

## Further additions to the Inventory of Vascular Plants for the Sefton Coast

Philip H. Smith, January 2008

Following the remarkably productive period of 2005/06, which added 25 new taxa to the Inventory and rediscovered five species thought to be extinct (Smith 2006), 2007 was only marginally less exciting. Eighteen new taxa were identified and White Mignonette (*Reseda alba*), last seen in 1927 in Southport, turned up again on Southport seafront. The most notable find was a single plant of Rock Sea-lavender (*Limonium binervosum* agg.), new to the vice-county, spotted on Birkdale Green Beach by Pat Lockwood. The taxon is probably the nationally rare *Limonium britannicum* ssp. *celticum*, whose nearest locality is Hilbre Island at the mouth of the Dee Estuary, but its identity awaits confirmation. Two rosettes of Common Sea-lavender (*Limonium vulgare*) also appeared on the Green Beach. This species has not been recorded in South Lancashire since the 19<sup>th</sup> century.

Tables 1 & 2 list the additional taxa recorded in 2007, using the same format as the Inventory (Smith 2005).

In December 2007, drafts of *The New Flora of South Lancashire* became available. They include a number of records, previously absent from the Inventory, totalling 47 for the coast, of which 36 occur in the sand-dunes. These are shown in Table 3 with a summary of the data in Table 4. Twenty of the plants have no recent sightings and are presumed extinct. Two critical genera, *Taraxacum* and *Hieracium* are particularly well represented in this new list and, although most of the records are several decades old, these species can only be determined by experts and could therefore still be present on the coast. Table 5 presents a revised summary of the Inventory data, including the new records. With various corrections, these bring the total of vascular taxa for the coast to 1265, of which 1129 are recorded for the dune system. The new totals of nationally and regionally notable plants are 186 for the partnership area and 178 for the dunes, while the revised proportions of non-native taxa are 38.1% and 35.1% for the whole coast and sand-dune system respectively.

Table 6 gives details of 16 taxa previously thought extinct but “rediscovered” since 1999 on the Sefton Coast. Six of these are non-native.

Those taxa (including records from *The New Flora*) now presumed extinct on the Sefton Coast are listed in Table 7. They total 52, of which 16 are non-native. It is now considered that the historical records of the nationally rare Eyebright *Euphrasia ostenfeldii* cannot be substantiated as there is no voucher material (E.F. Greenwood pers. comm.), so this species is deleted from the Inventory

Table 8 provides an updated list of 60 nationally notable plants recorded on the Sefton Coast, while Table 9 analyses the main habitat types in which the vascular taxa are found. The latter shows that “disturbed ground” is by far the most important habitat, including bare ground produced by human agency and grazing animals such as Rabbits (33.4% of occurrences). The second most important is freshwater wetland (18.8%), especially slacks in which are found so many of our duneland specialities and rarities. Fixed-dune is also an important habitat (14.2%), while dune-scrub (9.1%), dune-grassland (8.1%) and woodland (including both deciduous and conifer) (7.8%) support relatively few species. The lowest numbers of vascular plants are found on mobile/embryo dunes and strand-line (both 1.1%), presumably because of the extreme environmental conditions associated with these habitats.

A revised full inventory for the coast and the sand-dunes, with various corrections, can be found on the Sefton Coast Partnership web-site, [www.seftoncoast.org.uk](http://www.seftoncoast.org.uk)

### **Acknowledgements**

I am grateful to M.P. Wilcox, G. Clarkson, the Liverpool Botanical Group and the Cleveland Botany Group for contributing records and to D.P. Earl for letting me see drafts of *The New Flora of South Lancashire*.

### **References**

Smith, P.H. (2005). Inventory of Vascular Plants for the Sefton Coast. Unpub. report to

the Sefton Coast Partnership.

Smith, P.H. (2006). A revision of the Inventory of Vascular Plants for the Sefton Coast.  
Unpub. report.

**Table 1. New additions to the Inventory in 2007.**

\* = non-native or introduced native taxon; NR = Nationally Rare; D = recorded in the sand-dune system.

| <b>Taxon</b>                                     | <b>English name</b>      | <b>Status</b> | <b>Main habitat</b>                    |
|--|--------------------------|---------------|--|
| <i>Anthemis arvensis</i> *                       | Corn Chamomile           | Rare          | Disturbed ground                       |
| <i>Arum italicum</i> *                           | Italian Lords-and-Ladies | Rare          | Scrub <b>D</b>                         |
| <i>Atriplex halimus</i> *                        | Shrubby Orache           | Rare          | Disturbed ground <b>D</b>              |
| <i>Crocus tommasinianus</i> x <i>C. vernus</i> * | Hybrid Crocus            | Rare          | Disturbed ground                       |
| <i>Cucurbita pepo</i> *                          | Marrow                   | Rare          | Disturbed ground                       |
| <i>Cyclamen hederifolium</i> *                   | Cyclamen                 | Rare          | Woodland <b>D</b>                      |
| <i>Cyperus eragrostis</i> *                      | Pale Galingale           | Rare          | Amenity grassland                      |
| <i>Dactylorhiza</i> x <i>venusta</i>             | Hybrid Marsh-orchid      | Rare          | Dune grassland, dune slacks <b>D</b>   |
| <i>Digitalis lutea</i> *                         | Yellow Foxglove          | Rare          | Disturbed ground                       |
| <i>Galanthus woronowii</i> *                     | Green Snowdrop           | Rare          | Disturbed ground, fixed-dunes <b>D</b> |
| <i>Lilium</i> x <i>hollandicum</i> *             | Orange Lily              | Rare          | Fixed dune <b>D</b>                    |
| <i>Limonium binervosum</i> agg.<br><b>NR</b>     | Rock Sea-lavender        | Rare          | Salt-marsh <b>D</b>                    |
| <i>Limonium vulgare</i>                          | Common Sea-lavender      | Rare          | Salt-marsh <b>D</b>                    |
| <i>Mycelis muralis</i>                           | Wall Lettuce             | Rare          | Woodland <b>D</b>                      |
| <i>Origanum vulgare</i>                          | Wild Majoram             | Rare          | Scrub <b>D</b>                         |
| <i>Rosa luciae</i> *                             | Memorial Rose            | Rare          | Fixed-dunes <b>D</b>                   |
| <i>Spiraea</i> x <i>pseudosalicifolia</i> *      | Confused Bridewort       | Rare          | Disturbed ground <b>D</b>              |
| <i>Umbilicus rupestris</i>                       | Navelwort                | Rare          | Woodland <b>D</b>                      |

**Table 2. "Extinct" taxa rediscovered in 2007.**

| <b>Taxon</b>         | <b>English name</b> | <b>Status</b> | <b>Main habitat</b> |
|----------------------|---------------------|---------------|---------------------|
| <i>Reseda alba</i> * | White Mignonette    | Rare          | Disturbed ground    |

**Table 3. Additions to the Inventory from *The New Flora of South Lancashire Project*.**

\* = non-native or introduced native taxon; **D** = occurs in sand-dune system **NT** = Near Threatened; **SCI** = Species of Conservation Importance in North West England.

| <b>Taxon</b>   | <b>English name</b>        | <b>Status</b> | <b>Main habitat</b> | <b>Comments</b>  |
|--|----------------------------|---------------|---------------------|--|
| <i>Amsinckia lycopoides</i> *                                  | Scarce Fiddleneck          | Extinct       | Disturbed ground    | Birkdale dunes, 1891, Billups <b>D</b>                       |
| <i>Anchusa azurea</i> *  | Garden Anchusa             | Extinct       | Disturbed ground    | Hall Road-Hightown, 1954, Gordon <b>D</b>                    |
| <i>Anchusa officinalis</i> *                                   | Alkanet                    | Extinct       | Disturbed ground    | Hightown, 1945, Travis <b>D</b>                              |
| <i>Anisantha rigida</i> *                                      | Pignut Brome               | Rare          | Disturbed Ground    | Southport Marine Lake dunes, 2003, Wilcox <b>D</b>           |
| <i>Artemisia dracunculus</i> *                                 | Tarragon                   | Extinct       | Disturbed ground    | Blundellsands, 1943, Massey <b>D</b>                         |
| <i>Bromus hordeaceus</i> ssp. <i>thominei</i>                  | Soft-brome                 | Extinct       | Fixed dune          | Freshfield, Birkdale, 1956, Gordon <b>D</b>                  |
| <i>Bromus lepidus</i> *  | Slender Soft-brome         | Extinct       | Disturbed ground    | Victoria Park, 1952, Allen                                   |
| <i>Bromus</i> x <i>pseudothominei</i>                          | Lesser Soft-brome          | Rare          | Disturbed ground    | Hall Road, 1995, Gordon <b>D</b>                             |
| <i>Cotoneaster mairei</i> *                                    | Maire's Cotoneaster        | Rare          | Disturbed ground    | Southport Marine Lake, 2003, Wilcox                          |
| <i>Dactylorhiza incarnata</i> ssp. <i>pulchella</i> <b>SCI</b> | Hybrid Marsh-orchid        | Extinct       | Dune slack          | Ainsdale, Freshfield, 1935, Holder <b>D</b>                  |
| <i>Dactylorhiza</i> x <i>hallii</i>                            | Hybrid Marsh-orchid        | Extinct       | Dune slack          | Freshfield, 1914, Travis <b>D</b>                            |
| <i>Dahlia pinnata</i> *  | Dahlia                     | Rare          | Disturbed ground    | Near Southport Pier, 1999, Earl                              |
| <i>Dipsacus sativus</i> *                                      | Fuller's Teasel            | Extinct       | Disturbed ground    | Birkdale dunes, 1930, Holder & Wagstaffe <b>D</b>            |
| <i>Erica tetralix</i>  | Cross-leaved Heath         | Extinct       | Dune slack          | Photographed near Fisherman's path, 1950, Blanchard <b>D</b> |
| <i>Erophila majuscula</i>                                      | Hairy Whitlowgrass         | Extinct       | Fixed dune          | 1912, Wheldon <b>D</b>                                       |
| <i>Euphrasia confusa</i>                                       | Eyebright                  | Extinct       | Dune slack          | Hightown, Ainsdale <b>D</b>                                  |
| <i>Festuca filiformis</i> <b>SCI</b>                           | Fine-leaved Sheep's-fescue | Rare          | Dune grassland      | Birkdale Common, 2003, Earl <b>D</b>                         |
| <i>Hieracium</i>   | Hawkweed                   | Rare          | Fixed               | Freshfield dunes, 1961 <b>D</b>                              |

|   |                                   |         |                  |   |
|---|-----------------------------------|---------|------------------|---|
| <i>rubiginosum</i>                              |                                   |         | dune             |   |
| <i>Hieracium subcrassum</i>                     | Hawkweed                          | Rare    | Fixed dune       | Falklands Way, 2001 <b>D</b>                            |
| <i>Hieracium subleptostoides</i>                | Hawkweed                          | Rare    | Fixed dune       | Ainsdale, 1969, Gordon <b>D</b>                         |
| <i>Iris x hollandica*</i>                       | Dutch Iris                        | Rare    | Disturbed ground | Marine Drive Crossens, 1997, Earl                       |
| <i>Lavatera x clementii*</i>                    | Hybrid Tree-mallow                | Rare    | Disturbed ground | Southport Marine Lake, Birkdale Sandhills, <b>D</b>     |
| <i>Lepidium perfoliatum*</i>                    | Perfoliate Pepperwort             | Extinct | Disturbed Ground | Blundellsands, 1902, Green <b>D</b>                     |
| <i>Lotus glaber</i>                             | Narrow-leaved Bird's-foot-trefoil | Extinct | Dune grassland   | Freshfield, Birkdale, 1927, Holder & Wagstaffe <b>D</b> |
| <i>Malva nicaeensis*</i>                        | French Mallow                     | Extinct | Disturbed ground | Woodvale, Southport, Churchtown, 1950 <b>D</b>          |
| <i>Nothofagus obliqua*</i>                      | Roble                             | Rare    | Woodland         | ? 1995, Gordon <b>D</b>                                 |
| <i>Radiola linoides</i> <b>NT</b><br><b>SCI</b> | Allseed                           | Extinct | Dune slack       | Southport, 1837, Anon. <b>D</b>                         |
| <i>Rosa x biturigensis (= cantiana)</i>         | Hybrid rose                       | Rare    | Dune scrub       | Ainsdale dunes, 1951, Holder <b>D</b>                   |
| <i>Rosa virginiana*</i>                         | Virginian Rose                    | Rare    | Dune scrub       | Ravenmeols, 1980, Gordon <b>D</b>                       |
| <i>Senecio x ostenfeldii</i>                    | Hybrid Ragwort                    | Extinct | Scrub            | Victoria Park, Allen                                    |
| <i>Silene nutans</i> <b>NT</b>                  | Nottingham Catchfly               | Rare    | Disturbed ground | Marshside, 2004, Wilcox                                 |
| <i>Solanum rostratum*</i>                       | Buffalo-burr                      | Extinct | Disturbed Ground | Blundellsands, 1887, Mackarell <b>D</b>                 |
| <i>Taraxacum dupledentifrons</i>                | Dandelion                         | Rare    | ?                | Formby, 1975, Gordon                                    |
| <i>Taraxacum fulviforme</i>                     | Dandelion                         | Rare    | Fixed dune       | Ainsdale, 1909, Wheldon <b>D</b>                        |
| <i>Taraxacum glauciniforme</i>                  | Dandelion                         | Rare    | Fixed dune       | Birkdale-Ainsdale, 1970, Greenwood <b>D</b>             |
| <i>Taraxacum hamulatum</i>                      | Dandelion                         | Rare    | Damp grassland   | Freshfield, 1975, Greenwood                             |
| <i>Taraxacum hastophyllum</i>                   | Dandelion                         | Common  | Fixed dune       | Crosby-Ainsdale, 1968, Stace <b>D</b>                   |
| <i>Taraxacum maculosum</i>                      | Dandelion                         | Rare    | ?                | Ainsdale, 1970, Greenwood                               |
| <i>Taraxacum</i>                                | Dandelion                         | Rare    | Dune             | Hightown-Birkdale, 1960,                                |

|  |                     |          |                               |   |
|--|---------------------|----------|-------------------------------|---|
| <i>nordstedii</i>                              |                     |          | grassland                     | <b>D</b>                                    |
| <i>Taraxacum oxoniense</i>                     | Dandelion           | Frequent | Fixed dune                    | Hightown-Ainsdale, 1968, Stace <b>D</b>     |
| <i>Taraxacum palustre</i>                      | Dandelion           | Rare     | Dune slack                    | Ainsdale, 2001, Jones <b>D</b>              |
| <i>Taraxacum pseudolarssoni</i>                | Dandelion           | Rare     | ?                             | Formby, 1975, Gordon                        |
| <i>Taraxacum rubicundum</i>                    | Dandelion           | Rare     | Fixed dune                    | Crosby-Churchtown, <b>D</b>                 |
| <i>Taraxacum subcyanolepis</i>                 | Dandelion           | Rare     | Fixed dune                    | Formby-Freshfield, 1969, Greenwood <b>D</b> |
| <i>Tetragonia tetragonoides*</i>               | New Zealand Spinach | Extinct  | Disturbed ground              | Southport seawall, 1927, Holder             |
| <i>Trifolium hybridum</i> ssp. <i>elegans*</i> | Alsike Clover       | Extinct  | Disturbed ground              | Crosby sandhills, 1902, Green <b>D</b>      |
| <i>Yucca gloriosa*</i>                         | Curved-leaved Yucca | Rare     | Mobile dune, disturbed ground | Altcar Rifle Range etc. <b>D</b>            |

**Table 4. Summary of additional records from *The New Flora*.**

|                                    | SCP area    | Sand-dune system |
|------------------------------------|-------------|------------------|
| No. of taxa                        | <b>49</b>   | <b>36</b>        |
| No. of species                     | <b>40</b>   | <b>29</b>        |
| No. of sub-species                 | <b>3</b>    | <b>3</b>         |
| No. of hybrids                     | <b>6</b>    | <b>4</b>         |
| Native taxa                        | <b>30</b>   | <b>22</b>        |
| Introduced taxa                    | <b>19</b>   | <b>14</b>        |
| % introduced                       | <b>38.8</b> | <b>38.8</b>      |
| Extinct taxa                       | <b>20</b>   | <b>17</b>        |
| Near Threatened                    | <b>2</b>    | <b>1</b>         |
| Species of Conservation Importance | <b>3</b>    | <b>3</b>         |

**Table 5. Overall summary of Vascular Plant Inventory, including records from *The New Flora*.**

|                                    | SCP area    | Sand-dune system |
|------------------------------------|-------------|------------------|
| No. of taxa                        | <b>1265</b> | <b>1129</b>      |
| No. of species                     | <b>1070</b> | <b>958</b>       |
| No. of sub-species                 | <b>71</b>   | <b>64</b>        |
| No. of hybrids                     | <b>125</b>  | <b>107</b>       |
| Native taxa                        | <b>783</b>  | <b>733</b>       |
| Introduced taxa                    | <b>482</b>  | <b>396</b>       |
| % introduced                       | <b>38.1</b> | <b>35.1</b>      |
| Extinct                            | <b>52</b>   | <b>48</b>        |
| Nationally Rare                    | <b>14</b>   | <b>14</b>        |
| Nationally Scarce                  | <b>14</b>   | <b>14</b>        |
| Endangered                         | <b>3</b>    | <b>3</b>         |
| Vulnerable                         | <b>17</b>   | <b>16</b>        |
| Near Threatened                    | <b>17</b>   | <b>15</b>        |
| Species of Conservation Importance | <b>145</b>  | <b>137</b>       |
| Total notable                      | <b>186</b>  | <b>178</b>       |

**Table 6. Vascular plants previously thought to be extinct and rediscovered since 1999.**

\* = non-native or introduced native taxon.

| <b>Taxon</b>                   | <b>Recorded</b>           |
|--------------------------------|---------------------------|
| <i>Ambrosia psilostachya</i> * | 2000, Birkdale            |
| <i>Armeria maritima</i> *      | 2006 Ainsdale             |
| <i>Blysmus rufus</i>           | 2006 Birkdale Green Beach |
| <i>Carex paniculata</i>        | 2003, Birkdale            |
| <i>Cotula coronopifolia</i> *  | 2005, Marshside           |
| <i>Dactylorhiza x wintoni</i>  | 2006 Cabin Hill           |
| <i>Epilobium x rivulare</i>    | 2004, Crosby              |
| <i>Erigeron speciosus</i> *    | 2005 Crosby Marine Park   |
| <i>Filago vulgaris</i>         | 2000, Ainsdale            |
| <i>Hieracium vagum</i>         | Several recent records    |
| <i>Hordeum jubatum</i> *       | 2000, Birkdale            |
| <i>Juncus compressus</i>       | 2006 Birkdale Green Beach |
| <i>Hyoscyamus niger</i> *      | 2000, Formby Point        |
| <i>Onopordum acanthium</i> *   | 2004, Blundellsands       |
| <i>Reseda alba</i> *           | 2007 Southport seafront   |
| <i>Senecio erucifolius</i>     | 2004, Hesketh Golf Course |

**Table 7. Vascular plants considered extinct on the Sefton Coast.**

\* = non-native or introduced native taxon.

| <b>Taxon</b>  | <b>Last recorded</b>                  |
|---|---------------------------------------|
| <i>Allium ampeloprasum</i> *                        | 1891, Formby                          |
| <i>Allium scordoprasum</i>                          | Early 1980s, Ainsdale                 |
| <i>Amsinckia lycopsoides</i> *                      | 1891, Birkdale sandhills              |
| <i>Anagallis minima</i>                             | 1955, Ainsdale                        |
| <i>Anchusa azurea</i> *                             | 1954, all Road-Hightown               |
| <i>Anchusa officinalis</i> *                        | 1945, Hightown                        |
| <i>Antennaria dioica</i>                            | 1953, Formby dunes                    |
| <i>Arabis hirsuta</i>                               | Pre-1900, Formby, Crosby, Bootle      |
| <i>Artemisia dracuncululus</i> *                    | 1943, Blundellsands                   |
| <i>Bromus hordeaceus</i> ssp. <i>thominei</i>       | 1956, Freshfield, Birkdale            |
| <i>Bromus lepidus</i> *                             | 1952, Victoria Park, Southport        |
| <i>Carex rostrata</i>                               | Pre-1982, Ainsdale                    |
| <i>Carex viridula</i> ssp. <i>brachyrrhyncha</i>    | Pre-1963, Crosby to Southport         |
| <i>Centaurium latifolium</i>                        | 1872, Freshfield                      |
| <i>Coeloglossum viride</i>                          | 1890, Formby, Freshfield              |
| <i>Coronopus squamatus</i> *                        | 1990, Blundellsands                   |
| <i>Cuscuta epithymum</i>                            | 1915, Freshfield                      |
| <i>Dactylorhiza incarnata</i> ssp. <i>pulchella</i> | 1935, Ainsdale, Freshfield            |
| <i>Dactylorhiza</i> x <i>hallii</i>                 | 1914, Freshfield                      |
| <i>Dipsacus sativus</i> *                           | 1930, Birkdale sandhills              |
| <i>Elytrigia atherica</i>                           | No recent records (hybrids occur)     |
| <i>Erica tetralix</i>                               | 1950, near Fisherman's Path, Ainsdale |
| <i>Erophila majuscula</i>                           | 1912, no locality                     |
| <i>Euphrasia confusa</i>                            | No date, Hightown, Ainsdale           |
| <i>Filago minima</i>                                | 1954-63, Formby, Birkdale             |
| <i>Hieracium anglorum</i>                           | 1954, Freshfield                      |
| <i>Hieracium diaphanoides</i>                       | 1951, Freshfield                      |
| <i>Isolepis cernua</i>                              | 1914, Ainsdale, Freshfield            |
| <i>Lactuca tartarica</i> *                          | 1934, Freshfield                      |
| <i>Lepidium perfoliatum</i> *                       | 1902, Blundellsands                   |
| <i>Linaria dalmatica</i> *                          | 1954, Ainsdale                        |
| <i>Listera cordata</i>                              | 1989, Ainsdale                        |
| <i>Lotus glaber</i>                                 | 1927, Freshfield, Birkdale            |
| <i>Lycopodiella inundata</i>                        | Pre-1900, Formby                      |
| <i>Malva nicaeensis</i> *                           | 1950, Woodvale, Southport, Churchtown |
| <i>Marrubium vulgare</i> *                          | 1930, near Ainsdale                   |
| <i>Myriophyllum alterniflorum</i>                   | 1932, Freshfield                      |
| <i>Oreopteris limbosperma</i>                       | 1989, Ainsdale                        |
| <i>Papaver argemone</i>                             | Pre-1963, Crosby, Blundellsands       |
| <i>Pinguicula vulgaris</i>                          | 1914, Ainsdale                        |

|   |                                      |
|---|--------------------------------------|
| <i>Plantago media</i>                           | No recent records                    |
| <i>Radiola linoides</i>                         | 1837, Southport                      |
| <i>Salix</i> × <i>multinervis</i>               | Pre-1982, Ainsdale                   |
| <i>Salix</i> × <i>pontederiana</i>              | Pre-1982, Ainsdale                   |
| <i>Salvia verbenaca</i>                         | 1870, Waterloo                       |
| <i>Selaginella selaginoides</i>                 | 1953, Freshfield                     |
| <i>Senecio</i> × <i>ostenfeldii</i>             | No date, Victoria Park, Southport    |
| <i>Solanum rostratum</i> *                      | 1887, Blundellsands                  |
| <i>Spiranthes spiralis</i>                      | Pre-1900, Southport                  |
| <i>Tetragonia tetragonoides</i> *               | 1927, Southport seawall              |
| <i>Trifolium hybridum</i> ssp. <i>elegans</i> * | 1902, Crosby sandhills               |
| <i>Zostera marina</i>                           | Pre-1900, Crossens, Formby, Altmouth |
| Total 52 taxa                                   |                                      |

**Table 8. Nationally notable vascular taxa recorded on the Sefton Coast.**

\* = non-native or introduced native taxon; **NR** = Nationally Rare; **NS** = Nationally Scarce; **EN** = Endangered; **VU** = Vulnerable; **NT** = Near Threatened.

| <b>Taxon</b>                           | <b>Local status</b> | <b>NR</b> | <b>NS</b> | <b>EN</b> | <b>VU</b> | <b>NT</b> |
|--|---------------------|-----------|-----------|-----------|-----------|-----------|
| <i>Allium ampeloprasum</i>             | Extinct             |           | +         |           |           |           |
| <i>Anagallis minima</i>                | Extinct             |           |           |           |           | +         |
| <i>Artemisia campestris maritima</i> * | Rare                | +         |           |           | +         |           |
| <i>Baldellia ranunculoides</i>         | Occasional          |           |           |           |           | +         |
| <i>Blysmus compressus</i>              | Occasional          |           |           |           | +         |           |
| <i>Centaureum latifolium</i>           | Extinct             | +         |           |           |           |           |
| <i>Centaureum littorale</i>            | Frequent            |           | +         |           |           |           |
| <i>Chenopodium bonus-henricus</i>      | Rare                |           |           |           | +         |           |
| <i>Chrysanthemum segetum</i> *         | Rare                |           |           |           | +         |           |
| <i>Coincya monensis monensis</i>       | Occasional          |           | +         |           |           |           |
| <i>Corynephorus canescens</i>          | Locally frequent    | +         |           |           |           | +         |
| <i>Cuscuta epithymum</i>               | Extinct             |           |           |           | +         |           |
| <i>Cynoglossum officinale</i>          | Frequent            |           |           |           |           | +         |
| <i>Cyperus longus</i> *                | Rare                |           |           |           |           | +         |
| <i>Dactylorhiza incarnata coccinea</i> | Frequent            |           | +         |           |           |           |
| <i>Dianthus deltoides</i> *            | Rare                |           | +         |           |           | +         |
| <i>Epipactis dunensis</i>              | Frequent            | +         |           |           |           |           |
| <i>Epipactis phyllanthes</i>           | Occasional          |           | +         |           |           |           |
| <i>Erodium lebelii</i>                 | Frequent            |           | +         |           |           |           |
| <i>Filago vulgaris</i>                 | Rare                |           |           |           |           | +         |
| <i>Fumaria purpurea</i>                | Rare                |           | +         |           |           |           |

|   |                  |    |    |   |    |    |
|---|------------------|----|----|---|----|----|
| <i>Galeopsis speciosa</i>               | Rare             |    |    |   | +  |    |
| <i>Gentianella campestris</i>           | Occasional       |    |    |   | +  |    |
| <i>Herniaria glabra</i> *               | Locally frequent | +  |    |   |    |    |
| <i>Hydrocharis morsus-ranae</i> *       | Rare             |    |    |   | +  |    |
| <i>Hyoscyamus niger</i> *               | Rare             |    |    |   | +  |    |
| <i>Hypochaeris glabra</i>               | Locally frequent |    |    |   | +  |    |
| <i>Juncus balticus</i>                  | Locally frequent |    | +  |   |    |    |
| <i>J. balticus</i> x <i>J. effusus</i>  | Rare             | +  |    |   |    |    |
| <i>J. balticus</i> x <i>J. inflexus</i> | Rare             | +  |    |   |    |    |
| <i>Juncus compressus</i>                | Locally abundant |    |    |   |    | +  |
| <i>Limonium binervosum</i> agg.         | Rare             | +  |    |   |    |    |
| <i>Lycopodiella inundata</i>            | Extinct          |    | +  | + |    |    |
| <i>Marrubium vulgare</i> *              | Extinct          |    | +  |   |    |    |
| <i>Mentha pulegium</i> *                | Rare             |    |    | + |    |    |
| <i>Mibora minima</i>                    | Rare             | +  |    |   |    |    |
| <i>Myriophyllum verticillatum</i>       | Rare             |    |    |   | +  |    |
| <i>Nepeta cataria</i> *                 | Rare             |    |    |   | +  |    |
| <i>Oenanthe fistulosa</i>               | Occasional       |    |    |   | +  |    |
| <i>Orchis morio</i>                     | Locally abundant |    |    |   |    | +  |
| <i>Papaver argemone</i>                 | Extinct          |    |    |   | +  |    |
| <i>Platanthera bifolia</i>              | Rare             |    |    |   | +  |    |
| <i>Potentilla argentea</i> *            | Rare             |    |    |   |    | +  |
| <i>Pyrola rotundifolia maritima</i>     | Frequent         |    | +  |   |    |    |
| <i>Radiola linoides</i>                 | Extinct          |    |    |   |    | +  |
| <i>Salix</i> x <i>angusensis</i>        | Rare             | +  |    |   |    |    |
| <i>Salix</i> x <i>doniana</i>           | Rare             | +  |    |   |    |    |
| <i>Salix</i> x <i>friesiana</i>         | Frequent         | +  |    |   |    |    |
| <i>Salix</i> x <i>subsericea</i>        | Rare             |    | +  |   |    |    |
| <i>Salsola kali kali</i>                | Occasional       |    |    |   | +  |    |
| <i>Schoenoplectus pungens</i>           | Locally abundant | +  |    |   |    |    |
| <i>Silene nutans</i>                    | Rare             |    |    |   |    | +  |
| <i>Silene otites</i>                    | Rare or extinct  | +  |    | + |    |    |
| <i>Spergula arvensis</i>                | Occasional       |    |    |   | +  |    |
| <i>Spiranthes spiralis</i>              | Extinct          |    |    |   |    | +  |
| <i>Stachys arvensis</i>                 | Rare             |    |    |   |    | +  |
| <i>Teesdalia nudicaulis</i>             | Rare             |    |    |   |    | +  |
| <i>Viola canina canina</i>              | Frequent         |    |    |   |    | +  |
| <i>Vulpia fasciculata</i>               | Abundant         |    | +  |   |    |    |
| <i>Zostera marina</i>                   | Extinct          |    |    |   |    | +  |
| Total 60 (11 introduced)                |                  | 14 | 14 | 3 | 17 | 17 |

**Table 9. Main habitats occupied by vascular taxa in the inventory.**

| <b>Habitat</b>            | <b>No. of occurrences</b> | <b>%</b> |
|---------------------------|---------------------------|----------|
| Disturbed ground          | 506                       | 33.4     |
| Slacks, scrapes & ditches | 283                       | 18.8     |
| Fixed-dunes               | 214                       | 14.2     |
| Dune-scrub                | 138                       | 9.1      |
| Dune-grassland            | 122                       | 8.1      |
| Woodland                  | 118                       | 7.8      |
| Salt-marsh                | 54                        | 3.6      |
| Dune-heath                | 44                        | 2.9      |
| Mobile & embryo dunes     | 17                        | 1.1      |
| Strand-line               | 17                        | 1.1      |

Note: Many plants occur in more than one habitat.