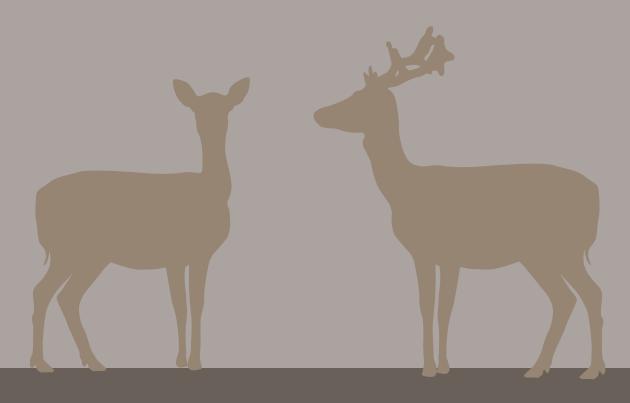
# Draft Tasmanian Wild Fallow Deer Management Plan



Consultation draft

Released for comment October 2021



# Contents

Foreword	3
How to provide feedback	4
Key steps in the development of the Plan	5
Purpose	6
Goals	6
Overview of management objectives and initiatives	7
Current management context	10
The introduction and distribution of wild fallow deer	10
Population growth	12
Deer hunting in Tasmania	13
Impacts of a growing wild fallow deer population	14
Regulatory and policy reviews	15
Landholder and hunter collaborations	16
Management objectives and initiatives	17
Management objective 1: Effectively manage the impacts of wild fallow deer throughout the state .	17
Introduction of deer management zones	17
Evaluating deer management tools	20
Enhanced deer farming regulation.	20
Management objective 2: Empower farmers, foresters and other land managers to work	
collaboratively with hunters to achieve tailored deer management objectives	21
Greater flexibility for landholders through "lighter-touch" policies and PBWMPs	21
Management objective 3: Continue to provide evidence-based deer management	
Wildlife population monitoring	23
Improved understanding of biosecurity	23
Management objective 4: Improve community involvement,	
education and awareness of deer management	
Control of peri-urban deer	24
Community engagement and education	24
Refocussed regulatory enforcement	24
Acknowledgements	25
Acronyms and glossary	25
Appendix 1: The Biology of Wild Fallow Deer	26
D. C	27

The Department of Primary Industries, Parks, Water and Environment pays respect to the traditional and original owners of this land and acknowledges today's Tasmanian Aboriginal People as the continual custodians.

# Foreword

The development of a five-year wild fallow deer management plan follows the completion of the aerial survey component of Tasmania's first state-wide deer census and builds on the government's response to the 2017 Legislative Council Inquiry and Report on Wild Fallow Deer in Tasmania.

When finalised the *Tasmanian Wild Fallow Deer Management Plan* will set the strategic intent and direction for wild deer management in the state. It will guide decision making over the next five years and will be implemented by the *Tasmanian Government* in partnership with the *Tasmanian community*.

The Draft Management Plan is being developed through consultation with a broad range of stakeholders, including the Tasmanian Game Council.

You are invited to have your say on this draft document and play your part in successfully planning for the future of wild fallow deer management in the state. Your feedback will be used by the Department to refine the draft document and craft the final plan for release.

# How to provide feedback

DPIPWE is seeking your views on the *Draft Tasmanian Wild Fallow Deer Management Plan*.

Please comment on any of the Goals or Management Objectives proposed, or any other aspect of the Draft Plan.

Your feedback is important and will be considered in finalising the final fiveyear *Tasmanian Wild Fallow Deer Management Plan* which will set the strategic intent and direction for wild deer management in the state.

## How to have your say

- Email: Submissions can be emailed to gamemanagementplan@dpipwe.tas.gov.au
- Post: Farmpoint, DPIPWE, PO Box 46, Kings Meadows, TAS 7249
- Phone: By calling Farmpoint on 1300 292 292
- In-person by calling Farmpoint on 1300 292 292 to make an appointment to see an officer or by attending a community forum, details of which will be advertised in the press and on the Departmental website at

https://dpipwe.tas.gov.au/agriculture/game-services-tasmania/wild-fallow-deer-management-plan

#### RESPONSES MUST BE RECEIVED BY 5:00 PM ON FRIDAY 3 DECEMBER 2021.

#### Information about feedback submissions

All submissions will be treated as public information and made available on the Department's website. If you wish for your submission to be treated as confidential, either whole or in part, please note this in writing at the time of making your submission.

No personal information other than the name of individual submitters will be disclosed.

### The Right to Information Act 2009 and confidentiality

By law, information provided to the Government may be provided to an applicant under the provisions of the *Right to Information Act 2009* (RTI). If you have indicated that you wish all or part of your submission to be confidential, the statement that details your reasons will be taken into account in determining whether or not to release the information in the event of an RTI application for assessed disclosure.

# Key steps in the development of the Plan

The development of a five-year *Tasmanian Wild Fallow Deer Management Plan* is being undertaken with close community consultation through a staged approach:

# Targeted stakeholder consultation

Key stakeholders including the Tasmanian Game Council, Tasmanian Farmers and Graziers Association, hunting groups, conservationists, foresters and the general community provided input to the Draft Plan via 51 individual submissions.

#### **Public forums**

Over 200 people attended public forums over four days in November 2020 at Bothwell, Longford, Ulverstone and Brighton, providing valuable insights used in the development of the plan.

# Release of the Draft Plan

The Draft Plan is now open for public comment, with opportunities to provide written submissions by 3 December 2021; or to provide in-person feedback by contacting Farmpoint on 1300 2929 292 to arrange an appointment with one of our officers, or through one of the community forums to be advertised at https://dpipwe.tas.gov.au/agriculture/game-services-tasmania/wild-fallow-deer-management-plan

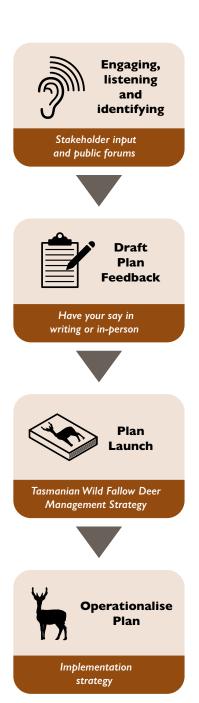
Feedback is also sought on potential actions and priorities to inform the development of the Implementation Strategy (see below).

#### Release of the Final Plan

The feedback from submissions, community forums and one-on-one conversations will inform the development of the Final Tasmanian Wild Fallow Deer Management Plan.

# Release of the Implementation Strategy

The Tasmanian Government intends to prepare a rolling implementation strategy which outlines the specific timelines, priorities, actions, resourcing requirements, and evaluation/reporting processes to ensure that the five-year Plan is delivered.



# Purpose

The purpose of the *Tasmanian Wild Fallow Deer Management Plan* will be to set clear goals and management objectives for wild fallow deer in Tasmania over the next five years. In doing so, the Plan will also provide a summary of the current management context.

The development of a Wild Fallow Deer Management Plan follows the completion of the aerial survey component of Tasmania's first state-wide deer census, and builds on the government's response to the 2017 Legislative Council Inquiry and Report on Wild Fallow Deer in Tasmania. The Plan intends to ensure that the impact of wild fallow deer on agricultural production, conservation areas and forestry are balanced with maintaining deer as a traditional hunting resource.

The Plan is being developed through consultation with a broad range of stakeholders, including the Tasmanian Game Council. The plan is a non-statutory policy statement regarding the goals and management objectives for wild fallow deer management in Tasmania rather than an enforceable legal instrument.

# Goals

This Draft five-year Plan recognises that to achieve a balanced approach to managing wild fallow deer, complementary high-level goals are required in two key areas: social goals and deer population goals.

#### Social Goals

- Provide increased options to farmers and land managers to effectively control the impacts of deer on their activities
- Continue to provide for responsible recreational deer hunting as a legitimate and valued activity in Tasmania
- Reduce public safety risks from deer
- Reduce the risks to the natural and cultural values of Tasmania's conservation reserve estate and other public and private lands
- Protect Tasmania's biosecurity by reducing the risks of deer as a potential disease vector.

## **Deer Population Goals**

- Avoid further potential spread of deer
- Reduce the abundance and geographic range of deer with a particular focus on areas outside the traditional range
- Support property-level management of deer to provide for sustainable hunting in selected zones.

# Overview of management objectives and initiatives

The regulations and policies implemented in Tasmania to date have aimed to find a balance between maintaining deer as a hunting resource whilst allowing for the impact of wild fallow deer on primary industries and the natural environment to be managed.

There are agricultural, commercial, environmental and public safety impacts associated with the growth and increased distribution of deer populations in Tasmania. A deer management plan will set contemporary management objectives and evaluate control options for the future. In doing so it is acknowledged that stakeholder aspirations in regard to deer management may be divergent. A clearly articulated and balanced approach is sought to address impacts and reduce the likelihood of deer populations establishing in new areas.

Four management objectives are proposed to govern the approach. These are set out below and in Figure 1, with initiatives listed under each objective.<sup>1</sup> At this time, the initiatives put forward are "high-level". Specific actions will be defined in the implementation strategy which will be developed to support the five-year Plan.



# Management objective 1: Effectively manage the impacts of wild fallow deer throughout the state

- Three distinct management zones will be established in Tasmania. These zones will reflect the fact that deer population management goals vary with location and context.
- Deer control methods will be evaluated and adopted in a manner that facilitates the appropriate strategy for each specific situation and desired outcome.
- New deer farming regulations proposed under the Nature Conservation Act 2002 once approved and implemented will support farmers and minimise the risk of escapees being a source of seed stock to establish wild herds in locations across the state.



### Management objective 2:

Empower farmers, foresters and other land managers to work collaboratively with hunters to achieve tailored deer management objectives

• Greater flexibility to take deer based on sex, age or the season, dependent on zone, will be provided through the use of Property Based Wildlife Management Plans (PBWMP) and light touch regulation.

<sup>&</sup>lt;sup>1</sup> Management objectives and control techniques are set out in more detail on pages 17-25.



# Management objective 3:

### Continue to provide evidence-based deer management

- Targeted population monitoring will be undertaken to help refine deer and browsing animal management over time.
- Annual take returns will be maintained to complement population monitoring.
- Research will be conducted to improve our understanding of deer biosecurity issues.



# Management objective 4:

# Improve community involvement, education and awareness of deer management

- Partnerships and collaborative approaches will be extended to reduce deer abundance in peri-urban and conservation areas.
- Community and local government will be informed of, and engaged with, the deer management strategies outlined in this Draft Management Plan.
- Deer hunting regulation and compliance activity will be delivered through partnerships to avoid antisocial or unsafe behaviour.

#### **SOCIAL GOALS**

- Provide increased options to farmers and land managers to effectively control the impacts of deer on their activities
- Continue to provide for responsible recreational deer hunting as a legitimate and valued activity in Tasmania
- Reduce public safety risks from deer
- Reduce the risks to the natural and cultural values of Tasmania's conservation reserve estate and other public and private lands
- Protect Tasmania's biosecurity by reducing the risks of deer as a potential disease vector.

## **DEER POPULATION GOALS**

- Avoid further potential spread of deer
- Reduce the abundance and geographic range of deer with a particular focus on areas outside the traditional range
- Support property-level management to provide for sustainable hunting in selected zones.



# Management objective 1:

# Effectively manage the impacts of wild fallow deer throughout the state

- Introduction of deer management zones
- Evaluating deer management tools
- Proposed enhanced deer farming regulation



#### Management objective 2:

Empower farmers, foresters and other land managers to work collaboratively with hunters to achieve tailored deer management objectives

• Greater flexibility for landholders through "lighter-touch" policies and PBWMPs



### Management objective 3:

# Continue to provide evidence-based deer management

- Population monitoring
- Improved understanding of biosecurity



### Management objective 4:

Improve community involvement, education and awareness of deer management

- Control of peri-urban deer
- Community engagement and education
- Refocussed regulatory enforcement

Figure 1: Overview of the Draft Plan's goals, management objectives and initiatives

# Current management context

#### The introduction and distribution of wild fallow deer

European fallow deer<sup>2</sup> (*Dama dama*) is the only species of deer present in Tasmania.<sup>3</sup> Fallow deer were first introduced to the Tasmanian landscape from England in 1836 to provide a hunting resource.<sup>4</sup> By the early 1970s the wild fallow deer population occupied what became known as 'the traditional deer range', which centred around the Interlaken, Ross/Campbell Town, and Deddington/Blessington areas of the northern midlands and central highlands.<sup>5</sup>

Since the 1970s, deer populations have become established well outside this traditional range, with populations extending into wilderness areas with high conservation values and satellite populations including several in periurban areas. The spread of deer into new areas has been hastened by a range of factors including accidental and deliberate releases; the increase of irrigation schemes which has created a favourable grazing environment for deer; and natural population growth. Deer are now estimated to occupy a range encompassing at least 27 per cent of the state. Figure 2 shows the traditional deer range, along with the extended area where deer now occur.

<sup>&</sup>lt;sup>2</sup> The terms 'European fallow deer', 'wild fallow deer', 'fallow deer' and 'deer' are used interchangeably in this Draft Plan.

<sup>&</sup>lt;sup>3</sup> For a short overview of the biology of fallow deer in Tasmania, see Appendix 1.

<sup>&</sup>lt;sup>4</sup> Bentley, A. (1978) An introduction to the deer of Australia. Koetong Trust, Forests Commission, Melbourne.

<sup>&</sup>lt;sup>5</sup> Wapstra, J. E. (1973) Fallow deer in Tasmania. Parks and Wildlife Service.

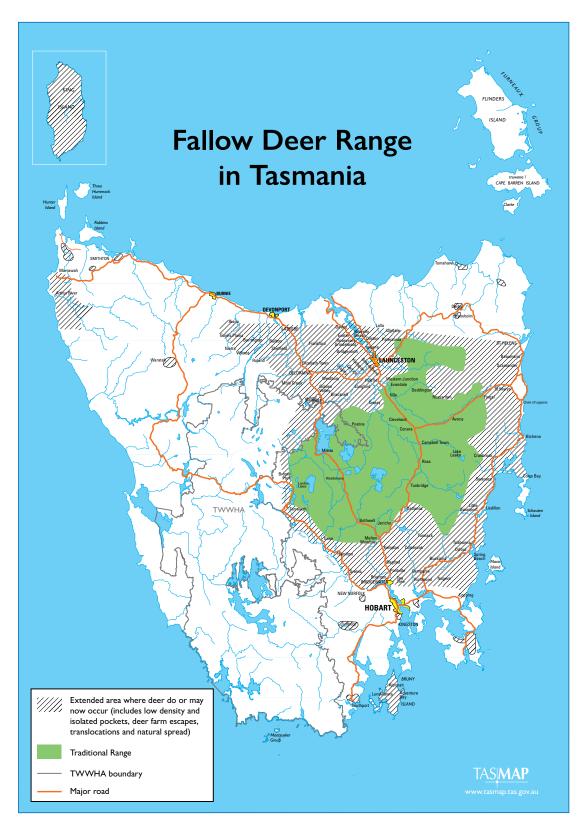


Figure 2: Known extent of wild fallow deer in Tasmania (2021)

## Population growth

Since the introduction of deer to Tasmania, numbers have increased over time. In the 1970s, the deer population was conservatively estimated at around 8,000, growing to around 16,000 to 20,000 deer in the 1990s and up to 30,000 deer in the mid-2000s.<sup>6</sup> Annual spotlight surveys carried out by the Department of Primary Industries, Parks, Water and Environment (DPIPWE) allow an estimation of long-term population trends.

In addition, the Tasmanian Government is currently undertaking a comprehensive statewide census of wild fallow deer in the state. The initial component of this census was an aerial survey of the 'traditional deer range' and adjacent areas, conducted in 2019. The survey estimated a population size of around 54 000 in the surveyed area<sup>7</sup>, with ongoing observations and monitoring beyond this range indicating a larger total statewide population.

Based on the long-term annual spotlight surveys it is estimated that the annual population growth rate is in the order of 6.2 per cent.

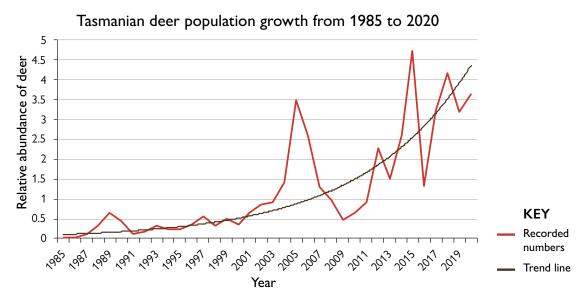


Figure 3: The relative abundance of fallow deer in Tasmania based on annual statewide spotlight surveys (average number of deer observed per 10 km transect), with trend line.

<sup>&</sup>lt;sup>6</sup> Jensz, K. and Finley, L. (2013) Species profile for the Fallow Deer, Dama dama. Latitude 42 Environmental Consultants Pty Ltd. Hobart, Tasmania.

<sup>&</sup>lt;sup>7</sup> Lethbridge, M.R., Stead, M.G., Wells C. and Shute, E.R. 2020. Baseline aerial survey of fallow deer and forester kangaroo populations, *Tasmania*. Report to Tasmanian Department of Primary Industries, Parks, Water and Environment.

#### Wild Fallow Deer Census

A 2017 Legislative Council inquiry into wild fallow deer found that there was "very limited information about the contemporary population density and dispersal of wild fallow deer in Tasmania", and recommended "a regular five yearly review of the wild fallow deer population and distribution be completed for the purpose of effectively managing the population".

In response to this, DPIPWE worked with the University of Tasmania and other stakeholders to develop appropriate survey methodologies, and commenced a census in 2019 using three methods: aerial surveying in the areas where deer are in medium to high densities; camera trapping in areas outside the aerial survey zone; and a state-wide "citizen science" project where the public participate in reporting deer sightings.<sup>8</sup>

In the aerial survey, wild fallow deer were surveyed across eastern Tasmania between 23 September and 4 October 2019. Visual and thermal imaging observations were made from a helicopter flying at 50 knots (92 kilometres per hour) 200 feet above the ground along a series of east-to-west survey lines spaced at approximately 10-kilometre intervals. Forester kangaroo were also counted as part of the same survey. An estimated 53,660 deer were reported within the sampled area, and this figure highly correlated with the distribution and abundance of deer observed in annual DPIPWE spotlight surveys.

The camera trapping component of the census commenced in 2021 with deployment at Arthurs Lake, Lake Fergus, Mayberry, King Island, Coles Bay and Bicheno. Trail cameras are being used to estimate deer abundance and geographic distribution in areas supporting low to medium abundance of the species.

The citizen science component of the census is enlisting the help of the general public, by promoting the DeerScan application as an ongoing means of reporting the location and number of deer sighted, with a particular focus on the use of this method in areas outside the survey zone and within conservation areas such as the Tasmanian Wilderness World Heritage Area (TWWHA) and national parks.

Information from this census will inform deer management strategies across the Tasmanian Landscape.

### Deer hunting in Tasmania

Deer hunting has been a recreational activity in Tasmania since fallow deer were first introduced to the state, with approximately 6,000 fallow deer licences sold for the 2021 deer season. As well as its inherent value as a recreational pursuit, the sport attracts hunters from interstate and overseas, and provides an income stream for some landowners in the form of access fees.

Hunting is also the key means through which deer populations have been managed in Tasmania to date. Regulations and policy settings have been implemented to improve herd characteristics and numbers for hunting (such as the designation of deer as a partially protected species, the requirement for game licences, and the implementation of open seasons and quotas) while simultaneously seeking to manage the impact of deer on primary production and the environment (such as through the use of crop protection permits and Property Based Wildlife Management Plans).<sup>9</sup>

With an established population and abundant suitable habitat across the state it is now recognised that policy settings need to be updated and that a range of other tools are required to effectively manage deer at the landscape scale.

<sup>8</sup> See https://dpipwe.tas.gov.au/agriculture/game-services-tasmania/wild-fallow-deer-census for an overview of the census project.

<sup>9</sup> See the Property Based Wildlife Management Plans and Quality Deer Management breakout box on page 16.

## Deer hunting regulations and policies

The principal legal mechanism for managing the Tasmanian wild fallow deer population is the *Wildlife (General) Regulations 2010* (the Regulations), made under the *Nature Conservation Act 2002* (new Regulations due to be formally approved and come into effect before 1 December 2021).<sup>10</sup> The Regulations provide for the taking of wildlife, protecting crops from wildlife damage, and restricting certain types of hunting equipment. Under the Regulations, fallow deer are a "partly protected" species that may only be taken through a hunting Licence or permit issued under the regulations, such as a Crop Protection Permit (CPP) which authorises the taking of deer to prevent stock or crop damage.

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.

Several elements of deer management relating to permit quotas, tagging and harvest restrictions based on certain biological factors are policy positions rather than legislated requirements and are implemented through conditions of permits under Regulations. For example, antlerless deer cannot be taken during their lactating period and there are restrictions on taking males during 'the rut'.

Until 2020 deer had to be culled under a quota and individual tags were required to be attached to each culled animal to ensure compliance. Since 2020, and in recognition of the increasing challenges landholders faced managing deer, there has been no limit on the number of antlerless (any female deer, male fawns and antlerless males) deer that can be taken under a game licence or permit.

Current Government policy is that wild-shot fallow deer may not be sold for commercial purposes.

### Impacts of a growing wild fallow deer population

The growing number and wider geographic distribution of wild fallow deer in Tasmania presents challenges for the environment, agriculture and forestry as well as the general public.

The relatively recent expansion of deer into peri-urban areas increases the likelihood of human-deer interaction and poses a greater potential for property damage, injury and death via traffic accidents, illegal and unsafe use of firearms and other weapons, and damage to private and public infrastructure.

Deer browsing can have significant impacts on native ecosystem structure. Browsing by high density deer populations promotes a more open and less biodiverse understorey, leading to the conversion of forests to open grassy woodland communities. These changes in forest structure can have a cascade of effects on other plant and animal species. These ecosystem impacts are particularly significant in those situations where deer populations may be in areas of high conservation value, including the Tasmanian Wilderness World Heritage Area (TWWHA).

<sup>&</sup>lt;sup>10</sup> See details of the new Wildlife Regulations drafting process and proposed changes in regard to deer farming https://dpipwe.tas.gov.au/wildlife-management/wildlife-regulations-review

<sup>&</sup>lt;sup>11</sup> Jensz, K. and Finley, L. (2013) Species profile for the Fallow Deer, Dama dama. Latitude 42 Environmental Consultants Pty Ltd. Hobart, Tasmania.

Wild fallow deer populations can also cause extensive browsing and physical damage to commercial agriculture and forestry. For example, deer grazing on pasture compete with livestock for forage and their impact on crops can be significant, particularly in irrigated areas. Male fallow deer cause damage to trees by thrashing them with their antlers, both when displaying during the rut in autumn, and in cleaning velvet from newly grown antlers in late summer. Protecting establishing forestry trees from deer represents a significant cost to forestry companies. In addition, deer represent a biosecurity threat as potential transmission vectors for some important diseases of domestic livestock and humans.

# Regulatory and policy reviews

The Tasmanian Government's deer regulations and policy settings are regularly evaluated to manage the impacts of deer and to ensure that they are contemporary. These settings aim to facilitate an appropriate balance between commercial, public, environmental and hunting interests in their outcomes. A 2017 Tasmanian Legislative Council inquiry into wild fallow deer provided an opportunity for a significant review of these settings, which are reflected in the current permit and license conditions.<sup>12</sup>

The Regulations under the *Nature Conservation Act 2002* are currently in the final stages of review following significant community consultation.

Several important achievements have been made in recent years which are summarised in the box below.

# Summary of recent deer management changes and initiatives

- **2018**: Established a new Game Services Tasmania branch within DPIPWE to better support landholders, farmers and hunters to effectively manage wild fallow deer and all issues relating to game and browsing animals.
- **2018**: Established the Tasmanian Game Council as an independent advisory body with wide skills and experience on game and browsing management.
- **2019**: Formulated a contemporary statement articulating Quality Deer Management (QDM) as the basis for managing deer as a sustainable hunting resource in areas where it is appropriate to do so.
- **2019**: Commenced a comprehensive statewide deer census, with the aerial survey component released in 2020 and the camera traps and citizen science components ongoing.
- **2019-21**: Undertook a review and rewrite of the Wildlife (General) Regulations 2010 and the Wildlife (Deer Farming) Regulations 2010 with the new Regulations due to be Gazetted in November 2021.
- 2020: Cut red tape by introducing five-year Crop Protection Permits for antlerless deer.
- 2020: Removed quotas and tagging requirement for antlerless deer under both recreational hunting Licenses and Crop Protection Permits.
- **2020**: Provided greater opportunity for hunters to hunt deer in conservation areas, with ten reserves now available to recreational hunters via a ballot system.

See the Government's full response to the Legislative Council Report on Wild Fallow Deer (https://dpipwe.tas.gov.au/Documents/Government%20Response%20to%20Leg%20Co%20Report%20on%20Wild%20Fallow%20Deer.pdf)

#### Landholder and hunter collaborations

Deer hunters are inextricably linked to landowners since the majority of wild fallow deer and thus hunting resource in Tasmania occur on private land. It is therefore important that strong, respectful and mutually beneficial relationships are fostered between hunters and landholders. Tools in the form of Property Based Wildlife Management Plans (PBWMP) and Quality Deer Management (QDM) can be used to develop and formalise such relationships.

Property Based Wildlife Management Plans are a tool developed collaboratively between landholders, hunters and others such as special values and conservation professionals that clearly articulate the wildlife management plans and desired outcomes for the property.

The concept of QDM was introduced to Tasmania in 1993 and reflected the deer management practices of parts of the USA and Europe. The term describes a set of deer management principles that are typically implemented at a property level to deliver the management objectives of the landowner and the experience sought by the hunters on the property. An updated QDM statement was released by the government in 2019.<sup>13</sup>

# Property Based Wildlife Management Plans and Quality Deer Management

Property based Wildlife Management Plans (PBWMPs) are property-specific, written documents which set out tailored objectives for the management of wildlife – particularly the game species – on individual properties, including property-specific game seasons and take arrangements.

The PBWMP is a non-binding partnership arrangement between landowners and a group of hunters accessing their property. The arrangement allows recreational hunters and contract shooters to work cooperatively with the landowner to facilitate access to deer hunting in a manner which is mutually beneficial. PBWMPs are most commonly used on properties where deer hunting is a significant activity and has a long history.

A PBWMP is a voluntary agreement, which 'belongs' to the landowner, so the landowner may cancel the agreement at any time. Game Services Tasmania within DPIPWE provides advice to landowners seeking to develop PBWMPs, which may include:

- Wildlife species present on the property and their classification under Tasmanian legislation;
- Wildlife management options;
- Browsing damage review;
- Crop and property protection information;
- · Population monitoring and data collection; and
- Model PBWMP templates.

PBWMPs may be used to deliver Quality Deer Management (QDM) outcomes. The updated QDM approach set out by the Tasmanian Government in 2019 focuses on maintaining wild fallow deer populations as a hunting resource while reducing negative production and financial impacts on agriculture and forestry for the property owner.

A key principle of QDM involves the education of landholders and hunters, since goals must be agreed and embraced by both hunters and the owners of properties on which they hunt for the approach to be successful. The QDM approach requires voluntary restraint of harvesting young male deer in order to allow young trophy-potential males to grow, whilst reducing or maintaining the overall deer population by increasing harvest of antlerless deer (i.e. females, buck fawns and button bucks).

<sup>&</sup>lt;sup>13</sup> The Tasmanian Government's Contemporary Statement of Quality Deer Management (QDM) 2019 is available at https://dpipwe.tas.gov.au/wildlife-management/management-of-wildlife/game-management/publications-and-other-resources

# Management objectives and initiatives

The following section provides more detail on the four Management Objectives.



# Management objective 1: Effectively manage the impacts of wild fallow deer throughout the state

#### Introduction of deer management zones

Three distinct management zones will be established in Tasmania. These zones will reflect the fact that deer population management goals vary with location and context.

A key part of a *Tasmanian Wild Fallow Deer Management Plan* is the establishment of three zones that will be introduced to guide deer management at the landscape level and provide options at the local level to enable key stakeholders to meet their specific objectives. These objectives may range from maintaining a sustainable trophy hunting resource on an individual property in the northern midlands, through to the intensive removal or local eradication of populations in peri-urban areas or the TWWHA. A key priority of this approach will be the prevention of new deer populations establishing in areas of Tasmania that currently do not support deer and removal of deer from areas where they occur but are not wanted.

Zone 1 encompasses those parts of the state known to many in the community as "the traditional deer range", where deer have been established for many years (refer to Figure 1). Hunting in these areas is valued as a source of recreation for many individuals, families and hunting groups. Existing relationships between hunters, hunter groups and landholders will remain an integral component of deer management in the future for this zone.

The overall management objective for this area will be to continue to manage deer for sustainable hunting whilst providing landholders with greater flexibility in reducing the impact of deer according to their property-specific management goals through PBWMPs.

Zone 2 surrounds the traditional deer range (Zone 1) and contains areas with deer populations ranging from low density and isolated pockets of deer to locally abundant populations. Deer have spread into this area over recent decades from Zone 1, and via releases and escapes, and there are differing viewpoints in the community regarding their presence in this region.

The overall management objective in this "buffer" zone will be to manage down the population to limit impacts on primary production, the environment, and public safety, and to minimise population pressure pushing deer into the adjacent Zone 3, while simultaneously offering the possibility of property-specific management goals to be achieved through PBWMPs where there is an existing hunter group. This means that if a property has an existing hunter group and the owner wishes to continue these arrangements, they are able to continue as previously. Alternatively, if a landholder wishes to manage down the deer on their property, they are able to do so, as they see fit within the broader regulatory settings of the zone.

Zone 3 is the remaining area of the state where deer either do not yet occur, have only relatively recently arrived, or should not be allowed to establish (e.g. peri-urban areas, and areas with high natural and cultural values such as the TWWHA).

In this zone, "no deer" is the broad management objective. While recognising that deer currently occur within Zone 3, and the inherent difficulty of eradicating them, the "no deer" objective of this zone translates to eradicating new incursions and either eradicating or managing down existing satellite populations in a strategic and prioritised manner.

These zones are summarised in Figures 3 and 4.

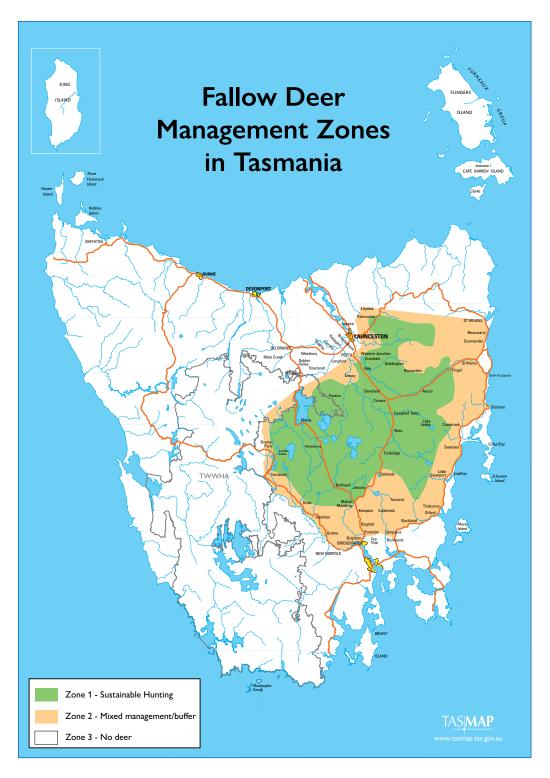


Figure 3: Wild fallow deer management zones in Tasmania

# Proposed management zones

# **ZONE 1**Sustainable hunting



Traditional deer zone where deer are an accepted part of the landscape

#### **GOAL**

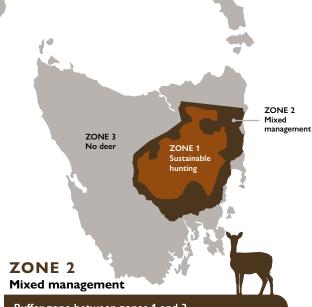
Manage for continued sustainable hunting

#### **FEATURES**

- Property-based wildlife management plans (PBWMP) agreed to by property managers and hunter groups
- Harvest and culling restrictions apply as determined by property managers and hunter groups if under PBWMP\*, or defaults to take restrictions as per Regulations and current policy if not under a PBWMP

#### BENEFITS

Gives land managers responsibility and control. Reduced red tape, simplifies deer management



#### Buffer zone between zones 1 and 3

#### **GOAL**

Manage overall deer populations down with exceptions for properties with existing hunter groups

#### **FEATURES**

- Property-specific wild-life management plans (PBWMP) agreed to by property managers and hunter groups
- Harvest and culling restrictions are reduced except on properties with existing hunter groups and if agreed to by property managers and hunter groups

#### **BENEFITS**

Reduced red tape simplifies deer control

### ZONE 3 No deer - Eradicate, manage down or contain

Rest of state including Tasmanian Wilderness World Heritage Area, certain reserves and peri-urban areas

#### GOAL

Manage toward 'no deer' in the landscape

#### **FEATURES**

- Property-based management aiming for removal of deer from the landscape
- Harvest and culling restrictions are reduced to allow for unlimited take
   months of the year

#### **BENEFITS**

Reduced red tape simplifies deer eradication

Figure 4: Summary of goals, features and benefits of wild fallow deer management zones in Tasmania

<sup>\*</sup> Property-based Wildlife Management Plans are voluntary agreements between land managers and a group of hunters which are property-specific, written documents outlining how wildlife, and particularly the game species, will be managed on an individual property or group of properties

#### Evaluating deer management tools

Deer control methods will be evaluated and adopted in a manner that facilitates the appropriate strategy for each specific situation and desired outcome.

The preferred options for managing deer in a given environment may change as more research is undertaken and experience in specific management settings is gained. The available tools in the "toolbox" should be as diverse as possible.

Traditionally, shooting - by landholders, recreational hunters and professional shooters operating under licences and permits - has been the main tool used to take wild fallow deer. There are several situations in which recreational hunting is not appropriate, such as deer control in peri-urban areas.<sup>14</sup> At the broader landscape level, recreational hunting is not a sufficient means of eradication or controlling the spread of deer, particularly in Zone 3 (and some parts of Zone 2) where eradication is the goal.

In some settings there is a role for contract shooters in coordinated and professional control operations when managed and monitored in such a way as to exert sustained control pressure over well-defined parts of the landscape.

A key initiative in the proposed Plan is to initiate reviews and trials of available and potential options to assess their utility as future management tools in Tasmania. This may include different methods of shooting, baiting, and any appropriate technological or chemical tools. Where appropriate Tasmania will seek opportunities to collaborate with research programs undertaken by interstate or national bodies.

Aerial (helicopter-based) operations with specialist shooters targeting deer in remote or inaccessible areas are increasingly undertaken in other Australian states and are commonly employed in New Zealand. The evolution of thermal technologies may make this option increasingly effective, and consideration will be given to this approach for Tasmania where appropriate subject to consultation.

Other non-firearm-based approaches which may be suitable in limited and localised settings include fencing, trapping, baiting with sedatives or baiting with poisons.

Feedback is also being sought during the consultation on the draft Plan to inform potential actions and priorities in the Implementation Strategy. Stakeholders are encouraged to put forward proposed actions and appropriate feedback for consideration.

#### Enhanced deer farming regulation

New deer farming regulations under the Nature Conservation Act 2002 will support farmers and minimise the risk of escapees being a source of seed stock to establish wild herds in new locations.

The draft rewritten deer farming regulations will aim to support deer farm management and, if exiting the business, facilitate a managed process for disposing of animals. Responsible keeping of deer as a farmed animal will be enabled while minimising the risk of deer escapees creating satellite herds in the environment surrounding deer farms.

<sup>&</sup>lt;sup>14</sup> Deer control in peri-urban areas is undertaken by specialist deer management professionals from DPIPWE.



## Management objective 2:

Empower farmers, foresters and other land managers to work collaboratively with hunters to achieve tailored deer management objectives

#### Greater flexibility for landholders through "lighter-touch" policies and PBWMPs

The partially protected status of deer will be retained. Greater flexibility to take deer based on sex, age or the season dependent on zone will be provided through the use of Property Based Wildlife Management Plans (PBWMPs) and light-touch regulation.

With the introduction of management zones in Tasmania, each with different objectives, it is timely to reevaluate several of the deer hunting exclusion policies that currently apply statewide.

In the proposed plan, the current statewide settings including take limits, tagging requirements and seasonal exclusions based on age and sex will continue to apply to landholders in Zone 1 (in line with the "sustainable hunting" goal of this zone). However, if landholders develop a PBWMP with an organised hunting group there is the option to set alternative take arrangements that permit more flexible deer control according to the property management objectives. For property owners in Zone 1 who do not have a PBWMP, but who need to be able to control deer, a one off permit with conditions similar to those that might be specified in a PBWMP may be granted for a limited time based on an assessment by the department.

In Zones 2 and 3, a "light-touch" regulatory environment is proposed, reflecting the "mixed management" and "no deer" objectives of these zones, respectively. As part of this light-touch approach, it is proposed that the current exclusions on taking stags during 'the rut'<sup>15</sup>, and immature males (spikies) at any time be modified to facilitate deer controls.

In Zone 2, landholders who have the property management goals of promoting a sustainable hunting population to ensure the availability of trophy males may choose to enforce these exclusions on their property through a PBWMP, providing the property has an existing relationship with a hunter group.

In addition, there is currently an exclusion on antlerless deer which applies between 16 November and 14 March. This exclusion presents a significant management challenge because of the potential for crop damage during this period. It is proposed that this exclusion will be removed in Zone 3, reflecting the "no deer" objective of this region. The moratorium on antlerless deer will remain in Zone 1 unless an exemption is granted under the appropriate permit.

The current exclusion on taking antierless deer between 16 November and 14 March exists because it is the lactating period for deer and taking a lactating female during this period may impact any dependant fawn. Ethical hunters operating in Zone 3 or under permit in Zones 1 and 2 can manage this risk by accounting for fawn dependent on does, and noting that from about three weeks of age fawn start to forage for food and become less dependent.

These proposed light-touch policies will continue to ensure basic animal welfare protections and enable monitoring and oversight of Tasmania's deer hunting resource by Game Services Tasmania. Annual take returns under permits and game licences will still be required to provide population monitoring data that will enable effective herd management and evaluation of management strategies.

The stag season ends prior to the rut (the mating period which lasts several weeks in the autumn) when stags are more easily taken by hunters. This restriction does not apply in all other Australian states.

The majority of the wild fallow deer population occurs on private rural land, which landholders are usually managing with agriculture and forestry production goals taking priority. Recreational hunting is largely supported by private landholders who bear the costs and benefits associated with managing deer and hunting. The use of PBWMPs in Zones 1 and 2 will enable farmers and foresters to work together with hunters to set clear and understood deer management objectives for their individual property within the broader objectives of these zones, giving greater flexibility to manage deer and associated hunting on their land. This may include the implementation of Quality Deer Management if considered appropriate at the property level.

Under the proposed plan, new or updated PBWMPs which take into account the new management options will be lodged with Game Services Tasmania. In Zone 3 where the goal is managing down and eradication of deer, landowners will be encouraged to work with Game Services Tasmania to achieve this outcome.

Table 1 provides an overview of how the proposed light-touch policies (which involve the removal of exclusions) will apply in each of the different zones throughout the state.

Table 1: Summary of how the proposed system of light-touch policies would apply in the proposed zones. In summary, the light-touch policies apply throughout Zone 3. They also apply throughout Zone 2 unless specified under an existing PBWMP. In Zone 1, the current statewide regulations apply, unless a property owner implements a PBWMP which addresses these specific default settings. In Zones 1 and 2, the antierless deer exclusion during fawning season applies unless exempted under the appropriate permit.

Game Licence Regulations	Current statewide	Proposed Zone 1	Proposed Zone 2	Proposed Zone 3
Period when stags can be taken	29 Feb to 5 April	29 Feb to 5 April, unless specified in PBWMP	Year-round unless specified under existing PBWMP	Year-round
Stag bag limit	One	One, unless specified in PBWMP	No limit unless specified under existing PBWMP	No limit
Stag exclusion during the rut	Yes	Yes, unless specified in PBVVMP	No exclusion unless specified under existing PBWMP	No exclusion
Stag tagging requirement	Yes	Yes, unless specified in PBVVMP	Not required unless specified under existing PBWMP	Not required
Period when antlerless deer can be taken	15 Mar to 15 Nov	15 Mar to 15 Nov, unless specified in PBWMP	Year-round unless specified under existing PBWMP	Year-round
Antlerless deer bag limit	No limit since 2020	No limit, unless specified in PBWMP	No limit unless specified under existing PBWMP	No limit
Antlerless deer exclusion during fawning season	Yes	Yes, unless exempted under the appropriate permit	Yes, unless exempted under the appropriate permit	No exclusion
Spikie exclusion	Yes	Yes, unless specified in PBVVMP	No exclusion unless specified under existing PBWMP	No exclusion
Antlerless deer tagging requirement	Not required since 2020	Not required unless specified in PBWMP	Not required unless specified under existing PBWMP	Not required
Annual take returns required	Yes	Yes	Yes	Yes



# Management objective 3:

### Continue to provide evidence-based deer management

#### Wildlife population monitoring

Targeted wildlife population monitoring will be undertaken to help refine deer and browsing animal management over time. Annual take returns will be maintained to complement population monitoring.

A key objective of the Plan is that all control techniques and management strategies are informed by scientifically rigorous data. Consequently, the wild fallow deer herd will be monitored to estimate abundance and geographic distribution.

Spotlight surveys undertaken by DPIPWE, together with the major wild fallow deer census (comprising aerial survey, citizen science and camera trapping components), represent important sources of baseline data which may be used as a reference point for deer management in Tasmania.<sup>16</sup>

Further work is underway to correlate results of the aerial survey with data from spotlight surveys, with the goal of developing an efficient methodology for the ongoing targeted monitoring of populations using spotlight surveys, combined with the continued routine use of citizen science (using DeerScan) and ongoing rollout of camera traps. The next aerial survey will be conducted in 2023.

This monitoring will provide essential data for developing and prioritising deer control strategies; making accurate risk assessments; targeting strategic areas; and for evaluating the effectiveness of measures to manage down populations relative to baseline levels, particularly in areas that are subject to commercial, environmental and public impacts.

#### Improved understanding of biosecurity

Research will be conducted to improve our understanding of deer biosecurity issues.

A greater understanding of the potential biosecurity impact of deer populations is needed in order to help prioritise management strategies. As deer are potential transmission vectors for some important diseases of domestic livestock as well as those of cultivated plants, more research is required to better understand the relationship between the wild deer herds and transmission of plant and animal diseases and seeds.

Knowledge gained through the monitoring approaches listed above will help to prioritise control methods based on biosecurity risks.

<sup>&</sup>lt;sup>16</sup> See breakout box on page 13.



## Management objective 4:

# Improve community involvement, education and awareness of deer management

#### Control of peri-urban deer

Partnerships and collaborative approaches will be developed to reduce deer abundance in peri-urban and conservation areas.

Deer in peri-urban areas pose significant risks to public safety due to the potential for property damage, injury and death from vehicle collisions, collision avoidance, illegal and unsafe firearms use (from poaching activity) as well as causing damage to private and public infrastructure.

Deer can flourish in peri-urban environments and once they are established in these areas, they are very difficult and expensive to control. High densities of deer result in a higher likelihood of negative interactions occurring between deer and people, particularly with stags during the rut.

Outlying and peri-urban populations of wild fallow deer are undesirable and will need to be managed through prioritised, coordinated eradication and containment programs as a management priority.

#### Community engagement and education

Community and local government will be informed of, and engaged as collaborating partners with, the deer management strategies outlined in this management Draft plan.

The management of deer in Tasmania is a 'whole of community' issue with the attendant complexity and often competing and conflicting interests.

The Tasmanian Government will provide strategic leadership and partner with land managers, hunters, deer farmers and other key stakeholders, to help ensure deer management outcomes balance a broad range of community needs and interests and that the benefits and risks associated with deer management are accepted and understood by the general community.

Effective management of deer requires cooperative partnerships and community engagement. Education and awareness campaigns will be developed to educate the community, including local government, to recognise that deer are an issue which require active management.

A community education and engagement strategy will be developed and implemented under the proposed Plan to facilitate partnerships between state and local government, Natural Resource Management regional organisations, government agencies, research organisations, land managers and key stakeholders to achieve the objectives of this management plan. This will be particularly important for managing satellite and peri-urban populations and preventing new populations.

## Refocussed regulatory enforcement

Deer hunting regulation and compliance activity will be delivered through partnerships to avoid anti-social or unsafe behaviour.

Effective regulatory enforcement places competing demands on limited resources. Anti-social and unsafe behaviour of poachers illegally entering properties or shooting from roads remains an issue in many areas where deer occur. Given the public safety issues, partnerships and collaboration will be strengthened to support enforcement activities with a focus on anti-social and unsafe behaviours.

# Acknowledgements

The Department of Primary Industries, Parks, Water and Environment would like to acknowledge the many individuals and groups who contributed to the development of this Draft Plan through the forums and individual submissions.

# Acronyms and glossary

**Antlerless deer** – any deer without antlers, but generally used to refer to female deer, and young male deer until they grow their first set of unbranched antlers. Mature male deer briefly become antlerless when they drop their antlers each year before they grow their new set (typically from mid-September to mid-November).

Buck (also stag) – mature male deer.

**Deer range / traditional range** – area of central and eastern Tasmania where deer have been present prior to 1980s.

Doe – female deer.

**DPIPWE** – Tasmanian Government Department of Primary Industries, Parks, Water and Environment.

Fawn – young deer in its first year.

**GST** – Game Services Tasmania. The branch within DPIPWE with responsibility for supporting landholders, farmers and hunters to effectively manage deer and all issues relating to game and browsing animals in Tasmania. The Branch also provides Executive Officer support to the Tasmanian Game Council.

Peri-urban – area immediately adjacent to a city or urban area.

**Satellite herds** – wild deer herds which have resulted from accidental or illegal releases of deer in locations outside the traditional deer range (where no wild deer have previously occurred).

Spikie (spike buck) – young male deer with its first set of unbranched antlers.

Stag (also buck) - mature male deer.

**TGC** – Tasmanian Game Council. The TGC is an independent peak industry advisory body on game and browsing animal management in Tasmania.

TWWHA – Tasmanian Wilderness World Heritage Area

# Appendix 1: The Biology of Wild Fallow Deer

Fallow deer are understood to have evolved in the Mediterranean region of Europe, the Middle East and Asia Minor and have dispersed extensively from this natural range. Fallow deer are the most widely distributed species of deer in Australia, occurring in all States and Territories, apart from the Northern Territory (Moriarty, 2004). Wild herds also occur in the United States, Canada, Europe, United Kingdom, the West Indies, South America, South Africa, Madagascar, New Zealand and Fiji (Jensz and Finley, 2013) in a wide variety of habitats including temperate forest, woodland and grassland (Chapman and Chapman, 1997). A significant proportion of Tasmania provides potential habitat for the species (Potts et al., 2015).

Fallow deer are grazing ruminants and prefer a mosaic pattern of open areas for feeding interspersed with scrub, forest or woodland for cover (Chapman and Chapman, 1997). They prefer sweet, soft grasses and generally avoid coarser species. Although the proportion of introduced grass species consumed compared to native vegetation will vary depending on habitat (Locke, 2007), introduced agricultural pasture and crop species are actively sought out and preferentially grazed by deer. The diet of fallow deer is mostly obtained through grazing herbaceous plants, but it may also include browsed material such as new shoots, soft bark, seed heads, flowers, mosses, fungi, lichen and leaves.

Fallow deer are gregarious, forming groups that vary in size seasonally and geographically. Females and their current offspring and sub-adult yearlings form groups known as doe herds while the mature males form bachelor groups. For a considerable part of the year the doe herds live separately from the bachelor groups with the two groups coming together for the autumn rut. Fallow deer, however, display considerable adaptability and behaviour can vary from place to place and seasonally (Chapman and Chapman, 1997; Locke, 2007). Similarly, while fallow deer are commonly observed to display a crepuscular pattern of grazing (i.e. grazing mainly during the twilight), diurnal and nocturnal behaviour has also been described, with the variability in behaviour occurring in populations and in response to environmental conditions.

Fallow deer have an annual breeding season. The period when fallow deer are fertile and able to conceive is longer than the period of heightened sexual activity known as the rut, which occurs during April in Tasmania. Males hold 'rutting stands' to defend groups of females. The males spend most of their time establishing their territory (rut stand) by pawing the ground to create scrapes where they may urinate, thrashing understory vegetation with their antlers, and by producing low-pitched groans and grunts. At the onset of the rut, since deer are polygynous, the females also appear at the rut stand. If sufficient males are available, females usually conceive during the first cycle during the rut. Gestation is  $230 \pm 4$  days and most births in Tasmania occur during December/January (Griffiths and Campbell, 1993). Usually a single fawn is produced.

Mature female fallow deer usually have a single home range smaller than that of mature males and tend to favour areas providing feed and cover. Male fallow deer have at least two seasonal home ranges; one during the rut when they join with the female groups and one for the remainder of the season when they form bachelor groups. Herds of deer of over one hundred are observed in Tasmania. In Tasmania, Statham and Statham (1996) found that fallow deer had home ranges of 870 hectares for males and 590 hectares for females.

#### References

Chapman, D. and Chapman, N. (1975) Fallow Deer: Their history, distribution and biology. Terence Dalton Limited, Suffolk.

Griffiths, H.D. and Campbell, P.H. (1993) Fallow Deer Farming in Tasmania. Department of Primary Industry and Fisheries, Tasmania.

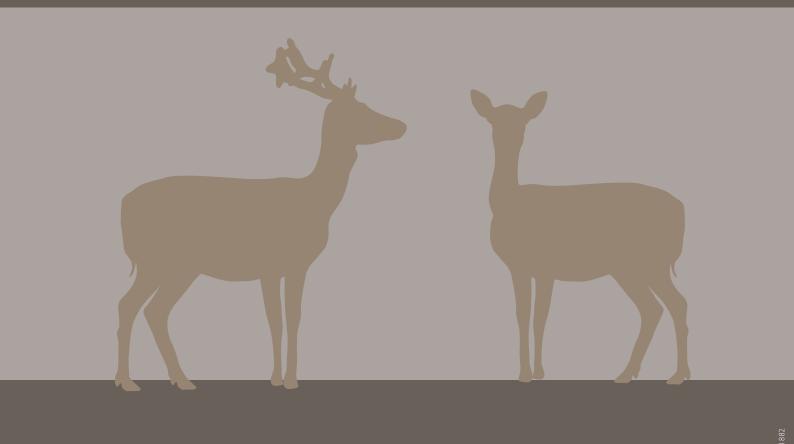
Jensz, K. and Finley, L. (2013) *Species profile for the Fallow Deer, Dama dama.* Latitude 42 Environmental Consultants Pty Ltd. Hobart, Tasmania.

Locke, S. (2007) The Distribution and Abundance of Fallow Deer in the Central Plateau Conservation Area and Adjacent Areas in Tasmania. Nature Conservation Report 07/02. Department of Primary Industries and Water, Hobart.

Moriarty, A., 2004. The liberation, distribution, abundance and management of wild deer in Australia. *Wildlife Research* 31, 291–299.

Potts, J.M., Beeton, N.J., Bowman, D.M.J.S., Williamson, G.J., Lefroy, E.C., Johnson, C.N., 2015. Predicting the future range and abundance of fallow deer in Tasmania, Australia. *Wildlife Research* 41, 633–640.

Statham, H.L. and Statham, M. (1996) Movements of Fallow Deer (Dama dama) in Tasmania and the Effects of Population Sampling on Dispersal. Department of Primary Industries and Fisheries, Prospect, Tasmania.



Game Services Tasmania
Department of Primary Industries, Parks, Water And Environment
PO Box 46, Kings Meadows, TAS 7249

Phone: 1300 292 292

Visit: www.dpipwe.tas.gov.au

