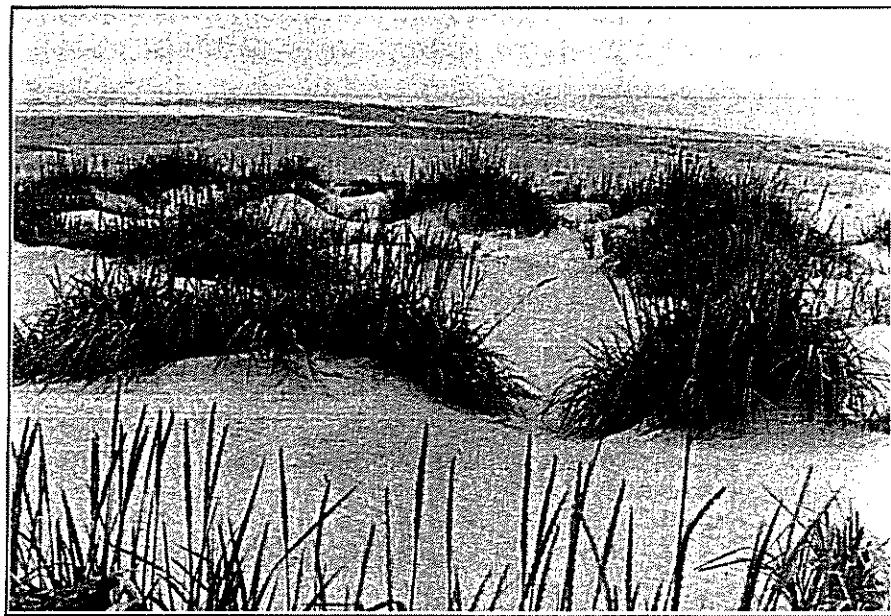


THE LARGER FUNGI OF WELSH SAND DUNES



by

MAURICE ROTHEROE

Cambrian Institute of Mycology
Fern Cottage
North Falcondale Drive
Lampeter
Dyfed SA48 7RX

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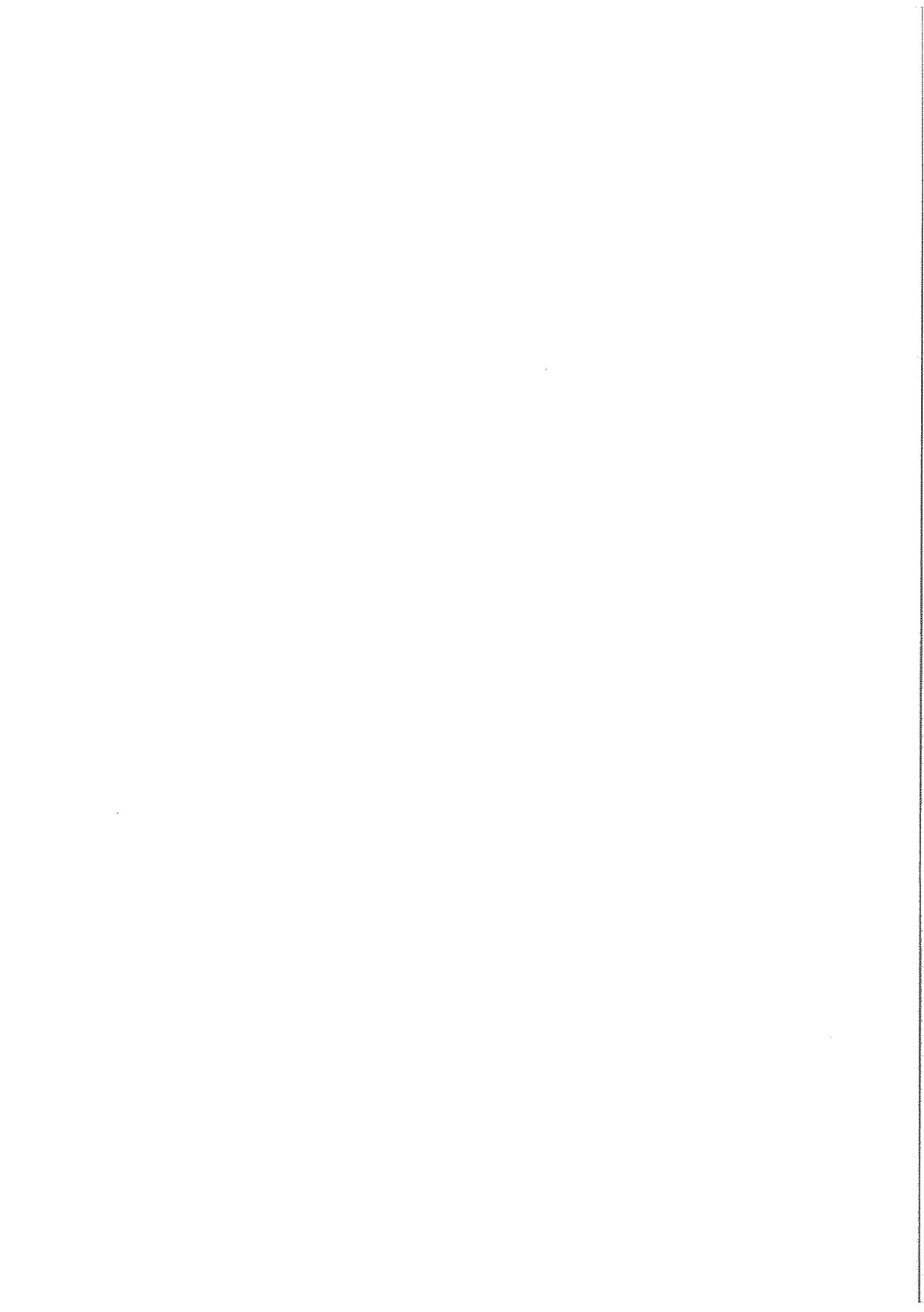
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INTRODUCTION

This report presents an annotated list of macrofungi of Welsh sand dunes compiled from data gathered during personal fieldwork by the author between 1984 and 1993, from the results of two sand-dune workshops organised under the auspices of the British Mycological Society in 1987 and 1992, from literature searches and from the examination of records at the major British herbaria in 1993. It is offered as a final preliminary step towards producing a definitive macrofungus flora of sand dunes in Wales.

Between 1985 and 1990 the Nature Conservancy Council made a series of annual grants to help fund an intensive survey at Ynyslas NNR and additional follow-up surveys at other selected Welsh sand-dune locations (ROTHEROE, 1986; 1987a; 1987b; ROTHEROE, HEDGER & SAVIDGE, 1987; ROTHEROE, 1988; 1989; 1990 & 1991). Further intensive fieldwork was carried out at Whiteford Burrows NNR in 1991 (ROTHEROE, 1992), under a grant from the Countryside Council for Wales, who in 1992 funded the compilation of the present report involving both fieldwork and literature/herbaria searches.

METHODS

Identification and voucher material: Species identification is considerably more difficult in the fungi than in many other biological groups. In many macrofungal orders, even relatively common species require microscopic examination for accurate identification. In the genus *Coprinus*, for example, only three of the 150 species on the British list can safely be identified in the field. In other genera, notably *Cortinarius*, collections representing all stages of fruit body development are necessary if an accurate identification is to be made. Historically, this has been a major factor in delaying progress on the elucidation of fungal groups and has also restricted investigation of the ecology of fungi. Although a great deal more literature on fungal identification has become available in recent years, sand dunes represent a highly specialised series of habitats which have been neglected by mycologists. Great care was therefore needed to ensure that identifications were accurate and in many cases it was necessary to submit material collected to specialist referees at the Royal Botanic Gardens, Kew, and the Royal Botanic Garden, Edinburgh.

The value of adequately documented herbarium material to support any record or survey list is stressed by modern taxonomic workers. Many old records and lists have been set aside for lack of confirmatory back-up voucher specimens. In order to legitimise the list of fungi, therefore, at least one dried voucher specimen of every species encountered during fieldwork was preserved. This will provide reference material for future workers and enable identifications to be checked and nomenclatural modifications to be made in the event of taxonomic revision. This voucher material is retained either in the Mycological Herbarium, University College of Wales, Aberystwyth, or at Herb K or Herb E. So far as records gathered in the literature searches were concerned, these were accepted if backed by voucher herbarium material or, in a very small number of cases, where the species involved were relatively common and where the recorder was known to the author to be a competent mycologist. All other records were discarded.

Computer records: Reports on the surveys, including the present one, were written on an Apple Macintosh SE20 computer, using the word processing packages Claris MacWrite II or Microsoft Works 2a. Many of the records are also contained in databases in Works 2a. A number of these records have been transferred to the British Mycological Society database, using the prescribed recording format, and it is intended progressively to convert all the records to this form for transfer, thus making them available to biologists in general.

Ecology: During fieldwork, the National Vegetation Classification (NVC) was used to indicate fungal distribution and ecological preferences on the sand-dune systems visited. The main source of reference was RODWELL, 1989, but reference was also made to ASHALL *et al.*, 1992; DARGIE, 1990;

MALLOCH, 1989; RADLEY & HEDLEY, 1990; and RADLEY, WOOLVEN & HEDLEY, 1990.

Mapping: Maps illustrating the distribution of some rare or unusual taxa were drawn using blank grids from the BMS Mapping Scheme. It was not possible to take advantage of the computer mapping facilities developed for the BMS and records were therefore entered by hand.

LIMITATIONS

Geographical coverage: Most of the major sand-dune systems in Wales have been covered during the course of survey work over the past 10 years, with one important exception. Pendine, one of the largest areas of sand dune in South Wales, is owned by the Ministry of Defence and is not open to the public. This well-established and relatively undisturbed dune system could not, therefore, be included. However, this deficiency may be rectified shortly, since the MoD has now given permission for the site to be visited.

Habitat coverage: All the different habitat types represented on Welsh sand dunes were surveyed, including the extensive areas of conifer plantation present on some systems. However, these plantations are regarded as being an artificial imposition by man on what is otherwise a natural or semi-natural ecosystem. The fungus flora of the plantations comprises mycorrhizal, saprotrophic and parasitic species which tend to be ubiquitous in woodlands and plantations throughout Britain and therefore has little relevance to sand dunes *per se*. For this reason plantation areas were given far less coverage than the other habitats and the records are included only for completeness and comparison purposes.

Taxonomic revision: The New Check List of British Agarics and Boleti (DENNIS, ORTON & HORA, 1960) remains the only comprehensive authority for nomenclature for the Agaricales (*sensu lato*). However, it is now more than 30 years out of date and a large number of groups have been revised on a piecemeal basis during the intervening years. As far as possible, the author has endeavoured to use the most recent current names for these groups, but this has not been possible in all cases because of the very widespread nature of the relevant literature.

Taxonomic revision has resulted in a number of species being split into two or more species and has also meant that the species concept regarding some taxa has been changed. It has not been possible to re-examine all the herbarium material from the survey in order to re-evaluate their identification in the light of these changes.

Taxonomic confusion in the literature relating to some species' complexes has resulted in difficulties in naming some collections accurately and a question mark remains, therefore, over their true distribution. A prime example of this is the *Clitocybe dealbata/rivulosa* complex. Some authors synonymise these two species, others separate them on both taxonomic and ecological characters. The author's personal collections all appeared to conform with Kew's concept of *C. dealbata* and are recorded as such, but because of the confusion, the records for these two species should be treated with caution.

Fungal groups treated: The survey has concentrated on the groups of the macrofungi with which the author is most familiar, ie the Agaricales *sensu lato* and the Gasteromycetes. Other groups have not been systematically covered and therefore the records for the Aphylophorales *sensu lato* and the Ascomycetes are far from complete. However, it is thought that members of these two latter groups which are characteristic of sand dunes have been reasonably well covered. Microfungi have been omitted from the survey.

Record status: Where possible, species recorded for the first time for Britain and for Wales have been so annotated. However, the British Mycological Society abandoned its practice of publishing new British records many years ago and so the exact status of a large number of species thought to be new records remains to be investigated. A cautious approach has been adopted and only where good evidence exists has 'new record' status been assigned to the taxa concerned.

RESULTS

A total of 502 taxa are included in the macrofungal flora of Welsh sand dunes as listed and annotated in the appended Flora. Of this number, 441 belong to the "Agarics" (Agaricales, Boletales and Russulales); 11 to the Aphyllophorales (*sensu lato*); 30 are Gasteromycetes and 20 are Ascomycetes. The list includes 20 taxa which are on the Provisional Red Data List of British Fungi (ING, 1992). It is proposed (see below) that another 14 species recorded on Welsh sand dunes justify inclusion on the Red Data List of endangered, vulnerable or rare species. One species, *Galerina paludinella* Orton, is new to science and was described by Peter Orton from Harlech from a collection he made when he was acting as scientific leader of the first BMS Welsh sand-dune workshop in 1987. The list includes a total of 26 collections which represent new British records. These are by definition, of course, also new Welsh records. But, in addition, the survey has revealed 30 new Welsh records, eight of which are also second British records. Thus, the fungus flora of Welsh sand dunes as currently understood contains an unusually large number of rare and unusual species.

Red Data List Species:

- Agaricus xanthodermus* var. *lepiotoides* Maire (Vulnerable)
- Agrocybe arenaria* Sing. (Vulnerable)
- Coprinus amnophilae* Court. (Rare)
- Galerina paludinella* Orton (Rare)
- Hebeloma vaccinum* Romagn. (Vulnerable)
- Hohenbuehelia culmicola* Bon (Rare)
- Inocybe arenicola* (Heim) Bon (Vulnerable)
- Inocybe vulpinella* Brugmans (Vulnerable)
- Leucoagaricus pilatianus* (Dem.) Bon & Boiff. (Vulnerable)
- Melanoleuca leucophylla* Métrod (Vulnerable)
- Melanoleuca schumacheri* (Fr.) Sing. (Vulnerable)
- Melanoleuca subpulverulenta* (Pers.) Métrod (Vulnerable)
- Naucoria salicetorum* Reid (Endangered)
- Suillus fluryi* Huijs. (Vulnerable)
- Russula persicina* var. (unpub.) (Rare)
- Bovista limosa* Rostrup (Vulnerable)
- Cyathus stercoreus* (Schw.) de Toni (Vulnerable)
- Geastrum badium* Pers. (Vulnerable)
- Tulostoma melanocyclum* Bres. (Rare)
- Trichoglossum rasum* Pat. (Rare)

Revised record status: It had previously been thought that *Inocybe vulpinella* and *Melanoleuca subpulverulenta*, collected from Welsh sand dunes, represented the first British records for these taxa. Subsequent investigation has proved this not to be the case.

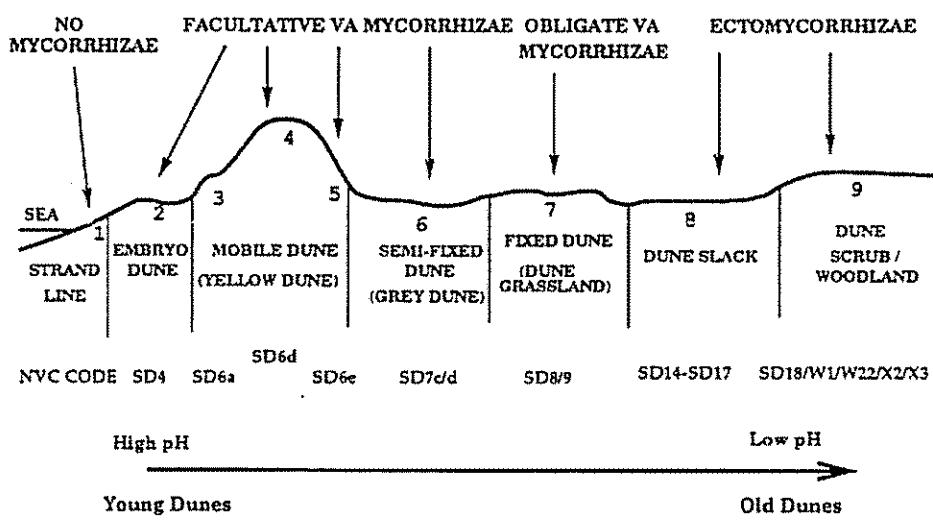
Omissions in the list: A small number of collections have been omitted from the list because they cannot satisfactorily be identified. These include two species of *Coprinus*. The first of these, *C. aff. lagopus*, in the section Lanatuli, appears to be either a new species or one of a group of unpublished species which have been the subject of breeding studies by Dr Roger Kemp at the Department of Botany in the University of Edinburgh. An isolate from a collection of this taxon from Whiteford Burrows has been sent to Dr Kemp but remains to be positively identified. The second is a coprophilous species with a ring (annulus) collected on two occasions at Whiteford Burrows on horse dung (Ref: MR91325). Only three of the 150 British species of *Coprinus* possess rings, which makes it unusual. The species is likely to be new to science, requiring description as such.

Two unknown species of *Cortinarius*, both in the sub-genus *Telamonia*, were collected in April 1991, at Merthyr Mawr. Spring-fruiting species in this genus are few in number and these two particular taxa are not currently figured in any published literature. A monograph on this sub-genus by the British specialist on the group, Peter Orton, has been awaited for many years. It is hoped that when this is eventually published the two collections can be identified. In the meantime they remain in the UCW Aberystwyth herbarium under the references MR9112 and MR9115.

DISCUSSION

Fungal distribution: The distribution of macrofungi on Welsh sand dunes follows the general pattern described in classical texts, of which COURTECUISSE, 1984 & 1986 are a recent exposition. Although National Vegetation Classification groupings may serve as a broad guide to fungal associations, they may not reflect the true ecological affinities of fungus species. Nutritional modes are much more important in affecting the distribution of fungal species across a sand-dune transect taken inland at right angles to the sea (see Fig 1 below).

Fig 1



Stylised sand-dune transect (at Whiteford Burrows)

Both saprotrophic and biotrophic modes are represented in the macrofungal component of sand dunes. The former can be seen near the start of the transect in the mobile dunes. Characteristic dune macrofungi at this early successional stage include the Discomycete *Peziza ammophila*, an Agaric, *Psathyrella ammophila*, and a Gasteromycete, *Phallus hadriani*. To these well-known taxa may be added another three recently-described Agaric species, *Coprinus ammophilae*, *Hohenbuehelia culmicola* and *Melanoleuca cinereifolia*. All six of these species demonstrate a high degree of adaptation and specialisation since they appear to be confined to sand dunes and to the mobile dune zone in particular, where marram grass is in its most vigorous phase. Saprotrophic sand-dune endemics do also occur farther inland. Here, however, they are joined by a number of characteristic species which also grow in other ecosystems. These appear to have broader habitat preferences and, while they may be found most often in one particular zone, they can occur in the semi-fixed dunes, dune grassland or dune slacks.

Among the biotrophs, symbiosis between woody plants and fungi in the form of mycorrhiza is undoubtedly the most important factor governing fungal distribution. (As noted above, the microfungi involved in vesicular-arbuscular and other types of mycorrhiza are not included in this study.) The first appearance of biotrophic macrofungi is in the slacks, where the more specialised ectomycorrhizal infections dominate the mycoflora. The main symbionts are creeping willow (*Salix repens*) with genera belonging to the Agaric family Cortinariaceae (*Cortinarius*, *Hebeloma* and *Inocybe*). As scrub develops in the form of arborescent willows and other shrubs, increasing numbers of ectomycorrhizal species appear.

So far as the Agarics are concerned, eight families dominate the fungus flora of sand dunes in Wales,

as they do on British dunes in general. These are the Agaricaceae, Bolbitiaceae, Coprinaceae, Cortinariaceae, Entolomataceae, Hygrophoraceae, Strophariaceae and Tricholomataceae. As to the others, the Crepidotaceae, Paxillaceae and Pluteaceae are poorly represented. Only when plantation is present do the Amanitaceae, Boletaceae, Polyporaceae and Russulaceae make a substantial appearance. Thus there is a clear delimitation between the fungal components of Ynyslas and Morfa Dyffryn, which do not have plantation, and locations such as Newborough Warren and Whiteford Burrows which do, and are therefore well represented by members of the Russulaceae and Boletaceae.

Notable fungal elements: There appear to be few major differences between the mycofloras of sand-dune systems in Britain as a whole. However, the more favourable climatic environment of the west suggests that the potential here is greater than on the east coast of Britain. A number of rare and unusual taxa have so far been recorded only from western dunes, and some of these are exclusive to Welsh dunes.

Two Agaric species deserve special mention. *Hygrocybe cinereifolia* was described as a new species in June, 1992 (COURTECUISSE & PRIOU, 1992). The fungus was collected by the author at Harlech in October 1992 and again at Kenfig in November of that year, this time in the company of the two French publishing authors themselves. *Psathyrella setulosa* is as yet an undescribed species which grows on marram debris in the mobile dunes. It was first collected by the author at La Faute sur Mer in the Vendée in western France in 1990. Dr. Régis Courtecuisse, who intends to publish a description, has since found it at a number of other French dune sites. It was recorded for the first time in Britain at Kenfig in November, 1992.

Many of the First British Records noted above and in the flora appended are, in fact, the only British records to date. It remains to be seen whether the species concerned prove to be confined to Welsh sand dunes.

Distribution maps: Wales has been comparatively well covered during the past decade for the recording of sand-dune macrofungi. The maps on pages 9 - 12 highlight the prominence of Welsh records for 12 selected species of Agarics and Gasteromycetes. Certain of these species may be regarded as Welsh "specialities", having been recorded only from Wales, although all have been sought by the author and others at other British sand-dune locations. They include *Inocybe arenicola*, *Melanoleuca leucophylla*, *M. pseudoluscina* and *Cyathus stercoreus*. Another Gasteromycete, *Bovista limosa* appears to have a mainly Welsh distribution. Until the late 1980s, the only record for this taxon was from Lancashire in the 1950s. It has now been recorded from four Welsh locations.

Proposed Additions to the Red Data List: Because they represent the only British records to date or are now understood to be very rare, it is proposed that the following species featuring in the Welsh sand-dune fungus flora should be included in the definitive Red Data List of British Fungi:

- Clitocybe leucodiatreta* Bon
Cortinarius cohabitans Karst.
Cortinarius fulvosquamulosus Orton
Flammulaster carpophilus (Fr.) Earle var. *autochthonoides* Bon
Hygrocybe aurantia Murr.
Hygrocybe cinereifolia Court. & Priou
Inocybe impexa (Lasch.) Kuyper
Inocybe pruinosa Heim
Macrolepiota rhodosperma Orton
Melanoleuca leucophylloides (Bon) Bon
Melanoleuca pseudoluscina Bon
Omphalinalilacinicolor Bon
Psathyrella flexispora Wallace & Orton
Psathyrella setulosa nom. prov. (Court.)
Psilocybe luteonitens (Vahl.:Fr.) Parker-Rhodes
Ramicola maritima (Bon) Bon

CONSERVATION

Sand dunes occupy a greater area of the Welsh coastline than they do of that in England and Wales in general (14.5% compared with 9%). In a small, densely-populated country such as Britain, this ecosystem represents an important natural or semi-natural resource, both in terms of the land mass it covers and in the distinctive nature of the form and content of its varied habitats. Vegetation plays a large part in the formation and development of sand dunes, their dynamics and their continuing survival.

The fungi have a rôle in facilitating colonisation by higher plants and in sustaining coastal dune systems, both by the physical action of fungal hyphae in accretion of sand particles and as mycorrhizal symbionts of the major dune-building grasses such as marram (*Ammophila arenaria*), and of dune shrubs (mainly *Salix* species) later in the succession.

Sand dunes are under considerable pressure in Wales, as they are elsewhere in Britain and Europe. They are under threat from pollution, military activity and coastal development and from increasing demands for their recreational use. Fortunately, many dune systems are already established as nature reserves in the ownership or stewardship of conservation bodies, of which the most significant so far as Welsh dunes are concerned is the Countryside Council for Wales. Yet in discussions on the conservation and management of these sites, there has in the past been little or no mycological input. The criteria for the designation of nature reserves have not included the fungi. Much of the blame for this lies with mycologists themselves, although it was only a few years ago that the then Nature Conservancy Council began to pay more attention to the Cryptogams. The existence now of the provisional Red Data List of British Fungi referred to above, may provide an opportunity for mycological considerations to be taken into account when valuable sand-dune systems are being threatened, when reserve sites are being selected and when management decisions are being taken.

The successive surveys listed in the Introduction above, together with two internationally-attended Welsh sand-dune workshops, have helped to put Wales at the forefront in bringing about a growing awareness of the fungal potential of the sand-dune ecosystem and may lead mycologists to take a more active part in conservation and management matters.

Management for conservation of sand-dune fungi: Because the conservation of fungi on nature reserves has only very recently become a topic of discussion in Britain, there have been no systematic studies to investigate the effects of different types of management on fungal growth and distribution, on either nature reserves in general or sand dunes in particular. Indeed, such experiments might prove difficult to design, given the problems involved in surveying fungal fruiting and distribution. The fungi are evanescent, their fruiting is unpredictable and their identification is difficult and often time-consuming.

Nevertheless, the results of the present series of surveys have highlighted a very rich, unusual but also fragile macromycete flora on Welsh sand dunes which should be conserved. Apart from the rarities, Welsh dunes have a relatively large representation of fungal groups that are characteristic of habitats which have been decimated in recent years in Britain and are still under threat. The more obvious examples of these groups have already been mentioned but it should also be pointed out that significant numbers of species recorded in this study are in genera which are typical of old hay meadows or grazed, unimproved grassland. These include such genera as *Hygrocybe*, *Lepista*, *Leptonia*, *Melanoleuca*, *Nolanea* and *Omphalina*. Several species in these genera are now rarely encountered in Britain outside nature reserves. Management for some higher plant groups, ie Orchids, on sand dunes is also beneficial to many of these fungal genera (as they are too for some mycorrhizal fungi). But with the reduction of natural grazing by rabbits by myxomatosis since the 1950s, many Welsh sand dunes now have large areas where dune slacks and dune grassland have been taken over by rank vegetation. This is inimical to fruiting by macrofungi and in many cases it is obvious that the natural fungal element has disappeared from these areas. In presently viable areas that are threatened in this way, grazing by domestic animals or mowing would undoubtedly improve the prospects for the fungal groups under threat.

This is just one example where management for fungi would be valuable for their conservation.

CONCLUSIONS

There can be few other ecosystems in Wales which provide so rich a list of rare or unusual macrofungal species as do coastal sand dunes. It is an important and relatively unspoiled ecosystem where the macromycete flora is more than merely a sub-set of the national mycoflora because it contains elements which are not found elsewhere. Welsh sand-dune habitats are a refuge for rare and unusual species. This, together with the fact that they are more extensive here than in England, makes them eminently deserving of further study.

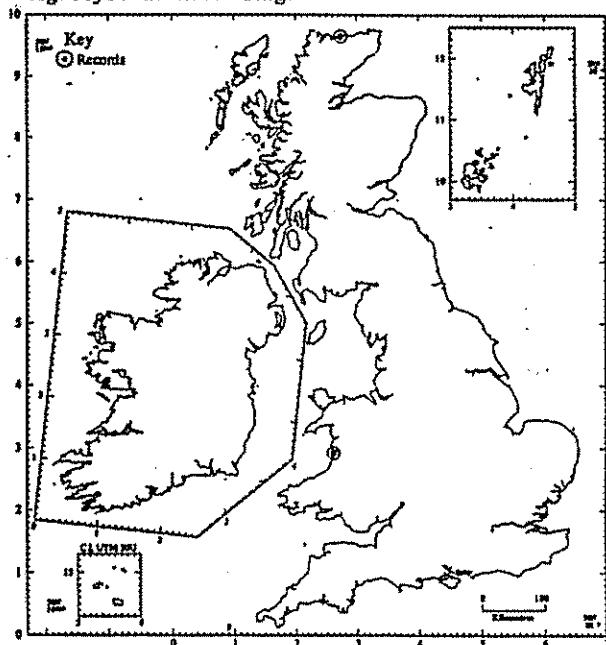
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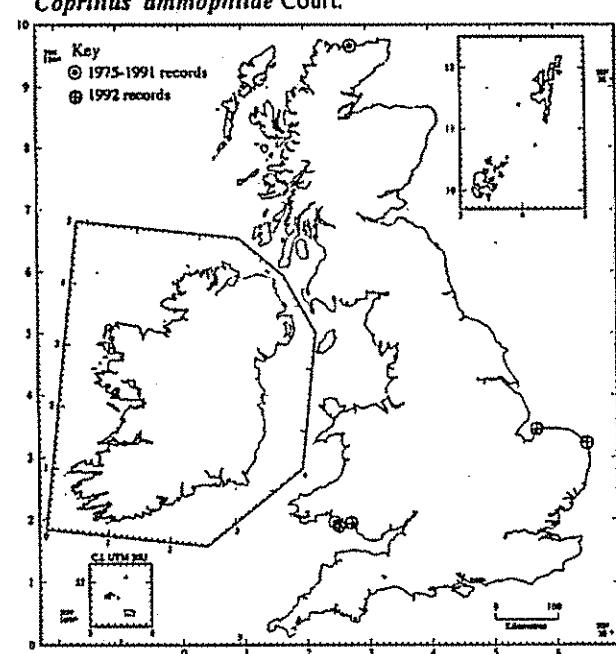
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Distribution Maps

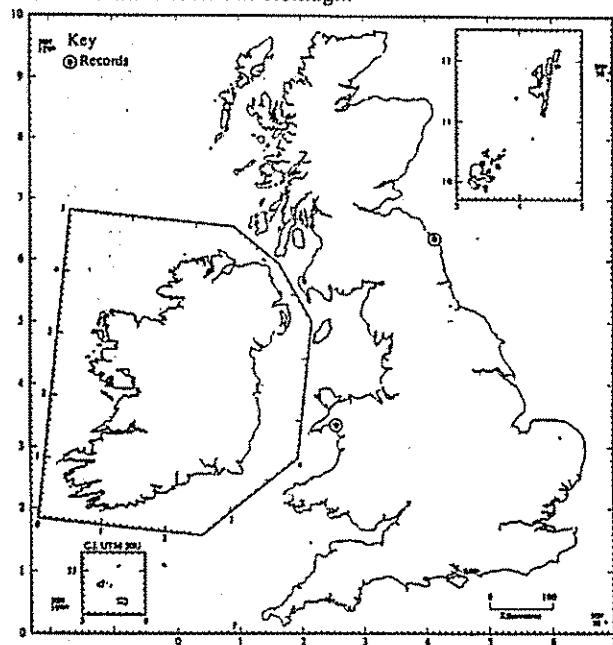
Agrocybe arenaria Sing.



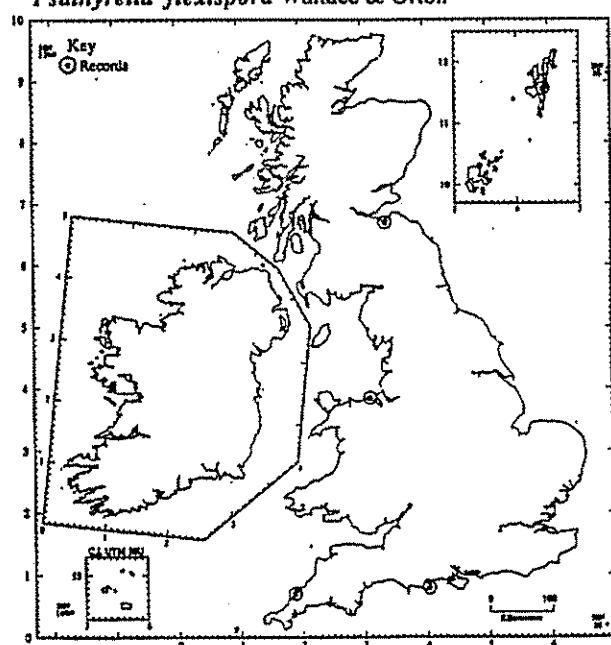
Coprinus ammophilae Court.



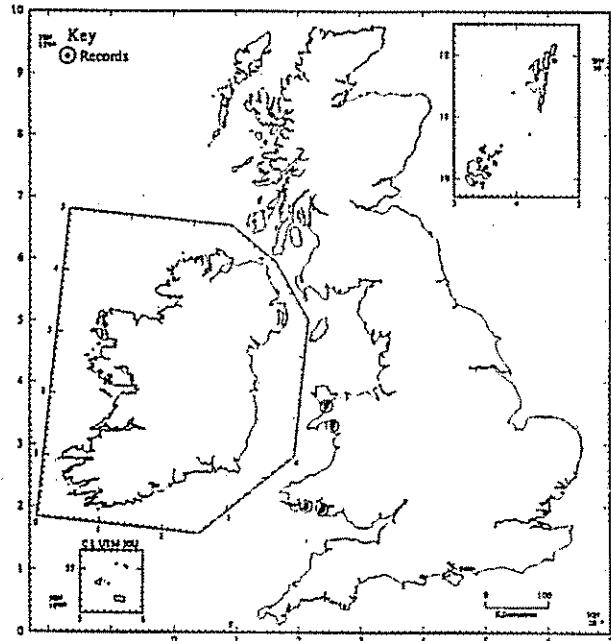
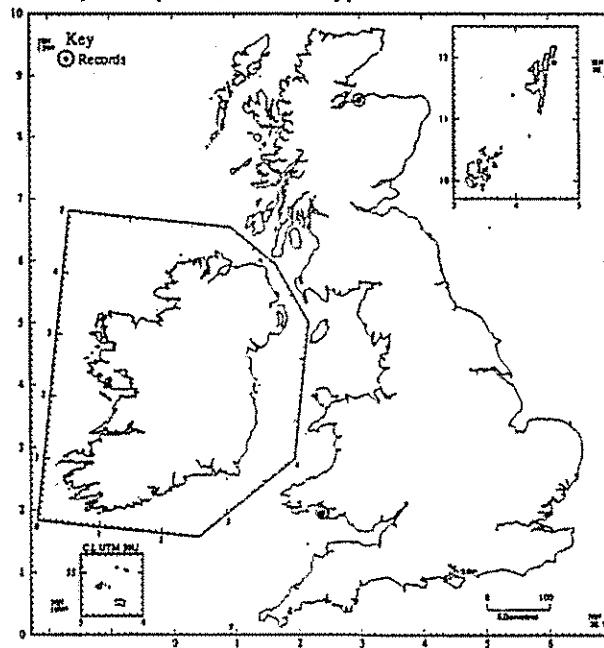
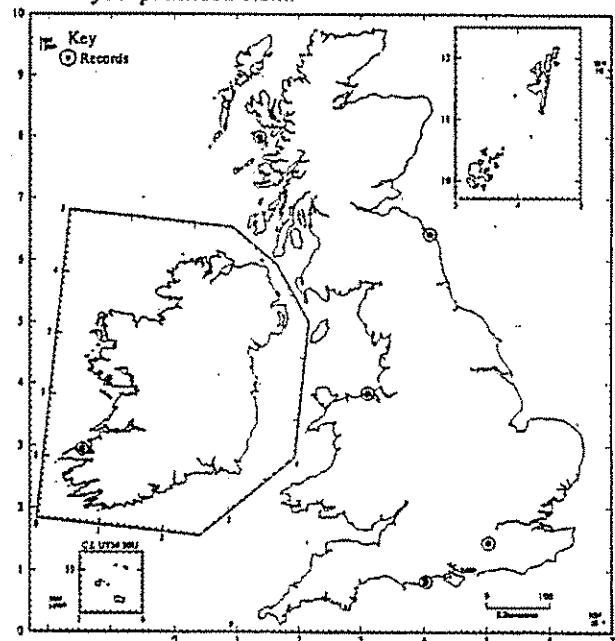
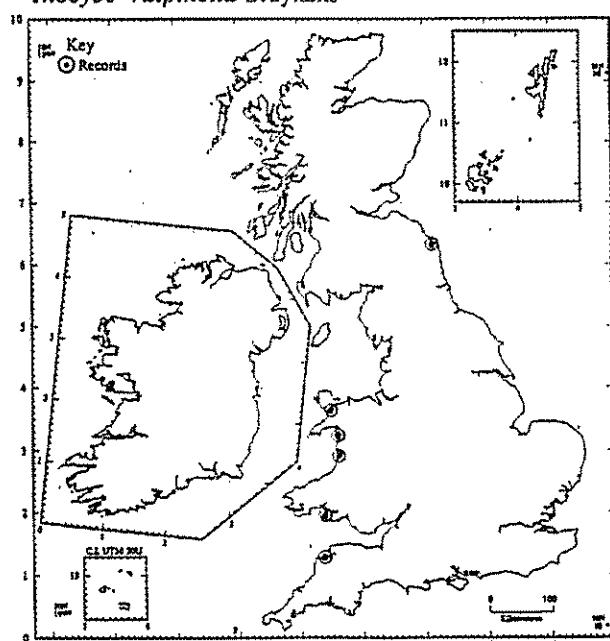
Hebeloma vaccinum Romagn.



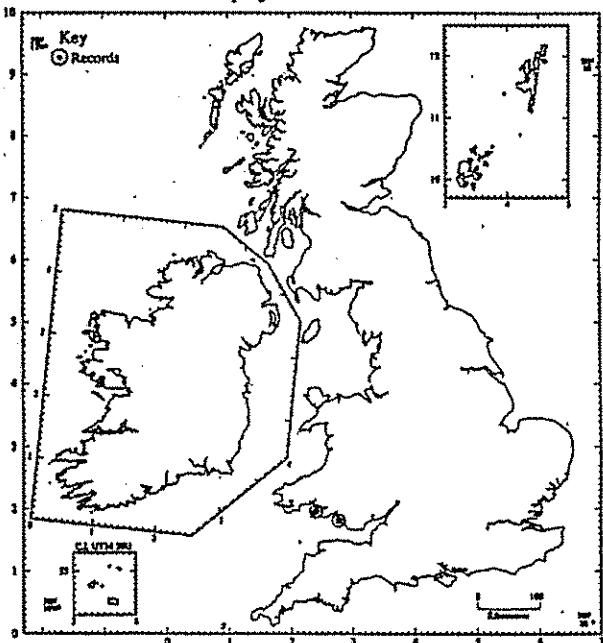
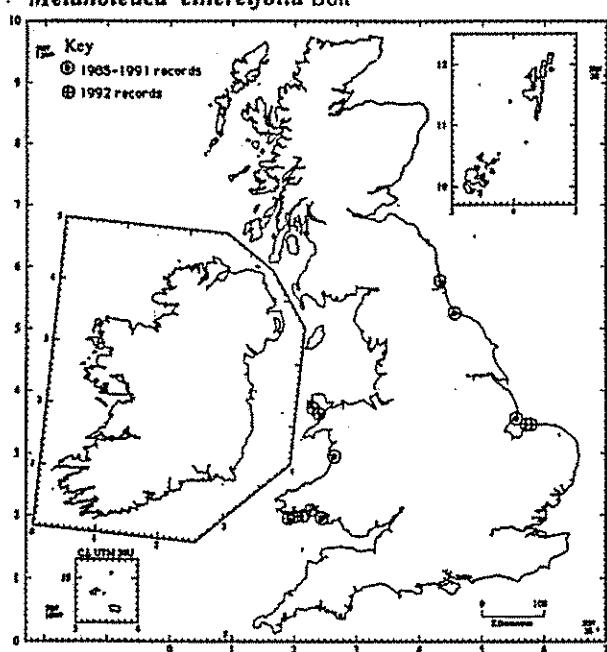
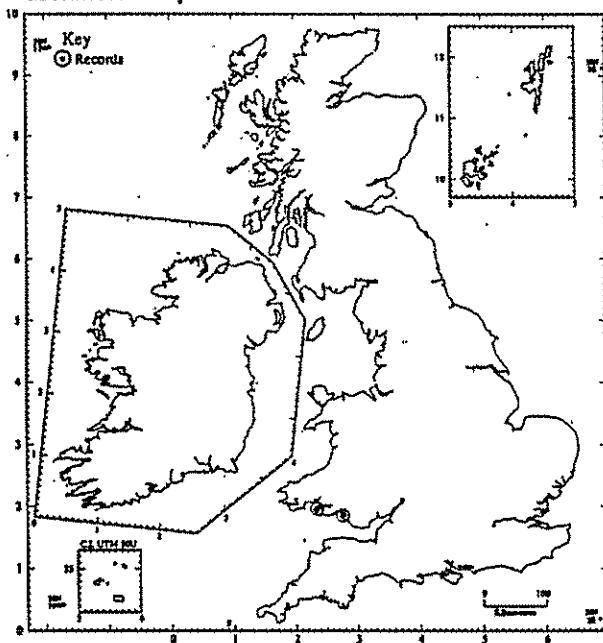
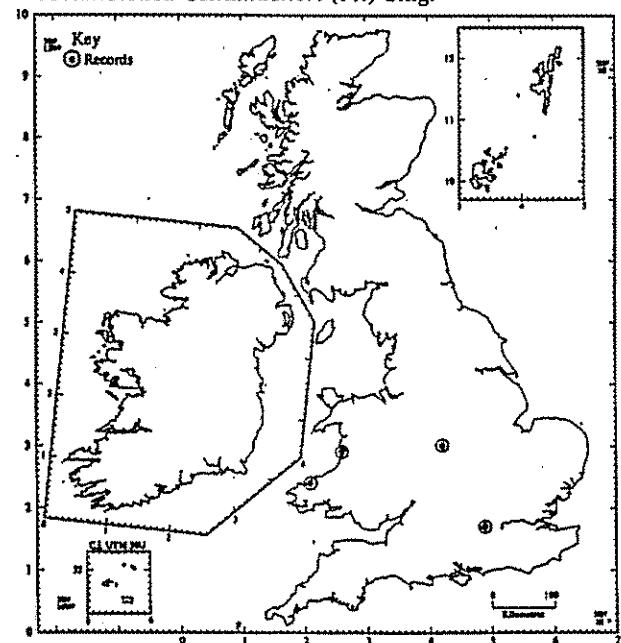
Psathyrella flexispora Wallace & Orton



Distribution Maps

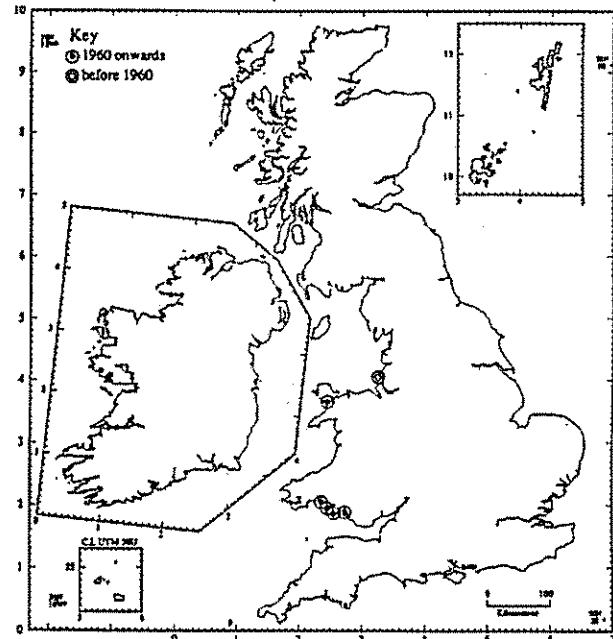
Inocybe arenicola (Heim) Bon*Inocybe impexa* (Lasch.) Kuyper*Inocybe pruinosa* Heim*Inocybe vulpinella* Bruijants

Distribution Maps

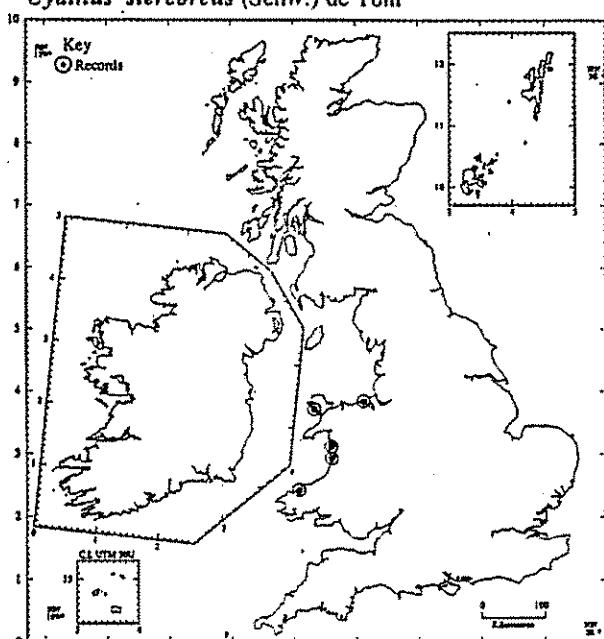
Melanoleuca leucophylla Métrod*Melanoleuca cinereifolia* Bon*Melanoleuca pseudoluscina* Bon*Melanoleuca schumacheri* (Fr.) Sing.

Distribution Maps

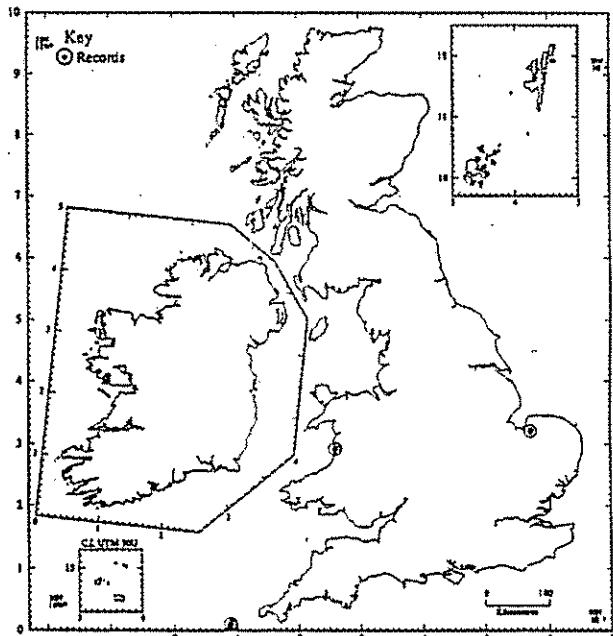
Bovista limosa Röstrup



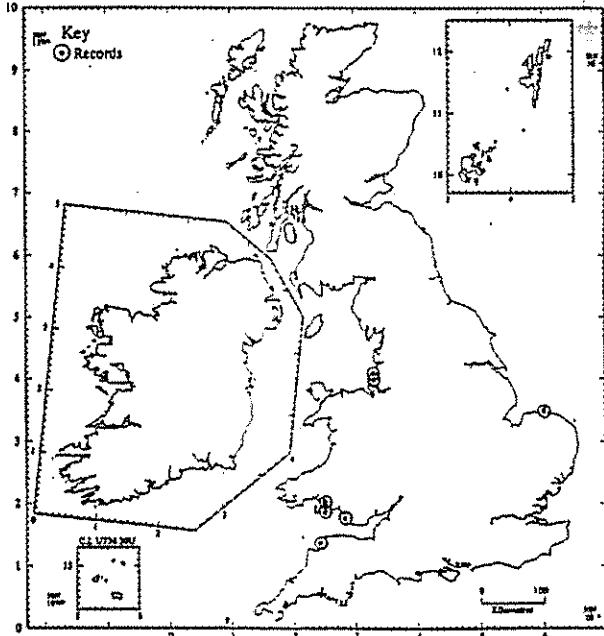
Cyathus stercoreus (Schw.) de Toni



Gastrum badium Pers.



Tulostoma melanocyclum Bres.



WELSH SAND-DUNE FUNGI

By Maurice Rotheroe
Cambrian Institute of Mycology, 1993

ANNOTATED LIST OF SPECIES

Arrangement of Species Information

The following is an annotated list of all macromycete species recorded during a series of surveys between 1984 and 1993, together with other records obtained from reliable sources.

The species are listed in the following systematic order:

BASIDIOMYCOTINA	
HYMENOMYCETES	
Agaricales	p. 1
Aphyllophorales	p. 20
Boletales	p. 20
Russulales	p. 21
Stereales	p. 22
Tremellales	p. 22
GASTEROMYCETES	p. 22
ASCOMYCOTINA	p. 24

The data for each record is presented in the following order:

- 1: Species name and author citation.
- 2: Red Data List status (where applicable), ie (E) = Endangered; (V) = Vulnerable; (R) = Rare.
- 3: Localities of records (*See list of localities below). NOTE: Brackets after place name indicates source of record and/or herbarium material location, ie (BMS) = British Mycological Society foray record; (E) = Royal Botanic Garden, Edinburgh; (K) = Royal Botanic Gardens, Kew; (NR list) = previously recorded on Nature Reserve list.
- 4: Association with other organisms and substrate.
- 5: Habitat and NVC code.
- 6: Bibliographical references (*see reference list overleaf).
- 7: National recording status (where applicable) with collector's/source initials, ie (BI) = Bruce Ing; (BMS) = British Mycological Society foray record; (JNH) = John Hedger; (JPS) = John Savidge; (MR) = Maurice Rotheroe; (PDO) = Peter Orton; (PJ) = Philip Jones; (PMD) = Penny David; (PR) = Peter Roberts; (P-R) = A.F. Parker-Rhodes; (RC) = Régis Courtecuisse; (RCh) = R. Chapman; (RRS) = R.R. Stewart; (RW) = Roy Watling.

Sand-dune Localities and Vice-counties

Aberdovey	Aberdovey. Merioneth V-c 48
Aberffraw	Aberffraw, Anglesey. Caernarvon V-c 49
Dyffryn	Morfa Dyffryn. Merioneth V-c 48
Freshwater East	Freshwater East. Pembroke V-c 45
Freshwater West	Freshwater West. Pembroke V-c 45
Gwbert	The Patch, Gwbert. Cardigan V-c 46
Harlech	Morfa Harlech. Merioneth V-c 48
Kenfig	Kenfig Burrows. Glamorgan V-c 41
Merthyr Mawr	Merthyr Mawr. Glamorgan V-c 41
Newborough	Newborough Warren & forest, Anglesey. Caernarvon V-c 49
Oxwich	Oxwich Burrows. Glamorgan V-c 41
Pembrey	Pembrey Country Park. Carmarthen V-c 44
Pendine	Pendine Sands. Carmarthen V-c 44
Point of Air	Point of Air. Flint V-c 51
Rhosneigr	Rhosneigr, Anglesey. Caernarvon V-c 49
Stackpole	Stackpole Warren. Pembroke V-c 45
Tenby	Tenby Burrows. Pembroke V-c 45
Whiteford	Whiteford Burrows. Glamorgan V-c 41
Ynyslas	Ynyslas, Borth. Cardigan V-c 46

Key to References in List

The four main references used are Bon (1987), Buczacki (1989), Lange & Hora (1963-1981), and Phillips (1981). Numbers quoted after author are page numbers. Other references are used only if the species concerned is not featured in one of these four volumes. Full annotation is given only for species collected by the author.

Main sources

- | | |
|-----|---|
| Bon | Bon, M. (1987) The Mushrooms and Toadstools of Britain and North-Western Europe (Hodder & Stoughton). |
| Buc | Buczacki, S. (1989) Fungi of Britain and Europe (Collins). |
| LH | Lange, M. & Hora, F.B. (1963) (Reprint 1981) Collins Guide to Mushrooms & Toadstools (Collins). |
| RP | Phillips, R. (1981) Mushrooms and other fungi of Great Britain and Europe (Pan). |

Other references

- | | |
|-----------|---|
| BON1983 | Bon, M. (1983) Les Panaeoles des dunes littorales du Nord-Ouest de la France, <i>Sydowia</i> 36. |
| BFF3 | Watling, R. (1982) British Fungus Flora Pt. 3: Bolbitiaceae (Royal Botanic Garden, Edinburgh). |
| BFF5 | Watling, R. & Gregory, N.M. (1987) British Fungus Flora Pt. 5: Strophariaceae & Coprinaceae p.p. (Royal Botanic Garden, Edinburgh). |
| DM33 | Bon, M. (1978) Clé Monographique du Genre <i>Melanoleuca</i> Pat., Documents Mycologiques No. 33, 44-81. (in French) |
| DM41 | Moreno, G. & Bon, M. (1980) Quelques espèces intéressantes ou nouvelles du genre <i>Melanoleuca</i> recolté en Espagne, Documents Mycologiques No. 41, 19-28. (in French) |
| DM84 | Bon, M. (1992) Clé Monographique des espèces Galero-Naucorioides, Documents Mycologiques No. 84, 1-89. (in French) |
| DM86 | Courtecuisse, R. (1992) Flore mycologique du littoral - 10, Documents Mycologiques No. 86, 69-73. (in French) |
| Brandrud | Brandrud, T.E. (1983) <i>Cortinarius saturninus</i> og <i>Cortinarius lucorum</i> to slosopper med tilknytning til selje (<i>Salix caprea</i>) og osp (<i>Populus tremula</i>), Agarica IV(8), 7-17. (in Norwegian) |
| Court. | Courtecuisse, R. (1988) Macromycètes intéressantes, rares ou nouveaux V - Coprinaceae, Documents Mycologiques No. 72. (in French) |
| Dennis | Dennis, R.W.G. (1960) British Cup Fungi and their Allies (Ray Society). |
| D&M | Demoulin, V. & Marriott, J.V.R. (1981) Key to the Gasteromycetes of Great Britain (British Mycological Society). |
| FAN1 | Noordeloos, M.E. (1988) Entolomataceae, in <i>Flora Agaricina Nederlandica</i> Vol. 1. (A.A. Balkema). |
| FOS3 | Breitenbach, J. & Kränzlin, F. (1991) Fungi of Switzerland Vol. 3. (Edition Mykolgia Luzerne). |
| FRIC10 | Wasser, S.P. (1979) <i>Fungorum Rariorum Icones Coloratae, Pars X.</i> (J. Cramer). |
| JAN | Nannfeldt, J.A. (1942) The Geoglossaceae of Sweden, Ark. f. Bot. (A) 30 (2) 1-67. |
| Kuyper | Kuyper, T.W. (1986) A Revision of the genus <i>Inocybe</i> in Europe, Persoonia Supplement Vol. 3 (Rijksherbarium, Leiden). |
| Moser | Moser, M. (1983) Keys to Agarics and Boleti (Roger Phillips). |
| Orton1960 | Orton, P.D. (1960) New Check List of British agarics and boleti, Trans. Br. mycol. Soc. 43(2) 159-439. |
| Orton1984 | Orton, P.D. (1984) Notes on British agarics VIII, Notes RBG Edin. 41(3) 565-624. |
| Orton1988 | Orton, P.D. (1988) Notes on British agarics IX, Trans. Br. mycol. Soc. 91(4). |
| Rayner | Rayner, R.W. (1985) Keys to British species of <i>Russula</i> Edit. 3. (British Mycological Society). |
| Reid | Reid, D. A. (1984) A Revision of the British species of <i>Naucoria sensu lato</i> , Trans. Br. mycol. Soc. 82(2), 191-237. |

BASIDIOMYCOTINA
HYMENOMYCETES

Agaricales

Agaricus arvensis Schaeff.: Secr.

Kenfig, Newborough, Pembrey, Whiteford, Ynyslas
With Gramineae in sandy soil.
Dune grassland & slack SD8/14/15
Ref: Bon278 Buc148 LH134 RP167

Agaricus bitorquis (Quél.) Sacc.

Merthyr Mawr (BMS)
Ref: Bon274 Buc146 LH132 RP168

Agaricus campestris L.: Fr.

Aberffraw, Harlech, Kenfig, Oxwich, Pembrey, Whiteford,
Ynyslas
With Gramineae in sandy soil
Dune grassland & slack SD8/14/15/16
Ref: Bon274 Buc147 LH132 RP162

Agaricus comtulus Fr.

Ynyslas (E)
Ref: Bon276 Buc148 LH132 RP163

Agaricus devoniensis Orton

Aberffraw, Freshwater West, Harlech, Kenfig, Merthyr Mawr,
Newborough, Oxwich, Rhosneigr, Whiteford, Ynyslas
With Lichenes or Bryophyta in bare sand
Mobile & semi-fixed dunes SD6/7
Ref: Buc146 RP163

Agaricus esettii Bon

Harlech
With Gramineae in sandy soil
Dune slack SD16
Ref: Buc147 RP168 (as A. abruptibulbus)

Agaricus fissuratus (Möll.) Möll.

Aberffraw (E & K), Kenfig, Rhosneigr
With Gramineae in sandy soil
Semi-fixed dune SD7
Ref: Moser235

Agaricus langei (Möll. & J. Schaeff.) Möll.

Newborough (BMS)
Ref: Bon276 Buc146 LH130 RP160

Agaricus littoralis (Wakef. & Pearson) K. & M.

Kenfig (NR list)
Ref: Buc146 RP163

Agaricus lutosus (Möll.) Möll.

Dyffryn, Ynyslas
With Gramineae in sandy soil
Dune slack SD14/16
Ref: Moser237

Agaricus macrosporus (Möll. & J. Schaeff.) Pilát

Harlech
With Gramineae in sandy soil
Dune pasture MG6
Ref: Bon278 Buc148 LH134 RP164

Agaricus nivescens (Möll.) Möll.

Gwbert, Ynyslas (K)
With Gramineae in sandy soil
Dune grassland SD8
Ref: Bon278 Buc147

Agaricus placomyces Peck

Merthyr Mawr
With mixed trees in leaf litter
Dune woodland non-NVC type
Ref: Bon278 (as A. praeclaresquamosus)
Buc149 LH130 RP168

Agaricus porphyrlizon Orton

Kenfig, Rhosneigr
With Gramineae in sandy soil
Semi-fixed dune & slack SD7/14/15
Ref: Bon276 Buc148

Agaricus semotus Fr.

Harlech, Kenfig, Ynyslas
With Gramineae in sandy soil
Semi-fixed dune & slack SD7/14/15
Ref: Bon276 Buc148 LH134 RP163

Agaricus silvaticus Schaeff.: Secr.

Harlech, Newborough, Pembrey (K), Whiteford
With Pinus in needle litter
Dune plantation X3
Ref: Bon276 Buc146 LH130 RP160

Agaricus silvicola (Vitt.) Sacc.

Newborough
With Pinus in needle litter
Dune plantation X3
Ref: Bon278 Buc147 LH134 RP168

Agaricus spissicaulis Möll.

Harlech
With Gramineae in sandy soil
Dune slack SD16
Ref: Moser234

Agaricus xanthodermus var. *leptoides* Maire

* Red Data List (V)
Ynyslas
With Gramineae in sandy soil
Dune slack SD15/16
Ref: FRIC10 p. 12

- Agrocybe arenaria** Sing.
* Red Data List (V)
Ynyslas
With Gramineae in sandy soil
Dune slack SD15/16
1st British record: Ynyslas 29 June 1985 (MR)
- Agrocybe arvalis** (Fr.) Sing.
Newborough
With Gramineae in sandy soil
Dune slack SD17
Ref: Bon262 Buc143
- Agrocybe cylindracea** (DC.: Fr.) Maire
Merthyr Mawr (BMS)
Ref: Bon262 (as A. aegerita) RP170
- Agrocybe erebia** (Fr.) Kühn.
Merthyr Mawr (BMS), Ynyslas
With Gramineae in sandy soil
Dune slack SD14
Ref: Bon262 RP168
- Agrocybe paludosa** (Lange) Kühn. & Romagn.
Ynyslas
With Gramineae in wet soil
Wet dune slack SD17
Ref: Buc42 LH152 RP170
- Agrocybe semiorbicularis** (Bull.: St. Amans) Fayod
Aberffraw, Dyffryn, Newborough, Ynyslas
With Gramineae in sandy soil
Dune slack SD15/16
Ref: Bon262 RP168
- A. semiorbicularis** var. *macrospora* Sing.
Ynyslas (E)
With Gramineae in sandy soil
Dune slack SD15/16
- Agrocybe sphaleromorpha** (Bull.:Fr.) Fayod
Whiteford, Ynyslas
With Gramineae in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon262
- Agrocybe subpediades** (Murr.) Watling
Dyffryn, Whiteford, Ynyslas
With Lichenes & Bryophyta in bare sand
Semi-fixed dunes SD7
Ref: BFF3 p. 21
- Agrocybe vervacti** (Fr.) Sing.
Ynyslas (NR list)
Ref: Bon262
- Alboleptonia sericella** (Fr.: Fr.) Largent & Benedict
Harlech, Newborough, Ynyslas
With Gramineae in sandy soil
Dune slack SD17
Ref: Bon188 (as Entoloma sericellum) Buc117 (as Leptonia)
LH182 (as Rhodophyllus sericellus) RP117 (as Leptonia)
- Amanita muscaria** (L.) Hook.
Newborough (BMS)
Ref: Bon296 Buc55 LH116 RP15
- Amanita phalloides** (Fr.) Link
Merthyr Mawr (BMS)
Ref: Bon298 Buc55 LH116 RP18
- Amanita rubescens** Pers.
Newborough
With Betula in sandy soil
Dune scrub W4
Ref: Bon296 Buc56 LH118 RP17
- Armillaria gallica** Marxmüller & Romagn.
Merthyr Mawr
On dead wood and in litter
Dune plantation X3
Ref: Moser132 (as Armillariella bulbosa)
- Armillaria mellea** (Vahl.) Kummer
Newborough, Pembrey
On conifer stump
Dune plantation X3
Ref: Bon142
- Armillaria tabescens** (Scop.: Fr.) Emel.
Whiteford
On Pinus stump
Dune plantation X3
Ref: Bon142 Buc71 LH92 RP33
- Arrhenia retiruge** (Bull.:Fr.) Redhead
Pembrey (K)
Ref: Moser133 RP265 (both as Leptoglossum)
- Arrhenia spathulata** (Fr.) Redhead
Newborough, Ynyslas
On Musci
Dune slack SD15/17
Ref: Bon124 Buc72 (as Leptoglossum muscigenum)
- Baeospora myosura** (Fr.) Sing.
Newborough (NR list)
Ref: Bon176 Buc87 LH112 RP68
- Bolbitius titubans** (Bull.:Fr.) Fr.
Gwbert, Kenfig, Poppit, Stackpole, Whiteford, Ynyslas
With Gramineae in sandy soil
Dune slack & pathsides SD15
Ref: BFF3 p. 33
- Bolbitius vitellinus** (Pers.:Fr.) Fr.
Freshwater West, Gwbert, Kenfig, Merthyr Mawr,
Newborough, Whiteford
On dung or rotting Gramineae
Dune grassland & slack SD8/14/15
Ref: Bon260 Buc142 LH152 RP154
- Calocybe carneoides** (Bull.:Fr.) Donk
Gwbert, Harlech, Kenfig, Point of Air (K), Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD14/15/16
Ref: Bon166 Buc71 RP43

Welsh Sand-dune Fungi

Calocybe gambosa (Fr.) Donk

Merthyr Mawr, Pembrey

With Gramineae in sandy soil

Dune slack SD15

Ref: Bon166 Buc71 LH82 (as Tricholoma) RP41 (as Tricholoma)

Calocybe ionides (Bull.) Donk

Merthyr Mawr, Newborough

With Gramineae & Musci in sandy soil

Dune slack SD15/16

Ref: Bon 166

Calocybe obscurissima (Pearson) Mos.

Harlech, Merthyr Mawr, Whiteford

With Gramineae & Musci in sandy soil

Dune slack SD14/15/16

Ref: Moser142

Claudopus nigrellus (Pers.) Orton

Pembrey, Ynyslas

With Gramineae in sandy soil

Dune slack SD15

Ref: Moser215 (as Rhodophyllus)

Claudopus rusticoides (Gill.) Orton

Pembrey (K)

"Old grey dunes"

Ref: Moser215 (as Rhodophyllus)

1st Welsh record: Pembrey 1991 (PJ)

Claudopus sericeonitidus (Orton) Orton

Aberffraw, Dyffryn, Freshwater West, Kenfig, Merthyr Mawr, Newborough, Oxwich, Pembrey, Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon188 (as Entoloma undatum) Buc116 (as Eccilia sericeonitida)

Clitocybe barbularum (Romagn.) Orton

Aberffraw, Dyffryn, Freshwater West, Kenfig, Newborough, Oxwich, Pembrey, Stackpole, Whiteford, Ynyslas

With Gramineae in sandy soil

Dune slack SD14/15

Ref: Bon128 (as Omphalina)

Clitocybe brumalis (Fr.) Quél.

Newborough (NR list)

Ref: Bon138

Clitocybe cerrusata (Fr.) Gill.

Newborough (NR list)

Ref: Buc64

Clitocybe clavipes (Pers.) Kummer

Newborough

With Coniferae in leaf litter

Dune plantation X3

Ref: Bon134

Clitocybe dealbata (Sow.: Fr.) Kummer

Aberffraw, Dyffryn, Gwbert, Harlech, Kenfig, Merthyr Mawr, Newborough, Poppit, Rhosneigr, Stackpole, Whiteford, Ynyslas

With Gramineae in sandy soil

Dune slack & grassland SD9/14/15/16

Ref: Bon136 Buc64 LH96 RP50

Clitocybe dicolor (Pers.) J. Lange

Harlech

With Pinus in leaf litter

Dune plantation X3

Ref: Bon140 (as C. decembris) Buc64 RP51

Clitocybe flaccida (Sow.: Fr.) Kummer

Harlech, Kenfig, Newborough, Pembrey

With Pinus in leaf litter

Dune plantation X3

Ref: Buc65 LH94 RP48

Clitocybe fragrans (Sow.: Fr.) Kummer

Gwbert, Newborough, Oxwich, Poppit, Stackpole, Whiteford, Ynyslas

With Salix & Pinus in litter or sandy soil

Dune slack and in plantation SD14/15 & SD15 in X3

Ref: Bon138 Buc64 LH96 RP50

Clitocybe gilva (Pers.: Fr.) Kummer

Pembrey

With Salix in sandy soil

Dune scrub W1

Ref: Bon142 (as Lepista) Buc65

Clitocybe graminicola Bon

Kenfig, Whiteford

With Gramineae in sandy soil

Dune slack & semi-fixed dunes SD7/15/16

Ref: Bon136

1st British record: Whiteford 7 Nov 1992 (RC)

Clitocybe harmajae Lam.

Whiteford

With Gramineae in sandy soil

Dune slack & plantation SD14/15 & X3

Ref: Moser113

Clitocybe hydrogramma (Bull.: Fr.) Kummer

Ynyslas

With Salix in sandy soil

Dune scrub W1

Ref: Bon140 (as C. phaeophthalma) Buc65 RP51

Clitocybe infundibuliformis (Schaeff.: Weinm.) Quél.

Merthyr Mawr

With broadleaved trees

Dune woodland non-NVC type

Ref: Bon134 (as C. gibba) Buc63 LH94 RP48

- Clitocybe inornata** (Sow.) Gill.
Kenfig, Merthyr Mawr
With broadleaved trees
Dune scrub W4
Ref: Bon136 Buc63
- Clitocybe langei** Sing. ex Hora
Newborough (NR list)
Ref: Bon140 Buc65 LH96
- Clitocybe leucodiatreta** Bon
* Proposed Red Data List
Whiteford
With Gramineae in sandy soil
Dune slack SD15
Ref: FOS3 p.160
1st British record: Whiteford 7 Nov 1992 (MR/RC)
- Clitocybe metachroa** (Fr.) Kummer
Whiteford
With Pinus in litter or sandy soil
Dune plantation X3
Ref: Bon140
- Clitocybe nebularis** (Batsch.:Fr.) Kummer
Newborough, Whiteford
With Pinus in litter or sandy soil
Dune plantation X3
Ref: Bon136 Buc65 LH92 RP48
- Clitocybe odora** (Bull.) Kummer
Kenfig, Oxwich
With Pinus in leaf litter
Dune plantation X3
Ref: Bon136 Buc63 LH94 RP48
- Clitocybe phyllophila** (Fr.) Kummer
Kenfig (K)
With Gramineae in sandy soil
Semi-fixed dunes
Ref: Buc63 RP50
1st Welsh record: Kenfig 16 Nov 1990 (MR)
- Clitocybe rivulosa** (Pers.) Kummer
Newborough, Ynyslas
With Gramineae in sandy soil
Dune slack SD14/15/16
Ref: Bon136 Buc64 LH96 RP51
- Clitocybe vermicularis** (Fr.) Quél.
Ynyslas (K)
Ref: Moser110
- Clitocybe vibecina** (Fr.) Quél.
Whiteford
With Pinus in litter or sandy soil
Dune plantation X3
Ref: Bon140 Buc65
- Clitopilus prunulus** (Scop.) Kummer
Newborough
With Gramineae in sandy soil
Plantation edge X3
Ref: Bon188
- Clitopilus scyphoides** (Fr.:Fr.) Sing.
Harlech, Ynyslas
With Salix in sandy soil
Dune slack SD15
Ref: Moser196
- Collybia butyracea** (Bull.: Fr.) Kummer
Harlech, Newborough
With Pinus in sandy soil & litter
Dune plantation X3
Ref: Bon178 Buc75 LH100 RP57
- Collybia confluens** (Pers.:Fr.) Kummer
Merthyr Mawr (BMS), Newborough, Whiteford
With Pinus in litter or sandy soil
Dune plantation X3
Ref: Bon178 Buc75 LH100 RP54
- Collybia dryophila** (Bull.:Fr.) Kummer
Gwbert, Harlech, Merthyr Mawr (BMS), Newborough, Oxwich,
Pembrey, Whiteford
With Pinus or broadleaved trees in sandy soil
Dune plantation X3 or scrub W4
Ref: Bon178 Buc75 LH100 RP54
- Collybia maculata** (A.-S.) Kummer
Newborough
With Pinus in needle litter
Dune plantation X3
Ref: Bon178 Buc76 LH100 RP54
- Collybia peronata** (Bolt.) Kummer
Newborough, Oxwich
With coniferous or broadleaved trees in sandy soil
Dune scrub & plantation W4 & X3
Ref: Bon178 Buc75 LH100 RP57
- Collybia tuberosa** (Bull.:Fr.) Kummer
Whiteford, Ynyslas
With Pinus in needle litter
Dune plantation X3
Ref: Bon180 Buc74 LH102 RP57
- Conocybe ambigua** Watling
Whiteford
With Salix repens and Gramineae in sandy soil
Dune slack SD15a/b
Ref: Moser285
1st Welsh record: Whiteford 10 Aug 1991 (MR)
- Conocybe anthrocophila** (Maire & Kühn. ex) Kühn. &
Watling
Ynyslas
With Gramineae in rich soil
Dune slack SD15
Ref: BFF3 p. 78
- Conocybe arrhenia** (Fr.) van Waveren
Pembrey (K)
Ref: Bon260

Welsh Sand-dune Fungi

Conocybe dunensis Wallace ap. Orton

Freshwater West, Gwbert, Harlech, Kensig, Merthyr Mawr, Oxwich, Rhosneigr, Stackpole, Whiteford, Ynyslas
With Gramineae or Ammophila in sandy soil or bare sand
Dune slacks, fixed & semi-fixed dunes SD6/7/8/15/17
Ref: Buc143

Conocybe kuehneriana Sing.

Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: BFF3 p. 72

Conocybe lactea (J. Lange) Métrod

Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD17
Ref: Bon260 (as Bolbitius lacteus) Buc142 (as B. lacteus)
LH152 RP154

Conocybe macrocephala (Kühn.) Kühn. & Watling

Newborough
With Gramineae in sandy soil
Dune slack SD15
Ref: BFF3 p. 54

Conocybe pubescens (Gill.) Kühn.

Newborough (BMS, as Galera), Stackpole
With Gramineae in sandy soil
Dune slack SD15
Ref: BFF3 p. 66
1st British record: Newborough 14 Sept 1950 (BMS)

Conocybe siennophylla (Ber. & Br.) Sing.

Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: BFF3 p. 74

Conocybe tenera (Schaeff.: Fr.) Fayod

Oxwich (NR list)
Ref: Bon260 LH152 RP154

Coprinus acuminatus (Romagn.) Orton

Dyffryn
On buried wood
Dune grassland MG1
Ref: Buc152

Coprinus ammophilae Court.

* Red Data List (R)
Kensig, Oxwich, Whiteford
On rotting Ammophila culms in bare sand
Mobile dunes SD6
Ref: Court73
1st Welsh, 2nd British record: Whiteford 11 Oct 1991 (MR)

Coprinus atramentarius (Bull.:Fr.) Fr.

Kensig (NR list), Whiteford
On buried rotted wood & post
Dune plantation X3
Ref: Bon270 Buc152 LH136 RP178

Coprinus cinereus (Sch.) S.F. Gray

Ynyslas
On buried rabbit dung in bare sand
Mobile dunes SD6d
Ref: Bon270 Buc152 LH136

Coprinus comatus (Müll.:Fr.) S.F. Gray

Kensig, Pembrey, Whiteford, Ynyslas
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Bon270 Buc151 LH136 RP176

Coprinus cordisporus Godey ap. Gill.

Whiteford, Ynyslas (2-spored form)
On soil amongst rabbit dung
Dune slack SD14
Ref: Moser262 (as C. patouillardii)

Coprinus echinosporus Buller

Ynyslas
On buried wood
Dune slack SD15
Ref: Moser258

Coprinus foetidellus Orton

Ynyslas
On rabbit dung
Mobile dunes SD6
Ref: BFF2 p. 76
1st Welsh, 2nd British record: Ynyslas 1 Apr 1985 (MR)

Coprinus hemerobius Fr.

Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: Buc156

Coprinus lagopides Karst.

Ynyslas
On burnt ground
Dune slack SD15
Ref: Bon270 Buc152 RP178

Coprinus leiocephalus Orton

Ynyslas
With Gramineae in sandy soil
Dune slack SD14c
Ref: Moser267

Coprinus micaceus (Bull.:Fr.) Fr.

Kensig (NR list), Merthyr Mawr
On buried stump
Dune plantation X3
Ref: Buc272 LH140 RP180

Coprinus niveus (Pers.:Fr.) Fr.

Whiteford
On horse dung
Semi-fixed dunes SD7c/d
Ref: Bon272 Buc154 LH138 RP178

- Coprinus pellucidus** Karst.
Whiteford
On horse dung
Dune plantation X3
Ref: Moser265
- Coprinus plicatilis** (Fr.) Fr.
Gwbert, Harlech, Kenfig, Newborough
With Gramineae in sandy soil
Dune slack SD14/15/16
Ref: Bon272 Buc156 LH138 RP180
- Coprinus rhombisporus** Orton
Ynyslas
On dead Gramineae
Dune slack SD15
Ref: BFF2 p. 49
- Coprinus truncorum** (Schaeff.) Fr.
Pendine
On driftwood
Mobile dunes
Ref: Buc153
- Cortinarius anomalous** (Fr.:Fr.) Fr.
Harlech, Kenfig, Newborough, Oxwich
With Salix in wet soil
Wet dune slack SD17
Ref: Bon216 Buc132 LH168
- Cortinarius cinnamomeobadius** Henry
Harlech, Newborough
With Salix repens in sandy soil
Dune slack SD15
Ref: Bon226 RP139
- Cortinarius cinnamomeoluteus** Orton
Harlech
With Salix repens in sandy soil
Dune slack SD15
Ref: Bon226 LH168
- Cortinarius cinnamomeus** (L.:Fr.) Fr.
Newborough
With Salix repens in sandy soil
Dune slack SD15
Ref: Bon226 Buc134 LH168 RP141
- Cortinarius cohabitans** Karst.
* Proposed Red Data List
Oxwich, Newborough, Whiteford, Ynyslas
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Brandrud (as C. saturninus)
1st British record: Ynyslas 6 Sept 1985 (MR)
- Cortinarius collinitus** (Sow.:Fr.) Fr. s Lange
Newborough (BMS)
Ref: RP121
- Cortinarius croceoconus** Fr.
Newborough (BMS)
With Salix repens in sandy soil
Dune slack SD15
Ref: Orton1958 p. 132
- Cortinarius fulvosquamulosus** Orton
* Proposed Red Data List
Harlech
With Salix repens in sandy soil
Dune slack SD15
Ref: Orton1976 p. 709
- Cortinarius gentilis** (Fr.) Fr.
Harlech, Newborough, Whiteford
With Pinus in sandy soil
Dune plantation X3
Ref: Bon222 Buc133 RP134
- Cortinarius jubarinus** Fr.
Harlech
With Pinus in needle litter
Dune plantation X3
Ref: Moser425
- Cortinarius lepidopus** Cooke
Kenfig (NR list), Newborough (NR list)
Ref: Bon216 RP132 (both as C. anomalous forma)
- Cortinarius obtusus** (Fr.) Fr.
Whiteford
With Bryophyta in sandy soil
Dune plantation X3
Ref: Bon220 Buc135 LH172 RP139
- Cortinarius pulchripes** Favre
Ynyslas (E)
Ref: Moser409
1st Welsh record: Ynyslas 26 Sept 1987 (RW)
- Cortinarius rigens** (Pers.:Fr.) Fr.
Newborough (K)
In plantation
Ref: Moser401
- Cortinarius rubrocephalus** nom. prov. (Orton)
Ynyslas (E)
1st Welsh record: Ynyslas 26 Sept 1987 (RW)
- Cortinarius triformis** Fr.
Newborough (K), Whiteford
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Moser402
- Cortinarius trivialis** Lange
Harlech, Kenfig (NR list)
With Salix repens in sandy soil
Dune slack SD15
Ref: Bon202 Buc129 LH162 RP120
- Cortinarius uliginosus** Berk.
Harlech
With Salix repens in wet soil
Dune slack SD17
Ref: RP141

Welsh Sand-dune Fungi

- Crepidotus mollis** (Schaeff.:Fr.) Kummer
 Merthyr Mawr, Newborough
 On broadleaved stumps
 Dune plantation X3
 Ref: Bon244 Buc138 LH176 RP189
- Crepidotus variabilis** (Pers.:Fr.) Kummer
 Kenfig (NR list), Newborough
 On dead broadleaved twigs
 Dune plantation X3
 Ref: Bon244 Buc139 LH176 RP188
- Crinipellis stipitarius** (Fr.) Pat.
 Kenfig, Merthyr Mawr, Newborough, Oxwich, Rhosneigr,
 Whiteford, Ynyslas
 On dead Gramineae & Ammophila stems
 Dune slack & semi-fixed dunes SD7/14
 Ref: Bon174 Buc86
- Cystoderma amianthinum** ([Scop.] Fr.) Fayod
 Harlech, Kenfig, Merthyr Mawr, Newborough, Pembrey,
 Stackpole, Whiteford, Ynyslas
 With Gramineae & Musci
 Dune slack (often in plantation) SD14/15 in X3
 Ref: Bon172 Buc57 LH128 RP31
- Cystoderma granulosum** (Batsch.:Fr.) Fayod
 Newborough (NR list)
 Ref: Bon 172 Buc58 LH128
- Cystoderma jasonis** Orton
 Ynyslas
 With Gramineae in sandy soil
 Dune slack SD15
 Ref: Bon172
- Dermoloma atrocinereum** (Pers.:Pers.) Orton
 Newborough (NR list)
 Ref: Bon170
- Entoloma clypeatum** (L.:Fr.) Kummer
 Kenfig, Whiteford
 With Crataegus or Malus in sandy soil
 Dune scrub W11/22
 Ref: Bon192 Buc116 LH180 (as Rhodophyllus) RP114
- Entoloma rhodopollum** (Fr.) Kummer
 Harlech
 With Gramineae in sandy soil
 Dune scrub
 Ref: Buc117
- Entoloma (Nolanea) sericeum** (Bull.) Quél. var.
cinereoopacum Noordel.
 Kenfig
 With Gramineae in sandy soil
 Car park verge
 Ref: FAN1 p. 130
 1st British record: Kenfig 8 Nov 1992 (MR)
- Fayodia pseudoclusilis** (Joss. & Konr.) Sing.
 Newborough, Rhosneigr, Whiteford, Ynyslas
- With Musci in sandy soil
 Semi-fixed dunes & dune plantation SD7/8 & X3
 Ref: Bon130 (as Gamundia)
- Flammulaster carpophila** (Fr.) Earle var.
autochthonoides Bon
 * Proposed Red Data List
 Oxwich, Whiteford
 Ref: DM67 p. 3; DM84 p. 19
 1st British record: Oxwich 6 Nov 1992 (RC)
- Flammulaster granulosus** (Lge.) Watling
 Whiteford
 With Pinus in sandy soil
 Dune plantation X3
 Ref: Bon246 Buc139 (as Flocculina) RP159 (as Flocculina)
- Flammulaster saliciphila** (Favre) Watling
 Whiteford
 On dead Salix leaves
 Ref: Moser306
 1st Welsh record: Whiteford 7 Sept 1992 (RC)
- Flammulina velutipes** (Curtis) Karst.
 Merthyr Mawr (BMS)
 Ref: Bon170 Buc88
- Galerina heterocystis** (Atk.) Smith & Sing.
 Harlech, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack SD14
 Ref: Moser423
- Galerina hypnorum** (Schrank:Fr.) Kühn.
 Gwbert, Merthyr Mawr, Newborough, Poppit, Stackpole,
 Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack SD14/15
 Ref: Buc138 LH174
- Galerina luteofulva** Orton
 Dyffryn, Gwbert, Harlech, Newborough, Oxwich, Poppit,
 Rhosneigr, Stackpole, Whiteford, Ynyslas
 With Salix repens & Gramineae in sandy soil
 Wet dune slack SD15/16
 Ref: Moser426
- Galerina mycenoides** (Fr.) Kühn.
 Ynyslas
 With Musci in wet soil
 Wet dune slack SD17
 Ref: Bon248 Buc137
- Galerina paludinella** Orton
 * Red Data List (R)
 Harlech (E)
 With Salix in sandy soil
 Dune slack SD15/17
 Ref: Orton1988 p. 553
 1st British record (typus): Harlech 27 Sept 1987 (PDO)

- Galerina praticola** (Møller) Orton
 Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack SD14/15
 Ref: Bon248 Buc136
- Galerina pumila** (Pers.:Fr.) M. Lange ex Sing.
 Newborough (BMS)
 Ref: Bon248
- Galerina vittaeformis** (Fr.) Moser
 Gwbert, Kenfig, Oxwich, Merthyr Mawr, Newborough (K),
 Stackpole, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune grassland & slack SD8/9/14/15
 Ref: Bon248 Buc137
- Gymnopilus flavus** (Bres.) Sing.
 Ynyslas
 On dead Ammophila stems
 Mobile dunes SD6
 Ref: Moser345
- Gymnopilus hybridus** (Fr.:Fr.) Sing.
 Whiteford
 With Pinus on woody debris
 Dune plantation X3
 Ref: Buc129 RP142
- Gymnopilus junonius** (Fr.) Orton
 Harlech, Newborough, Whiteford
 On Pinus stumps & buried wood
 Dune plantation X3
 Ref: Bon244 (as var.) Buc128 LH174 RP144
- Gymnopilus penetrans** (Fr.:Fr.) Murr.
 Merthyr Mawr, Newborough, Whiteford
 On dead Pinus branches, twigs
 Dune plantation X3
 Ref: Bon244 Buc129 LH174 RP143
- Hebeloma crustuliniforme** (Bull.:St Amans) Quél.
 Harlech, Kenfig, Newborough, Whiteford
 With Pinus, Salix repens & scrub in sandy soil
 Dune plantation & scrub X3 W22
 Ref: Bon228 Buc127 LH160 RP147
- Hebeloma dunense** Corbière & Heim ap. Corbière
 Kenfig (K), Oxwich
 Slack with Salix repens
 Ref: Moser336
 1st British record: Oxwich 6 Nov 1992 (RC)
- Hebeloma hiemale** Bres.
 Kenfig, Ynyslas
 With Salix in sandy soil
 Dune slack SD15/17
 Ref: Moser340
- Hebeloma leucosarx** Orton
 Newborough, Oxwich
 With Salix repens in sandy soil
 Dune slack SD15/17
 Ref: Bon228 Buc127 LH160 RP147
- Hebeloma mesophaeum** (Pers.) Quél.
 Dyffryn, Harlech, Kenfig, Newborough, Oxwich, Stackpole,
 Whiteford, Ynyslas
 With Salix repens in sandy soil
 Dune slack SD14/15
 Ref: Bon230 Buc127 LH160 RP147
- Hebeloma pusillum** J. Lange
 Kenfig, Merthyr Mawr, Oxwich, Pembrey, Whiteford, Ynyslas
 With Salix in sandy soil
 Dune slack & scrub SD14/15, W22
 Ref: Bon228 Buc127 LH160 RP148
- Hebeloma sacchariolens** Quél.
 Aberffraw (K)
 Ref: Bon228 Buc127 LH160 RP147
- Hebeloma vaccinum** Romagn.
 * Red Data List (V)
 Harlech (K)
 With Salix in sandy soil
 Wet dune slack SD17
 Ref: Moser340
 1st Welsh record: Harlech 19 Oct 1991 (MR)
- Hebeloma versipelle** (Fr.) Gill.
 Ynyslas (K)
 With Salix in dunes
 Ref: Moser337
 1st Welsh record: Ynyslas Sept 1977 (JNH)
- Hohenbuehelia eulimicola** Bon
 * Red Data List (R)
 Point of Air, Whiteford
 At base of Ammophila on dead culms
 Mobile & semi-fixed dunes SD6/7
 Ref: Bon122
 1st Welsh, 2nd British record: Point of Air 30 Sept 1978 (BI)
- Hygrocybe aurantia** Murr.
 * Proposed Red Data List
 Pembrey (K)
 "In Lawson Cypress plantation"
 1st British record: 8 Sept 1980 (PJ)
- Hygrocybe ceracea** (Wulf.) Kummer
 Harlech, Newborough, Stackpole, Ynyslas
 With Gramineae in sandy soil
 Dune slack SD14/15/16
 Ref: Bon108 Buc92 RP64
- Hygrocybe chlorophana** (Fr.) Wünsche
 Newborough (NR list)
 Ref: Bon106 Buc92
- Hygrocybe cinereifolia** Court. & Priou
 * Proposed Red Data List
 Harlech, Kenfig
 With Gramineae in sandy soil
 Wet dune slack
 Ref: DM86 p. 69
 1st British record: Harlech 4 Oct 1992 (MR)

Welsh Sand-dune Fungi

Hygrocybe coccinea (Sch.) Kummer

Kenfig (NR list), Newborough (NR list)

Ref: Bon108 Buc94 RP63

Hygrocybe conica (Scop.:Fr.) Kummer

Aberffraw, Freshwater West, Gwbert, Harlech, Kenfig, Oxwich, Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon104 Buc93 LH78 (as Hygrophorus conicus) RP60

H. conica f. pseudoconica (J. Lange) Arnolds

Freshwater West, Kenfig, Newborough, Oxwich, Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Semi-fixed dune & slack SD7/14/15

Ref: Bon104 Buc93 LH78 RP60 (all as H. nigrescens)

Hygrocybe conicoloides (Orton) Orton & Watling

Dyffryn, Gwbert, Harlech, Kenfig, Merthyr Mawr, Newborough, Oxwich, Poppit, Rhosneigr, Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil & bare sand

Mobile dune & slack SD6/14/15

Ref: Bon104 Buc93

Hygrocybe constrictospora Arnolds

Kenfig

With Gramineae in sandy soil

Dune slack SD14/15

Ref: Arnolds 1990

Hygrocybe insipida (Lange: Lund.) Moser

Kenfig

With Gramineae in sandy soil

Dune slack SD17

Ref: Bon108

Hygrocybe lepida Arnolds

Pembrey (NR list)

Ref: Bon110 Buc94 (as H. cantharellus) RP63 (as H. cantharellus)

Hygrocybe miniata (Fr.) Kummer

Harlech, Kenfig (NR list)

With Gramineae in sandy soil

Dune slack SD14/15

Ref: Bon110 Buc94 LH78 (as Hygrophorus) RP63

Hygrocybe nitrata (Pers.) Wünsche

Gwbert

With Gramineae in sandy soil

Dune slack SD13

Ref: Bon112 Buc91 RP60

Hygrocybe olivaceonigra (Orton) Moser

Stackpole

With Bryophyta in sandy soil

Semi-fixed dune SD7

Ref: Moser93

1st Welsh record: Stackpole 7 Nov 1987 (MR)

Hygrocybe ovina (Bull.:Fr.) Kühn.

Harlech (E)

With Gramineae in sandy soil

Semi-fixed dune SD7

Ref: Bon112 Buc91 RP60

Hygrocybe persistens (Britz.) Sing.

Harlech, Kenfig, Newborough (BMS), Oxwich, Stackpole,

Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon106 (as var. langei) Buc93 (as H langei) RP65 (as H langei)

1st British record: Newborough 1950 (BMS, as H. constans)

H. persistens var. *cuspidata* (Peck) Arnolds

Freshwater West, Gwbert, Harlech, Kenfig, Oxwich,

Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon106 (as H. aurantiolutescens)

Hygrocybe pratensis (Pers.:Fr.) Murr.

Freshwater West, Kenfig (NR list)

With Gramineae in sandy soil

Dune slack SD14

Ref: Bon102 (as Cuphophyllus) Buc91 (as Camarophyllus) RP60

H. pratensis var. *pallida* (Cooke) Arnolds

Freshwater West, Gwbert, Harlech, Merthyr Mawr,

Newborough, Oxwich, Poppit, Stackpole, Whiteford, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon102 (as Cuphophyllus berkeleyi)

Hygrocybe psittacina (Sch.) Kummer

Freshwater West, Harlech, Kenfig, Newborough, Pembrey,

Ynyslas

With Gramineae in sandy soil

Dune slack SD14/15/17

Ref: Bon112 Buc92 LH78 (as Hygrophorus) RP65

Hygrocybe punicea (Fr.) Kummer

Newborough

With Gramineae in sandy soil

Dune slack SD14/17

Ref: Bon106 Buc93 LH78 (as Hygrophorus) RP63

Hygrocybe reai (R. Maire) Lange

Aberffraw, Freshwater West, Newborough, Ynyslas

With Gramineae in sandy soil

Dune slack SD14/15

Ref: Bon108 Buc92

Hygrocybe russocoriacea (B. & Miller) Orton & Watling

Gwbert, Rhosneigr

With Gramineae in sandy soil

Dune slack SD14/15

Ref: Bon102 (as Cuphophyllus) Buc90 (as Camarophyllus) RP65

- Hygrocybe splendissima** (Orton) Svr.
Stackpole
With Gramineae & Musci in sandy soil
Dune slack SD15
Ref: Bon106 Buc92
- Hygrocybe virginea** (Wulf.:Fr.) Orton & Watling
Gwbert, Harlech, Kenfig, Newborough, Rhosneigr, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Bon102 (as Cuphophyllum niveus) Buc91 (as Camarophyllum niveus) LH76 (as Hygrophorus niveus) RP65 (as H. nivea)
- Hygrocybe vitellina** (Fr.) Karst.
Pembrey
With Gramineae in sandy soil
Dune slack SD14/15
Ref: Bon108 Buc92 RP64
- Hygrophoropsis aurantiaca** (Wulf.:Fr.) R. Maire
Harlech, Kenfig, Newborough, Pembrey, Whiteford
With Pinus in sandy soil
Dune plantation & scrub X3 & W4
Ref: Bon50 Buc87 LH184 RP66
- Hygrophorus eburneus** (Bull.) Fr.
Newborough (NR list)
Ref: Bon114 Buc88 LH76 RP59
- Hypholoma capnoides** (Fr.) Kummer
Newborough
With Pinus in needle litter
Dune plantation X3
Ref: Bon252 Buc149 LH146 RP159
- Hypholoma fasciculare** (Huds.:Fr.) Kummer
Freshwater West, Whiteford
On rotten logs/stump
Fence post & woodland ride WR
Ref: Bon252 Buc149 LH146 RP159
- Hypholoma marginatum** (Pers.) Schroet.
Newborough (NR list)
Ref: Bon252 Buc149 RP159
- Hypholoma sublateritium** (Fr.) Quél.
Whiteford
On rotten Pinus stumps
Dune plantation X3
Ref: Bon252 Buc149 LH146 RP159
- Hypholoma udum** (Pers.:Fr.) Kühn.
Newborough (NR list)
Ref: RP159 Buc150 LH146
- Inocybe abietis** Kühn.
Whiteford (K)
With Pinus in sandy soil
Dune plantation X3
Ref: Bon233 Buc123
- Inocybe agaricophilus** (N. Lund.) Orton
Dyffryn, Harlech, Kenfig, Merthyr Mawr, Newborough, Oxwich, Pembrey, Whiteford, Ynyslas
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Bon234 Buc121
- Inocybe appendiculata** Kühn.
Whiteford
With Pinus in sandy soil
Dune plantation X3
Ref: Moser323
- Inocybe arenicola** (Heim) Bon
* Red Data List (V)
Harlech (E), Newborough, Pembrey, Whiteford
With Salix repens or Pinus in sandy soil
Semi-fixed dunes, dune slack & plantation edge in sandy soil SD7/15 X3
Ref: Kuyper56
1st British record: Pembrey 19 Sept 1986 (MR)
- Inocybe bongardii** (Weinm.) Quéil.
Whiteford
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Bon234 Buc122 LH156 RP149
- Inocybe cookei** Bres.
Merthyr Mawr (BMS)
Ref: Bon234 Buc121 LH156 RP149
- Inocybe devoniensis** Orton
Newborough, Whiteford, Ynyslas
With Ammophila, Gramineae & Salix repens in sandy soil or bare sand
Mobile dunes & eroded banks of slacks SD6/7
Ref: Buc124
- Inocybe dulcamara** (Alb. & Schw.:Pers.) Kummer
Dyffryn, Harlech, Kenfig, Newborough, Oxwich, Whiteford
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Bon234 Buc121 LH156 RP150
- Inocybe dunensis** Orton
Whiteford
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Moser333
- Inocybe fuscidula** Vel.
Newborough, Whiteford
With Pinus in sandy soil
Dune plantation X3
Ref: Bon240 Buc123 (as I. brunneonatra)
- Inocybe geophylla** (Sow.:Fr.) Kummer
Newborough, Pembrey, Whiteford
With Pinus in sandy soil
Dune plantation X3
Ref: Bon240 Buc122 LH154 RP150

Welsh Sand-dune Fungi

I. geophylla var. illacina Gill.

Ynyslas

With Salix in sandy soil

Dune slack SD15

Ref: Bon240 Buc122 RP150

Dune slack SD14/15

Ref: Bon233

1st Welsh, 3rd British record: Ynyslas 24 May 1985 (MR)

Inocybe godeyi Gill.

Newborough (BMS)

Ref: Bon236 Buc122 RP148

Inocybe whitei (B. & Br.) Sacc.

Newborough (BMS, as I. pudica)

Ref: Bon236 Buc122 LH154 (all as I. pudica)

1st British record: Newborough 1950 (BMS)

Inocybe impexa (Lasch.) Kuyper

* Proposed Red Data List

"Gower Peninsula" ?Whiteford (K, as I. maritima)

Ref: Kuyper p. 106

1st Welsh record: Gower 26 June 1965 (RRS)

Laccaria amethystea (Bull.) Murr.

Newborough, Pembrey

With Pinus or Salix in sandy soil/litter

Dune plantation & scrub X3/W2

Ref: Bon146 Buc62 LH98 RP52 (as var.)

Inocybe lacera (Fr.:Fr.) Kummer

Newborough (K)

Ref: Bon238 Buc125 LH154 RP152

Laccaria laccata (Scop.) Berk. & Br.

Harlech, Newborough, Pembrey

With Pinus or Salix in sandy soil/litter

Dune plantation & scrub X3/W2

Ref: Bon146

Inocybe nitidiuscula (Britz.) Sacc.

Newborough (K, as I. friesii)

Ref: Bon240 Buc123 (as I. friesii)

Laccaria striatula (Peck) Peck

Ynyslas

With Salix in wet soil

Wet dune slack SD17

Ref: Orton 1960 p. 281

1st Welsh record: Ynyslas 27 Dec 1985 (MR)

Inocybe phaeocomis (Pers.) Kuyper

Whiteford

With Pinus in sandy soil

Dune plantation X3

Ref: Bon238 Buc124 (as I. cincinnata)

RP150 (as I. cincinnata)

Laetaria lacrymabunda (Bull.:Fr.) Pat.

Gwbert, Newborough

With Salix in rotting leaf litter

Dune plantation & scrub X3/W2

Ref: Bon268 (as Psathyrella) Buc156 (as L. velutina) LH140 (as Psathyrella) RP176 (as L. velutina)

Inocybe pruinosa Heim

* Proposed Red Data List

Point of Air (K, as I. halophila)

With Salix

Ref: Kuyper p. 169

1st Welsh record: Point of Air 7 Sept 1985 (RCh)

Lepiota alba (Bres.) Sacc.

Newborough, Ynyslas

With Gramineae & Musci in sandy soil

Dune slack SD15/16

Ref: Bon284 Buc59

Inocybe rimosa (Bull.:Fr.) Kummer

Dyffryn, Harlech, Newborough, Oxwich, Whiteford, Ynyslas

With Salix repens in sandy soil

Dune slack SD14/15

Ref: Bon234 Buc121 LH156 RP150 (all as I. fastigiata)

Lepiota aspera (Pers.) Quél.

Merthyr Mawr, Pembrey

With broadleaved trees in sandy soil

Dune woodland non-NVC type

Ref: Bon282 (as Cystolepiota) Buc58 (as L. friesii) LH124 (as L. friesii) RP27 (as L. friesii)

Inocybe serotina Peck

Harlech, Kenfig, Merthyr Mawr, Newborough, Oxwich, Whiteford

With Ammophila, Gramineae & Salix repens in sandy soil or bare sand

Mobile dunes & eroded banks of slacks SD6/7

Ref: Moser 327

Lepiota brunneoincarnata Chodat & Martin

Whiteford

With Gramineae & Musci in sandy soil

Dune slack SD14

Ref: Bon286 RP28

Inocybe vulpinella Brumalants

* Red Data List (V)

Dyffryn, Harlech, Newborough, Whiteford, Ynyslas

With Salix repens in sandy soil

Lepiota clypeolaria (Bull.) Kummer

Newborough (BMS)

Ref: Bon284

- Lepiota cristata** (Fr.) Kummer
Merthyr Mawr, Newborough, Oxwich, Pembrey, Stackpole, Whiteford
With Gramineae & Musci in sandy soil or Pinus needles
Dune slack & plantation SD14 X3
Ref: Bon284 Buc58 LH126 RP28
- Lepiota fulvella** Rea
Merthyr Mawr
With broadleaved trees in wet soil
Dune woodland non-NVC type
Ref: Buc59 LH128 RP29
- Lepiota oreadiformis** Vel.
Aberffraw, Gwbert, Harlech, Kenfig, Merthyr Mawr, Newborough, Oxwich, Pembrey, Rhosneigr, Stackpole, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon284 (as L. laevigata) RP27
- Lepista irina** (Fr.) Bigelow
Aberffraw, Harlech, Kenfig, Merthyr Mawr, Newborough, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon144 Buc66 LH90 (as Tricholoma irinum) RP114
- Lepista luscina** (Fr.:Fr.) Sing.
Kenfig
With Gramineae (often in rings) in sandy soil
Dune grassland SD8/9
Ref: Bon144 (as L. panaeolus) Buc66 RP113
- Lepista nuda** (Fr.) Orton
Aberffraw, Freshwater West, Gwbert, Kenfig, Merthyr Mawr, Newborough, Oxwich, Pembrey, Rhosneigr, Stackpole, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Dune slacks, grassland & plantation SD8/14 X3
Ref: Bon144 Buc65 LH90 (as Tricholoma nudum) RP113
- L. nuda var. pruinosa** (Bon) Bon
*** Proposed Red Data List**
Harlech, Kenfig, Newborough, Whiteford (K)
With Musci in sandy soil
Plantation edge, dune slack SD14/15 X3
Ref: Bon144
1st British record: Whiteford 8 Feb 1992 (MR)
- Lepista saeva** (Fr.) Orton
Gwbert, Kenfig, Newborough, Ynyslas
With Gramineae in sandy soil
Dune grassland & slack SD8/14/15
Ref: Bon144 Buc66 LH90 (as Tricholoma) RP114
- Lepista sordida** (Fr.) Sing.
Aberffraw, Freshwater West, Gwbert, Kenfig, Newborough, Oxwich, Rhosneigr, Stackpole, Tenby (K), Whiteford, Ynyslas
With Gramineae & Musci in sandy soil & bare sand at base of Ammophila
Mobile & semi-fixed dunes & slacks SD6/7/14
Ref: Bon144 Buc66 RP113
- L. sordida** var. *alanthina* (Bon) Bon
Kenfig (BMS)
Ref: Bon144
1st British record: Kenfig 8 Nov 1992 (RC)
- L. sordida** var. *obscura* (Bon) Bon
Kenfig (BMS)
Ref: Bon144
1st British record: Kenfig 8 Nov 1992 (RC)
- Leptonia anatina** (Lasch.) Kummer
Ynyslas (E)
Ref: Moser206 (as Rhodophyllus)
- Leptonia atromarginata** (Romagn. & Favre) Konr. & Maubl.
Ynyslas
With Salix repens in sandy soil
Wet dune slack SD17
Ref: Moser204 (as Rhodophyllus)
- Leptonia chalybaea** (Pers.:Fr.) Kummer
Whiteford
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Buc118
- Leptonia corvina** (Kühn.) Orton
Whiteford
With Gramineae & Musci in sandy soil
Dune slack SD15c
Ref: Buc119
1st Welsh record: 25 July 1991 (MR)
- Leptonia ineana** (Fr.:Fr.) Gill.
Freshwater West, Kenfig, Newborough, Stackpole
With Gramineae in sandy soil
Dune slack SD15
Ref: Bon194 (as Entoloma) Buc117 LH182 (as Rhodophyllus) RP117
- Leptonia lampropus** (Fr.:Fr.) Quél.
Stackpole, Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: Bon194 (as Entoloma) Buc118 LH182 (as Rhodophyllus)
- Leptonia pollopus** (Romagn.) Orton
Whiteford
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Moser207 (as Rhodophyllus)
1st Welsh record: Whiteford 26 July 1991 (MR)
- Leptonia sarcitula** Orton
Kenfig
With Gramineae & Musci in sandy soil
Wet dune grassland SD8
Ref: Moser204 (as Rhodophyllus sarcitulus)
- Leptonia serrulata** (Pers.:Fr.) Kummer
Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Bon194 (as Entoloma serrulatum) Buc118 RP117

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Leptonia sodalis (Kühn. & Romagn.) Orton
Whiteford
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Moser207 (as Rhodophyllus)
1st Welsh record: Whiteford 26 July 1991 (MR)

Leptonia turci Bres.
Stackpole
With Gramineae in sandy soil
Dune slack SD15
Ref: Bon194 (as Entoloma)

Leucoagaricus leucothites (Vitt.) Wasser
Dyffryn, Gwbert, Harlech, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14/15
Ref: Bon288 Buc60 (as Lepiota) LH124 (as Lepiota) RP25 (as Lepiota)

Leucoagaricus pilatianus (Dem.) Bon & Boiff.
* Red Data List (V)
Whiteford
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon288
1st Welsh record: Whiteford 11 Oct 1991 (MR)

Leucoagaricus serenus (Fr.) Bon & Boiff.
Merthyr Mawr (BMS, as Lepista)
Ref: Bon288 Buc59 (as Lepista)

Macrocytidia cucumis (Pers.:Fr.) Heim
Newborough (NR list)
Ref: Bon196 Buc80 LH108

Macrolepiota excoriata (Fr.) Wasser
Harlech, Kenfig (NR list), Newborough, Rhosneigr, Whiteford
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon290 Buc60 (as Lepiota) LH122 (as Lepiota) RP27 (as Lepiota)

Macrolepiota konradii (Huijs.:Orton) Moser
Aberffraw, Dyffryn, Freshwater West, Gwbert, Harlech, Kenfig, Newborough, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dune & slack SD7/14
Ref: Bon290 RP27 (as Lepiota)

Macrolepiota mastoidea (Fr.) Sing.
Newborough (BMS), Ynyslas (K)
Ref: Bon290 Buc60 RP27 (as Lepiota)

Macrolepiota procera (Scop.) Sing.
Harlech, Kenfig (NR list), Newborough, Pembrey, Ynyslas
With Gramineae in sandy soil
Dune grassland SD8/9
Ref: Bon290 Buc60 LH124 (as Lepiota) RP25 (as Lepiota)

Macrolepiota rhacodes (Vitt.) Sing.
Harlech, Kenfig (NR list)
With Gramineae in sandy soil
Dune grassland SD8/9
Ref: Bon290 Buc60 LH124 (as Lepiota) RP25 (as Lepiota)

Macrolepiota rhodosperma Orton
* Proposed Red Data List
Harlech (E)
With Gramineae in sandy soil
Dune grassland SD8/9
Ref: Orton1984 p. 591
1st Welsh record: Harlech 26 Sept 1987 (RW)

Marasmiellus candidus (Fr.) Sing.
Whiteford
With Musci in sandy soil
Dune slack adjoining plantation SD15c
Ref: Bon176 RP66 (as Marasmius)

Marasmiellus ramealis (Bull.:Fr.) Sing.
Merthyr Mawr
On dead sticks
Dune scrub W1
Ref: Bon176 Buc80 LH114 (as Marasmius) RP66 (as Marasmius)

Marasmiellus vaillantii (Pers.:Fr.) Sing.
Ynyslas (K)
On dead Gramineae
Semi-fixed dune SD7
Ref: FOS3 p. 232

Marasmius androsaceus (L.:Fr.) Fr.
Gwbert, Harlech, Merthyr Mawr, Newborough, Pembrey, Whiteford
On Pinus needles
Dune plantation X3
Ref: Bon174 Buc78 LH114 RP66

Marasmius cohaerens (Alb. & Schw.:Fr.) Cooke & Quél.
Newborough (BMS, as M. ceratopus)
Ref: Bon174 Buc79

Marasmius epiphillus (Pers.:Fr.) Fr.
Harlech (BMS)
Ref: Bon174 Buc79 RP66

Marasmius graminum (Libert) Berk.
Ynyslas
On Gramineae stems
Dune slack SD15
Ref: Bon174 Buc78

Marasmius litoralis Quél.
Gwbert, Kenfig, Whiteford, Ynyslas
Attached to buried Ammophila roots
Mobile dunes SD6
Ref: Moser167 (as M. anomalus)

- Marasmius oreades** (Bolt:Fr.) Fr.
 Dyffryn, Harlech, Kenfig, Merthyr Mawr, Newborough, Pembrey, Rhosneigr, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Fixed, semi-fixed dune & slack SD7/8/14/15
 Ref: Bon174 Buc79 LH114 RP66
- Marasmius recubans** Quél.
 Whiteford (K)
 On dead leaves of Iris
Typhus latifolia swamp S12b
 Ref: Moser166
 1st Welsh record: Whiteford 14 Dec 1991 (MR)
- Marasmius rotula** (Scop.:Fr.) Fr.
 Merthyr Mawr
 On dead sticks
 Dune plantation X3
 Ref: Bon174 Buc78 LH114 RP66
- Melanoleuca cinereifolia** Bon
*** Red Data List (V)**
 Freshwater East, Freshwater West, Newborough, Oxwich, Pendine, Poppit, Rhosneigr, Stackpole, Tenby, Whiteford, Ynyslas (K)
 With Ammophila in bare sand
 Mobile dunes SD6d
 Ref: DM33 p. 71
 1st British record: Ynyslas 26 Nov 1985 (MR)
- M. cinereifolia** var. *maritima* (Huijs.) Bon
 Whiteford
 With Ammophila in bare sand
 Mobile dunes SD6d
 Ref: DM61 p.46
 1st British record: Whiteford 7 Nov 1992 (RC)
- Melanoleuca exscissa** (Fr.) Sing.
 Gwbert, Kenfig, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack SD15
 Ref: Bon164 Buc74
- Melanoleuca grammopodia** (Bull.:Fr.) Pat.
 Whiteford
 With Gramineae in sandy soil
 Dune grassland & slack SD9/15
 Ref: Bon164 Buc74 RP44
- Melanoleuca leucophylla** Métrod
*** Red Data List (V)**
 Kenfig (K), Whiteford
 With Gramineae & Musci in sandy soil
 Semi-fixed dune SD7
 Ref: DM33 p. 66
 1st British record: Kenfig 16 Nov 1990 (MR)
- Melanoleuca leucophylloides** (Bon) Bon
*** Proposed Red Data List**
 Whiteford
 With Gramineae in sandy soil
 Dune slack
 Ref: DM41 p. 40
 1st British record: Whiteford 7 Nov 1992 (RC)
- Melanoleuca melaleuca** (Pers.:Fr.) Murr.
 Gwbert, Harlech, Kenfig, Newborough, Oxwich, Pembrey, Stackpole, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack & grassland SD9/15/16
 Ref: Bon164 (as *M. vulgaris* p p) Buc74 LH102 RP44
- Melanoleuca pseudoluscina** Bon
*** Proposed Red Data List**
 Kenfig, Whiteford
 With Gramineae in sandy soil
 Dune slack
 Ref: Bon164
 1st British record: Whiteford 7 Nov 1992 (RC)
- Melanoleuca schumacheri** (Fr.) Sing.
*** Red Data List (V)**
 Gwbert, Ynyslas (K)
 With Gramineae in sandy soil
 Dune slack
 Ref: Moser148
 1st Welsh, 2nd British record: Ynyslas 26 Sept 1985 (MR)
- Melanoleuca subpulverulenta** (Pers.) Métrod
*** Red Data List (V)**
 Newborough, Whiteford (K)
 With Pinus & Gramineae in sandy soil
 Dune slack SD15c
 Ref: Bon164
- Melanophyllum echinatum** (Roth:Fr.) Sing.
 Ynyslas
 With Musci in sandy soil
 Dune slack SD15
 Ref: Bon282 (as *M. haematospora*) Buc57 LH126 (as *Lepiota*) RP31
- Mycena adscendens** (Lasch) Maas G.
 Harlech (BMS)
 Ref: Buc81 (as *M. tenerima*)
- Mycena alba** (Bres.) Kühn.
 Gwbert
 On decaying bark
 Pathside
 Ref: Moser179
- Mycena bulbosa** (Cejp) Kühn.
 Ynyslas
 On dead Carex stems
 Wet dune slack SD17
 Ref: Buc82
- Mycena chlorantha** (Fr.:Fr.) Kummer
 Whiteford
 On rotting Ammophila culms
 Mobile dune SD6
 Ref: Buc83 Moser181
- Mycena cinarella** (Karst.) Karst.
 Ynyslas
 On Musci & dead leaves
 Dune scrub W1
 Ref: Moser184

Welsh Sand-dune Fungi

- Mycena clavicularis** (Fr.) Gill.
Newborough (K)
Ref: Moser175
- Mycena epipterygia** (Scop.:Fr.) S.F. Gray
Newborough
With Pinus in Musci
Dune plantation X3
Ref: Bon182 Buc80 LH110 RP74
- Mycena fibula** (Bull.:Fr.) Kühn.
Gwbert, Harlech, Newborough, Pembrey, Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD14
Ref: Bon128 (as Rickenella) Buc86 LH98 (as Omphalina)
RP75
- Mycena filipes** (Bull.:Fr.) Kummer
Stackpole, Ynyslas
With Salix repens in sandy soil
Dune slack SD14/15
Ref: Bon182 Buc84 RP74
- Mycena flavoalba** (Fr.) Quél.
Gwbert, Kenfig, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Dune slack SD14/15
Ref: Bon182 Buc82 LH112 RP75
- Mycena galericulata** (Scop.:Fr.) S.F. Gray
Kenfig (NR list), Newborough
On dead wood
Dune plantation X3
Ref: Bon184 Buc84
- Mycena galopus** (Pers.:Fr.) Kummer
Newborough, Pembrey
With Pinus in leaf litter
Dune plantation X3
Ref: Bon180 Buc81 LH110 RP70
- Mycena haematopus** (Pers.:Fr.) Kummer
Kenfig (NR list)
Ref: Bon180 Buc81 LH110 RP70
- Mycena inclinata** (Fr.) Quél.
Oxwich
On dead stump
Dune grassland SD8
Ref: Bon184 Buc85 LH108 RP72
- Mycena lactea** (Pers.:Fr.) Kummer
Whiteford
With Pinus in needle litter
Dune plantation edge X3
Ref: Bon186 (as Hemimycena delicatella) Buc86 RP76
- Mycena leptocephala** (Pers.:Fr.) Gillet
Harlech, Newborough, Whiteford
With Pinus in needle litter
Dune plantation X3
Ref: Bon184 Buc85 LH110 RP72
- Mycena oortiana** Hora
Whiteford
On buried wood
Semi-fixed dune SD7
Ref: Buc84
- Mycena polygramma** (Bull.:Fr.) S.F. Gray
Newborough, Oxwich
On dead stumps
Dune grassland SD8
Ref: Bon184 Buc85 LH110 RP70
- Mycena pura** (Pers.:Fr.) Kummer
Aberffraw, Freshwater West, Harlech, Kenfig, Merthyr Mawr,
Newborough, Oxwich, Pembrey, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dune, grassland & slack SD7/8/14/15
Ref: Bon180 Buc83 LH112 RP72
- M. pura f. lutea** Secr.
Harlech, Stackpole
With Gramineae & Musci in sandy soil
Semi-fixed dune, grassland & slack SD7/8/14/15
Ref: FOS3 p. 288
- Mycena roseofusca** (Kühn.) Bon
Kenfig
With Gramineae in sandy soil
Dune slack
Ref: Court221
1st British record: Kenfig 8 Nov 1992 (RC)
- Mycena stipata** Maas G. & Schwobel
Harlech, Newborough, Pembrey, Whiteford
On stumps
Dune plantation X3
Ref: Bon184 Buc85 LH248 RP71 (all as M. alcalina)
- Mycena stylobates** (Pers.:Fr.) Kummer
Newborough (BMS)
Ref: Bon182 Buc81
- Mycena vulgaris** (Pers.:Fr.) Kummer
Newborough
On Pinus needles
Dune plantation X3
Ref: Bon182 Buc80 LH112
- Mycenella salicina** (Vel.) Sing.
Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: Moser163
- Naucoria salicetorum** Reid
* Red Data List (E)
Whiteford (K)
With Alnus & Salix in wet soil
Wet scrub woodland X2
Ref: Reid202
1st Welsh, 2nd British record: Whiteford 26 May 1991 (MR)

Nolanea cetrata (Fr.:Fr.) Kummer Newborough (NR list) Ref: Bon190 (as Entoloma) Buc120 LH182 (as Rhodophyllus) RP117	Omphalina griseopallida (Desm.) Quél. Aberdovey (K/BMS) Ref: Buc62 RP69
Nolanea farinolens Orton Gwbert, Ynyslas With Gramineae in sandy soil Dune slack SD17 Ref: Buc120 RP118	Omphalina lilacinicolor Bon * Proposed Red Data List Oxwich, Whiteford Ref: Bon128 1st British record: Oxwich 6 Nov 1992 (RC)
Nolanea hebes (Romagn.) Orton Ynyslas With Gramineae in sandy soil Dune slack SD17 Ref: Moser211 (as Rhodophyllus)	Omphalina mutila (Fr.) Orton Harlech, Whiteford, Ynyslas On Gramineae Semi-fixed dune & slack SD7/14 Ref: Moser111 (as Clitocybe josserandii)
Nolanea icterina (Fr.) Kummer Newborough (K) Ref: Bon190 (as Entoloma icterinum) Buc119 LH182 (as Rhodophyllus icterinus)	Omphalina obscurata Reid Ynyslas With Gramineae & Musci in sandy soil Semi-fixed dune SD7 Ref: Bon128 Buc61
Nolanea infula (Fr.) Gill Ynyslas With Gramineae in sandy soil Dune slack SD17 Ref: Bon190 (as Entoloma) Buc119	Omphalina pyxidata (Bull.:Fr.) Quél. All sites With Gramineae & Musci in sandy soil Semi-fixed dune & slack SD7/14 Ref: Bon128 Buc61 LH98
Nolanea juncina (Kühn. & Romagn.) Orton Ynyslas (K) Ref: Bon190 (as Entoloma juncinum) Buc119	Omphalina rosella (Fr.) Moser Whiteford (K) On Musci with Pinus Dune plantation X3 Ref: Bon128 1st Welsh record: Whiteford 24 Jan 1992 (MR)
Nolanea papillata Bres. Freshwater West, Gwbert, Whiteford, Ynyslas With Gramineae & Musci in sandy soil Dune slack SD14/15 Ref: Bon190 (as Entoloma papillatum) Buc119	Omphalina rustica (Fr.) Quél. Pembrey, Whiteford With Gramineae & Musci in sandy soil Semi-fixed dune & slack SD7/14 Ref: Buc61
Nolanea sericea (Bull.:Mérat) Orton Kenfig, Newborough, Whiteford, Ynyslas With Gramineae & Musci in sandy soil Dune slack SD14/15/16 Ref: Bon190 (as Entoloma sericeum) LH180 (as Rhodophyllus sericeus)	Omphalina velutipes Orton With Musci in sandy soil Dune grassland/semi-fixed dune Ref: Moser100
Nolanea staurospora Bres. Gwbert, Harlech, Merthyr Mawr, Newborough, Ynyslas With Gramineae in sandy soil Dune slack SD14/15/16 Ref: Bon190 (as Entoloma conferendum) Buc120 LH180 (as Rhodophyllus) RP118	Oudemansiella radicata (Relhan:Fr.) Sing. Stackpole With Gramineae in sandy soil Dune slack SD16 Ref: Bon170 Buc78 LH106 RP33
Nyctilis parasitica (Bull.:Fr.) Fr. Whiteford On rotting Lactarius deliciosus carpophores Dune plantation X3 Ref: Bon168 LH80 RP77 (all as Asterophora)	Panaeolus acuminatus (Schaeff.:Sevr.) Quél. Gwbert, Merthyr Mawr, Oxwich, Poppit, Stackpole, Whiteford, Ynyslas On dung & rich soil Semi-fixed dune & slack SD7/14 Ref: Bon264 Buc157
Omphalina galericolor Romagn. ex Bon Oxwich, Whiteford Ref: Bon128 1st British record: Oxwich 6 Nov 1992 (RC)	Panaeolus ater (J. Lange) Kühn. & Romagn. Freshwater West, Harlech, Kenfig, Merthyr Mawr, Point of Air (K), Poppit, Stackpole, Whiteford, Ynyslas On dung & rich soil All dune sites Ref: Bon264 Buc157 RP182

Welsh Sand-dune Fungi

- Panaeolus dunensis** Bon & Court.
 Kenfig, Whiteford
 With Gramineae in rich, sandy soil
 Dune slack SD15
 Ref: BON1983 p. 22
 1st British record: Whiteford 7 Nov 1992 (RC)
- Panaeolus fimicola** (Fr.) Quél.
 Whiteford
 On dung
 Dune slack & grassland SD8/9/14/15
 Ref: Bon264 Buc157 RP182
- Panaeolus foeniseccii** (Pers.:Fr.) Schroeter ap. Cohn
 Dyffryn, Gwbert, Harlech, Newborough, Oxwich, Pembrey,
 Stackpole, Whiteford, Ynyslas
 With Gramineae in rich soil
 Dune slack & grassland SD8/9/14/15
 Ref: Bon264 Buc156 (as Panaeolina) LH144 RP182 (as
 Panaeolina)
- Panaeolus olivaceus** Møll.
 Merthyr Mawr, Whiteford
 On dung
 Dune slack & grassland SD8/15
 Ref: BFF5 p. 84
 1st Welsh record: Whiteford 26 July 1991
- Panaeolus papilionaceus** (Bull.: Fr.) Quél.
 Freshwater West, Whiteford, Ynyslas
 On dung
 Dune slack & grassland SD8/9/14
 Ref: Buc156
- Panaeolus retrorsus** (Fr.) Gill.
 Whiteford
 With Gramineae in sandy soil
 Dune plantation edge X3
 Ref: BFF5 p. 86
- Panaeolus rickenii** Hora
 Aberffraw, Freshwater West, Gwbert, Kenfig, Newborough,
 Oxwich, Pembrey, Poppit, Stackpole, Whiteford, Ynyslas
 On dung & rich soil
 Dune slack & grassland SD8/9/14/15
 Ref: Bon264 Buc157 LH144 RP181
- Panaeolus semiovatus** (Sow.:Fr.) Lund.
 Whiteford
 On dung
 All habitats
 Ref: Bon264 Buc157 LH144 RP180
- Panaeolus sphinctrinus** (Fr.) Quél.
 Harlech, Merthyr Mawr, Stackpole, Whiteford, Ynyslas
 On dung
 All habitats
 Ref: Bon264 Buc157 RP182
- Panaeolus subbalteatus** (Berk. & Br.) Sacc.
 Dyffryn
 With Gramineae in sandy soil
- Dune scrub W1
 Ref: RP182
- Panellus mitis** (Pers.:Fr.) Sing
 Newborough Warren
 On dead wood
 Dune plantation X3
 Ref: Bon124 Buc77 LH104 RP189
- Phaeotellus rickenii** (Sing.:Hora) Bon
 Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Semi-fixed dune & slack SD7/14/15
 Ref: Bon128
- Pholiota astrus** (Fr.) Sing.
 Kenfig, Whiteford
 With Salix repens & on Gramineae in sandy soil
 Wet dune slack SD14/15
 Ref: Bon258 (as P. graminis p.p.)
- Pholiota conissans** (Fr.) Moser ap. Gams
 Kenfig
 With Salix repens in sandy soil
 Dune slack SD14
 Ref: Moser303
- Pholiota flammans** (Fr.) Kummer
 Merthyr Mawr, Newborough
 On conifer stumps
 Dune plantation X3
 Ref: Bon256 Buc139 LH148 RP145
- Pholiota gummosa** (Lasch) Sing.
 Harlech, Newborough
 On buried debris
 Dune plantation X3
 Ref: Bon258 Buc140
- Pholiota ochrochlora** (Fr.) Orton
 With Salix repens in sandy soil
 Wet dune slack SD14/15
 Ref: Buc141 RP144
- Pholiota squarrosa** (Müll.:Fr.) Kummer
 Newborough, Whiteford
 On Pinus stumps
 Dune plantation X3
 Ref: Bon256 Buc139 LH148 RP145
- Pluteus cervinus** (Schaeff.:Fr.) Kummer
 Newborough, Pembrey, Stackpole, Whiteford
 On rotting wood
 Dune plantation X3
 Ref: Bon196 Buc113 LH120 RP118
- Pluteus griseopus** Orton
 Ynyslas
 On dead wood
 Dune slack SD15
 Ref: Moser223

- Pluteus minutissimus** Maire
 Ynyslas
 On dead wood
 Dune slack SD15
 Ref: Buc115 Moser224
- Pluteus salicinus** (Pers.:Fr.) Kummer
 Merthyr Mawr (BMS)
 Ref: Bon196 Buc113 LH122 RP118
- Pluteus umbrosus** (Pers.:Fr.) Kummer
 Merthyr Mawr (BMS)
 Ref: Bon196 Buc113 RP118
- Psathyrella ammophila** (Dur. & Lév.) Orton
 All sites
 With Ammophila in bare sand
 Mobile dunes SD6
 Ref: Bon266 Buc158
- Psathyrella atomata** (Fr.) Quél.
 Ynyslas
 With Gramineae in sandy soil
 Dune slack SD15/17
 Ref: Bon266 Buc158
- Psathyrella candolleana** (Fr.) Maire
 Merthyr Mawr, Newborough, Whiteford
 With Salix repens in sandy soil
 Dune slack SD16
 Ref: Bon268 Buc158 LH140 RP173
- Psathyrella clivensis** (Berk. & Br.) Orton
 Kenfig, Merthyr Mawr
 With Gramineae in sandy soil
 Dune slack SD15
 Ref: Moser171
- Psathyrella flexispora** Wallace & Orton
 Point of Air (BI)
 Ref: Orton1960 p. 371
- Psathyrella exalbicans** (Romagn.) Moser
 Whiteford
 With Gramineae in sandy soil
 Marsh SD12b
 Ref: Moser281
- Psathyrella gracilis** (Fr.) Quél.
 Newborough
 With Gramineae in sandy soil
 Dune slack SD14
 Ref: Bon266 Buc158 LH142
- Psathyrella hydrophila** (Bull.:Mérat) Maire
 Stackpole
 On buried wood
 Dune slack SD17
 Ref: Bon266 Buc159 LH140 RP174
- Psathyrella marcescibilis** (Britz.) Sing.
 Merthyr Mawr (BMS)
 Ref: RP174
- Psathyrella obtusata** (Pers.:Fr.) A. H. Smith
 With Musci & Gramineae in marshy soil
 Dune path adjoining marsh SD12b
 Ref: Buc160 RP174
- Psathyrella panaeoloides** (Maire) Arnolds
 Ynyslas
 With Gramineae & Musci in wet soil
 Wet dune slack SD17
 Ref: Moser280
 1st Welsh record: Ynyslas 13 Apr 1985 (MR)
- Psathyrella setulosanom.** prov. (Court.)
 * Proposed Red Data List
 Kenfig
 On debris of Ammophila
 Mobile dunes SD6
 1st British record: Kenfig 8 Nov 1992 (RC)
- Psathyrella spadiceogrisea** (Fr.) Maire
 Stackpole
 With Gramineae in sandy soil
 Dune slack SD15
 Ref: Bon266 Buc160 LH140
- Pseudoclitocybe cyathiformis** (Bull.) Sing.
 Newborough, Oxwich
 With Musci in wet soil
 Dune scrub WI:22
 Ref: Bon130 Buc73 LH98 (as Clitocybe) RP51 (as Cantharellula)
- Psilocybe apelliculosa** Orton
 Dyffryn
 With Gramineae in sandy soil
 Dune slack SD14/16
 Ref: BFF5 p.48
- Psilocybe bullacea** (Bull.:Fr.) Kummer
 Gwbert, Harlech, Whiteford, Ynyslas
 On dung & twigs
 Dune slack SD15
 Ref: Moser298
- Psilocybe coprophila** (Bull.:Fr.) Quél.
 Gwbert, Harlech, Kenfig, Newborough, Pembrey, Whiteford,
 Ynyslas
 On dung
 Dune slack SD16
 Ref: Bon254 Buc150 LH148 RP173 (as Deconica)
- Psilocybe cyanescens** Wakefield
 Point of Air (K)
 Ref: RP173
- Psilocybe luteonitens** (Vahl:Fr.) Parker-Rhodes
 * Proposed Red Data List
 Skokholm Island, Whiteford
 With Bryophyta in rich sandy soil
 Grazed dune grassland SD9
 Ref: Moser294 (as Stropharia)
 1st Welsh record: Skokholm Island 1951 (P-R)

- Psilocybe merdaria (Fr.) Rick.**
 Aberdovey (BMS) (K, as Stropharia)
 On sheep dung
 Dune grassland SD8/9
 Ref: Bon254 Buc151 RP171 (as Stropharia)
- Psilocybe muscorum (Orton) Moser**
 Whiteford Burrows, Ynyslas
 With Gramineae & Musci in sandy soil & debris
 Wet dune slack SD15
 Ref: Bon254 RP173 (as Deconica)
- Psilocybe pratensis Orton**
 Whiteford (K)
 On rotting Ammophila stems
 Semi-fixed dune SD7
 Ref: BFF5 p.45
- Psilocybe semilanceata (Fr.) Kummer**
 Harlech, Newborough, Whiteford, Ynyslas
 With Gramineae & Musci in sandy soil
 Dune slack SD15/16
 Ref: Bon254 Buc150 LH148 RP173
- Psilocybe subcoprophila (Britz.) Sacc.**
 Whiteford, Ynyslas
 On dung
 Fixed dunes SD8
 Ref: BFF5 p. 42
- Ramicola maritima (Bon) Bon**
 * Proposed Red Data List
 Whiteford
 Tufted at base of Ammophila stems
 Mobile dunes
 Ref: DM84 p. 53
 1st British record: Whiteford 7 Nov 1992 (MR)
- Resinomycena saccharifera (Berk. & Br.) Redhead**
 Ynyslas
 On dead Gramineae
 Dune slack SD15
 Ref: Buc84 (as Mycena pudica) Moser183 (as Mycena quisquilaris)
- Rhodocybe popinalis (Fr.) Sing.**
 Aberdovey (K, as R. mundula), Dyffryn, Freshwater West,
 Harlech, Point of Air (K), Whiteford, Ynyslas
 With Lichenes, Gramineae or Musci in bare sand
 Semi-fixed dunes SD7
 Ref: Bon188 Buc87 RP114
- Rhodotus palmatus (Bull.:Fr.) Maire**
 Merthyr Mawr
 On dead Ulmus trunk
 Dune woodland
 Ref: Moser194
- Strobilurus tenacellus (Pers.:Fr.) Métrod**
 Merthyr, Newborough (K), Pembrey, Whiteford
 On buried Pinus cones
 Dune plantation X3
- Ref: Bon176 RP77 (as Pseudohiatula)
- Stropharia aeruginosa (Curt.:Fr.) Quél.**
 Newborough, Whiteford
 With Gramineae in sandy soil
 Dune slack SD14/15
 Ref: Bon250 Buc151 LH144 RP171
- Stropharia caerulea Kreisel**
 Aberffraw, Gwbert, Harlech, Kenfig, Poppit, Rhosneigr,
 Whiteford, Ynyslas
 With Gramineae in sandy soil
 Dune grassland & slack SD9/14/15
 Ref: Bon250
- Stropharia coronilla (Bull.:Fr.) Quél.**
 Aberffraw, Dyffryn, Gwbert, Harlech, Kenfig, Merthyr Mawr,
 Newborough, Oxwich, Whiteford, Ynyslas
 With Gramineae in sandy soil or bare sand
 Mobile, semi-fixed dune & slack SD6/7/14
 Ref: Bon250 RP173
- Stropharia inuncta (Fr.) Quél.**
 Gwbert, Stackpole, Whiteford
 With Gramineae in sandy soil
 Semi-fixed dune & slack SD7/14
 Ref: Bon250
- Stropharia pseudocyanea (Desm.) Morgan**
 Newborough, Stackpole, Ynyslas
 With Gramineae in sandy soil
 Semi-fixed dune & slack SD7c/d SD14c
 Ref: Moser193 (as S. albocyanea)
- Stropharia semiglobata (Basch:Fr.) Quél.**
 Harlech, Newborough, Pembrey, Whiteford, Ynyslas
 On dung or in rich sandy soil
 All sites
 Ref: Bon250 Buc151 LH144 RP171
- Tricholoma argyraceum (Bull.:St Amans) Gill.**
 Harlech
 With Salix in sandy soil
 Dune plantation X3
 Ref: Bon154 Buc70 LH86 RP37
- Tricholoma cingulatum (Fr.) Jacobasch**
 Harlech, Kenfig, Merthyr Mawr, Newborough, Pembrey,
 Whiteford
 With Salix repens in sandy soil
 Dune slack SD14/15
 Ref: Bon154 Buc70 LH86 RP35
- Tricholoma fulvum (DC.:Fr.) Sacc.**
 Merthyr Mawr (BMS)
 Ref: Bon158 Buc67 LH88 RP39
- Tricholoma portentosum (Fr.) Quél.**
 Whiteford
 With Pinus in litter
 Dune plantation X3
 Ref: Bon156 Buc68 LH86 RP35

- Tricholoma saponaceum**(Fr.) Kummer
Kenfig (NR list)
Ref: Bon150 Buc69 LH184 RP37
- Tricholoma terreum**(Schaeff.:Fr.) Kummer
Harlech, Newborough, Pembrey
With Pinus in litter
Dune plantation X3
Ref: Bon154 Buc70 LH88 RP35
- Tricholomopsis rutilans**(Schaeff.:Fr.) Sing.
Harlech, Newborough, Pembrey, Whiteford
On Pinus stumps & dead branches
Dune plantation X3
Ref: Bon150 Buc67 LH92 RP43
- Trichopilus porphyrophaeus**(Fr.) Orton
Newborough, Stackpole
With Musci in sandy soil
Dune slack SD15/16
Ref: Bon192 (as Entoloma) Buc166 (as Entoloma) LH178 (as Rhodophyllus) RP116 (as Entoloma)
- Tubaria furfuracea**(Pers.:Fr.) Gillet
Kenfig, Whiteford
With Salix repens & Gramineae in sandy soil
Dune slack SD14/15
Ref: Bon246 Buc141 LH176 RP149
- Tubaria pallidospora**J. Lange
Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: Moser307
- Volvariella hypopithys**(Fr.:Karst.) Moser
Kenfig (NR list), Pembrey (K)
Ref: Bon198
- Volvariella parvula**(Weinm.) Orton
Ynyslas
With Gramineae in sandy soil
Dune slack SD15
Ref: Buc115 RP112
- Volvariella speciosa**(Fr.:Fr.) Sing.
Gwbert, Newborough, Pembrey, Stackpole, Ynyslas
With Gramineae in sandy soil or bare sand
Mobile dune or semi-fixed dune SD6/7
Ref: Bon198 Buc115 LH120 RP112
- Aphyllophorales**
- Auriscalpium vulgare**S.F. Gray
Whiteford
On buried Pinus cones
Dune plantation X3
Ref: Bon312 Buc160 LH60 RP242
- Clavaria argillacea**Fr.
Ynyslas (NR list)
Ref: Buc162 LH54 RP257
- Clavaria vermicularis**Fr.
Harlech, Ynyslas (NR list)
With Gramineae in sandy soil
Dune slack SD14
Ref: Bon308 (as C. fragilis) Buc162 RP257
- Clavulinopsis fusiformis**(Fr.) Corner
Ynyslas (NR list)
Ref: Buc164 RP258
- Heterobasidion annosum**(Fr.) Bref.
Newborough, Whiteford
On Pinus & broadleaved stumps & buried wood
Dune plantation X3
Ref: Bon318 Buc181 LH66 (as Polyporus annosus) RP227
- Hymenochaete rubiginosa**(Dicks.:Fr.) Lév.
Whiteford
On dead stumps & branches
Dune plantation X3
Ref: Bon310 Buc174 LH52 RP235
- Merulius tremellosus**(Schrad.) Fr.
Whiteford
On buried Pinus logs
Dune slack SD14/15
Ref: Bon322 Buc170 LH52 RP239
- Polyporus varius**(Pers.) Fr.
Merthyr Mawr (BMS), Whiteford
On Salix branches
Alder/Salix woodland X2
Ref: Bon314 Buc182 LH74 RP218
- Thelephora terrestris**(Ehrh.) Fr.
Whiteford
With Pinus on sandy soil & buried needles
Dune plantation X3
Ref: Bon318 Buc187 LH52 RP260
- Boletales**
- Boletus edulis**Bull.: Fr.
Harlech
With Coniferae in sandy soil
Dune plantation X3
Ref: Bon34 Buc51 LH190 RP92
- Chalciporus piperatus**(Bull.: Fr.) Bat.
Newborough (BMS)
Ref: Bon44 Buc52 (as Boletus) LH188 (as Boletus) RP194 (as Boletus)
- Chroogomphus rutilus**(Sing.) O.K. Miller
Harlech, Merthyr Mawr, Newborough, Pembrey, Whiteford
With Gramineae in sandy soil
Dune plantation X3
Ref: Bon50 Buc54 LH184 (as Gomphidius) RP191
- Gomphidius roseus**(Fr.) Fr.
Whiteford
With Gramineae in sandy soil & needles
Dune plantation X3
Ref: Bon50 Buc54 LH184 RP189

Welsh Sand-dune Fungi

Paxillus involutus (Fr.) Fr.

Harlech, Kenfig, Merthyr Mawr, Newborough, Whiteford
With *Salix repens* or with *Betula* in sandy soil
Dune slack SD14/15
Ref: Bon50 Buc145 LH184 RP142

Paxillus panuoides (Fr.:Fr.) Fr

Newborough, Ynyslas (alien on imported post)
On dead Coniferae stump
Dune plantation (N)
Ref: Bon50 Buc145 LH184 RP142

Suillus fluryi Huijs.

* Red Data List (V)
Merthyr Mawr, Whiteford
With *Pinus* & Gramineae in sandy soil
Dune plantation X3
Ref: Bon46 (as *S. collinitus*) RP215

Suillus granulatus (Fr.) Kuntze

Harlech, Merthyr Mawr (BMS), Newborough
With *Pinus* in sandy soil
Dune plantation X3
Ref: Bon46 Buc49 LH188 (as *Boletus*) RP216

Suillus luteus (Fr.) S.F. Gray

Harlech, Kenfig (NR list), Newborough, Pembrey, Whiteford
With *Pinus* & Gramineae in sandy soil
Dune plantation X3
Ref: Bon46 Buc49 LH186 (as *Boletus*) RP215

Suillus variegatus (Fr.) Kuntze

Harlech, Newborough, Whiteford
With *Pinus* in sandy soil
Dune plantation X3
Ref: Bon48 Buc49 LH188 (as *Boletus*) RP216

Xerocomus rubellus (Krombh.) Quél.

Newborough (BMS)
Ref: Bon42 Buc53 (as *Boletus versicolor*) LH188 (as *Boletus*)
RP205 (as *Boletus versicolor*)

Russulales

Lactarius camphoratus (Bull.:Fr.) Fr.

Newborough
With broadleaved trees in sandy soil
Dune scrub W1/4/22
Ref: Bon98 Buc100 LH208 RP90

Lactarius controversus (Fr.:Fr.) Fr.

Kenfig, Newborough
With *Salix repens* in sandy soil
Dune slack SD15/16/17
Ref: Bon94 Buc97 RP77

Lactarius deliciosus (L.:Fr.) S.F. Gray

Harlech, Merthyr Mawr, Newborough, Pembrey, Whiteford,
With *Pinus* in sandy soil
Dune plantation X3
Ref: Bon80 Buc96 LH212 RP80

Lactarius deterrimus Gröger

Harlech, Newborough, Pembrey, Whiteford
With Gramineae in sandy soil
Dune plantation X3
Ref: Bon80 Buc97 RP80

Lactarius glysiosmus (Fr.:Fr.) Fr.

Harlech, Newborough
With *Betula* in sandy soil
Dune scrub W4
Ref: Bon88 Buc99 LH206 RP85

Lactarius helvus (Fr.) Fr.

Newborough
With *Pinus* in sandy soil
Dune plantation X3
Ref: Bon88 Buc98 LH208 RP87

Lactarius mitissimus (Fr.) Fr.

Newborough, Pembrey, Whiteford
With Gramineae in sandy soil
Dune plantation X3
Ref: Bon90 Buc99 LH208 RP88

Lactarius piperatus (Scop.:Fr.) S.F. Gray

Kenfig (NR list)
Ref: Bon94 Buc95 LH206 RP77

Lactarius pubescens (Fr.:Krombh.) Fr.

Merthyr Mawr, Oxwich
With *Betula* in sandy soil
Dune slack/scrub SD15 W4
Ref: Bon94 Buc95 LH206 RP77

Lactarius pyrogalus (Bull.:Fr.) Fr.

Kenfig, Newborough
With *Corylus* in sandy soil
Dune slack SD15/16
Ref: Bon84 Buc98 RP85

Lactarius rufus (Scop.:Fr.) Fr.

Newborough, Whiteford
With *Pinus* in needle litter
Dune plantation X3
Ref: Bon88 Buc100 LH208 RP87

Lactarius subdulcis (Pers.:Fr.) S.F. Gray

Newborough (NR list)
Ref: Bon90 Buc100 LH208 RP88

Lactarius torminosus (Schaeff.:Fr.) S.F. Gray

Kenfig (NR list), Merthyr Mawr (BMS)
Ref: Bon82 Buc95 LH210 RP79

Russula atropurpurea (Krombh.) Britz.

Merthyr Mawr, Newborough, Pembrey
With Coniferae in needle litter
Dune plantation X3
Ref: Bon72 (as *R. krombholzii*) Buc109 LH202 RP100

Russula betularum Hora

Kenfig (NR list)

With Betula in sandy soil

Dune slack

Ref: Bon70 Buc108 RP99

Russula caerulea (Pers.) Fr.

Newborough, Pembrey

With Pinus in needle litter

Dune plantation

Ref: Bon66 (as R. amara) Buc106 RP100

Russula cessans Pearson

* Red Data List (V)

Merthyr Mawr (BMS)

Ref: Bon62 Buc106

Russula cyanoxantha (Schaeff.:Sevr.) Fr.

Pembrey (NR list)

Ref: Bon56 Buc103 LH198 RP97

Russula fragilis (Pers.:Fr.) Fr.

Newborough, Whiteford

With Salix repens in sandy soil

Fixed dunes SD8

Ref: Bon72 Buc109 LH202 RP99

Russula mairei Sing.

Kenfig (NR list)

Ref: Bon70 Buc108 LH202 RP99

Russula ochroleuca (Pers.:Sevr.) Fr.

Newborough (NR list)

Ref: Bon78 Buc102 LH198 RP94

Russula persicina var. (unpub.)

* Red Data List (R)

Kenfig, Newborough

With Salix repens in sandy soil

Dune slack SD15/17

Ref: Rayner p.101

Russula puellaris Fr.

Merthyr Mawr (BMS record)

Ref: Bon62 Buc106 LH200 RP103

Russula pulchella Borsczew

Merthyr Mawr (BMS, as R. exalbicans)

Ref: Bon74 (as R. exalbicans) Buc110 RP104

Russula sanguinea (Bull.:St Amans) Fr.

Merthyr Mawr, Newborough, Whiteford

With Gramineae in sandy soil & needle litter

Dune plantation X3

Ref: Bon74 Buc109 LH200 RP103

Russula sardonia Fr.

Newborough, Pembrey, Whiteford

With Gramineae in sandy soil & needle litter

Dune plantation X3

Ref: Bon74 Buc110 LH202 RP104

Russula sororia (Fr.) Romell

Newborough

With Quercus in sandy soil

Dune plantation edge X3

Ref: Bon78 (as R. amoenaensis) RP92 Buc102

Russula vesca Fr.

Whiteford

With Pinus & Salix in marshy soil

Dune plantation X3

Ref: Bon56 Buc104 LH198 RP97

Russula xerampelina (Schaeff.:Sevr.) Fr.

Newborough (BMS)

Ref: Bon64 (as R. graveolens) Buc106 LH200 RP105

Stereales

Merismodes anomalus (Pers.:Fr.) Sing.

Ynyslas (BMS)

Ref: Buc185 (as Cyphelopsis anomala)

Tremellales

Hirneola auricula-judea (St Amans) Berk.

Kenfig (NR list), Whiteford, Ynyslas

On Sambucus

Dune scrub W1 W22

Ref: Bon324 (as Auricularia) Buc191 LH224 (as Auricularia) RP262 (as Auricularia)

Tremella mesenterica

Kenfig (NR list)

On Salix

Ref: Bon324 Buc191 LH224 RP264

GASTEROMYCETES

Bovista himosa Rostrup

* Red Data List (V)

Newborough (BMS), Oxwich, Pembrey, Whiteford

With Lichenes & Bryophyta in sand & on burnt ground

Semi-fixed dunes and in plantation SD7 (SD7 in X3)

Ref: D&M48

1st Welsh, 2nd British record: Newborough 11 Sept 1988 (PR)

Bovista nigrescens (Pers.) Pers.

Dyffryn, Harlech, Kenfig (NR list), Whiteford

With Gramineae in sandy soil

Semi-fixed dune & grassland SD7/8

Ref: Bon304 Buc195 LH218 RP249

Bovista plumbea (Pers.) Pers.

All sites

With Gramineae in sandy soil

Semi-fixed dune & slack SD7/14/15

Ref: Bon304 Buc195 LH218 RP249

Bovista pusilla Batsch

Aberffraw, Harlech, Newborough

With Musci in sandy soil

Semi-fixed dune SD7

Ref: Buc195

Welsh Sand-dune Fungi

Calvatia excipuliformis (Pers.) Perdek
 Harlech, Newborough, Oxwich, Pembrey, Whiteford, Ynyslas
 With Gramineae, Salix & Pinus in sandy soil
 Dune scrub & plantation W1 X3
 Ref: Bon304 Buc197 LH216 (as *Lycoperdon excipuliforme*)
 RP247

Calvatia utriformis (Bull.:Pers.) Jaap
 Aberdovey (K), Gwbert, Harlech, Kenfig (NR list),
 Newborough, Oxwich, Whiteford
 With Pinus in sandy soil
 Dune plantation X3
 Ref: Bon304 Buc197 LH216 (as *Lycoperdon caelatum*) RP247

Crucibulum laeve (Huds.) Kambly
 Aberdovey (K), Aberffraw, Harlech, Kenfig (NR list), Pembrey,
 Prestatyn (K), Merthyr Mawr (BMS), Point of Air, Ynyslas
 On buried dead wood & stems
 Mobile & semi-fixed dunes SD6/7
 Ref: Bon300 Buc197 LH222 RP255

Cyathus olla (Batsch) Pers.
 Aberffraw, Newborough, Rhosneigr, Whiteford, Ynyslas
 With Lichenes & Bryophyta in sandy soil
 Semi-fixed dune & slack SD7/14/15
 Ref: Bon300 Buc197 LH222 RP255

Cyathus stercoreus (Schw.) de Toni
 * Red Data List (V)
 Dyffryn, Gwbert, Point of Air (BI), Poppit, Rhosneigr,
 Ynyslas
 At base of Ammophila stems in bare sand, attached to buried
 rabbit dung
 Mobile dunes SD6
 Ref: D&M52
 1st British record: Ynyslas 1976 (JPS)

Cyathus striatus (Huds.) Willd.
 Merthyr Mawr (K/BMS)
 Ref: Bon300 Buc197 LH222 RP255

Geastrum badium Pers.
 * Red Data List (V) (as *G. elegans*)
 Ynyslas
 With Musci in sandy soil
 Semi-fixed dune SD7
 Ref: D&M46
 1st Welsh, 2nd British record: Ynyslas 16 Mar 1985 (MR)

Geastrum nanum Pers.
 Aberdovey (K), Dyffryn, Harlech, Newborough, Ynyslas
 With Musci in sandy soil
 Semi-fixed dune SD7
 Ref: Buc194 LH220 RP252

Geastrum pectinatum Pers.
 Pembrey (PJ)
 Ref: LH220 RP254

Geastrum sessile (Sow.) Pouz.
 Pembrey (PJ), Ynyslas (NR list)
 Ref: Bon302 RP252

Geastrum striatum DC.
 Harlech (E & K)
 "Among sandhills"
 Ref: Buc194 LH220

Geastrum triplex Jung.
 Pembrey, Whiteford
 With Pinus in sandy soil
 Dune plantation X3
 Ref: Bon302 Buc194 LH220 RP252

Langermannia gigantea (Batsch:Pers.) Rostk.
 Kenfig (NR list), Newborough (BMS), Whiteford
 With Gramineae in sandy soil
 Dune grassland SD8
 Ref: Bon304 Buc196 LH216 (as *Lycoperdon giganteum*)
 RP247

Lycoperdon lividum Pers.
 Aberffraw, Harlech, Kenfig, Newborough, Rhosneigr,
 Stackpole, Whiteford, Ynyslas
 With Lichenes & Bryophyta in sandy soil
 Semi-fixed dune & slack SD7/14/15
 Ref: Bon304 Buc195 RP249 (as *L. spadiceum*)

Lycoperdon molle (Pers.) Pers.
 Merthyr Mawr (K), Whiteford
 With Lichenes & Bryophyta in sandy soil
 Dune slack & plantation SD14/15 X3
 Ref: Buc196 LH218

Lycoperdon perlatum Pers.
 Harlech, Kenfig (NR list), Merthyr Mawr (K), Whiteford
 With Pinus in needle litter
 Dune plantation X3
 Ref: Bon304 Buc196 LH216 RP249

Lycoperdon pyriforme (Schaeff.) Pers
 Dyffryn, Harlech, Newborough, Oxwich, Whiteford
 On stumps & buried branches of Pinus
 Dune plantation X3
 Ref: Bon304 Buc196 LH218 RP249

Mutinus caninus (Huds.:Pers.) Fr.
 Pembrey (PJ)
 Ref: Bon300 Buc198 LH214 RP257

Phallus hadriani Vent.
 Newborough, Poppit, Ynyslas
 With Ammophila in bare sand
 Mobile dunes SD6
 Ref: Bon300 Buc198 LH214

Phallus impudicus Pers.
 Harlech, Newborough, Pembrey, Poppit, Whiteford, Ynyslas
 With Ammophila in bare sand
 Mobile dunes SD6
 Ref: Bon300 Buc198 LH214 RP257

- Scleroderma citrinum** Pers.
Harlech, Merthyr Mawr (BMS), Pembrey (PJ)
With Musci in sandy soil
Semi-fixed dunes SD7
Ref: Bon302 Buc192 LH222 (as *S. aurantium*) RP251
- Scleroderma verrucosum** Bull. ex Pers.
Merthyr Mawr (BMS)
Ref: Bon302 Buc192 LH222
- Sphaerobolus stellatus** Tode ex Pers.
Kenfig (NR list), Ynyslas
On rotted rabbit dung
Semi-fixed dunes SD7
Ref: LH222 RP255
- Tulostoma brumale**(Pers.) Pers.
Aberdovey (K), Aberffraw, Dyffryn, Freshwater West, Harlech (K), Kenfig (K), Oxwich, Stackpole, Tenby (K), Whiteford, Ynyslas
With Tortula & Gramineae in sandy soil
Semi-fixed dunes SD7
Ref: Bon300 Buc193 LH222 RP251
- Tulostoma melanocyclum**Bres.
*** Red Data List (R)**
Harlech (K, 1914), Oxwich (K, 1917), Porthcawl (Merthyr Mawr?) (K, 1970)
Ref: D&M44
- Vascellum pratense**(Pers.) Kreisel
All sites
With Gramineae in sandy soil
Semi-fixed dune & slack SD7/14/15
Ref: Bon304 Buc196 LH218 (as *Lycoperdon depressum*) RP249
- ASCOMYCOTINA**
- Aleuria aurantia**(Pers.) Fuck.
Kenfig (NR list)
Ref: Bon330 Buc221 LH34 (as *Peziza*) RP274
- Claviceps purpurea**(Fr.) Tul.
Whiteford, Ynyslas
On Ammophila & Elymus
Mobile dunes SD4/6
Ref: Bon336 Buc205 LH48 RP278
- Cyathipodia corium**(Weber.) Boud.
Oxwich
With Salix in sandy soil
Dune slack SD15
Ref: Dennis7
- Elaphomyces granulatus** Fr.
Newborough (BMS)
Ref: Bon336 Buc204 LH48
- Elaphomyces muricatus** Fr.
Newborough (BMS)
Ref: LH48 RP281
- Geoglossum cookeianum**Nannfeldt
Dyffryn (K), Kenfig, Newborough, Porthcawl (K), Rhosneigr, Whiteford, Ynyslas
With Gramineae & Musci in sandy soil
Semi-fixed dunes & slacks SD7/14/15
Ref: Bon332 LH44 RP274
- Geoglossum fallax**Durand
Ynyslas (NR list)
Ref: LH44
- Geoglossum umbratile**Sacc.
Whiteford (K), Ynyslas
With Gramineae & Musci in wet sandy soil
Wet dune slack SD14/15
Ref: Dennis55 (as *G. nigratum*)
1st Welsh record: Whiteford 14 Sept 1991 (MR)
- Geopora arenicola**(Lév.) Kers.
Dyffryn, Newborough, Pembrey (K), Ynyslas
With Salix in bare sand
Wet dune slack
Ref: RP273 (as *Sepultaria*)
- Helvella costifera**(Pers.:Fr.) Boud.
Whiteford (K)
With Pinus on bare soil
Dune plantation X3
Ref: Buc217
1st Welsh record: Whiteford 22 June 1991 (PMD)
- Humaria hemisphaerica**(Wigg.:Fr.) Fuck.
Whiteford
With Bryophyta in sandy soil
Semi-fixed dunes and in plantation SD7 (SD7 in X3)
Ref: Bon330 Buc220 LH34 (as *Peziza*) RP273
- Morchella conica**Pers.
Merthyr Mawr (K)
With Salix and Populus in sandy soil
Dune grassland
Ref: Bon326 Buc215 LH40
1st Welsh record: Merthyr Mawr 1 May 1991 (PMD)
- Morchella esculenta**(Pers.) St Amans
Kenfig (NR list), Merthyr Mawr, Newborough, Whiteford
With Salix repens & Gramineae in sandy soil
Dune slack SD15/16
Ref: Bon326 Buc215 LH40 RP264
- Otidea onotica** (Pers.) Fuck.
Whiteford
With Pinus in needle litter
Dune plantation X3
Ref: Bon330 Buc219 LH36 (as *Peziza*) RP271
- Peziza ammophila**Dur. & Mont.
Aberffraw, Kenfig, Newborough, Pendine, Tenby, Whiteford, Ynyslas
With Ammophila in bare sand
Mobile dunes SD6
Ref: Dennis12

Welsh Sand-dune Fungi

Scutellinia scutellata (L.) Lamb.

Ynyslas

In bare, wet sand

Semi-fixed dunes SD7

Ref: Bon330 Buc221 LH34 (as Peziza) RP273

Trichoglossum hirsutum (Pers.:Fr.) Boud.

Kenfig (K), Newborough, Rhosneigr, Whiteford

With Gramineae and Musci in sandy soil

Semi-fixed dunes & slacks SD7/15

Ref: Bon332 Buc209 LH44 (as Geoglossum) RP274

Trichoglossum rufum Pat.

* Red Data List (R)

Ynyslas (K)

With Gramineae in sandy soil

Dune slack SD14/15

Ref: JAN64 (As T. wrightii)

1st Welsh record: Ynyslas 6 Sept 1985 (MR)

Trichophaea gregaria (Rehm) Boud.

Whiteford

With Lichenes on bare burnt sandy soil

Semi-fixed dunes SD7

Ref: Dennis24

Verpa conica (Swartz) Pers.

Newborough (K), Pembrey (K), Point of Ayr (K), Whiteford

With Gramineae & Musci in sandy soil

Dune slack SD14/15

Ref: Bon326 Buc215 LH40 RP265

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