGENY 16%

SURVIVING FEMALE
PROGENY 22%

FIGURES USED ARE ESTIMATES ONLY,
BASED ON A HERD SIZE OF 12,000 HEAD.

e) Quantity Harvested by all methods

Red Deer

Information gathered from local taxidermists and from hunters in the major towns throughout the area suggests;

- There has been an annual harvest of red deer exceeding 1000 head since pre-1960.
- The estimated harvest of red deer in the historic red deer range in 1995 was 700-1500 per annum.
- 500 – 600 mature stags harvested as trophies during 2003.
- 1200 – 2000 females and young stags taken for venison during 2003.

Present day harvest of trophy and venison animals could now be as high as 1500-2500 pa. (McGhie and Watson 1995)

Canis familiaris dingo (M. Duffel photo)

f) Summary

A combination of limiting factors suggest that wild deer numbers are presently keeping to a low rate of natural increase.
These factors include;

- Natural geographical limitations.
- Predation.
- Increased hunting.
- Better management strategies.
- Drought.
- Game-meat shooting.
- Localised eradication programs in Forestry areas.

8.8

Genetic Diversity

The information existing about the initial releases of deer into Queensland is quite sketchy as to the actual bloodlines or strains and their origins.
In the case of the Chital and Moluccan Rusa, which stem from just a few individuals, presumably from the same base herds, the problem of inbreeding is not allowed to be as big a problem as with other species, due to their naturally ability to outcross.

a) Breeding rotation of deer under minimal hunting pressure.

Red and fallow deer, only mate once a year on a very regular timeline. In herds living in a totally closed natural state, a mature stag will command a herd for a number of years before being displaced. For example, some stags have been observed holding 50-70 females for up to 4 weeks before being overwhelmed by another stag but will arrive back at the same time, with the same females the following year. Stags, which exhibit the best combination of body weight, temperament, antler weight and style, have the best chance of mating.

b) The Queensland Situation

Due to continual and very selective hunting pressure in some areas, it has been noted that often stags or bucks with the least desirable genetic traits are the only mature males left to mate. Young males of the best genetics are taken before they are old enough to challenge for females, which can lead to the situation where lower genetic males gather and mate with the same group of females for a much longer period before being replaced by another low quality animal.

This leads to a high level of inbreeding in areas where there is little migration of young females and results in the overall devaluation of the herd from both a trophy and an economic viewpoint.

c) DNA Sampling

RIDGE has already collected sufficient samples from wild red deer across the majority of the wild deer range to undertake research into the level of genetic diversity with the overall herd. As funds allow, the research can extend to the other deer species as well.

d) Hybrid Vigour

During 1993 and 1994, RIDGE attempted to look at the positive benefits from the strategic infusion of additional genetic animals into the Queensland red deer herd.

Proven breeding stags, of the same genetic lines as the original releases, were selected from existing deer farms and mated to wild red deer females that were temporarily displaced from their home range. Once mated, these females were tagged and allowed to return to their areas, where their movements and habits were recorded.

Special attention was paid to their progeny once born, to ascertain if there was any noticeable hybrid vigour exhibited. Observations from RIDGE hunters were very consistent, with a marked increase in body size apparent and a very noticeable increase in antler quality on the young stags.

Some young spikers carried far better “heads”, (sometimes with 7 – 8 points), than had been recorded within the herds for many years. Unfortunately, due to their increased trophy potential, illegal hunters targeted these stags over the next few years, which ended any further observations.

e) Displaced Farm Stags

Over the entire red deer range, there have been incidences of imported bloodline stags escaping from deer farms. Without exception, these animals have continued to exhibit their genetic potential, some growing the best heads ever seen in the wild in this country. This fact is seen as an indication that feed supply and quality in the Queensland bush is sufficient to achieve maximum growth, if the genetic quality is present in the animal.

Escaped Deer Farmed stag after 18 months free in the bush.

8.9

Value to the community

RIDGE has always maintained the opinion, that a well managed and controlled deer herd, existing in country already radically changed by man, has little if any, additional negative environmental impact. Importantly the herd can provide a significant cultural and economic benefit to the community.

a) Economic Benefit

The economic benefit derived from wild deer is linked directly to herd quality. For this reason, RIDGE has encouraged landowners and hunters to manage wild deer in a responsible fashion. In 1990, the total economic value of deer hunting in Australia was estimated at over $77 million per annum. (Cause, 1990)

A Balloted-hunting program for wild red deer was instigated by RIDGE during 1996, with the aim to developing a sustainable hunting system, unique to this State.

This system is;

- Self-funding,
- Self-regulating,
- Mindful of environmental and public concerns
- Able to satisfy the wishes of hunters and landowners.

b) RIDGE Balloted Hunting Program

Since it's inception;

- Approximately 950 hunters have participated in this system.
- A total gross return to landowners of over $1.2M.
- The total expenditure by participating hunters, including additional expenses such as camping and hunting equipment, vehicles, fuel, food, airfares, communications etc, is estimated to be in excess of $250,000 annually or $3 million since 1996.

c) Cultural Benefits

The cultural significance of wild deer to the rural communities within the historic deer areas of Southern Queensland is quite clear. Emblems and motifs of wild deer adorn everything from council and property signs, to football teams and place names.

Every year during March and April, large numbers of local families prepare for the oncoming "Rut" or "Roar" as it is affectionately known, as they have done in some cases, for close to 100 years. It is not uncommon for three generations of hunters to venture into the bush, onto properties they have hunted for generations, often for weeks at a time.

The main difference that is noticeable between Queensland hunters and those from countries with well-recognised hunting traditions lies in the fact that the majority of all hunting in this State was carried out prior to recognised legal seasons and therefore was seldom discussed.

d) Cultural and Historical research

During 2005, a research paper was instigated by RIDGE titled "An investigation into the cultural and historic significance of wild red deer within traditionally recognised areas of South East Queensland". (Mann, S,. 2005)

This report was produced by Ms Stephanie Mann, a student of the University of Western Sydney to satisfy learning requirements of an undergraduate course. Within her summary she included the following:

"*that within the historically established deer ranges of Queensland, deer could be effectively managed as a game species. This should not necessarily be to the detriment of those property owners who perceive wild deer as pests"*.
(Finch and Baxter. *2005)*

8.10

New Releases of Deer

a) Associated Problems

There are inherent problems with new release herds of wild deer. RIDGE group has never supported the release of new herds of deer outside the recognised historic feral areas.

RIDGE recognises;

- The desire that exists amongst some landowners and hunters to have their “own” herd of deer on their own private properties,
- The need to accommodate other landowners in an area who may not share the same view,
- The responsibility of hunters and landowners to protect sensitive areas of the environment
- The responsibility of not causing harm to other agricultural industries.
- That new releases of deer can be a positive asset to a new area, as long as all concerns are addressed.
- That there are benefits from the implementation of Property Based Management Plans, which include Ecological Deer Management as a core component.
- There are many areas of Queensland far less suited to having wild deer present than the existing historic areas,
- That some areas should always remain free of deer or other species of introduced animals and plants.
- That wild deer are generally very hardy and disease free animals,
- The concerns Government Departments have for disease control if deer were allowed to spread in an uncontrolled manner.
- That during outbreaks of Foot and Mouth disease in the UK, very little emphasis was placed on wild deer as they were not considered to be a high-risk host.
- The present data collection systems used by RIDGE and suggested under the RIDGE Wild Deer Management Policy can be a positive asset to Government Departments by providing a simple, self regulating and effective monitoring system.

8.11

Law and Order.

The problem of illegal shooting of wild deer remains as one of the main issues for landowners. Unless Government is going to commit to a total eradication of all deer within this State, the problem will always remain.

If numbers of deer are allowed to diminish, the ability for hunters to take a trophy deer will also reduce dramatically. This will increase the "value" of individual deer to hunters and increase the incident of illegal trespass as it is well known that a minority of existing hunters will go to extreme lengths to obtain an animal.

Control programs or meat harvesting which include the use of spotlight shooting will also greatly increase the level of illegal activity unless there is an increase in policing or a self regulating system of identification for deer products. Presently there remains considerable uncertainty as to;

- What laws apply, and who should implement them,
- Who actually owns a deer,
- How are feral deer distinguished from farmed deer,

or how to handle the;

- Increase of new releases,
- Complaints between landowners,
- Indiscriminate shooting and poisoning
- Loss of value of a potential asset.

8.12

Asiatic deer species research

a) Chital and rusa deer.

The first research program into wild chital and rusa deer in Queensland was instigated by the RIDGE group during May 2010. The overseeing biologist for the program was Dr Andrew Moriarty from the University of Western Sydney in conjunction with representatives from the RIDGE group and the designated representative of the landowners.

Samples of blood and tissue were taken as well as measurements of mature animals and the foetus from these harvested deer. These samples were then analysed with the assistance of UWS and Biosecurity Queensland. Further samples will be taken in late 2010 and 2011 as part of this ongoing research program.

b) Cultural and Social significance

It was clearly evident during this research program that there is a significant cultural and social linkage between the Kaurareg people and the rusa deer across their tribal homelands.

Evidence exists of trade between these people and the people of coastal Papua New Guinea which includes deer products which are a native animal of the region. It is suggested that this trade has its origin with the Malay sailors who have visited far north Queensland and the Northern Territory for many centuries.

Kaurareg elders interviewed during the research program showed a willingness to manage deer across the region in a responsible and sustainable fashion as part of their Land and Sea Management Program but totally rejected any classification of deer as a pest species.

Kaurareg Land and Sea management rangers and rusa deer

Section 9

Summary

RIDGE believes that wild deer;

- Have been present for long enough in Queensland to be seen as an integral part of the tradition and culture of this State,
- Command a significant level of public sympathy and support,
- Possess a huge social and economic potential.
- Do minimal additional damage to the natural environment.
- Can do damage to specific crops and pastures if not controlled,
- Pose little threat as a vector of wild diseases, if managed under a system which has the support and cooperation of hunters and landowners.

- RIDGE recognises the potential for;

- Blatant disregard for Government policies and the new status laws if all stakeholders in the deer issue are not considered.
- The erosion of existing cooperation from most hunters and landowners.
- A sensible solution occurring if all parties are brought together to achieve common objectives.

RIDGE supports the principals of Sustainable Use Management of any wild species that can demonstrate satisfactory economic values.

Section 10

Options Paper

Management Alternatives

The alternatives for Wild deer management in Queensland can be defined as:

- Do Nothing.
- Eradicate.
- Declare them as a Pest.
- Class them as “Managed Feral”.
- Reclassification as “Introduced Fauna”.
- Class them as a “Game animal”.

Option 1

Do Nothing

This is what has happened since the wild deer were removed from the Nature Conservation Act 1992.

RIDGE believes that it would be irresponsible for all parties to allow this situation to continue, when there are other options.

Option 2

Eradicate

This is an attitude put across by only a limited amount of people and portrays an inflexible and uncooperative approach to the problem when there is no clear reason to take this stance.

To mount a Government sponsored and funded program to eliminate all deer out of this State would be a multi million dollar venture, similar to the BTEC (Brucellosis and Tuberculosis Eradication Campaign) program in Northern Australia which cost in excess of $800,000,000 and never totally eradicated the disease. (Byme,1998)

There is national and international evidence to suggest that when a wild species becomes established, eradication has never been successful. eg: Foxes, rabbit, feral pigs etc in Australia)

A program such as this would cause a huge negative response from the public and could raise the level of illegal releases of deer and other species into pristine areas. These new releases still remain as the main problem issue to be addressed.

Option 3

Declare Deer a Pest Species

This option could receive a negative public response from landowners and hunters in the traditional wild deer areas. Some councils would be pressurised into declaring deer as significant pests in their shires, effectively pitting one landowner against his neighbour in areas where there are mixed sentiments.

Possible problems include;

- Laws concerning trespass and stock theft are so ill defined as to cause serious problems for landowners presently managing wild deer on their properties under sensible and sustainable methods.
- An escalation of claims and legal challenges against private individuals, local shires and other Government departments.
- An escalation of deer shot for pet food and human consumption across the whole State allowing some operators to abuse the rights of landowners, including Forestry and National Parks.
- An increase in releases of deer and other species into new areas.

Although RIDGE strongly supports the right of any landowner to remove deer from their holdings if they perceive them to be a pest, we believe there are far better alternatives available than a blanket "Pest" listing for all deer.

Option 4.

Class Deer as "Managed Feral"

In North America, there have been many releases of non-native species, including Chital, Red , Fallow and Rusa deer, Blackbuck and Nilgai antelope, Mouflon and Aoudad sheep. These are recognised as "Wild Stock" and the responsibility of management resides with the landowner.

Whilst there is extremely good management of native and non-native species in the USA, RIDGE recognises the need for management systems based on Queensland conditions. It is felt that we can learn much from their mistakes and successes. (Muir, 1988)

The classification known as "Wild Stock" is used in Texas USA, for non-natives species. This classification;

- Puts the onus on landowners to control and manage wild game animals on their properties.
- Allows for these species to remain free ranging.
- Means if an animal passes across to a neighbouring property, then the ownership of that animal also changes.
- Means if the animals are on Government land, they are property of the Government.
- Requires any landowner who wishes to retain positive ownership, to fence their boundaries to limit any movement.
- Limits illegal activity by giving positive ownership to the property on which they preside and therefore clearer implementation of the law.

If a species is causing damage in an area, landowners can either;

- Control the problem by fencing and conserving the resource or,
- Join with neighbours to reduce and manage numbers. In the US, this has generated a high level of cooperation between all parties and some of the best-known management systems in the world.

RIDGE believes that an alternate classification of deer as "Managed Feral" would be appropriate on properties where the deer are managed under EDM programs. Following are examples of how this status could work in this State.

"Managed Feral" in Queensland

Historically, in Queensland, most landowners have regarded the wild deer on their properties as their own, to catch, hunt or control, despite their "Introduced Fauna" classification.
During the period when deer prices were very high (1978 – 1991) landowners were reluctant to comply with trapping laws imposed on them by the QNPWS. (McGhie and Watson 1995)

Hunters have also shown an attitude of non-compliance with laws governing deer hunting because many were either landowners in the deer areas or were cooperating with landowners in some way. There was little reason to comply with existing laws when there was an established history of avoiding them. (Searle and Parker, 1982)

A classification of "Managed Feral" would mean;

- Those regional authorities with deer in their area would be able to comply with existing State pest regulations.
- Landowners would be encouraged to either control deer as "Pests" on their holdings or adopt an Ecological Deer management Plan (EDM) as part of their overall "Property Based Management Plan".
- These EDM plans would allow for clear recognition of landowners and hunters as "controlling" the deer on their holdings.
- That legal support and advice against stock theft could be given by police in cooperation with Government Departments.
- That a simple and effective "Permission to Hunt" system could be implemented which would provide a self regulating method to monitor movement of harvested deer and hunter permission. (attachment 37)
- That any allegation of theft or trespass could be easily checked against this movement system.

Option 5

Reclassification as Introduced Fauna

Although a reclassification as “Introduced Fauna” is seen as an option, it has gained very little support during discussions held so far by RIDGE group with representatives from many of the concerned parties.

There could be considerable resistance to this classification from landowners, (both pro and anti wild deer) and also from hunters.

It is recognised that the system in place from 1952 to 1995 clearly was not working and would require;

- Considerable changes to relevant Acts and laws.
- The establishment of vehicles, office equipment and staff to administer the system.
- Considerable support from participants to raise the funds to administer the system unless Government was willing to back it financially in the interim period.

RIDGE believes that although it may have been an option to continue the classification as “Introduced Fauna” at the time of the changes to the *Nature Conservation Act 1992*, now that the changes have been made it would be difficult and unrealistic to bring the classification back.

Option 6

Classification as a Game Species

Wild deer have long been regarded in all European countries as a Game animal, although their pursuit was often only available to Royalty or aristocracy. When deer were first introduced to Australia, it was done for the food and enjoyment of the settlers of this country. (Bentley 1998)

Wild deer in Victoria and Tasmania have a long and continuos history as a Game animal and there are sound management policies in place to control both the animals and the hunters. Hunting is allowed on much of the crown land in these States and there is very good participation and support shown by hunters and landowners. (Hall, 2003)

New South Wales has introduced a *Game and Feral Animal Control Act, 2001* through Parliament and have established a Game Council. The Game Council is responsible for wild deer within NSW and draws its funding from the sale of licences to hunters and landowners.

Wild deer as Game in Queensland

The idea of wild deer as "Game" in Queensland has strong support from hunters and from many landowners but there is also opposition from some quarters.
Some landowners questions include;

- Will it undermine their authority on their own country?
- Will it disrupt already established management plans and harvest systems?
- Would deer become property of the Crown or become property of the landowner?
- What guidelines and laws would be in place to allow any system to work?
- Would there be the required resolve on the part of Government Departments to allow the system to work?
- If a landowner wished to remove all the deer from their property, without having to pay any licence fees or employ Government shooters, would they have the right to do so?
- How to convince neighbouring landowners or hunters that they needed to obtain permission or pay for licences when others were not?

- Would the required capital to cover administration come from the sale of licences?
- As property of the landowners, how would existing private management schemes fit in with an overall game management policy?

RIDGE believes that there are considerable benefits to be gained from a "Wild Game" classification for all people involved with wild deer in this State, however unless there was sufficient resolve shown by all participating parties, it could be a more complex way to get to the outcome outlined in Option 4.

An outline of the RIDGE preferred option for wild deer management in this State is included as Attachment 1.

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