

**Appendix III**  
**Habitat Assessment**

**MU3 Inchnadamph** (*to be completed*)

## MU2 Glencassley

Habitat Area – Glencassley Estate open hill habitat

Habitats Monitored - Blanket bog and Dwarf shrub Heath

Frequency- Every 3 years

Timing – June-August

### Description

In June 2016 habitat monitoring was carried out over the two main habitat types on MU2 Glencassley Estate – Blanket bog and Dwarf shrub heath. As this is the first time habitat monitoring has taken place, a baseline has now been set to allow changes in impacts over time to be measured.

### Aims

The aims of habitat assessment are to help to ensure sustainable deer management, monitor whether land use objectives are being met and public objectives are being met.

### Method

Habitat monitoring was conducted in June 2016 following the methodology set out in the “Best Practice Guide to Habitat Impact Assessment”. Random plots were generated by SNH for MU1 Sallachy and 60 plots were assessed in the two main habitat types – 30 plots in Blanket Bog and 30 Plots in Dwarf Shrub Heath. The plots are shown on (*MAP to be completed*). For each plot the location was located using a Garmin gps unit and marked with a 50x50mm wooden stake. A 2x2m quadrat divided in to 16 equal squares was placed on the ground and the bearing recorded at the stake. A digital photograph was taken at each plot. Each square was then assessed depending on habitat type and according to Best Practise Guides. The data was recorded on data sheets provided by SNH and then entered in to a workbook also provided by SNH. The workbooks produced a summary of the data collected.

### Results

#### Blanket Bog

This habitat had light browsing pressure, light crossed leaved heath browsing pressure and very little signs of slots (6%) or pellet groups (17%) Average vegetation height was 14cm

#### Dwarf Shrub heath

Heather was present over 100% of squares sampled with light to moderate trampling and light browsing pressure and an average vegetation height of 14cm.

### Discussion

This survey gives a baseline for future habitat assessments to be measured against. The assessment was conducted during June which is within the optimal period for assessing both habitat types. The results across all the plots in each habitat were consistent and showed light herbivore (deer) impacts across the whole management unit.

### Conclusion

The results show light browsing and trampling across both Blanket bog and Dwarf shrub heath habitat, suggesting that current land management practice is environmentally sustainable.

## BLANKET BOG SITE SUMMARY SHEET

 Estate/Site Glencassley

 Dates 6/7/8/9 june

 Recorders MW / ASM

 Year 2016

Plot	% last years shoots of heather or cowberry browsed	% Bare ground with prints	% Bog Moss Present	Deer Dung	Hare Dung	Signs of burning	Cross-leaved Heath browsed	Average Vegetation Height.(Cm)
1	LIGHT	6	100	NO	NO	NO	MOD	12
2	LIGHT	0	100	NO	NO	NO	MOD	15
3	LIGHT	0	100	NO	NO	NO	LOW	13
4	LIGHT	25	100	NO	NO	NO	LOW	11
5	LIGHT	0	100	NO	NO	NO	LOW	16
6	LIGHT	0	100	NO	NO	NO	LOW	17
7	LIGHT	0	100	YES	NO	NO	MOD	16
8	LIGHT	0	100	YES	NO	NO	LOW	20
9	LIGHT	0	100	NO	NO	NO	LOW	18
10	LIGHT	0	63	NO	NO	NO	LOW	17
11	LIGHT	19	100	NO	NO	NO	LOW	13
12	LIGHT	0	31	YES	NO	NO	LOW	13
13	LIGHT	0	100	NO	NO	NO	LOW	13
14	LIGHT	0	100	NO	NO	NO	LOW	17
15	LIGHT	6	100	NO	NO	NO	MOD	11
16	LIGHT	25	100	NO	NO	NO	MOD	18
17	LIGHT	0	100	NO	NO	NO	LOW	13
18	LIGHT	0	100	YES	NO	NO	LOW	18
19	LIGHT	0	100	NO	NO	NO	LOW	18
20	LIGHT	0	100	NO	NO	NO	LOW	15
21	LIGHT	0	100	NO	NO	NO	MOD	12
22	LIGHT	0	100	NO	NO	NO	LOW	19
23	LIGHT	6	100	NO	NO	NO	LOW	12
24	LIGHT	0	100	NO	NO	NO	LOW	14
25	LIGHT	38	100	NO	NO	NO	LOW	8
26	LIGHT	0	100	NO	NO	NO	LOW	11
27	LIGHT	19	94	NO	NO	NO	LOW	9
28	LIGHT	25	100	NO	NO	NO	LOW	11
29	LIGHT	0	100	YES	NO	NO	LOW	13
30	LIGHT	0	100	NO	NO	NO	LOW	15

### SITE SUMMARY DATA FOR 30 PLOTS

Site Browsing Pressure %	
LIGHT	100
MODERATE	0
HEAVY	0

Bare Ground with Hoof Prints %	6
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Bog Moss Presence Across Site%	96
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Cross-leaved heath browsing	LIGHT
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Signs of burning across site (%)	0
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Site Deer Dung Presence (%)	17
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Site Hare Dung Presence (%)	0
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Average Vegetation Height Across Plots	14
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Other herbivore presence across site (%)	7
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## DWARF SHRUB HEATH SITE SUMMARY SHEET

 Estate/Site Glencassley

 Dates 6/7/8/9 june

 Recorders MW / ASM

 Year 2016

Plot	% shoots browsed	Other Herbivores	Burning	% Heather Present	Trampling	Deer Dung	Hare Dung	Average Veg. Ht.
1	LIGHT	NO	NO	100	Light/Mod	NO	NO	13
2	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
3	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
4	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
5	LIGHT	NO	NO	100	Light/Mod	NO	NO	17
6	LIGHT	NO	NO	100	Light/Mod	NO	NO	15
7	LIGHT	NO	NO	100	Light/Mod	NO	NO	13
8	MOD	NO	NO	100	Light/Mod	YES	NO	12
9	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
10	LIGHT	NO	NO	100	Light/Mod	YES	NO	15
11	LIGHT	NO	NO	100	Light/Mod	NO	NO	15
12	LIGHT	NO	NO	100	Light/Mod	NO	NO	18
13	LIGHT	NO	NO	100	Light/Mod	NO	NO	29
14	LIGHT	NO	NO	100	Light/Mod	YES	NO	22
15	MOD	NO	NO	100	Light/Mod	YES	NO	17
16	MOD	NO	NO	100	Light/Mod	NO	NO	12
17	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
18	LIGHT	NO	NO	94	Light/Mod	YES	NO	12
19	LIGHT	NO	NO	100	Light/Mod	NO	NO	13
20	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
21	LIGHT	NO	NO	100	Light/Mod	NO	NO	10
22	LIGHT	NO	NO	100	Light/Mod	YES	NO	12
23	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
24	LIGHT	NO	NO	100	Light/Mod	YES	NO	14
25	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
26	LIGHT	NO	NO	100	Light/Mod	YES	NO	13
27	LIGHT	NO	NO	100	Light/Mod	NO	NO	26
28	LIGHT	NO	NO	100	Light/Mod	YES	NO	11
29	LIGHT	NO	NO	100	Light/Mod	NO	NO	9
30	LIGHT	NO	NO	100	Light/Mod	NO	NO	13

### SITE SUMMARY DATA

Site Browsing Pressure %	
LIGHT	90
MODERATE	10
HEAVY	0

Site Trampling Pressure %	
LIGHT/MODERATE	100
HEAVY	0

Site Deer Dung Presence (%)	30
Site Hare Dung Presence (%)	0
Other Herbivore Presence (%)	0

Heather Presence Across Site (%)	100
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Average Vegetation Height Across Plots (cm)	14
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Signs of Burning Across Site (%)	0
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## MU5- Sallachy

Habitat Area – Grudie Peatlands SSSI, Strath an Loin SSSI and wider habitat

Habitats Monitored - Blanket bog and Dwarf shrub Heath

Frequency- Annually

Timing – June-August

### Description

In 2015 habitat monitoring was carried out over the two main habitat types on MU5 Sallachy Estate – Blanket bog and Dwarf shrub heath. As this is the first time habitat monitoring has taken place, a baseline has now been set to allow changes in impacts over time to be measured. SNH were consulted before monitoring began to make sure that there would be no negative impacts on qualifying features of protected areas (Grudie Peatlands SSSI and Strath and Loin SSSI) and also to make sure that plots were random and the methodology was suitable.

### Aims

The aims of habitat assessment are to help to ensure sustainable deer management, monitor whether land use objectives are being met and public objectives are being met.

### Method

Habitat monitoring was conducted in July and August 2015 following the methodology set out in the “Best Practice Guide to Habitat Impact Assessment”. Random plots were generated by SNH for MU1 Sallachy and 82 plots were assessed in the two main habitat types – 52 plots in Blanket Bog and 30 Plots in Dwarf Shrub Heath. The plots are shown on **Map 6 MU1 Habitat Assessment map in Appendix II**. For each plot the location was located using a Garmin gps unit and marked with a 50x50mm wooden stake. A 2x2m quadrat divided in to 16 equal squares was placed on the ground and the bearing recorded at the stake. A digital photograph was taken at each plot. Each square was then assessed depending on habitat type and according to Best Practise Guides. The data was recorded on data sheets provided by SNH and then entered in to a workbook also provided by SNH. The workbooks produced a summary of the data collected.

### Results

#### Blanket Bog

This habitat had light browsing pressure, light crossed leaved heath browsing pressure and very little signs of slots or pellet groups. Average vegetation height was 15.3cm

#### Dwarf Shrub heath

Heather was present over 93% of squares sampled with very light trampling and browsing pressure and an average vegetation height of 15cm.

### Discussion

This survey gives a baseline for future habitat assessments to be measured against. The assessment was conducted during July and August which are the in the optimal period for both habitat types. The spring and early summer were cold and wet this year and so in future habitat monitoring may start in June. The results across all the plots in each habitat were consistent and showed light herbivore (deer) impacts across the whole management unit.

### Conclusion

The results show light browsing and trampling across both Blanket bog and Dwarf shrub heath habitat, suggesting that current land management practise is environmentally sustainable.

## DWARF SHRUB HEATH SITE SUMMARY SHEET

 Estate/Site Sallachy

 Dates 02-Aug

 Recorders Iain Thomson

 Year 2015

Plot	% shoots browsed	Other Herbivores	Burning	% Heather Present	Trampling	Deer Dung	Hare Dung	Average Veg. Ht.
1	LIGHT	NO	NO	100	Light/Mod	NO	NO	16
2	LIGHT	NO	NO	100	Light/Mod	NO	NO	16
3	LIGHT	NO	NO	100	Light/Mod	YES	NO	16
4	LIGHT	NO	NO	75	Light/Mod	NO	NO	13
5	MOD	NO	NO	100	Light/Mod	NO	NO	18
6	LIGHT	NO	NO	100	Light/Mod	NO	NO	20
7	LIGHT	NO	NO	94	Light/Mod	NO	NO	17
8	LIGHT	NO	NO	100	Light/Mod	NO	NO	16
9	LIGHT	NO	NO	100	Light/Mod	NO	NO	20
10	LIGHT	NO	NO	100	Light/Mod	YES	NO	14
11	LIGHT	NO	NO	100	Light/Mod	NO	NO	17
12	LIGHT	NO	NO	100	Light/Mod	NO	NO	17
13	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
14	LIGHT	NO	NO	100	Light/Mod	NO	NO	12
15	MOD	NO	NO	69	Light/Mod	NO	NO	9
16	LIGHT	NO	NO	94	Light/Mod	NO	NO	19
17	LIGHT	NO	NO	63	Light/Mod	NO	NO	18
18	LIGHT	NO	NO	100	Light/Mod	NO	NO	11
19	MOD	NO	NO	56	Light/Mod	NO	NO	13
20	MOD	NO	NO	81	Light/Mod	NO	NO	21
21	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
22	LIGHT	NO	NO	88	Light/Mod	NO	NO	12
23	LIGHT	NO	NO	94	Light/Mod	NO	NO	11
24	LIGHT	NO	NO	94	Light/Mod	NO	NO	11
25	LIGHT	NO	NO	100	Light/Mod	NO	NO	10
26	LIGHT	NO	NO	100	Light/Mod	NO	NO	14
27	LIGHT	NO	NO	100	Light/Mod	NO	NO	19
28	LIGHT	NO	NO	88	Light/Mod	NO	NO	6
29	LIGHT	NO	NO	100	Light/Mod	NO	NO	22
30	LIGHT	NO	NO	100	Light/Mod	NO	NO	18

### SITE SUMMARY DATA

Site Browsing Pressure %	
LIGHT	87
MODERATE	13
HEAVY	0

Site Trampling Pressure %	
LIGHT/MODERATE	100
HEAVY	0

Site Deer Dung Presence (%)	7
Site Hare Dung Presence (%)	0
Other Herbivore Presence (%)	0

Heather Presence Across Site (%)	93
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Average Vegetation Height Across Plots (cm)	15
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Signs of Burning Across Site (%)	0
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# BLANKET BOG SITE SUMMARY SHEET

Estate/Site Sallachy MU3 Dates July/August

Recorders Iain Thomson Year 2015

Plot	% last years shoots of heather or cowberry browsed	% Bare ground with prints	% Bog Moss Present	Deer Dung	Hare Dung	Signs of burning	Cross-leaved Heath browsed	Average Vegetation Height (cm)
75	LIGHT	6	100	NO	NO	NO	LOW	21
76	LIGHT	0	69	NO	NO	NO	LOW	16
77	LIGHT	0	31	NO	NO	NO	LOW	14
78	LIGHT	0	100	NO	NO	NO	LOW	19
79	LIGHT	6	69	NO	NO	NO	LOW	18
80	LIGHT	0	81	NO	NO	NO	LOW	12
81	MOD	25	94	NO	NO	NO	LOW	13
82	LIGHT	6	100	NO	NO	NO	LOW	12
83	LIGHT	13	100	NO	NO	NO	LOW	18
84				Error	Error	Error	Error	
85				Error	Error	Error	Error	
86	LIGHT	0	100	NO	NO	NO	LOW	21
87	LIGHT	13	100	NO	NO	NO	LOW	13
88	LIGHT	0	100	NO	NO	NO	MOD	14
89	LIGHT	0		NO	NO	NO	LOW	14
90	LIGHT	0		NO	NO	NO	LOW	18
91	LIGHT	0	94	NO	NO	NO	LOW	18
92	LIGHT	50	100	NO	NO	NO	LOW	15
93	LIGHT	13	100	YES	NO	NO	LOW	17
94	LIGHT	25	100	NO	NO	NO	LOW	16
95				Error	Error	Error	Error	
96	LIGHT	0	69	NO	NO	NO	LOW	17
97				Error	Error	Error	Error	
98	LIGHT	38	100	NO	NO	NO	LOW	11
99	LIGHT	31	100	NO	NO	NO	LOW	12
100	LIGHT	0	44	NO	NO	NO	LOW	12
101	LIGHT	6	69	NO	NO	NO	LOW	11
102				Error	Error	Error	Error	
103	LIGHT	0	88	NO	NO	NO	LOW	16
104	LIGHT	19	100	NO	NO	NO	LOW	12
105	LIGHT	13	100	YES	NO	NO	LOW	14
106				Error	Error	Error	Error	
107	MOD	0	100	NO	NO	NO	LOW	16
108				Error	Error	Error	Error	
109				Error	Error	Error	Error	
110	LIGHT	0	94	NO	NO	NO	LOW	18
111	LIGHT	6	100	YES	NO	NO	LOW	17

Note: a minimum of 30 plots should be completed in blanket bog habitat.

## SITE SUMMARY DATA

### Browsing Pressure (% of quadrats)

LIGHT	93
MODERATE	7
HEAVY	0

### Bare ground with hoof prints

LIGHT	(% of quadrats)	93
MODERATE	(% of quadrats)	7
HEAVY	(% of quadrats)	0

**% of hoof prints over all quadrats** **9**

**Bog moss presence (% of quadrats)** **89**

**Cross-leaved heath browsing** **LIGHT**

**Signs of burning (% of plots)** **0**

**Deer dung presence (% of plots)** **10**

**Average vegetation height in plots (cm)** **15**

**Hare dung presence (% of plots)** **0**

**Other herbivore presence (% of plots)** **0**



# BLANKET BOG SITE SUMMARY SHEET

 Estate/Site Sallachy

 Dates July /August

 Recorders Iain Thomson

 Year 2015

Plot	% last years shoots of heather or cowberry browsed	% Bare ground with prints	% Bog Moss Present	Deer Dung	Hare Dung	Signs of burning	Cross-leaved Heath browsed	Average Vegetation Height (cm)
38				Error	Error	Error	Error	
39				Error	Error	Error	Error	
40	LIGHT	6	100	NO	NO	NO	LOW	20
41				Error	Error	Error	Error	
42	LIGHT	25	100	NO	NO	NO	LOW	13
43				Error	Error	Error	Error	
44				Error	Error	Error	Error	
45	LIGHT	0	88	NO	NO	NO	Error	16
46				Error	Error	Error	Error	
47				Error	Error	Error	Error	
48	LIGHT	19	100	NO	NO	NO	LOW	14
49				Error	Error	Error	Error	
50	LIGHT	0	100	NO	NO	NO	LOW	16
51				Error	Error	Error	Error	
52	LIGHT	25	100	NO	NO	NO	LOW	13
53	LIGHT	6	100	NO	NO	NO	LOW	14
54	LIGHT	0	100	NO	NO	NO	LOW	16
55	LIGHT	19	100	NO	NO	NO	LOW	13
56				Error	Error	Error	Error	
57	LIGHT	0	100	NO	NO	NO	LOW	20
58				Error	Error	Error	Error	
59				Error	Error	Error	Error	
60				Error	Error	Error	Error	
61				Error	Error	Error	Error	
62				Error	Error	Error	Error	
63				Error	Error	Error	Error	
64	LIGHT	19	100	NO	NO	NO	LOW	15
65				Error	Error	Error	Error	
66				Error	Error	Error	Error	
67	LIGHT	25	100	NO	NO	NO	LOW	11
68				Error	Error	Error	Error	
69				Error	Error	Error	Error	
70				Error	Error	Error	Error	
71				Error	Error	Error	Error	
72				Error	Error	Error	Error	
73				Error	Error	Error	Error	
74				Error	Error	Error	Error	

Note: a minimum of 30 plots should be completed in blanket bog habitat.

## SITE SUMMARY DATA

### Browsing Pressure (% of quadrats)

LIGHT	100
MODERATE	0
HEAVY	0

### Bare ground with hoof prints

LIGHT	(% of quadrats)	100
MODERATE	(% of quadrats)	0
HEAVY	(% of quadrats)	0

% of hoof prints over all quadrats	12
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Bog moss presence (% of quadrats)	99
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Cross-leaved heath browsing	LIGHT
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Signs of burning (% of plots)	0
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Deer dung presence (% of plots)	0
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Average vegetation height in plots (cm)	15
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Hare dung presence (% of plots)	0
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Other herbivore presence (% of plots)	0
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## BLANKET BOG SITE SUMMARY SHEET

 Estate/Site Sallachy

 Dates July/August

 Recorders Iain Thomson

 Year 2015

Plot	% last years shoots of heather or cowberry browsed	% Bare ground with prints	% Bog Moss Present	Deer Dung	Hare Dung	Signs of burning	Cross-leaved Heath browsed	Average Vegetation Height (cm)
1	LIGHT	19	100	NO	NO	NO	LOW	17
2				Error	Error	Error	Error	
3				Error	Error	Error	Error	
4				Error	Error	Error	Error	
5	LIGHT		100	NO	NO	NO	LOW	18
6				Error	Error	Error	Error	
7				Error	Error	Error	Error	
8				Error	Error	Error	Error	
9				Error	Error	Error	Error	
10				Error	Error	Error	Error	
11				Error	Error	Error	Error	
12				Error	Error	Error	Error	
13				Error	Error	Error	Error	
14				Error	Error	Error	Error	
15	LIGHT	44	100	NO	NO	NO	LOW	10
16	LIGHT	19	100	NO	NO	NO	LOW	12
17	LIGHT		100	NO	NO	NO	Error	12
18	LIGHT	6	100	NO	NO	NO	LOW	20
19	LIGHT		100	NO	NO	NO	LOW	12
20				Error	Error	Error	Error	
21	LIGHT	6	100	NO	NO	NO	LOW	19
22				Error	Error	Error	Error	
23				Error	Error	Error	Error	
24				Error	Error	Error	Error	
25				Error	Error	Error	Error	
26				Error	Error	Error	Error	
27	LIGHT		100	NO	NO	NO	LOW	16
28				Error	Error	Error	Error	
29				Error	Error	Error	Error	
30				Error	Error	Error	Error	
31	LIGHT	6	100	NO	NO	NO	LOW	20
32				Error	Error	Error	Error	
33				Error	Error	Error	Error	
34				Error	Error	Error	Error	
35	LIGHT		100	NO	NO	NO	LOW	14
36	LIGHT	19	100	NO	NO	NO	LOW	15
37				Error	Error	Error	Error	

Note: a minimum of 30 plots should be completed in blanket bog habitat.

### SITE SUMMARY DATA

Browsing Pressure (%)	
LIGHT	40
MODERATE	0
HEAVY	0

Bare ground with hoof prints %	17
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Bog moss presence (% of quadrats)	100
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Cross-leaved heath browsing	LIGHT
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Signs of burning (% of plots)	0
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Deer dung presence (% of plots)	0
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Average vegetation height in plots (cm)	16
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Hare dung presence (% of plots)	0
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Other herbivore presence (% of plots)	0
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