

Recreational hunting and animal welfare



AN RSPCA AUSTRALIA INFORMATION PAPER

SUMMARY

The aim of this briefing paper is to present concise information on some of the contemporary animal welfare issues associated with recreational hunting in Australia.

The RSPCA believes recreational hunting, or the act of stalking or pursuing an animal and then killing it for sport, cannot be justified. Hunting has the potential to result in significant animal suffering: animals are sometimes chased to the point of exhaustion and then killed with methods that do not cause a quick and painless death. Although some hunters may have the skills, knowledge and motivation to minimise the suffering of their prey, many do not and it is inevitable that some animals will endure pain and distress. With some hunting activities and practices the potential for significant suffering is extremely high, for example where animals are injured but are not retrieved, where dogs are used and are not controlled properly, where hunters lack technical skill, where killing methods do not cause rapid death, or where dependent young are left abandoned. Current regulations and enforcement regimes do not prevent these things from occurring: they are an inevitable consequence of recreational hunting activities.

Policy C5.1 Hunting of animals for sport

RSPCA Australia is opposed to the hunting of any animal for sport as it causes unnecessary injury, suffering, distress or death to the prey animal. The term 'hunting for sport' includes hunting with hounds, coursing, pig hunting, bow hunting and all forms of recreational shooting (e.g. kangaroo shooting, duck, quail and other game shooting).

Policy E4.2 Hunting of wild animals

RSPCA Australia is opposed to the hunting of any animal for sport.

AN OVERVIEW OF HUNTING

What is hunting?

Hunting is the chasing of or searching for game or other wild animals with the intention of catching or killing them, usually for sport or food.

Why do people hunt?

Although the reasons for hunting are various, the primary motivations for hunting are often classified into four broad categories:

- To gather food or skins, e.g. traditional subsistence hunting.
- For sport or recreation, including to practice specific skills (such as tracking or shooting), to secure a trophy, or as a social activity or custom,

- For environmental, conservation or damage mitigation reasons: hunting to reduce the numbers of pest animals, prevent overpopulation, prevent damage to other animals, plants, or other elements of the environment.
- For commercial harvesting for meat and other products, e.g. kangaroo harvesting, crocodile harvesting.

A survey carried out by the University of Queensland in 2012 gives an insight into what motivates hunters in Australia. The survey asked “What motivates you to hunt?” and participants chose from 8 alternatives and selected all that applied. The responses from 6,884 hunters were:

Table1: What motivates Australian hunters to hunt?

Reason	% Response
Pest control	87%
Recreation	85%
Meat	80%
Conservation	65%
Game management	40%
Trophies	35%
Income	4%
Other	5%

Thus, most Australian hunters state that they hunt to kill pest animals, for recreation and for meat (this could be game meat for the table or for feeding the dogs). However, even though ‘controlling pest animals’ is given as a significant motivation to hunt, there is no evidence that recreational hunting, as it is currently performed in Australia, is effective at reducing the population or impact of pest animals on a broad-scale level.

Which animals are hunted?

The species that can be hunted vary between states and territories, as do the licensing and regulation requirements. Most of the species hunted are introduced and classified as pest animals such as feral cats, wild dogs, feral goats, foxes, hares, rabbits, feral pigs, buffalo as well as feral donkeys, horses and camels. Wild deer are hunted as game animals (despite being considered pests in some areas due to their adverse environmental impacts) and native animals including wallabies and kangaroos can also be hunted in some states. A number of native waterfowl species (such as black duck, wood duck, chestnut teal etc.) and other native birds (corellas, galahs, Australian raven) are also hunted along with non-indigenous game birds such as quail, guinea fowl, partridge, peafowl, pheasant, spotted dove and turkeys.

Whether or not a license is *required* and, if required, the *type* of license varies according to the species hunted and whether it is hunted on private or public land. Where animals are classified as ‘game animals’ there may also be ‘bag limits’ which place restrictions on how many animals can be killed by a single hunter.

Is hunting humane?

If all hunted animals could be killed without fear - from being chased or followed - and with a gunshot to the brain that rendered them immediately unconscious - and they died without regaining consciousness - and without causing the suffering of other animals such as dependent young, then hunting could be considered completely humane. However, even in the best possible circumstances, this does not occur and distress, injury and suffering are highly likely, if not inevitable.

In the best case scenario, a hunted animal would be shot by an experienced, skilled and responsible shooter; the animal would be clearly seen and within range; the correct firearm, ammunition and shot placement would be used; the animal would not be chased excessively prior to shooting; if it was wounded, it would be located and killed as quickly and humanely as possible; the death of the animal would be confirmed prior to shooting any others; if it was a lactating female that was shot, its dependent young would be found and killed quickly and humanely; and relevant best practice guidelines would be understood and adhered to. However, this is the exception rather than the rule.

Hunting involves more than just 'shooting'. Hunted animals are often chased long distances, sometimes by dogs as well as people; arrows and knives are sometimes used to kill animals rather than firearms; other parts of the body are aimed at rather than the head; wounded animals escape without being followed up and dependent young are often left to fend for themselves. The skill level of hunters is highly variable and some are not motivated or required to follow standard procedures or best practice. The consequences of these practices are that many animals will endure significant suffering and a protracted death.

How does hunting affect other animals?

Hunting not only affects the target animal that is killed or wounded by a bullet, arrow or knife. It can also have a significant negative impact on other animals, particularly dependent young. If hunters do not find and euthanase the dependent young of shot females, they are left to fend for themselves. Depending on their age, orphaned young can suffer and die from starvation, dehydration or predation. Maternal deprivation is a significant stressor in many species and even if orphaned individuals survive the initial acute stress of lack of nutrition, changes in physiology and behaviour can have a detrimental effect on their growth and development.

With some species it can be very difficult to locate and euthanase dependent young. Rabbit warrens containing kittens and active dens with fox cubs can be some distance from where the female is shot. Even if they are located, it is labour intensive to dig them out. Deer and goats will often hide newly born young until they are mobile and thus are likely to go unnoticed by hunters when the mother is shot. With some species (e.g. deer, pigs) hunters may be aware that there are dependent young but purposely do not euthanase them because they believe they grow up to be future hunting targets. It takes time, effort and patience to locate these animals and euthanase them with humane methods and it is doubtful that all hunters are motivated to do this.

One way to minimise the impact on dependent young is to avoid hunting during known breeding seasons. For example, breeding occurs in a regular season in fallow and red deer, with most fawns/calves being born in November or December. However, with other animals such as feral goats that have no defined breeding season, there is always a risk that some dependent young will be orphaned by hunting.

Adult animals that survive hunting can be affected by fear and also a disrupted social structure if they are a species that live in a group. We know hunted populations of deer have significantly greater flight responses than non-hunted populations which suggests that hunting is stressful to the surviving animals

Hunting with firearms and dogs close to native animals and livestock can also disturb them and cause fear. They can be wounded by stray bullets or injured if they try to flee the area. Hunting dogs that are not adequately trained or controlled, or that escape, could also attack native and livestock animals.

Isn't hunting the same as pest animal management?

No, although pest animal management sometimes involves the ground shooting of animals as a control method, it is different to hunting in a number of ways. For example:

MOTIVES

Pest animal management programs are done with the aim of reducing the negative impacts on agricultural production and natural resource systems, using the most humane, target specific, cost effective and efficacious techniques available. In contrast, most hunting is primarily done as a desire to kill pest or game animals as a recreational activity.

EFFECTIVENESS

Pest animal management programs must be carefully planned and coordinated to have a desired and lasting effect. Most recreational hunting is done on an *ad-hoc* basis. There is no defined objective, no planning, monitoring or assessment of effectiveness. The methods used by hunters are labour intensive, expensive and not effective in reducing populations of pest animals over large areas for the long term.

The following comparison reveals the ineffectiveness of recreational hunting of feral pigs compared with government run pest animal management control programs:

- The NSW Game Council has reported that 73,000 game and feral animals, including 11,079 feral pigs, were removed through hunting activities from declared State forests across NSW in the 6 years from 2006-2012¹.
- In contrast, in 2012 in a single region in NSW, local livestock and catchment management authorities worked together to undertake three large-scale, integrated programs, conducted over several weeks and covering an area of approximately 1.6 million hectares, to kill almost 10,000 feral pigs².

This means that recreational hunting removed roughly the same amount of feral pigs over a 6-year period that were removed by a coordinated and planned feral pig management program conducted over a manner of weeks.

ANIMALS TARGETTED

Pest animal management programs target all animals including females and young. Whereas hunters will often target large trophy males and leave behind females and/or young to maintain a sustainable harvest for the future.

METHODS USED

Pest animal management programs take an integrated approach and use a variety of methods depending on the species targeted e.g. poison baiting, trapping, habitat manipulation, mustering,

exclusion, biological control, etc. Ground shooting is sometimes used as a control method, but for most species and in most situations shooting by itself is not an effective way to significantly reduce animal numbers and is of limited use to achieve long-term control.

Hunters use ground shooting, bowhunting and ‘sticking’ (or stabbing) with a knife to kill animals. All of these methods are labour intensive, expensive and are inefficient for the long-term control of pest animals. They are used primarily because they are a test of the skills and technical competence of the hunter, not because they are useful for managing the impacts of pest animals.

Some of the methods used by professional pest animal controllers are more humane than those used by hunters. For example, in some situations aerial shooting has been assessed as being more humane than ground shooting since the distance from the shooter to the animal is much shorter and any wounded animals can be followed up quickly. Also, shooting of deer at night with the aid of a spotlight causes less stress to the deer compared with recreational hunting where deer are only permitted to be shot during daylight hours.

COMPETENCE OF OPERATORS

Operators conducting pest animal management programs are highly skilled and experienced with firearms and hold the appropriate licences and accreditation. If they are shooting animals they must undergo shooting proficiency tests and must always act in a professional manner. For example, operators who participate in aerial shooting operations are competent marksmen who hold an appropriate licence and are specifically trained for the task (e.g. NSW Feral Animal Aerial Shooter Training (FAAST) course, NT Parks and Wildlife Advanced Firearms course, QLD Biosecurity Aerial Platform Marksmanship Course).

In contrast, hunters have highly variable skill levels and there is no shooting competency test required to acquire a hunting licence. In a survey of hunters carried out by the University of Queensland in 2012, 58% of 6, 892 hunters said they had not done any accredited hunter training. Disturbingly, in some states, young children can hunt animals under a junior hunting licence. In Queensland the minimum age is only 11 years old, in Victoria it is 12. Junior licences are free in some jurisdictions and may have fewer conditions than adult licences. Measures to allow children to hunt with firearms or bows have also been proposed in NSW.

Can recreational hunting hinder the management of pest animals?

Yes, hunters have interfered with the effective control of pest animals in some areas, especially in state forests. Evidence from genetic studies has shown that pig hunters have illegally transported feral pigs into new areas. The national threat abatement plan for feral pigs states that “the continued release of feral pigs for hunting, either in new areas or in areas they do not currently occupy is a major threat to the effective management of feral pigs and their damage”. Deer (especially fallow, red and chital) have been deliberately and illegally released into ‘deer free’ areas so that hunters don’t have to travel too far for their sport. Hunters will also selectively take some individuals (large males) and leave others (females, young) because of the motivation to maintain animal populations for future hunting. It has also been shown that shooting feral pigs, especially where dogs are used, can be counterproductive to other control methods because it can disperse pigs or make them more wary of humans.

GENERAL WELFARE ISSUES ASSOCIATED WITH SHOOTING

Isn't shooting a humane way to kill animals?

Yes, animal welfare experts agree that shooting can be a humane method of killing animals when the following requirements are met:

- it is carried out by experienced, skilled and responsible shooters
- the animal can be clearly seen and is within range
- the correct firearm, ammunition and shot placement is used
- target animals are not chased excessively prior to shooting
- wounded animals are located and killed as quickly and humanely as possible
- death of the target animal is confirmed before shooting another animal
- when lactating females are shot, efforts are made to find dependent young and kill them quickly and humanely
- all other conditions, as stated in relevant best practice guidelines, are understood and adhered to.

However 'hunting' doesn't always satisfy these requirements. Therefore although shooting using best practice is considered humane, the variable nature of 'hunting' means that some degree of animal suffering is likely.

What's the difference between head shooting and chest shooting?

If the correct firearm and ammunition are used, a well-placed head shot (with the brain as the point of aim) will result in immediate unconsciousness. When there is adequate damage to the brain and the animal does not regain consciousness there will be no suffering.

In contrast, with chest shots (which cause damage to the heart and lungs), the time to unconsciousness can range from seconds up to a few minutes. When an animal is shot in the chest, the time to loss of consciousness and the time to death will depend on which tissues are damaged and, in particular, on the rate of blood loss and hence how long it takes for the brain to run out of oxygen. Loss of consciousness and death is likely to be quicker when animals have been shot in the heart. A phenomenon called 'hydrostatic shock', where a pressure wave from the bullet causes damage to internal organs, can contribute to 'bringing down an animal' quicker and causing a more rapid loss of consciousness in some instances when animals are shot in the chest. However, compared with head-shot animals, those that are chest shot have a higher risk of remaining conscious and suffering for a short period prior to death - though the extent of suffering will vary depending on which tissues are damaged and the rate of blood loss. During severe bleeding they are likely to feel a sense of breathlessness and potentially some anxiety and confusion before they lose consciousness.

HUNTING IN NATIONAL PARKS

Which states allow hunting in national parks?

Recreational hunters are, or have been, permitted under strict controls in specified national parks in Victoria, Western Australia, Queensland and South Australia. In all states most national parks and reserves are closed to hunting at all times.

In Victoria, sambar and hog deer can be hunted in a number of parks during a specified calendar period (i.e. 'open season') but dogs must not be used. In a small number of parks game ducks and quail can also be hunted, and dogs can be used to flush and retrieve birds. Lake Albacutya Park allows hunting of pest animals such as rabbits, foxes and cats.

In Western Australia, Queensland and South Australia, recreational hunters have participated in shooting programs to kill foxes and feral goats, cats and pigs. In these states there is no unrestricted recreational hunting in national parks, and hunters are only used as part of planned pest control programs under the administration of statutory authorities responsible for the management of national parks and reserves.

In New South Wales, from March 2013 recreational hunting will be allowed in 79 national parks, nature reserves and state conservation areas. Any person in possession of a game hunting licence will be able to hunt animals such as foxes, goats, pigs, deer, cats, rabbits, hares and wild dogs. It will not be necessary for hunting to be a part of planned programs coordinated by NSW National Parks and Wildlife Service and independent licenced hunters can hunt on any day in areas designated for hunting. Although the NSW government has indicated that it has no intention of opening further parks at this time, more than 90% of NSW's parks and reserves could be opened to recreational hunters in the future.

Is recreational hunting an effective and humane form of pest animal management in national parks?

Recreational hunting is not an effective form of pest management. In the limited circumstances where shooting is carried out as part of a pest animal management program, professional marksmen have been shown to be more effective than recreational hunters.

For example, in the Gum Lagoon Conservation Park in South Australia, 65 recreational hunters over 4 days were only able to kill 44 deer, while one professional marksman in a helicopter was able to kill 182 deer in 4 hours. In Tasmania, an investigation into wallaby shooting methods found that in two nights of shooting, a single professional marksman achieved the same level of population reduction as four recreational shooters were able to achieve in a year.

Professional marksmen are also proficient at shooting animals humanely. During a cull of 856 wild impala in the Mkuzi Game Reserve, South Africa by a marksman, 93% of animals were killed with only one shot (to the head) and 6% were wounded and then killed. The average survival time for wounded animals was 30 seconds. No animals escaped wounded. The animals were hunted at night with the aid of a spotlight to reduce animal stress prior to shooting and to ensure a high proportion of animals were killed instantaneously. In this example, the level of instantaneous unconsciousness quickly followed by death is comparable to what is achieved in commercial abattoirs (>94 % stunned instantly).

Undoubtedly some recreational hunters are highly practiced at shooting, but there are many that are not. In New Zealand, 5% of recreational hunters account for more than half of all deer shot for sport, leaving the majority of hunters with limited experience of shooting live animals. The picture is similar in Australia. Even more disturbing is that junior hunting licenses are given to children as young as 11 years' old. It is very doubtful that children of this age would have the skills, knowledge and motivation to kill animals in a humane and efficient manner. Of greater concern is the fact that there have been no independent audits of wounding rates of animals shot by recreational hunters. Until such studies are done recreational hunters cannot make claims regarding the humaneness of their hunting.

BOW HUNTING

Why do some hunters use a bow and arrow and is this type of hunting humane?

Some hunters use a bow and arrow to hunt animals because they consider it to be an ‘art’ or challenge that requires skill and patience. However, from an animal welfare perspective it is less humane than hunting with a rifle. Wounding rates can be high, the time to death can be prolonged and animals remain conscious while they die from massive blood loss.

Bow hunters use either a longbow, recurve bow or compound bow with broad-head arrow to kill animals. Compound bows are most commonly used as the system of wheels and cables along with sights, makes them easier to fire.

Crossbows are prohibited weapons in most states and are not permitted for hunting, however, they can still be used when hunting deer in Victoria as long hunters hold the relevant government approval.

The same game species permitted to be hunted with a firearm can also be bowhunted (i.e. deer, feral pigs, feral goats, foxes, feral cats, wild dogs, rabbits and hares as well as game birds). The arrow is aimed at the chest to cause damage to the heart and lungs. Head shots are never used since deflection of the arrow is likely to occur from striking skull bones.

Bowhunting is regulated in NSW (by the Game Council) and Victoria (by the Department of Primary Industries) but there are no specific bowhunting regulations in other states and territories.

The number of animals wounded (but not killed) by bowhunting is quite variable but can be very high. For example, with deer hunting, surveys of bowhunters indicate that between 12% and 48% of deer may escape whilst injured. This is significantly higher than the reported 5% of wounded animals that escape when shot with a rifle by professional shooters. Wounded animals that are not retrieved and killed can suffer from the disabling effects of the injury, pain and wound infection.

When using a bow, hunters need to get very close (no more than 20 metres) to the target animal. The arrow’s flight path to the chest must be unobscured by leaves or branches or it might be deflected and hit another part of the body. It can also be difficult to follow and kill mobile injured animals if they run off into thick cover, rough terrain or other inaccessible areas. Furthermore, with animals that are injured and have gone down, it can be hard to get another shot into the chest with an arrow, depending on the position the animals is lying.

OPEN SEASONS FOR DUCK AND QUAIL HUNTING

What happens during duck and quail shooting and where does this happen?

For most of the year, native water birds and quail are protected under native wildlife laws. However, during a declared ‘open season’ - a specified calendar period announced by the relevant state/territory government - some species are permitted to be shot for sport.

Duck hunters usually lay out a pattern of decoys in the water in front of a hide or camouflaged screen which keeps them out of view of incoming flying ducks. They then shoot ducks that fly

across or land among the decoys. Gundogs are often used to retrieve fallen birds. When hunting waterfowl, all states now require the use of lead-free shot, such as steel or bismuth.

Hunting for quail usually involves walking around a specific hunting area with trained gundogs, which help to ‘flush’ the birds from cover. The birds are shot using a shotgun and then retrieved by the gundogs when they fall to the ground.

As with other game animals, the hunting of game birds in Australia is regulated separately by each state and territory government. Hence, there is a variety of regulations and license requirements as well as a range of different species that can be hunted. Hunters must only shoot the species that are prescribed and hunters are usually required to pass a Waterfowl Identification Test (WIT). In summary (see Table 2), recreational duck hunting is permitted in South Australia, Tasmania, Victoria and the Northern Territory. Hunting of ducks for sport is not permitted in the ACT, New South Wales, Queensland and Western Australia, however, in some of these states ducks can be shot under licence when they are thought to be causing damage to crops, dams or waterways. Specified species of quail are hunted in NSW, Victoria, South Australia and Tasmania.

Why is the risk of wounding so high when hunting game birds?

Hunting of ducks and quail, as well as other waterfowl classified as game, are shot using shotguns. With shotguns, ‘range’ or distance from the target, is the major determinant of wounding capacity using any given load. If hunters shoot at birds from too far away, the increasing dispersal and decreasing velocity of the shotgun pellets leads to increased wounding of the target birds and adjacent individuals. To bring down a game bird, the bird’s vital areas (i.e. head or heart/lung) must be hit by pellets, but the chance of doing this successfully decreases the further the bird is from the shooter. If the bird is shot from an effective range, the dense shot pattern is likely to cause death rapidly. Death occurs from damage to vital organs, bleeding and shock.

If duck hunters shoot at a group of birds flying overhead rather than aiming for an individual bird, there will always be a high risk of wounding. A bird hit by the central cluster of pellets will usually be killed quickly and fall to the ground, but those at the perimeter of the volley might only be hit by a few pellets. Some of these wounded birds will fall to the ground and be retrieved by the hunter or his gundog, however some will not be found. Of the wounded birds that are not retrieved, some will eventually die from their injuries and other birds, that are only lightly injured, will survive with embedded pellets. Wounded birds can suffer from the disabling effects of the injury, from sickness due to infection of the wound, from pain created by the wound or from thirst or starvation if unable to drink or eat. Wing fractures, which increase the likelihood of being taken by a predator, are common in wounded birds.

What are the wounding rates with duck hunting?

The percentage of un-retrieved water birds that are wounded and left to suffer is very difficult to determine with certainty. Based on studies from the northern hemisphere that have measured the incidence of embedded shotgun pellets, it is estimated that for certain species of water birds, nearly one bird is wounded for every one killed.

Table2: Summary of where duck and quail hunting occurs in Australia

State/Territory	Duck hunting	Quail hunting
NSW	Under the NSW Game Bird Management Program (which is managed by the NSW National Parks & Wildlife Service), private landholders can legally protect their crops from the damage caused by wild ducks using hunters licensed by Game Council NSW. No season or bag limits apply	California quail can be hunted on private land and no bag limits apply
Victoria	Specified waterfowl can be taken during a declared open season subject to seasonal variations	Stubble quail, European quail and Californian quail can be taken during a declared open season subject to seasonal variations
South Australia	Specified waterfowl can be taken during a declared open season	Stubble quail can be taken during a declared open season
Queensland	Not hunted	Not hunted
Tasmania	Wild duck can be taken during a specified open season	Brown quail can be taken during a specified open season
Northern Territory	Specified waterfowl can be taken during a declared open season	Not hunted
Western Australia	Not hunted	Not hunted
ACT	Not hunted	Not hunted

In Europe, there have been a number of studies to examine wounding of hunted game birds. For species of geese, 28-62% of individuals were found to contain embedded shot, whereas for sea duck proportions of 25-35% have been reported. Many of the studies reporting wounding rates have used x-ray examination of live birds, so the reported figures are measuring the proportion of wounded birds that survive with embedded shot. The total number of birds wounded would thus include these birds plus those that are seriously wounded and do not recover.

In North America, surveys of hunters by the U.S. Fish and Wildlife Service (FWS) extending from the present back to the 1930s consistently show that hunters report an average annual wounding loss rate of 18%. However, it has been demonstrated that hunters do not see (or at least report) all the birds that they wound. Many North American research studies have been published involving trained observers that record the harvest efficiency of thousands of duck hunters in the field. These studies document wounding rates of more than 30%.

From the 1950s to the 1980s some surveys of water bird wounding losses in Australia were done, but no recent studies have been conducted. The results from six annual surveys conducted from 1977-1982 reported that NSW duck hunters estimated 9.9% of their total kill were “shot but not retrieved (i.e. cripples)”. Another study to examine the impact of hunting activity on black duck, chestnut teals and mountain duck in Victoria from 1972 to 1977, reported ‘cripple losses’ ranging from 14% to 33%. Also, an x-ray study of trapped live ducks in Victoria over the period from 1957 to 1973 reported that between 6% and 19% of ducks (depending on species) had embedded shot.

HUNTING WITH DOGS

How are dogs used for hunting?

The regulations and licenses regarding the use of dogs in hunting vary between states and territories. In summary, dogs are used during hunting in the following ways:

- to locate and flush out deer
- to locate, bail and hold (or ‘lug’) feral pigs (holding is not permitted in some states)
- to locate, flush out, point or retrieve game birds
- to locate and flush out rabbits, hares and foxes.

In some situations well-trained dogs can assist in detecting or flushing out animals prior to shooting. However, it is cruel and therefore unacceptable to set a dog onto an animal with the intention that the dog will attack it. Dogs must always be under adequate control and be called off if they come into physical contact with the hunted animal. Trained dogs can play an important role in the tracking of wounded animals, however they must be called off as soon as the animal is located.

In Victoria, it has recently been made an offence for dogs used in hunting to maim or attack wildlife including game.

Along with minimising the impact on hunted animals, the welfare of dogs used in hunting must also be considered. Hunters should only use dogs that are healthy and in good condition. During hunting, dogs can suffer from heat stress, dehydration, tick paralysis as well as cuts and lacerations. Dogs used in pig hunting can suffer from serious, life-threatening injuries. If dogs are injured, they should receive prompt first aid or professional treatment. It is also essential that hunting dogs can be quickly located if lost. Lost dogs can suffer from dehydration, starvation and exposure. They can also become feral, join other wild dogs and have a serious negative impact on livestock and native fauna if they are left behind.

What happens when dogs are used to hunt feral pigs?

Hunting pigs with dogs involves the dog flushing out the pig and chasing it until it is exhausted or cornered. When the pig has been ‘bailed up’ (the pig remains stationary facing the dog), the hunter moves in to either shoot the pig at close range or kill it by stabbing in the heart with a knife (called ‘sticking’). If the hunter plans to stick the pig rather than shoot it, dogs are used to hold (or ‘lug’) the pig by the ears while it is being stabbed.

Pig dogs are usually large mixed breed dogs. In NSW, lone hunters are permitted to use a maximum of three dogs whilst groups of hunters can use up to five dogs. The methods used to train pig dogs can be inhumane in themselves, including setting dogs onto confined pigs that have been captured for training purposes.

The regulations concerning hunting pigs with dogs vary between states and territories. For example, in Victoria, dogs may be used to ‘point or flush pigs’ but NOT to ‘attack or hold pigs’. However, in NSW, dogs CAN be used for ‘locating, holding or bailing pigs’. The holding (or lugging) of pigs is likely to result in higher levels of injury and distress to the pig and also cause more injuries to the dogs.

However, regardless of whether dogs hold pigs or not, hunting of pigs with dogs is inherently cruel and unnecessary. Chased pigs will experience fear, panic and distress, and for those that are killed by sticking, death will be painful and prolonged (compared with those that are shot). Pig

dogs often suffer from severe injuries and do not always receive prompt and adequate veterinary attention. Sometimes the wounds sustained by dogs during pig hunting are fatal. Although pig hunters vehemently defend their sport and would like the public to believe that their dogs do not maul or attack pigs (they only flush, bail and hold them) and their dogs do not get injured (they claim that the protective chest plates and collars prevent this), there are plenty of videos and photos on the internet and in pig hunting magazines that reveal the true nature of pig hunting. Veterinarians working in areas where pig hunters are active attest to the number of pig dogs that are presented for treatment: this number is likely to represent only a proportion of dogs actually injured.

Some hunters admit to castrating male pigs or removing their bottom tusks (often done by bashing them with a rock) to make the top tusks grow bigger, or removing the ears and tails of pigs before releasing them, so they are 'more of a challenge' for their dogs to catch the next time. They also purposely do not take small pigs or sows thus ensuring 'sport' for future seasons. These actions are cruel and in direct opposition to effective pig control. Hunters only kill a small percentage of the population, disperse pigs through regular disturbance and hunt on relatively small, easily accessible areas. Thus, recreational hunting of pigs with dogs is not an effective or humane method of managing feral pig populations.

Is it legal to use dogs to hunt deer? Hasn't this practice been banned?

In Australia it is still legal to use dogs to locate, point to, or flush out deer when hunting and also in Victoria, to use scent-trailing hounds to chase deer. However, the practice of hunting deer with scent-trailing hounds (where deer are chased by the dogs and hunters and then shot when captured) was banned in the United Kingdom in 2004, based on scientific evidence that it causes unnecessary suffering.

The regulations relating to the use of dogs to hunt deer differ between states and there is sometimes confusion around the difference between 'hunting with hounds' and 'hunting with dogs'. 'Hunting with hounds' (that is scent-trailing hounds) is used to hunt sambar deer in Victoria, but this practice is not permitted in NSW. Sambar deer are the largest of Australia's wild deer and are considered a premier game animal by hunters.

The Victorian game regulations prescribe where and when hunting sambar with hounds can occur as well as height and breed standards for the hounds used (beagles, bloodhounds and harriers), the number of hounds that can be used during a hunt (five hounds with up to three additional pups under the age of 12 months) and numbers of hunters that can hunt at any one time (10 persons with up to two junior or non-Australian resident hunters). In Victoria scent-trailing hounds must not be used to hunt hog deer, red deer, rusa deer, chital deer or fallow deer. However, prescribed breeds of 'gundogs' (e.g. Labrador retriever, Irish setter, cocker spaniel, pointer, Weimaraner) and 'deer hunting dogs' (e.g. Border terrier, fox terriers, German hunting terrier, Jack Russell terrier, Finnish spitz, Norwegian elkhound, dachshund) can be used on all deer species (except for hog deer -the smallest species of wild deer in Australia). The regulations set the maximum number of gundogs and deer hunting dogs to two at any one time.

In NSW, a dog may only be used for locating, pointing, or flushing deer, but hunting with scent-trailing hounds is not permitted. A person hunting alone must not use more than one dog and a group that is hunting together must not use more than two dogs for hunting wild deer.

Deer are 'flighty' animals and are easily frightened by dogs, so being chased by them, even for short periods, has the potential to result in distress to the deer and injuries if they run into fences and other obstacles. When deer are pursued for extended periods by scent-trailing hounds the negative welfare impacts are further increased. In Britain, studies to examine how hunting affects the biology of red deer showed that the effects of extended pursuit are severe. Muscle tissue is disrupted, glycogen (energy) reserves are exhausted, cortisol levels (an indicator of stress) are at a maximum and red blood cells start to break down. Researchers concluded that red deer are poorly adapted to predation by sustained pursuit and the suffering caused by this activity is likely to be very great. Based on the results of these studies, the National Trust banned the hunting of deer with hounds on its land in 1997. Following on from this, in 2004 new hunting laws banned the hunting with dogs of all wild mammals in England and Wales, including fox, deer, hare and mink - except where it is carried out in accordance with the conditions of one of the exemptions set out in the *Hunting Act (2004)*. The Act also bans hare coursing (where hares are chased by greyhounds or other sighthounds). Exemptions in the *Hunting Act (2004)* allow the following activities to take place in limited circumstances: stalking and flushing out; use of a dog below ground, in the course of stalking and flushing out, to protect birds being kept or preserved for shooting; hunting rats and rabbits; retrieval of hares which have been shot; falconry; recapture of wild mammals; and research and observation.

RECREATIONAL DEER HUNTING

How do recreational hunters kill deer and is it humane?

The species of deer hunted in Australia are sambar, hog, red, fallow, chital, rusa and wapiti. The methods used during recreational hunting of deer are:

- Stalking of deer with a rifle or firearm - involves a hunter attempting to get progressively closer to a deer until such point as he/she can get a clean shot with a rifle or firearm which he uses to kill the deer (usually with a shot to the chest to damage the heart and lungs). Hunters also use stationary tree platforms where they sit and wait for a deer to approach. Sometimes dogs are used for locating, pointing, or flushing deer during stalking.
- Stalking of deer with a bow/crossbow - involves a hunter attempting to get progressively closer to a deer until such point as he/she can get a clean shot with a bow/crossbow which is used to kill the deer (with a shot to the chest to damage the heart and lungs). Bow hunters must get much closer to their target than hunters who use a firearm.
- Hunting with the use of scent-trailing hounds - this method is only used in Victoria and only for sambar deer. It involves the deer being chased by a pack of dogs up to the point of near exhaustion when it comes to a standstill and is then shot (usually with a shot to the chest to damage the heart and lungs).

Stalking followed by shooting with a firearm causes the least suffering of these three methods, since shot deer will die quicker than when killed with a bow and arrow and the deer are not pursued over considerable distances and for a considerable time, as often occurs with hound hunting.

However, stalking followed by shooting is not considered effective at managing populations of wild deer (targeted, professional deer control programs are more efficient) and seldom satisfies important requirements for the humane shooting of animals. These are:

- it is carried out by experienced, skilled and responsible shooters
- the animal can be clearly seen and is within range
- the correct firearm, ammunition and shot placement is used
- target animals are not chased excessively prior to shooting
- wounded animals are located and killed as quickly and humanely as possible
- death of the target animal is confirmed before shooting another animal
- when lactating females are shot, efforts are made to find dependent young and kill them quickly and humanely
- all other conditions, as stated in relevant best practice guidelines, are understood and adhered to.

What is the most effective and humane way to control deer?

Ground shooting by professional pest animal controllers is considered to be the most effective and humane technique currently available for reducing wild deer populations. A standard operating procedure³ for the ground shooting of wild deer by authorised personnel within managed parks and reserves describes how this is done.

To keep animal stress to a minimum, culling operations are done in accessible areas at night from a vehicle with the aid of a spotlight. A red filter is placed over the spotlight to reduce the amount of light seen by the deer and rifles fitted with sound suppressors are also sometimes used to reduce animal disturbance and facilitate accurate shooting. Dogs are not used at any stage during a professional culling program.

The aim is to shoot all animals in a group to prevent social disruption and distress in surviving animals. Shooting is conducted with the appropriate firearms and ammunition and in a manner which aims to cause immediate insensibility and painless death. Shots to the head are preferred over chest shots as they are more likely to cause instantaneous loss of consciousness. Fawns/calves and juveniles are shot before shooting mature deer in case they escape and cannot be located. The target animals in a group are checked to ensure they are dead before moving on to the next group of animals.

However, this standard operating procedure does not apply to the recreational hunting of deer which is regulated by the relevant state agencies responsible for hunting. The NSW and Victorian regulations state that ‘hunting of deer at night is prohibited’ and ‘a spotlight or artificial source of light cannot be used to hunt deer’. The reason why is given on the Victorian DPI website:

“The avoidance behaviour and cryptic nature of deer makes them difficult to hunt during daylight hours. However, at night under a spotlight, they are particularly vulnerable and may be easily shot. Spotlighting of deer has the potential to increase the total seasonal harvest, reducing hunting opportunity for law-abiding hunters. The majority of illegal spotlighting activity occurs from vehicles on public roads or thoroughfares, compounding the potential for firearm-related incidents. The use of spotlights and electronic devices to hunt game is also considered to be unethical”.

Also, recreational deer hunters usually target the chest, rather than the head, to preserve the antlers for trophies. A chest shot causes more suffering than a well-placed head shot because it does not render the animal instantaneously insensible. Hunters often kill the larger males and leave smaller animals and dependent young, which can result in a disrupted social group and distressed and orphaned young. Thus, the main aim of recreational deer hunting is to ensure that there are ample deer for future harvest with much less emphasis placed on the welfare of hunted deer. In contrast, standard operating procedures for professional deer managers aim to ensure the humane and efficient killing of deer.

INDIGENOUS HUNTING OF DUGONGS AND MARINE TURTLES

Aren't marine turtles and dugongs protected? Why are they hunted?

Marine turtles and dugongs are protected under the Australian Government's *Environment Protection and Biodiversity Act 1999* (EPBC Act), which lists them as marine and migratory species, and also by various state and Northern Territory legislation. Six species of marine turtle are protected by the EPBC Act - the leatherback, loggerhead and olive ridley turtle are each listed as *endangered* (which means that these species may become extinct if the threats to their survival continue), whilst the green, hawksbill and flatback turtle are each listed as *vulnerable* (which means that they may become endangered if threats to their survival continue). Dugongs are also classified as vulnerable to extinction under the 2009 World Conservation Union (IUCN) Red List of Threatened Species, which indicates that they face a high-risk of extinction in the wild in the medium-term future.

Despite being protected, dugongs and marine turtles can be legally hunted by Aboriginal and Torres Strait Islander people under section 211 of the *Native Title Act 1993*, which operates to protect the rights of Indigenous peoples with a native title right to hunt, gather, collect and fish or conduct a cultural or spiritual activity. The traditional or subsistence hunting of dugongs and turtles plays an important social and cultural role for coastal aborigines in many parts of northern Australia and the meat provides a source of protein for these communities.

RSPCA Australia Policy E4.4.3 Hunting of wild animals

Where wild animals are legitimately hunted for subsistence, this must be conducted humanely and with regard for the conservation status of the species involved.

Are Aboriginal and Torres Strait Islander hunters exempt from animal cruelty laws?

No, Aboriginal and Torres Strait Islander hunters must now comply with the laws relating to animal cruelty in all states and territories.

Prior to 2012, in Queensland, Aboriginal and Torres Strait Islander people were exempt from animal cruelty laws in accordance with Aboriginal tradition or Islander custom under the Queensland Animal Care and Protection Act 2001. However, in 2012, Section 8 of the Queensland Animal Care and Protection Act 2001 was amended (under the Animal Care and Protection and Other Legislation Amendment Bill 2012) and it is now a requirement that animals hunted under

Aboriginal tradition or Islander custom are dealt with in a way that causes them as little pain as is reasonable.

Can turtles and dugongs be killed humanely?

The most humane methods for killing animals cause immediate unconsciousness without pain or suffering, followed by death without consciousness being regained. However, turtles and dugongs are difficult to render unconscious and therefore kill humanely. Hunting practices differ among different communities and the methods used for killing dugongs and turtles can also vary in humaneness.

Dugongs are typically hunted in aluminum dinghies powered by outboard motors and are captured by harpooning the animal (with two strikes - one to the neck and one to the lower back region). This harpooning may occur after the dugong has been chased for a time and become exhausted. The animal is then killed by lassoing it, tying it to the dinghy and positioning it with its head in the water so that it drowns. Where firearms are permitted and available, a shot to the head to destroy the brain is a quicker and more humane alternative to harpooning and drowning. Tethering dugong calves to attract other mature dugongs is considered an unacceptable practice due to the injuries and distress caused to the calves.

Marine turtles are difficult to render unconscious and kill because they can tolerate low levels of oxygen (which is necessary for their diving ability). Therefore it is likely that a turtle can feel pain and distress for a long period after having its head cut from its body or losing a high proportion of its blood. It can also be very difficult to tell when a turtle is dead as its heart will continue to beat even when the brain has been destroyed. Sometimes they are butchered or cut up straight after capture, while the animal is still alive. This practice is considered inhumane. Various methods are used to prevent turtles from escaping which are inhumane such as leaving turtles on their backs, cutting off a flipper or tethering by a flipper.

A turtle's brain is small and located deep within its skull, so a blow to the head is not usually effective and only recommended when no other method is available (and should be carried out immediately after the turtle's head has been cut from the body with one firm blow). Recently, a simple but humane method for euthanasing sea turtles by traditional hunters has been suggested⁴. This method requires a minimum of training and equipment and uses a pointed chisel and heavy hammer to destroy the brain. Further research on this method and others is currently being conducted. A gunshot to the brain or correctly placed captive bolt to the head is also considered to be humane. When performed correctly these techniques cause rapid unconsciousness and death through the destruction of the brain.

Are there any alternatives to recreational hunting that don't involve killing animals?

There are many well-established shooting disciplines which simulate hunting and can be enjoyed recreationally without the use of animals.

Simulated field shooting is a popular and fast growing sport, originally developed to help hunters practice between gaming seasons. A shotgun is used to hit clay discs which represent traditional quarry such as rabbit, duck, quail and pheasant. Shooters walk around a course and the natural terrain is used to launch clay targets from bushes, trees and fields. The hunting experience is emulated with discs of different sizes and shapes propelled at various speeds, angles and distances. There also many specialised targets available which include 'battues' that turn at the end of their trajectory, and 'rabbits' which move along the ground.

Five-stand is a competitive discipline in which a shooting stand, resembling a cage, restricts the movement of the rifle to ensure safety. Shooters fire at clay targets launched at different trajectories, speeds and angles which mimic the unpredictable movement of live quarry.

Skeet is a competitive sport in which a shotgun is used to fire at clay discs propelled at high speed from two fixed towers. Shooters move through a semi-circular range comprising eight shooting stations.

Trap simulates field shooting of waterfowl and game. Shooters fire at clay discs flung into the air from an underground bunker. Double trap involves the release of two discs simultaneously.

Australia has excellent shooting facilities and has achieved international success in many disciplines. For example, Michael Diamond won a gold medal for Australia in the trap event at the 1996 Atlanta Olympics, and Russell Mark won the double trap competition.

Further information about alternatives to recreational hunting can be found here:

http://www.ssaa.org.au/competition-info/shotgun_about.html

<http://www.ausshooting.org/about/member-bodies.html>

¹ NSW Game Council 2011-2012 Annual Report

² NSW Land Services Newsletter (Issue 5 - 13 February 2013)

³ See: <http://www.feral.org.au/animal-welfare/>

⁴ See: <http://www.seaturtle.org/mtn/archives/mtn136/mtn136p5.shtml>