

Feral chital deer

Axis axis (sometimes known as axis deer or Indian spotted deer)



Originally introduced in the 19th century from Europe and Asia as game animals by European settlers, Australia is now home to six species of deer; fallow deer, red deer, chital deer, hog deer, rusa deer and sambar deer. Queensland is home to four of the six species; fallow deer, red deer, chital deer and rusa deer.

While deer continue to be farmed for venison, the wild populations are causing significant environmental damage. They can damage crops, pastures and forestry plantations and compete with livestock for pasture. Feral deer can alter the structure and composition of endangered ecological communities, cause erosion and spread weed seeds. They stray onto roads becoming traffic hazards and may cause motor vehicle accidents in rural and urban areas. Deer may also play a role in transmitting diseases that affect livestock.



**Queensland
Government**

Legal requirements

Feral chital deer is a category 3, 4 and 6 restricted invasive animal under the *Biosecurity Act 2014*. They must not be moved, fed, given away, sold, or released into the environment. The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with invasive animals under their control. This is called a general biosecurity obligation (GBO).

At a local level, each local government must have a biosecurity plan that covers invasive animals in its area. This plan may include actions to be taken on feral chital deer. Some of these actions may be required under local laws. Contact your local government for more information.

An animal ceases being considered an invasive restricted animal (feral) if a person is keeping it in a deer proof enclosure and has become a registerable biosecurity entity (RBE) to keep that designated animal. Feral chital deer can be considered as designated animals if a person keeps them. Please refer to the fencing section on page 3 of this fact sheet for more information.

Description

Chital deer have a rusty red to dark brown coat with permanent white spots appearing as broken lines along the body. Other distinguishing features are their prominent white throat and large tail.

Adult stags stand up to 95 cm at the shoulder, while hinds are smaller. Adult stags weigh 75–100 kg, hinds up to 50 kg. Stags have three tined antlers on a long, upright beam, 55–70 cm.

Life cycle

The breeding period is non-seasonal, and fecundity is influenced by seasonal conditions. In Australia, most chital deer stags are in hard antler in the middle of the year but fawns are born throughout the year.

The gestation period is about 234 days. In good seasonal conditions, a chital deer hind may produce consecutive young a little over nine months apart.

Habitat and distribution

Chital deer are native to the Indian Subcontinent. A small number of chital deer were released in 1886 at Maryvale Station near Charters Towers. The liberation succeeded and a substantial chital deer population was established in the local area.

Chital deer populations occur throughout eastern Queensland and west to Barcaldine. Much of inland Queensland appears climatically suited to chital deer. However, until recently, they remained concentrated in their original release area.

The main Charters Towers herd is estimated to number tens of thousands, although numbers can fluctuate substantially between good seasons and drought. There is also an established population of chital deer on Rita Island, at the mouth of the Burdekin River.

Populations in the hundreds have been identified in the Gulf and near Texas on the southern border.

Large herds consist mainly of females and their young, together with two or three stags. They are most active at dawn and dusk and often bed down under the shade of trees during the heat of the day. Deer are nervous animals and susceptible to panic, while trapped animals may be difficult to manage.

Chital deer mainly occur in the tropical and subtropical areas of Australia, but there are populations in southern and inland New South Wales. They prefer woodland, forests, and clearings near waterways.

Impacts

Production losses

Feral deer are opportunistic and highly adaptable feeders that both graze and browse. Their diet is largely determined by what is locally and seasonally available. Chital deer show a dietary overlap with cattle, especially during the wet season where four chital deer may eat as much grass as one dry cow. Because of this, deer can impose substantial costs on primary producers.

Feral deer have been reported to cause damage to a wide variety of agricultural crops, pastures and forestry plantations.

Other impacts on rural enterprises include damage to fences, spreading of weeds and fouling of water holes.

Parasites and diseases

Wild deer are susceptible to exotic livestock diseases including foot-and-mouth disease, rinderpest, vesicular stomatitis, rabies and blue tongue. If unchecked, wild deer could play a major role in the spread of infection and act as a reservoir if these diseases are introduced to Australia.

Wild deer are also susceptible to a number of diseases and parasites currently in Australia including cattle tick, leptospirosis and ovine and bovine Johne's disease.

The main concern is the cost in lost livestock production or the spread of disease to disease-free areas (e.g. bovine Johne's disease). However, some of the diseases and parasites also have significant implications for human health.

Environmental impacts

Because deer are large animals, they are capable of damaging native vegetation by browsing and trampling understorey and seedling plants, and by ring-barking young trees.

Deer are also selective feeders. Over time, their browsing will influence the variety and abundance of native plant species. A significantly lower diversity and abundance of plant species is evident in environments where deer densities are high.

Feral deer can significantly impact ecologically fragile areas and have the potential to eliminate threatened plant species from an area.

Other environmental damage attributable to wild deer is the fouling of waterholes, the spreading of invasive plants and overgrazing which can lead to erosion (and the subsequent degradation of water quality in creek and river systems).

Social impacts

Wild chital deer are generally not established close to urban areas, although there are established populations on the fringes of Moranbah and Toowoomba. Wandering deer can represent a serious traffic hazard and may cause motor vehicle accidents on both rural and urban roads.

Beneficial considerations

Chital deer can be trapped for the wild venison trade in accordance with Food Safety Standards. Trapping deer to use as foundation stock for a farmed herd is less viable due to the animal welfare and human safety aspects of handling feral deer.

Recreational deer hunting

The cost of deer control may be minimised by enlisting or utilising commercial or recreational hunters to assist in control. Landholders wishing to engage a third party to assist in deer control on their property should carefully consider a number of points before allowing access to their property, including conditions of access, public liability insurance, and references.

Control

Managing feral chital deer

The GBO requires a person to take reasonable and practical steps to minimise the risks posed by feral chital deer. This fact sheet provides information and some options for controlling feral chital deer.

In many cases, deer control is best done as a joint exercise, involving all land managers in the district. Local governments and landcare groups can assist coordinating efforts.

Prevention and early detection

The first and most effective step to managing the impacts of deer in Queensland must be to prevent more deer entering the wild.

Thirty-five per cent of all current feral deer populations have resulted from deer farm escapes or releases, with a significant percentage of the remaining populations resulting from the deliberate translocation of deer.

Under Queensland legislation, the release or translocation of feral chital deer is restricted. Farmed deer and deer in game parks must be contained in deer proof fences and it is the responsibility of the owner to ensure that deer are contained. Failure to do so is a breach of the *Biosecurity Act 2014*.

Shooting

Shooting must be carried out by trained personnel with appropriate firearms licences. Shooters must possess the necessary skill and judgment to kill deer with a

single shot. Lactating females should not be shot, but if inadvertently shot, efforts should be made to find the young and euthanase them.

Ground shooting

Although time consuming and labour intensive, ground shooting is considered to be the most effective and humane technique currently available for reducing wild deer populations. Such shooting is usually done at night from a vehicle, with the aid of spotlights.

Helicopter shooting

Helicopter shooting is most effective (highest kills per hour for a given deer density) in relatively open habitats such as broadacre crops, open rangeland and swamps.

Where deer populations are at comparatively low densities and in areas of thick cover, kills per hour will be lower for helicopter shooting, but it may still be the most economic option. There is no evidence that this form of control risks disturbing and dispersing the deer population.

Fencing

Generally, the minimum escape-proof enclosure for farmed deer or an exclusion fence for feral deer is a well maintained high netting fence or equivalent. An example of an effective deer fence is one that is 2.1 m high, has strainers and posts made of heavy duty material such as hardwood or metal that are set deeply into the ground and no more than 9 m apart.

The netting would be 17/190/15 or 13/190/30 for chital deer, supported by well strained top, bottom and belly wires and pegged securely to the ground. Gates would be of a similar standard and the same height. Fence lines should preferably be cleared to minimise trees falling on the fence.

Note that this is an example only and fence construction should be appropriate for the individual circumstances.

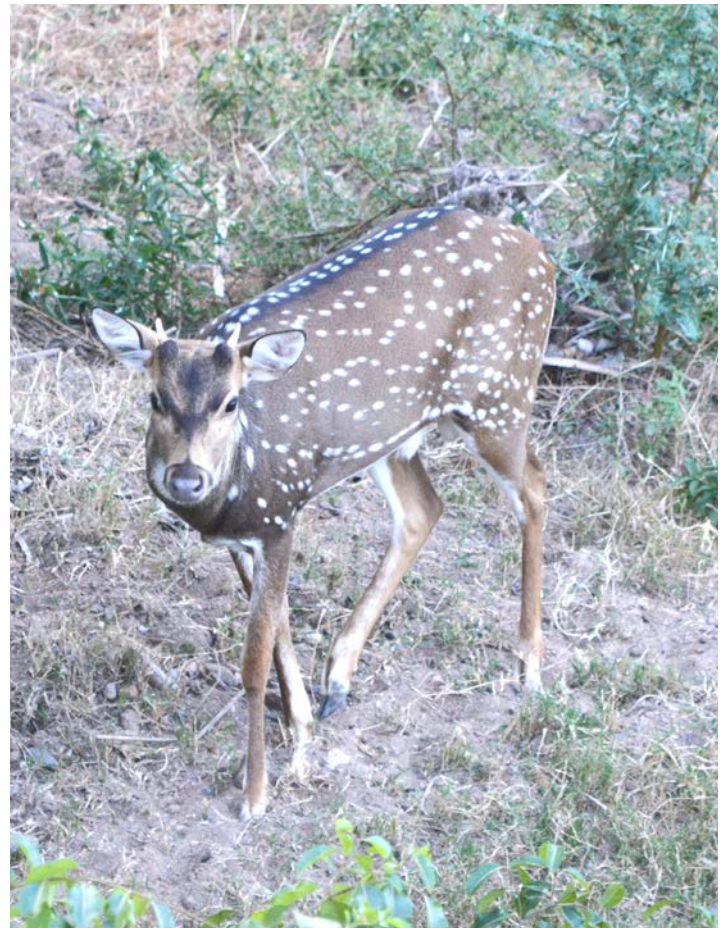
Trapping

Trapping may be an option for deer control in some circumstances, particularly in areas where shooting may not be an option such as urban and peri-urban locations. The simplest form of deer trap uses a trip wire to activate a self-closing gate.

Traps must be monitored closely and deer should be promptly tranquilised or euthanased after trapping. Deer mortalities of 3–7% post-trapping have been recorded in US studies and animal welfare issues must be considered in using this method.

More information

For more information contact your local government or to download a copy of the Queensland feral deer management strategy 2022–27, visit biosecurity.qld.gov.au.



Fact sheets are available from biosecurity.qld.gov.au. The control methods recommended should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, the department does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.

