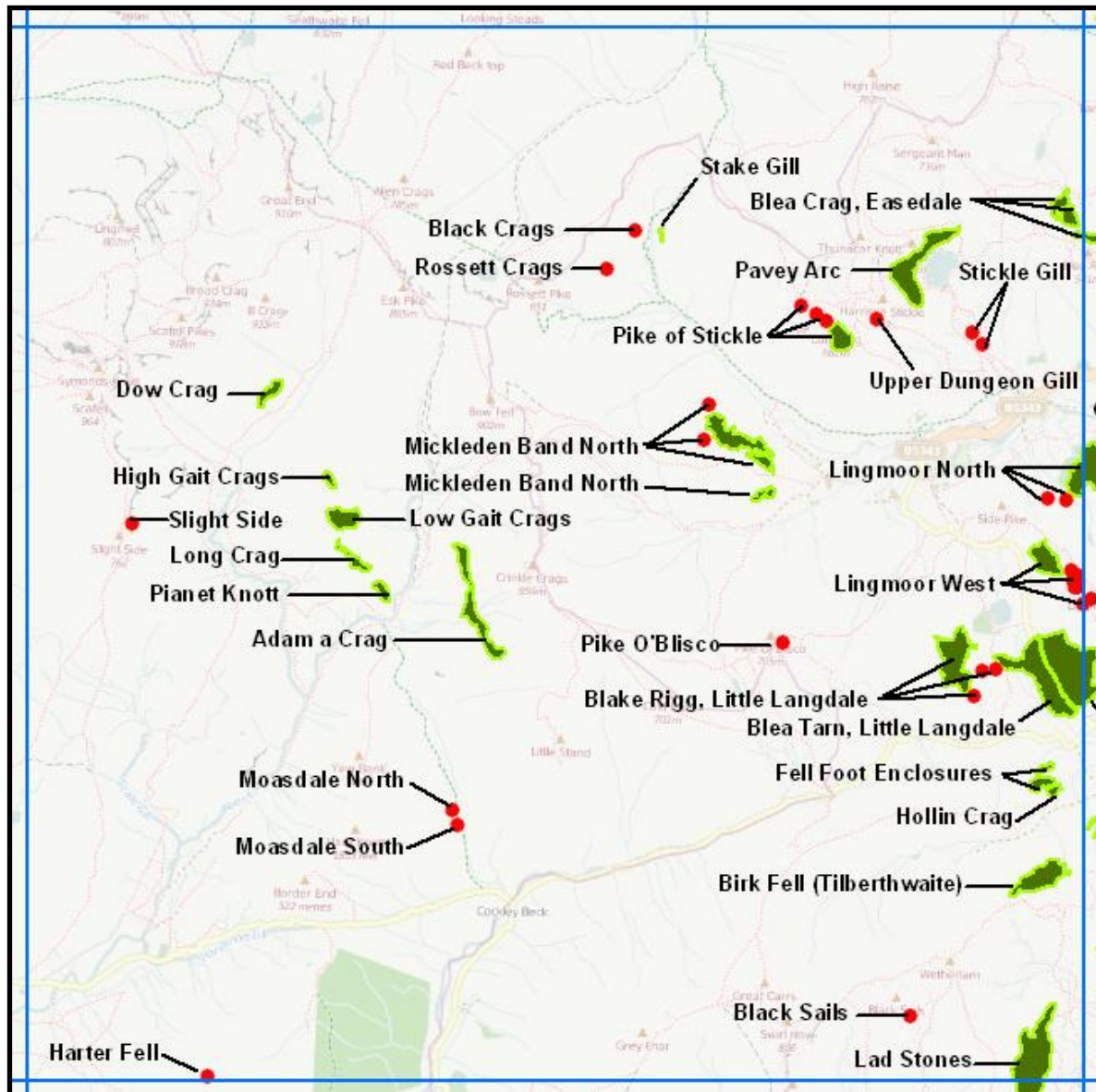


NY20



Sites List:

Jun-NY2100-01	Harter Fell	Jun-NY2704-01	Pike O'Blisco
Jun-NY2105-01	Slight Side	Jun-NY2707-01	Pike of Stickle
Jun-NY2205-01	High Gait Crags	Jun-NY2800-01	Black Sails
Jun-NY2206-01	Dow Crag	Jun-NY2804-01	Blake Rigg, Little Langdale
Jun-NY2304-01	Pianet Knott	Jun-NY2807-01	Pavey Arc
Jun-NY2304-02	Long Crag	Jun-NY2807-02	Upper Dungeon Gill
Jun-NY2305-01	Low Gait Crags	Jun-NY2900-01	Lad Stones
Jun-NY2402-01	Moasdale South	Jun-NY2901-01	Birk Fell (Tilberthwaite)
Jun-NY2402-02	Moasdale North	Jun-NY2902-01	Hollin Crag
Jun-NY2404-01	Adam a Crag	Jun-NY2902-02	Fell Foot Enclosures
Jun-NY2507-01	Rossett Crags	Jun-NY2903-01	Blea Tarn, Little Langdale
Jun-NY2508-01	Stake Gill	Jun-NY2904-01	Lingmoor West
Jun-NY2508-02	Black Crags	Jun-NY2907-01	Stickle Gill
Jun-NY2605-01	Mickleden Band South	Jun-NY2908-01	Blea Crag, Easedale
Jun-NY2606-01	Mickleden Band North	Jun-NY3005-01	Lingmoor North



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Rossett Crags	Equiv. L. Ward site (s): none
Site Ref. Code: Jun-NY2507-01	Survey date: 15/11/2012
Recorder name (s): M. Douglas	Cent. grid ref: NY 25480 507700
Valley / area: Great Langdale	Altitude: 400m – 600m
Aspect: 135 degrees	Ownership:

2. Stand area:

- a) Have you changed the boundaries of the stand on the survey map?
N / A
- b) GPS number and track name / label?
- c) Area of sub stands and total area?

Sub stand										Total
Area										
Confidence										

3. Plant numbers and Juniper sub-species?
nana.....

Ssp *J.c.communis* and *J.c.*

Sub stand	A									Total
Count	286									286
Method	VP									VP
Confidence	L									L

4. Dominant Vegetation ...Outcrop.....

Other habitats / vegetation types present:

- | | |
|-----------------------|---------------------------|
| <u>acid grassland</u> | wet grassland / rushes |
| <u>dry heath</u> | wet heath / mire |
| Limestone grassland | Bracken |
| <u>Scree</u> | Outcrop / cliff |
| Limestone scree | Limestone outcrop / cliff |
| Woodland | |

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

Most juniper growing on inaccessible crags. Almost all accessible juniper is heavily browsed, including this year's shoots.

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
		present	present	X	X
Comments: Most juniper not accessed. Some counted using binoculars.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

None

9. Comments (associated flora and fauna, survey / access difficulties?):

Rowan, hawthorn and holly present (scattered and few). Ad peregrine with prey and raven pr.

Total numbers came from the following observations:

NY 25420 07830 20j (counted through binos)

NY 25518 07692 166j

NY 25310 07690 60j

Rossett Pike min of 40j (counted through binos – poor light)

This stand was separated from the Black Crag stand by a gully at NY 25582 07909.

Along with Black Crag, this is an important stand of juniper at relatively high altitude. With a large number of dwarf juniper present, this area should be a priority for restoration work if the opportunity arises. Reducing numbers of out-wintered sheep is essential if this site is to survive and expand, though this would have to be tied into agri-environment scheme for the whole of Grasmere Common. The potential for natural regeneration on sheep free parts of the crag may depend on visits from frugivorous birds such as ring ouzel, song thrush and blackbird. More of these could be attracted to the site if more rowan trees were planted. If planted alongside birch and aspen, these would also improve the habitat for other birds and invertebrates.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Stake Gill	Equiv. L. Ward site (s): None
Site Ref. Code: Jun-NY2508-01	Survey date: 18/06/2012
Recorder name (s): Mike Douglas and Peter Howlett	Cent. grid ref: NY 25991 08038
Valley / area: Langdale	Altitude: 370m – 410m
Aspect: 180 degrees	Ownership:

2. Stand area:

- b) Have you changed the boundaries of the stand on the survey map?
N / A
- d) GPS number and track name / label?
N / A
- e) Area of sub stands and total area?

Sub stand	A									Total
Area	0.01									0.01 ha
Confidence	4									4

3. Plant numbers and Juniper sub-species?

Ssp nana and communis

Sub stand	A									Total
Count	23									23
Method	VP									VP
Confidence	H									H

4. Dominant Vegetation Outcrop.....

Other habitats / vegetation types present:

<u>acid grassland</u>	wet grassland / rushes
<u>dry heath</u>	<u>wet heath / mire</u>
Limestone grassland	Bracken
Scree	Outcrop / cliff
Limestone scree	Limestone outcrop / cliff
Woodland	

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

All trees on inaccessible crags within Gill

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
			present	1 tree	
Comments:					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point

9. Comments (associated flora and fauna, survey / access difficulties?):

More than 50% of trees *J.c. nana*, with at least three *J.c. communis*.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Black Crag	Equiv. L. Ward site (s): None
Recorder name (s): M. Douglas	Survey date: 15/11/2012
Site Ref. Code: Jun-NY2508-02	Cent. grid ref: NY 25764 08073
Valley / area: Great Langdale	Altitude: 400m – 560m
Aspect: 135 degrees	Ownership:

2. Stand area:

c) Have you changed the boundaries of the stand on the survey map?

N / A

f) GPS number and track name / label?

g) Area of sub stands and total area?

Sub stand										Total
Area										
Confidence										

3. Plant numbers and Juniper sub-species?
and intermediates.....

Ssp...*J.c. communis, J.c.nana*

Sub stand	A									Total
Count	173									173
Method	VP									VP
Confidence	M									M

4. Dominant Vegetation ...outcrop.....

Other habitats / vegetation types present:

acid grassland

wet grassland / rushes

dry heath

wet heath / mire

Limestone grassland

Bracken

Scree

Outcrop / cliff

Limestone scree

Limestone outcrop / cliff

Woodland

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Most juniper growing on inaccessible crags. Almost all accessible juniper is heavily browsed, including this year's shoots.

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	X	X
Comments: one seedling and one young tree found (on crags inaccessible to sheep)					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

None

9. Comments (associated flora and fauna, survey / access difficulties?):

Rowan, hawthorn and holly present (scattered and few). Ad peregrine with prey and raven pr.

Total numbers came from the following observations:

Mansey Pike – 42 j counted through binoculars from the south.

NY 25832 08016 – 14 j (50% *J.c. nana*)

NY 25733 08134 – 49j

NY 25634 08077 – 18j

NY 25566 08042 – 24j

NY 25582 07909 – 26j

Overall it appeared that at least 20% of bushes were *J.c. nana*, with *J.c. communis* and intermediates also present.

This area was separated from the Rossett Crags survey by the gully / beck immediately to the SW of NY 25582 07909.

Restoration: Along with Rossett Crags, this is an important stand of juniper at relatively high altitude. With a large number of dwarf juniper present, this area should be a priority for restoration work if the opportunity arises. Reducing numbers of out-wintered sheep is essential if this site is to survive and expand, though this would have to be tied into agri-environment scheme for the whole of Grasmere Common. The potential for natural regeneration on sheep free parts of the crag may depend on visits from frugivorous birds such as ring ouzel, song thrush and blackbird. More of these could be attracted to the site if more rowan trees were planted. If planted alongside birch and aspen, these would also improve the habitat for other birds and invertebrates.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Mickleden Band South	Equiv. L. Ward site (s): Mickleden Band South
Recorder name (s): Mike Douglas	Survey date: 02/02/2012
Site Ref. Code: Jun-NY2605-01	Cent. grid ref: NY27000 05580
Valley / area: Great Langdale	Altitude: 180 – 250 m.
Aspect: 170 degrees	Ownership:

2. Stand area:

d) Have you changed the boundaries of the stand on the survey map?

Yes

h) GPS number and track name / label?

N/A

i) Area of sub stands and total area?

Sub stand	A									Total
Area	1.44									1.44
Confidence	4									4

3. Plant numbers and Juniper sub-species?

Ssp comm...

Sub stand	A									Total
Count	180									180
Method	VP									VP
Confidence	H									H

4. Dominant Vegetation Acid grassland.....

Other vegetation types present:

acid grassland

wet grassland / rushes

dry heath

wet heath / mire

Limestone grassland

Bracken

Scree

Outcrop / cliff

Limestone scree

Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Short cropped grass with no DSH. No J. seedlings present and difficult to find unbrowsed juniper. Some showing signs of year on year browsing and suppressed growth.

6. Other threats: None

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
X	present	present	present	present	present
Comments: Dominated by old trees.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY2605-01A				Close up of heavily browsed juniper

9. Comments (associated flora and fauna, survey / access difficulties?):

Heavily browsed stand with no seedlings. Holly, birch and hawthorn present.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Mickleden Band North	Equiv. L. Ward site (s): Mickleden Band North
Site Ref. Code: Jun-NY2606-01	Survey date: 02/02/2012
Recorder name (s): Mike Douglas	Cent. grid ref: NY26800 06040
Valley / area: Great Langdale	Altitude: 190m. – 420m.
Aspect: NE	Ownership:

2. Stand area:

- e) Have you changed the boundaries of the stand on the survey map?
yes
- j) GPS number and track name / label?
N / A
- k) Area of sub stands and total area?

Sub stand	A	B								Total
Area	8.63	1.84								10.47ha
Confidence	4	4								4

3. Plant numbers and Juniper sub-species?

Ssp..comm and nana

Sub stand	A	B	C	D						Total
Count	>2200	>800	30	50						>3080
Method	Aerial	Aerial	VP	VP						Aerial photo
Confidence	L	L	H	H						L

4. Dominant Vegetation ...Acid grassland.....

Other vegetation types present:

acid grassland	wet grassland / rushes
dry heath	wet heath / mire
Limestone grassland	<u>Bracken</u>
<u>Scree</u>	<u>Outcrop / cliff</u>
Limestone scree	Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

Very difficult to find unbrowsed juniper and some juniper with 100% of shoots browsed back to woody material. Many trees topiarised or showing browse lines. Signs of past browsing into woody material common. Only three seedlings found in relatively inaccessible areas and very few young trees present. Although one red deer

stag was seen, there are few signs of red deer browsing and most of the damage seems to be as a result of out-wintered sheep.

6. Other threats: None

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	X	present
Comments: > 80% of trees are old and 10 – 20% mature.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point

9. Comments (associated flora and fauna, survey / access difficulties?):

This is a heavily sheep browsed stand which has seen very little regeneration in many decades. Associated trees are sparse throughout most of the stand, with occasional birch, holly and rowan, though there is a more dense patch of birch to the east of the stand.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Blake Rigg, Little Langdale	Equiv. L. Ward site (s): Blake Rigg N and S
Site Ref. Code: Jun-NY2804-01	Survey date: 26/06/2012
Recorder name (s): Mike Douglas	Cent. grid ref: NY 2879 0398
Valley / area: Little Langdale	Altitude: 220m to 500m
Aspect: 90 degrees	Ownership:

2. Stand area:

f) Have you changed the boundaries of the stand on the survey map?

Yes

l) GPS number and track name / label?

N / A

m) Area of sub stands and total area?

Sub stand	A	B	C							Total
Area	n/a	n/a	12.81							12.81
Confidence	5	5	4							4

3. Plant numbers and Juniper sub-species? intermediates

Ssp comm, nana and

Sub stand	A	B	C							Total
Count	24	60	1770							1854
Method	VP	VP	VP photo							
Confidence	H	H	M							M

4. Dominant Vegetation ...Outcrop.....

Other habitats / vegetation types present:

acid grassland

wet grassland / rushes

dry heath

wet heath / mire

Limestone grassland

Bracken

Scree

Outcrop / cliff

Limestone scree

Limestone outcrop / cliff

Woodland

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Most juniper growing on inaccessible cliffs. Browsing easy to find on accessible trees.

Large areas dominated by mat grass, *Nardus stricta*, with abundant heath rush,

Juncus squarrosus. *Empetrum nigrum* browsed along upper boundary.

6. Other threats: Rhododendron bush close to base of cliffs.

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	x	Present
Comments: Ten seedlings found along upper boundary. Ages not assessed due to poor accessibility.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY2804-01A	NY296 042	270 degrees		Overview of Blake Rigg crags

9. Comments (associated flora and fauna, survey / access difficulties?):

Upper boundary walked with GPS. Lower boundary drawn with aid of aerial photograph. Yew, holly, oak, ash, hazel, rowan and willow spp present. Ring ouzel singing and then alarming at NY28890 03780. Whinchat pair alarming at NY 28990 03780. Alpine and fir club mosses growing alongside each other along upper boundary.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Pavey Arc	Equiv. L. Ward site (s): Pavey Arc
Site Ref. Code: Jun-NY2807-01	Survey date: 18/06/2012
Recorder name (s): M. Douglas and P. Howlett	Cent. grid ref: NY28480 507870
Valley / area: Langdale	Altitude: 530m – 670m
Aspect: 135 degrees	Ownership:

2. Stand area:

- g) Have you changed the boundaries of the stand on the survey map?
Yes
- n) GPS number and track name / label?
N / A
- o) Area of sub stands and total area?

Sub stand	A									Total
Area	13.5									13.5 ha
Confidence	3									3

3. Plant numbers and Juniper sub-species? intermediates

Ssp comm, nana and

Sub stand	A									Total
Count	120									120
Method	VP									VP
Confidence	L									L

4. Dominant Vegetation / Habitat: Outcrop.....

Other habitats / vegetation types present:

<u>acid grassland</u>	wet grassland / rushes
<u>dry heath</u>	<u>wet heath / mire</u>
Limestone grassland	Bracken
<u>Scree</u>	Outcrop / cliff
Limestone scree	Limestone outcrop / cliff
Woodland	

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

All juniper on relatively inaccessible crags, where there's good growth of DSH and tall herb fen.

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
		present	present	X	X
Comments: No seedlings found but difficult to assess due to poor access					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY2807-01A	NY 28559 07574	328 degrees		Overview of crag
Jun-NY2807-01B				J.c. nana at base of crags
Jun-NY2807-01C				View down crags with juniper, willow and DSH

9. Comments (associated flora and fauna, survey / access difficulties?):

Up to 50% of trees encountered were *J.c.nana*, the rest being intermediates or *J.c. communis*. Willow present on distant ledge (poss *Salix aurita*). Good tall herb vegetation, possible *Alchemilla wichurae* and mountain sorrel, *Oxyria digyna* along Jack's Rake. Raven present and peregrine apparently nesting. Male northern egggar moth at base of crags.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Lad Stones	Equiv. L. Ward site (s): Lad Stones
Site Ref. Code: Jun-NY2900-01	Survey date: 13/01/2012
Recorder name (s): M. Douglas	Cent. grid ref: NY 29500 00140
Valley / area: Tilberthwaite	Altitude: 340m – 600m
Aspect: 90 degrees	Ownership:

2. Stand area:

h) Have you changed the boundaries of the stand on the survey map?

Yes

p) GPS number and track name / label?

N / A

q) Area of sub stands and total area?

Sub stand	A									Total
Area	22.14									22.14ha
Confidence	4									4

3. Plant numbers and Juniper sub-species?

Ssp...comm.....

Sub stand	A									Total
Count	3650									3650
Method	VP									VP
Confidence	M									M

4. Dominant Vegetation ...acid grassland.....

Other habitats / vegetation types present:

acid grassland

wet grassland / rushes

dry heath

wet heath / mire

Limestone grassland

Bracken

Scree

Outcrop / cliff

Limestone scree

Limestone outcrop / cliff

Woodland

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Much of the grassland throughout the stand dominated by *Nardus stricta*. DSH mostly on inaccessible crags or where present elsewhere, browsed to cushions or drumsticks. Occasional browsing of last year's shoots throughout, and browsing of some of the more accessible junipers has limited growth dramatically. Less grazing higher up (above 480m) where there is some *Empetrum nigrum* and better growth of *Vaccinium myrtillus*.

6. Other threats: none

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	X	Present
Comments: Only three seedlings seen on more inaccessible parts of the crag.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY2900-01A	NY 30009 00491	258 degrees		Whole stand photo
Jun-NY2900-01B				Heavily browsed junipers
Jun-NY2900-01C	NY 29375 00420			<i>Juniperus communis nana</i> or intermediate form.

9. Comments (associated flora and fauna, survey / access difficulties?):

Declining stand due to lack of regeneration. This is unlikely to change under current management regimes with too many out-wintered sheep limiting the growth of plants and preventing regeneration.

Clone of aspen trees (30 stems) at NY 29651 00105.

Juniperus communis nana or hybrid growing amongst common juniper on Steel Edge at NY29375 00420.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Birk Fell, Tilberthwaite	Equiv. L. Ward site (s): Tilber Birk Total
Recorder name (s): Mike Douglas, Alastair Ross, Sandra and Steve Kruger	Survey date: 12/07/11. Second visit 07/05/2013
Valley / area: Tilberthwaite	Cent. grid ref: NY 295 019
Aspect: SSE	Altitude: 410 – 490 metres
	Ownership:

2. Stand area:

- i) Have you changed the boundaries of the stand on the survey map?
Yes
- r) GPS number and track name / label?
7 - Greenburn
- s) Area of sub stands and total area?

Sub stand	A							Total
Area	8.8 ha							8.6 ha

3. Plant numbers and Juniper sub-species?

Ssp...comm..

Sub stand	A							Total
Count	6027							
Method	VP using photo							
Confidence	M							

4. Dominant vegetation and summary of other vegetation types within and immediately around the stand: Acid grassland.

acid grassland	wet grassland / rushes
dry heath	wet heath / mire
Limestone grassland	Bracken
Scree	Outcrop / cliff
Limestone scree	Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Was a grazing impact assessment carried out? Yes / no

Indicators of high grazing / browsing pressure?

Abundant mat grass, *Nardus stricta* and lack of dwarf shrub heath suggests previous long term high grazing impact. Sward height, flowering of grasses, health of juniper and presence of numerous juniper seedlings suggest a recent relaxation in grazing pressure however.

07/05/2013 visit: Of 20 seedlings found, 75 % were browsed, two of these heavily, with all foliage removed. I passed around double this number of young bushes, and if anything a greater proportion of these were heavily browsed.

Walking along the upper boundary of the juniper stand, uprooted and scattered *Nardus* tussocks were abundant and most *Juncus squarrosus* rosettes were heavily grazed.

6. Other land management affecting juniper?

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	10%	90%	present	present
Comments: Many tens of seedlings and young trees were present around the periphery of the stand, but few within the stand					

Are fruit bearing trees present?

Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Tilber-Birk stand file, July 2011 051	NY 29910 03520	191°		From roadside nr Blea Moss. Overview of stand.
Tilber-Birk Stand file, 081				Large Juniper.
Tilber-Birk Stand file, 091				View of stand from Eastern boundary.

9. Comments (associated flora and fauna, survey / access difficulties?):

Taller standard trees almost absent, with only the occasional holly amongst the stand. Most juniper were within the 'old' category and it may be that there has been little if any regeneration within the stand over the last century. A more recent batch of young trees now seems to be supplemented with many seedlings of up to a couple of years old. Previously suppressed trees now seem to be growing well.

Given the late summer date, few birds were present, but redpoll, siskin, song thrush and dunnock were using the stand.

07/05/2013

The regeneration of juniper that has occurred around the eastern boundary of the stand has not been replicated elsewhere around the boundary. The young and seedling trees are now more heavily and frequently browsed (see grazing impact section). The general impression is that a pulse of natural regeneration occurred between ten and three years ago, but this has now stopped and many of the new individuals are now being suppressed by sheep browsing.

Listened to singing willow warbler, chaffinch, robin, wren, dunnock and goldcrest on this visit. Also spotted a couple of rowan amongst the juniper, and two birch and one larch further downslope.

There was a patch of 30 long-dead juniper around NY29592 01835 and there were more scattered dead bushes to the west of this patch.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Blea Tarn	Equiv. L. Ward site (s): Blea Tarn
Site Ref. Code: Jun-NY2903-01	Survey date: 26/07/11
Recorder name (s): Mike Douglas, Sarah Johnston	Cent. grid ref: NY 297 038
Valley / area: Little Langdale	Altitude: 130m. - 320m.
Aspect: Various	Ownership:

2. Stand area:

- j) Have you changed the boundaries of the stand on the survey map?
Yes
- t) GPS number and track name / label?
5 Blea Tarn East
- u) Area of sub stands and total area?

Sub stand	A (east)	B (West)	C (outlier)					Total
Area	23.7ha	16.6ha						40.3ha

3. Plant numbers and Juniper sub-species?

Ssp *J.c.communis*

Sub stand	A	B	C					Total
Count	1580	2015	30					3625
Method	VP photo	VP	VP					VP photo
Confidence	M	M	H					M

4. Dominant habitats and other features / vegetation present: bracken dominated.

acid grassland

dry heath

Limestone grassland

Scree

Limestone scree

Woodland

wet grassland / rushes

wet heath / mire

Bracken

Outcrop / cliff

Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Almost all accessible juniper show evidence of browsing and only one seedling was seen.

6. Other land management affecting juniper? Shading – tall trees and bracken.

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	None seen	>90%	present	Present
Comments: 1 seedling seen. Dead trees may have been under-estimated due to bracken cover.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Blea Tarn and Lingmoor file, July 2011, 060	NY29546 04137	171°	N/A	Overview of valley bottom (sub-stand B)
Blea Tarn and Lingmoor file, July 2011, 072	NY29554 04154	61°	N/A	Looking across valley to sparse juniper (sub-stand A)
Blea Tarn and Lingmoor file, July 2011, 073	NY29554 04154	77°	N/A	Looking across valley to sparse juniper (sub-stand A)

9. Comments (associated flora and fauna, survey / access difficulties?):

Standard trees include holly, yew, rowan, sycamore, oak, birch and ash. Recorded 4 redstart, yellowhammer, willow warbler, whitethroat, robin, great and coal tit, redpoll, blackbird and siskin.

Most of the younger juniper were found in wet flushes / damp areas, and some of these were acting as a base for Sphagnum growth.

Stand generally heavily browsed, with high sheep density at present.

Additional notes after 26/06/2012 visit. Two male beautiful demoiselle along stream NY296036. Three small pearl bordered butterflies in same area.

October 2013:

After two seasons of stock exclusion juniper seedlings are now easy to find on thinner soils around crags. Despite frequent incursions by small numbers of sheep, seedlings, established bushes and planted juniper further upslope have not been browsed since exclusion.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Lingmoor West	Equiv. L. Ward site (s): Blea Tarn
Site Ref. Code: Jun-NY2904-01	Survey date: 15/09/2011
Recorder name (s): MD JA AC	Cent. grid ref: NY2904-01
Valley / area: Little Langdale	Altitude: 210 – 370m
Aspect: WSW	Ownership:

2. Stand area:

k) Have you changed the boundaries of the stand on the survey map? YES

v) GPS number and track name / label? GPS6 Blea Tarn

w) Area of sub stands and total area?

Sub stand	A									Total
Area	5.73									5.73
Confidence	4									4

3. Plant numbers and Juniper sub-species?

Ssp...comm...

Sub stand	A									Total
Count	570									570
Method	VP Photo									VP photo
Confidence	Medium									Medium

4. Dominant Vegetation Dry Heath

Other vegetation types present:

acid grassland

dry heath

Limestone grassland

Scree

Limestone scree

wet grassland / rushes

wet heath / mire

Bracken

Outcrop / cliff

Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer ?

Other

Indicators of high grazing / browsing pressure?

Med/patchy – more accessible areas have grazed sward incl. Molinia, some Calluna & Erica c. grazed to cushions. Found 10's of seedlings in couple of wet patches.

6. Other threats:

Larch plantation self-seeding elsewhere on slope. Old & young Sycamore present.

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
Yes	10%	40%	45%	No	5%
Comments:					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
	29551 04747	32deg		Oblique shot of slope showing bulk of Juniper and assoc. habitat
	29116 04541	63deg		VP photo from other side of tarn, for VP count.

9. Comments (associated flora and fauna, survey / access difficulties?):

Larch plantation self-seeding across slope, Birch, Sycamore (some large old trees & younger individuals), Hawthorn, Rowan, Holly, Oak, Cherry.

Birds – 5 Ring Ouzel, Kestrel, Chaffinch.

Butterflies – Tortoiseshell, Peacock & Red Admiral.

Some more base-rich areas on the slope, rich in Thyme & Fairy flax. Didn't walk through Larch plantation, at the south boundary of the stand, to define extent of Juniper.

Restoration:

Although this site has a good mix of habitats and juniper age classes, it appears that some areas are heavily grazed and juniper regeneration will be limited at these locations. On the other hand, there is some self-seeding of larch amongst the juniper and there are many other tree species present close by. Drastic reductions in sheep stocking density may allow the spread of more tall trees including sycamore, and as such the best option for this area may be a greater degree of off-wintering of sheep.



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Stickle Gill	Equiv. L. Ward site (s): none
Site Ref. Code: Jun-NY2907-01	Survey date: 18/06/2012
Recorder name (s): M. Douglas and P. Howlett	Cent. grid ref: NY2901 0705
Valley / area: Langdale	Altitude: 230m – 300m
Aspect: 135 degrees	Ownership:

2. Stand area:

- l) Have you changed the boundaries of the stand on the survey map?
N / A
- x) GPS number and track name / label?
N / A
- y) Area of sub stands and total area?

Sub stand	A	B								Total
Area										
Confidence	4	4								

3. Plant numbers and Juniper sub-species?

Ssp...comm.....

Sub stand	A	B								Total
Count	7	5								12
Method	VP	VP								VP
Confidence	H	H								H

4. Dominant Vegetation / habitat ...Outcrop.....

Other habitats / vegetation types present:

acid grassland	wet grassland / rushes
dry heath	wet heath / mire
Limestone grassland	Bracken
Scree	Outcrop / cliff
Limestone scree	Limestone outcrop / cliff
Woodland	

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

Most juniper on inaccessible crags.

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
Comments: Not assessed due to difficult access					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point

9. Comments (associated flora and fauna, survey / access difficulties?):



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Blea Crag	Equiv. L. Ward site (s): Easedale (part of)
Site Ref. Code: Jun-NY2908-01	Survey date: 20/09/2011
Recorder name (s): MD	Cent. grid ref: NY29900 08200
Valley / area: Grasmere	Altitude: 360 – 500m
Aspect: NE	Ownership:

2. Stand area:

m) Have you changed the boundaries of the stand on the survey map?

z) GPS number and track name / label?

aa) Area of sub stands and total area?

Sub stand	A	B	C								Total
Area	2.2	2.4	3								7.6Ha
Confidence	3	3	3								

3. Plant numbers and Juniper sub-species?

Ssp.....

Sub stand	A	B	C								Total
Count	90	60	30								180
Method	VP	VP	VP								
Confidence	Medium	Medium	Medium								

4. Dominant Vegetation: Acid grassland.....

Other vegetation types present:

acid grassland	<u>wet grassland</u> / rushes
dry heath	wet heath / mire
Limestone grassland	<u>Bracken</u>
<u>Scree</u>	<u>Outcrop / cliff</u>
Limestone scree	Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep Cattle Red Deer Other

Indicators of high grazing / browsing pressure?

Nardus dominant & abundant over large areas. Most Juniper accessible to sheep show browsing signs, but most Juniper is growing on crags.

6. Other threats:

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
Present	Present	Present	Present	Present	Present
Comments: Not accessed closely for accurate assessment.					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY2908-01A	NY30316 08024			Oblique shot of slope.

9. Comments (associated flora and fauna, survey / access difficulties?):

Numerous Ash, Rowan & Birch with small clone of Aspen. Lime rich flushes with greater floral diversity (S. aizodes, S. stellara, A. alpine & Allchemilla sp.) all short-cropped.

Inputted to mapinfo 17/11/11



Uplands for Juniper Project – Survey Form

1. Site details

Site Name: Lingmoor North	Equiv. L. Ward site (s): Lingmoor Oak How W and E
Site Ref. code: Jun-NY3005-01	Survey date: 31/07/2012
Recorder name (s): M. Douglas, S. Johnson	Cent. grid ref: NY3013 0587
Valley / area: Gt Langdale	Altitude: 150m – 330m
Aspect: 358 degrees	Ownership:

2. Stand area:

n) Have you changed the boundaries of the stand on the survey map?

Yes

bb) GPS number and track name / label?

N / A

cc) Area of sub stands and total area?

Sub stand	A	B	C							Total
Area	19.80	-	-							19.80
Confidence	5	3	5							5

3. Plant numbers and Juniper sub-species?

Ssp...comm.....

Sub stand	A	B	C							Total
Count	1770	132	20							1922
Method	VP photo	VP	VP							VP photo
Confidence	L	h	h							L

4. Dominant Vegetation ...bracken.....

Other habitats / vegetation types present:

acid grassland

dry heath

Limestone grassland

Scree

Limestone scree

Woodland

wet grassland / rushes

wet heath / mire

Bracken

Outcrop / cliff

Limestone outcrop / cliff

5. Grazing / browsing (circle appropriate grazing animal)?

Sheep

Cattle

Red Deer

Other

Indicators of high grazing / browsing pressure?

Along the lower altitude boundary browsed juniper were found after some searching, and *Calluna* and *Erica cinerea* were browsed to cushions. As we gained altitude browsing and grazing pressure decreased to almost zero – even holly experiencing very light browsing and getting away. There was one small patch of light red deer

browsing – on two adjacent junipers at a height of five foot. DSH around the upper boundary was very healthy with very little browsing obvious over the last decade.

6. Other threats:

Sycamore: Present in good numbers, with a number of age classes present, including seedlings. First patch of at least ten trees around NY29895 05730, oldest at least thirty years old. Second patch of at least 11 sycamores around NY 30202 05641, oldest at least forty years old. Third patch of at least 5 sycamores around NY 30150 05940.

7. Juniper age:

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	X	X
Comments: Tens of seedlings found around boundary – well spread amongst a variety of vegetation types. Young trees growing and establishing well through deep <i>Calluna</i> .					

Are fruit bearing trees present? Yes / no

8. Fixed point photography: Insert Grid reference and compass bearing fixed point photos.

Photo label / Number	Grid Ref.	Comp. bearing	Magnification	Description of fixed point
Jun-NY3005-01A	NY3006 05649	344 degrees		View from upper boundary
Jun-NY3005-01B	NY30261 05676	285 degrees		
Jun-NY3005-01C	NY30261 05676	317 degrees		

9. Comments (associated flora and fauna, survey / access difficulties?):

This is a very healthy stand which has experienced frequent (continuous?) regeneration events in the last 50 years. Regeneration of tall trees within the juniper may be a problem lower down the slope, but regeneration of juniper at the southern end may allow the stand to migrate upslope over time, producing a sequence of woodland and scrub habitats along the altitudinal gradient. The juniper here is one of very few in the Lake District which grades into dwarf shrub heath along its upper boundary rather than grass or bracken. Associated trees include ash, rowan, larch, yew, holly, birch and oak, including an ancient coppiced oak at NY 30465 05788. Sycamore is also present though and this may be a threat to the juniper, as it is currently regenerating well from the numerous large seed trees scattered throughout the stand. The count of 1922 bushes is likely to

be a large underestimate, and the resulting juniper density when using this total – of 100 bushes per hectare, seems to be easily exceeded throughout the stand.

A breeding bird survey was carried out here in 2013, and the following species were observed as holding territories:

Species
Willow warbler
Lesser redpoll
Chaffinch
Wren
Robin
Dunnock
Blackbird
Song thrush
Coal tit
Siskin
Linnet
Goldcrest
Tree pipit
Mistle thrush
Cuckoo
Bullfinch