

## Schiehallion habitat monitoring plan

### Part 1: heath plots

Heath plots enable monitoring of browsing impacts from deer and sheep on heather shrub vegetation across the site.

The Method will follow best practice guidance for deer impact monitoring -> <https://www.bestpracticeguides.org.uk/impacts/>

#### Dwarf Shrub Heath

##### *Background*

30 2 x 2m plots were set up in 2008 and have been monitored regularly since then. Since 2018, 10 of these plots have been within a fenced area. We would like to expand the area covered by the plots to provide feedback on grazing impacts across the area outwith the Schiehallion SSSI.

The Trust uses this method to record impacts on its properties in Scotland. -> Method <https://www.bestpracticeguides.org.uk/impacts/dwarf-shrub-heath/>

##### *Design*

3 sets of 10 plots will be located on transects to improve time efficiency for monitoring across the heath habitat. We plan to continue to record 5 of the existing plots and set up 25 new plots. The prospective locations of the new plots are shown on map 1 below.

Heath plot monitoring will take place every two years.

Heath plot monitoring will not take within the SSSI, as plot monitoring within the sssi area will focus on designated features key habitats including calcareous grassland, flushes and calcareous influenced heath.

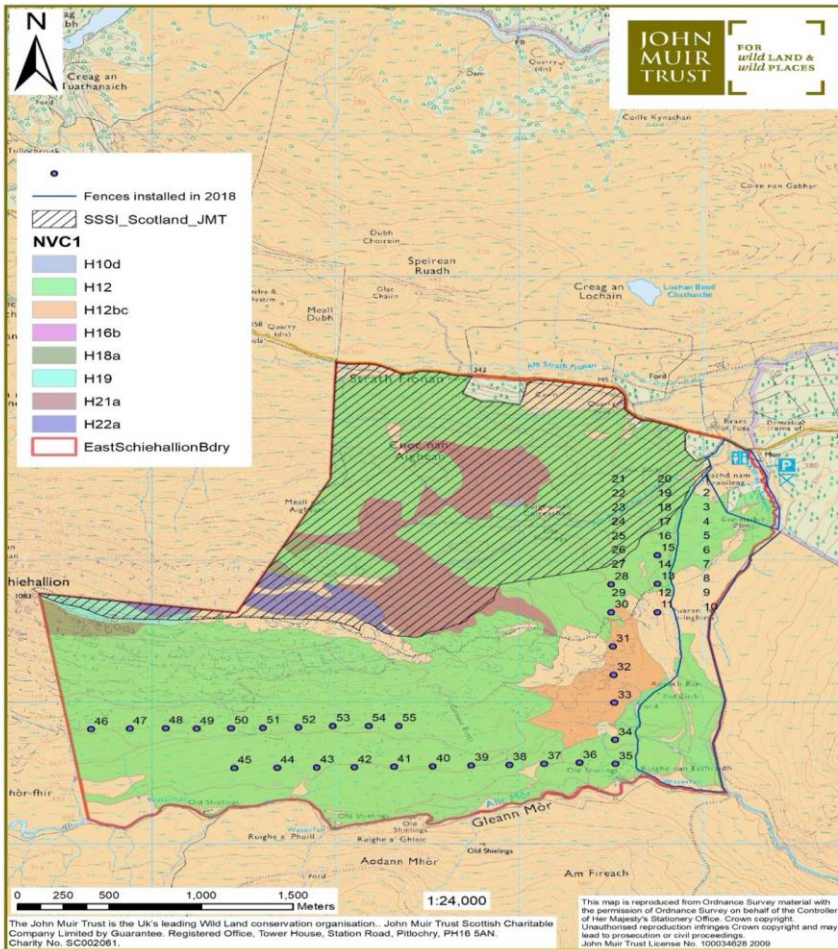
##### *Abandoning fenced plots*

Plots 1 to 10 (see map 1) will now be abandoned as there is now no browsing impacts in that area following fencing. The new plots will expand the area of the site covered to include more of the unfenced heathland areas to help inform future herbivore management. The proposed transect arrangement of plots will enable efficient use of time moving between plots to cover a wider area of the site.

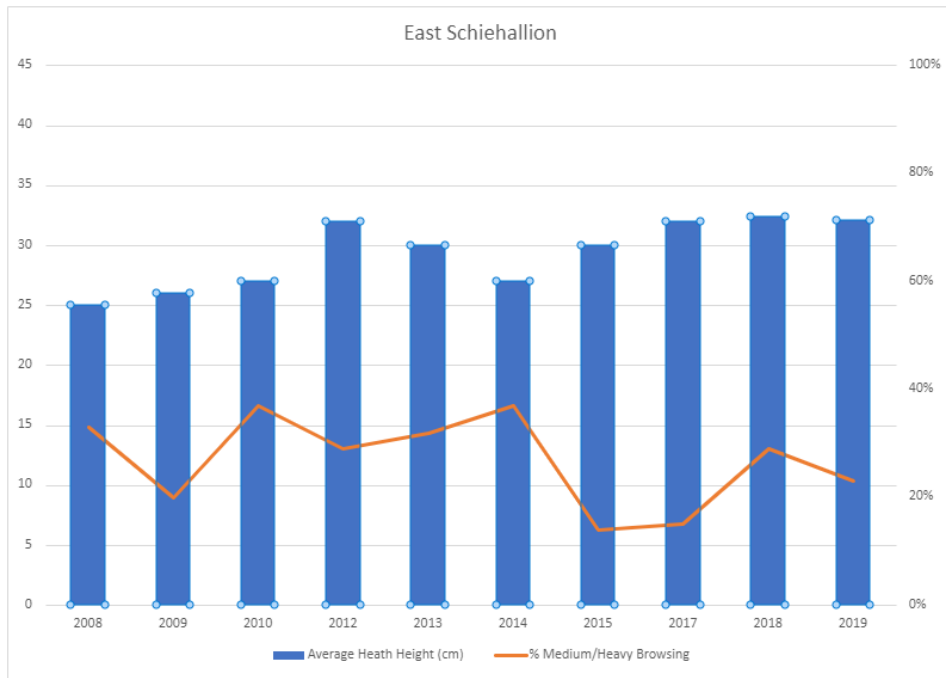
For now, the plot location pegs will be left on site to enable the potential for future recording if time allows, but we feel it is more time efficient to focus attention on the new set of 30 plots across the unfenced area.

**Commented [CT1]:** Where's info on what we are monitoring in SSSI?

**Commented [IF2R1]:** Liz put this document together (I think before we agreed monitoring with NS). We agreed to set up and monitor fixed plots in three sensitive habitat types in the SSSI (calcareous grassland, calcareous flushes and calcareous-influenced heath).



**Map 1:** Site map with blue dots showing heath plots to be recorded in 2021.



**Figure 1:** Heath plot survey results from plots recorded 2008 to 2019. Data related to plots 1 – 30 on map 1.

Table 1: Heath plot survey results 2008- 2018 (years 2011 and 2016 omitted due to incompleteness)

East Schiehallion Dwarf Shrub Heath Plots										
	n=30									
	2008	2009	2010	2012	2013	2014	2015	2017	2018	
% plots with light browsing	67	81	63	71	68	63	86	85	71	
% plots with medium browsing	29	13	24	12	13	11	6	6	9	
% plots with heavy browsing	4	7	13	17	19	26	8	9	20	
% plots with deer dung present	77	60	83	30	80	57	43	60	73	
Mean Height of Heather	25	26	27	32	30	27	30	32	32	
Standard Deviation	9	10	10	12	11	9	10	10	10	
Confidence limit (p=0.05)	2	2	2	2	4	2	2	2	2	
Heather present in quadrats	80%	79%	81%	83%	83%	84%	84%	84%	82%	

Table 1 presents the results of the completed heath plot surveys from years 2008- 2018. Mean heather height in the plots increased from 25cm to 32cm over the 10-year period which was found to be statistically significant. However, the data was variable over this time period with high sd values and the % of medium/ heavily browsed plots fluctuated across the time frame.

Ten of the heath plots were enclosed within a fence in 2018, so the 2019 data are not directly comparable so omitted from this table.