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### Introduction

The aim of this guide is to outline how a vantage point census can be carried out for wild deer in wooded areas or where deer might be otherwise hard to see. The Census Introduction guide should be regarded as companion reading, this guide also links to the Cull Planning guide.

Vantage point counts are usually carried out in daylight. There are many different methods, a number of them are compared in the "Methods" table. The method which yields the most information and is least prone to error is 3. the "simultaneous vantage point count" This method is very similar in principle to the "open range" count used in Scotland (see further info) and is described in detail below. There are many ways of arriving at estimates of deer numbers apart from visual counts. Wherever possible, results from visual counts should be considered with results from other methods, each hopefully adding confidence to the other. (see table overleaf)

# Simultaneous vantage point count

The principle is very simple, observers are placed in areas where deer are likely to be seen, individual observers combine their figures with others to give an estimate of the number of deer over a known area. The scale of the count could involve a single landownership or spread across many boundaries in which case each area may prefer to organise their own count, then pool results later. The following points should be considered when organising a count:

#### Before the count

- Discuss the reasons for the count
- Agree access to land
- Agree date, plus alternative dates if possible. The best time of year is March/April when cover is low. Avoid cold, wet and windy days if possible.
- Carry out a risk assessment.
- Using local knowledge and a map, agree the vantage points, a briefing/dispersal/meeting place, transport routes, a delivery and pick up plan. Ideally observers are placed so that the

Method	resources	accuracy	pros	cons
1. Casual observation over time	None/few. Single observers	Only works well where individual deer or groups can be recognised for certain. Poor where double counting/missing deer is likely (most areas) Can be wildly inaccurate	Can be combined with other work. Easy to organise	Susceptible to bad weather and the greatest number of sources of error
2. Single observer and multiple vantage points	None/few. Single observer. May require high seats.	Better than casual observation but potentially poor for mobile species due to possibility of double counting or missing deer	Easy to organise	Susceptible to bad weather. Takes many days to visit all vantage points during which time deer locations may have changed. May need repeating to confirm results
3. Many observers and simultaneously used multiple vantage points	Many observers, May require many high seats.	Reliable estimate of minimum numbers even for mobile species, provided double counting is eliminated	Yields most data, quickly	Requires organisation. Susceptible to bad weather. May need repeating to confirm results
4. Moving deer using many observers and simultaneously used multiple vantage points	Many observers, May require many high seats.	Reliable estimate of minimum numbers even for mobile species provided double counting is eliminated	Does not rely on deer to show themselves. Time of day not restricted.	Requires organisation. Chances of double counting are increased

majority of the area is covered with as little overlap as possible. Observers need to be in place at the right time and for sufficient time to increase the likelihood of seeing deer. Deer tend to move to feed more or less every 3-4 hours and mostly in the early mornings or evening, thus observers need to be in place at least 3 hours before dark or at least  $\frac{1}{2}$ hour before daybreak. It is obviously easier to arrange for evening counts. Each observer should know where they are and what the arrangements are for being picked up!

- Recruit observers and ensure that they know:
  - When and where to meet
  - To bring: (very) warm clothing and stout footwear binoculars a means of communication some means of timekeeping food/drink
  - How to differentiate between deer species as well as individual deer sex and age (male, female, adult, young) Some training may be required.
  - That they are fit enough to walk to and climb a high seat where appropriate
- Ensure that vantage points, especially if high seats or raised above ground level, are safe.
- Organise transport

- Keep watch on weather and confirm date/time with all participants as soon as possible
- Consider the provision of hot drinks and food as a "reward" for observers time".

#### On the day of the count

Ensure that each observer knows what is expected of them, this is usually done at a short briefing on the day of the count. The briefing normally takes  $\frac{1}{2}$ hour if there are some inexperienced observers but allow I hour from gathering observers together for briefing to leaving for the count.

Briefing should include:

- What to look for
- How to record it (see specimen census sheet in Associated Information guides). Provide forms and pencils (pens do not work well in the wet!) Observers are asked to name and sketch their vantage point when on site, then to account for deer movements in a "wash up" session after the count to avoid double counts.
- Knowing where they are to be placed and how to be picked up
- Health and Safety based on risk assessment ( e.g. climbing high seats, communication, getting lost, weather).

Drivers must know how many observers they take out and should return with the same ones unless other arrangement are made. At drop off points drivers should ensure that the observer can identify their vantage point, this is important when collating results and will help if the observer is forgotten or lost! When picking up remember that the first to be dropped off will have been out the longest, if it is sensible to do so try to pick them up first.

#### After the count

At the end of the count the coordinator should make sure that all paperwork is retrieved and all possible double counts eliminated. It should be possible to give a brief account of results before everyone leaves. The coordinator should collate and analyse results as quickly as a possible and ensure that the relevant parties have sight of the results giving due regard to confidentiality.

The kind of results that might typically be issued later are:

- Brief description of count and any mitigating factors such as weather, location/movement of domestic livestock, cropping patterns, other difficulties
- Map (with key) of surveyed area showing where deer seen and numbers(unless confidential)
- Minimum total numbers seen (corrected for double counts)
- Overall male:female ratio ( if possible)
- Overall female:young ratio and estimate for minimum annual increment (if possible)
- Graph illustrating comparison with previous counts.

## Reducing potential errors

There are a number of ways of avoiding sources of potential error:

**Observers** must:

- must have good quality optical equipment
- be able to differentiate species, sex, age(young and adult as a minimum)
- stay at their vantage point until the allotted time
- record deer seen accurately as required

Organisers should:

- as far as possible hold the count in conditions when deer are likely to be seen
- find and eliminate all double counts
- use the same method on repeat counts or allow for changes e.g. to area surveyed
- include as much of the deer range as possible in the count area, especially important with herding species.

# Moving deer for counting

A variation on the above method is to move deer from areas where they are not visible into areas where they can be counted. Moves should be done in such a way that the same deer are unlikely to be counted repeatedly. Deer are moved towards vantage points by walkers. At the end of the move observers and walkers compare notes to eliminate potential double counting.

# Further Info

DCS Open Range Counting guide - www.dcs.gov.uk See Associated Information section for census form