



Doe with twins - summer coat

Introduction

The aim of this guide is to highlight features of the biology and behaviour of Roe deer (*Capreolus capreolus*) as an aid to the management of the species, it is not a complete description of Roe deer ecology (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

Normally seen as single animals or in family groups. Individuals prefer to stay within their personal home range/territory and have a strong urge to return to where they were born even after some time away, this in part explains why rapid in-fill by both sexes may occur after culling. In good habitats the area in which individual roe live may be very small, sometimes only a few hectares. Buck home ranges tend to be larger and more exclusive than those of does which frequently overlap each other. Both sexes can be territorial, mature bucks aggressively so from early spring to autumn, adult does especially around the time when kids are born. Kids suckle until 4 months of age and rarely later than October. They will stay with their dam until next years kids are born, when they are generally excluded, but tend to remain in the general area

if they can. Young bucks sometimes collect in “bachelor” areas or occasionally are tolerated by dominant animals as companions but tend to be excluded at key times of year.

Patterns of activity

Use of Habitat

Prefer permanent cover, especially diverse woodland habitats such as larger areas of woodland or farmland with copses. Very adaptable, also being found on open moorland/heathland and increasingly in urban and suburban areas. Will make use of surprisingly small areas of shelter, such as are found in parks, gardens and roadside verges.

In some areas “field” roe adopt a habit of living entirely in the open on arable land or heath. Roe are very strongly hefted as individuals to their home range and thus are fairly predictable as to their location, this makes them relatively easy to manage and on a more localised basis than the herding deer. Movement is affected by season and weather, some knowledge of how they respond will make them easier to predict, see Deer Behaviour guide.

Feeding

Primarily browsers and can be very selective in what they eat. Often prefer areas where the ground flora is most varied, bramble is a staple of their diet where available. Will feed from pheasant feed rides and hoppers and will sometimes become ill through

over indulgence. Normally feed as individuals or in twos and threes but larger “bevvies” of roe, perhaps into double figures, sometimes seen on fields in late winter/early spring, not usually herds in the strict sense but individuals sharing a food resource. Roe do not tend to feed with domestic livestock, especially sheep.

Breeding

Females are monoestrous (have only one receptive period per year) but adult doe pregnancy rate can approach 100%, partly because does will actively seek out bucks. Majority of kids born from mid May to the first week in June. In reasonable conditions adult does will produce twins, sometimes triplets, each year over a breeding life of 7 years or so. Late middle-aged does are generally the largest and may produce heavier, earlier kids. Yearling does (aged 24 months) will usually produce single kids, the better their condition the more yearlings will be pregnant. Kid pregnancies rarely result in viable young. Rut is in July/August, and usually appears to peak in the first week of August. A change to wet cold weather will often bring visible signs of the rut to an end. May be a “false rut” in October, probably due to doe kids reaching sexual maturity later than the main rut. Implantation of the fertilised egg in the uterus is delayed for 5 months. During this time no embryo is visible and females may not appear to be pregnant. Corpora lutea persist even if the pregnancy fails and more corpora lutea may be present than there are fertilised eggs. Because of this, confirmation of pregnancy is only possible from January when the embryo implants in the uterus wall and begins normal development. Roe kids are the most prone to being picked up as “abandoned” because for up to 2 months (longer than other deer) they lie inert and hidden some distance from their mother as she feeds. Survival rates of kids can be very good (1.4 -1.6 per adult doe average), lower in cold, wet springs, in areas of poor feeding or where deer densities are high. Survival rates improve rapidly if high density populations are reduced below habitat carrying capacity (see Cull Planning guide). Most does cease lactation by November (a little later in the North). Kids can live independently at this stage but learn a lot from the field craft of their mother until they disperse in the spring.

Distinguishing sex and age

Sex

Presence of an “anal” tuft in does is generally sufficient to identify females although occasionally the tuft may be difficult to see (e.g. when obscured by scouring). The doe rump patch is an “upside down” heart shape and bigger than the buck’s which is kidney shaped. Both rump patch and anal tuft are less evident in the summer. Female roe may squat to urinate. Antlers can sometimes be hard to see, especially in velvet and some females have “pedicles” or, rarely, velvet antlers.

Age

It can be difficult to age roe especially as they are often seen as individuals rather than in groups. Older roe tend to be stockier and broader across the back. Older does have longer faces, older bucks have more “boxy” faces and a thicker neck, although the necks of all bucks get thicker during the rut. Young Roe can be as large as adults by the time they are 1 year old. All adult teeth are present by 12-13 months, most wild roe are younger than 8 years.

The size and form of antlers is not a good indicator of age in Roe, although in general, in older bucks the pedicles will be shorter with the outer edge sloping downwards more.

Antler and coat change cycles are usually better indications of age in roe than in other species.



doe in summer coat



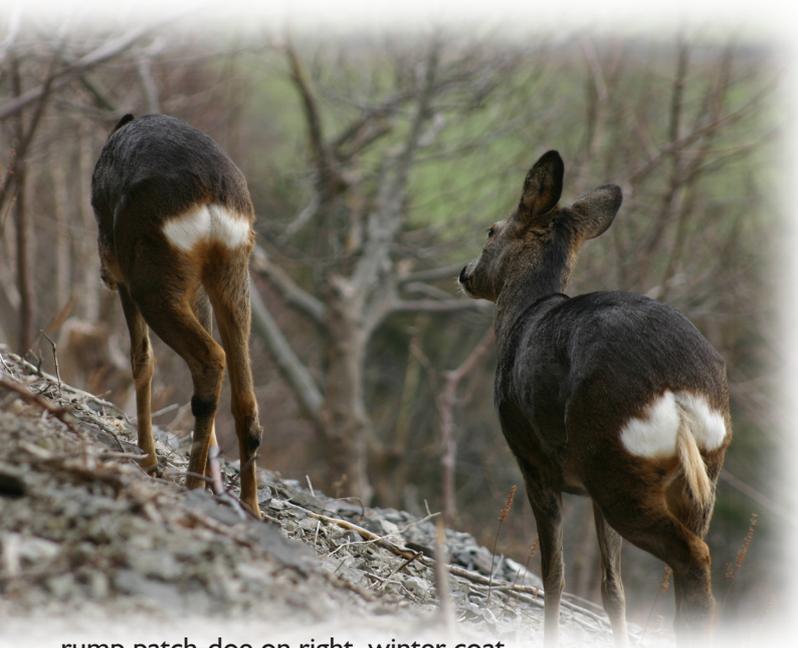
two white spots on upper lip- a roe kid

Condition

Coat change normally April/May and Sept/Oct (youngest first). Antlers cast from October through December and become clean from February to May (oldest first). Very late antler growth or coat change may be an indicator of poor health. Can be prone to both scouring and hair loss (lice), particularly in the Spring, and often carry high tick and ked burdens. Kid mortality may be high if it is cold and wet in the month or so after birth (see also Assessing Condition guide).

Culling

Except in very dense woodlands generally the easiest of our deer species to cull as they are often strongly hefted to their home range and somewhat predictable. Roe tend to be found alone or in small groups making them easier to approach than herding



rump patch-doe on right, winter coat

animals, their size makes them easier to see than Chinese Water Deer or Muntjac.

In woodlands and on woodland edges, shooting distances are often less than 100 metres but "field" Roe 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), mainly in the early mornings and late evenings. In mid winter may be on the move at any time of day. When disturbed may run, then stop a short distance away, or will circle around, perhaps presenting another opportunity to see them. If pushed out of an area entirely they will generally have returned by the next day or even sooner. Roe are 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.

Moving Roe to static rifles can be very productive (see Moving Deer guide).

Does may become more visible as the winter progresses making the later months of the season more productive for culling. Because kids attend their mother closely in the winter it is often possible and more humane to cull the kids if the doe is culled, especially earlier in the season. Survival rates of orphaned kids however, appears to be good. Unintentionally orphaned kids will invariably return quickly to their shot mother when in cover, although not always in the open, they will however tend to stay in the area and can usually be found and culled later. Culling does without young avoids the issue but these are likely to be a minority of those that have to be culled.

Bucks are most visible in April and May although older bucks may only show very early or late in the day. From June until the rut (usually beginning in mid-July) bucks can be hard to find due to a combination of high cover, plenty of food and lower activity. During the rut up to perhaps mid August bucks become more active and can sometimes be called by imitating a doe. After the rut bucks can become elusive but may still be showing on stubbles and on pasture if there are no livestock.

Culling seasons for does (1 Nov – 31 Mar) and bucks (1 April – 31 Oct) do not overlap so there is an opportunity to concentrate on each sex separately. It is important to cull sufficient females to prevent over population, this is particularly important with Roe because they frequently produce twins. Culls



mature buck in winter coat

of up to 30% of the population will be required to keep many populations stable. As a general rule, twice as many does as bucks should be culled in any population considered to be at risk of expanding above acceptable levels. At least half the bucks culled should be yearlings or buck kids culled with their dam in winter.

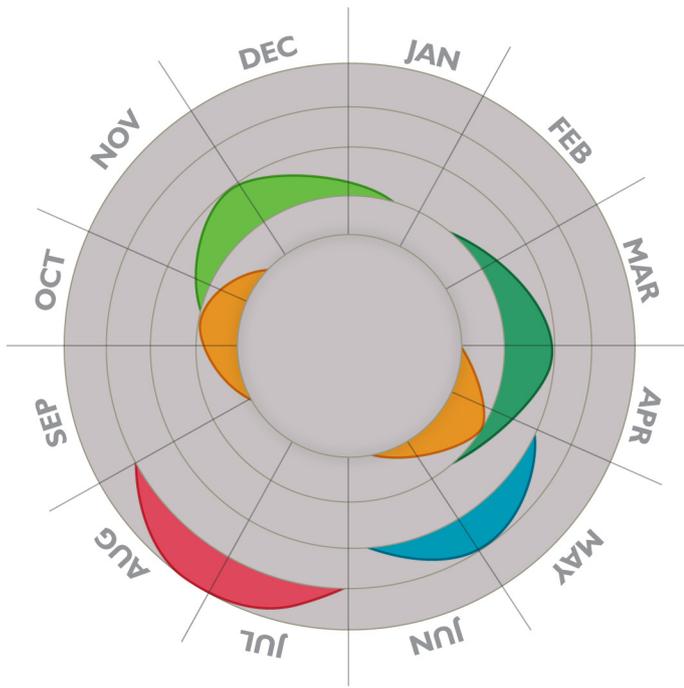
Roe have a capacity to “bounce back” after even quite intensive culls, once a sustainable density is reached moderate culls each year are recommended, rather than occasional hard culls with no culling in between.

In good habitats adult carcass weights (empty, skin on, head and feet off) should average 16-20kg (36-44lbs) for both bucks and does.

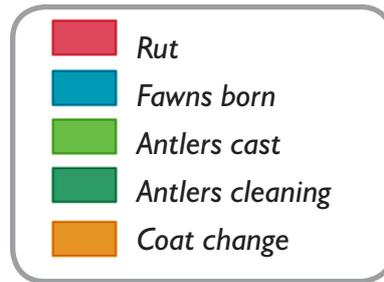
Damage

The most significant impact is caused by browsing. The tendency of roe to eat the most succulent parts of plants brings them into conflict with forest and woodland managers, growers of susceptible crops and gardeners. Because they are very selective this can mean intense damage to favoured plants such as broadleaved and plantation trees and coppice with moderate damage to a wide range of other plants and with some largely untouched. Roe may not eat ground level flowering plants to quite the extent that say, muntjac do. Agricultural crops can suffer localised damage, especially if adjacent woodlands have been eaten out by late spring. Damage on cereal crops often stops as soon as the crops are sprayed or alternatives are available. Fraying damage

tends to occur most often in spring and around the rut and can be significant (especially in tree plantations and gardens) particularly where juvenile or displaced bucks compete



Roe are very aggressive. Puncture wounds under the skin of a buck that lost a fight



Further Info

- Prior, R. (2007) *Deer Watch*. 2nd Ed
 British Deer Society, Deer Identification sheet
- Prior, R. (1995) *Roe Deer: Conservation of a Native Species*
- Mayle, B and Ratcliffe, P. (1992) *Roe Deer Biology and Management*. Forestry Commission Bulletin 105.
- Prior, R. (2000) *Roe Deer Management And Stalking*
- Fawcett, J. K. (2003) *New Forest Roe Deer* PTES/
 Mammals Trust UK
- Fawcett, J. K. (1997) *Roe Deer* The Mammal
 Society/ BDS