
Wildlife Management Branch

February 2011
1. INTRODUCTION

The fallow deer was introduced to Tasmania in the 19th Century and has been managed as part of the State’s wildlife resources since. The objective of management is to allow the benefits of wild deer, such as hunting, to be realised while limiting their negative impacts on crops and natural values. Management actions are aimed at balancing deer populations with their habitat, land use and hunting interests. The Tasmanian Government manages the wild deer populations to provide benefits for a wide range of interests including land owners, hunters, conservation and other interest groups. The conservation status of wild fallow deer and the management objectives are reflected in the *Nature Conservation Act 2002* and its regulations.

The purpose of this document is to collate current management policies and practices regarding wild fallow deer in Tasmania.

The document is set out in the following sections:

- A brief history of fallow deer in Tasmania
- Fallow deer management in Tasmania
- Legislative status, current licensing arrangements, and key changes in fallow deer management

The fallow deer, *Dama dama dama*, are the only species of deer present in the wild or farmed in Tasmania. Consequently this document uses ‘deer’ and ‘fallow deer’ interchangeably, depending on the context and the ‘readability’ of the text. Also, with the exception of the specific references to farmed deer (e.g Section 2.2) the focus of this document is management of wild fallow deer consequently, unless otherwise specified, reference to ‘fallow deer’ or ‘deer’ in the following document refers to ‘wild fallow deer’.

2. A BRIEF HISTORY OF FALLOW DEER IN TASMANIA

2.1. Introduction and establishment

Fallow deer were introduced in to the Tasmanian landscape from stock imported from England in 1836 to provide a hunting resource (Bentley 1978). During the subsequent decades fallow deer were released in different districts and this resulted in what became known as ‘the deer range’ – the area occupied by fallow deer, which centred around three main areas of the state; (i) west of the Midlands Highway, roughly between Oatlands, Bothwell, Steppes and Cressy (referred to as the Interlaken area), (ii) east of the Midland Highway and south of Avoca (the Ross/Campbell Town area), and (iii) east of the Midlands Highway and north of Avoca (the Deddington/Blessington area) (Wapstra 1973).

The fallow deer population has increased steadily since its introduction with conservative estimates in the 1970s of 8,000 animals (Wapstra 1973), estimates from a limited state-wide survey in 1990 indicating a population of 16,000 to 20,000 (DPIPWE unpublished report 1990). By the mid 2000’s it was estimated that the population had reached 30,000, although it is likely that the herd has declined to in the order of 20,000 in the late 2000s as a
consequence of prolonged and severe drought and culling. Evidence for this decline is available in anecdotal reports of reduced observation rates, reduced fallow deer density recorded during regular forester kangaroo surveys, and declines in the number of bucks harvested by recreational hunters.

Since the 1970s the ‘deer range’ has expanded significantly as a consequence of a variety of factors including escapes and releases from deer farms plus natural expansion of the population. The current estimated distribution, including the locations of known satellite herds, is shown in Map 1.

Fallow deer hunting has been conducted since their introduction and hunting arrangements have evolved in that time. Since the early 1970s there have been several significant changes to the way in which fallow deer are managed and the hunting seasons applied. Hunting arrangements and fallow deer management more broadly have remained largely unchanged since 1995 (see Section 4.2).

2.2. Fallow deer farming

Fallow deer are the only species of deer farmed in Tasmania. The industry developed in Tasmania during the mid-1970s when a small number of farmers attempted to establish deer farming enterprises based on wild-caught foundation stock. This generated considerable conflict between hunters and farmers due to concerns from the hunting community that deer numbers in the wild would be severely reduced and hunters would lose access to land for deer hunting purposes. Neither outcome eventuated.

During the late 1980s, the number of deer farms increased significantly. However the new industry was unable to establish itself on a broad-scale and the early 1990s saw a rapid exodus from the sector. As a consequence, there are only approximately five commercial (i.e. producing commercial meat and velvet) deer farms currently operating.

In recent years, small-scale fallow deer farming has grown significantly in popularity but only in terms of personal use, hobby farms and wildlife display rather than for commercial meat and velvet production. There are currently 157 registered deer farms (of all types) across Tasmania.

The decline of commercial deer farming has had an unplanned impact on the range of deer in Tasmania; some farm deer herds were released or escaped in areas that were outside the historic deer range resulting in ‘satellite’ herds becoming established in new areas.

Amendments were made to the Wildlife Regulations (1999) in 2006 regarding transferring deer farming into the Wildlife Regulations and making the Department’s Wildlife Management Branch responsible for the regulation of deer farms.

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1 The trend in buck harvest provides a useful population index for deer management purposes (Kiffner et al. 2008 and VGIF 2007)
3. WILD FALLOW DEER MANAGEMENT IN TASMANIA

Management of Tasmania’s wild deer herd has long attracted much interest and debate among landowners, hunters, various interest groups and Government agencies. Conflict in the 1960s led calls for a management plan to be developed to address stakeholders concerns. To contribute to preparation of the management plan research was undertaken
between 1971 and 1973 and this was funded by an increase in the cost of recreational deer hunting licenses (Wapstra 1973).

While a number of recommendations arose from the research, a management plan was not prepared.

In 1977, as a consequence of continuing conflict among stakeholders, the then Minister for National Parks and Wildlife established the Tasmanian Deer Advisory Committee (TDAC) to provide a forum to facilitate dialogue and improve stakeholder relations amongst farmers, deer farmers and hunters. Lobbying by hunter groups resulted in (i) strict conditions being put in place to control deer trapping for farming purposes, and (ii) the introduction of a royalty paid by purchasers of trapped deer. The royalty was payable to a Game Management Trust Fund that was overseen by TDAC. A portion of deer recreational hunting licence fees were also to be paid into this fund with a view to it being used to undertake research and other activities relevant to deer management.

Management of the herd has principally relied on hunting by licensed hunters during a gazetted recreational hunting season and the issuing of crop protection permits, which allow farmers to cull deer that are causing damage to crops or pasture, or to achieve property specific management objectives for implemented Quality Deer Management (QDM) programs.

The following sections of this report set out the major components impacting on current deer management in Tasmania; recreational hunting, property-based game management agreements, quality deer management, crop protection culling, and management of satellite herds.

3.1. Recreational hunting

Until the early 1970s recreational hunting seasons in Tasmania provided for a seasonal bag of 5 bucks and no does. Does were only taken under crop protection permit. This reflected the management principle at that time that does represented the ‘breeding stock’ and therefore should be protected. This approach led to a range of problems including:

- an unbalanced age and sex structure in the population,
- significant increases in population due to the high number of females,
- a small male population made up of largely immature bucks, and
- poor trophy quality due to the young average age of bucks.

In 1974 changes were made to hunting arrangements to address these issues. The season bag for bucks was reduced to 1 buck and a limit of 1 doe was introduced. However, due to difficulties in distinguishing between immature male fawns and does (females) in the field, significant numbers of immature males were accidently shot and then left in the bush. Consequently a further change was brought in to address this and hunters were allowed to take one ‘antlerless’ deer (i.e. of either sex). This was later changed to allow the taking of either one buck and one antlerless deer, or, two antlerless deer.
Between the 1970s and 1995 there were various minor changes to the timing and duration of the hunting season. Since 1995 there has been little change in the arrangements for the recreational seasons. Further details regarding licensing arrangements are provided in Section 4.

3.2. Property-based Game Management

Property-based game management (PBGM) has become a significant component of deer and wildlife management within Tasmania’s deer range. This approach was initially promoted by National Parks and Wildlife staff in 1990 and was then further advanced by the Quality Deer Management project run by the Tasmanian Deer Advisory Committee (TDAC) between 1993 and 1996. The basis of PBGM is that landowners use access to land for deer hunting as a means of attracting hunters who are then required to control wallaby and possum in exchange for deer hunting rights in the deer season. A negotiated agreement is made between a group of recreational hunters and a landowner that specifies, for example, the number of crop protection visits required per year, any other services required to be undertaken by the hunters, plus the fee paid to the landowner by the hunters. This process is usually facilitated by officers from DPIPWE’s Game Management Unit (GMU).

In addition, agreements may also include reference to how many deer a property should aim to carry and what restrictions will be placed on the harvest of young male deer to facilitate an increase in the trophy quality of deer on a property (for example, limit the taking of young male deer with fewer than 16 points). Fallow Deer Observation and Wildlife Harvesting Logbooks were introduced to help landowners and hunters keep track of hunting effort, harvest and deer (and other wildlife) numbers.

The Game Management Unit was created within DPIPWE in 1996 to facilitate the initiation and implementation of PBGM. To date 120 PBGM agreements involving fallow deer management have been negotiated and finalised between land owners, recreational hunters and Game Management Unit staff on 164 properties totalling 372,000 hectares.

3.3. Quality Deer Management

In 1973 a Parks and Wildlife Service report (Wapstra 1973) recommended changes to deer management to improve the age and sex structure of the fallow deer population, improve trophy quality, and reduce populations. However, not all of the recommendations were implemented at the time.

In 1993 funding was secured by the TDAC from the Game Management Trust Fund to undertake a three year Fallow Deer Management Project with the intention of introducing the ‘Quality Deer Management’ approach to Tasmania. This management approach was more reflective of deer management practice in parts of the USA and Europe, than that which had been practised in Tasmania to that point.

The aim of Quality Deer Management is to promote a healthy deer population in balance with the habitat in which the deer reside. The core principles of Quality Deer Management involve:
• the voluntary restraint in the harvesting of younger antlered males (ages 2.5 and 3.5 year olds),
• an increased harvest of female (or antlerless) deer, and
• landowners, recreational hunters and Departmental staff working towards common objectives. By reducing the overall deer population, browsing damage (attributable to deer) is reduced, and herd health is improved.

The TDAC (with financial and logistical support from the Department) employed a consultant to:

• assess the status of the Tasmanian deer herd and the impact of the existing deer management practices on the population; and
• initiate a Quality Deer Management approach.

Research undertaken as part of the project confirmed (as previously noted by Wapstra 1973) that the majority of bucks taken by recreational hunters at the time were first and second year heads, which meant few animals reached full maturity (5.5 – 6.5 years of age). This had significant negative implications for genetic health and trophy potential of the population.

To address this problem, and broader deer-related issues (including hunter/landowner relations and poaching), the property-based game management and Quality Deer Management approaches were combined and promoted by TDAC and the Department. To facilitate implementation of both management approaches numerous hunter and landowner educational workshops were undertaken, initially by TDAC and subsequently by Game Management Unit (DPIPWE) staff. The philosophies of QDM have, to some extent, become a part of the hunter culture in Tasmania and this is demonstrated in the improvement in antler quality score, the number of antlerless deer being harvested and more balanced sex ratios in the population.

3.4. Non recreational hunting of fallow deer

The Department has issued permits to take deer that are causing damage to crops and pasture for several decades. The Department has restricted the issuing of crop protection permits (CPPs) during hunting seasons and in the later stages of the breeding season. This has been to avoid adverse welfare outcomes related to shooting of heavily pregnant does and does with dependent young. It has also minimised compliance issues by reducing opportunities for unlicensed hunting. Further details are provided in Section 4.2 Current Management: Crop protection. A decision tree for issuing permits for taking fallow deer is provided at Figure 1.
Application for permit to take fallow deer

Is the request within the traditional managed deer range?

Review PBGMP to understand what management strategy exists between hunters and landowner liaison with both stakeholders to assist deer management strategy.

Does the applicant have a PBGM Plan?

Issue permits for female (antlerless) deer in accordance with one of the following:
- maintain a consistent deer density
- reduce deer density
OR
Issue permits for male immature (spikie) deer to reduce the likelihood of the formation of large bachelor herds of male deer.
OR
Issue limited permits for (inferior trophy) male mature deer to reduce the formation of large bachelor herds of male deer experienced in some districts "inspection required"

Figure 1. Decision Tree for issuing permits to take fallow deer

Issue permits regardless of sex or age

Is the request for permit to protect pasture, plantation, fodder or cereal crops?

Yes

Is the request for permit to protect pasture, plantation, fodder or cereal crops?

Yes

Issue permits for female (antlerless) deer causing browsing damage in localised areas.
OR
Issue permits for immature male (spikie) deer causing browsing damage in localised areas.
OR
Issue limited permits for male mature deer to reduce the localised damage by bachelor herds. "inspection required"
3.5. Management of satellite herds

One significant by-product of the deer farming industry, and particularly its decline, has been the creation of satellite deer herds outside the traditional core deer range. These have been created by deer escaping from farms, and, possibly from deer herds being released when a farm has become unviable. Satellite herds have also reportedly been initiated or augmented by members of the general public releasing deer with the aim of establishing new populations and increasing the deer range.

In some cases where herds have established outside the deer range, they have been subject to attempts to suppress or eradicate those populations with the Department working in cooperation with recreational hunters, the relevant deer farmers and adjoining landowners. The approach used has been to issue Crop Protection Permits (antlerless, mature male and first year male or “spikie”) to reduce as much as practicable the population in the localised area. Eradication has proven difficult for a variety of reasons and has not been achieved in any location.

Experience to date indicates that eradication of satellite herds is likely to be possible only if:

- A rigorous strategy is put in place targeting a given localised population;
- the strategy is fully implemented; and
- Department officers are involved with control operations and responsible for the completion of a given operation.

The Department currently has no formal policy on the management of existing satellite herds.

4. Current licensing arrangements and key changes in fallow deer management

During the last 40 years there has been significant change in deer management approaches in Tasmania and this is reflected in the changes in management arrangements.

Key changes include the following:

1974 The bag limit for deer was changed from 5 bucks per season to 1 buck and 1 doe reflecting concerns about population structure and trophy quality.

1977 Tasmanian Deer Advisory Council (TDAC) was established by the Minister for National Parks and Wildlife.

1981 Game Management Trust Fund was established based on royalties paid by purchasers of trapped deer (to provide foundation stock for deer farms), and a portion of deer hunting licence fees. The fund is used to benefit deer management in the state and is overseen by TDAC.

1986 A draft deer management plan was prepared by National Parks and Wildlife but not accepted due to a lack of stakeholder support.
1990 The Hunter authority card system (used for administering hunter access to properties) was cancelled.

1992 Property-based game management was adopted by the Department and promoted by National Parks and Wildlife staff.

Government investigated de-regulation of deer as a management option, however no change in the status of deer resulted.

1993 TDAC employed a consultant to provide advice on improving the management of deer in Tasmania, promote PBGM and introduce QDM.

1994 Animal Farming Registration (AFR) Act proclaimed with farm deer being removed from the Wildlife Regulations 1971 and listed under the AFR Act.

1995 TDAC consultancy concluded. New arrangements for the recreational deer hunting season developed with stakeholder consultation during the consultancy put in place. These arrangements remain the basis for managing the recreational hunting season in Tasmania.

1996 GMU formed to facilitate implementation of PBGM and QDM.

2002 The recreational bag limit was altered to allow the taking of one adult male deer and one antlerless deer or two antlerless deer.

2005 Farm deer were removed from the Animal Farming Registration Act 1994.

2007 Conservation areas opened to controlled hunting of deer via a ballot system.

Management of wildlife (and therefore deer) in Tasmania is governed by the Nature Conservation Act (2002); Part 4 of the Act (Conservation of Flora and Fauna) sets out the legislative framework for the management of wildlife in Tasmania and outlines the provisions that may be made for the control (management) of prescribed wildlife species in Tasmania. The Act provides legal protection for wildlife species and also provides for the taking of wildlife species. The Act has provisions for making the Wildlife Regulations, which among other things outline provisions for the taking of wildlife, protecting crops from wildlife damage, and restricting certain types of hunting equipment. A statutory review of the Wildlife Regulations 1999 has resulted in the creation of new regulations governing hunting – Wildlife (General) Regulations 2010 – and fallow deer farming – Wildlife (Deer Farming) Regulations 2010. However, the 2010 regulations have not introduced significant changes to the regulation of wild and farmed fallow deer in Tasmania.

4.1. Current arrangements: Recreational hunting

Under the Wildlife (General) Regulations 2010 fallow deer are scheduled as Partly Protected Wildlife. As such they are subject to an open season during which they may be taken by shooting by licensed hunters. The regulations also provide for the taking of fallow deer under permit on specified land for crop protection purposes. The Wildlife (General) Regulations 2010 also contain provisions for the regulation of hunting including the imposition of bag limits and restrictions on methods to be used in taking deer.
4.1.1. The Open season

Section 30 of the Nature Conservation Act 2002 provides for the Minister to determine, by Ministerial Order notified in the Gazette, the opening and closing dates for open seasons on forms of Partly Protected Wildlife, including fallow deer. The Order may determine the places in which the open season may apply, as well as imposing other conditions.

Under the existing Nature Conservation (open seasons) Order 2004, the Open season for deer is:

(a) in the case of adult male deer, the period starting on the Saturday nearest 1 March of the year and ending on the fifth Sunday following that Saturday; and

(b) in the case of antlerless deer –
   (i) the period starting on the second Saturday following the Saturday nearest 1 March of the year and ending on the third Sunday following the Saturday on which the season started; and
   (ii) the period starting on the second Saturday in May of the year and ending on the eighth Sunday following that day.

The existing order can be amended at anytime by the Minister making an Amendment Order. Changes to deer seasons have previously involved significant consultation with stakeholders.

4.1.2. Licensing of hunters

A recreational fallow deer hunting licence (a licence) authorises the holder to take either one adult male deer and one antlerless deer or two antlerless deer during the open season. In 2010 purchase of a licence cost $59.85 (note this amount increases on 1st July each year under the Fee Units Act (1997). The number of licences purchased for deer has increased from 2672 in 1996 to 4151 in 2010 (see Figure 2, full details also in Appendix 2).
4.1.3. **Regulation of recreational deer hunting**

The *Wildlife (General) Regulations 2010* prohibit the taking of wildlife, including deer, with chemicals, poisons, bow and arrows and spears. The Regulations also require the following in relation to the hunting of deer.

- A person must not use a dog or spotlight to take a deer.
- A person must not take a deer otherwise than by shooting with a rifle with a calibre of not less than 6 millimetres (or .240);
- A person who has taken a deer must immediately fix and lock a prescribed tag to the deer.
- Spikies (first year bucks) may not be taken.
- The head of a deer must not be removed or the body severed, unless the hunter labels all the parts with their name, address and deer licence number.

4.2. **Current arrangements: Crop protection**

Regulation 26 of the *Wildlife (General) Regulations (2010)* provides for the issue of permits for taking of wildlife to prevent damage to crops and pasture outside the recreational hunting seasons. Specifically, the Regulations state:

1. A crop protection permit authorises the taking of such form of partly protected, protected or specially protected wildlife as is specified in the permit to prevent the destruction of, or injury to, any stock or plants caused by that wildlife.

2. A crop protection permit may also authorise the possession or selling or other disposal of the wildlife taken under the authority of the permit or the products of any such wildlife.

Landowners can apply to the Department for crop protection permits (CPP) outside the recreational season, for deer that are causing damage to crops or pastures. The number of crop protection permits issued for all categories (antlerless, adult male and spikie) has increased during the last ten years (see Table 1). A number of factors may be contributing to this trend. These include:

- drought forcing animals out of the bush and onto agricultural land in search of feed;
- land use change as a consequence of greater use of irrigation and planting of high value crops and plantations acting as a magnet for deer coupled with greater concern about browsing pest damage by farmers due to higher value crops being impacted;
- an increase in the number of properties practicing quality deer management and therefore maintaining reduced deer populations; and
- an increase in culling activities being formalized by landholders and hunters via obtaining appropriate permits.

Permits can be made out to specific individuals undertaking the culling or they can be issued as ‘un-named’ permits to the landowner; this allows the landowner to allocate tags to hunters of their choice.
4.2.1. Adult male deer

Since the initiation of PBGM and Quality Deer Management it has been the GMU's practice to limit the issue of CPP for males within the ‘traditional deer rage’ because uncontrolled taking of male deer has the potential to work against the aims of Property-based Game Management agreements and associated Quality Deer Management strategies. Requests for adult male deer CPP tags require a site visit to allow damage assessments to be undertaken and circumstantial cases to be considered by the Department in the determination process. Typically, the most significant damage issues for adult male deer arise from males thrashing their antlers on young plantation trees, and the seasonal concentration of male deer on cropping areas during winter.

The preferred method of achieving overall herd management goals with regard to male deer is via issuing tags to allow the harvest of ‘spikies’ (or first year bucks), or alternatively by issuing permits for sub-prime mature bucks with injuries, antler deformities. This reflects the philosophy that it is better to remove animals that have had the least ‘effort’ invested in their development rather than older animals that may be closer to, or already of, trophy quality.

4.2.2. Antlerless deer

Crop Protection Permits are generally not issued for antlerless deer between the end of October and the beginning of the antlerless deer season in March. This is due to welfare considerations related to avoiding the shooting of heavily pregnant does and does with dependent young. In some instances, for example where the management strategy for a specific property requires a reduction of the overall deer density then the permits will be made valid for the entire March-October period. In this circumstance the permits are still classified as being used for crop protection however in reality these permits are used to implement property specific management strategies aiming to reduce deer density and increase deer quality on the property. In some cases, hunter groups undertake ongoing monitoring of deer populations on their property via regular spotlight surveys and day time counts. The deer population is maintained at a level agreed to with the landowner using a combination of recreational hunting and CPP as appropriate.

Table 1. Deer tags issued under Crop Protection Permits for fallow deer, 2000- Nov 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Antlerless</th>
<th>Male</th>
<th>Spikie</th>
<th>Total CPP</th>
<th>% CPP used</th>
<th>Projected Harvest*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2596</td>
<td>19</td>
<td>0</td>
<td>2615</td>
<td>46%</td>
<td>1203</td>
</tr>
<tr>
<td>2001</td>
<td>1894</td>
<td>12</td>
<td>0</td>
<td>1906</td>
<td>41%</td>
<td>781</td>
</tr>
<tr>
<td>2002</td>
<td>1044</td>
<td>6</td>
<td>0</td>
<td>1050</td>
<td>65%</td>
<td>683</td>
</tr>
<tr>
<td>2003</td>
<td>3803</td>
<td>0</td>
<td>0</td>
<td>3803</td>
<td>57%</td>
<td>2168</td>
</tr>
<tr>
<td>2004</td>
<td>4677</td>
<td>112</td>
<td>5</td>
<td>4794</td>
<td>42%</td>
<td>2013</td>
</tr>
<tr>
<td>2005</td>
<td>6859</td>
<td>98</td>
<td>380</td>
<td>7337</td>
<td>77%</td>
<td>5649</td>
</tr>
<tr>
<td>2006</td>
<td>5645</td>
<td>254</td>
<td>233</td>
<td>6132</td>
<td>63%</td>
<td>3863</td>
</tr>
<tr>
<td>2007</td>
<td>7330</td>
<td>216</td>
<td>618</td>
<td>8161</td>
<td>75%</td>
<td>6121</td>
</tr>
<tr>
<td>2008</td>
<td>7968</td>
<td>120</td>
<td>373</td>
<td>8461</td>
<td>64%</td>
<td>5415</td>
</tr>
<tr>
<td>2009</td>
<td>5670</td>
<td>200</td>
<td>322</td>
<td>6191</td>
<td>78%</td>
<td>4829</td>
</tr>
</tbody>
</table>

* Note that ‘projected harvest’ indicates the likely total harvest based on the rate of license returns and the reported take from those returns
5. ADDITIONAL MANAGEMENT ACTIVITIES

5.1. Data collection

In 1993 a database (GAMEBASE) was developed to record biological data of deer harvested in Tasmania. GAMEBASE is used to service the data requirements of properties with a Property-based Game Management Plan. It provides a basis on which property managers, and their associated hunter groups can make management decisions via providing information on the breeding, distribution, density and deer herd quality. The Department has generally provided this information to landowners and hunter groups via annual presentations by GMU staff as part of pre-deer season property meetings and during stakeholder meetings with TDAC and the Australian Deer Association.

A range of data is entered into GAMEBASE from fallow deer harvest records provided by individual hunters or collectively by hunter groups. The data entered for male deer includes general hunter details, date of harvest, property name, colour of deer, chest girth, live weight, field-dressed weight, age, and all antler measurements required to produce a Quality Score².

For female deer the following information is provided; date of harvest, property name, colour of deer, chest girth, live weight, field-dressed weight, age, and reproductive information.

Collection of this data allows herd biology and dynamics to be assessed at property or regional level. Landowners and hunter groups are able to analyse biological aspects such as age structure of the herd, trophy quality data, and reproductive information for their property. The information can be used as a performance measure in relation to the individual properties’ deer management objectives (as outlined by the landowner and hunters in their PBGM plan).

Use of GAMEBASE by land owners and hunters varies considerably. There are approximately 22 properties where the database is heavily used, while there are a further 40 properties where the database is used, but by only a portion of all hunters active on the property.

5.2. Landowner and hunter education

As part of the introduction of Property-based Game Management and Quality Deer Management in the mid 1990s various education activities were undertaken by the Department. Stakeholder meetings with hunters and landowners were undertaken across the state promoting QDM and associated PBGM plans. No formal education programs have been undertaken since, however there has been ongoing informal work undertaken on an ad

² The Quality Score of harvested bucks provides a benchmark of how successfully the hunting community is implementing QDM at a property, regional or state level.
hoc basis by the GMU in the form of property meetings and talks with relevant groups. This is covered in greater detail in the following section (5.3 Stakeholder Liaison).

5.3. Stakeholder liaison

The Department undertakes a range of stakeholder liaison activities in relation to deer management. These include the following:

- Departmental representation on the Tasmanian Deer Advisory Committee (TDAC)
- Liaison with farmers and forestry interests on permitting requirements, property harvest reports and data, and illegal activity.
- Liaison with hunters regarding harvest reports and data, providing advice on hunter access issues, game season queries and reports of illegal activity.
- Liaison with landowners and hunters in the development of property-based wildlife management plans.
- Undertaking pre-deer season meetings at selected properties to deliver presentations on deer and browsing animal harvest information on that property for the previous twelve months, new developments or changes on game seasons and associated regulations, and updates on relevant Department activities (e.g. Alternatives to 1080 program).
- Presentations are regularly provided (on request) to the various Australian Deer Association (ADA) branches state-wide on a range of issues.
- Provide the Game Management Liaison Committee as a means of stakeholder liaison.
- The annual publication of Game Tracks.

6. REFERENCES


Virginia Department of Game and Inland Fisheries 2007 Virginia Deer Management Plan 2006-2015 Wildlife Division Wildlife Information Publication No. 07-1 June

APPENDIX 1  Biology of fallow deer

Fallow deer are believed to have originated in the Mediterranean region of Europe. Two sub-species exist: the European and Mesopotamian (or Persian) fallow deer; only the European variety is present in Tasmania, although there have previously been proposals to introduce the subspecies to the State for deer farming purposes.

The European fallow deer is considered a medium sized deer. Data collected by hunters within Tasmania identifies that mature does weigh on average 40 kilograms (Graph 1) and have an average height (at the shoulders) of 78 cm.

Mature bucks weigh on average approximately 90 kilograms (Graph 2) and have an average height of around 90 cm at shoulders (DPIPWE unpublished data).
Social structure and reproduction

European fallow deer have a preference for mature woodland habitat adjoined by open areas easily accessible for grazing. They do not depend on the woodlands for food but simply use this as shelter or cover. They are considered a herding species and have a complex social system and organizational structure which closely follows the annual breeding cycle. Typically, in large areas males and females remain separate for much of the year with adult males observed to form bachelor groups and females and young offspring form separate herds. During the breeding time of the year (or rut), which occurs in autumn (peaking in April in Tasmania), the males travel to female areas and establish display grounds in traditional areas. Mixed adult groups occur from the rut until early winter when these groups once again drift apart to re-establish single sex herds. (Thirgood 1995) Both sexes become sexually mature at approximately 16 months of age. At this stage males are commonly referred to as ‘spikies’ reflecting the undeveloped state of their antlers.

Although the male deer may be able to mate at this age usually the social dominance of fully mature bucks prevent them from undertaking breeding. In Tasmania, data collected by hunters indicates that on conception peaks in April (weeks 13-16) and continues on into May and June (weeks 17-24) (see Graph 3).

![Conception Dates of Fallow Does](image)

**Graph 3.** Conception dates of fallow does reported by recreational hunters 1993-2009.

Available data in Tasmania indicates that Fallow does give birth to one fawn, usually between November (week 46-48) and January (week 53-54), with a significant peak in late November and December (Graph 3). Although it is very uncommon, Fallow does have been reported giving birth to twins.
Graph 4. Parturition dates of fallow does reported by recreational hunters in Tasmania.
**APPENDIX 2**  Annual sales of recreational deer hunting licenses in Tasmania for the period 1996 - 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Licenses sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>2672</td>
</tr>
<tr>
<td>1997</td>
<td>2832</td>
</tr>
<tr>
<td>1998</td>
<td>2862</td>
</tr>
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APPENDIX 3  Quality Deer Management (QDM)

Quality Deer Management is a deer management strategy which has the goal of managing deer herds to achieve and maintain healthy herds with a balanced sex ratio, and to produce quality trophy deer. Quality Deer Management focuses on harvesting female deer for meat; restraining the harvest pressure on younger male deer to allow them to grow to their prime trophy antler bearing age of 4.5-6.5 years of age (see Graph 1). Available data shows that trophy quality in Tasmania has improved consistently since 1996 (Graph 2) and since 2002, approximately one third of all male deer harvested in Tasmania each year have exceeding a Quality Score of 200 points. This score has been identified as a benchmark for a quality fallow buck. To be considered a trophy head a quality score of over 225 points is required.

Graph 1. Mean antler Quality Score by age class.

Graph 2. Percentage of bucks scoring above 200 & 225 Quality Score.