# Whole Feature Assessment East Dartmoor SSSI February 2025

# Wet Heath

The interest feature wet heath is a SAC feature of Unit 15 and 23 and not a SSSI interest feature. Wet heath fails the whole feature assessment as for upland SSSIs all attributes must pass the stated target at the sample points, if one attribute fails then the feature fails at that sample point. To be favourable 90% of stops (sample points) must pass, for this survey 100% of sample stops failed the assessment as at least one monitoring attribute was failed at the sample point. The whole feature assessment finds wet heath to be in **unfavourable declining** condition.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all twenty-three wet heath stops are considered:-

- Less than 10% of the Sphagnum cover should be crushed, broken, and/or pulled-up. Passes this monitoring attribute with a mean of 5.2%. However, only 77% of stops passed this monitoring attribute which fails the 90% threshold applied to upland sites.
- Less than 10% of the ground should be disturbed bare ground. Passes with a mean of 0.1% at quadrat scale and 0.5% at visible scale, with no stops failing to meet this monitoring attribute.
- There should be no patches greater than 100 m<sup>2</sup> of either intensely disturbed bare ground or bare peat with a hard, rubbery or ashed surface. No areas of disturbed bare ground or bare peat were mentioned as a pressure or within surveyor comments.
- The extent of eroding peat and/or mineral soil should be less than the extent of re-deposited peat and/or mineral soil and new growth of wet heath and/or bog vegetation within the feature. The contracted survey did not provide data that could be used to determine the extent of eroding as opposed to building peat/new growth wet heath. Values provided were cover of exposed peat which gave a mean of 0.3% and it is therefore appropriate given this low value and the lack of surveyor comments on this issue to assume that eroding peat is not an issue for wet heath interest feature and therefore this attribute is passed.
- Less than 10% of the total feature area, should show signs of drainage, resulting from ditches or heavy trampling or tracking. No drainage or trampling was noted as a pressure or mentioned as a significant problem in surveyor comments.
- None of the following should make up more than 75% of vegetation cover: (a) dwarf-shrubs; or (b) graminoids. Passes this monitoring attribute as a mean of 27% cover of dwarf shrub was found with only 4% of samples failing the attribute and 54% of graminoid cover. However, only 57% of stops passed the graminoid cover target which fails the 90% threshold target applied to upland sites.
- At least 25% of vegetation cover should consist of Group (i) species; *Carex* spp sedge, *Drosera* spp. sundew, *Rhynchospora alba* white beaked sedge, *Sphagnum* spp., *Trichophorum cespitosum* deergrass, non-crustose lichens, and 25% should consist of Group (ii) species; *Calluna vulgaris* heather, *Erica* spp., *Vaccinium* spp bilberry. Passes both with a mean of 36% cover for the first attribute and 25% for the second attribute. However only 52% of samples passed the first and only 39% passed the second attribute, therefore failing the 90% pass target applied to upland sites.
- Less than 10% of vegetation cover should be made up of bracken. Passes the monitoring attribute with a mean cover of 7%. However, 83% of samples passed the target which is less than the required 90% pass applied to upland sites.
- Less than 1% of vegetation cover should be made up of non-native species. Passes the monitoring attribute with a mean value of 0.2% and no stops failing to meet the attribute target.
- Less than 10% of the vegetation cover should consist of *Juncus effusus* soft rush. Passes this monitoring attribute at a quadrat scale with a mean of 1% and 96% of samples passing and at a visible extent scale with a mean of 2% and all samples passing the attribute target.
- Less than 20% of vegetation cover should be made up of scattered native trees and scrub. Passes this monitoring attribute with a mean of 0.9% and all stops passing the attribute target.
- There should be no observable signs of burning into the moss, liverwort or lichen layer or exposure of peat surface due to burning. Burning has not been identified as a pressure and no burn areas recorded in surveyor notes.

- There should be no signs of burning inside the boundaries of sensitive areas. Burning has not been identified as a pressure and no burn areas recorded in surveyor notes.
- Less than 33% of the shoots of dwarf-shrub species collectively should shows signs of browsing. Passes this monitoring attribute as a mean of 19% of dwarf shrub shoots were browsed. However, only 69% of samples passed this monitoring attribute which is below the 90% pass target applied to uplands. The assessment was based on the 16 samples which were recorded as having dwarf shrubs present.
- In pioneer stage regrowth less than 66% of the shoots of the dwarf-shrubs, collectively, should show signs of browsing. Passes this monitoring attribute as a mean of 3% pioneer heath was browsed and all stops passed the attribute target.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of all twenty-three wet heath stops are considered:-

- Less than 1% of vegetation cover should consist of, collectively, *Agrostis capillaris* common bent, Holcus lanatus Yorkshire fog, *Phragmites australis* Common reed, *Ranunculus repens* creeping buttercup. Passes this monitoring attribute at a quadrat scale with a mean of 0.5%, however 74% of samples passed which is below the upland target of 90% samples passing. At a visible scale the monitoring attribute was failed with a mean value of 7% and only 65% of samples passing the attribute target.
- Cross-leaved heath *Erica tetralix* should be present. Fails this monitoring attribute as only 74% of samples had cross-leaved heath present.

# Summary of Surveyor Comments and Recommendations

Surveyors commented that some of the samples of wet heath displayed a good range of heather in all age classes with pioneer heath present. This is in contrast with other observations that dwarf shrub heath cover was low and samples were dominated with Molinia. Gorse was also observed to dominate in some areas and bracken formed dense stands on the periphery of many of the plots. Wet heath plots with good botanical diversity were recorded, abundant sphagnum and sedges were noted in some samples. Surveyors commented that grazing appeared to be high in some areas, with heather flowerheads removed by browsing. Many of the comments from the surveyors indicated that the wet heath was species poor and dominated by Molinia which is suppressing growth of positive indicators and this is reflected in the data analysis. However, there were some areas of wet heath which were noted as rich in sphagnum species.

It is recommended that further analysis to identify grazing levels within individual units is carried out, adjustments to stock levels should then be agreed to return the wet heath to favourable condition. Land management – Over Grazing should be recorded as a pressure for this interest feature.

### Transition mire, ladder fen and quaking bog

Transition mire, ladder fen and quaking bog is only an interest feature in unit 2. One sample was taken in this habitat and because of this and the fact that the current monitoring specification does not include any monitoring attributes for this feature, a condition assessment of transition mire, ladder fen and quaking bog is not possible at this time.

Surveyors commented that the transition mire, ladder fen and quaking bog appeared to be favourable. The surveyors recorded a number of future sample points. The habitat was found to have very wet conditions which made accessing and safely surveying the habitat difficult in early March. Quaking vegetation was found included *Carex rostrata* bottle sedge, *Carex nigra* black sedge, other small to medium *Carex* spp. and *Eriophorum angustifolium* common cotton-grass growing on a floating raft of Sphagnum spp. It is recommended that a future survey is carried out during optimal time of year for this habitat type.

## Acid Grassland / Dry Heath Mosaic

Acid grassland is not a feature of East Dartmoor SSSI. However, acid grassland dry heath mosaic is mentioned in the current monitoring specification and some monitoring attributes have been included in this document. However, only three monitoring attributes are included in the monitoring specification which are highlighted below \*. The other monitoring attributes were added to the 2024 survey as the monitoring specification attributes alone would not provide enough data to assess the condition of acid grassland habitat. This condition assessment is for information only and does not form part of the reported whole feature assessment because acid grassland is not a feature.

The interest feature acid grassland fails the whole feature assessment as for upland SSSIs all monitoring attributes must pass the stated target at the sample points, if one attribute fails to pass the target then the feature fails at that sample point. To be favourable 90% of stops (sample points) must pass, for this survey 94% of sample stops failed the assessment, as at least one monitoring attribute was failed at the sample point. The whole feature assessment of acid grassland finds this feature to be in **unfavourable declining** condition.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all thirty-one acid grassland stops are considered:-

- Less than 25% of vegetation cover should be made up of shrubs/scrub (ie dwarf shrubs and *Ulex gallii* Western gorse). Passes this monitoring specification \* attribute with a mean cover of 0.6% and all stops passing the attribute target.
- Average sward height lies in the range 5-10 cm above the ground surface. Passes the monitoring specification attribute \* with a mean sward height of 6cm. However, only 77% of samples passed the monitoring attribute which fails the 90% pass target applied to upland features.
- More than 10% of the vegetation cover should consist of forbs. Passes this monitoring attribute with a mean cover of 11%. However, only 26% of samples passed this monitoring attribute which fails the 90% pass target applied to upland features.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute with a mean of 0 and 97% of samples passing the target.
- Less than 10% of vegetation cover should consist of *Juncus effusus* soft rush. Passes this monitoring attribute at a quadrat scale with a mean value of 0.3% cover and all stops passing the target. Also passes at visible extent scale with a mean value of 2% cover and 97% of stops passing the target.
- The percentage of vegetation cover made up of *Juncus squarrosus* Heath rush and/or *Rhytidiadelphus squarrosus* springy tuft moss should be less than 33%. Passes this monitoring attribute with a mean combined cover of 13%. However, only 87% of samples passed the attribute target which fails the 90% pass target applied to upland sites.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of al thirty-one acid grassland stops are considered:-

- Less than 10% of vegetation cover should be made up of bracken and/or scattered native trees and scrub. 66% cover of bracken was recorded and 4% cover of scrub and trees. The mean cover of the combined cover of bracken and scrub was 70% which fails the monitoring specification attribute \*. Only 19% of samples passed the monitoring attribute which fails the 90% pass target applied to upland features.
- The percentage of the ground cover for which dead plant litter forms a "thatch" or "felt", in patches more than 2 cm across, should be less than 10%. Fails this monitoring attribute with a mean cover of 33% and only 29% of samples passing the attribute target.

## Summary of Surveyor Comments and Recommendations

For the majority of units where acid grassland was recorded surveyors commented that much of the acid grassland interest feature was dominated by bracken and the cover of desirable forbs was

low. Grazing was also often mentioned as being intensive with the sward very short. Surveyors found an occasional heath indicator species and they speculated that acid grassland had developed from the degrading heath communities. Land management – Over grazing and Weeds / Inappropriate species would be recorded as a pressure for this habitat if it was a feature of the SSSI.

## **Blanket and Valley Bogs**

Blanket and valley bog is a SSSI interest feature in unit 2, 5, 14 and 21. The whole feature condition is provided by the lowest condition for the blanket and valley bog interest feature that has been assigned to the units and the combined results of the whole feature assessment. The interest feature blanket and valley bogs fails the whole feature assessment as for upland SSSIs all monitoring attributes must pass the stated target at the sample points, if one attribute fails to pass the target then the feature fails at that sample point. To be favourable 90% of stops (sample points) must pass, for this survey 100% of sample stops failed the assessment, as at least one monitoring attribute was failed at the sample point. The whole feature assessment finds blanket and valley bogs interest feature to be in **unfavourable declining** condition.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all sixteen blanket and valley bog stops are considered:-

- Less than 10% of the Sphagnum cover should be crushed, broken, and/or pulled-up. Passes the monitoring attribute with a mean value of 8%. The 90% pass target for upland features is failed as only 81% samples passed the attribute target.
- Less than 10% of the ground cover should be disturbed bare ground. Passes the monitoring attribute with a mean area of bare ground of 5% at quadrat scale and 2% at visible extent. However, only 81% of samples passed the attribute at quadrat and 87% at visible scale, which falls below the 90% pass target applied to upland features.
- There should be no patches greater than 100 m2 of either intensely disturbed bare ground\* or bare peat with a hard, rubbery or ashed surface. No areas of disturbed bare ground were identified as a pressure or noted in surveyor comments.
- Less than 10% of the total feature area should show signs of drainage, resulting from ditches or heavy trampling or tracking. No areas of drainage or trampling were identified as a pressure or noted in surveyor comments.
- The extent of eroding peat and/or mineral soil should be less than the extent of re-deposited peat and/or mineral soil and new growth of wet heath and/or bog vegetation within the feature. The contracted survey did not provide data that could be used to determine the extent of eroding as opposed to building peat/new growth bog vegetation. Values provided were cover of exposed peat which gave a mean of 0.2% and it is therefore appropriate given this low value and the lack of surveyor comments on this issue, to assume that eroding peat is not a concern for blanket bog interest feature and therefore this attribute is passed.
- Any one of *Eriophorum vaginatum* Hare's tail cotton-grass, Ericaceous species collectively, or *Trichophorum cepitosum* deergrass, should not individually exceed 75% of the vegetation cover. Passes this monitoring attribute with Hare's Tail cotton-grass cover 1%; 23% cover of ericaceous species and 0.2% cover of deergrass. However, although all stops passed for Hare's tail cotton-grass and deer grass, only 87% stops passed the target for ericaceous cover which fails the 90% pass target applied to upland features.
- Sphagnum cover should not consist only of Sphagnum fallax (S. recurvum p.p.) Passes this monitoring attribute as all samples had more than one sphagnum species present.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute with a mean value of 0.1% cover. However, only 87% of samples passed this attribute which falls below the threshold 90% pass target for upland features.
- Less than 1% of vegetation cover should consist of, collectively, *Agrostis capillaris* common bent, *Holcus lanatus* Yorkshire fog, *Phragmites australis* common reed, *Pteridium aquilinum* bracken, *Ranunculus repens* creeping buttercup. Passes this monitoring attribute at a quadrat scale with none of the listed species recorded and at a visible extent scale with 0.3% mean cover recorded. However, although all stops passed the attribute target at a quadrat scale, only 75% samples passed at visible extent which fails the 90% pass target applied to upland features.
- There should be no observable signs of burning into the moss, liverwort or lichen layer or exposure of peat surface due to burning. Passes this monitoring attribute as no signs of burning were recorded at any stop.

- Less than 33% of the shoots of dwarf-shrub species collectively should shows signs of browsing. Passes this monitoring attribute with a mean of 9% browsed and no stops failing to meet the target.
- In pioneer stage regrowth less than 66% of the shoots of the dwarf-shrubs, collectively, should show signs of browsing. Passes this monitoring attribute with a mean of 2% pioneer heath browsed and no stops failing to meet the target.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of all sixteen blanket and valley bog stops are considered:-

- At least 50% of vegetation cover should consist of at least 3 of the listed PI species (excluding Molinia and *Sphagnum fallax* when only Sphagnum species present). Fails this monitoring attribute as only 38% cover of positive indicators was found, with only 31% of samples passing this attribute which is below the 90% pass target applied to upland features.
- At least 5 positive indicator species should be present. Fails this monitoring attribute as mean value of 3 positive indicators were found, with only 25% of stops passing the attribute target.

#### Summary of Surveyor Comments and Recommendations

The quality of the blanket bog appears to be very variable with surveyors recording a good range of sphagnum and other positive indicators at some stops but a lack of botanical diversity and dominance by Molinia and soft rush in others. However, the assessment results find that the cover of positive indicators is poor and this is likely due to Molinia dominating at the expense of forb diversity. Grazing levels were also variable with no evidence of grazing recorded at some stops and excessive dunging recorded in others.

It is recommended that a detailed analysis of management to unit level occurs to identify grazing levels and other management operations to identify changes in management that would achieve favourable condition by reducing Molinia dominance, increasing botanical diversity and rewetting peat as appropriate. Land management, in particular over and under grazing, should be recorded as a pressure for the blanket bog interest feature.

# Short Sedge Acidic Fen

Short sedge acidic fen is only a SSSI interest feature in unit 2, however, this whole feature assessment is based on samples taken in unit 2 and other units where short sedge acidic fen has been recorded. The interest feature short sedge acidic fen fails the whole feature assessment as for upland SSSIs all monitoring attributes must pass the stated target at the sample points, if one attribute fails to pass the target then the feature fails at that sample point. To be favourable 90% of stops (sample points) must pass, for this survey 100% of sample stops failed the assessment as at least one monitoring attribute was failed at the sample point. The whole feature assessment finds short sedge acidic fen interest feature to be in **unfavourable no change** condition as the previous condition was recorded as unfavourable recovering and there are no comparative past surveys from which the trajectory of condition movement can be identified.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all twenty-three short sedge acidic fen stops are considered:-

- Less than 10% of the ground cover should be disturbed bare ground. Passes this monitoring attribute quadrat scale with a mean of 1% and at visible extent with mean of 0.5%. All samples at visible extent scale passed the attribute target and only 4% failed at quadrat scale.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute with a mean of 0.2% cover, however only 87% of samples passed the attribute which fails the 90% pass target applied to upland features.
- Less than 10% of the total feature area, should show signs of drainage, resulting from ditches or heavy trampling or tracking. No drainage or trampling was recorded as a pressure nor noted in surveyors comments.
- Less than 5% of vegetation cover should be made up of the canopy of trees and shrubs. Passes this monitoring attribute with a mean cover of 1% and 96% of samples passing the attribute target.
- There should be at least 1 indicator species present in the vegetation cover from group 1 (Small to medium sized *carex* spp sedge, *Hydrocotyle vulgaris* marsh pennywort, *Potentilla palustris* marsh cinquefoil, Sphagnum spp.). Passes this monitoring target with the mean number of indicator species found being 2 from group 1 and all stops passing the attribute target.
- For M4 & M6 there should be at least 2 indicator species present in the vegetation. Passes this monitoring attribute with a mean number of 2 positive indicators and 91% of samples passing the attribute target.
- For M4, M6 there should be at least two indicator species present in the vegetation cover. Passes this monitoring attribute with a mean of 2, however, 17% of stops failed to meet this target.
- Less than 10% of vegetation cover should be made up of scattered native trees and scrub. Passes this monitoring attribute as no trees or scrub were recorded at any stop.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute as no non-native vegetation was recorded.
- Less than 10% of the ground cover should be disturbed bare ground. Passes this monitoring attribute with a mean of 2% bare earth recorded at both a quadrat and visible scale.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of all twenty-three short sedge acidic fen stops are considered:-

- At least 50% of vegetation cover should be made up of indicator species (25% from each group). Fails this monitoring attribute 84% cover was found in group 1 but only 9% in group 2, with all stops failing to meet the monitoring target.
- Less than 10% of the vegetation cover should consist of *Juncus effusus* soft rush. Passes this monitoring at a quadrat scale with a mean soft rush cover of 7%. However, this attribute is failed at visible extent with a mean cover of 13% recorded. 88% of quadrat scale

samples and 49% of visible extent samples passed the attribute target which fails the 90% pass target that applies to upland features.

- Less than 1% of vegetation cover should consist of, collectively, *Anthoxanthum odoratum* sweet vernal grass, *Epilobium hirsutum* great willowherb, *Holcus lanatus* Yorkshire fog, *Phragmites australis* common reed, *Ranunculus repens* creeping buttercup. Fails this monitoring attribute at both quadrat and visible extent scale with mean cover values of 2% and 10% respectively. Only 70% of samples at quadrat scale and 39% at visible extent scale passed this attribute which is below the 90% pass target applied to upland features.
- At least 50% of live leaves and flowering shoots of vascular plants should be more than 15 cm above the ground surface. Fails this monitoring attribute as the mean percent of live leaves over 15cm was only 10% and 74% of all samples failing to meet the attribute target.

#### Summary of Surveyor Comments and Recommendations

Short sedge acidic fen occurs as a mosaic feature with other upland habitat such as wet heath and blanket bog. The mosaic nature of the feature makes meeting the monitoring attributes difficult as there is much crossover with other habitat features. Sphagnum presence was recorded as good but diversity of positive indicators appears to be variable across the units. Short sedge acidic fen continues to fail to meet the monitoring attribute 'At least 50% of vegetation cover should be made up of indicator species (25% from each group), with all sample points failing to meet the 50% required target of group 2 species in contrast with 96% of samples meeting the 50% cover from group 1. This suggest that the target is inappropriate for the local conditions or the communities sampled are not a good match for the target community, perhaps as a result of their transitional nature.

Molinia was recorded as dominating in some areas and grazing was found to be low in some areas, which is in contradiction to the failing sward height attribute which found only 10% of vegetation over 15cm. Sitka spruce seedlings were recorded in Unit 22 and these should be removed. Land management – Weeds / Inappropriate species and under grazing should be recorded as a pressure.

### Soakaway and Sump

Soakaway and sump is an interest feature in Unit 11 and 16, the feature was found to be favourable in both of these units, therefore, soakaway and sump is recorded as **favourable** condition based on the six samples just in Unit 11 and 16. Favourable condition is given despite 100% of the samples failing to meet the attribute target for at least one monitoring attribute, the reasoning for this is that that six samples were taken (more samples would allow a condition to be based confidently on samples alone), the monitoring attributes were very close to passing the target and surveyor comments recommended favourable condition.

However, the whole feature assessment data for soakaway and sumps interest feature also included samples outside of these units. Taking into account these additional five samples 91% of sample stops failed the assessment as at least one monitoring attribute was failed at the sample point.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all eleven stops are considered:-

- Less than 25% of the ground cover of each soakaway should be disturbed bare ground. Passes this monitoring attribute with a mean value of 0. 4% cover and all samples passing.
- Over the whole feature scanned from sample locations, less than 10% of ground cover should be disturbed bare ground. Passes this monitoring attribute with a mean cover of bare ground of 2%. However, only 82% of samples passed the monitoring attribute which fails the 90% pass target applied to upland features.
- Less than 10% of the total feature area, should show signs of drainage, resulting from ditches or heavy trampling or tracking. No drainage or trampling was identified as a pressure nor raised as a concern by surveyors.
- At least 65% of vegetation cover should be made up of indicator species; *Carex* spp. sedge, *Hypericum elodes* marsh St John's wort, *Potamogeton polygonifolius* bog pondweed & Sphagnum spp. Passes this monitoring attribute with a mean cover of positive indicators of 85%. However, only 73% of samples passed the monitoring attribute which fails the 90% pass target applied to upland features.
- Either *Hypericum elodes* marsh St John's wort or *Potamogeton polygonifolius* bog pondweed should be present in the vegetation cover. Passes this monitoring attribute with all samples having at least one of the species present.
- Less than 20% of vegetation cover should be made up of Molinia caerulea. Passes this monitoring attribute with a mean cover of 9% and 91% of samples passing at quadrat scale and a mean value of 2% and all samples passing at visible extent scale.
- Less than 5% of vegetation cover should be made up of scattered native trees and scrub. Passes this monitoring attribute with a mean cover of 0.2 % and all stops passing the target.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute as no non-natives were recorded at any stop.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of all eleven soakaway and sump stops are considered:-

• Less than 10% of vegetation cover should be made up of other graminoids. Passes this monitoring attribute at a quadrat scale with a mean of 9%, but fails at a visible extent scale with a mean graminoid cover of 11%. Only 36 % of samples passed the monitoring attribute at quadrat scale and only 27% passed at visible extent scale, which fails the 90% pass target applied to upland features.

Summary of Surveyor Comments and Recommendations

Surveyors commented that the survey was not carried out at the optimum time of year and after heavy rainfall which made estimates of species abundance difficult. However, surveyors found that there was a good abundance of positive indicator species.

## Subalpine dwarf shrub heath

The interest feature subalpine dwarf-shrub heath fails the whole feature assessment as for upland SSSIs all attributes must pass the stated monitoring target at the sample points, if one attribute fails then the feature fails at that sample point. To be favourable 90% of stops (sample points) must pass, for this survey 100% of sample stops failed the assessment as at least one monitoring attribute was failed at the sample point. The whole feature assessment finds subalpine dwarf shrub heath interest feature to be in **unfavourable declining** condition.

An analysis of the SSSIs individual monitoring attributes found the following attributes passed the whole feature assessment when only the mean value of all thirty-nine subalpine dwarf shrub heath stops are considered:-

- Less than 5% of the ground cover should be made up of bare ground. Passes this monitoring attribute as the mean value of bare earth at both quadrat and visible extent scale was 0.3%, with 97% of samples passing the attribute target.
- There should be no patches greater than 100 m2 of either intensely disturbed bare ground\* or bare peat with a hard, rubbery or ashed surface. No disturbed bare ground was recorded as a pressure nor mentioned as a concern in surveyor comments.
- Less than 1% of vegetation cover should be made up of non-native species. Passes this monitoring attribute as the mean value was 0.2%. However, 87% of samples passed the attribute target which is below the 90% pass target that is applied to upland features.
- Less than 10% of the vegetation cover should be made up of bracken. Passes this monitoring attribute with a mean of 6% bracken cover. However, only 87% of samples passed the attribute target which is below the 90% pass target that is applied to upland features.
- Less than 10% of the vegetation cover should consist of *Juncus effusus* soft rush. Passes this monitoring attribute at both a quadrat and visible extent scale with a mean value of 0% and 0.2% respectively and all samples passing the attribute target.
- Less than 20% of the vegetation cover should be made up of scattered native trees and scrub. Passes this monitoring attribute with a mean value of 2% and 97% of samples passing the attribute target.
- At least 1 species of moss or liverwort or non-crustose lichen should be present. Passes this monitoring attribute as every sample had a moss, liverwort or non-crustose lichen present.
- At least 50% of vegetation cover should be made up of indicator species; *Calluna vulgaris* heather, *Erica* spp., *Vaccinium* spp. bilberry, *Ulex gallii* Western gorse. Passes this monitoring attribute with a mean cover of 59%. However, only 67% of samples passed the attribute target which fails the 90% pass that is required for upland features.
- At least 25% of dwarf-shrub cover should be made up of *Calluna vulgaris* heather, *Erica* spp., *Vaccinium* spp. bilberry. Passes this monitoring attribute with a mean value of 34%. However, only 67% of samples passed the attribute target which fails the 90% pass that is required for upland features.
- There should be less than 50% of total cover of *Ulex gallii* western gorse. Passes this monitoring attribute as the mean cover of western gorse was 25%. However, only 82% of samples passed the attribute target which fails the 90% pass that is required for upland features.
- There should be no signs of burning inside the boundaries of sensitive areas. No burning was recorded as a pressure nor mentioned in surveyor comments.
- At least 5% of dry heath across the whole site should be excluded from burning. No burning was recorded as a pressure nor mentioned in surveyor comments.
- Less than 33% of the shoots of dwarf-shrub species collectively should shows signs of browsing. Passes this monitoring attribute with a mean of 12% browsed dwarf shrub. However, only 89% of samples passed the attribute target which fails the 90% pass that is required for upland features.
- In pioneer stage regrowth less than 66% of the shoots of the dwarf-shrubs, collectively, should show signs of browsing. Passes this monitoring attribute with a mean of 11% browsed

pioneer heath and all stops passing the attribute target. This assessment is based only on the 29 samples where pioneer heath was present.

An analysis of the SSSIs individual monitoring attributes found the following attributes failed the whole feature assessment when only the mean value of all thirty-nine subalpine dwarf shrub heath stops are considered:-

- Less than 1% of the vegetation cover should consist of invasive "weedy" species (collectively *Cirsium arvense* creeping thistle, *Cirsium vulgare* spear thistle, large docks (excluding *Rumex acetosa* common sorrel), *Ranunculus repens* creeping buttercup, or *Urtica dioica* nettle). Fails the monitoring attribute as 5% mean found at visible extent scale and only 69% of samples passed the attribute target. No weedy species were recorded at quadrat scale. However, an additional record of negative indicators 'all' at quadrat scale gives a mean value of 4% cover. The monitoring specification only asks for 'weedy species' to be recorded and as the negative indicator 'all' record does not detail what sps etc are included or the target to assess against, the analysis cannot take this record into account and is just based on the 'weedy species' record which is passed at quadrat scale.
- Pioneer stage regrowth should make up 5 to 10% of ground cover. Fails this monitoring attribute as only 8% of samples met the attribute target.

The attribute 'All *Calluna* heather growth stages are present' is not included in the current monitoring specification for East Dartmoor SSSI. This is likely to be an error as it is usually a mandatory attribute and therefore records have been taken so that the age structure of heather across the feature can be assessed. Passes this monitoring attribute when considering the mean of all samples taken. 3% found in pioneer, 86% in building and mature, 4% in degenerate and 1% dead heather found. However, the average number of growth phases per sample was 2.5 and only 3% of samples had all growth stages present. In addition, the attribute 'At least 10% heather cover should be in mature stage' is not included in the current monitoring specification. However, records were taken against this attribute to further understand the age structure of heather. Passes this monitoring attribute with 95 % of samples meeting the attribute target.

#### Summary of Surveyor Comments and Recommendations

Surveyors observed that bracken was frequent in the subalpine dwarf shrub heath and dominated some areas. The recording of bracken was thought to be conservative due to the time of year of survey when bracken was not as evident. Molinia was found in most samples at varying levels, within some areas Molinia was found to be dominating the heath. Gorse made up a large component of the heath, it was observed that bilberry was more heavily grazed where this occurred. Conifers were noted by a number of surveyors, however, it is not evident from comments whether these are producing seedlings and are a concern or whether they occur as a rarity. Grazing was noted and in some areas this was recorded as being at high levels. For the majority of units where subalpine dwarf shrub heath was recorded it was found to be very even aged, with little pioneer heath. Land management – over grazing and Weeds / Inappropriate species will be recorded as pressures to achieving favourable condition for subalpine dwarf shrub heath interest feature.