MINUTES OF MEETING OF THE WEST ROSS DEER MANAGEMENT GROUP HELD AT ACHNASHEEN HALL, ACHNASHEEN RAILWAY STATION WEDNESDAY 11th MARCH 2020

Present:	Randal Wilson	Chairman
	Alasdair MacDonald	Dundonnell
	Iain Allison	Eilean Darach
	Angus Davidson	Fannich
	Ruari Matheson	Fannich
	Jake Buckthorp	Foich
	Gary Ross	Gruinard
	Norman Kelman	Heights of Kinlochewe
	Mark Lorimer	Inverbroom
	Danny Potter	Inverbroom
	Aiden Bell	Inverewe
	Barbara MacDonald	Letterewe
	Andrew Oliver	Letterewe
	Paul Swan	Letterewe
	Kenny Ross	Lochrosque, Cabuie and West Fannich
	Ronnie Ross	Lochrosque, Cabuie and West Fannich
	Donald MacLeod	Kinlochewe
	Mark Seligman	Strathbran
	David Bennett	Strathbran
In Attendance:	Ken Bowlt	Secretary/Treasurer
	Ben Lennon	Bowlts Chartered Surveyors
	Jamie Bain	Lochluichart Estate
	Cathy Mayne	Mountain Environment Services
Apologies:	Donald Rice	Dundonnell
	Gordon Crawford	Eilean Darach
	Stuart Allison	Eilean Darach
	Hendrick van Beuningen	Foich
	The Hon Mrs MacLay	Gruinard
	David Lilley	Heights of Kinlochewe
	Davie Neilson	Inverewe
	George Seligman	Strathbran
	Edgar Seligman	Strathbran
	Patrick Creasey	Strathvaich
	Donald Macrae	Strathvaich
	Nduri Abah	Scottish Natural Heritage
	Tamara Lawton	Scottish Natural Heritage

RW/

Randal Wilson (RW) the Chairman welcome everyone to the meeting, particularly the newcomers; Aiden Bell (AB) of the National Trust at Inverewe and Cathy Mayne (CM) of Mountain Environment Services, who is currently doing work with Jamie Bain (JB) at Lochluichart.

The meeting then went on to discuss the following:-

1. **MINUTE OF MEETING HELD ON 13th NOVEMBER 2019** Action

These Minutes had been circulated previously and were adopted by the Group, proposed by Barbara MacDonald (BM) of Letterewe and seconded by Angus Davidson (AD) representing Fannich.

Prior to adoption, it was noted that the Fannich Hills SSSI had been incorrectly referred to under 3.1.2 when it should have been An Teallach SSSI, and KSB confirmed that this would be amended in the Minutes adopted. KSB

2. **MATTERS ARISING**

No-one raised any matters for discussion from the Minutes, it being agreed that anything that needed discussion would be dealt with as the Agenda progressed.

3. **PRIORITY ACTIONS ARISING FROM DEER MANAGEMENT PLAN**

RW referred the meeting to the paper circulated dealing with the actions set out in the Group's Deer Management Plan. He indicated that he intended running through all the plan targets and discussion could flow from there.

3.1 **Designated Sites**

3.1.1 Plan Target 1

RW set out the plan target for the Group to work towards favourable/unfavourable recovering status for all designated sites within the Group area described as "unfavourable" as a consequence of herbivore impacts. He mentioned the extra plots being incorporated in the An Teallach SSSI 2019 survey which provided useful feedback for the Section 7 Agreement in terms of data. The consensus was that the additional plots had resulted in better data coming back from the 2019 survey work, confirming that things were generally improving within the An Teallach SSSI.

3.1.2 Plan Target 2

RW confirmed that the Group had committed to reviewing the status of all designated sites within the Group area and to facilitate any actions required./

required. At the last meeting, Tamara Lawton (TL) of SNH had confirmed that Dr Linzi Seivwright (LS) had been appointed to pull together a Management Plan for the An Teallach SSSI, involving Dundonnell, Eilean Darach and Gruinard. KSB confirmed that he had received an email from LS to say that good progress had been made with the preparation of the Plan and that a first draft of the Plan was with the three estates for comment. She also indicated that she planned to have a draft with SNH for comment this week. Further, KSB confirmed that the latest draft of the An Teallach report prepared by LS had been forwarded to him earlier that morning and he confirmed that he would attach a copy to the Minutes on the basis that it was still a draft. KSB

There followed some discussion, with RW confirming that the recent helicopter count on the Fannich Hills Section 7 area had indicated that numbers of deer had come up from 8 per km² to 12 per km². Jake Buckthorp (JB) of Foich confirmed that counts in April 2018, 2019 and 2020 had confirmed that hind numbers on Foich had gone up by 160, his suggestion being that this was a result of migration from the west. Generally he felt that deer were moving more than in previous years.

Norman Kelman (NK) of Heights of Kinlochewe said that his deer numbers were 362 stags and 342 hinds (hinds/yearlings/calves) which was many more than in previous years and therefore they would probably be increasing their culls next season.

AD of Fannich confirmed that the Fannich Hills count showed an increase of around 50% in hinds. His view was that hinds were normally hefted and therefore the increase must be due to migration. His view was that Fannich would probably increase their cull next season. Jamie Bain (JB) confirmed the same picture at Lochluichart, whereas BM of Letterewe confirmed that Letterewe had "emptied"; in other words, numbers had decreased markedly. JB of Lochluichart suggested that if migration was not dealt with, the result would be damage to the Lochluichart habitat during the winter, so numbers have to be dealt with and his suggestion was that the Group needed to act.

3.2 **Existing Native Woodland**

RW highlighted the Group's commitment to reviewing the condition of native woodland within the Group area and to facilitate any action that may be required to retain and improve the condition of native woodland. He also confirmed that there was no change in the position and that the Group were still waiting for a decision to be made as to a common standard with regard to the methodology for any survey work on existing woodlands before any work would be undertaken. Thus, the holding position would remain.

3.3/

3.3 **New Woodlands**

RW reminded the Group of the planned target to encourage members to explore the possibility of woodland expansion in the context of Deer Management Group needs. The planned target stated that in the event of woodland expansion being undertaken by Group members, consideration would be given to deer population levels via the deer population model, with regard being had for any changes in range, forage and shelter.

At that point, he welcomed Dr Ben Lennon (BL) of Bowlts to the meeting and invited him to give a presentation on the report which he had prepared.

BL detailed the work he has carried out under the auspices of the Forestry Co-operation Grant Scheme. The work represented a study of the whole of the membership area to ascertain the opportunities for new native woodland creation. The study was high level with a focus being on the large scale opportunities following filtering and scoring. BL presented copies of the final report to the attendant members with an offer of sending on the geographic information and digital copies of the report.

He advised that should any member wish to progress some of the opportunities they may contact Scottish Forestry (formerly Forestry Commission) or BL himself at ben@bowlts.com.

Responding to a query from BM of Letterewe, BL gave a brief outline of the potential of selling carbon credits as an additional benefit from woodland creation schemes. BL said he was involved with a number of negotiations regarding sales of carbon. Widely quoted figures relating to the value of this carbon ranged from £3-10 per tonne of carbon, with planting schemes potentially yielding 500 tonnes per hectare over a hundred year timescale.

3.4 **Carbon Sensitive Habitats**

RW confirmed the Group's commitment to consider opportunities and priorities for the creation and restoration of peatlands, identifying funding sources where possible. He also provided an update, advising that the Scottish Government had upped funding from £11 million to £20 million, with even greater commitment in the future. He also highlighted that the carbon issue was relevant to peatland, there being discussion between Scottish Land & Estates and the Scottish Government as to how carbon could be monetised. AD of Fannich echoed BL's comments on the carbon issue, but advised that the peatland carbon market had not yet developed.

KSB/

KSB confirmed that BL had been in touch with Nduri Abah (NA) of SNH about the possibility of a collaborative feasibility project for the Group as a whole and that BL would report to the Group in due course. BL

3.5 **Habitat Monitoring**

RW highlighted that the Group had agreed to carry out habitat monitoring surveys on their random plots at three yearly intervals, with monitoring data being fed back to the Group for consideration. Therefore, he asked that where habitat monitoring work is being undertaken, it was important to feed the data back to KSB's office. KSB confirmed that Caroline Cook (CC) of his office would be updating the maps to incorporate the Lochluichart data with these revised maps being incorporated into the Deer Management Plan. CC

3.6 **Public Access**

KSB confirmed that he had received an email from Mark Wrightham (MW) of SNH to confirm that he had checked with TL, also of SNH, and that it was hoped that SNH would link up with those involved in the An Teallach SSSI plan being prepared and see whether the appropriate entries could be put up onto the "Heading for the Scottish Hills" website. KSB confirmed that MW indicated they would feed back to the Group on this in due course.

3.7 **Deer Population and Population Model**

RW reminded the Group of its planned targets to develop/fine tune a simple population model to provide guidance to the Group and members on estate cull target setting over the long term.

The Group had also committed to carrying out group-wide deer counts to provide data for the model, it being appreciated by all that the better quality data we had, the more useful the model would be in guiding the Group.

There was some discussion on the proposals for counting deer in 2020, with David Bennett (DB) of Strathbran confirming that he was happy with a spring count, although AD of Fannich suggested that foot counts could inherently be inaccurate.

BM of Letterewe suggested that if counting was to be done, the best way to do it was by helicopter. She advised that two helicopters do the whole of Letterewe in a morning, with the cost being about £10,000. Gary Ross (GR) of Gruinard confirmed that they will be doing a count at the same time as the Letterewe July count. JB of Foich suggested that summer counts were the way forward with NK of Heights of Kinlochewe concurring. Kenny Ross (KR) of Lochrosque/

Lochrosque agreed that whilst foot counts were never very accurate, perhaps the foot counts should be done and then every three years, a helicopter count. Ronnie Ross (RR) of Lochrosque suggested that July was probably too early and that the count might be best done in August, however he emphasised that one of the problems was the movement of deer and therefore ideally a count twice a year would probably be the best way to deal with things.

Mark Seligman (MS) of Strahbran suggested that two counts a year might be too much for everyone.

One thing the Group did agree on was that a recruitment count would be done before the AGM and RW asked that data on the recruitment count samples be sent to KSB as soon as available. All

RW asked KSB to open up the deer population model, which he did on his laptop, projecting it onto the screen for members to consider. RW reminded the Group of the overall cull recommendation of 338 stags, a reduction on previous years, with the hind cull target set at 487 hinds plus 195 calves, this being a slight increase. These suggested culls were on the basis that there was a shortage of mature stags and the model suggested there weren't enough stags available, but that there was a danger that hind numbers could easily run away from the Group if they didn't keep on top of things. There was also a thought that the ratio of stags:hinds should possibly be adjusted to bring the stag:hind ratio nearer 1:1.25 whereas the Group's ratio was roughly 1:1.6. The Group considered the density model, which projected a summer population in 2020 of some 3,361 stags and 5,078 hinds, based on the projected cull.

As an exercise, each member was asked for figures for the 2019/20 stag/hind season and these were duly entered by KSB in the cull figures tab of the population model. It was noted that whilst members as a whole had shown restraint in the culling of stags, there had been a significant under-shoot in terms of hind numbers. The net effect of this was that the model suggested that stag numbers for the 2020 summer population would increase from the previous projection of 3,361 to 3,430, it being noted that in order to produce the desired sporting cull, some 3,000 stags would be required. The projections also showed the projection for the 2020 summer hind population rising from 5,078 to 5,294. This again compared to the hind "requirement" of 3,750 if one were to achieve a stag:hind ratio of 1:1.25.

In illustrating these figures from the manipulation of the population model, KSB reminded members that whilst most of the members had given him cull figures at the meeting, not all had. Therefore, he would endeavour to obtain all of the figures and have them put into the population model for further circulation around the membership. KSB/CC

3.8/

3.8 **Deer Welfare**

KSB confirmed that data was being collated and once it had all been received, the challenge would be interpreting it, but that hopefully something would be ready for the AGM. CC

4. DEER WORKING GROUP REPORT

RW referred the meeting to the Deer Working Group Report (DWGR), a link to which had been emailed to everyone in advance of the meeting in the hope that people would have a chance to have a look at it and there could be a useful discussion. RW highlighted that there were many recommendations (99 in total) and the impression is that SNH feel unfairly treated by the DWGR. RW confirmed that the Association of Deer Management Groups is actually working on the DWGR and liaising with the Scottish Government.

BM of Letterewe suggested that if half of what is in the report is implemented, deer managers wouldn't like it.

CM of Mountain Environment Services suggested there was an issue of private interests being lost in terms of the recommendations, except when in line with public policy.

ML of Strathbran agreed that the DWGR raised quite a number of concerns and that representations would have to be made.

General discussion followed on the problem of getting messages across to the public about what deer forest managers were doing, there being a query as to whether we could get a politician to come along and see what we do. RW indicated that Kate Forbes, the local MSP, had been invited previously, but didn't come.

5. ANY OTHER BUSINESS

5.1 **Radio Channel**

The proposal to create a deer channel was mentioned in previous meetings and KR of Lochrosque confirmed that he had this in hand. KR

5.2 **Association of Deer Management Groups Meeting**

The forthcoming ADMG meeting was discussed. It was subsequently cancelled.

6./

6. DATE OF NEXT MEETING

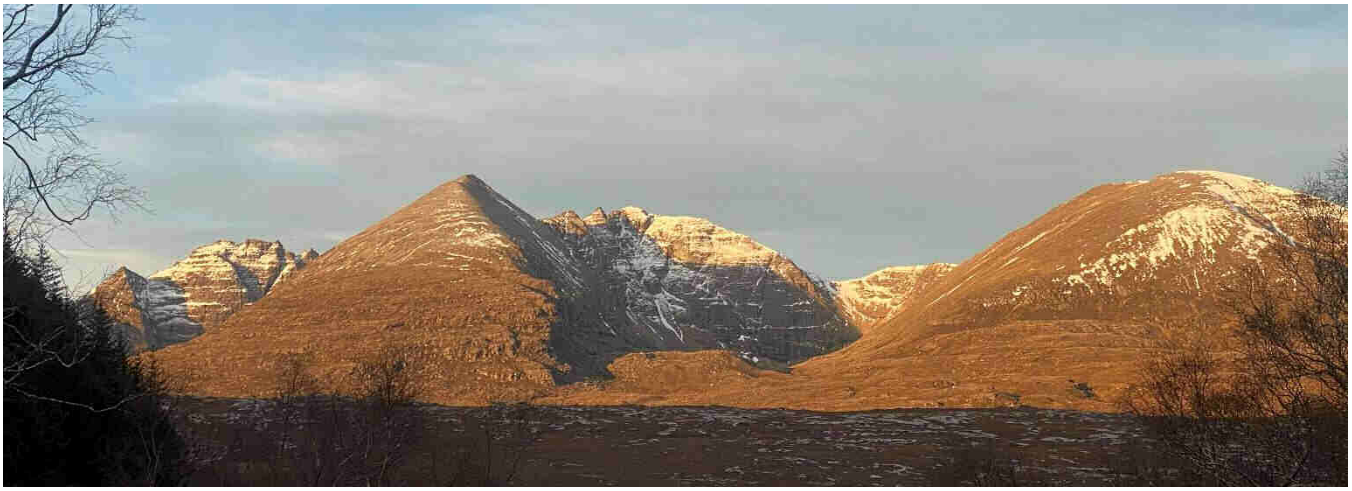
It was agreed that the next meeting would be the AGM to be held on 27th May 2020. *(Note – this has now been postponed)*.

KSB/AM 0025
8th April 2020

DRAFT

Collaborative Upland Habitat Management Plan

An Teallach Site of Special Scientific Interest (SSSI)
2020 -2025
Prepared on behalf of Scottish Natural Heritage



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Feb 17th 2020

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1. SCOPE

1.1 Introduction

Dr Linzi Seivwright was commissioned by Scottish Natural Heritage to produce a Collaborative Upland Habitat Management Plan (CUHMP) for An Teallach Site of Special Scientific Interest (SSSI). This CUHMP has been produced in accordance with Scottish Natural Heritage (SNH) guidelines [1,2].

The purpose of the CUHMP is to provide a management framework, outlining the management and monitoring measures that would be implemented in order bring the Site into assured management and to safeguard the four principles of sustainable deer management as outlined in the Code of Practice on Deer Management[1], namely to:

- Ensure that wild deer welfare is safeguarded;
- Protect and enhance the environment;
- Support sustainable economic development;
- Support social wellbeing.

The SSSI boundaries are not coincident with the range of the deer populations, and the integrity and condition of the habitats within the site are dependent on the management of deer, sheep and goats at a scale wider than the SSSI. The West Ross Deer Management Plan[3] (WRDMP) therefore provides the context for this broader management of deer populations. The CUHMP is complementary to the management aims and objectives of WRDMP and will include the following sections:

- **Site summary** providing details, including location of the SSSI;
- **Baseline information** on herbivore numbers and utilisation of the site;
- **Summary of potential issues/ impacts** associated with the development phases;
- **Recommendations** for deer management actions.

1.2 Relationship of the CUHMP to the Deer Management Plan

The West Ross DMG DMP covers the 5-year period 2016 -2021. The main targets and objectives of the WRDMP of relevance to this CUHMP are:

- Designated sites currently described as “unfavourable” as a consequence of herbivore impacts will have deer management in place to work towards favourable/unfavourable recovering status.
- To ensure that ownership objectives are achievable whilst maintaining designated features in favourable condition or working towards favourable/unfavourable recovering condition;
- To maintain a sustainable Group sporting stag cull and associated socio-economic benefits;
- Minimise negative impacts associated with access legislation;
- Liaise with SNH with a view to protecting all designated features.

1. Scottish Natural Heritage (2012). Code of Practice on Deer Management.
2. Checklist for Deer management Plans – Delivering Assured Management
3. West Ross Deer Management Plan (Boults, 2016)

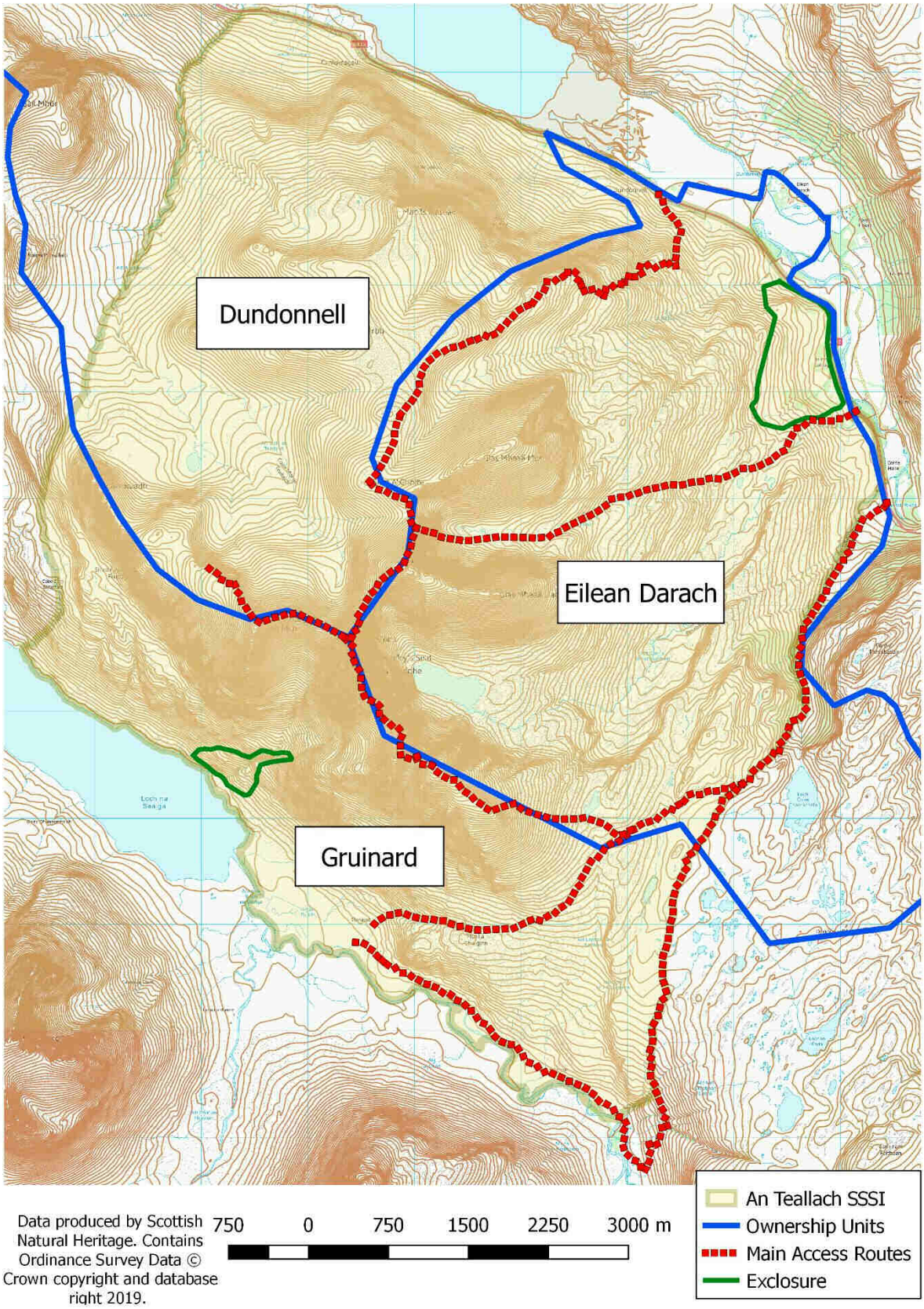
2. AUDIT

2.1 Site Summary

An Teallach Site of Special Scientific Interest (SSSI) is located on the south side of Little Loch Broom, about 11km south of Ullapool (NGR NH 070 850). The site extends to 5,145.91 ha and has outstanding examples of glacial and periglacial landforms including a nationally important section of the geological fault zone known as the 'Moine Thrust Zone'. The site also supports a variety of upland heath and grassland habitats with nationally rare plant species. Altitude within the site ranges from sea level on the west coast to 1,060 m at the summit of Bidean a' Glas Thuill.

An Teallach ridge is very popular with walkers and climbers: each of the twin summits Bidean a' Glas Thuill and Sgurr Fiona is a Munro. There is moderately heavy year round use of the approach routes to the ridge as well as to 'The Fisherfields 6' which contains the remotest Munros in Scotland.

Figure 1: An Teallach SSSI



2.2 Ownership Units

The SSSI falls within the boundary of three larger properties: Gruinard, Eilean Darach and Dundonnell estates (Figure 1 and Table 2). Each of the three estates within the SSSI is an active member of the West Ross Deer Management Group (WRDMG) which extends to approximately 97,000 ha. The groups consists of 14 members and a collaborative approach to the sustainable management of deer is delivered through the West Ross Deer Management Plan[3]. In addition, representatives from the Camasnagaul Common Grazings committee were also consulted on the plan.

2.3 Site Features

The Site has four qualifying features. Site Condition Monitoring of the Vascular Plant Assemblage and the Upland Assemblage have previously found these features to be in Unfavourable condition (Table 1).

A combination of impacts is considered to be contributing to the condition of these features, including overgrazing and trampling by herbivores. The overarching aim of the CUHMP is to provide the necessary framework for the implementation of management required within the An Teallach SSSI to bring these features into *Unfavourable-Recovering Due To Management* condition.

An Teallach Wide Countryside Agreement (exp. 30/11/2044) is currently in place to ??????????.

Table 1: An Teallach SSSI Features

Feature Category	Feature	Visit Date	Current Condition	Impacts
Earth Sciences	Moine	24/09/2013	Favourable Maintained	No Negative Pressures
Quaternary geology and geomorphology	Quaternary of Scotland	25/05/1999	Favourable Maintained	Over-grazing and recreational disturbance
Vascular plants	Vascular plant assemblage	09/08/2009	Unfavourable Declining	Natural event, overgrazing and recreation/disturbance
Mosaic	Upland Assemblage	28/07/2012	Unfavourable No Change	Over grazing and trampling

2.4 Herbivores Present

2.4.1 Deer

Red deer (*Cervus elaphus*) have access to the whole site and deer management is carried out by all three ownership units. Helicopter deer counts from 2009 and 2018 have shown that deer numbers across all ownership units have been decreasing due to increased culling activity (Table 2). The overall density of deer across the total area within which the SSSI sits has reduced from 10.1 deer per km^2 to 7.1 deer per km^2.

Table 2: Historic Deer Numbers

Property	Area (ha)	Area of SSSI (ha)	Deer Count 2009						Deer Count 2018				
			Stags	Hinds	Calves	Unclas	Total	Density	Stags	Hinds	Calves	Total	Density
Eilean Darach, Little Gruinard and Larachantivore	10,964	2,110	267	547	156	211	1181	10.8	186	299	100	585	5.3
Dundonnell	13,453	1,611	234	0	0	596	830	6.2	201	285	85	571	4.2
Gruinard, Achnegie and Fain	10,142	1,370	283	82	25	1087	1477	14.6	276	759	271	1306	12.9
Total	34,559	5,091	784	629	181	1894	3488	10.1	663	1343	456	2462	7.1

Although red deer have access to the SSSI, from the count information from 2018, overall deer density within the SSSI (6.2 deer per km^2) was lower than the overall density (Table 3 : Note only the area for Eilean Darach has been used and not the wider estate as a whole). This is likely due to a number of factors such as quality of habitat and year-round disturbance from those taking recreational access across the site.

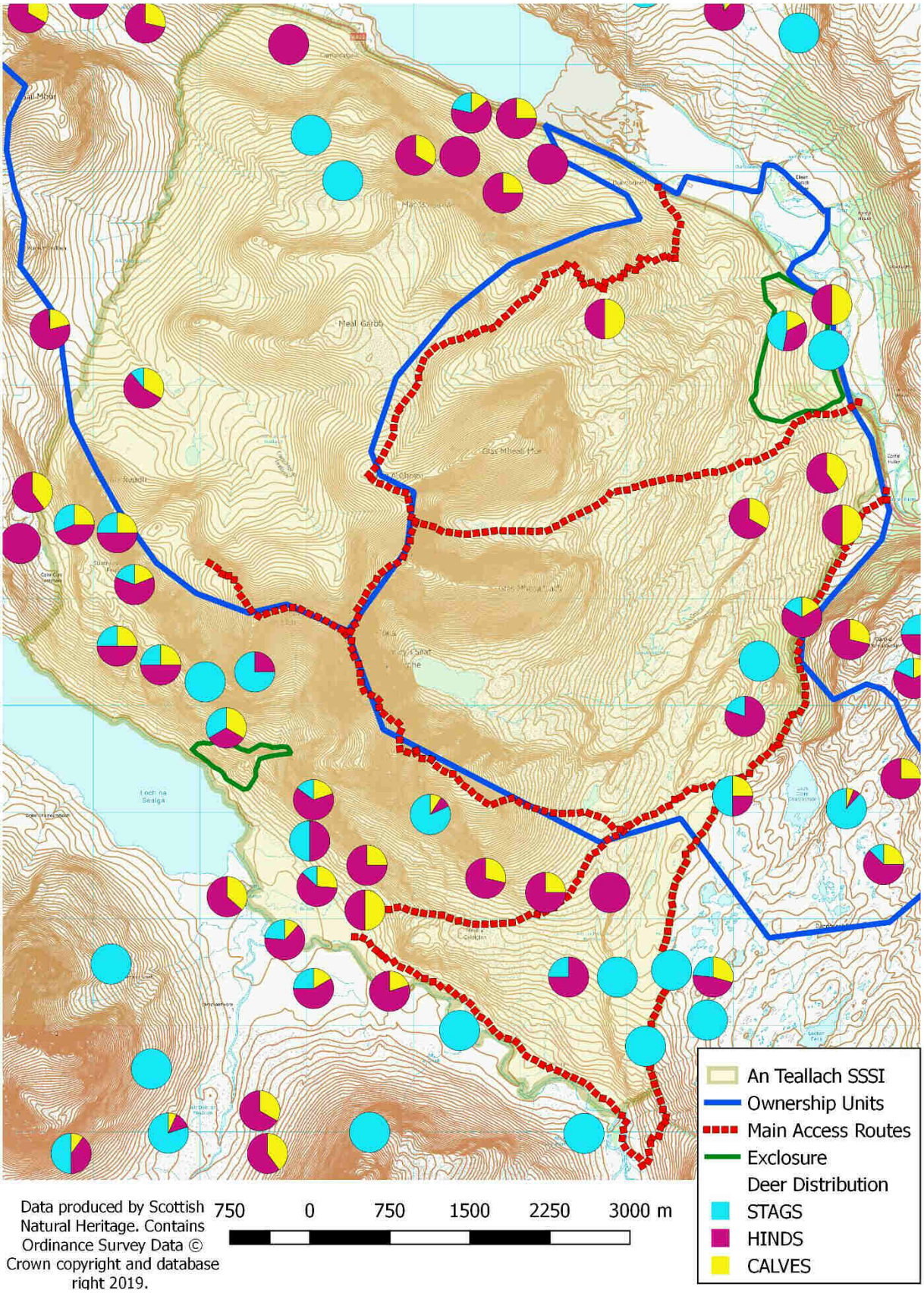
Table 3: Deer Utilisation of the SSSI

Property	Area (ha)	Area of SSSI (ha)	Deer Count 2018 (All Estates)							Deer Count 2018 (SSSI Only)						
			Stags	Hinds	Calves	Recruit	Total	Density	S:H	Stags	Hinds	Calves	Recruit	Total	Density	S:H
Eilean Darach	2,702	2,110	45	42	18	43%	105	**3.9**	1.1	29	33	12	36%	74	**3.5**	0.9
Dundonnell	13,453	1,611	201	285	85	30%	571	**4.2**	0.7	12	31	8	26%	51	**3.2**	0.4
Gruinard, Achnegie and Fain	10,142	1,370	276	759	271	36%	1306	**12.9**	0.4	47	110	34	31%	191	**13.9**	0.4
Total	26,297	5,091	522	1086	374	34%	1982	**7.5**	0.5	88	174	54	31%	316	**6.2**	0.5

The distribution of deer across the site at the time of the helicopter count in February 2018 can be seen in Figure 2. This represents a snap-shot in time and deer will be present on different areas of the site at different times, depending on the time of year. The 2018 count showed a higher than normal presence of hinds on Strath na sealga flats on Gruinard, but these deer are normally hefted to Glen a much.

As hinds tend to be relatively hefted to areas compared to stags, which tend to be more mobile, Figure 2 gives an idea of where the main wintering areas for stags and hinds may be.

Figure 2: Distribution of Red deer (2018)



2.4.2 Sheep

As well as deer, sheep have access to the Site at certain times of the year. Over the years, sheep numbers have been significantly reduced (Table 4) to around 400 sheep (ewes and lambs) which have access to the site at various points of the year. Sheep graze mainly on the lower slopes and tend not to move to higher ground, although a small number of sheep have been observed near the top of Sgurr Fiona. The stocking density on Eilean Darach is currently below the level to claim subsidies.

Table 4 : Historic and Current Sheep Numbers

Ownership Unit	Sheep Numbers – Historic and Current
Eilean Darach	Currently no more than 400 head of ewes with lambs at foot on An Teallach. The highest density will be 2 months in the summer and then a further 6 weeks in February march for 300.
Dundonnell	Sheep have access to high ground from Common Grazings but few crofters with sheep now. Were 6 or so sheep on high ground at time of 2018 survey.
Gruinard	There were around 850 sheep 30 years ago. Fifteen years ago numbers reduced to 200, although they didn't have access to the SSSI. There were 40 -50 cattle grazing 15 years ago which ceased. Currently there are no sheep on the SSSI however 35 cattle have access to the Strath na sealga basin.

2.4.3 Goats

Feral goats are present on all three property ownership. A study carried out in 2011[4] identified a number of distinct individual herds (genetic groups) within the area - each herd having individual character make up. At that time the population was estimated to exceed 100 and there was estimated to be around 5-10 plus separate herds/groups each of 5-25 and containing a mix of females and kids. Recent population estimates indicate that there are around 150 goats. It is thought that the population is largely being maintained through predation by Whitetail and Golden eagles in the area.

During the winter, Feral goats tend to stick to the low ground, particularly when the females are producing kids. This results in localised impacts on vegetation and in the 2011 report, severe damage to the trees and shrubs was noted as well as the need to have a managed cull. Local knowledge and observations detailed in the habitat survey reports indicate that during the summer, Feral goats are regularly seen in apparently precarious locations on crags. Groups of 20 animals have been seen at the top of coire Glas Tholl, in coire Toll an Lochain and near the top of Sgurr Fiona. Goats in particular are considered to be causing damage through trampling and grazing in locations such as the Saxifraga rivularis site[5].

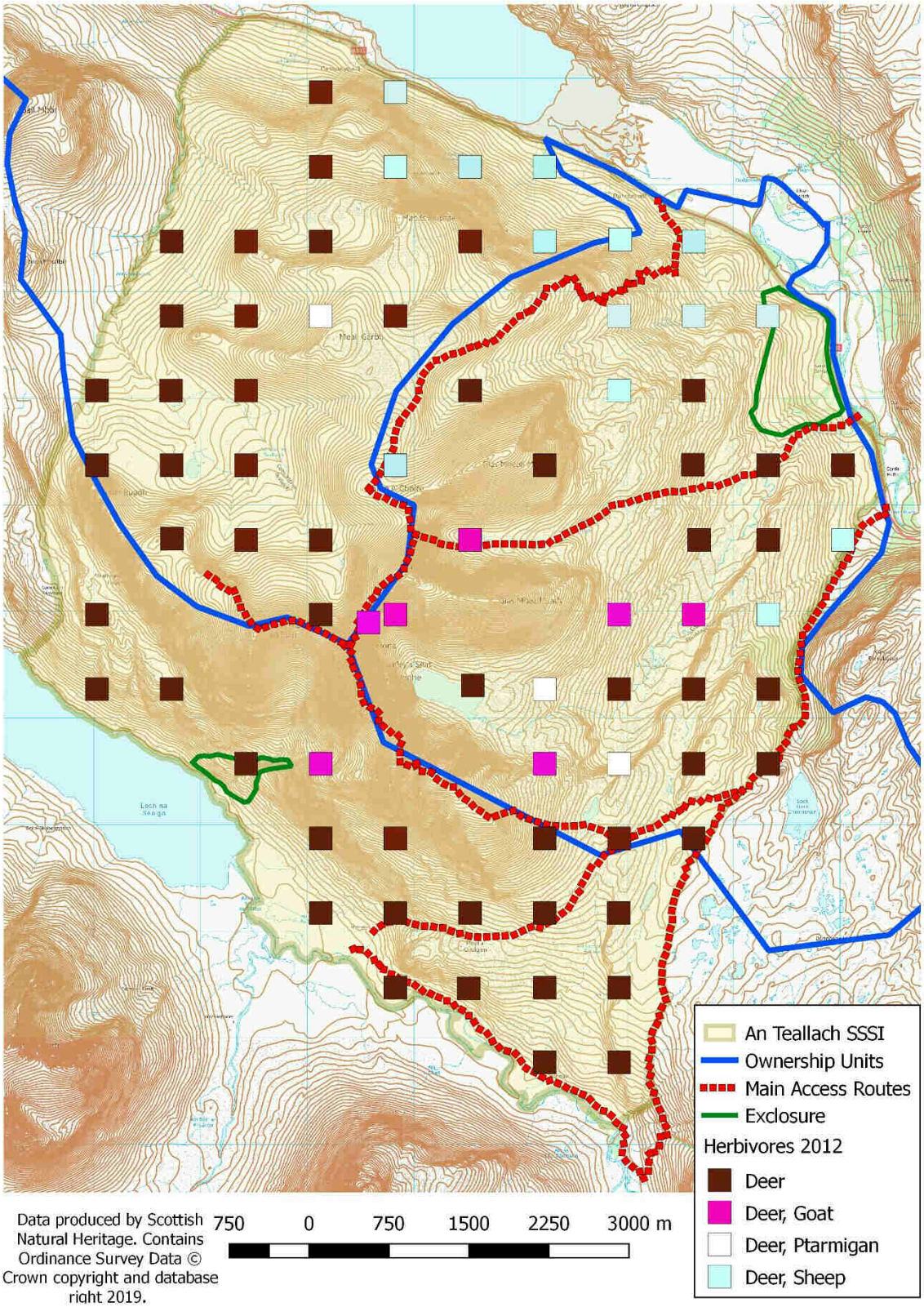
2.4.4 Distribution of Herbivores

Figure 3 shows the relative distribution of herbivores from the herbivore impact assessments carried out in 2012 and in 2018.

[4] The Wild Goats at Dundonnell: A Status Report. 2011. Barton, P & Barton, R.

[5] Site Condition Monitoring of Vascular Plants. 2009. Halcrow, V.

Figure 3: Distribution of Herbivores



2.5 Impacts

2.5.1 Vascular Plants

In 2009, the vascular plant assemblage feature was assessed through Site Condition Monitoring (SCM)[5]. The three target species for vascular plant monitoring are:

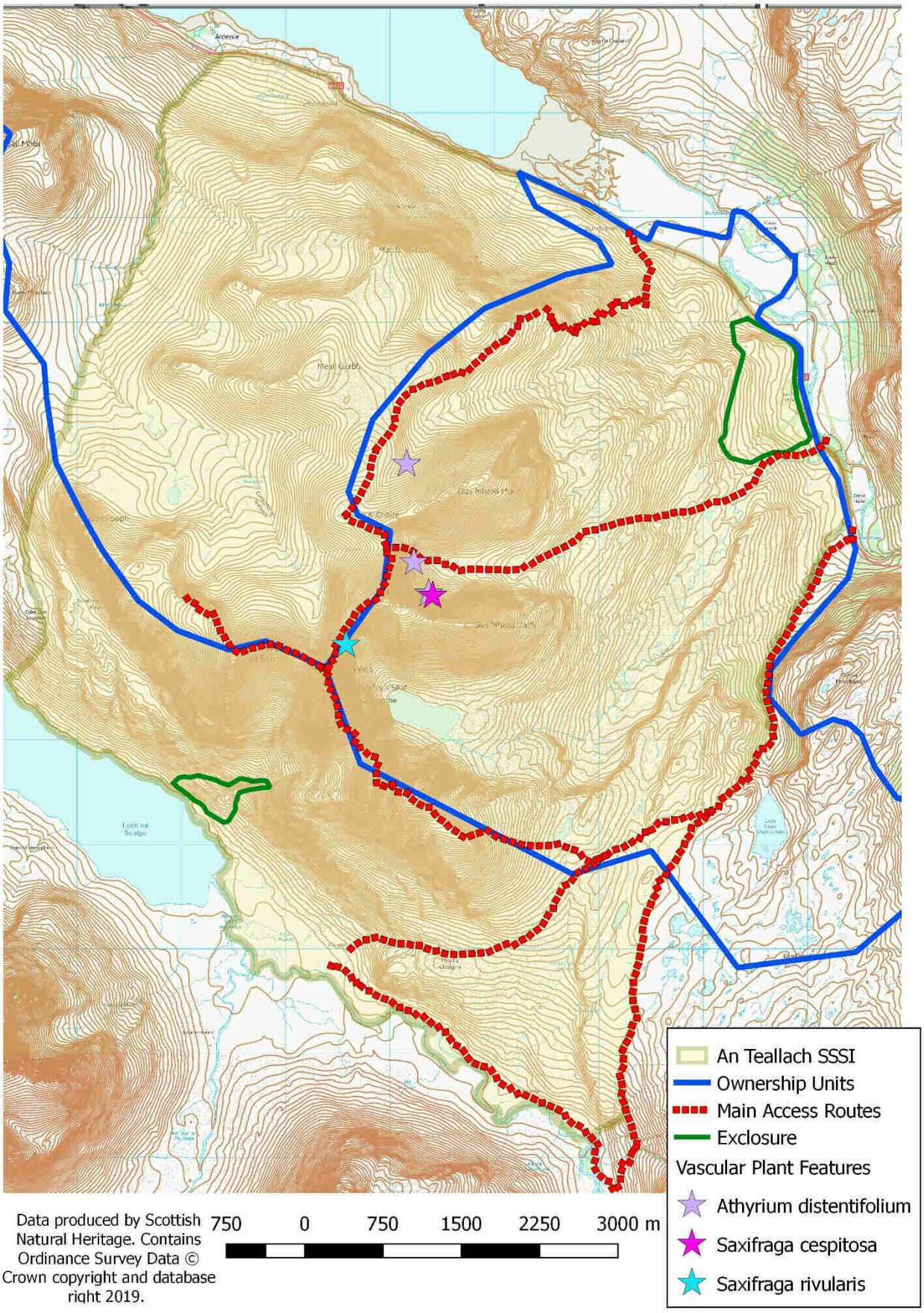
- Alpine lady fern *Athyrium distentifolium:* nationally scarce, recorded from sixty-one ten-kilometre squares in Britain
- Highland saxifrage *Saxifraga rivularis:* nationally rare, recorded from fourteen ten-kilometre squares in Britain, and is included in the Red Data Book
- Tufted saxifrage *Saxifraga cespitosa:* nationally rare, recorded from eight ten-kilometre squares in Britain, and is included in the Red Data Book where it has 'Vulnerable' status. It is also listed in Schedule 8 of the Wildlife and Countryside Act 1981.

The condition of the feature was considered to be declining as some populations were smaller than when previously surveyed, there were signs of grazing and trampling damage and there were less fertile fronds of the alpine lady fern than in the previous survey in 2002.

Table 5: Populations of Athyrium and Saxifraga

SPECIES	LOCATION		POPN SIZE*				REPRO DUCING?	PRESSURE	HERBIVORE
			m	s	j	sg	Yes/No		
Athyrium distentifolium	Coir' a' Mhuilinn		6	0	4	0	N	Grazing damage Signs of soil erosion	
Athyrium distentifolium	Glas Tholl	Below headwall	36	2	6	0	Y	Grazing damage- less severe	Goats
Athyrium distentifolium	Glas Tholl	North east facing crags	100+	y	y	y	Y	Grazing damage- less severe	Red deer
Saxifraga cespitosa	Glas Tholl	Scree run below crags on south side	2	2	0	0	Y	Scree rocky and semi-stabilised, falling rocks	Red deer
Saxifraga rivularis	Sgurr Fiona	Below Sgurr Fiona	100+	65	25	33	Y	Trampling and grazing mainly by goats	Goats & Sheep
Deschampsia cespitosa alpina	Glas Tholl	Open scree and ledges near the coll above coire Glas Tholl						Trampling and grazing mainly by goats	Goats & Red deer

Figure 4: Location of Athyrium and Saxifraga



2.5.2 Upland Assemblage

The SSSI feature upland assemblage was assessed between 25th and 28th July 2012[6]. The component habitats of the upland assemblage were sampled at a total of 87 locations and their condition was assessed. At the same time as the SCM was carried out, a herbivore impact assessment was completed. A total of 93 monitoring points were established and assessed, comprising 48 wet heath plots, 23 wind-clipped heath plots, 14 blanket bog plots, 7 dry heath plots and one flush plot. Roughly around two-thirds of herbivore impacts within the SSSI were moderate-low or low with the remainder tending towards the higher impact categories.

The upland assemblage feature failed the condition assessment overall since <90% of three of the assemblage components (subalpine dry dwarf shrub heath, subalpine wet heath and alpine heath) were found to be in favourable condition.

- Most of the unfavourable condition was due to red deer browsing and trampling with some sheep and goats contributing further pressure in some areas.
- The pattern and type of failures of the Upland Assemblage components (i.e. the relative lack of Ericaceous species in many wet heath plots), together with results from a Herbivore Impact Assessment carried out in tandem suggest that significant amounts of the damage may reflect 'legacy' impacts from historically greater numbers of animals and/or burning damage.

Although recent burning of vegetation was not noted during the survey the long-term effects of historically intensive burning were noted on the eastern and southern boundaries of the SSSI on wet and dry heath communities. Areas affected mostly appeared to be recovering well, probably helped by the current generally low herbivore impacts in these parts of the site.

In a few locations bracken encroachment was noticeable, possibly helped by the combined effects of burning together with previously higher herbivore impacts which have suppressed cover of Ericaceous species.

In addition, the trampling and browsing effects responsible for the failure of alpine heath and alpine summit community plots are localised and mostly confined to areas where sheep and goats were seen to be concentrated, especially close to paths.

6. Site Condition Monitoring survey of upland notified features on designated sites – An Teallach. 2018. Wells, C. *Scottish Natural Heritage Research Report No. 1024.*

2.5.3 Wider Herbivore Impacts in 2018

In 2018, consultants carried out repeat monitoring of 31 Blanket Bog and 33 Dwarf Shrub Heath of the plots sampled in 2012 across the 3 ownerships. The results can be seen in Table 6. SNH recommends that as a guide, 90% of impacts on Blanket bog and Dwarf shrub heath habitats should be in the Low or Low/Moderate impact category.

Overall 82% trampling impacts were in Low or Low/Moderate on Dwarf Shrub Heath and 61% for Blanket bog.
Overall 58% of grazing impacts were in the Low or Low/Moderate category for Dwarf Shrub Heath and 71% for Blanket Bog (Table 6).

Table 6: Results of the 2018 Habitat Impact Assessment

			2018 HIA Results Trampling Dwarf Shrub Heath												
Property	Area (ha)	Area of SSSI (ha)	L	% L	LM	% LM	M	%M	MH	% MH	H	% H	Total	Total L or LM	% L or
Eilean Darach	2,702	2110			4	67	1	17	1	17			6	4	**67%**
Dundonnell	13,453	1611			17	81	3	14	0	0	1	4	21	17	**81%**
Gruinard, Achnegie and Fain	10,142	1370			6	100							6	6	**100%**
Total	**26,297**	**5,091**	0	**0%**	27	**82%**	4	**12%**	1	**3%**	1	**3%**	**33**	**27**	**82%**

			2018 HIA Results Trampling Blanket Bog												
Property	Area (ha)	Area of SSSI (ha)	L	% L	LM	% LM	M	%M	MH	% MH	H	% H	Total	Total L or LM	% L or
Eilean Darach	2,702	2,110	1	7	8	57	2	14	21				14	9	**64%**
Dundonnell	13,453	1,611	5	83	0	0	1	17	0	0	0	0	6	5	**83%**
Gruinard, Achnegie and Fain	10,142	1,370	2	18	3	27	5	45	1	9			11	5	**45%**
Total	**26,297**	**5,091**	8	**26%**	11	**35%**	8	**26%**	22	**71%**	0	**0%**	**31**	**19**	**61%**

			2018 HIA Results Grazing Dwarf Shrub Heath												
Property	Area (ha)	Area of SSSI (ha)	L	% L	LM	% LM	M	%M	MH	% MH	H	% H	Total	Total L or LM	% L or
Eilean Darach	2,702	2,110	3	50	2	33					1		6	5	**83%**
Dundonnell	13,453	1,611	6	29	2	10	9	43	1	4	3	14	21	8	**38%**
Gruinard, Achnegie and Fain	10,142	1,370	5	83	1	17							6	6	**100%**
Total	**26,297**	**5,091**	14	**42%**	5	**15%**	9	**27%**	1	**3%**	4	**12%**	**33**	**19**	**58%**

			2018 HIA Results Grazing Blanket Bog												
Property	Area (ha)	Area of SSSI (ha)	L	% L	LM	% LM	M	%M	MH	% MH	H	% H	Total	Total L or LM	% L or
Eilean Darach	2,702	2,110	4	29	6	43	4	29					14	10	**71%**
Dundonnell	13,453	1,611	3	50	0	0	2	33	0	0	1	17	6	3	**50%**
Gruinard, Achnegie and Fain	10,142	1,370	2	18	7	64	2	18					11	9	**82%**
Total	**26,297**	**5,091**	9	**29%**	13	**42%**	8	**26%**	0	**0%**	1	**3%**	**31**	**22**	**71%**

2.5.4 Trends in Herbivore Impacts 2012 to 2018

A total of 61 of the original 92 plots were resampled in 2018, allowing an assessment of trends in herbivore impacts to be made.

In 2018, the percentage of plots in the Low or Low/Moderate category for Trampling and Browsing of both Blanket bog and Dwarf shrub heath had increased from 2012 (Table 7). Changes in impacts on each plot were also used to look at trends in impacts between 2012 and 2018 (Table 8, Figures 5 & 6). The percentage of plots where impacts were stable or reducing was 75% for trampling impacts and 59% for Browsing. Both of these results indicate that the overall impacts have been generally reducing across the site.

Figure 3 highlights where the main areas of impact remain.

Table 7: Herbivore Impacts 2012 & 2018

	Number of Plots						% of Plots					
	L	LM	M	MH	H	Total	L	LM	M	MH	H	% L or LM
Trampling 2012	37	28	22	3	2	92	40.2%	30.4%	23.9%	3.3%	2.2%	71%
Trampling 2018	27	22	10	1	1	61	44.3%	36.1%	16.4%	1.6%	1.6%	80%
Browsing 2012	43	10	21	11	7	92	46.7%	10.9%	22.8%	12.0%	7.6%	58%
Browsing 2018	21	17	14	5	4	61	34.4%	27.9%	23.0%	8.2%	6.6%	62%

Table 8: Herbivore Impacts 2012 & 2018

	Trends - Number of Plots												% of Plots		
	LR	LS	LMR	LMS	LMI	MR	MS	MI	MHS	MHI	HI	Total	Reducing	Stable	Increasing
Trampling 2018	17	10	1	12	7		4	6		1	1	59	31%	44%	25%
Browsing 2018	12	8	4	3	9	3	3	8	2	3	4	59	32%	27%	41%

2.6 Other land management impacts

Access to the An Teallach ridge and to the start of the route of the series of Munros in Fisherfield is increasingly becoming more popular. Opinion of owners, managers and stalkers is that this recreational pressure has had an impact on both deer behaviour and distribution, and is causing soil erosion and damage to vegetation in some areas, albeit in fairly narrow corridors. It is thought possible that the 1986 site for *Saxifraga cespitosa* may have been lost due to pressure from walkers, though desiccation may be more likely.

Figure 5: Trampling Trends

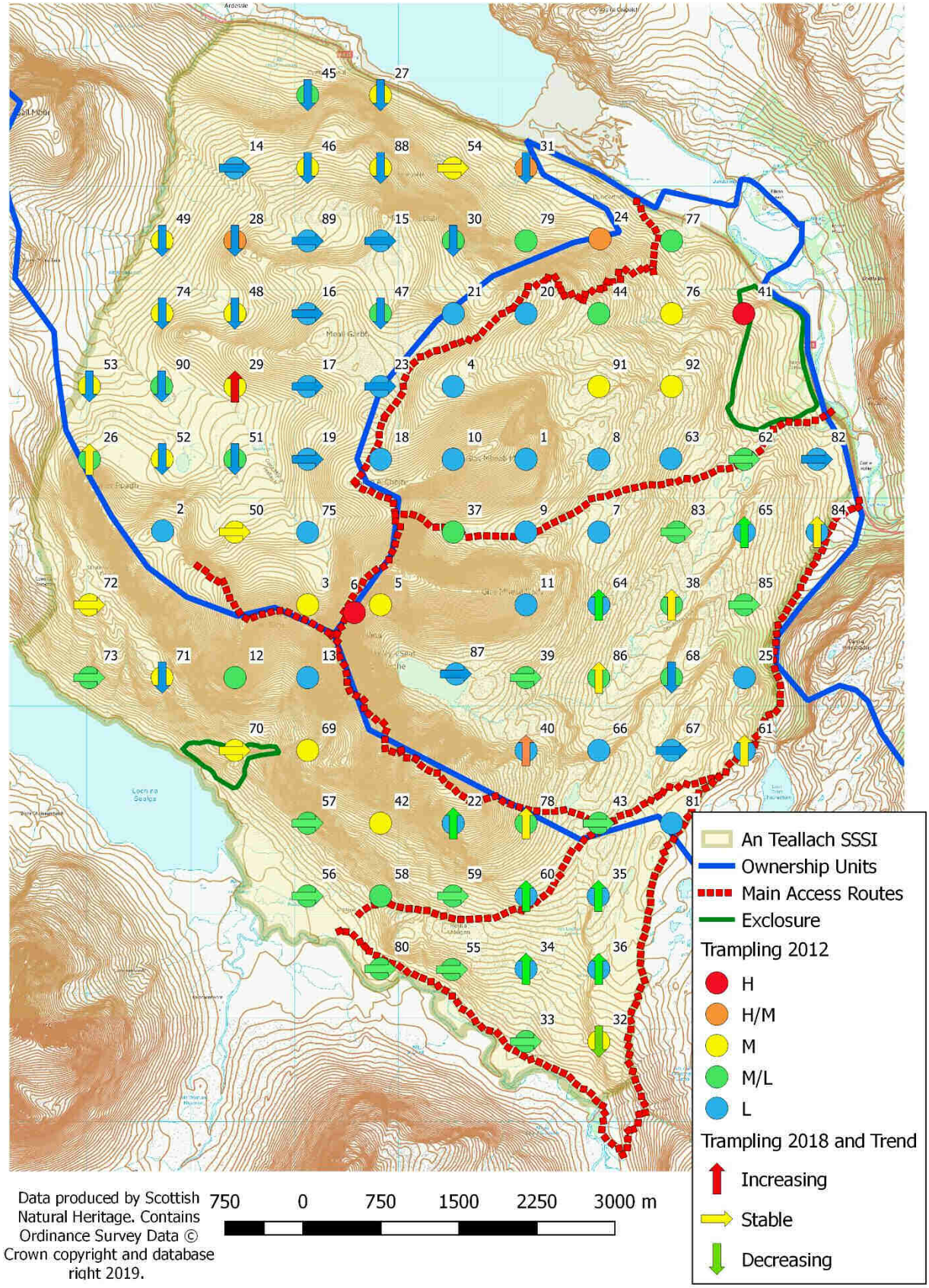
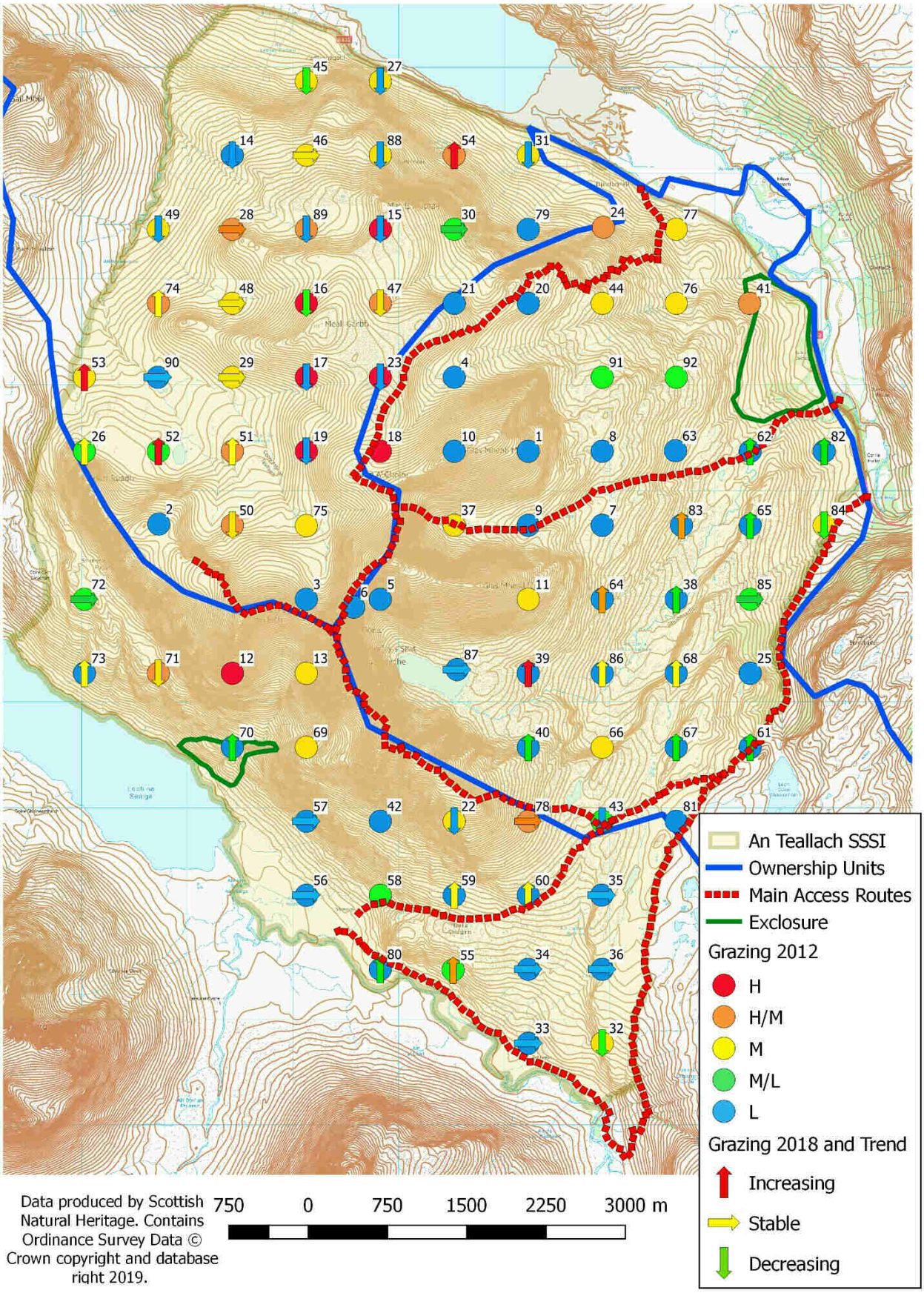


Figure 6: Grazing Impact Trends



3. OBJECTIVES AND ACTIONS

3.1 SSSI Objectives

The objectives of management actions agreed to be undertaken on the SSSI are to:

- To reduce localised browsing, grazing and trampling impacts from red deer, sheep and goats within the SSSI to a level that will deliver a recovery of the features currently classed as in unfavourable condition.
- To detect changes in condition of the Features within the SSSI and determine the effectiveness of management to reduce impacts from deer, sheep and goats in ensuring their recovery.
- To review the direction and magnitude of changes in browsing, grazing and trampling impacts on the Features in year 3 of the CUHMP, following a repeat herbivore impact assessment in summer 2022, and adjust management as necessary.

3.2 Actions to Reduce Herbivore Impacts

3.2.1 Collective Actions to Reduce Herbivore Impacts

Overall, since 2009 numbers of deer across the site have been decreasing. It has thought numbers of Feral goats have been increasing and sheep numbers have stayed broadly the same. These patterns of herbivore numbers coincide with an overall picture which shows that overall impacts across the site have been either reducing or have stabilised. There are however, localised areas where impacts remain higher than would be ecologically desired.

In discussion with the ownership units, it has been agreed to either broadly maintain current numbers or to reduce hind numbers in areas where impacts are highest. All estates have agreed to target culls in areas of highest impacts (Figure 7). Collectively this should maintain a density of around 5.4 deer per km^2 across the site and ensure that impacts continue to be reduced. The Estates have also agree to count collaboratively on an annual basis and to maintain records throughout the stalking season.

Table 9: Proposed Deer Density Targets

Property	Area (ha)	Area of SSSI (ha)	Deer Count 2018 (SSSI Only)							Proposed Target (SSSI Only)						
			Stags	Hinds	Calves	Recruit	Total	Density	S:H	Stags	Hinds	Calves	Recruit	Total	Density	S:H
Eilean Darach	2,702	2,110	29	33	12	36%	74	**3.5**	0.9	30	35	11	31%	76	**3.6**	0.9
Dundonnell	13,453	1,611	12	31	8	26%	51	**3.2**	0.4	15	35	11	31%	61	**3.8**	0.4
Gruinard, Achnegie and Fain	10,142	1,370	47	110	34	31%	191	**13.9**	0.4	45	70	22	31%	137	**10.0**	0.6
Total	26,297	5,091	88	174	54	31%	316	**6.2**	0.5	90	140	44	31%	274	**5.4**	0.6

3.2.2. Eilean Darach Estate

From Figure 5, it can be seen that in 2012 there was localised trampling on Eilean Darach next to the road and adjacent to the fenced exclosure. Although these plots were not reassessed in 2018, it is likely that these impacts are still occurring due to the movement of deer from the open hill to the fields below the road. It is also possible that some of these impacts are from a combination of herbivores in this area including goats. From the 2018 results, it can also be seen that trampling impacts are gradually starting to increase over an area next to a plantation to the west of the property. Eilean Darach have a relatively low density of deer and have agreed maintain densities at below 4 deer per km^2 and will look to target culls in areas of highest trampling. The estate has agreed to count deer on an annual basis. The estate has also agreed to maintain goat numbers to prevent an increase in population size. The intention is to maintain goat densities around current levels.

3.2.3 Dundonnell Estate

Overall trampling impacts on the estate have reduced since 2012. Grazing impacts are however mixed. In particular there seems to be an area of higher browsing impacts in an area to the south of the estate possibly where sheep have favoured the high corrie below Shurr Rhuadh (Coire Mor An Teallach). Grazing impacts are likely to be as a result of mainly deer. The estate has agreed to count deer on an annual basis and to keep a record of herbivores seen on outings during the stalking season.

3.2.4 Gruinard Estate

Despite having a relatively higher density of deer, overall most impacts on the estate were within the Low to Low/Moderate category with only some localised trampling on Blanket Bog. On site visit to the estate in January 2020 a visit to plots in the south west of the site, from the exclosure westwards, identified an area of localised grazing and trampling impacts around plot 71 (Figure 6). The survey in 2012 also identified higher impacts in this area where hinds are relatively sheltered and tend to move between Gruinard and Dundonnell. The estate has agreed to count deer on an annual basis across the site and to maintain deer numbers at around 10 deer per km^2 or below, targeting culls in the areas of highest impacts.

3.3 Detecting Changes in SSSI Feature Condition

Speak to SNH about repeat survey of vascular plants.

3.4 Repeat Habitat Impact Assessment

In order to assess the impact of management actions over time, the estates have agreed to carry out a repeat of the Habitat Impact Assessment in 2022. By revisiting plots over time, a further assessment of trends in impacts can be undertaken and future herbivore management adapted accordingly.

3.5 Other Management Actions

Bracken Management. From the observations of the ecological consultants undertaking survey work, it would seem that bracken encroachment is an increasing issue. This could potentially limit the cover of heather and reduce the available habitat for herbivores to graze, thus increasing grazing pressure.

Heather Beetle. Observations from the 2018 HIA survey indicated that there was a lot of damaged to heather from invertebrate infestation by appearances. This may affect the condition of the Dwarf Shrub Heath over time and reduce the availability of heather as a food source for herbivores, possibly increasing the browsing pressure on healthy heather that is left.

7. Summary of Outcomes and Actions

Outcome	When	Who	Action
Numbers of deer across the SSSI to be maintained at a maximum density of 5.4 deer per km2.	Annually	All estates	Estates to undertake an annual collaborative count in Spring/Summer and culls for Autumn/Winter to be adjusted accordingly.
Goat numbers to be maintained at current levels	Spring 2020	All estates	Estates to undertake an annual collaborative count in Spring 2020.
Impacts to be reduced where possible and practical on SSSI.	Ongoing and 2022	All estates	Culling to be targeted annual in areas where impacts are considered to be higher than desirable or increasing. Repeat Herbivore Impact Assessment monitoring of SSSI Blanket Bog and Dwarf Shrub Heath to be undertaken in 2022.
Current condition of Vascular Plant feature to be established.	?	SNH	Repeat survey of Vascular Plants to be conducted