

## Phase 1 Target Notes (purple targets) for Eary Cushlin

(1) = map reference

SC219756 = O/S grid reference

7.91 = date of survey

JL, TS = initials of surveyors (usually John Lamb, Tricia Sayle or Bridget Harris)

An area dominated by tussocks of dry dwarf shrub heath with scattered patches of acid grassland on a hillslope inland of Gob yn Ushtey. The heath is dominated by *Erica cinerea* and has *Calluna vulgaris*, *Anthoxanthum odoratum*, *Potentilla erecta*, *Agrostis capillaris*, *Holcus lanatus*, *Ulex gallii*, *Hypochaeris radicata*, *Galium saxatile* and *Pteridium aquilinum*.

Additional species are present at SC217756 and include *Cirsium arvense*, *Veronica officinalis*, *Thymus polytrichus*, *Plantago lanceolata*, *Viola riviniana*, *Lotus corniculatus*, *Teucrium scorodonia*, *Achillea millefolium*, *Campanula rotundifolia*, *Helictotrichon pubescens* and *Euphrasia* sp. This area is heavily grazed by rabbits to a tight sward in places.

On Manx National heritage-owned land.

(2)

SC220756

7.91

JL, TS

An acid flush alongside a small tributary running west into Glion Moar, dominated by *Juncus effusus* and *J. acutiflorus* with frequent *Sphagnum* sp. Other plants include *Pteridium aquilinum*, *Blechnum spicant*, *Ranunculus flammula*, *Oreopteris limbosperma*, *Cirsium palustre*, *Succisa pratensis*, *Juncus bulbosus*, *Holcus lanatus*, *Potentilla erecta*, *Carex echinata*, *Nardus stricta*, *Rumex acetosa* and *Dactylorhiza fuchsii*.

On Manx National Heritage-owned land.

3

SC222757

7.91

JL, TS

An acid flush on a gentle hillslope adjacent to a stream below Eary Cushlin. The flush is dominated by *Juncus effusus* and *J. acutiflorus* with locally abundant *Sphagnum* sp.

Other plants include *Anthoxanthum odoratum*, *Potentilla erecta*, *Blechnum spicant*, *Pteridium aquilinum*, *Polytrichum* sp., *Carex echinata*, *Galium saxatile*, *Juncus bufonius*, *Holcus lanatus* and *Rumex acetosa*.

On Manx National Heritage-owned land.

**(4)**

SC224757

7.91

JL, TS

An acid flush above Eary Cushlin and dominated by *Juncus effusus* with frequent *Sphagnum* sp. Other plants include *Potentilla erecta*, *Holcus lanatus*, *Agrostis vinealis*, *Juncus conglomeratus*, *J. articulatus*, *Calluna vulgaris*, *Ulex gallii*, *Rumex acetosa* and *Carex echinata*.

On Manx National Heritage-owned land.

**(5)**

SC224760

7.91

JL, TS

Acid flushes on a gentle hillslope north of Eary Cushlin and dominated by *Juncus effusus* and *J. articulatus* with frequent *Sphagnum* sp. Other plants include *Viola palustris*, *Dactylorhiza maculata* ssp. *ericetorum*, *Rumex acetosa*, *Holcus lanatus* and *Potentilla erecta*.

On Manx National Heritage-owned land.

**(6)**

SC225760

7.91

JL, TS

An area of wet dwarf shrub heath on a gentle hillslope dominated by *Erica cinerea* and *Calluna vulgaris* with *Erica tetralix*, *Molinia caerulea*, *Narthecium ossifragum*, *Juncus effusus* and *J. articulatus*. *Sphagnum* sp. is occasional and other plants include *Carex panicea*, *Potentilla erecta*, *Dactylorhiza maculata* ssp. *ericetorum* and *Anthoxanthum odoratum*.

On Manx National Heritage-owned land.

**(7)**

SC219752

7.91

JL, TS

An acid flush on either side of a small stream flowing west down Cronk ny Arrey Laa. The flora includes *Juncus effusus*, *J. bufonius*, *J. articulatus*, *J. bulbosus*, *Veronica officinalis*, *Holcus lanatus*, *Anagallis tenella*, *Cirsium palustre*, *Ranunculus flammula*, *Blechnum spicant*, *Nardus stricta*, *Agrostis canina*, *Potentilla erecta*, *Anthoxanthum odoratum*, *Viola riviniana*, *Carex echinata* and *Hypericum pulchrum*.

*Sphagnum* and *Polytrichum* spp. are locally abundant and a slimy green/brown mat is also present over bare rock surfaces in the stream.

On Manx National Heritage-owned land.

**(8)**

SC220753

7.91

JL, TS

An acid flush either side of a small stream flowing west to Da Leura and dominated by *Juncus acutiflorus*, *J. articulatus* with *J. effusus* and frequent *Sphagnum* sp. Other plants include *Ranunculus flammula*, *R. repens*, *Holcus lanatus*, *Cirsium palustre*, *Epilobium palustre*, *Rumex acetosa*, *Chrysosplenium oppositifolium*, *Potentilla erecta*, *Blechnum spicant*, *Agrostis stolonifera* and *Carex viridula*.

On Manx National Heritage-owned land.

**(9)**

SC221754

7.91

JL, TS

An acid flush on a moderately steep hillslope, dominated by *Juncus acutiflorus* with frequent *Sphagnum* sp. Other plants include *Potentilla erecta*, *Juncus effusus*, *Molinia caerulea*, *Anthoxanthum odoratum*, *Holcus lanatus*, *Erica cinerea*, *Nardus stricta*, *Cirsium palustre*, *Carex viridula*, *C. echinata*, *C. pulicaris* and *Ulex europaeus*.

On Manx National Heritage-owned land.

**(10)**

SC227754

7.91

JL, TS

An area of wet dwarf shrub heath dominated by *Calluna vulgaris* and *Juncus effusus*. Other plants include *Juncus articulatus*, *Erica tetralix*, *E. cinerea*, *Molinia caerulea*, *Potentilla erecta*, *Agrostis vinealis* and *Dactylorhiza* sp.

The area is grazed by sheep. On Government-owned land.

**(11)**

SC228752

7.91

JL, TS

An area of wet dwarf shrub heath having a different species composition to SC227754 and indicative of a transition to mire, but on a shallow layer of peat. The heath is dominated by *Juncus articulatus* with frequent *Sphagnum* sp. Other plants include *Nardus stricta*, *Eriophorum angustifolium*, *E. vaginatum*, *Carex echinata*, *C. panicea*, *C. nigra*, *Calluna vulgaris*, *Juncus bulbosus*, *Potentilla erecta*, *Agrostis vinealis*, *Erica tetralix*, *Narthecium ossifragum*, *Luzula multiflora* ssp. *multiflora*, *Anthoxanthum odoratum*, *Succisa pratensis* and *Dactylorhiza fuchsii*.

The heath grades into a complex mosaic with acid flushes downslope.

On Government-owned land.

## **Phase 2 Target Notes (red targets) for Eary Cushlin**

### **SC217757 = O/S grid reference**

Target Note No:01P = number and writer (P = Peter Dullaghan; D = Diane Dobson)

01 OCTOBER 1999

PD/DD = surveyors (as writers)

The stream running through Glion Mooar is rocky, at the time of survey it was in spate after heavy rainfall. The water is fringed with frequent *Molinia caerulea*, *Angelica sylvestris*, *Narthecium ossifragum*, *Lotus pendunculatus* and *Luzula sylvatica*, plus occasional *Deschampsia cespitosa*, *Athyrium filix-femina*, *Blechnum spicant*, *Lysimachia nemuron*, *Pellia* sp. and *Blechnum spicant*. The higher parts of the banks support rank grassland (*Agrostis capillaris*, *A. stolonifera*, *Dactylis glomerata*, *Deschampsia cespitosa*, *Holcus lanatus*, *Festuca rubra*) with frequent *Plantago lanceolata*, *Pteridium aquilinum*, *Rubus fruticosus* agg. and *Teucrium scorodonia*, plus occasional *Heracleum sphodylium* and *Rosa pimpinellifolia*.

The sides of the valley are covered with dense *Pteridium aquilinum*, with scattered *Rubus fruticosus* agg. near the stream. (probably NVC community W25, grading into U20 further upslope).

### **SC22477597**

Target Note:1D

30/9/99

DD/PD

*Ulex gallii*/*Erica cinerea* (H8) heath (65%) fragmented with patchy *Agrostis capillaris*/*Festuca ovina* (U4) acid grassland (35%) through the heath. Heavily grazed by sheep. A lot of sheep present. Heath with short to medium tussocks. Dominated by *Ulex gallii* with *Erica cinerea* (f), *Agrostis capillaris* (a), *Potentilla erecta* (f), *Festuca ovina* (a), *Galium saxatile* (f), *Luzula campestre* (o), *Rhytidiadelphus squarrosus* (f), *Pseudoscleropodium purum* (f), *Calluna vulgaris* (o/f) (with some of the *Calluna vulgaris* dying off), *Polygala* sp. (o), *Vaccinium myrtillus* (o), *Viola canina* (o), *Hypnum jutlandicum* (o).

### **SC22487584**

Target Note: 2D

30/9/99

DD/PD

Flush near Eary Cushlin (M6).

Some grazing by sheep. On moderate slope.

Lower part (M6) dominated by *Carex echinata* with *Calluna vulgaris* (f), *Ulex gallii* (o), *Juncus conglomeratus*(f), *Polytrichum commune* (f), *Potentilla erecta* (f), *Agrostis stolonifera* (o/f), *Sphagnum recurvum* (o/la), *Rhytidiadelphus squarrosus* (o/f), *Eriophorum angustifolium* (o), *Juncus squarrosus* (o), *Anthoxanthum odoratum* (o).  
Quadrats done, quadrat ref: Q3.

Upper section of North arm (and other arm?), flush (M6c) with abundant/dominant tall *Juncus effusus* with *Juncus conglomeratus*(f), *Sphagnum recurvum* (a), *Polytrichum commune* (f), *Potentilla erecta* (f), *Agrostis stolonifera* (o/f), *Sphagnum palustre* (o/la), *Calluna vulgaris* (o), *Succisa pratensis* (o), *Carex echinata* (o/f), *Anthoxanthum odoratum* (o), *Festuca rubra* (o), *Holcus lanatus* (o). Quadrats done, quadrat ref: Q4.

**SC22497583**

Target Note: 3D

Very much wetter flush (M6d) above the wall, on a slight slope, dominated by *Juncus acutiflorus* and *Sphagnum recurvum*. Also *Potamogeton polygonifolius* (o), *Sphagnum palustre* (o/f), *Polytrichum commune* (o/f).

**SC22577585**

Target Note: 4D

30/9/99

DD/PD

Big complex system of flushes, (M6d +patches of M6 (a?)), above the wall, (some that goes through the *Calluna vulgaris* mire/wet heath so cannot map accurately), on a moderate slope. Some grazing, (and flattening of the rushes), by sheep. Dominated by *Juncus acutiflorus* with abundant/dominant *Sphagnum recurvum*. Patches where *Carex echinata* is dominant with little *Juncus acutiflorus*. Also *Sphagnum palustre* (f), *Polytrichum commune* (f), *Potentilla erecta* (o/f), *Succisa pratensis* (o), *Festuca rubra* (o), *Molinia caerulea* (o), *Dactylorhiza* sp. (r), *Agrostis canina* (o). Quadrats done, quadrat ref: Q5. Wetter areas where *Sphagnum* spp. are abundant and drier areas where *Calluna vulgaris* comes in and becomes frequent. Small *Sphagnum* spp. runnels in the *Calluna vulgaris*.

**SC22597564**

Target Note: 5D

30/9/99

DD/PD

*Calluna vulgaris*, (leggy), dominated mire (M19a) around/next to the flush above with frequent *Sphagnum* spp/cover, (*Sphagnum subnitens*/*S. capillifolium*/*S. palustre*/*S. papillosum*/*S. cuspidatum*/*S. recurvum*). With *Molinia caerulea* (o/f), *Eriophorum vaginatum* (o/f), *Juncus effusus*(o), *Erica tetralix* (o), *Polytrichum commune* (o/f), *Empetrum nigrum* (s), *Juncus squarrosus* (o), *Trichophorum cespitosum* (o), *Eriophorum angustifolium* (o), *Carex nigra* (o), *Hypnum jutlandicum* (o/f), *Potentilla erecta* (o). Some grazing by sheep and areas burnt in the past which has shorter *Calluna vulgaris* and more *Erica tetralix*. Quadrats done, quadrat ref: Q6.

Drier areas of wet heath (M15) dominated by *Calluna vulgaris* with less *Sphagnum* cover but similar species as above.

**SC22577542**

Target Note: 6D

30/9/99

DD/PD

Area of dry heath (H8 ?) burnt in the last year or so with *Calluna vulgaris* (o/f), regenerating and some old *Calluna vulgaris* (o), still surviving. With frequent bare ground. Also *Vaccinium myrtillus* (o), *Hypnum jutlandicum* (o/f), *Ulex gallii* (s), *Luzula campestris* (o), *Agrostis capillaris* (o/f), *Erica cinerea* (o), *Campylopus introflexus* (o). Quadrat done, quadrat ref: Q7.

**SC22547534**

Target Note: 7D

30/9/99

DD/PD

Dry heath (H8), with a mosaic of ages from different burning regime. Little grazing by sheep. Short to moderate leggy *Calluna vulgaris* dominant with *Erica cinerea* (o/f), *Ulex gallii* (o/f) (further down (f/a)), *Agrostis capillaris* (o/f), *Hypnum jutlandicum* (f/a), *Dicranum scoparium* (o), *Carex binervis* (s), *Molinia caerulea* (s), *Campylopus introflexus* (s), *Potentilla erecta* (s). Quadrats done, quadrat ref: Q7. Ditches running through with *Juncus effusus* and *Sphagnum* spp. Patches of mire/wet heath in dry heath.

**SC22747544**

Target Note: 8D

30/9/99

DD/PD

Very wet boggy area (M21b) by wall on forestry side with patches burnt in recent past (a couple of years ago ?). Overall dominated by *Sphagnum* spp. but very mixed, with bog with abundant *Calluna vulgaris* (some burnt), mire with frequent *Juncus effusus*, mire with abundant *Juncus acutiflorus*, patches of *Eriophorum angustifolium* and *E. vaginatum* abundance, and patches with abundant *Narthecium ossifragum* with frequent *Carex* spp. With (overall), *Sphagnum cuspidatum* (f/la), *Sphagnum recurvum* (f/a), *Sphagnum subnitens* (f/la), *Sphagnum papillosum* (o/f), *Sphagnum auriculatum* (o/f), *Sphagnum palustre* (o), *Narthecium ossifragum* (o/lf), *Carex panicea* (o/lf), *Eriophorum vaginatum* (o/la), *Eriophorum angustifolium* (f), *Calluna vulgaris* (f/la), *Juncus effusus* (o/lf), *Juncus acutiflorus* (lf/la), *Juncus bulbosus* (f), *Erica tetralix* (o/f), *Molinia caerulea* (o/f), *Carex echinata* (o), *Agrostis stolonifera* (o), *Drosera rotundifolia* (r). Ditches running through. Quadrats done, quadrat ref: Q8.

**SC22707571**

Target Note: 9D

30/9/99

DD/PD

A mosaic of dry (H12 ??) and (M15) wet heath by the wall next to the track at the edge of the MNH land.

**SC22517615**

Target Note: 10D

Mosaic of *Calluna vulgaris*/*Ulex gallii* (H8) dry heath (70%) and *Agrostis capillaris*/*Festuca ovina* (U4), acid grassland (30%).

**SC22557612**

Target Note: 11D

Very short (burnt?), very grazed heath (wet heath M15d (47.2)?? or dry heath (H12a (47.8) H10a (47.7)). With *Calluna vulgaris* (d), *Erica cinerea* (s), *Molinia caerulea* (o/f), *Deschampsia flexuosa* (o), *Carex panicea* (o/lf), *Juncus effusus*(s), *Agrostis stolonifera* (o) *Juncus conglomeratus*(s), *Erica tetralix* (o), *Sphagnum auriculatum* (s), *Sphagnum subnitens* (s), *Potentilla erecta* (o), *Hypnum jutlandicum* (f), *Vaccinium myrtillus* (s), *Juncus squarrosus* (s), *Rhytidiadelphus squarrosus* (o), *Agrostis capillaris* (o/f), *Festuca rubra* (o), *Agrostis canina* (o), *Danthonia decumbens* (s), *Carex binervis* (s), *Ulex gallii* (s). Quadrats done, quadrat ref: Q2.

**SC22577610**

Target Note: 12D

Very short (burnt?) grazed *Calluna vulgaris* (with some *Erica cinerea* and *Ulex gallii*) dry heath (H8???)

**SC22507609**

Target Note: 13D

30/9/99

DD/PD

Flush (M6 overall) with a mosaic of *Juncus effusus* dominated patches (M6c), *Juncus acutiflorus* dominated patches (M6d), and patches with frequent *Juncus conglomeratus*(M6?), all with abundant cover of *Sphagnum* and some *Carex echinata*. With *Juncus effusus*(o/la), *Carex echinata* (o/f), *Sphagnum recurvum* (f/a), *Viola palustris* (o), *Sphagnum palustre* (o/f), *Polytrichum commune* (o/f), *Molinia caerulea* (o/f), *Agrostis capillaris* (s), *Deschampsia flexuosa* (s/o), *Potentilla erecta* (o), *Rhytidiadelphus squarrosus* (s), *Carex nigra* (o), *Eriophorum angustifolium* (s), *Calluna vulgaris* (s), *Dactylorhiza* sp. (r), *Ulex gallii* (s), *Juncus conglomeratus*(s/lf), *Festuca rubra* (o), *Holcus lanatus* (o), *Agrostis canina* (o/lf), *Juncus acutiflorus*(s/la), *Agrostis stolonifera* (s/lf). Quadrats done, quadrat ref: Q1.

**SC22587606**

Target Note: 14D

A mosaic of flush-mire dominated by *Carex echinata* and *Sphagnum* spp. (M6?) (60%) and wet heath with frequent *Calluna vulgaris* (M15?) (30%), with patches of dry heath (H8?) within the wet heath (10%). With *Calluna vulgaris* (o/f), *Narthecium ossifragum* (f/la), *Molinia caerulea* (f/la), *Eriophorum angustifolium* (o/f), *Carex panicea* (o/lf), *Carex echinata* (f/ld), *Erica tetralix* (o), *Hypnum jutlandicum* (o/f), *Sphagnum papillosum* (o/lf), *Sphagnum recurvum* (o/la), *Sphagnum palustre* (o/lf), *Sphagnum subnitens* (o), *Potentilla erecta* (o), *Erica cinerea* (o), *Ulex gallii* (s). Grazed by sheep.

**SC22607597**

Target Note: 15D

30/9/99

DD/PD

A mosaic of (H8) dry heath (60%) and (U4) acid grassland (40%) with *Calluna vulgaris* (d), *Erica cinerea* (f), *Ulex gallii* (o/lf), *Carex binervis* (s), *Agrostis capillaris* (a), *Festuca ovina* (f), *Festuca rubra* (o), *Nardus stricta* (o/f), *Galium saxatile* (o), *Potentilla erecta* (o), *Anthoxanthum odoratum* (o), *Rhytidiadelphus squarrosus* (o). Grazed by sheep.

**SC22287563**

Target Note: 16D

1/10/99

DD/PD

Mire (M6d) dominated by *Juncus acutiflorus* and *Sphagnum* spp with species similar to those in TN4 going down the stream with patches where *Eriophorum angustifolium* and *Carex echinata* are dominant.

**SC21927563**

Target Note: 17D

1/10/99

DD/PD

A mosaic of very grazed short/medium dry heath (H12???) with frequent *Erica cinerea* and occasional *Calluna vulgaris* (40%) and *Agrostis capillaris*/*Festuca ovina* (U4) acid grassland (60%).

on the banks along the edges of the stream.

**SC22327594**

Target Note: 18D

1/10/99

DD/PD

Semi improved *Agrostis capillaris*/*Festuca ovina* (U4) acid grassland grazed by sheep.

**SC22227592**

Target Note: 19D

1/10/99

DD/PD

As above (18).

**SC22317582**

Target Note: 20D

1/10/99

DD/PD

A mosaic of semi improved *Agrostis capillaris*/*Festuca ovina* (U4) acid grassland (75%) and (H12??) *Calluna vulgaris*/*Erica cinerea* dry heath (25%) scattered through the grassland. Very grazed by sheep.

**SC22277574**

Target Note: 21D

1/10/99

DD/PD

Mire (M6d) dominated by *Juncus acutiflorus* and *Sphagnum* spp. with species similar to those in TN4. Continues down the stream. With *Erica cinerea*/*Ulex gallii* (H8) dry heath.