

SPECIES ECOLOGY ENGLAND & WALES BEST PRACTICE GUIDES

CHINESE WATER DEER

the deer
initiative



grazing in open grassland

Introduction

The aim of this guide is to highlight features of the biology and behaviour of Chinese water deer (*Hydropotes inermis*) as an aid to the management of the species, it is not a complete description of Chinese water deer (CWD) (see Further information below). Deer behaviour is not fixed, they will adapt their behaviour to local circumstances, sometimes behaving quite differently from one area to another or over time. This guide links to Deer Biology, Deer Behaviour and Deer Signs guides which should be considered as important associated reading.

Social structure

Territorial, especially the males. Both sexes prefer to stay within their personal home range which may be very small, sometimes only a few hectares. Mostly solitary but may be seen as pairs around the rut or as small groups (doe/young in late summer and feeding groups in late winter) Fawns remain with their dam until the rut following their birth (5-8 months of age) when they become largely independent.

Patterns of activity

Use of Habitat

Found in and near woodland habitats next to grazing areas as well as in more open and wet areas such as reed beds, boggy areas and river edges. Adapt readily to open areas of grassland such as agricultural fields and parks, often be seen out in daylight. The least numerous of the UK deer species with a very limited distribution.

Movement is affected by season and weather. Some knowledge of how they respond makes them easier to predict, see Deer Behaviour guide.



buck (at rear) and doe

Feeding

Primarily grazers but can be very selective, preferring the tender parts of grasses, sedges, herbs and woody species. They will often be seen feeding in and close to cover but often venture out into the open especially on agricultural/horticultural crops where they eat the weeds as well as the crops themselves. Average browse height is 75cm-90cm

Breeding

Rut in November/December. In reasonable conditions adult does will produce twins although pregnancies with 4-5 fetuses are not uncommon. Does have a breeding life of 6 years or more with fawns becoming sexually mature at 5-8 months of age. Confirmation of pregnancy is possible from January using the presence of embryos. Survival rate of fawns is often poor, especially in cold, wet weather. Fawns are born in May/June and most does cease lactation by September.

Distinguishing sex and age

Sex

Male and female can be hard to distinguish at any age, the presence of long, visible upper canines can help to distinguish males. In young males, canines erupt in autumn and by end of winter are about half their final length so are often just visible then. CWD have no antlers.

Age

Difficult to age. Fawns rapidly approach adult weight by the time they are 1 year old. Older CWD tend to be stockier and broader across the back.

The upper canines of males reach full length by 18 months to 2 years. The length of the canines is not a good indicator of age. Most wild CWD are younger than 8 years

Condition

Coat change is normally April/May and Sept/Oct. Very late coat change may be an indicator of poor health. CWD fawns have a high mortality rate in cold, wet weather.



buck or doe?

Culling

Relatively easy to cull as they are often strongly hefted to their home range and somewhat predictable. Tend to be found alone or in small groups which can make them easier to approach than herding animals although their size can make them difficult to see in cover.

In woodlands and on woodland edges, shooting distances are often less than 100 metres, can be harder to approach across large open spaces.

Most often culled using a combination of stalking and sitting out (high seats and other vantage points), especially in the late evening. In mid winter may be on the move at any time of day. When disturbed may run then couch a short distance away, or will circle around, perhaps presenting another opportunity to see them. A little more tolerant of disturbance by stalking than the larger species but it is wise not to stalk the same areas and in the same way, too frequently.

Does may become more visible as the winter progresses tending to make the later months of the

season more productive for culling.

Bucks may be easier to see and therefore to cull, during the rut.

Culling seasons for does and bucks are the same (1 Nov – 31 Mar) because of the difficulty in differentiating the sexes. Fawns are largely independent by the time the female season opens (Nov 1) and there does not appear to be any welfare reason to attempt to shoot fawns before their dams. It is important to cull sufficient females to prevent over population. Relatively high mortality rates, especially in the young, mean that culls of up to 15-20% of the population should be enough to keep many populations stable. Roughly equal numbers of bucks and does should be culled. If the population is considered to be at risk of expanding above acceptable levels the proportion of does culled should be increased.

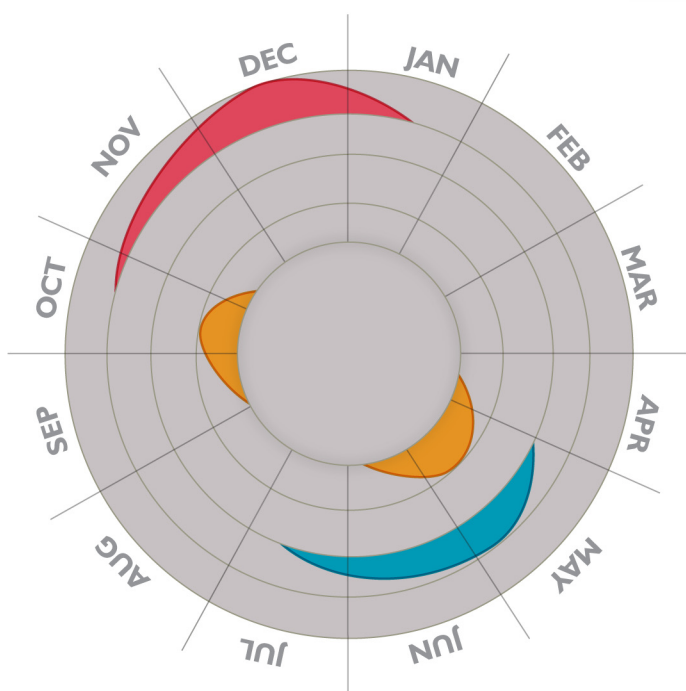
In good habitats adult carcass weights (skin on, head and feet off) should average 8-15kg for both bucks and does.



adult buck

Damage

CWD have a relatively small distribution and reports of damage caused by them are limited. CWD do not seem to eat ground level flowering plants to quite the extent that muntjac might. Agricultural and horticultural crops can suffer localised damage. Damage on cereal crops often stops as soon as the crops are sprayed. Bark scraping with the tusks may occur, especially around the rut.



Further Info

Prior, R. (2007) *Deer Watch*. 2nd Ed
 British Deer Society, *Deer Identification sheet*
 Cooke, A. and Farrel, L. (1998) *Chinese Water deer*.
 Mammal Society series