TALL HERBS

Aim

The aim of this guide is to describe methods of assessing Tall Herbs habitat relevant to deer managers.*

Habitat description

Tall herb habitats consist of lush mixtures of flowering plants associated with areas protected from grazing (e.g. cliff ledges). The main indicator species are meadowsweet, water avens and globe flower. Where soils are acidic, lush mixtures of dwarf-shrubs, ferns (other than bracken) and greater woodrush are typically present.

(left) signs of high impact: no flowering woodrush (and/or key species) present
(right) signs of low impact: flowering woodrush and/or flowering key species

Key indicators

The main impact that deer have on tall herbs is grazing.[1] The presence and frequency of flowering of indicator species will give an indication of the level of impact.

Other impacts

Other herbivores such as sheep, goats and hares may cause impacts.*

Greater woodrush
A tall robust perennial forming bright green mats or tussocks. Height: flowering stems 30-80cm.#

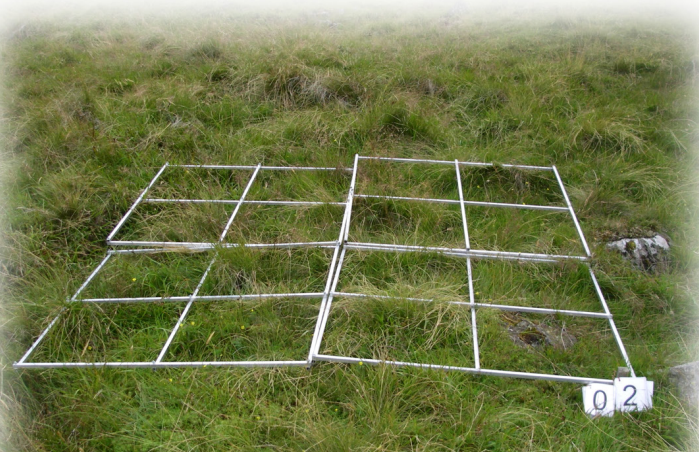**Meadow sweet**
Perennial herb. Height 60-120cm. Leaves 30-60cm

Water avens
Perennial herb. Height 20-60cm. Leaflets 2-20mm long with terminal leaflet 2-5cm

Globe flower
Perennial herb with short woody stock and leafy shoot. Height 10-60cm

numbered photograph of plot from fixed point. For information on the number and size of plots and what time of year to measure, see BPG Habitat Impact Assessment: Principles in Practice.

What to measure	How to analyse
Record presence or absence of tall herb species in each quadrat.	For each plot, summarise the frequency* of quadrats with presence or absence of tall herbs (for example: 6/16 quadrats, tall herbs PRESENT; 10/16 quadrats, tall herbs ABSENT). For each site, summarise the frequency of quadrats with tall herbs present or absent (for example, in a site with 10 plots (a total of 10 x 16 quadrats): 50/160 quadrats, tall herbs PRESENT; 110/160 quadrats, tall herbs ABSENT).
Record whether tall herb species are flowering or not in each of the 16 quadrats.	For each plot, summarise the frequency* of quadrats with presence or absence of flowering tall herbs (for example: 2/16 quadrats, flowering tall herbs PRESENT; 14/16 quadrats, flowering tall herbs ABSENT). For each site, summarise the frequency of quadrats with flowering tall herbs present or absent (for example, in a site with 10 plots (a total of 10 x 16 quadrats): 20/160 quadrats, flowering tall herbs PRESENT; 140/160 quadrats, flowering tall herbs ABSENT).
Record presence of deer or hare dung in each plot.	For each site, summarise the frequency of quadrats with deer dung present or absent (for example, in a site with 10 plots: 80/160 quadrats deer, dung PRESENT; 80/160 quadrats, deer dung ABSENT). Repeat exercise for hare dung.
Take digital photo of whole plot from fixed point (see illustration above).	Will enable detection of changes in tall herb distribution over time.

Tall Herbs *species:*

Greater woodrush/ *Luzula sylvatica*

Meadow sweet/ *Filipendula ulmaria*

Water avens/ *Geum rivale*

Globe flower/ *Trollius europaeus*

Angelica/ *Angelica sylvestris*

Roseroot/ *Sedum rosea*

Wood crane's bill/ *Geranium sylvaticum*

Holly fern/ *Polystichum lonchitis*

#*(Greater woodrush) Leaves 10-30cm x 6-12mm. Leaf has white hairs that distinguish a woodrush (Luzula) from a rush (Juncus)*

* The guides Habitat Impact Assessment: Principles and Habitat Impact Assessment: Principles in Practice should be regarded as essential introductions to this subject

[1] Guide to Upland Habitats, Surveying Land Management Impacts. Angus Macdonald, Penny Stevens, Helen Armstrong, Philip Immirzi and P Reynolds. 384 pages, 2 volume set, 50 col photos. Scottish Natural Heritage. See BP Contacts