

Date May 2011

East England: Grant support for deer management

Background This document is to give guidance on support for deer management in the East of England Region. The annual cost of deer to the overall economy in the East of England is estimated to be over £7 million due to road traffic accidents involving deer. There is also a loss in biodiversity of woodlands across the region resulting from over browsing; this provides the rationale for the Forestry Commission helping fund the management of deer.

Funds are limited and eligible applications will be judged on a first come first served basis. The effectiveness of this funding package will regularly be reviewed and revised accordingly.

What woodlands are eligible? All other EWGS eligibility requirements apply. We will fund deer management where it is required in order to maintain and improve the environmental value of the woodland. Owners who wish to apply to the FC for grant support will need to discuss their deer management issues with their local woodland officer.

What can be funded? **Woodland Assessment Grant (WAG)**

A Deer Management Plan (DMP) can be funded using WAG ecological assessment; this is at £5.60/ha with a minimum payment of £300. The DMP must use the template devised by the Deer Initiative. This is available from <http://www.thedeerinitiative.co.uk/html/downloads.htm> or speak to your local woodland officer, for contact details go to: <http://www.forestry.gov.uk/forestry/inf-d-7b7ezj>

When the plan is completed, a copy must be submitted with the claim form to ensure the FC is satisfied with its contents. The FC works closely with the Deer Initiative and may seek their advice before approving payment.

Woodland Improvement Grant (WIG)

The FC will not consider any WIG claim for deer management related work until there is an agreed DMP in place.

Any WIG work relating to deer management that you intend to undertake must have been identified in the DMP for the woodland. E.g. purchase of High Seats.

Many WIG standard costs can be applied to support the management of deer in woodland. 'Operations Note 009 – Standard Costs' lists all the

woodland management work that FC will fund, this is available on the FC website at: <http://www.forestry.gov.uk/forestry/infd-6kxfg5>

Some of the applicable costs are:

C6 Deer High Seat

F4 Deer Fencing

F5 Temporary Deer Fencing

F6 Deer & Rabbit Fencing

L1 Forest Craftsman

L2 Forestry Agent

V4 Open Ground Tree & Scrub manual cutting >7cm dbh (for ride widening/sight lines)

Of particular note is the potential to help fund deer stalking. The FC are prepared to offer standard cost L1 (labour rate – forest craftsman) This will be applied at one stalker-day per 2 hectares per year up to 100ha. For example a 60ha woodland we would be prepared to fund (where appropriate) up to 30 stalker days per year. The number of days applied for must reflect the actual number of days that will be spent stalking deer. All claims must be supported by cull sheets showing the amount of time that has been spent stalking each year even if no deer have been shot. One stalker day equates to an 8 hour day which equates to two stalking visits of 4 hours. For example if 20 days per year of stalking is included in the contract it is expected that 40 stalking visits will be carried out each year.

Where the L1 payment is applied for deer stalking, deer activity and damage must be monitored. This must be undertaken each year to help determine the success of deer management. This should follow Impact and Activity Scoring System. The FC is prepared to fund this using standard cost L2 (labour rate - forestry agent). The person carrying out the monitoring must not be the same person/people who carry out the deer control. The number of hours paid will be 4hrs per year where the whole woodland holding is less than 30ha and 8hrs per year for 30ha or more. The Deer Impact and Activity data should be incorporated into the DMP and used to adjust the cull numbers as necessary.

If the claim submitted shows less days stalking than was in the contract then we will only fund to actual days spent stalking. If the cull target is not achieving a reduction in deer activity then we may chose not to fund the work.

You must use the Deer Impact Method and Impact Tally form for monitoring deer (see appendices A and B).

The rate of grant eligible against the standard cost will be either 50 or 80%. Your woodland officer will advise you which rate applies.

Deer Impact and Activity Scoring Method

Scoring for deer and their damage

Background

Since 1993, I have visited woods in eastern England to assess muntjac presence and damage. I needed a simple, rapid method to determine levels of deer and damage, and how they changed over time in the same wood or differed between woods. By the mid 1990s, I was familiar with signs of both the deer and their damage, and decided to base the method on the frequency with which such signs were encountered. Muntjac deer score is a simple measure of their density. Muntjac damage score is a measure of their effects on vegetation in the recent, or more distant, past. Over a sample of woods, the two scores are positively related – as deer score increases, so does the damage score. However, for any given deer score, damage score may vary from wood to wood.

The technique is subjective in that most signs are scored based on experience rather than by quantitative measurement. In order to use it successfully, experience and/or training is necessary, and it is important to stress that two observers are unlikely to derive scores that are exactly the same without considerable prior collaboration. However, some quantification has been introduced and this will be developed further. In the meantime, accept that your scores may not be the same as your colleagues', but this does not matter providing they are for your own personal use and you score in a consistent manner.

My method was developed specifically for muntjac and their damage. However, it is applicable to other species of deer with minor modifications. It is, for instance, relatively easy to produce separate scores for muntjac and fallow deer where they occur together in a wood, because signs for the two species can be readily differentiated. Deriving a muntjac damage score in woods where there is a high density of fallow deer can be problematical because feeding by the larger species may mask muntjac activity.

Do not be discouraged by the length of this note. The method is quick and easy. This note is an attempt to distil observations made over the last 13 years as the method has evolved. Please ask for any clarification on 2 March.

Method

Typically a wood is visited for 1-2 hours. Do not simply stick to rides – walk into woodland blocks, coppice areas etc, looking for signs. Muntjac deer scores are based on recording four variables: deer, droppings, slots and paths. Each of these variables is scored 0 (if not recorded), 1, 2 or 3. The overall muntjac deer score therefore comprises four components, each being scored from 0 to 3, and so the overall score will be between 0 and 12. Muntjac damage scores are based on recording five variables: browsing on woody vegetation, breakage of woody stems, browselines, fraying, and grazing on ground flora; each again is scored subjectively between 0 and 3. Overall damage scores are summed in the same way as for overall muntjac scores and can vary from 0 to 15. Specific information on signs is given in the final section.

Scoring can be done at any time of year, but spring and early autumn are preferred. In the spring, signs such as slots and paths are especially evident, and signs of feeding on new growth as well as on that from the previous year may be apparent. Scoring in autumn before leaf-fall means there is abundant vegetation to observe, although the ground may be hard after a dry summer, and so slots and paths are less visible.

Although 1-2 hours is normally recommended for a single visit, this can be adjusted to suit the circumstances. In some larger woods, where a more detailed assessment may be required, I might spend six hours spaced over three visits. In a small wood (say <10 ha), I usually walk round twice during a visit of at least one hour, but in different directions. The longer one spends in a

wood, the more likely signs are to be recorded ie breakage might score 0 after one hour, but 1 after a longer period if it is rare. Therefore, when scores are being compared, it is essential that roughly the same amount of effort is involved. Some damage signs can persist for years, and it is useful to record whether they are recent.

Where a wood is being scored each year as a monitoring exercise, scoring should, if possible, be done consistently at the same time of year. Similarly, keeping detailed notes as well as deriving scores can be useful when monitoring a wood over time or when comparing between woods.

Once you've scored a few woods, you might like to adopt a scoring system with a greater number of options. I now score each component 0, 1, 1+, 2-, 2, 2+, 3- or 3 (rather than 0, 1, 2, 3). This helps to record more precisely the subtle differences noted between woods or over time in the same wood.

Because I have now scored 70-80 woods for muntjac, I am familiar with how scores relate to problems for woodland managers. Thus in a wood where coppicing is proposed, I can predict whether damage to unprotected regrowth will be unacceptable. Because you are unlikely to score exactly as I do, you will need to build up your own experience in this area.

While scoring will help you monitor differences or changes, if there are specific concerns at a site, it is important that they are directly addressed. For instance, if orchids are at risk, then they should be monitored in addition to scoring.

Signs

The following information relates primarily to muntjac, but it will get you started. [Notes relating to other species are in brackets.]

Deer. Record numbers seen plus heard plus remains/hair, and calculate number of encounters per hour. As a guide: 0.5-2.5 muntjac encounters per hour would score 1; 2.5-6.5 per hour would score 2; while >6.5 would score 3. [Record other species (including rabbits and hares) but score for other deer species may be different relative to numbers encountered.]

Droppings. Look for droppings on rides, on deer paths, for scrapes (with or without droppings) and for latrines by trees in woodland. Look around the edges of sites. Decay rate is affected by weather, habitat etc. Again as a guide: 1-6 pellet groups per hour would score 1; 6-16.5 would score 2; and >16.5 would score 3. [As above for deer.]

Slots. Look for evidence on rides and on deer paths. Look particularly in patches of mud, or where deer have had to scramble up banks or across ditches. Look if possible after rain. Some substrates (eg sand) tend not to show slots. [Record slots of other species.]

Paths. Look for them crossing rides and across the woodland boundary. Look for networks inside the woodland blocks. Try to distinguish badger paths. Judge both muntjac path frequency and extent to which they are used. Decreasing muntjac density may be associated with a reduction in use rather than a reduction in frequency. [Where other deer are present, identify species using paths by droppings, slots, height of adjacent browsed vegetation, size of tunnels etc.]

Browsing woody vegetation. Check browsing on shrubs such as privet, hawthorn and blackthorn. Also browsing on coppice regrowth – typically coppiced hazels in managed coupes have c20 tall stems per stool if unbrowsed. Look for characteristic bitten leaves on bramble – are bushes defoliated, is there die back and are bramble seedlings browsed? Are tree seedlings browsed? Can you find saplings in the height range 20-130 cm for common tree species? [Where other deer may be present, try to assess species responsible from height of browseline (muntjac 1 m, roe 1.2 m, fallow 1.5 m). Check for shrubs shaped eg by fallow. Shaping by muntjac might produce a 'waist' on a shrub.]

Breakage of woody stems. Deer bite tall stems to bring the tips down to a height at which they can be defoliated. Muntjac breakage usually occurs at heights between 40 and 100 cm, and on stems 2-10 mm thick. Look for breakage with the top part still attached or on the ground on

coppice regrowth, privet, elder, blackthorn suckers and other stems that are no thicker than 1 cm at a height of 1 m. Old breakage can be recognised for years. Unless there is a very dense muntjac population, recent breakage may be hard to find. If a population is reduced from high to moderate density, there might be a large reduction in breakage. [Rabbits will occasionally break stems, but at heights of <50 cm and with sharper bites; and hares sometimes 'fell' thin stems. Fallow deer typically break coppice regrowth stems at heights >1m and on thicker stems.]

Browselines. Heavy browsing causes browselines. For muntjac, these are at a height of about 1 m. On bramble, look for defoliation of thickets or evidence of browselines on trailing stems. Check especially honeysuckle, privet and ivy growing on trees – also individual shrubs such as hawthorn, blackthorn and field maple. From time to time, bend down and look into woodland blocks – are general browselines evident? [Other species produce browselines at different heights: rabbit 0.5 m, hare 0.7 m, roe 1.2 m, fallow 1.5 m, red >1.5 m. Note that muntjac can browse to 1.2 m when standing on their hind legs. Also, occasionally one muntjac may pull on a trailing stem allowing another to browse higher than normally possible. Muntjac will also climb on stumps or logs to feed higher.]

Fraying. Fraying occurs near the base of coppice stems, saplings or shrubs. Sallow species appear favoured, and other species regularly used include hazel, ash, maple, dogwood, blackthorn and aspen. Fraying can range in height from 10 to 60 cm, but is most typically 20-40 cm. Fresh fraying has distinctive frayed pieces of bark at the edge of the wound. On old wounds, these frayed ends disappear and the wounds may be visible for years. Look for fresh fraying particularly beside deer paths. If a population is reduced from high to moderate density, there might be a large reduction in fraying. [Rabbits leave clean edges to the wounds they make. Larger deer species fray and thrash.]

Grazing on ground flora. Muntjac eat leaves and flowers. On broad leaves, their small bites may be distinctive eg on docks. They eat most species of flora, but not everything eg ground ivy is avoided. Their diet includes species that may be unpalatable to other grazers eg bluebell, dog's mercury and cuckoo pint. It is necessary to focus on such grazing rather than assume you will notice it while walking around a site. So if you find a patch of flowering orchids or bluebells, check whether some have been grazed off – stalks should be apparent. Grazing on long-lived perennials can reduce their size and affect their distribution. Other species may spread at their expense eg grasses, sedges and ground ivy. List species that appear to be ungrazed. Record changes in distribution – ask local naturalists for information. [On taller plants, such as stinging nettle, it may be apparent which species was responsible for any grazing from the height of the bitten ends.]

Appendix B

TABLE FOR ASSESSING DEER ACTIVITY AND DAMAGE SCORES

Date:	Site:	Recorder:	Time spent:
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Activity	Muntjac		Fallow		Roe		Red	
	Tally	Score	Tally	Score	Tally	Score	Tally	Score
Sightings of deer								
Slot marks								
Active pathways								
Droppings & scrapes								
TOTAL SCORE								

Damage	Muntjac		Fallow		Roe		Red	
	Tally	Score	Tally	Score	Tally	Score	Tally	Score
Flora eaten								
Woody shoots eaten								
Broken stems								
Bark removed								
Browse line								
TOTAL SCORE								

Appendix C

Deer Cull Data Record

Estate/Property: _____

Stalker: _____

Number	Date	Species	Sex	Location	Carcass Weight	Bullet Placement	Age (years) or age class

