

Quadrat 10 missing

51  
T21

## SITE DESCRIPTION OF FOVERAN LINKS

These dunes lie between the River Ythan, which divides these dunes from the Sands of Forvie to the north, and run 3.5 km south to Leyton Farm. The SSSI boundary, which ends just north of the farm, was taken as the limit of survey, although the dunes themselves continue southwards in a long, narrow strip to Aberdeen. The dunes consist of several high ridges at the seaward edge with sand blown up over the rising land behind to form links.

The most notable physical feature of the dunes are a series of extensive blowouts which extend across more or less the full width of the SSSI. The largest is on the Foveran links where sand has been blown into great ridges and is advancing over the vegetated areas beyond. The most interesting of the blowouts is that on Menie links which can be seen, from the aerial photographs, to have moved several 100 m northwards in the fifteen years since the pictures were taken. Fossil dune soils have been exposed in the blowout at the southern end and these now show an interesting sequence of colonisation.

NB 15 years

Much of the system is covered by highly mobile foredune communities SD6a and SD6d species poor *Ammophila arenaria* mobile dune, especially at the ends of the site. In areas less effected by the blowouts these mobile communities are backed by semi-fixed SD7a *Ammophila arenaria-Festuca rubra* community.

Towards the inland margins there are substantial areas of rather acid grassland of the SD12 *Carex arenaria-Festuca ovina-Agrostis capillaris* community. In more sheltered hollows mosses and lichens are a prominent feature of the community forming a carpet amongst the sand sedge. The extensive grazing at Foveran has probably helped to maintain the SD12 grassland in favour of heath communities. The SD12 community, more common on the west coast, exhibits a typical transition to heath.

The *Empetrum nigrum* sub community of H11 *Calluna vulgaris-Carex arenaria* dune heath is of particular interest. Menie links has some good areas of damp, *Empetrum nigrum* dominated heath towards the inland margin. Some of these blocks of heathland have a prominent *Juncus squarrosus* component and appear to be transitional between H11 and U6 communities. The humus content of the fossil soils suggests that dune heath was probably more extensive before the blowout developed. The pasture beyond the landward limit of the SSSI boundary retains a heath element though the greater grazing pressure there is reducing the heath vegetation in favour of more grassy swards. Here there is a gradual transition to damp neutral grassland with *Juncus effusus*.

The Menie links is the only section of the site where the full sequence of communities from shore line to the back of the links has been preserved. The sequence of recolonising vegetation in the wake of the Menie blowout extends south of the SSSI boundary. A considerable part of this appears intact though the NVC survey did not extend to cover this area.

There are some well developed dune slacks behind the mobile dune ridges. These are all of the SD17 *Potentilla anserina-Carex nigra* community.

The Menie links, at the south end of the site, are substantially intact but, elsewhere, much of the landward edge of the site has been greatly modified for agriculture. Most of the dunes are grazed to a greater or lesser extent and areas along the landward edge of the SSSI on Foveran and Drums links have been enclosed for stock feeding.



Scrub control (Y/N) N Adjacent semi DAMP NEUTRAL GRASSLAND  
 natural vegn. ULEX SCRUB

--- Animal grazing information -----

|                   | level of grazing |     |       | season |     |     |     | area grazed<br>(ha) |
|-------------------|------------------|-----|-------|--------|-----|-----|-----|---------------------|
|                   | light            | mod | heavy | win    | spr | sum | aut |                     |
| Stock animals     |                  |     |       |        |     |     |     |                     |
| Cattle            |                  | Y   | Y     | Y      | Y   | Y   |     | 10                  |
| Sheep             |                  | Y   |       |        | Y   | Y   |     | 10                  |
| Non-stock animals |                  |     |       |        |     |     |     |                     |
| Rabbits           |                  | Y   | Y     | Y      | Y   | Y   | Y   | 150                 |
| Hares             | Y                |     |       | Y      | Y   | Y   | Y   |                     |

Stock Feeding  
 Moderate local

--- Damage to the site -----

Area affected by fires (ha) 1

| Erosion Damage | (L/W) | Vehicle Damage | (L/W) |
|----------------|-------|----------------|-------|
| Negligible     | W     | Negligible     |       |
| Light          |       | Light          | W     |
| Moderate       |       | Moderate       |       |
| Severe         |       | Severe         |       |

--- Golf course information -----

Golf course total area (ha) 0

% ages (approx.) of the total site within the golf course

Unmodified          Modified          "Improved"

--- Forestry information -----

Conifer area (ha) 0  
 Broadleaf area (ha) 0

--- Aerial photography information -----

Details of aerial photographs used for mapping:

Sortie flown by BKS

Date flown 04-06-1976

Scale 1:11,000

Print nos. 8004  
8005  
8064  
8065  
4159

Foveran Links: Mobile and semi-fixed communities

Quadrat number      15      12      19 13      14 17  
                          SD6a   SD6d   SD6e      SD7a

← Name on Marie Estre

|    |                              |     |     |         |             |
|----|------------------------------|-----|-----|---------|-------------|
| 1  | Grid reference 100km square  | NJ  | NJ  | NJ NJ   | NK NJ NJ    |
| 2  | Grid reference easting       | 997 | 996 | 995 995 | 4 996 997   |
| 3  | Grid reference northing      | 224 | 219 | 215 219 | 245 224 226 |
| 5  | Slope (degrees)              | 40  | 20  | 30 30   | 5 15 10     |
| 6  | Aspect (degrees)             | 125 | 215 | 180 260 | 265 250 280 |
| 11 | Herb height (centimetres)    | 32  | 32  | 46 42   | 39 5 22     |
| 22 | Bare soil/litter (incl.sand) | 70  | 80  | 75 60   | --- 10 30   |
| 17 | Ph (2 numerals no point)     | --- | 8.1 | ---     | 7.0 --- 6.2 |

|      |                                       |   |   |     |       |       |      |
|------|---------------------------------------|---|---|-----|-------|-------|------|
| 159  | <i>Ammophila arenaria</i>             | 6 | 5 | 6 6 | 8 4 6 | V     | NVC  |
| 116  | <i>Elymus farctus boreali-atlanti</i> | 3 |   |     |       |       | I    |
| 576  | <i>Festuca rubra</i>                  |   |   | 3 3 | 3 3 3 | IV    |      |
| 988  | <i>Poa pratensis</i>                  |   |   | 2   | 6 3 3 | III   |      |
| 70   | <i>Trichoeris radicata</i>            |   |   |     | 1     | I     | (IV) |
| 304  | <i>Carex arenaria</i>                 |   |   |     | 4 3   | II    | III  |
| 1239 | <i>Senecio jacobaea</i>               | 1 |   | 1   | 3     | 2 III | IV   |
| 384  | <i>Cerastium fontanum triviale</i>    |   |   |     | 3 3 2 | III   |      |
| 680  | <i>Holcus lanatus</i>                 |   |   |     | 3 4 5 | III   |      |
| 288  | <i>Campanula rotundifolia</i>         |   |   |     | 3 3   | II    |      |
| 385  | <i>Cerastium semidecandrum</i>        |   |   |     | 3 3   | II    |      |
| 391  | <i>Epilobium angustifolium</i>        |   |   | 3   | 3     | II    |      |
| 415  | <i>Cirsium arvense</i>                |   | 1 | 1   |       | II    |      |
| 888  | <i>Myosotis ramosissima</i>           |   |   |     | 2 3   | II    |      |
| 1510 | <i>Brachythecium albicans</i>         |   |   |     | 5 6   | II    |      |
| 2707 | <i>Vicia sativa</i>                   |   |   |     | 3 1   | II    |      |
| 104  | <i>Achillea millefolium</i>           |   |   |     | 1     | I     |      |
| 123  | <i>Agrostis capillaris</i>            |   |   |     | 4     | I I   |      |
| 124  | <i>Aira caryophyllea</i>              |   |   |     | 3     | I     |      |
| 125  | <i>Aira praecox</i>                   |   |   |     | 3     | I I   |      |
| 171  | <i>Anthoxanthum odoratum</i>          |   |   |     | 3     | I     |      |
| 381  | <i>Cerastium diffusum diffusum</i>    |   |   |     | 1     | I     |      |
| 465  | <i>Dactylis glomerata</i>             |   |   |     | 1     | I     |      |
| 513  | <i>Plantago arenarius</i>             |   |   |     | 3     | I     |      |
| 610  | <i>Callium saxatile</i>               |   |   |     | 3     | I     | -    |
| 758  | <i>Lathyrus pratensis</i>             |   |   |     | 1     | I     |      |
| 768  | <i>Leontodon autumnalis</i>           |   |   |     | 3     | I     |      |
| 807  | <i>Luzula campestris</i>              |   |   |     | 3     | I     |      |
| 965  | <i>Hieracium pilosella group</i>      |   |   |     | 4     | I     |      |
| 981  | <i>Poa annua</i>                      |   |   |     | 2     | I     |      |
| 1393 | <i>Veronica arvensis</i>              |   |   |     | 2     | I     |      |
| 1422 | <i>Viola canina</i>                   |   |   |     | 2     | I     |      |
| 1432 | <i>Viola tricolor</i>                 |   |   |     |       | 3 I   |      |
| 1519 | <i>Brachythecium rutabulum</i>        |   |   |     |       | 6 I   |      |
| 1531 | <i>Bryum capillare</i>                |   |   |     | 3     | I     |      |
| 1677 | <i>Eurhynchium praelongum</i>         |   |   |     | 4     | I     |      |
| 1872 | <i>Pleurozium schreberi</i>           |   |   |     | 1     | I     |      |
| 1914 | <i>Pseudoscleropodium purum</i>       |   |   |     | 4     | I     |      |
| 1940 | <i>Rhytidiadelphus squarrosus</i>     |   |   |     | 7     | I     |      |
| 2807 | <i>Bryum sp</i>                       |   |   |     |       | 2 I   |      |
| 3000 | <i>Viola tricolor curtisii</i>        |   |   |     | 2     | I     |      |

Number of species per sample    3    1    3    6    20 23 13

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|      |                                 |   |   |   |   |   |
|------|---------------------------------|---|---|---|---|---|
| 746  | <i>Koeleria macrantha</i>       |   |   | 4 |   | I |
| 973  | <i>Plantago lanceolata</i>      |   |   | 3 |   | I |
| 1015 | <i>Polypodium vulgare</i>       | 2 |   |   |   | I |
| 1106 | <i>Rhinanthus minor</i>         |   | 1 |   |   | I |
| 1140 | <i>Rumex acetosella</i>         |   |   |   | 2 | I |
| 1179 | <i>Salix repens</i> agg.        |   | 7 |   |   | I |
| 1427 | <i>Viola palustris</i>          |   | 3 |   |   | I |
| 1429 | <i>Viola riviniana</i>          | 2 |   |   |   | I |
| 1432 | <i>Viola tricolor</i>           |   | 1 |   |   | I |
| 1519 | <i>Brachythecium rutabulum</i>  |   | 1 |   |   | I |
| 1894 | <i>Polytrichum juniperinum</i>  |   |   |   | 6 | I |
| 2244 | <i>Ptilidium ciliare</i>        |   | 2 |   |   | I |
| 2359 | <i>Cladonia finbriata</i>       |   |   |   | 1 | I |
| 2366 | <i>Cladonia impexa</i>          |   |   |   | 1 | I |
| 2381 | <i>Cladonia rangiformis</i>     |   |   |   | 3 | I |
| 2383 | <i>Cladonia squamosa</i>        |   |   |   | 1 | I |
| 2698 | <i>Pseudevernia furfuracea</i>  |   | 1 |   |   | I |
| 3007 | <i>Cladonia chlorophaea</i> agg |   | 1 |   |   | I |
| 994  | <i>Polygala serpyllifolia</i>   |   |   |   | + | - |

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| Number of species per sample | 19 | 12 | 15 | 22 | 19 | 23 | 29 | 23 |
|------------------------------|----|----|----|----|----|----|----|----|
|------------------------------|----|----|----|----|----|----|----|----|

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Foveran Links: Heath and upland communities

Quadrat number                    7   8   20        22  
    H11a   H11a/U6d

|       |                                    |     |     |     |       |
|-------|------------------------------------|-----|-----|-----|-------|
| 1     | Grid reference 100km square        | NJ  | NJ  | NJ  | NJ    |
| 2     | Grid reference easting             | 988 | 985 | 993 | 992   |
| 3     | Grid reference northing            | 217 | 212 | 216 | 215   |
| 5     | Slope (degrees)                    | 5   | 25  | 0   | 0     |
| 6     | Aspect (degrees)                   | 80  | 290 | --- | ---   |
| 11    | Herb height (centimetres)          | 8   | 6   | 13  | 10    |
| 22    | Bare soil/litter (incl.sand)       | 0   | 0   | 0   | 5     |
| 17    | Ph (2 numerals no point)           | --- | 6.2 | 5.8 | ---   |
| <hr/> |                                    |     |     |     |       |
| 515   | <i>Empetrum nigrum nigrum</i>      | 1   | 5   | 8   | 7 V   |
| 278   | <i>Calluna vulgaris</i>            | 8   | 3   |     | 4 IV  |
| 304   | <i>Carex arenaria</i>              | 3   | 2   |     | III   |
| 574   | <i>Festuca ovina</i>               | 5   |     | 7   | III   |
| 807   | <i>Luzula campestris</i>           | 3   | 4   | 3   | IV    |
| 1872  | <i>Pleurozium schreberi</i>        |     |     |     | 6 II  |
| 123   | <i>Agrostis capillaris</i>         |     | 6   |     | 3 III |
| 736   | <i>Juncus squarrosus</i>           |     | 1   | 2   | 7 IV  |
| 809   | <i>Luzula multiflora</i>           |     |     |     | 3 II  |
| 171   | <i>Anthoxanthum odoratum</i>       | 3   | 2   |     | 3 IV  |
| 1638  | <i>Dicranum scoparium</i>          |     | 1   |     | 5 III |
| 800   | <i>Lotus corniculatus</i>          | 3   | 4   | 4   | 2 V   |
| 1914  | <i>Pseudoscieropodium purum</i>    | 7   | 4   |     | 1 IV  |
| 104   | <i>Achillea millefolium</i>        |     | 2   | 3   | III   |
| 610   | <i>Galium saxatile</i>             | 4   | 3   |     | III   |
| 680   | <i>Holcus lanatus</i>              |     | 4   | 3   | III   |
| 1179  | <i>Salix repens</i> agg.           |     |     | 4   | 3 III |
| 1239  | <i>Senecio jacobaea</i>            |     | 1   | 1   | III   |
| 1350  | <i>Trifolium repens</i>            |     | 1   | 3   | III   |
| 1401  | <i>Veronica officinalis</i>        | 3   |     | 1   | III   |
| 1761  | <i>Hylocomium splendens</i>        | 5   |     | 7   | III   |
| 1940  | <i>Rhytidiadelphus squarrosus</i>  | 3   | 5   |     | III   |
| 2362  | <i>Cladonia furcata</i>            |     | 5   |     | 1 III |
| 159   | <i>Ammophila arenaria</i>          | 3   |     |     | II    |
| 230   | <i>Bellis perennis</i>             |     | 1   |     | II    |
| 333   | <i>Carex nigra</i>                 |     |     |     | 1 II  |
| 384   | <i>Cerastium fontanum triviale</i> | 2   |     |     | II    |
| 542   | <i>Erica tetralix</i>              |     |     |     | 5 II  |
| 706   | <i>Hypochoeris radicata</i>        |     | 4   |     | II    |
| 768   | <i>Leontodon autumnalis</i>        |     | 2   |     | II    |
| 988   | <i>Poa pratensis</i>               |     |     | 3   | II    |
| 994   | <i>Polygala serpyllifolia</i>      |     |     |     | 1 II  |
| 1059  | <i>Prunella vulgaris</i>           |     |     | 2   | II    |
| 1381  | <i>Valeriana officinalis</i>       |     | 3   |     | II    |
| 1422  | <i>Viola canina</i>                |     |     | 2   | II    |
| 1894  | <i>Polytrichum juniperinum</i>     |     | 2   |     | II    |
| 1941  | <i>Rhytidiadelphus triquetrus</i>  |     |     | 4   | II    |
| 2168  | <i>Lophocolea cuspidata</i>        |     |     | 1   | II    |
| 2340  | <i>Cladonia arbuscula</i>          | 1   |     |     | II    |
| 2359  | <i>Cladonia fimbriata</i>          |     | 2   |     | II    |
| 2492  | <i>Peltigera polydactyla</i>       |     |     |     | 2 II  |
| 3192  | <i>Dactylorhiza</i> sp.            |     |     | 1   | II    |

Number of species per sample    15   23   18        16

| Map Comments.....   | species names.....          | Dominance keywords..... | scores    |
|---|-----------------------------|-------------------------|-----------|
| 10.   |                             |                         |           |
| 1 Ammophila with scattered Leymus arenarius and much bare sand. Face of eroding foredune. | Ammophila arenaria          | D                       | SD6c      |
|   | Leymus arenarius            | 0                       |           |
| 2 Fixed dune grassland.   | Festuca rubra               |                         | SD8b      |
|   | Galium verum                |                         |           |
|   | Poa pratensis               |                         |           |
|   | Lotus corniculatus          |                         |           |
|   | Cerastium fontanum triviale |                         |           |
|   | Luzula campestris           |                         |           |
|   | Hieracium pilosella group   |                         |           |
|   | Agrostis capillaris         |                         |           |
|   | Anthoxanthum odoratum       |                         |           |
|   | Festuca ovina               |                         |           |
|   | Ammophila arenaria          |                         |           |
|   | Hypogymnia physodes         |                         |           |
|   | Peltigera canina            |                         |           |
|   | Cornicularia aculeata       |                         |           |
|   | Pseudevernia furfuracea     |                         |           |
|   | Cladonia rangiformis        |                         |           |
|   | Rhytidiadelphus squarrosus  |                         |           |
|   | Dicranum scoparium          |                         |           |
|   | Viola tricolor              |                         |           |
|   | Brachythecium albicans      |                         |           |
|   | Rhytidiadelphus triquetrus  |                         |           |
|   | Ceratodon purpureus         |                         |           |
| 3 Area of bare sand and shingle in a depression with a sparse covering of sand sedge.     | Carex arenaria              | 0                       | BS/SD10a  |
|   | Festuca rubra               |                         |           |
|   | Viola tricolor curtisii     |                         |           |
|   | Aira caryophyllea           |                         |           |
| 4 Depression with bare sand and scattered shingle dominated by Polytrichum juniperinum.   | Polytrichum juniperinum     | D                       | SD12      |
|   | Festuca rubra               | 0                       |           |
|   | Agrostis capillaris         |                         |           |
|   | Galium saxatile             |                         |           |
|   | Viola tricolor curtisii     |                         |           |
|   | Carex arenaria              |                         |           |
|   | Festuca ovina               |                         |           |
|   | Ammophila arenaria          |                         |           |
| 5 Patches of Salix caprea scrub on dune slopes edging a slack.                            | Salix caprea (s)            | LA                      | SD9a/SD16 |
|   | Salix aurita                |                         |           |
|   | Heracleum sphondylium       |                         |           |
|   | Cirsium palustre            |                         |           |
|   | Filipendula ulmaria         |                         |           |
|   | Cirsium arvense             |                         |           |
|   | Ranunculus repens           |                         |           |
|   | Lychnis flos-cuculi         |                         |           |
|   | Rumex crispus               |                         |           |
|   | Galium aparine              |                         |           |
|   | Ammophila arenaria          |                         |           |
|   | Holcus lanatus              |                         |           |

Map Comments..... species names..... Dominance keywords.....  
 10. scores

Salix repens agg.  
 Plantago lanceolata  
 Poa pratensis  
 Carex arenaria  
 Festuca rubra  
 Lotus corniculatus  
 Senecio jacobaea  
 Epilobium angustifolium  
 Achillea millefolium

46 Sparse *Ammophila* developing on hummocks of sand along the strandline.

*Ammophila arenaria* 0 SD4  
*Elymus farctus boreali-atlanticus*  
*Leymus arenarius*  
*Cakile maritima*

47 *Ammophila* and *Elymus farctus* on blown sand from an enlarging blow-put.

*Ammophila arenaria* SD6a  
*Elymus farctus boreali-atlanticus*

7 *Ammophila* dominant, with *F. rubra* and associated herbs:

*Ammophila arenaria* D SD6e  
*Festuca rubra*  
*Senecio jacobaea*  
*Cirsium arvense*  
*Epilobium angustifolium*  
*Holcus lanatus*  
*Cerastium fontanum triviale*  
*Aira caryophylla*  
*Poa pratensis*  
*Cerastium semidecandrum*  
*Rumex acetosella*  
*Senecio vulgaris*  
*Agrostis capillaris*  
*Brachytecium albicans*  
*Pseudoscleropodium purum*  
*Ceratodon purpureus*

49 Rough, tussocky grassland with a closed cover:

*Ammophila arenaria* A SD9a/SD12b  
*Festuca rubra*  
*Holcus lanatus*  
*Campanula rotundifolia*  
*Carex arenaria*  
*Cirsium arvense*  
*Galium verum*  
*Achillea millefolium*  
*Poa pratensis*  
*Cerastium fontanum triviale*  
*Valeriana officinalis*  
*Heracleum sphondylium*  
*Senecio jacobaea*  
*Lathyrus pratensis*  
*Hylacomium splendens*  
*Rhynchospora squarrosus*  
*Anthriscus sylvestris*

KCC Coastal Habitats Database - Sand Dune Systems

Target notes - Species list and basic information

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| Map Comments.....  | species names.....  | Dominance keywords..... | scores..... |
|--|---|-------------------------|-------------|
| 10 Semi-improved pasture grazed by cattle, sheep, rabbits and hares.                   | <p>Trifolium repens</p> <p>Poa pratensis</p> <p>Holcus lanatus</p> <p>Cerastium fontanum triviale</p> <p>Rhynchospora squarrosus</p> <p>Festuca rubra</p> <p>Ammophila arenaria</p> <p>Urtica dioica</p> <p>Agrostis capillaris</p>   |                         | Other       |
| 11 Low, wet slack - no vegetation, just bare sand. BS                                  |   |                         |             |
| 12 Sparse vegetation cover of Ammophila/Juncus articulatus and Carex arenaria.         | <p>Ammophila arenaria</p> <p>Juncus articulatus</p> <p>Carex arenaria</p> <p>Tussilago farfara</p> <p>Ranunculus repens</p> <p>Cirsium arvense</p> <p>Sagina procumbens</p> <p>Potentilla anserina</p> <p>Senecio jacobaea</p>  | CD                      | SD6d/Other  |
| 13 Vegetation similar to Q6 (SD12) but dominated by Epilobium angustifolium.           | <p>Epilobium angustifolium</p>  | D                       | SD12        |
| 14 Semi-improved pasture.  | <p>Lolium perenne</p> <p>Poa pratensis</p> <p>Anthoxanthum odoratum</p> <p>Poa pratensis</p> <p>Ammophila arenaria</p>  | R                       | MG7         |
| 15 Slack in old stream bed on border of SSSI.  | <p>Bryum pseudotriquetrum</p> <p>Salix repens agg.</p> <p>Juncus effusus</p> <p>Aira caryophyllea</p> <p>Juncus squarrosus</p> <p>Agrostis stolonifera</p> <p>Cirsium arvense</p> <p>Rhynchospora squarrosus</p> <p>Urtica dioica</p> <p>Ranunculus flammula</p> <p>Potentilla anserina</p> <p>Carex arenaria</p> <p>Ranunculus repens</p> <p>Galium palustre</p> <p>Epilobium angustifolium</p> <p>Brachythecium rutabulum</p> <p>Pellia endiviifolia</p> <p>Homalothecium lutescens</p> <p>Pseudoscleropodium purum</p> |                         | SD13/Other  |
| 16 Level, rabbit grazed area with Carex arenaria and Achillea millefolium co-dominant. | <p>Holcus lanatus</p> <p>Galium verum</p> <p>Plantago lanceolata</p>  |                         |             |

Map Comments..... species names..... Dominance keywords.....  
no. scores

|   |  |          |
|---|--|----------|
| 17 Grassland on the seaward side dune face; some rabbit grazing.  | <p>Anthoxanthum odoratum</p> <p>Agrostis capillaris<br/>Holcus lanatus<br/>Aira praecox<br/>Aira caryophyllea<br/>Lotus corniculatus<br/>Carex arenaria<br/>Vicia sativa<br/>Veronica officinalis<br/>Empetrum nigrum nigrum<br/>Polytrichum juniperinum<br/>Sagina procumbens<br/>Trifolium dubium<br/>Hypochoeris radicata<br/>Festuca rubra<br/>Cerastium fontanum triviale<br/>Luzula campestris<br/>Ulex europaeus (s)<br/>Achillea millefolium<br/>Rhytidadelphus squarrosus<br/>Poa pratensis<br/>Juncus inflexus<br/>Juncus effusus<br/>Epilobium angustifolium<br/>Cladonia furcata<br/>Peltigera polydactyla</p> | SD12a    |
| 18 Grassland dominated by Juncus effusus. Similar to Q9 but Carex nigra is not abundant.                                | <p>Juncus effusus</p> <p>Anthoxanthum odoratum<br/>Carex nigra<br/>Viola palustris<br/>Holcus lanatus<br/>Poa pratensis</p>  | D Other  |
| 19 Salix cinerea/Juncus effusus scrub.  | <p>Salix cinerea (s)<br/>Juncus effusus</p>  | CD Other |
| 20 Sand advancing into Empetrum heath with other species taking advantage of the open ground, such as Senecio jacobaea. | <p>Ammophila arenaria</p> <p>Senecio jacobaea<br/>Luzula campestris<br/>Agrostis capillaris<br/>Empetrum nigrum nigrum</p>   | H11a/BS  |
| 21 Burn flowing in a deep valley of its own making. Bed c. 1m wide, the banks bare and sandy with a narrow fringe of:   | <p>Caltha palustris</p> <p>Juncus effusus<br/>Mentha aquatica<br/>Equisetum palustre<br/>Ranunculus repens<br/>Rumex crispus</p>   | Other    |

Map Comments..... species names..... Dominance keywords.....  
no. scores

22 Very weedy area of dune enclosed by two fences and *Ammophila arenaria* apparently ungrazed. MG1d

*Dactylis glomerata*  
*Poa pratensis*  
*Heracleum sphondylium*  
*Plantago lanceolata*  
*Achillea millefolium*  
*Urtica dioica*  
*Epilobium angustifolium*  
*Holcus mollis*  
*Galium verum*  
*Viola canina*

23 Small pine plantation c. 2 years old. Other.

24 Low, well grazed sward. Other.

|                                |   |       |
|--------------------------------|---|-------|
| <i>Holcus lanatus</i>          | D | Other |
| <i>Epilobium angustifolium</i> | A |       |
| <i>Carex arenaria</i>          |   |       |
| <i>Urtica dioica</i>           |   |       |
| <i>Rhynchospora squarrosus</i> |   |       |
| <i>Ranunculus repens</i>       |   |       |
| <i>Cirsium arvense</i>         |   |       |
| <i>Viola canina</i>            |   |       |
| <i>Heracleum sphondylium</i>   |   |       |
| <i>Galium aparine</i>          |   |       |

25 Damp area of *Salix* scrub with:

|                            |   |             |
|----------------------------|---|-------------|
| <i>Salix caprea</i> (s)    | D | MG10a/Other |
| <i>Ulex europaeus</i> (s)  | O |             |
| <i>Juncus effusus</i>      | O |             |
| <i>Holcus lanatus</i>      | D |             |
| <i>Pilipendula ulmaria</i> |   |             |
| <i>Ranunculus repens</i>   | A |             |
| <i>Dryopteris dilatata</i> | F |             |
| <i>Urtica dioica</i>       | O |             |
| <i>Stellaria media</i>     | F |             |
| <i>Galium aparine</i>      | A |             |

26 Stream, now 2-3m wide, still with a bare, sandy bed but the banks vegetated, at this point, with a narrow fringe of damp grassland similar to T24. Other (as T24).

27 Short turf used for drying salmon nets. Other.

28 Area used intensively for stock feeding. The bare sand is littered with straw and colonised by ruderal species. Other.

29 Dune vegetation heavily trampled by stock and very *Ammophila arenaria* enriched. SD12

*Carex arenaria*  
*Holcus lanatus*  
*Agrostis capillaris*  
*Senecio jacobaea*  
*Poa pratensis*

30 Mouth of rather polluted stream occupied by a dense sward of emergent *Glyceria maxima*.

|                              |   |    |
|------------------------------|---|----|
| <i>Glyceria maxima</i>       | D | S5 |
| <i>Nasturtium officinale</i> | O |    |

| Map Comments.....  | species names.....      | Dominance keywords..... | scores..... |
|--|-------------------------|-------------------------|-------------|
|  | Callitriche seedling/sp |                         | 0           |
| 31 Very heavily trampled slack in an area used by overwintering cattle. Much bare ground and some Salix caprea, the bark on which has been stripped.                             | Salix caprea (s)        |                         | 0 Other     |
|  | Salix repens agg.       |                         |             |
|  | Carex arenaria          |                         |             |
|  | Valeriana officinalis   |                         |             |
|  | Pestuca rubra           |                         |             |
|  | Filipendula ulmaria     |                         |             |
|  | Rhynchospora squarrosus |                         |             |
|  | Holcus lanatus          |                         |             |
|  | Poa annua               |                         |             |
| 32 Steep sided ditch dug since the 1976 aerial photos were taken. Water clear but the abundance of cot-weed suggesting pollution at some stage. Bankside vegetation consists of: | Senecio jacobaea        |                         |             |
| 33 Much improved grassland in links behind dunes and being grazed by sheep at the time of survey.  | Holcus lanatus          | D                       | Other       |
|  | Urtica dioica           | A                       |             |
|  | Filipendula ulmaria     | A                       |             |
|  | Caltha palustris        |                         |             |
|  | Heracleum sphondylium   |                         |             |
|  | Galium aparine          |                         |             |
|  | Cirsium palustre        |                         |             |
|  | Dactylis glomerata      |                         |             |
|  | Potentilla anserina     |                         |             |
| 34 Heavily grazed slack, surrounded by rings of bare sand and Juncus effusus. Central area of damp sand and an open sward of:  | Juncus bufonius         |                         | SD16d       |
|  | Juncus articulatus      |                         |             |
|  | Ranunculus flammula     |                         |             |
|  | Sagina procumbens       |                         |             |
|  | Holcus lanatus          |                         |             |
|  | Senecio jacobaea        |                         |             |
|  | Cirsium palustre        |                         |             |
|  | Poa annua               |                         |             |
|  | Agrostis stolonifera    |                         |             |
| 35 Closely rabbit grazed slack.  | Salix repens agg.       |                         | Other       |
|  | Anthoxanthum odoratum   |                         |             |
|  | Holcus lanatus          |                         |             |
|  | Agrostis capillaris     |                         |             |
|  | Trifolium repens        |                         |             |
|  | Rhynchospora squarrosus |                         |             |
|  | Plantago lanceolata     |                         |             |
|  | Senecio jacobaea        |                         |             |
|  | Viola canina            |                         |             |
|  | Galium verum            |                         |             |
| 6 Sheet of highly mobile sand with an open sward of Juncus articulatus, Potentilla anserina and Ammophila, interspersed with small sandy hummocks                                | Juncus articulatus      | D                       | SD6a+Other  |

Map Comments..... species names..... Dominance keywords.....  
no. scores

of SD6a vegetation.

|  |   |             |
|--|---|-------------|
| <i>Ammophila arenaria</i>                | F |             |
| <i>Potentilla anserina</i>               | R |             |
| <i>Ammophila arenaria</i>                | D |             |
| <i>Elymus farctus boreali-atlanticus</i> |   | On hummocks |

37 Small slack.

|                              |  |            |
|------------------------------|--|------------|
| <i>Salix repens</i> agg.     |  | SD17/Other |
| <i>Poa pratensis</i>         |  |            |
| <i>Anthoxanthum odoratum</i> |  |            |
| <i>Carex arenaria</i>        |  |            |
| <i>Holcus lanatus</i>        |  |            |
| <i>Carex nigra</i>           |  |            |
| <i>Juncus effusus</i>        |  |            |
| <i>Festuca ovina</i>         |  |            |
| <i>Cardamine pratensis</i>   |  |            |
| <i>Juncus squarrosus</i>     |  |            |

38 Lichen and bryophyte rich, semistable dune.  
Open and heavily grazed by rabbits.

|                                    |  |       |
|------------------------------------|--|-------|
| <i>Ammophila arenaria</i>          |  | SD11a |
| <i>Carex arenaria</i>              |  |       |
| <i>Aira caryophyllea</i>           |  |       |
| <i>Festuca rubra</i>               |  |       |
| <i>Cerastium diffusum diffusum</i> |  |       |
| <i>Myosotis ramosissima</i>        |  |       |
| <i>Epilobium angustifolium</i>     |  |       |
| <i>Peltigera rufescens</i>         |  |       |
| <i>Cladonia fimbriata</i>          |  |       |
| <i>Ceratodon purpureus</i>         |  |       |
| <i>Cladonia furcata</i>            |  |       |
| <i>Cladonia tenuis</i>             |  |       |

39 Damp area on floor of dune slack, much bare sand  
and a sparse vegetation cover of:

|                             |  |       |
|-----------------------------|--|-------|
| <i>Carex arenaria</i>       |  | Other |
| <i>Pleurozium schreberi</i> |  |       |
| <i>Anagallis tenella</i>    |  |       |
| <i>Plantago media</i>       |  |       |
| <i>Poa annua</i>            |  |       |
| <i>Holcus lanatus</i>       |  |       |
| <i>Salix repens</i> agg.    |  |       |
| <i>Aira praecox</i>         |  |       |
| <i>Juncus articulatus</i>   |  |       |
| <i>Festuca rubra</i>        |  |       |
| <i>Prunella vulgaris</i>    |  |       |
| <i>Senecio jacobaea</i>     |  |       |
| <i>Sagina procumbens</i>    |  |       |

40 Slightly damp area of closed turf grazed by  
rabbits and cattle.

|                                |  |     |
|--------------------------------|--|-----|
| <i>Salix repens</i> agg.       |  | SD8 |
| <i>Agrostis capillaris</i>     |  |     |
| <i>Plantago lanceolata</i>     |  |     |
| <i>Senecio jacobaea</i>        |  |     |
| <i>Luzula campestris</i>       |  |     |
| <i>Achillea millefolium</i>    |  |     |
| <i>Centaurea nigra</i>         |  |     |
| <i>Carex arenaria</i>          |  |     |
| <i>Rhynchospora squarrosus</i> |  |     |

Map Comments..... species names..... Dominance keywords.....  
 10. scores

Bellis perennis  
 Lotus corniculatus  
 Trifolium repens

41 Small area of dense Juncus effusus projecting  
 through invading sand.

Juncus effusus D Other

42 Damp, cattle grazes, acid grassland/heath mosaic.

Calluna vulgaris H11a/U6d  
 Carex arenaria  
 Juncus effusus  
 Juncus squarrosus  
 Festuca ovina  
 Luzula campestris  
 Holcus lanatus  
 Anthoxanthum odoratum  
 Anthoxanthum odoratum  
 Galium saxatile  
 Potentilla erecta  
 Hylocomium splendens  
 Pleurozium schreberi  
 Dicranum scoparium  
 Rhytidiadelphus squarrosus

43