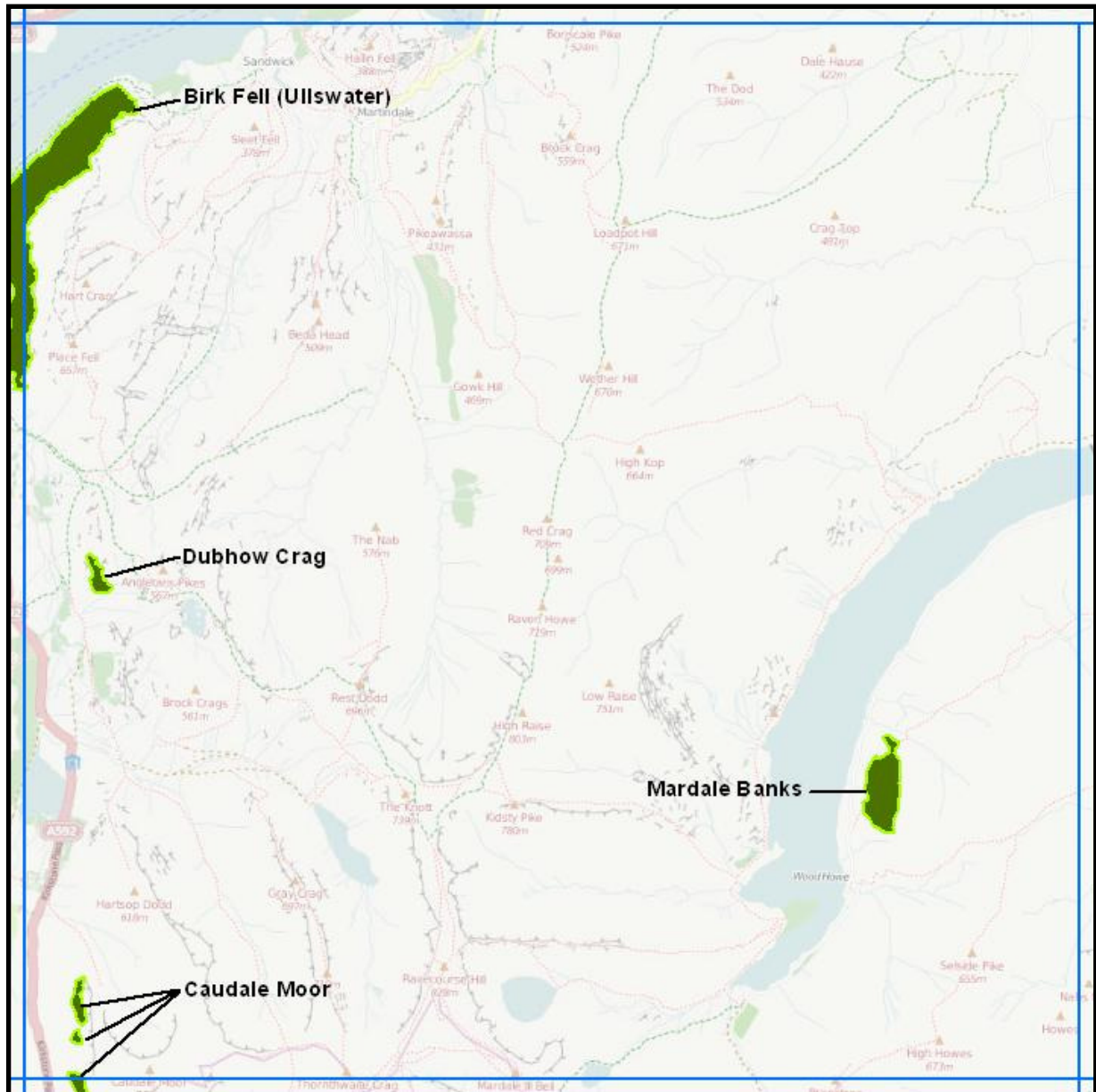


# NY41



## Sites List:

Jun-NY3918-01	Birk Fell (Ullswater)
Jun-NY4010-01	Caudale Moor
Jun-NY4014-01	Dubhow Crag
Jun-NY4812-01	Mardale Banks



## Uplands for Juniper Project – Survey Form

### 1. Site details

Site Name: Birk Fell	Equiv. L. Ward site (s): Place Fell Low, Birk, Silver, Bleawick and South
Site Ref. Code: Jun-NY3918-01	Survey date: 14/10/11 and 2/12/11
Recorder name (s): Mike Douglas, Dave Greaves	Cent. grid ref: NY39890 18240
Valley / area: Ullswater	Altitude: 150 – 480m
Aspect: 270 degrees	Ownership:

### 2. Stand area:

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

Sub stand	A									<b>Total</b>
Area	113.9									113.9 ha
Confidence	4									4

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

Ssp...comm...

Sub stand										<b>Total</b>
Count										
Method										
Confidence										

### 4. Dominant Vegetation/ habitat ...Birch Woodland

#### Other vegetation / habitats present:

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

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

Sheep                      Cattle                      Red Deer                      Other .....

#### Indicators of high grazing / browsing pressure?

**North East Boundary:** All DSH browsed back hard, and all accessible juniper browsed back into woody material – some j. bark-stripped and thrashed by red deer.

Seedlings present though and high numbers of young trees illustrating good regen 20 – 40 years ago. All of this regen now heavily browsed and suppressed.

**South End:** Less browsing of established trees but also far fewer seedlings and young. Signs suggest that sheep are dominant grazer at this end of the site.

**Birch Woodland:** Healthy juniper with few signs of browsing or other damage.

**6. Other threats:** Some juniper have grown leggy in competition for light with taller birch. Little shading out as yet but with continued natural regen of birch, which is good at present, this will become a problem in the future. Presence of large sycamore seed trees could also create problems for juniper.

**7. Juniper age:**

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	present	present	present	present	present
Comments: Many hundreds of young trees present and seedlings numerous at north end of site and around Silver Crag. Hundreds of diseased /dying trees in some locations. Reported to FERA May 2012.					

**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-NY3918-01A	n/a	n/a		Browsed and thrashed juniper showing substantial die back.
Jun-NY3918-01B	n/a	n/a		Photo taken from Silver Crag showing slopes of Birk Fell.
Jun-NY3918-01C	NY38746 18811	114 degrees		Taken from outlet of Glencoyne Beck looking across Ullswater. Overview of site.

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

Huge site with mostly healthy, dense juniper associated with a variety of habitats. To the north and west juniper provides an understorey to birch woodland, with few signs of shading out of juniper at present. The high altitude boundary to the east has juniper growing among dry heath with some areas of *Agrostis* / *Festuca* grassland and some lime rich flushes. To the south and west ground flora is predominantly acid grassland with some areas dominated by *Nardus stricta*. Impacts in this area are mostly from sheep but it appears that off-wintering is allowing natural regen in some areas such as Silver Crag. Impacts to the north and east are predominantly from red deer.

Substantial regeneration here 20 – 40 years ago is now being heavily browsed and suppressed. Thousands of trees are affected, with some older trees bark-stripped and mature and young trees frayed / thrashed. Seedlings still present though and juniper seemingly targeted when it has grown above the surrounding vegetation. Juniper targeted before the winter period and seemingly in preference to Ericoids in some areas.

During the October visit, witnessed siskins and redpoll, tit flocks with long-tailed tit, blue tit, great tit and coal tit, and redwing and fieldfare overhead. Recorded 10 red deer during the October survey and 14 during the December survey.

Associated trees – birch, rowan, ash, oak, holly, hawthorn, yew, willow, sycamore (large old tree at NY39879 18431) and aspen (clone of 40 stems at NY39625 18204).

**May 2012:** Areas of die off amongst trees showing *Phytophthora austrocedrae* symptoms – around NY39690 18280 and NY 39880 17650.

### **Bird survey - Spring 2012**

A complete point count survey was planned but then aborted this spring after 1 visit to each point, due to poor weather. During the three visits that were made the following list of breeding species (probable or possible) was made:

Wren	Robin
Chaffinch	Song thrush
Meadow pipit	Coal tit
Goldcrest	Blackbird
Ring ouzel	Willow warbler
Lesser redpoll	Siskin
Dunnock	Linnet

Birds that were present in the birch woodland at the bottom of the slope, but not necessarily associated with juniper, were spotted flycatcher, pied flycatcher and garden warbler.



**Uplands for Juniper Project – Survey Form**

**1. Site details**

Site Name: Dubhow Crag	Equiv. L. Ward site (s): Angle Tarn South
Site Ref. code: Jun-NY4014-01	Survey date: 11/09/2013
Recorder name (s): M. Douglas	Cent. grid ref: NY4070 1473
Valley / area: Ullswater	Altitude: 250m – 380m
Aspect: 270 degrees	Ownership:

**2. Stand area:**

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

Sub stand	A									<b>Total</b>
Area	4.19									4.19ha
Confidence	4									4

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

**Ssp...*J.c.comm* .....**

Sub stand	A									<b>Total</b>
Count	1724									1724
Method	VP									VP
Confidence	M									M

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

**Other habitats / vegetation types present:**

- |                     |                           |
|---------------------|---------------------------|
| acid grassland      | wet grassland / rushes    |
| <u>dry heath</u>    | wet heath / mire          |
| Limestone grassland | <u>Bracken</u>            |
| <u>Scree</u>        | <u>Outcrop / cliff</u>    |
| 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 winter browsed, some heavily. Height, extent and depth of browsing suggests red deer are the main browsers. Numerous young bushes are all suppressed due to browsing. 19 red deer disturbed from juniper during survey.

**6. Other threats:** None

**7. Juniper age:**

Estimate Percentage					
seedling	young	mature	old	Ill	Dead
present	10%	present	70%	X	present
Comments: 4 seedlings found, along with more than 100 young juniper around the boundary of 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
Jun-NY4014-01A				
Jun-NY4014-01B				
Jun-NY4014-01C				

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

Conditions at this stand are obviously very good for natural regeneration, but unfortunately, the chances of establishment under current grazing conditions are unlikely. Although abundant wool and sheep droppings at the time of the survey illustrate that sheep are present, the main browsers are red deer. All accessible juniper are browsed and seedlings and young bushes are suppressed.

19 red deer were disturbed from the juniper during the survey, a group which included 2 stags and 3 calves.

Ash, oak, holly, hawthorn and birch are present, along with a few rowan, larch and sycamore. One small cotoneaster (heavily browsed) was present at NY 40582 14913. One small patch of mountain everlasting had successfully flowered in a rock crack at NY 40746 14854.



## Uplands for Juniper Project – Survey Form

### 1. Site details

Site Name: Mardale Banks	Equiv. L. Ward site (s): Mardale Banks
Site Ref. code: Jun-NY4812-01	Survey date: 14/10/2013
Recorder name (s): M. Douglas	Cent. grid ref: NY 4816 1277
Valley / area: Haweswater	Altitude: 280m – 430m
Aspect: 270 degrees	Ownership:

### 2. Stand area:

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

Sub stand	A									<b>Total</b>
Area	21.94									21.94 ha
Confidence	3									3

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

Ssp...*J.c.comm* .....

Sub stand	A									<b>Total</b>
Count	3450									3450
Method	Aerial photo									Aerial photo
Confidence	L									L

### 4. Dominant Habitat / Vegetation ...Bracken.....

#### 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>	<u>Outcrop / cliff</u>
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 accessible bushes showing some signs of winter browsing. One mature bush with red deer thrashing damage.

**6. Other threats:** *Phytophthora austrocedrae* may have been around for more than a decade at this stand and has affected hundreds of bushes.

**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-NY4812-01A				Showing a southern portion of the stand, taken April 2011
Jun-NY4812-01B				Showing thrashing damage to mature juniper, Oct 2013.

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

Only a small part of this stand was surveyed (NW section) on the stated date and the rest of the boundary, and the population estimate was completed with the aid of aerial photography.

The stand appears to be dominated by old trees and continues to experience browsing by both sheep and red deer, which is probably preventing or limiting regeneration at present. Sheep stocking rates are set to decrease under RSPB management though, and the tens of planted juniper seen around NY4820 1307 appear to be doing well, so conditions could change at the site in coming years. It is not known how quickly *P. austrocedrae* is spreading to new bushes at the moment but the rate of spread has declined markedly since the large die off around 10 years ago (D. Shackleton, RSPB).