Under the heading '**Genera illegitima et exclusa**' are listed genera accepted in the *Xylariaceae* by Eriksson & Hawksworth (1991; including earlier editions of the *Systema Ascomycetum*) but excluded by the present author. The list also includes a selection of generic names placed in the *Xylariaceae* by other authors. Both taxonomically and nomenclatorially excluded names are included under this heading. A group of excluded genera previously placed in or near the *Xylariaceae* by e.g. Nannfeldt (1932), Miller (1949) and von Arx & Müller (1954) has not been included in this list. They are all firmly placed elsewhere in later works and in the various editions of the *Systema Ascomycetum*. Many of these genera are now placed in the *Sordariales*. Various genera listed under *Xylariaceae* with a question mark in Kendrick (1979) have not been considered further. Their suggested placement seems ill founded.

Genera with obscure affinities but with characters suggesting *Xylariaceae* are placed under '**Genera incertae sedis**'.

Generic entries

1. Name, author, a code in square brackets (see below) in bold for the status in Eriksson & Hawksworth (1993) and, at the end in bold capitals, the status accepted by the author, typically a name but in some cases f.ex. nom.nud.
2. Place of publication in full, and year of publication in bold face, with day and/or month, when known.
3. Type species and its status.
4. Location of type.
5. Type studies.
6. Gives anamorph when known or refers to another entry.
7. Summarizes the status in the literature.
8. Number of epithets combined in the genus, either as an exact figure or as an approximation, typically a minimum figure with plus (+) added.
9. Reference to any monographic treatment. It is omitted when no monograph exists or in monotypic genera. In most cases the accepted number of species is added in brackets.
10. Other important literature references including subjects other than alpha-taxonomy.
11. Notes as required, explaining the typification etc.

Explanation of symbols and abbreviations

EH Eriksson & Hawksworth (1993).

nom. rej. nomen rejiciendum.
= taxonomic synonym.
≡ nomenclatorial synonym.

Abbreviation system for status in EH

* an accepted member of the *Xylariaceae*.
(*) a synonym of accepted genus in the *Xylariaceae*.
? possible member of the *Xylariaceae*.
(?) possible synonym of accepted member.
- accepted in another family.
-? listed with ? in another family.
(-) accepted as synonym of genus in another family.
IS ascomycetes incertae sedis.
(IS) a synonym of genus listed in incertae sedis.
0 not listed.

Author abbreviations follow Brummitt & Powell (1992).

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FAMILIAE

XYLARIACEAE Tul. & C. Tul.

Selecta fungorum carpologia 2: 3 (**1861**; as *Xylariei*, rank somewhat uncertain; alternatively Nitschke (1867, as '*Xylarieae*') could be regarded as the first place of publication).

Typus: *Xylaria* Hill ex Schrank. [a proposal to conserve this family should be submitted to protect it against the older *Hypoxylaceae*].

Unitunicate, stromatic or rarely non-stromatic pyrenomycetes with pigmented ascospores. Stromata sometimes massive, often with ectostromatal development and with or without bright pigments. Ascomata immersed in stroma, clypeate or rarely non-stromatic and immersed in host; ostiolate, rarely cleistocarpic, wall usually simple with outer layers dark. Asci persistent, cylindric-clavate, stipitate, not loosening, rarely sphaeropedunculate and/or evanescent, apical apparatus typically well developed, refractive, often large, commonly flared apically, usually amyloid, rarely dextrinoid or inamyloid, lumen present and mostly narrow; apparatus rarely lacking. Ascospores olive brown to blackish brown, more rarely translucent yellow brown to almost hyaline, usually inequilateral, one-celled at maturity or rarely 1-septate, initially commonly 2-celled with small, hyaline, usually basal cell which is rarely persistent; germ locus present or rarely absent, slit-like, varying in length and position, rarely elliptic but never terminal; spore wall smooth or sometimes ornamented with pits, ribs or warts; gel sheath present, sometimes forming secondary appendages at the poles, or absent. Paraphyses present, thin-walled, septate, tapered, exceeding the asci, hyaline.

Confirmed anamorphs hyphomycetous with holoblastic conidia production and mostly with characters resembling those of *Nodulisporium*.

Saprophytic, endophytic or parasitic, a few species possibly symbiotic.

The above description is very similar to that given by Rogers (1979). It allows for inclusion of cleistocarpic genera such as *Phylacia* and *Pulveria*, and also for inclusion of taxa with persistently 2-celled ascospores in which both cells are coloured, e.g. *Collodiscula*. These taxa were not or only tentatively accepted in the family by Rogers, but were included by Barr (1990). Her description allows for inclusion in the family of *Ascotricha*, a taxon with limited stromatic development comprising merely 'basal hyphae or subiculum' and with 'ascomata ... superficial on stroma or in superficial subiculum'. This genus is not here accepted in the family, and is further discussed below. See also Rifai (1969) for a discussion of family characters.

Synonyms

Hypoxylaceae DC., Flore Française 2: 280 (**1805**). Typus: *Hypoxylon* Bull.

Sphaeriaceae [*Sphaeriacei*] Fr., Syst. orb. veg. 1: 103 (**1825**). Typus: *Sphaeria* Haller f.: Fr. nom.rej.

Thamnomycetaceae Bonord. (as *Thamnomycetes*), Abhandlungen aus dem Gebiete der Mykologie 1: 84 (**1864**)/Abhandlungen der Naturforschenden Gesellschaft zu Halle 8 [not seen]. Typus: *Thamnomyces* Ehrenb. - Nom. inval. ICBN Art. 32.1(c) (no description).

?*Waweliaceae* Namysl. (as '*Waweliacées*'], Bulletin international de l'Académie des Sciences et des lettres de Cracovie, Classe des Sciences mathématiques et naturelles, Sér. B Sciences naturelles, 7: 602 - 603 (**1908**). - Nom. inval., treated as subfamily under 'family' *Hypocreales* and Art. 18.4 (no Latin termination).

Astrocystidaceae Hara (as *Asterocystidiaceae*), Botanical Magazine, Tokyo 27: (473) - (474) (**1913**). Typus: *Astrocystis* Berk. & Broome.

Xylosphaeriaceae Bat. & Peres, Atas do Instituto Micologia 5: 115 (**1967**). Typus: *Xylosphaera* Dum. - Nom. inval. ICBN, Art. 36.1. (no Latin description).

Roselliniaceae Kreisel, Grundzüge eines natürlichen Systems der Pilze: 104 (**1969**). Typus: *Rosellinia* De Not. - Nom. inval. ICBN, Art. 36.1. (no Latin description; not in HD).

Roselliniaceae Wehm., Mycologia Memoir 6: 127 (**1975**). Typus: *Rosellinia* De Not. - Nom. invalid, ICBN, Art. 36.1. (no Latin description).

Phylaciaceae Speer, Bulletin Trimestriel de la Société mycologique de France 96: 138 (**1980**). Typus: *Phylacia* J.H. Léveillé.

Familiae exclusae

Boliniaceae Rick, Broteria, ser. bot. 25: 65 (**1931**). Typus: *Bolinia* (Nitschke) Sacc.

Coniochaetaceae Malloch & Cain, Canadian Journal of Botany 49: 878 (**1971**). Typus: *Coniochaeta* (Sacc.) Cooke.

GENERA

Acrosphaeria Corda [(*)] = **XYLARIA**
Anleitung zum Studium der Mykologie: 136 (**1842**).
Lectotypus (here chosen): *Hypoxylon collabens* Mont.
Location of type: PC.
Type studies: Laessøe (unpublished).
Anamorph: see *Xylaria*.
Status: *Xylaria* (EH).
Number of epithets: 2.
Notes: Corda (l.c.) selected two species as types, viz. *Thamnomyces annulipes* Mont. and *Hypoxylon collabens*. A lectotypification using the former would cause a name change for *Batistia* Cif., whilst choosing the latter would create a synonym of *Xylaria* as this genus is currently circumscribed. Dennis (1957) gave *H. collabens* as a synonym of *X. comosa* (Mont.)Fr. Laessøe (unpubl. MSc thesis) studied the immature type and concluded that it could, with some doubt, be assigned to *Xylaria tuberoides* Rehm. It has to be said that Corda's diagnosis of *Acrosphaeria* matches '*Thamnomyces annulipes*' much better than *'Hypoxylon' collabens*.

Albocrustum 'McGinty'apud Lloyd [(*)] = **BISCOGNIAUXIA**
Mycological Writings 7: 1353 (**1925**)
Typus: *A. atropunctatum* (Schwein.) Lloyd (*Sphaeria atropunctata* Schwein.).
Location of type: K (isotype, but undoubtedly elsewhere as well).
Type studies: Miller (1961).
Anamorph: not known.
Status: *Hypoxylon* (EH).
Number of epithets: 1.
Notes: it is highly doubtful that this name can be considered as validly published. Lloyd clearly did not accept the name in the 'place of publication' and used the 'nom-de-plume' McGinty as author. The type has been combined in many genera but Pouzar (1979) placed it in *Biscogniauxia*.

Anthostomella Sacc. [*] **ANTHOSTOMELLA**
Atti Accademia scientifica veneto-trentino-istriana 4: 84 (p.8 in separatum at Kew)(X.**1875**).
Lectotypus: *A. phaeosticta* (Berk.) Sacc. (Clements & Shear 1931),
A. limitata Sacc. (Eriksson 1966),
A. tomicoides Sacc. (Francis 1975).
Location of type: PAD (labelled *A. italica* * *affinis* Sacc.)
Type studies: Francis (1975).
Anamorph: *Geniculosporium* (Martin 1969c, as *Nodulisporium* type 2a), *Nodulisporium* & *Virgariella* (Francis & al. 1980).
Status: *Anthostomella* (Francis 1975, EH).
Number of epithets: ca. 250 (Francis 1975).

Monograph: Francis (1975, Europe (excluding lignicolous taxa) & conifer inhabiting species worldwide; 30 species).
Important literature: Martin (1969c, taxonomy, culture studies).
Notes: generally accepted as a good genus in the family but a concise circumscription is still not at hand and the genus may be polyphyletic in current circumscription. Identification of true relationships is very difficult based on classic methods. Very few species have been cultured. In strong need of worldwide revision. The typification has been discussed at length by Eriksson (1966) and Francis (1975). The arguments put forward by Francis are not quite convincing but her choice of type does conserve the current circumscription of the genus and should be supported for the sake of stability.

Areolospora S.C.Jong & E.E.Davis [(*)] = **PHAEOSPORIS**
Norwegian Journal of Botany 21: 28 (III.**1974**).
Typus: *A. terrophila* S.C.Jong & E.E.Davis (= *Phaeosporis melasperma* (Nyl.) Clem.).
Location of type: BPI (cultures at CBS, IMI and IFO).
Type studies: Jong & Davis (1974).
Anamorph: see *Phaeosporis*.
Status: *Phaeosporis* (Hawksworth in Eriksson & Hawksworth 1987, EH).
Number of epithets: 1.
Notes: see under *Phaeosporis*.

Ascostroma Bonord. [(*)] = **KRETZSCHMARIA**
Handbuch der allgemeinen Mykologie: 272 (**1851**).
Lectotypus (here chosen): *Sphaeria deusta* Hoffm.: Fr.
Location of type: not located/designated ? check Miller
Anamorph: see *Kretzschmaria*.
Status: = *Ustulina* (EH).
Number of epithets: 0.
Notes: see also under *Kretzschmaria* and *Ustulina*. Bonorden (l.c.) did not cite any species but referred to Fries, Systema mycologicum 2: 345, *Sphaeria* trib. *glebosae* with *Sphaeria deusta* as the first mentioned species. This species matches the diagnosis well. Those who prefer to maintain *Ustulina* as a distinct genus must either use *Ascostroma* or make a conservation proposal.

Astrocystis Berk. & Broome [?] **ASTROCYSTIS**
Journal of the Linnean Society, Botany 14: 123 (3.XII.**1873**; ING).
Typus: *A. mirabilis* Berk. & Broome.
Location of type: K (several parts).
Type studies: Diehl (1925), Ju & Rogers (1990), Laessøe & Spooner (1994).
Anamorph: *Acanthodochium* Samuels, J.D.Rogers & Nagas. (Ju & Rogers 1990).
Status: *Xylariaceae* ?, *Astrocystis* (EH).
= *Anthostomella* (Höhnel 1909a, von Arx & Müller 1954).
= *Hypoxylon* (Martin 1967b).

= *Rosellinia* (Ju & Rogers 1990).
Number of epithets: 7 (Laessøe & Spooner 1994, excluding new species proposed in the paper).
Monograph: Laessøe & Spooner (1994; preliminary; 8 species).
Important literature: Diehl (1925, morphology), Ju & Rogers (1990, taxonomy, anamorph).
Notes: the exact date of publication of the genus name has been cited variously. I have followed the ING reference. The only problem in placing this genus in the *Xylariaceae* arises when considering its relation to *Collodiscula*, currently accepted in the *Amphisphaeriaceae* by e.g. Ju & Rogers (1990). They considered this to be the closest relative of *Astrocystis* but kept the genera in their separate families. Laessøe & Spooner (1994) agree but propose to unite *Collodiscula* with the *Xylariaceae* in spite of its two-celled ascospores which lack germ slits.

Biscogniauxia Kuntze [*] **BISCOGNIAUXIA**
Revisio generum plantarum 2: 398 (5.XI.**1891**). - Nom. nov. for *Nummularia* Tul. & C. Tul. non J. Hill 1756, and thus automatically typified by the lectotype of this name.
Typus: *B. nummularia* (Bull.: Fr.) Kuntze.
Location of type: no herbarium specimens kept by Bulliard.
Type studies: here designated as Bulliard, Herb. France pl. 468, fig. 4.
Anamorph: *Periconiella* (Petrini & Müller 1986), *Geniculosporium* (Eckblad & Granmo 1978). San Martín & Rogers 1993: Nodulosporium (only!)
Status: *Biscogniauxia* (Pouzar 1979, EH).
Number of epithets: 49.
Monograph: Miller (1961; applanate species, as *Hypoxylon*; ca. 16 species).
Important literature: Pouzar (1979, 1986, nomenclature, revision of mainly European species); Jong & Benjamin (1971, North American species, *pro parte*, as *Nummularia*); Eckblad & Granmo (1978, taxonomy, nomenclature, as *Nummulariella*); Martin (1969b, taxonomy, culture, as *Numulariola*); Whalley & al. 1990, inclusion of appendiculate spored species); González (1993, Mexican species); Callan & Rogers (1986, anamorph, culture); Granmo & al. (1989, distribution); Jensen (1985, peridium anatomy); Sharland & Rayner (1989a,b, breeding strategy); Whalley & Edwards (1984, secondary metabolites, taxonomy); Weber (1992, cytology); Sinclair & al. (1987 & ref. therein, pathology, as *Hypoxylon* spp.); Rogers (1971, ascogenous system of deviating species '*Hypoxylon*' *microplacum*).
San Martín → González
Notes: widely accepted but still commonly not distinguished from either *Hypoxylon* or *Nummularia*/*Nummulariella* in more general literature. A modern monograph has not yet been produced and many names are still not clarified.

Byssitheca Bonord. [(*)] **≡ ROSELLINIA**
Abhandlungen der Naturforschenden Gesellschaft zu Halle 8: 82 [not seen, ING]/Abhandlungen aus dem Gebiete der Mykologie: 156 (**1864**).

Typus: *B. aquila* (Fr.: Fr.) Bonord. (*Sphaeria aquila* Fr.).
Location of type: see *Rosellinia*.
Anamorph: see *Rosellinia*.
Status: *Rosellinia* (Petrini 1992, EH).
Number of epithets: 1.

Calceomyces Udagawa & S. Ueda [*] **CALCEOMYCES**
Mycotaxon 32: 448 (**1988**).
Typus: *C. lacunosus* Udagawa & S. Ueda.
Location of type: NHL (culture also at TRTC).
Type studies: Udagawa & Ueda (l.c.)
Anamorph: *Nodulisporium* Preuss (Udagawa & Ueda l.c.).
Status: *Calceomyces* (EH).
Number of epithets: 1.

Camillea Fr. [*] **CAMILLEA**
Summa Vegetabilium Scandinaviae 2: 382 (**1849**).
Lectotypus: *C. leprieurii* (Mont.) Mont. (*Hypoxylon leprieurii* Mont.; Montagne 1855, Clements & Shear 1931).
Location of type: PC (holotype), K (isotypes).
Type studies: Dennis (1959), Laessøe & al. (1989).
Anamorph: *Xylocladium* Syd. (Crane & Dumont 1975, Laessøe & al. 1989).
Status: *Camillea* (EH).
Number of epithets: 37.
Monograph: Laessøe & al. (1989, preliminary; 25 species).
Important literature: Laessøe & al. (1989 & refs. therein, revision, ultrastructure of ascospores & of anamorph structures); Rogers & al. (1991, taxonomy); González & Rogers (1993, Mexican species); Rogers (1968c, nuclear phenomena in ascospores).
Notes: Patouillard (1888) was the first to report the connection between flat and erect forms of the type species. Laessøe & al. (1989) excluded *C. bacillum* based on anamorph and ascospore characters (see *Leprieuria*). Hawksworth & al. (1983) gave *Geniculosporium* as the anamorph form genus for *Camillea*. However, this was based on Samuels & Müller's (1980) study of *C. bacillum*, now the type of *Leprieuria*. Rogers (1975b) studied the anamorph of *Camillea* subgenus *Jongiella*.

Carnostroma Lloyd [(*)] **= XYLARIA**
Mycological Writings 5, The large pyrenomycetes, 2. paper: 27 (VII.**1919**).
Typus: *C. thyrsus* (Berk.) Lloyd (*Sphaeria thyrsus* Berk.)
Location of type: K.
Type studies: none (description of Mauritius specimen in Dennis 1958a; Lloyd l.c. did not see type).
Anamorph: not known.
Status: *Xylaria* (EH).
Number of epithets: 1.

Important literature: Thite & Kulkarni (1971) & Thite (1977, ascospore formation, as *X. apiculata*, but almost certainly *X. thyrsus*).
Notes: Lloyd (l.c.) based his genus on the non-carbonous nature of the outer layer of the stromata and Martin (1976) combined the species in *Podosordaria* based on the same observation. Other characters such as the rooting stems (actual substrate unknown) and the appendaged (secondary) ascospores make it possible to use this taxon at some level within *Xylaria*.

Cerillum Clem. apud Clem. & Shear [(?)] **? = ENGLEROMYCES**
Genera of Fungi: 262, 280 (**1931**). - Nom. nov. for *Colletomanginea* Har. & Pat., but superfluous.
Typus: *C. paradoxa* (Har. & Pat.) Clem. (≡ *Colletomanginea paradoxa* Har. & Pat.).
Status: ? *Engleromyces* (EH).
≡ *Colletomanginea*.
Number of epithets: 1.
Notes: see *Colletomanginea*.

Chaenocarpus Rebent. [(*)] **CHAENOCARPUS**
Prodromus florae neomarchiae: 350 (**1804**)
Typus: *C. setosus* (Leyss.) Rebent. (*Lichen setosus* Leyss. ≡ *Lichen hippotrichoides* (as *hippotrichodes*) Dill. ex Weber).
Location of type: no original material available; plate in Dillenius (1741) constitutes the type.
Anamorph: not known, but see notes.
Status: = *Xylaria* (Dennis 1961).
= *Thamnomyces* (EH).
Number of epithets: 2+.
Important literature: Wallroth (1842, taxonomy, illustrations, ecology, as *Cryptothamnium usneaeforme*); Léveillé (1843, emend. diagnosis, taxonomy).
Notes: the rubiaceous *Chaenocarpus* Neck. ex Juss. (Dict. Sci. Nat. 8: 50, 1817 *fide* ING) is a later homonym. The fungus genus in its emended form (Léveillé 1843) is listed in ING with '*C. setosus* Lév.' given as type. Since Leysser (1783) cited *Lichen hippotrichoides* Weber as a synonym and also referred to the plate in Dillenius (1741) it is clear that *Chaenocarpus* should be typified by this plate and that the two binomials are obligate synonyms. Both binomials have been misapplied to sterile rhizomorphs and to algae as well. Léveillé (1843) tried to solve the muddle concerning the nomenclature and taxonomy of names surrounding *Lichen setosus*. He traced the name back to *Usnea nigra, setae equinae facie, parum ramosa. The Horse-hair Usnea* (Dillenius 1741), which consisted of two elements one of which corresponds to the modern interpretation of *Xylaria hippotrichoides*. The Rebentisch interpretation (l.c.) does not correspond with this taxon but probably represents a marasmioid fungus, judged both from the habitat and his figure (see also Dennis 1958a). In spite of the considerable confusion

concerning this epithet it seems appropriate to recognize it so as to maintain established usage. This decision may have wider implication if preliminary studies by the author, suggesting that *X. hippotrichoides* and *Wawelia* can be considered congeneric, are confirmed. *Ad interim*, *Chaenocarpus* is considered monotypic and accepted as a member of the *Xylariaceae*, but see discussion under *Wawelia*.

Chromocreopsis Seaver [(*)] **= THUEMENELLA**
Mycologia 2: 63 (8.VII.**1910**).
Typus: *C. cubispora* (Ellis & Holw.) Seaver (*Hypocrea cubispora* Ellis & Holw. = *Thuemenella javanica* Penz. & Sacc.).
Location of type: NY (lectotype, Samuels & Rossman 1992).
Type studies: Rogers (1981), Corlett (1985), Samuels & Rossman (1992).
Anamorph: see *Thuemenella*.
Status: = *Thuemenella*, *Hypocreaceae* (Boedijn 1964, EH).
= *Thuemenella*, *Xylariaceae* (Barr 1990, Samuels 1989, Samuels & Rossman 1992).
= *Sarcoxylon* (von Arx & Müller 1954).
Number of epithets: 4+.
Important literature: see *Thuemenella*.
Notes: *Chromocreopsis striispora* Stevenson was referred to *Stromatoneurospora* by Jong & Davis (1973) as a synonym of the type of that genus. See also *Thuemenella*.

Coelorhopalon Overeem apud Overeem & Weese [(*)] **= XYLARIA**
Icones Fungorum Malayensium 11: 3, pl. XI (**1925**).
Typus: *C. obovatum* (Berk.) Overeem apud Overeem & Weese (*Sphaeria obovata* Berk.).
Location of type: K.
Type studies: Dennis (1957), Laessøe (in manus.).
Anamorph: see Rogers & Callan (1986; as *X. schweinitzii* Berk. & Curt.).
Status: *Xylaria* (EH).
Number of epithets: 1.
Notes: the taxon described and illustrated by van Overeem is not *Sphaeria obovata* but *Xylaria tuberoides* Rehm (Laessøe in manus. and cited as a synonym by van Overeem), but this does not affect the typification. The genus is a clear taxonomic synonym of *Xylaria* since *Xylaria obovata* is a very close relative of *X. polymorpha*, an undisputed member of the genus. The date of publication is given as '1925?' in ING. The title page of the publication has 1925 printed and the following part is also dated 1925.

Coenocarpus Fr. [(*)] **≡ CHAENOCARPUS**
Systema orbis vegetabilis: 297 (**1825**). Nom. nov. for *Chaenocarpus* Rebent. but superfluous.
Typus: see *Chaenocarpus*.
Status: *Thamnomyces* (EH).

Notes: Fries (l.c.) clearly referred to *Chaenocarpus* Rebent. and the name becomes a nomenclatural synonym of *Chaenocarpus*.

Colletomanginia Har. & Pat. [(?)] **? = ENGLEROMYCES**
Compte rendu hebdomadaire des séances de l'Académie des Sciences. Paris 142: 224 - 226 (22.I.**1906**).
Typus: *C. paradoxa* Har. & Pat.
Location of type: FH (Pfister 1977).
Type studies: none.
Anamorph: not known.
Status: ? *Engleromyces* (EH).
Number of epithets: 1.
Important literature: Rogers (1981, taxonomy).
Notes: Hariot & Patouillard (1906) published a 'complementary' diagnosis and description, including several figures and a plate. Rogers (1981) did not see type material, but found discrepancies in the descriptions of *Engleromyces* and *Colletomanginea*. The spore illustrations of the latter are not like those in *E. goetzei*, the type of *Engleromyces*. The type should be examined. *Cerillum* (see this) was introduced as an unnecessary name change.

Collodiscula I. Hino & Katum. [-] **COLLODISCULA**
Bulletin of the Faculty of Agriculture Yamaguti University 6: 55 (XII.**1955**).
Typus: *C. japonica* I. Hino & Katum.
Location of type: YAM.
Type studies: Samuels & al. (1987).
Anamorph: *Acanthodochium collodisculae* Samuels, J.D. Rogers & Nagas.
Status: *Amphisphaeriaceae* (Samuels & al. 1987, Ju & Rogers 1990, EH).
Xylariaceae (Barr 1990, tentatively?; Laessøe & Spooner, 1994).
Number of epithets: 1.
Important literature: Samuels & al. (1987, full taxonomic treatment of monotype).
Notes: Laessøe & Spooner (1994) propose to place this genus next to *Astrocystis* in the *Xylariaceae*. Barr (1990) discussed the genus under *Xylariaceae* but did not key the genus in the family (or any other family).

Coprolepa Fuckel [(*)] **≡ HYPOCOPRA**
Jahrbuch des Nassauischen Vereins für Naturkunde 23 - 24: 239 (post 18.II.**1870**). [not seen, *fide* ING]/Symbolae mycologicae: 239.
Lectotypus: *C. merdaria* (Fr.) Fuckel (Clements & Shear 1931; *Sphaeria merdaria* Fr.).
Anamorph: see *Hypocopra*.
Status: *Hypocopra* (EH).
Number of epithets: 5+.
Notes: the lectotypification makes *Coprolepa* an obligate synonym of *Hypocopra* (see notes under that name).

Creosphaeria Theiss. [(*)] **CREOSPHAERIA**
Beiheft zum Botanische Centralblatt 27(2): 396 (31.VII.**1910**).
Typus: *C. riograndensis* Theiss. (= *Hypoxylon sassafras* (Schwein.: Fr.) M.A. Curt. *fide* Petrak 1951).
Location of type: BPI (Ju & al. 1993; isotype?), W or S? (specimen studied by Petrak (1951)) and probably more unlocated iso/syntypes in existence.
Type studies: Petrak (1951), Ju & al. (1993).
Anamorph: *Libertella* Desm.-like (no conidiomata, Petrini & Müller 1986); Ju & al. (1993, rudimentary conidiomata observed).
Status: *Hypoxylon* (Petrak 1951, Miller 1961, Petrini & Müller 1986, EH).
Creosphaeria, Xylariaceae (Ju & al. 1993).
Number of epithets: 4.
Important literature: Ju & al. (1993, taxonomy, anamorph).
Notes: the genus was introduced for 'soft' species of *Hypoxylon*, although the author considered its relationship lay with *Rosellinia*. According to Petrini & Müller (1986) the holomorph characters found in *H. sassafras* made it impossible to assign it to any of the accepted sections in *Hypoxylon*, although they did not exclude it from that genus. They found the anamorph to be similar to some found in the *Diatrypaceae*, results confirmed by Ju & al. (1993). However, the reddish pigments may, in contrast, suggest a close relationship with species of *Hypoxylon*. Ju & al. (1993) accept *Creosphaeria* as a distinct genus mainly based on the anamorph characters. They exclude one binomial and list another as status unknown.

Cryptothamnium Wallr. [(*)] **≡ CHAENOCARPUS**
Beiträge zur Botanik 1 (2): 76 (31.VIII - 2.IX.**1842**).
Typus: *C. usneaeforme* Wallr. (≡ *Lichen hippotrichoides* Dill. ex Weber).
Anamorph: see *Chaenocarpus*.
Status: ≡ *Hypoxylon* (ING).
Hypoxylon (EH).
Number of epithets: 1.
Important literature: see *Chaenocarpus*.

Daldinia Ces. & De Not. [*] **= HYPOXYLON**
Commentario dell Societa Crittogamologica Italiana 1(4): 197 - 198 (**1863**). - nom. cons.
Typus (cons.): *D. concentrica* (Bolton: Fr.) Ces. & De Not. (*Sphaeria concentrica* Bolton: Fr.).
Location of type: very few Bolton specimens have been located and none, apparently, of *D. concentrica*.
Type studies: type represented by plate 180 in Bolton, Hist. Fung. The plate represents the typical form of *D. concentrica*.
Anamorph: *Nodulisporium* Preuss (Molliard 1904; Petrini & Müller 1986); *N. tulasnei* Molliard was based on the anamorph of *D. concentrica*.
Status: *Daldinia* (Child 1932, Rogers 1979, EH).
Monographs: Child (1932; 13 species).
Number of epithets: 37+.

Important literature: Miller (1928, developmental studies); Petrini & Müller (1986, taxonomy and anamorphs of European species); Martin (1969b, taxonomy, culture); Dargan & Thind (1984, segregation in subgenera); Ingold & Cox (1955) & Ingold (1946, 1954a & 1956, spore dispersal and anatomy of tissues; 1954b, ascogenous hyphae); Sharland & Rayner (1986, mycelial interactions); Wheeler & Blackwell (1984, insect interactions); Beckett (1976, 1979b, ultrastructure of ascospores); Nilsson & al. (1989, wood decay).

Notes: modern evidence suggests that *Daldinia* cannot be upheld at generic level unless a very narrow generic concept is used. This would require several further splits of *Hypoxylon* s.st. and an inflation of genera in the family in general. *Daldinia concentrica* is in every respect, including biology, closely related to *Hypoxylon fragiforme*, the type of *Hypoxylon*, and the only important difference seems to be the distinctly zoned flesh in *Daldinia*. There are also several intermediate taxa currently accepted in *Hypoxylon* that possess stromata with faint zonation. A subgeneric status would probably be preferable. However, Rogers (in litt.) does not support inclusion of *Daldinia* in *Hypoxylon*. He reports 'collapsing rings' in *Daldinia*, which he believes indicates a different lifestyle from 'red *Hypoxylon*', and furthermore, found evidence for *Daldinia* 'grading into' *Entonaema*.

Diatrypeopsis Speg. [(*)] = **CAMILLEA**

Anales de la Sociedad científica Argentina 18: 266 (- 267) (**1884**). [not seen]/Fungi Guaranitici 1: 75 (no. 186)[separately paginated separatum].

Typus: *D. laccata* Speg. (= *Camillea punctulata* (Berk. & Ravenel) Laessøe, J.D.Rogers & Whalley).

Location of type: LPS (holotype, presumably present), K (isotype) and probably BAF, BPI, FH and NY, all listed as having sets of Balansa 'Plantes du Paraguay' in Stevenson (1971).

Type studies: Laessøe & al. (1989).

Anamorph: unknown (see *Camillea*).

Status: *Camillea* (Laessøe & al. 1989, EH).

Number of epithets: 2.

Discosphaera Dumort. [(*)] = **HYPOXYLON**

Commentationes botanicae: 91 (VII-XII.**1822**).

Lectotypus: *D. radians* (Tode) Dumort. (*Sphaeria radians* Tode; = *Hypoxylon fragiforme* (Pers.: Fr.) J. Kickx f. *fide* Donk 1964).

Location of type: Tode's herbarium has been destroyed (Stafleu & Cowan 1986); type represented by pl. 12, fig. 101 in Tode, Fungi Meckl. 2.

Anamorph: see *Hypoxylon*.

Status: *Hypoxylon* (EH).

Number of epithets: 29 (Dumortier listed epithets only).

Notes: ICBN-1988 does not list *Discosphaera* as rejected against *Hypoxylon*, although it is not an obligate synonym of this genus. Donk (l.c.) stated the type to be a taxonomic synonym of *H. fragiforme* but Tode's fungus is pre-

sumably the close relative *H. howeanum* Peck, since Tode gave the substrate as *Quercus*. The name should be proposed for formal rejection.

Engleromyces Henn. [*] **ENGLEROMYCES**

In: A. Engler's Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 28(3): 327 (22.V.**1900**).

Typus: *E. goetzei* Henn.

Location of type: FH (fragment [isotype?] *fide* Rogers 1981), holotype lost?

Type studies: Rogers (1981).

Anamorph: not known.

Status: *Engleromyces* (Rogers 1981, EH).

Number of epithets: 1.

Important literature: Dennis (1961 and 1962, coloured plate, distribution, host); Rogers (1981, description and taxonomic position); Kokwaro (1983, ecology, size, distribution, medicinal use, exploitation); Pedersen & al. (1980, novel compound isolated, engleromycin); Zang (1992, new records from SW China and Tibet).

Entoleuca Syd. [(*)] **? = ROSELLINIA**

In Syd. & Petr., Annales Mycologici 20(3/4): 186 (25.IX.**1922**).

Typus: *E. callimorpha* Syd. (= ? immature '*Hypoxylon*' *mammatum fide* Miller 1961, but ascospores described by Sydow as being slightly smaller than described for *H. mammatum*).

Location of type: BPI (Miller 1961), other parts probably exist (S ?).

Type studies: Miller (1961).

Anamorph: not known (*H. mammatum* has a *Geniculosporium* Chesters & Greenhalgh anamorph).

Status: *Hypoxylon* (Miller 1961, Martin 1968a, EH).
Entoleuca/*Rosellinia* (Pouzar 1985a).

Number of epithets: 1.

Important literature: Martin (1967b, 1968a, emend. descr.); Griffin & al. (1992, pathology and refs therein); Rogers & Berbee (1964, developmental morphology); Rogers (1964, chromosome number).

Notes: preliminary studies on secondary metabolites produced by '*H.*' *mammatum* (Edwards & Whalley, unpubl.) suggest, as to the morphological data, a possible relationship with *Rosellinia*. In addition *Hypoxylon mammatum* is a specialized parasite, as are some species of *Rosellinia*. However, Rogers (in litt.) considers '*H.*' *mammatum* so specialized that it 'could be a [separate] genus'. The type of *Entoleuca*, from *Malus* branches, should be restudied in order to confirm the synonymy with '*H.*' *mammatum*.

Entonaema Möller [*] **ENTONAEMA**

Botanische Mittheilungen aus den Tropen 9: 306, pl. XXX (**1901**).

Lectotypus: *E. liquescens* Möller (as *E. lignescens*, Clements & Shear 1931); *E. mesenterica* Möller (ING gives this, the first mentioned species in the original publication, as type); *E. cinnabarina* (Cooke & Massee) Lloyd

(Rogers 1981, invalid since this was not included in the original publication).
Location of type: original material of *E. liquescens* (and *E. mesenterica*) probably lost (not in HBG), one of Möller's illustrations could serve as type.
Type studies: none.
Anamorph: *Nodulisporium* Preuss (Rogers 1982).
Status: *Entonaema* (Rogers 1981, EH).
Number of epithets: 8+.
Monograph: Rogers (1981; 5 species).
Important literature: Möller (1901, biology); Heim (1960, structure); Rogers (1982, anamorph, taxonomy); Whalley & Edwards (1987, metabolites/taxonomy).
Notes: the choice of *E. liquescens* as lectotype seems most appropiate since type material of this species has been located at FH; Rogers (1981) was unable to locate type material of *E. mesenterica*. Möller described these two species simultaneously and there is no need to choose the first mentioned as erroneously indicated by Rogers, although he then chose a species described by another author!

Epixylon Füisting [0] = **HYPOXYLON**
Botanische Zeitung 25: 309 (**1867**).
Typus: *Hypoxylon rubiginosum* (Pers.: Fr.) Fr. (*Sphaeria rubiginosa* Pers.: Fr.).
Location of type: L (lectotype, Miller 1961).
Type studies: Miller (1961), Petrini & Müller (1986).
Anamorph: see *Hypoxylon*.
Status: not listed in ING or EH.
Number of epithets: 0.
Notes: this is a 'rediscovered' name which proves to be a harmless and straightforward synonym of *Hypoxylon*.

Euepixylon Füisting [0] **EUEPIXYLON**
Botanische Zeitung 25: 309 (**1867**).
Typus: *Hypoxylon udum* (Pers.: Fr.) Fr.
Location of type: type not designated. The Persoon plate could be used but the fungus depicted cannot be identified with certainty. A better choice would probably be a collection in Fries' scler. exsic.
Anamorph: *Geniculosporium* Chesters & Greenhalgh (Whalley 1976b).
Status: not in ING or EH.
Number of epithets: 1 (Laessøe & Spooner 1994).
Notes: Laessøe & Spooner (1994) have accepted this 'rediscovered' generic name *ad interim*. The type is apparently related to *Nemania* and to some species formerly placed in *Anthostoma*.

Euhypoxylon Füisting [0] ≡ **HYPOXYLON**
Botanische Zeitung 25: 309 (**1867**).

Typus: *H. coccineum* Bull. (= *H. fragiforme* (Pers.: Fr.) J. Kickx f. *fide* e.g. Miller 1991).
Anamorph: see *Hypoxylon*.
Status: not in ING or EH.
Number of epithets: 0.
Notes: This 'rediscovered' name is a straightforward synonym of *Hypoxylon*. See further notes under *Hypoxylon*.

Gamosphaera Dumort. [(*)] ≡ **NEMANIA**
Commentationes botanicae: 90 (VII-XII.**1822**).
Lectotypus: *G. serpens* (Pers.: Fr.) Dumort. (*Sphaeria serpens* Pers.: Fr.; Donk 1964).
Status: *Hypoxylon* (EH).
≡ *Nemania* (Pouzar 1985a).
Number of epithets: 7 (only epithets listed).
Notes: The lectotypification proposed by Donk (1964) makes *Gamosphaera* an obligate synonym of *Nemania*.

Helicogermslita Lodha & D. Hawksw. [*]
HELICOGERMSLITA
In D. Hawksw. & Lodha, Transactions of the British mycological Society 81(1): 91 (figs. p. 92 - 94) (**1983**).
Typus: *H. celastri* (S.B. Kale & S.V.S. Kale) Lodha & D. Hawksw. (*Anthostomella celastri* S.B. Kale & S.V.S. Kale).
Location of type: HCIO.
Type studies: Hawksworth & Lodha (l.c.).
Anamorph: not known.
Status: *Helicogermslita* (EH).
= *Rosellinia* ? (Dargan & al. 1984).
= *Anthostomella* ? (Petrini & al. 1987).
Number of epithets: 1 (+ 3, Laessøe & Spooner 1994).
Important literature: Dargan & al. (1984, emend. descr.); Laessøe & Spooner (1994; accept genus and add species).

Hemisphaeria Klotzsch [(*)] = **HYPOXYLON**
In Meyen, Novorum Actorum Academiae Caesareae Leopoldino-carolinae Naturae Curiosum 17, suppl 2 (**1843**). [not seen]/ibidem 19, suppl.1: 241 [published at the same time *fide* Stafleu & Cowan 1981].
Typus: *H. concentrica* (Bolt.: Fr.) Klotzsch (*Sphaeria concentrica* Bolt.: Fr.; ≡ *Daldinia concentrica*).
Location of type: see *Daldinia*.
Anamorph: see *Hypoxylon*.
Status: ≡ *Daldinia* (ING).
Daldinia (EH).
Number of epithets: 1.
Notes: Klotzsch (l.c.) introduced *Hemisphaeria* for the Friesian tribe *Pulvinatae* of *Sphaeria* and Nees von Esenbeck's (1816) '*Sphaeriae hemisphaer-*

icae'. Greuter & al. (1988) list the genus in the index of conserved and rejected names with reference to *Daldinia*, presumably referring to the protected status of *Daldinia*, but *Hemisphaeria* is erroneously (?) not given next to *Daldinia* in the list itself.

Henningsinia Möller [(*)] = **PHYLACIA**
Botanische Mittheilungen aus den Tropen 9: 309, pl. VIII, f. 116 (**1901**).
Typus: *H. durissima* Möller (= *Phylacia turbinata* (Berk.) Dennis).
Location of type: lost (?); the excellent plate in Möller (l.c.) could serve as type.
Type studies: none.
Anamorph: not known, but see *Phylacia*.
Status: *Phylacia* (Dennis 1959, EH).
Myxomycetes ? (ING).
Number of epithets: 2.

Holttumia Lloyd [(*)] **HOLTTUMIA**
Mycological Writings 7, Mycological Notes 72: 1285 & fig. 2896 - 2898, pl. 296 (VI.**1924**).
Typus: *H. congregata* Lloyd (= *Hypoxylon nucigenum* Henn. *fide* Miller 1961).
Location of type: BPI (Lloyd herbarium).
Type studies: Miller (1961).
Anamorph: not known.
Status: *Hypoxylon* (Miller 1961, EH).
Number of epithets: 1.
Notes: species around '*Hypoxylon*' *nucigenum* do not fit nicely into any of the segregates from *Hypoxylon*. They are most likely closely related to some species of *Xylaria* and I propose to accept the name *ad interim*. Wakefield (in Lloyd l.c.) suggested an affinity with *Kretzschmaria* (as *Ustulina*).

Hypocopra (Fr.) J. Kickx f. [*] **HYPOCOPRA**
Flore Cryptogamique des Flandres 1: 362 (**1867**).
Basionym: *Massaria* subg. *Hypocopra* Fr., Summa veg. scand.: 397 (1849).
Lectotypus: *H. fimeti* (Pers.: Fr.) J. Kickx f. (Clements & Shear 1931); *H. merdaria* (Fr.: Fr.) J. Kickx f. (von Arx & Müller 1954 & Lundqvist 1972 (p.304), who concluded that the former name is 'dubious, ambiguous, and confusing').
Location of type: ?
Type studies: ? (? Krug (unpubl.), ? Lundqvist (unpubl.).
Anamorph: not known (?). Status: *Hypocopra* (EH).
Number of epithets: 31+.
Important literature: Krug & Cain (1974b, many new taxa); Jensen (1985, peridium anatomy).
Notes: Lundqvist (in manus.) has suggested to conservation of *H. merdaria* as the type of *Hypocopra* and listing *H. fimeti* in *Nomina rejicienda*. The latter name threatens *Sordaria fimicola* (Roberge ex Desm.) Ces. & De Not. and

acceptance of *H. fimeti* as type would make it necessary to propose a number of new combinations in *Coprolepa*.

Hypoxylina Starbäck [(*)] = **HYPOXYLON**
Arkiv för Botanik 5(7): 29 (30.XII.**1905**).
Typus: *H. umbilicata* Starbäck (= *Hypoxylon rubiginosum* var. *tropicum* J.H. Miller *fide* Laessøe 1989).
Location of type: S (lectotype, Laessøe 1989).
Type studies: Laessøe (1989).
Anamorph: see *Hypoxylon*.
Status: *Hypoxylon* (Laessøe 1989, EH).
Number of epithets: 5+.
Notes: Dennis (e.g. 1961) accepted the genus for hypoxyloid members of *Xylaria*, but he had not seen the type.

Hypoxylon Bull. [*] **HYPOXYLON**
Histoire des champignons de la France 1: 168 (**1791**). - Nom. cons.
Lectotypus: *H. coccineum* Bull. (= *H. fragiforme* (Pers.: Fr.) J. Kickx f. (*Sphaeria fragiformis* Pers.: Fr.) *fide* e.g. ICBN).
Location of type: type represented by plate in Bulliard, Herb. Fr. pl. 495, fig. 2.
Anamorph: *Nodulisporium* Preuss, *Virgariella* S. Hughes, *Hadrotrichum* Fuckel & *Rhinocladiella* Nannf. (*fide* Petrini & Müller 1986).
Status: *Hypoxylon* (EH).
Number of epithets: 530+.
Monograph: Miller (1961) (120 species sensu lato; 38 sensu stricto (sect. *Hypoxylon* & *Papillata*); now out of date).
Important literature: Donk (1964, nomenclature); Jong & Rogers (1972, anamorphs); Abe (1984, tissue types; 1989, ecology); Jensen (1985, peridium anatomy); Greenhalgh & Evans (1967, spore liberation; 1968, ascospore ultrastructure); Bellemere & al. (1992, taxonomic importance of ascospore ultrastructure); Wittmann-Meixner & al. (1990, cytology); Dennis (1963, taxonomy, Africa); Granmo & al. (1989, distribution); Kramer & Pady (1970) and Tsuneda & Arita (1984, ascospore discharge); Eriksson (1989, spore morphology); Rogers & al. (1992 and refs. therein, spore ornamentation); Sharland & Rayner (1989a,b, breeding strategy, population biology); Sutherland & Crawford (1981, wood degradation); Whalley (1976a) & Whalley & Greenhalgh (1973, taxonomy of genus s.l., numerical approach); Petrini & Müller (1986, taxonomy & anamorphs of European species); Martin (1968b, 1969a, taxonomy, culture); Weber (1992, cytology); Van der Gucht & Van der Veken (1992, spore ornamentation, Papua N. G.); Dombrowski & al. (1992, chemistry of metabolites); Wheeler & Blackwell (1984, insect interactions); Wei & al. (1992, cellulose degradation); Chapela & al. (1990, spore germination and endophytic lifestyle); Parguey-Leduc (1972, ontogeny); Parguey-Leduc & Janex-Favre (1984, ascus wall structure); Greenhalgh (1967, anamorph structure); Griffiths

(1973, ultrastructure of ascus); Rogers (1965, 1969a, cytology and surface morphology of ascospores); Nilsson & al. (1989, wood decay).

Notes: the type species is not a straightforward synonym of *H. fragiforme* as universally claimed. Bulliard (l.c.) stated his fungus to be common mainly on *Juglans* and *Aesculus*, hosts that would indicate *H. howeanum* rather than *H. fragiforme*. The form genus *Hadrotrichum* seems to be the odd element in the listed anamorphs and the placement of species possessing such an anamorph should be reconsidered. *Kretzschmaria deusta* has a *Hadrotrichum*-like anamorph.

Hypoxylon Mentzel ex Adans. [(*)] = **XYLARIA**

Familles des Plantes 2: 9 (**1763**). Non *Hypoxylon* Bull. 1791 - nom. cons.

Lectotypus: *Xylaria polymorpha* (Pers.: Fr.) Grev. (*Sphaeria polymorpha* Pers.: Fr.).

Location of type: not designated; should be selected from either Persoon's or Fries' herbarium.

Anamorph: see *Xylaria*.

Status: *Xylaria* (EH).

Important literature: Donk (1964, nomenclature).

Induratia Samuels, E. Müller & Petrini [*] **INDURATIA**

Mycotaxon 28(2): 482 (**1987**).

Typus: *I. apiospora* Samuels, E. Müller & Petrini.

Location of type: PDD.

Anamorph: *Nodulisporium* (Samuels & al. 1987).

Status: *Amphisphaeriaceae* (Samuels & al. 1987, EH).
Xylariaceae (Samuels & Rossman 1992).

Number of epithets: 1.

Notes: considered a possible primitive type within the *Xylariaceae* (Samuels & Rossman 1992) and here accepted *ad interim*.

Institale Fr.: Fr. [(*)] = **HYPOXYLON**

Systema orbis vegetabilis 1: 150 (**1825**).

Lectotypus: *I. acariforme* (Sow.: Fr.) Fr. (*Lycoperdon acariforme* Sow.) - here chosen.

Location of type: not located; the plate in Sowerby (1799) can serve as type.

Anamorph: Sowerby's (1799) illustration shows the well known *Isaria umbrina* Pers., which is the *Nodulisporium* state of *Hypoxylon howeanum* Peck.

Status: *Hypoxylon* (EH).

Number of epithets: 2.

Notes: the two species included by Fries (l.c.) are clearly not congeneric but, since a typification on the first mentioned species provides a straightforward synonym of *Hypoxylon*, this option has been selected. The plate by Sowerby (1799) shows *Hypoxylon* stromata with outgrowths of the anamorph and the name could thus be taken as a 'holomorph name'. Alternatively, it could be treated as an anamorph name since it is difficult to

prove that the depicted stromata are sexual. Wakefield & Bisby (1941) followed this line by listing *I. agariforme* as a synonym of *Isaria umbrina*.

Jongiella M. Morelet [(*)] = **CAMILLEA**

Bulletin de la Société des Sciences Naturelles et d'Archéologie de Toulon et du Var 196: 7 (**1971**).

Typus: *J. broomeiana* (Berk. & M.A. Curtis) M. Morelet (*Hypoxylon broomeianum* Berk. & M.A. Curtis; = *Camillea obularia* (Fr.) Laessøe, J.D. Rogers & Lodge; Rogers & al. 1991).

Location of type: K (holotype).

Type studies: Miller (1941), Laessøe & al. (1989).

Anamorph: see *Camillea*.

Status: *Camillea* (Laessøe & al 1989, EH).

Number of epithets: 1.

Notes: accepted at subgeneric level by Laessøe & al. (1989).

Kommamyce Nieuwl. [(*)] ≡ **BISCOGNIAUXIA**

The American Midland Naturalist 4(8): 375 (13.III.**1916**). - Nom. nov. for *Nummularia* Tul. & C.Tul., but superfluous.

Lectotypus: *Nummularia bulliardi* Tul. & C. Tul. (≡ *Biscogniauxia nummularia*; Maire 1930).

Anamorph: see *Biscogniauxia*.

Status: *Biscogniauxia* (EH).
≡ *Biscogniauxia* (ING, Pouzar 1979).

Number of epithets: 2.

Notes: superfluous when published and illegitimate (ICBN 63, Pouzar 1979) since *Biscogniauxia* should have been adopted.

Kretzschmaria Fr. [*] **KRETZSCHMARIA**

Summa Vegetabilium Scandinaviae: 409 (**1849**).

Typus: *K. clavus* (Fr.) Fr. (and not '(Fr.) Sacc.' as in ING; *Sphaeria clavus* Fr.).

Location of type: UPS (herb. Fries, holotype).

Type studies: Dennis (1959, not illustrated or described separately).

Anamorph: *Hadrotrichum* Fuckel - like.

Status: *Kretzschmaria* (EH).

Number of epithets: 47.

Important literature: Miller (1928, development); Dennis (1959, 1961, taxonomy, S. American and African taxa); Ko & al. (1982, relationship with *Ustulina*); Wilkins (1934-1943, parasitism of *K. deusta*); Martin (1970, taxonomy); Rogers (1968b, cytology); Jensen (1985, peridium anatomy of *K. deusta*); Abe (1984, tissue types); Tulasne & Tulasne (1863, morphology, biology of *K. deusta*); Sinclair & al. & ref. therein (1987, pathology); Parguey-Leduc & Janex-Favre (1984, ascus wall structure of *K. deusta*); Nilsson & al. (1989, wood decay).

Notes: *Ustulina* is here considered a taxonomic synonym of *Kretzschmaria*. The genus is very close to *Xylaria* and can only with difficulty be upheld at

generic level. Dennis (1961) came to the same conclusion, stating it was kept 'in deference to a long established tradition'.

Kretzschmariella Viégas [(*)] **? = ASTROCYSTIS**
Bragantia 4: 105 (VI.**1944**).
Typus: *K. guaduae* Viégas.
Location of type: IACM (?).
Type studies: Petrak (1951) studied a fragment of the type (present location not known).
Anamorph: not known.
Status: *Hypoxylon* (Petrak 1951, EH).
= ? *Astrocystis* (Laessøe & Spooner 1994).
Number of epithets: 1.
Notes: the type species has been synonymized with '*Hypoxylon*' *culmorum*, but this needs to be confirmed. Furthermore, Rogers & Ju (unpubl.) have isolated a very distinctive anamorph from *H. culmorum*, which may lead to the recognition of *Kretzschmariella* at generic level.

Leprieuria Laessøe, J.D. Rogers & Whalley [*] **LEPRIEURIA**
Mycological Research 93(2): 152 (**1989**).
Typus: *L. bacillum* (Mont.) Laessøe, J.D. Rogers & Whalley (*Thamnomyces bacillum* Mont.).
Location of type: PC.
Type studies: Dennis (1959).
Anamorph: *Geniculosporium* (Samuels & Müller 1980).
Status: *Leprieuria* (EH).
Number of epithets: 1.
Important literature: Samuels & Müller (1980, anamorph, illustration of holomorph); Dennis (1959, illustration, as *Thamnomyces*).

Leptomassaria Petr. [(IS)] **? ANTHOSTOMELLA**
Annales Mycologici 12(5): 474 (31.X.**1914**).
Typus: *L. simplex* (Nitschke ex Otth) Petr. (*Quaternaria simplex* Nitschke ex Otth = *Anthostoma simplex* (Nitschke ex Otth) Sacc.).
Location of type: ?
Type studies: ? (von Arx & Müller (1954) did not cite material and Petrak (l.c.) only cited a personal collection).
Status: = *Anthostoma* (von Arx & Müller 1954).
Anthostoma (EH).
Number of epithets: 4+.
Notes: Petrak (l.c.) based his genus on the following characters: large immersed perithecia, no stroma, deliquescent asci, well developed paraphyses, and ascospores with gel sheath. The drawing in von Arx & Müller (1954) shows a clypeus but various important characters are omitted. The genus may be a synonym of *Anthostomella*, but no definite conclusions are possible at present.

Lopadostoma (Nitschke) Traverso [*] **LOPADOSTOMA**
Flora Italica Cryptogamia 2(1): 169 (X.**1906**).
Basionym: *Anthostoma* subgen. *Lopadostoma* Nitschke, Pyrenomycetes Germanici: 121 (1867).
Typus: *L. turgidum* (Pers.: Fr.) Traverso (*Sphaeria turgida* Pers.: Fr.; not *L. gastrinum* (Fr.: Fr.) Traverso as stated by Shear (1938) and by von Arx & Müller (1954)).
Location of type: L?
Type studies: none?
Anamorph: *Libertella*-like, in the form of conidiomata producing slimy scolecosporous conidia, holoblastically and sympodially (Ju & al.1993).
Status: *Lopadostoma* (EH).
Number of epithets: 20+.
Important literature: Haynes (1969, development of '*Anthostoma*' *gastrinum* (Fr.) Sacc.); Schrantz (1960, overall classification); Martin (1969c, taxonomy); Shear (1938, nomenclature, taxonomy).
Note: in strong need of monographic treatment. Ju & al. (1993) cultured material named as *L. turgidum* but originating from *Quercus* (*Fagus* is normally considered as the only accepted host for this species).

Maurinia Niessl [(*)] **≡ ANTHOSTOMELLA**
Verhandlungen des naturforschenden Vereins in Brünn 14: 198 (**1876**, as "1875").
Typus: *Sphaeria lugubris* Rob. in Desm. (≡ *Anthostomella lugubris* (Rob. in Desm.) Sacc., *fide* Francis 1975).
Location of type: K (isotype) and wherever sets of Desmazières, *Plant. Crypt. France* have been deposited.
Type studies: Francis (1975).
Anamorph: not known.
Status: *Anthostomella* (EH).
Number of epithets: 0.
Notes: the name was introduced for species possessing an ascus with 'interna apice incrassata perforataque'.

Moelleroclavus Henn. [(*)] **= XYLARIA**
Hedwigia 41(1): 15 (5.III.**1902**).
Typus: *M. penicilliopsis* Henn.
Location of type: lost?
Anamorph: see notes.
Status: *Xylaria* (Dennis 1958a, 1961, as *Xylosphaera*; EH).
Number of epithets: 1.
Notes: although Hennings (l.c.) based his taxon mainly on anamorphic characters, he also used teleomorphic characters (young perithecia). The name can thus be synonymized with *Xylaria* although the peculiar anamorph described by Hennings (l.c.) has not been experimentally proven to belong to *Xylaria*. In any case, this characteristic anamorph is in need of a form

genus name. Dennis (1958a) placed the genus as a synonym of *Xylaria* (as *Xylosphaera*) but stated it to be 'a form genus of *Fungi Imperfecti*'.

Myconeesia Kirschst. [(*)] **(?) MYCONEESIA**
Annales mycologici 34: 200 (31.VII.**1936**). - Nom. nov for *Neesiella* Kirchst. non Schieffn.
Typus: *M. formosa* (Kirschst.) Kirschst. (*Anthostomella formosa* Kirschst.).
Location of type: B (holotype, in good condition *fide* Francis (1975); type material studied (herb. not stated) by von Arx & Müller (1954), said to be poor).
Type studies: von Arx & Müller (1954), Francis (1975).
Anamorph: not known.
Status: *Anthostomella* (EH).
Number of epithets: 2.
Notes: the type species, *A. formosa*, is very close to the type species of *Anthostomella*, but has no clypeus and no visible apical ascus apparatus. It is therefore, preferred here to keep the genus separate until further evidence for its placement becomes available.

Neesiella Kirschst. [(*)] **≡ MYCONEESIA**
Annales mycologici 33: 217 (31.VII.**1935**). Non *Neesiella* Schiffn. in Engl. & Prantl (1893).
Typus: *N. formosa* (Kirschst.) Kirschst. (= *Anthostomella formosa* Kirschst. ≡ *Myconeesia formosa* (Kirschst.) Kirschst.).
Location of type: see *Myconeesia*.
Anamorph: not known.
Status: ≡ *Myconeesia* (ING).
Anthostomella (EH).
Number of epithets: 2.

Nemania Gray emend. Pouzar [(*)] **NEMANIA**
A natural arrangement of British plants 1: 508 & 516/Ceská Mykologie 39(1): 16 (1.XI.**1821**/emend. 1985a).
Lectotypus: *N. serpens* (Pers.: Fr.) Gray (*Sphaeria serpens* Pers.: Fr.; Donk 1964). *Nemania ustulata* (Bull.) Gray (House 1925) considered to be a mechanical choice.
Location of type: L (lectotype, Miller 1961).
Type studies: Miller (1961), Pouzar (1985b), Petrini & Müller (1986).
Anamorph: *Geniculosporium* (Chesters & Greenhalgh 1964).
Status: nom. rej. vs *Hypoxylon* Bull. (ING).
= *Hypoxylon* (Petrini & Rogers 1986).
Hypoxylon (EH).
Nemania (Pouzar 1985a, Granmo & al. 1989).
Number of epithets: 31+.
Monographs: Pouzar (1985a,b, mainly European species; 10 species); Petrini & Rogers (1986, preliminary and *pro parte*, as *Hypoxylon*). (6 species).

Important literature: Donk (1964, nomenclature); Pouzar (1985a,b, nomenclature, taxonomy, revision of European taxa); Chesters & Greenhalgh (1964, anamorph); Greenhalgh (1967, anamorph); Kenerley & Rogers (1976, culture); Petrini & Müller (1986, culture, taxonomy, as *Hypoxylon*); Rogers (1975a, cytology); Jensen (1981, developmental morphology, breeding type, homothallic Barron Strain); Sharland & Rayner (1989a, breeding strategy etc.); Stiers (1977, fine structure of ascus apex, as *Hypoxylon*); Sutherland & Crawford (1981, wood degradation); Martin (1967b, 1968a, taxonomy, as *Hypoxylon* sect. *Entoleuca pro parte*); Weber (1992, cytology, as *Hypoxylon*); Baral (1992, De Bary bubbles in *N. serpens*); Sakuma & al. (1993, *N. serpens* as pathogen on *Pyrus*)
Notes: Pouzar (1985a) noted that the genus in his emendment is very close to *Xylaria* and *Ustulina*. He accepted two subgenera: Subgenus *Nemania* & Subgenus *Diatrypina* Pouzar (Typus: *N. illita* (Schwein.)Pouzar). If the typification by *N. ustulata* was upheld *Kretzschmaria* (& *Ustulina*) would become a synonym of *Nemania*.

Nummularia Tul. & C. Tul. [(*)] **≡ BISCOGNIAUXIA**
Selecta fungorum carpologia 2: 42 - 43 (**1863**). - Non Hill (1756; a phanerogam genus).
Lectotypus: *N. bulliardii* Tul. & C. Tul. (≡ *Biscogniauxia nummularia* (Bull.) Kuntze; Maire 1930, Shear 1930, as *Hypoxylon*, & Pouzar 1979); *Nummularia discreta* (Schwein.) Tul. & C. Tul. (Miller 1932).
Anamorph: see *Biscogniauxia*.
Status: ≡ *Biscogniauxia* (ING, Pouzar 1979).
Biscogniauxia (EH).
Number of epithets: 115+.
Important literature: Pouzar (1979, nomenclature).
Notes: Pouzar (1979) showed that original lectotypification had to be followed and not the later choice by Miller (1932).

Nummulariella Eckblad & Granmo [(*)] **= BISCOGNIAUXIA**
Norwegian Journal of Botany 25(2): 69 - 70 (**1978**). Nom. nov. for *Nummularia* Tul. & C. Tul. sensu Miller (1932).
Typus: *Sphaeria discreta* Schwein. (= *Nummulariella marginata* (Fr.) Eckblad & Granmo ≡ *Biscogniauxia marginata* (Fr.) Pouzar).
Location of type: K (lectotype (Miller 1932), now almost exhausted).
Type studies: Miller (1932).
Anamorph: see *Biscogniauxia*.
Status: = *Biscogniauxia* (Pouzar 1979)
Biscogniauxia (EH).
Number of epithets: 2.
Important literature: see *Biscogniauxia*.
Notes: Eckblad & Granmo (l.c.) did not typify their replacement name with the type of *Nummularia* but chose to follow Miller (1932). The name is valid and legitimate (Pouzar 1979) and becomes a taxonomic synonym of *Biscogniauxia*.

Nummularioidea (Cooke & Massee) Lloyd [(*)] = **CAMILLEA**
Mycological Writings 7(7), Mycological Notes 72: 1281, pl. 293, fig. 2872 (VI.**1924**).
Basionym: *Diatrype* subg. (vel sect.) *Nummularioidea* Cooke & Massee, Grevillea 21: 4 (1892).
Typus: *N. artocreas* (Cooke & Massee) Lloyd (*Diatrype artocreas* Cooke & Massee). (≡ *Camillea labellum* Mont., *fide* Laessøe & al. 1989).
Location of type: K (2 parts).
Type studies: Laessøe & al. (1989).
Anamorph: not known, but see *Camillea*.
Status: *Camillea* (Laessøe & al. 1989, EH).
Number of epithets: 1.
Notes: publication details misrepresented in Laessøe & al. (1989).

Numulariola House [(*)] ≡ **BISCOGNIAUXIA**
Bulletin of the New York State Museum 266: 49 (VI.**1925**). - Nom. nov. for *Nummularia* Tul & C. Tul., but superfluous.
Lectotypus: *Nummularia bulliardii* Tul. & C. Tul. (≡ *Biscogniauxia nummularia* (Bull.) Kuntze).
Anamorph: see *Biscogniauxia*.
Status: ≡ *Biscogniauxia* (ING).
Biscogniauxia (EH).
Number of epithets: 50+.
Notes: superfluous when introduced and illegitimate (ICBN Art. 63, Pouzar 1979) since *Biscogniauxia* should have been adopted. Martin (1969b, 1976) used this name in a very broad sense including members of the *Boliniaceae*.

Obolarina Pouzar [(?)] **OBOLARINA**
Ceská Mykologie 40(1): 7 (**1986**).
Typus: *O. dryophila* (Tul. & C. Tul.) Pouzar.
Location of type: PC (lectotype, Pouzar (1986)).
Type studies: Pouzar (1986), Candoussau & Rogers (1990).
Anamorph: *Rhinocladiella* Nannf. - like (Candoussau & Rogers 1990).
Status: ? *Helicogermslita* (EH).
Obolarina (Candoussau & Rogers 1990).
Number of epithets: 1.
Notes: Laessøe & Spooner (1994) support the view held by Candoussau & Rogers (1990), that *Obolarina* constitutes a good genus not closely related to *Helicogermslita*, but belonging in the *Xylariaceae*.

Paranthostomella Speg. [(*)] ? = **ANTHOSTOMELLA**
Revista de la Facultad de Agronomía y Veterinaria, La Plata ser. 2, 6: 42 (I.**1910**).
Lectotypus: *P. eryngiicola* Speg. (Höhnel 1920); *P. unciniicola* Speg. (Francis 1975).
Location of type: LPS.

Type studies: Francis (1975, no details given).
Anamorph: not known.
Status: = *Anthostoma* (von Arx & Müller 1954).
= *Anthostomella* (Francis 1975).
Anthostomella (EH).
Number of epithets: 4+.
Notes: Francis (1975) rejected Höhnel's lectotypification. She selected another element included by Spegazzini and studied the type specimen. No details were given but she concluded that *Paranthostomella* is a synonym of *Anthostomella*. The species has apparently not been combined in *Anthostomella*. The genus was based on *Anthostomella*-like fungi without a clypeus. *Neesiella* and *Myconeesia* were created on similar grounds.

Paucithecium Lloyd [?] ?= **XYLARIA**
Mycological Writings 7(4), Mycological Notes 69: 1200, pl. 246, f. 2465 and 2466 (VII.**1923**).
Typus: *P. rickii* Lloyd.
Location of type: BPI (Stevenson & Cash (1936) as 'Smithsonian').
Type studies: none (?).
Anamorph: not known.
Status: ? *Xylariaceae* (EH).
Number of epithets: 3.
Important literature: Rick (1931, 2 new species).
Notes: probably based on submature and aberrant *Xylaria* specimen. Jong & Davis (1973) transferred one species to *Stromatoneurospora* but did not study material. All taxa in need of study.

Penzigia Sacc. [*] = **XYLARIA**
In Sacc. & Paol., Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti ser. 6, 6: 406 (**1888**).
Lectotypus: *P. cranioides* Sacc. (Petch 1924).
Location of type: PAD (holotype, Gola 1930).
Type studies: Dennis (unpublished and indirect reference to his study in Dennis (1961) and Dennis (1974)).
Anamorph: not known (similar to that of *Xylaria fockei*, Laessøe unpubl.).
Status: *Penzigia* (Rogers 1990, EH).
= *Xylaria* (Dennis 1961, as *Xylosphaera*), Laessøe 1989).
≡ *Sarcoxylon* (Cannon 1987).
Number of epithets: 42+.
Important literature: Dennis (1961, subgeneric status); Rogers (1990, nomenclature, taxonomy); Petch (1924, emended circumscription, followed by some later workers).
Notes: Laessøe (1989) rejected the obligate synonymy argument brought forward by Cannon (1987) based on retroactive invalidation. He also showed that later emendments of the generic circumscription excluded the type element. The name was used at subgeneric rank by Dennis (1961) for taxa

sharing characters as in the original diagnosis, i.e. light coloured, smooth surfaced xylarioid or hypoxyloid taxa.

Peripherostoma Gray [(*)] = **HYPOXYLON**
Natural Arrangement of British Plants 1: 513 (1.XI.**1821**).
Lectotypus: *P. concentricum* (Bolt.: Fr.) Gray (*Sphaeria concentrica* Bolt.: Fr.).
Anamorph: see *Hypoxylon*.
Status: nom. rej. vs *Daldinia* (ICBN, by lectotypification). *Daldinia* (EH).

Perisphaeria Roussel [(*)] = **HYPOXYLON**
Flore du Calvados (ed. 2): 42 (V or X?.**1806**).
Lectotypus (here chosen): *Sphaeria fragiformis* Pers.: Fr.
Location of type: L (Persoon Herb., Miller 1961).
Type studies: Miller (1961), Petrini & Müller (1986).
Anamorph: see *Hypoxylon*.
Status: *Daldinia* (EH).
Number of epithets: 1.
Notes: Roussel (l.c.) included 11 species in his new genus most of which can be referred to *Hypoxylon* in the strict sense. Since a typification by *Sphaeria concentrica* would create an earlier name for *Daldinia* I have chosen to typify by *Sphaeria fragiformis* making the genus a synonym of *Hypoxylon*. The generic name is not listed in ING and *Daldinia* is not protected against *Perisphaeria* in ICBN.

Phaeophomatospora Speg. [(*)] = **ANTHOSTOMELLA**
Anales del Museo nacional de historia natural de Buenos Aires 19 (ser. 3, 12): 339 (**1909**; Farr 1973: 2.XI; ING: 4.XII). [*fide* Farr 1973; not seen].
Typus: *P. argentinensis* Speg. (= *Anthostomella argentinensis* (Speg.) Petr. & Syd. = *A. limitata* Sacc. (*fide* Francis 1975)).
Location of type: LPS (holotype, Francis 1975).
Type studies: Petrak & Sydow (1925), Francis (1975, no description or illustration given).
Anamorph: not known.
Status: = *Anthostomella* (Petrak & Sydow 1925; Müller & von Arx 1973; Francis 1975).
Anthostomella (EH).
Number of epithets: 1.

Phaeosporis Clem. [*] **PHAEOSPORIS**
The genera of fungi: 39, 173 (VI-XII.**1909**).
Typus: *P. melasperma* (Nyl.) Clem. (*Verrucaria melasperma* Nyl.).
Location of type: H.
Type studies: Hawksworth (in Eriksson & Hawksworth 1987).
Anamorph: *Sporothrix* Hektoen & C.F. Perkins (Jong & Davis 1974).
Status: *Phaeosporis* (Hawksworth in Eriksson & Hawksworth 1987, EH).
Number of epithets: 1.

Important literature: Hawksworth (1980, as *Areolospora*, taxonomic account); Jong & Davis (1974; culture and anamorph).
Notes: Hawksworth (in Eriksson & Hawksworth 1987) discovered *Phaeosporis* as an earlier name for *Areolospora*.

Phylacia Lév. [*] **PHYLACIA**
Annales des Sciences Naturelles, Botanique ser. 3, 3: 61 (**1845**).
Typus: *P. globosa* Lév.
Location of type: K (Dennis 1959; and elsewhere?).
Type studies: Dennis (1959).
Anamorph: *Geniculosporium* (Rodrigues & Samuels 1989).
Status: *Phylacia*, *Xylariaceae* (Rodrigues & Samuels 1989, EH).
Phylaciaceae, *Plectascales* (Speer 1980).
= *Camillea*, *Xylariaceae* (von Arx & Müller 1954).
Number of epithets: 9+.
Monograph: Dennis (1959, preliminary; 6 species).
Important literature: Dennis (1958a, 1961, excluded genus from *Xylariaceae*); Speer (1980, new species, taxonomic position); Rodrigues & Samuels (1989, anamorph, taxonomic position).
Notes: the holomorph studies carried out by Rodrigues & Samuels (1989) have rather convincingly confirmed placement of the genus in the *Xylariaceae*.

Podosordaria Ellis & Holw. [*] **PODOSORDARIA**
In Holw., Botanical Gazette 24: 37 (31.VII.**1897**).
Typus: *P. mexicana* Ellis & Holw.
Location of type: NY (holotype, Krug & Cain 1974a).
Type studies: Dennis (1959), Krug & Cain (1974a).
Anamorph: *Lindquistia* Subram. & Chandrash. (Subramanian & Chandrashekara 1977, based on *P. leporina*).
Status: *Podosordaria* (Krug & Cain 1974a, EH).
Monograph: Krug & Cain (1974a, preliminary, Mexican material of type species described). (10 species).
Important literature: Rogers & al. (1992, taxonomy); Seaver & al. (1927, biology, anamorph); Dennis (1959, taxonomy); Koehn (1971, culture and ascocarp development); Koehn & Cole (1975, ultrastructure); Pérez-Silva (1976, redescription of *P. mexicana*); Rogers (1973, cytology); Martin (1970, taxonomy emended); Rogers & Laessøe (1992, non coprophilous taxon, anamorph).
Notes: some of the species have been incorporated into *Xylaria* by various authors and the precise delimitation is still under discussion. See e.g. Rogers & Laessøe (1992).

Porodiscella Viégas [(*)] **? = XYLARIA**
Bragantia 4: 106 (VI.**1944**).
Anamorph: unknown.
Typus: *P. paulistana* Viégas.
Location of type: IACM (?).

Type studies: none.
Status: *Hypoxylon* (von Arx & Müller 1954, EH).
Number of epithets: 1.
Notes: the description and illustration provided by Viégas (l.c.) suggest a reduced member of the genus *Xylaria*.

Poronia Willd. [*] **PORONIA**
Florae berolinesis prodromus secundum systema Linneanum: 400 (**1787**).
Typus: *P. gleditschii* Willd. (≡ *P. punctata* (L.: Fr.) Rabenh.).
Location of type: not selected.
Anamorph: *Lindquistia* Subram. & Chandrash. (Subramanian & Chandrashekara 1977, Stiers & al. 1973).
Status: *Poronia* (EH).
Number of epithets: 20+.
Important literature: Tulasne & Tulasne (1863, biology); Dawson (1900, life cycle); Dennis (1959, taxonomy); Jong & Rogers (1969, culture); Koehn & Cole (1975, ultrastructure); Paden (1978, anamorph of *P. pileiformis*, diff. from type species), Rogers (1970, cytology); Stiers (1974, ascospore formation, ultrastructure; 1977, fine structure of ascus apex); Jensen (1985, peridium anatomy); Whalley & Dickson (1986, conservation etc.); Parguey-Leduc (1977, formation of ascospores).
Notes: Willdenow (l.c.) cited *Peziza punctata* L. as a synonym of *Poronia gleditschii*. Fries is often given as the combining author in *Poronia* for *P. punctata* but Rabenhorst (1844) is the correct citation.

Pseudoxylaria Boedijn [-?] = **XYLARIA**
Persoonia 1(1): 18 (28.XII.**1959**).
Typus: *P. nigripes* (Klotzsch) Boedijn (*Sphaeria nigripes* Klotzsch).
Location of type: not located/designated.
Anamorph: '*Xylaria* fashion' (Petch 1913; Batra & Batra 1979).
Status: *Sarcostromellaceae* (Boedijn 1959).
Boliniaceae ? (EH).
= *Xylaria* (as *Xylosphaera* subgenus *Pseudoxylaria* (Boedijn) Dennis; Dennis 1961).
Number of epithets: 1.
Important literature: Petch (1907, 1913, 1924, taxonomy, ecology); Rogers & al. (1987, descriptions and illustrations of type and some related species).
Notes: Boedijn (1962) excluded the genus from the *Sarcostromellaceae*, but gave no reason. The salient character, the absence of a longitudinal germ slit, was later proved to be an erroneous observation (e.g. Roger & al. 1987) but this very peculiar fungus and a few relatives, all seemingly living in association with termites, certainly deserve to be recognized above species level. *Ad interim* a subgeneric status is accepted following Dennis (1961).

Pulveria Malloch & Rogerson [*] = **PYRENOMYXA**
Canadian Journal of Botany 55(11): 1505 (**1977**).

Typus: *P. porrecta* Malloch & Rogerson.
Location of type: TRTC (holotype).
Type studies: Malloch & Rogerson (l.c.).
Anamorph: not known.
Status: *Pulveria* (EH).
Pulveria, *Phylaciaceae* (Speer 1980).
Number of epithets: 1.
Note: Laessøe (unpubl.) found it to be congeneric with the monotypic and forgotten (ignored) genus *Pyrenomyxa*. Under the new code it may be possible to reject *Pyrenomyxa* in favour of *Pulveria*. Speer (1980) placed *Pulveria* with *Phylacia* in *Phylaciaceae*, but there is very little evidence to suggest such a close relationship between these genera. The red pigmented *Pyrenomyxa* is in all likelihood evolved directly from members of *Hypoxylon* s.str. (e.g. *H. haematostroma*) while the relationships of *Phylacia* remain more obscure.

Pyrenodermium Bonord. [(*)] = **HYPOXYLON**
Handbuch der Allgemeinen Mykologie: 272 (**1851**).
Lectotypus (here chosen): *Sphaeria rubiginosa* Pers.: Fr. (≡ *Hypoxylon rubiginosum* (Pers.: Fr.) Fr. (no species mentioned/combined in Bonorden).
Location of type: L (lectotype, Miller 1991).
Type studies: Miller (1961), Petrini & Müller (1986).
Anamorph: see *Hypoxylon*.
Status: *Hypoxylon* (von Arx & Müller 1954, EH).
Number of epithets: 0 (?).
Notes: Bonorden (l.c.) based his genus on *Sphaeria* trib. *Connatae* Fries (Syst. myc. 2: 337 (as '333')) and subdivided his genus like Fries divided his tribus. Part a (Fries Ser.I *Hypocrea*) is described as having 'einfachen Sporen' whilst part b (Fries Ser.2 *Hypoxylon*) is said to have 'septierten Sporen'. In reality it is just the opposite. Modern genera belonging to part a include *Hypocrea* and *Hypomyces* whilst part b includes *Hypoxylon*, *Nemania* etc. Since this name has been treated as a synonym of *Hypoxylon* for a long period it appears to be advisable to typify with the first species of Fries' ser. 2., *Sphaeria rubiginosa*.

Pyrenomyxa Morgan [0] **PULVERIA/PYRENOMYXA**
Journal of the Cincinnati Society of Natural History 18 (no. 182?): 42 (20.X.**1895**). [only handwritten copy seen].
Typus: *P. invocans* Morgan.
Location of type: IA (?).
Type studies: Laessøe (unpubl.) studied Indiana material.
Anamorph: not known.
Status: *Phylacia* (Lloyd 1912, 1924).
? *Fungi* (Hawksworth & al. 1983).
Number of epithets: 1.
Notes: the type description and material from Indiana match the description of the much younger monotypic genus *Pulveria*. Under the Berlin Code it

would not have been possible to conserve *Pulveria* or reject *Pyrenomyxa*, but the new code seems to open this possibility. Lloyd (1912, 1924) placed *P. invocans* under *Phylacia turbinata*.

Pyrenopolyporus Lloyd [(*)] = **HYPOXYLON**
Mycological Writings 5, Mycological Notes 50: 706, fig. 1054 p. 705, fig. 1055 p. 706 (X.**1917**).
Typus: *P. hunteri* Lloyd (= *Hypoxylon sclerophaeum* Berk. & M.A. Curtis *fide* Miller 1934, 1961).
Location of type: BPI (Lloyd herbarium, holotype).
Type studies: Miller (1961, no details given).
Anamorph: not known ?
Status: = *Hypoxylon* (Miller 1934, 1961).
Hypoxylon (EH).
Number of epithets: 1.
Notes: *Hypoxylon sclerophaeum* is the link between typical daldinioid *Hypoxylon* species and taxa near the type species of *Hypoxylon*.

Rhopalopsis Cooke [(*)] ≡ **KRETZSCHMARIA**
Grevillea 11(59): 93 (III.**1883**).
Typus: *R. clavus* (Fr.) Cooke (≡ *Kretzschmaria clavus* Fr.).
Anamorph: see *Kretzschmaria*.
Status: *Kretzschmaria* (EH).
Number of epithets: 14+.
Notes: nomenclatural synonym of *Kretzschmaria*, since the type of this genus was included amongst accepted taxa.

Rhopalostroma D. Hawksw. [*] **RHOPALOSTROMA**
Kew Bulletin 31(3): 422 - 423 (**1977**).
Typus: *R. indicum* D. Hawksw. & Muthappa.
Location of type: IMI (holotype), BPI, H, K (isotypes).
Type studies: Hawksworth (l.c.).
Anamorph: *Nodulisporium* (Hawksworth & Whalley, 1985).
Status: *Rhopalostroma* (EH).
Number of epithets: 8.
Monograph: Hawksworth (1977; 5 species; 3 added since).
Notes: the genus occupies a rather isolated position within the family. Ecologically, it possibly is the old world version of *Phylacia*.

Rosellinia De Not. [*] **ROSELLINIA**
Giornale Botanico Italiano (ed. Parlatore; ann. 1) 1(1): 334 (**1844**).
Typus: *R. aquila* (Fr.: Fr.) De Not. (*Sphaeria aquila* Fr.).
Location of type: S (Petrini 1992 [lectotype?]).
Type studies: Petrini (1992).
Anamorph: *Geniculosporium* Chesters & Greenhalgh (incl. synnematous form *Dematophora*), *Nodulisporium* Preuss and *Rhinocladiella* Nannf. (Petrini & Müller 1986). Petrini (1992) excluded *Rhinocladiella*.

Status: *Rosellinia* (Petrini 1992, EH).
= *Hypoxylon* Section *Entoleuca pro parte* (Martin 1968a).
Number of epithets: 372+.
Monograph: Petrini (1992, temperate zone taxa only; 20 species).
Important literature: Miller (1928, morphology); Jensen (1985, peridium anatomy); Shear (1941, notes on type species); Petrini & Müller (1986, separation from *Hypoxylon* sect. *Primocinerea*); Petrini & al. (1989, taxonomy); Francis (1985, taxonomy); Saccas (1956, 1981, pathology and taxonomy of tropical (African) species); Rogers & Stiers (1974, cytology); Stiers (1977, fine structure of ascus apex); Sharland & al. (1988, population structure); Sutherland & Crawford (1981, wood degradation); Martin (1967b, 1968a, taxonomy); Hansen & al. (1937) & Teixeira de Sousa & Whalley (1991, induction of teleomorph in *R. necatrix* and in the former germination of ascospores); Matzer & Hafellner (1990, exclusion of lichenicolous taxa); Parguey-Leduc (1977, ascus apical apparatus); Greenhalgh (1967, anamorph).
Notes: although Petrini (1992) has excluded many taxa from *Rosellinia*, a well working generic definition is still lacking. Part of the problem lies in trying to compare the genus with a too broadly circumscribed *Hypoxylon*. It seems very difficult to place e.g. *Hypoxylon mammatum* in *Hypoxylon* proper while at the same time accepting *Rosellinia* as an independent taxon. Furthermore, the true relationship of *Rosellinia* sensu lato probably lies with *Xylaria*, so advocates of keeping *H. mammatum* in *Hypoxylon* in effect support the lumping of most of the family into one genus.

Sarcoxylon Cooke [*] **SARCOXYLON**
Grevillea 12(62): 50 (XII.**1883**).
Lectotypus: *S. compuncta* (Jungh.) Cooke (*Sphaeria compuncta* Jungh.; Petch 1924, Clements & Shear 1931).
Location of type: L (?)
Type studies: apparently none (not cited in Rogers 1981).
Anamorph: not known.
Status: *Sarcoxylon* (Rogers 1981, EH).
Number of epithets: 10+.
Monograph: Rogers (1981). (2 species).
Important literature: Petrak (1962, taxonomy, emend!); Rifai (1969, taxonomy in relation to the *Hypocreaceae*).
Notes: this taxon is accepted *ad interim*. It has various characters intergrading with *Xylaria* spp., esp. those around *X. telfairii* (Berk.)Fr.

Sarcoxylum Clem. & Shear [(*)] ≡ **SARCOXYLON**
Genera of Fungi: 280 (**1931**). - orthographic variant of *Sarcoxylon*.

Sclerodermatopsis Torrend [0] ?= **XYLARIA**
In Lloyd, Mycological Writings 7(3): 1231, pl. 2571 (IX.**1923**).
Typus: *S. nasihensis* Torrend.
Location of type: BPI (?).

Typus: *S. clandestina* Tode.
Location of type: lost, plate cited above here selected as lectotype.
Type studies: see notes.
Status: *Hyphomycetes* (ING).
? *Hypoxylon* (Höhnel 1909b, EH).
Number of epithets: 1.
Notes: the description and plate in Tode (l.c.) is not entirely diagnostic, but in all likelihood *S. clandestina* belongs in *Hypoxylon* although no perithecia are visible on the plate and the 'seminibus' were said to be tiny, globose and dark. Kunze (1823) described a collection from *Quercus* bark under this name, but his fungus is likewise difficult to place. The name should be rejected as a nomen dubium.

Sphaeria Haller [(*)] = **HYPOXYLON**
Historia Stirpium Helveticarum 3: 120 (**1768**). - nom. rej. vs *Hypoxylon* Bull. (ICBN).
Lectotypus: *Hypoxylon fragiforme* (Pers. : Fr.) J. Kickx f. (see Donk 1964).
Location of type: L.
Type studies: Miller (1961).
Status: *Hypoxylon* (EH).
Number of epithets: innumerable.
Notes: *Hypoxylon fragiforme* has been claimed (universally) to be a taxonomic synonym of *H. coccineum*, the type of *Hypoxylon*, but the latter is probably conspecific with *H. howeanum*. This does not cause any nomenclatural upsets.

Spirogramma Ferd. & Winge [(*)] = **XYLARIA**
Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn for Aaret 1908, 60: 142 - 143, pl. 4 fig. 3 (17.III.**1909**).
Typus: *S. boergesenii* Ferd. & Winge (*Xylaria boergesenii* (Ferd. & Winge) P.F. Cannon).
Location of type: C.
Type studies: Laessøe (MSc thesis, unpubl.), Cannon (1987).
Anamorph: not known.
Status: *Xylaria* (Cannon 1987, EH).
Number of epithets: 1.
Notes: according to Rogers (1990), morphological study of the teleomorph in the absence of the anamorph is inconclusive for unequivocal generic placement. However, Cannon (1987) placed the genus as a synonym of *Xylaria* based on teleomorph studies. This conclusion is accepted here.

Squamotubera Henn. [(?)] ?= **SARCOXYLON**
Hedwigia 42(1), Beiblatt: (308) (28.XII.**1903**).
Typus: *S. leratii* Henn.
Location of type: type lost.
Type studies: Rogers (1981) studied material collected by Le Rat in 1906 (FH). This could serve as lectotype.

Type studies: none.
Status: apparently not indexed; not in Hawksworth & al. (1983).
not in EH.
Number of epithets: 1.
Notes: based on description and plate this could be near *Xylaria tuberoides* Rehm, but the spores are described as much smaller. The type should be located and studied.

Seynesia Sacc. [-?] ? **XYLARIACEAE, SEYNESIA**
Sylloge Fungorum 2: 668 (13.VI.**1883**).
Typus: *S. nobilis* (Welw. & Curr.) Sacc. (*Pemphidium nobile* Welw. & Curr. 1870 = *Micropeltis erumpens* Berk. & M.A. Curtis 1869 ≡ *S. erumpens* (Berk. & M.A. Curtis) Petr. *fide* Petrak (1927b)).
Location of type: K.
Type studies: Petrak (1927b); Hyde (unpublished).
Anamorph: unknown?
Status: ? *Amphisphaeriaceae* (EH).
? *Xylariaceae* (Samuels in Barr 1990).
Number of epithets: 30+.
Important literature: Petrak (1927b, emend.diag., taxonomy).
Notes: *Seynesia erumpens* (Berk. & M.A. Curtis) Petr. is related to *Anthostomella fide* Samuels in litt. (Barr 1990). The ascospores each have a median septum, a germ slit in each part and a gel coating extending to appendages. Most binomials belong with the 'loculos' according to Rogers (in litt.).

Simoninus Roum. [(*)] = **CHAENOCARPUS**
Fungi Selecti Galliaei Exsiccati, Quatrième centurie: no. 311 (**1879**). - Nom. nov. for *Chaenocarpus* Rebent., but superfluous.
Typus: *S. mougeoti* Roum. ≡ *Chaenocarpus simonini* Desm. 1847 = *Lichen hippotrichoides*.
Location of type: K (isotype), PC (?), BR (?) and where sets of Desmazières, *Pl. Crypt. de France* are kept.
Type studies: Laessøe (unpublished).
Anamorph: see *Chaenocarpus*.
Status: ≡ *Coenocarpus* Fr. (as *Choenocarpus*, Hawksworth & al. 1983).
= *Xylaria* (Dennis 1961, as *Xylosphaera*).
Thamnomyces (EH).
Number of epithets: 1.
Notes: see *Chaenocarpus*.

Spermatodermia Wallr. [(?)] ?= **HYPOXYLON**
Flora Cryptogamica germaniae 2: 262 (**1833**). - orthographic variant of *Spermodermia* Tode.

Spermodermia Tode [(?)] ?= **HYPOXYLON**
Fungi Mecklenburgenses Selecti 1: 1, tab. 1, fig. 1 (**1790**).

Anamorph: not known.
Status: ? *Sarcoxylon* (EH).
= *Sarcoxylon* (Patouillard 1911).
Notes: Rogers (1981) concluded it premature to lump *Squamotubera* with *Sarcoxylon*. He speculated that *Xylaria gigas* Cooke, with huge fruitbodies, could be congeneric or even conspecific with *Squamotubera leratii*. The generic concept of *Squamotubera* was based on a supposedly 'terrestrial habitat'. The type was sent to Hennings as 'Trüffel' but nothing certain is known about the habitat of this strange, clavate fungus. Collections at Kew under the name *X. gigas* share important characters with the type of *Sarcoxylon*. *Squamotubera* in all likelihood should be synonymised with *Sarcoxylon*.

Steganopycnis Syd. & P. Syd. [(-)] = **SEYNESIA**
Annales Mycologici 14(5): 370 (**1916**).
Typus: *S. oncospermis* Syd. & P. Syd. (= *Seynesia erumpens* (Berk. & M.A. Curtis) Petr. (Petrak 1927b)).
Location of type: S (?).
Type studies: Petrak (1927a).
Anamorph: not known.
Status: = *Seynesia*, *Sphaeriaceae* (Petrak 1927).
Seynesia, ? *Amphisphaeriaceae* (EH).
Number of epithets: 1.
Important literature: Sydow & Sydow (1918, emend. descr.).

Stilbohypoxylon Henn. [*] ?= **XYLARIA**
Hedwigia 41(1): 16 (5.III.**1902**).
Typus: *S. moelleri* Henn.
Location of type: type lost (?, a part studied by Höhnel could possibly be in FH).
Type studies: Höhnel (1910).
Anamorph: not known, but apparently of *Xylaria*-type (Möller 1901).
Status: nomen dubium (Ainsworth 1971).
Stilbohypoxylon (Müller & von Arx 1973, Hawksworth & al. 1983, EH).
Number of epithets: 2.
Important literature: Möller (1901, illustration & description upon which Hennings based his genus); Theissen (1908, new species); Martin (1970, taxonomy).
Notes: based on immature and anamorphic material according to author. Type specimen presumably lost. Hawksworth & al. (1983) give Austria as country of origin; it should have been Brazil. The second species described is relatively well known (at least sensu auct.) and shares many characters with *Xylaria*, being at the very reduced end of that genus.

Stromatoneurospora S.C. Jong & E.E. Davis [*] **STROMATONEUROSPORA**
Mycologia 65(2): 459, fig. 1-9 p. 461 (**1973**).

Typus: *S. phoenix* (Kunze in Fr.) S.C. Jong & E.E. Davis (*Sphaeria phoenix* Kunze in Fr.).
Location of type: BPI.
Type studies: Jong & Davis (l.c.), Rogers & al.(1992).
Anamorph: not known.
Status: *Stromatoneurospora* (EH).
Number of epithets: 2.
Important literature: Dennis (1958a, morphology, as *Xylosphaera*); Petrak (1962, combined type species in *Sarcoxylon*); Rogers & al. (1992, delimitation from *Podosordaria*). Barr (1990) did not accept placement of *Stromatoneurospora* in *Xylariaceae* but suggested a possible relationship with *Cainia*, which Krug (1978) placed in a separate family *Cainiaceae*.

Stromatosphaeria Grev. [(*)] = **HYPOXYLON**
Flora edinensis: lxxiii (& 355 - 359)(**1824**). - nom. rej. vs *Daldinia* (ICBN).
Lectotypus: *Sphaeria concentrica* Bolt.: Fr.
Location of type: see *Daldinia*.
Anamorph: see *Daldinia*.
Status: ≡ *Daldinia* (ICBN).
Daldinia (EH).
Number of epithets: 19.
Notes: see *Daldinia*.

Stromne Clem. [(*)] ≡ **ENGLEROMYCES**
Genera of Fungi: 44 (post 1.VI.**1909**). - nom. nov. for *Engleromyces*, superfluous.
Typus: *Engleromyces goetzii* Henn. (not combined in *Stromne* by Clements (1909) as stated by Clements & Shear 1931, but in reality done in the latter publication).
Status: ≡ *Engleromyces* (ING).
Engleromyces (EH).
Number of epithets: 1.

Thamnomyces Ehrenb. [*] **THAMNOMYCES**
Fungos a clarissimo Adalberto de Chamisso... sub auspiciis Romanzoffianis in itinere circa terrarum globum collectos... (**1820**). [not seen; cited from Pfister & al. 1990] (reprinted in Nees von Esenbeck 1920. Hora physicae Berolinenses: 79).
Lectotypus: *T. chamissonis* Ehrenb. (Lloyd 1917); non designatus (ING).
Location of type: UPS (herb. Fries, fragment, Dennis (1959)).
Type studies: Dennis (1959).
Anamorph: *Nodulisporium* (Samuels & Müller 1980, *T. chordalis*).
Status: *Thamnomyces* (EH).
Number of epithets: 11+.
Monograph: Dennis (1959, preliminary). (5 species).
Important literature: Hawksworth (1977, generic comparison); Dennis (1958a, excluded the genus from the *Xylariaceae*; 1961, 1962, descriptions and il-

lustration of the African species); Watling (1962, taxonomy of subgenus *Scopimyces*); Martin (1967a, delimitation, morphology); Samuels & Müller (1980, morphology, anamorph).
Notes: the subgenus name *Scopimyces* Henn. is available for the unbranched species. Hawksworth (1977) stated that the ascospores of *Thamnomyces* lack a germ slit. This contrasts with the findings of authors such as Samuels & Müller (1980). Hawksworth considered *Rhopalostroma* to be closely related.

Theissenia Maubl. [*] **THEISSENIA**
Bulletin trimestriel de la Société mycologique de France 30(1): 52, fig. 1-4, p. 53). (10.V.**1914**).
Typus: *T. pyrenocrata* (Theiss.) Maubl. (*Ustulina pyrenocrata* Theiss.).
Location of type: W (?).
Type studies: apparently none.
Anamorph: not known (Rogers (in litt.) found a *Nodulisporium* anamorph produced in culture).
Status: *Theissenia* (EH).
Number of epithets: 1.
Important literature: Dennis (1964, illustration).

Thuemenella Penz. & Sacc. [*] **THUEMENELLA**
Malpighia 11(11/12): 518 - 519 (**1897**).
Typus: *T. javanica* Penz. & Sacc. (= *Hypocrea cubispora* Ellis & Holw. 1885 ≡ *Thuemenella cubispora* (Ellis & Holw.) Boedijn).
Location of type: PAD (Gola 1930), BO (Boedijn 1964).
Type studies: Boedijn (1964).
Anamorph: *Nodulisporium* (Samuels 1989, Samuels & Rossman 1992; both in culture and on developing teleomorphic stromata).
Status: *Hypocreaceae* (ING, EH).
Xylariaceae (Boedijn 1964, Samuels 1989, Barr 1990, Samuels & Rossman 1992).
Number of epithets: 6+.
Important literature: Samuels & Rossman (1992, taxonomic account of monotype); Boedijn (1964, taxonomy); Corlett (1985, taxonomy); Candoussau (1981, illustrations from Gabon); Rogers (1981, systematic position); Parker (1990, distribution).
Notes: Samuels & Rossman (1992) placed the majority of the remaining taxa in *Sarawakus* (*Hypocreaceae*). *Thuemenella* was misspelled *Themeniella* in von Arx & Müller (1954).

Ustulina Tul. & C. Tul. [*] = **KRETZSCHMARIA**
Selecta Fungorum Carpologia 2: 23 (**1863**).
Typus: *U. vulgaris* Tul. & C. Tul. (≡ *U. deusta* (Hoffm.: Fr.) Lind; *Sphaeria deusta* St.-Amans ≡ *Ustulina deusta* (St.-Amans) Petr. *fide* ING).
Location of type: not designated; a specimen in Fries' Scler. Suec. could be selected.

Anamorph: see *Kretzschmaria*.
Status: *Ustulina* (EH).
= *Kretzschmaria* (Martin 1970).
= *Hypoxylon* (e.g. Miller 1961, Petrini & Müller 1986).
Number of epithets: 11.
Important literature: see *Kretzschmaria*.
Notes: it has long been recognized that this genus has a strong affinity with *Xylaria* and its closest relatives. Theissen (1909) argued that there was hardly any specific distinction between *K. clavus* and *Ustulina deusta* (as *U. vulgaris*). Ko & al. (1982) showed that environmental factors determined the shape of the stromata between hypoxyloid and kretzschmarioid forms. I conclude that, at present, *Ustulina* should be merged with *Kretzschmaria*, but at a later stage when more characters are known, it may be better to erect a subgenus or section within *Xylaria* for these fungi.

Versiomyces Whalley & Watling [*] = **HYPOXYLON**
Notes from the Royal Botanic Garden Edinburgh 45(2): 401, fig. 1 p. 402 (**1989**).
Typus: *V. cahuchucosus* Whalley & Watling.
Location of type: E (holotype).
Type studies: Whalley & Watling (l.c.), Laessøe (unpublished).
Anamorph: not known.
Status: *Versiomyces* (EH).
Number of epithets: 1.
Notes: since this taxon shares all major characters with *Hypoxylon* and *Daldinia* it is here lumped with the former. When a full revision is undertaken of *Hypoxylon* sensu lato it may be appropiate to use *Versiomyces* at subgeneric or sectional rank.

Wawelia Namysl. [*] **? XYLARIACEAE - WAWELIA**
Kosmos 33: 330 and Bulletin international d'Académie des Sciences et des Lettres de Cracovie, Classe des Sciences mathématiques et naturelles, Ser. B 7: 602 (**1908**). [exact dates not sorted out].
Typus: *W. regia* Namysl.
Location of type: KRAM (?)
Type studies: apparently none, but 'topotypic' material studied by all subsequent workers.
Anamorph: present, but no form genus assigned (Namyslowski l.c., Doguet 1961b and Minter & Webster 1983).
Status: *Xylariaceae*, *Wawelia* (Patouillard 1911, Vincens 1918, ING, Lundqvist 1992, EH).
Hypocreales (Namyslowski l.c.).
= *Sarcoxylon* (von Arx & Müller 1954).
Melanosporaceae (Müller 1959, Doguet 1961b).
Number of epithets: 3.

Important literature: Müller (1959, taxonomy, morphology, illustration); Minter & Webster (1983, new species); Lundqvist (1992, new species, taxonomy); Vincens (1918, spore morphology, taxonomy); Doguet (1960, 1961a,b, development, spore germination, taxonomy etc); Guminska (1957, development in culture, illust.)

Notes: Laessøe (unpubl.) found characters in *Xylaria hippotrichoides* matching *W. octospora* Minter & Webster. If the type of *Wawelia* proves to be congeneric with *X. hippotrichoides* the name *Wawelia* will have to be replaced by *Chaenocarpus*. The status within the *Xylariaceae* is somewhat precarious. See discussion in Lundqvist (1992). Müller (1959) considered *W. regia* to be an advanced form within the *Melanosporaceae*, evolved in parallel with the *Xylariaceae*. Müller (in Dennis 1964) suggested that *Fassia* could be a close relative of *Wawelia*. The exact date and place of publication is unclear. Namyslowsky published the species and genus in two journals both dated 1908.

Xylaria Hill ex Schrank [*] **XYLARIA**

Bayerische Flora 1: 200 and 2: 566 (**1789**). - nom. cons.

Lectotypus: *X. hypoxylon* (L. : Fr.) Grev. (*Clavaria hypoxylon* L.: Fr.).

Location of type: not selected.

Anamorph: typically present on young teleomorphic stromata, but no form genus has been assigned to the typical form. *Xylocoremium* is associated with at least one species (Rogers 1984, 1985).

Status: *Xylaria* (EH).

Number of epithets: 550+.

Important literature: Dennis (1957, 1959, 1961, synonymy and infrageneric separation); Rogers (1985, intrageneric separation); Callan & Rogers (1990, anamorph-teleomorph connections); Callan & Rogers (1993, key to North American anamorphs); González & Rogers (1989, 63 taxa described); Donk (1964) & Holm & Müller (1965, nomenclature); Brunner & Petrini (1992, taxonomy by isozyme electrophoresis); Rodrigues (1991, endophytic *Xylariaceae* in *Euterpe*); Rodrigues & al. (1993, endophytes, cultural and isozymes); Schrantz (1970, cytology); Schrantz (1977, ultrastructure of anamorph structures); Schrantz & Boissiere (1974, cytochemical studies of ascus wall and stromatic hyphae); Brown (1913, development); Sutherland & Crawford (1981, wood degradation); Theissen (1911, distribution types); Grams (1981, induction of stroma formation by mechanical injury); Martin (1970, taxonomy, culture); Rogers (1968a, 1969b & 1975c, cytology); Weber (1992, cytology); Sannasi (1969, interaction with termites); Jensen (1985, peridium anatomy); Greenhalgh & Roe (1984, conidial ultrastructure); Sinclair & al.(1987, pathology, & ref. therein); Edwards & al. (1991, metabolites from *X. cubensis*); Wei & al. (1992, cellulose degradation); Parguey-Leduc (1972, ontogeny and (1977, formation of ascospores); Beckett (1979a,b ultrastructure of ascospore germ slit); Beckett & Crawford (1973, fine structure of ascus apex and role during spore discharge); Nilsson & al. (1989, wood decay).

Notes: the peculiar anamorph reported for *X. furcata* (*Padixonia* Subram.) by Dixon (1965, 1985) should be reinvestigated and new isolations should be attempted. Preliminary results (Laessøe & Butterfill unpubl.) suggest that *X. furcata* produces a normal *Xylaria*-type anamorph. The genus is in strong need of monographic treatment. So far, only regional accounts have appeared and no attempt at a worldwide monograph has been published. The true number of names with types which belong in *Xylaria* is much higher than the number of epithets cited above, since many species have been described in other genera. The genus as currently circumscribed is almost certainly polyphyletic.

Xylariodiscus Henn. [(*)] = **XYLARIA**

Hedwigia 38(2), Beiblatt: (63) (25.IV.**1899**).

Typus: *Xylariodiscus dorstenioides* Henn.

Location of type: lost (?), not in B (the part Höhnel studied could possibly be in FH).

Type studies: Höhnel (1910).

Anamorph: not known.

Status: *Xylaria* (EH).

Number of epithets: 1.

Notes: Dennis (1961) reduced this name to subgenus level.

Xylocrea Möller [(*)] ? = **SARCOXYLON**

Botanische Mittheilungen aus den Tropen 9: 307, pl. VIII, f. 112 (**1901**).

Typus: *X. piriformis* Möller.

Location of type: lost (?), the illustration by Möller (l.c.) can serve as type.

Anamorph: not known.

Status: *Sarcoxylon* (Patouillard 1911, EH). *Incertae sedis* (Rogers 1981).

Number of epithets: 2.

Notes: the genus was described next to *Entonaema* differing in massive flesh with perithecia distributed in a discrete disc. Rogers (1981) did not place the genus since he had been unable to study type or authentic material. Patouillard (1911) put both *Xylocrea* and *Entonaema* in synonymy with *Sarcoxylon*.

Xylosphaera Dumort. [(*)] = **XYLARIA**

Commentationes botanicae: 91 (post 3.VII.**1822**).

Lectotypus: *X. polymorpha* (Pers.: Fr.) Grev. (Dennis 1958b,c).

Location of type: L (?).

Status: = *Xylaria* (EH).

Important literature: Dennis (1958b, nomenclature), Petrak (1961, nomenclature).

Notes: for a while this was the generic name used instead of the more established *Xylaria*. Conservation and starting point change reversed the situation.

GENERA ILLEGITIMA ET EXCLUSA

Alocospora Krug [0] **NOM.INVAL.**
In Reisinger & Bresinsky, Fourth International Mycological Congress Abstracts: 30 (**1990**).
Typus: not indicated.
Notes: Krug (l.c.) intended this generic name for highly reduced mainly soil living members of the *Xylariaceae*. It was listed as invalid in Index of Fungi.

Anthostoma Nitschke [IS] **DIATRYPACEAE, = CRYPTOSPHAERIA**
Pyrenomycetes germanici 1: 111 (**1867**).
Lectotypus: *A. decipiens* (DC in Lam. & DC) Nitschke (*Sphaeria decipiens* DC in Lam. & DC).
Location of type: G (herb. De Candolle, neotype, Rappaz 1992).
Type studies: Rappaz (1992).
Anamorph: *Libertella* Desm. (Rappaz 1992 & refs. therein).
Status: *Diatrypaceae* (Munk 1957, Eriksson 1966, Rappaz 1992).
Sphaeriaceae (Müller & von Arx 1973).
Diaporthaceae (Dennis 1981, Breitenbach & Kränzlin 1981).
Xylariaceae (von Arx & Müller 1954, Cannon & al. 1985).
uncertain unitunicate (EH)
Number of epithets: 126+.
Important literature: Rappaz (1992, taxonomy); Wehmeyer (1926, emend. description); Eriksson (1966, typification, taxonomy).
Notes: Laessøe & Spooner (1994) propose to place this genus in synonymy with *Cryptosphaeria* based on anatomical studies. Romero (in litt.) has reached the same conclusion by studying the ascus apical apparatus with fluorescence techniques. Rappaz (1992) chose to accept the genus within the *Diatrypaceae*. Most (?) epithets in *Anthostoma* represent taxa belonging to the *Xylariaceae* and a thorough revision of these names is badly needed. Some obviously belong in *Lopadostoma* and *Anthostomella*.

Bacillaria Mont. [(*)] **NOM. NUD.**

Status: ≡ *Camillea* (Hawksworth & al. **1983**).
= *Camillea* (EH, in generic list not in *Xylariaceae* list).
Notes: Montagne (1840) used this name as a subgenus of *Hypoxylon* (as 'tribe *Bacillaria*', invalid ICBN 33) and when Fries (1849) subsequently raised it to generic level he had to replace it with *Camillea* (Dennis 1959, Laessøe & al. 1989).

Batistia Cif. [-] **BATISTIACEAE, BATISTIA**
Atti dell'Instituto Botanico dell'Universitá e Laboratorio Crittogamico, Pavia ser. 5, 15: 165 - 166, pl. I-VI (**1958**).
Typus: *B. annulipes* (Mont.) Cif. (*Thamnomyces annulipes* Mont.).
Location of type: PC (holotype).

Type studies: Dennis (1959).
Anamorph: *Acrostroma annellosynnema* (Samuels & Rodrigues 1989).
Status: *Batistiaceae* (Samuels & Rodrigues 1989, EH).
Cephalothecaceae (*Batistieae* Cif.; Cifferi l.c.).
Number of epithets: 1.
Notes: the monotype was originally referred to *Xylariaceae*, and was accepted in this family by Dennis (1959). However, it was excluded by Ciferri (l.c.), and this has been confirmed by the description of the anamorph (Samuels & Rodrigues 1989).

Byssosphaeria Cooke [-] **MELANOMMATACEAE**
In Cooke & Plowr., Grevillea 7(43): 84 (III.**1879**).
Typus: *B. keitii* (Berk. & Broome) Cooke (*Sphaeria keitii* Berk. & Broome).
Location of type: K (holotype).
Type studies: Sivanesan (1972).
Status: = *Rosellinia* (Petrini 1992, '*pro parte*').
= *Herpotrichia* Fuckel (Sivanesan 1972; type cited as synonym of *H. schiedermayeriana* Fuckel, but genus not cited as synonym of *Herpotrichia*; von Arx & Müller 1984).
Byssosphaeria, *Melanommataceae* (Barr 1984, EH).
Number of epithets: 79+.
Notes: Cooke (l.c.) stated his genus to comprise most of *Rosellinia* and from his diagnosis the genus could easily be a synonym of this genus. However, the only species specifically mentioned and combined clearly belongs outside the genus and the family. Only later (Cooke 1887) did he combine species now classified in *Rosellinia* in *Byssosphaeria*, although he also included a whole range of unrelated pyrenomycetes.

Camarops P.Karst. [-] **BOLINIACEAE, CAMAROPS**
Mycologia Fennica 2: 53 (**1873**).
Typus: *C. hypoxyloides* P.Karst. (= *C. polysperma* (Mont. in Sagra) J.H. Miller *fide* Nannfeldt (1972).
Location of type: H (holotype, possibly only 3 slides remaining *fide* Nannfeldt (1972)).
Type studies: Shear (1938), C.A. Jørgensen (unpubl.?), Nannfeldt (1972).
Anamorph: not known (forms teleomorphic stromata in culture and no anamorph has been reliably recorded).
Status: *Boliniaceae* (Nannfeldt 1972, EH)
= *Numulariola* (*Xylariaceae*; Martin 1969b).
= *Biscogniauxia* (*Xylariaceae*; Vasilyeva 1988).
Monograph: Nannfeldt (1972, preliminary, emphasis on European species).
Synonyms: *Bolinia* (Nitschke) Sacc., *Peridoxylon* Shear, *Phaeosperma* Nitschke in Fuckel (this genus was tentatively referred to *Dothideales* in EH), *Sarcostromella* Boedijn, *Solenoplea* Starbäck and *Kravtzevia* Schwarzman (as unitunicate inc. sedis in EH). These genera will not be treated further here.

Important literature: Samuels & Rogers (1987) and Rogers & Samuels (1987, 1988, taxonomy); Nuss & Hilber (1977, taxonomy, structure, biology); Hilber & Hilber (1980, intrageneric separation); Lundqvist (1987, *C. pugillus* illust.); Boedijn (1959, taxonomy); Petrini (1986) and Callan & Rogers (1989, teleomorph in culture); Romero & Minter (1988, ascus structure); Romero & Samuels (1991, taxonomy); Eriksson (1989) and Eriksson & Hawksworth (1989, taxonomy, spore structure).

Coniochaeta (Sacc.) Cooke [-] **CONIOCHAETACEAE, CONIOCHAETA**
Grevillea 16(77): 16 (**1887**).
Lectotypus: *C. ligniaria* (Grev.: Fr.) Cooke.
Location of type: type not selected (?).
Anamorph: *Phialophora* Medlar (e.g. Mahoney & LaFavre 1981).
Status: *Coniochaetaceae* (Malloch & Cain 1971, EH).
Xylariaceae (Cannon & al. 1985)
Important literature: Mahoney & LaFavre (1981, review of known species & refs therein); Rogers (1965a, anamorph, cytology); Lundqvist (1972, delimitation at higher level etc); Parguey-Leduc & Janex-Favre (1979, structure of ascus apical apparatus, taxonomy; 1984, ascus wall structure).
Notes: species with a reported *Nodulisporium* anamorph should be excluded from the genus. There are various synonyms of *Coniochaeta*, not included here.

Cryptosordaria De Not. ex Sacc. [(*)] **NOM.NUD.**
Sylloge Fungorum 2: XIII (**1883**).
Status: *Anthostomella* (EH).
Notes: Saccardo (l.c.) cited '*C. picconiana* De Not MS' as a synonym of '*Anthostomella picconiana* (De Not.) Sacc.'

Cucurbitula Fuckel [(-)] **CONIOCHAETA**
Jahrbuch des Nassauischen Vereins für Naturkunde 23/24: 171/Symbolae Mycologicae: 171 (**1870**).
Typus: *C. conglobata* (Fr.) Fuckel (≡ ? *Sphaeria conglobata* Fr.)
Location of type: UPS ('probably the type' Petrini 1992).
Type studies: Petrini (1992).
Status: *Rosellinia* (Saccardo 1882).
Cucurbitaria (Oudemans 1920).
Coniochaeta (Petrini 1992, EH).
Number of epithets: 2+.
Notes: ING: 'Fuckel has called in question whether his fungus and *Sphaeria conglobata* Fries really are conspecific, if they are not (see below), the combination *C. conglobata* should be ascribed to Fuckel alone'. Fuckel (l.c.) described both an anamorphic and a teleomorphic state of his *C. conglobata*. Saccardo (1884) referred the anamorph to *Sphaeropsis* Lév., a form genus not known to occur in the *Xylariaceae*. Saccardo (1882) treated the Friesian name as a synonym of Fuckel's name and combined it in *Rosellinia*, while Cesati & De Notaris (1863) combined the Friesian name

in *Cucurbitaria*. Oudemans (1920) cited Fuckel's name as a synonym of *Cucurbitaria conglobata* (Fr.) Ces. & De Not. An isotype at Kew of *Cucurbitula conglobata* Fuckel matches the description of *Coniochaeta subcorticalis* ss Munk (1957). Munk stated that P. Larsen described a specimen under the name *R. conglobata* Fuckel, but believed this specimen to be a clustered form of *C. subcorticalis*. Petrini (1992) lectotypified *Cucurbitula conglobata* Fuckel and placed it in *Coniochaeta*. According to her the presumed type of *Sphaeria conglobata* Fr. only contains *Melogramma campylosporum* Fr.

Entosordaria Speg. [(*)] **NOM.NUD.**
Revista de la Facultad de agronomía (y veterinaria) ser. 2, 6: 40 ff/Fungi Chilenses [separatum]: 40 ff. (**1910**).
Typus: since no generic description was given, a typification is of no value (see notes below).
Status: *Anthostomella* (EH).
Number of epithets: 4+.
Notes: not listed in ING. Spegazzini (l.c.) did not describe a new genus when he introduced four new species in *Entosordaria*. He clearly used the definition of *Anthostomella* subg. *Entosordaria* Sacc. but failed to raise this subgenus to generic level, which was later done by Höhnel (1920).

Entosordaria (Sacc.)Höhn. [(-)] **CLYPEOSPHAERIACEAE, CLYPEOSPHAERIA**
Sitzungsberichten der Akademie der Wissenschaften in Wien, Mathem-naturw. Klasse, Abteilung 1, 129(3&4): 167 [31 in separatum]. (**1920**).
Basionym: *Anthostomella* subg. *Entosordaria* Sacc., Sylloge Fungorum 1: 286.
Lectotypus: *E. perfidiosa* (De Not.) Höhn. (*Sordaria perfidiosa* De Not.; Höhnel 1920).
Location of type: ?.
Type studies: ? Höhnel (1920). It is not clear whether he studied genuine type material and the same applies for Petrak (1924).
Anamorph: not known.
Status: *Clypeosphaeria*, *Clypeosphaeriaceae* (Barr 1989, EH).
Entosordaria, *Amphisphaeriaceae* (Eriksson 1966).
Stereosphaeria Kirschst., *Amphisphaeriaceae* (Eriksson 1986).
Xylariaceae (von Arx & Müller 1954).

Fassia Dennis [*] **?DIATRYPACEAE**
Bulletin du Jardin Botanique de l'État, Bruxelles 34(2): 240 (30.VI.**1964**).
Typus: *F. scabrosa* Dennis.
Location of type: BR (holotype, not quite clear from Dennis (l.c.), K (isotype).
Type studies: Dennis (l.c.), Barr (unpubl.).
Anamorph: not known.
Status: *Fassia*, *Xylariaceae* (EH).
Fassia, ? *Diatrypaceae* (Barr in litt.).
Number of epithets: 1.

Notes: Müller in litt. (Dennis 1964) suggested a relationship with *Wawelia* (see entry). Barr (in litt.) suggests a close relationship with *Echinomyces* Rappaz, currently accepted in the *Diatrypaceae*. I have compared a collection of the type species (*E. obesa*) with *F. scabrosa* and can confirm a very high overall similarity between these species, although they are clearly not conspecific. *Fassia* will probably have to replace *Echinomyces*. Rappaz (1987) did not compare his new genus with *Fassia*.

Fuckelia (Nitschke ex Sacc.) Cooke [(*)] **NOM.ILLEG.**
Grevillea 12(62): 50 (XII.**1883**). - Non Bonorden 1864.
Basionym: *Anthostoma* subgenus [?] *Fuckelia* Nitschke ex Sacc., Sylloge Fungorum 1: 303 (1882).
Typus: *F. amoena* (Nitschke in Fuckel) Cooke (Shear 1938).
Location of type: K (2 isotypes) and wherever sets of *Fungi Rhenani* have been deposited.
Type studies: Laessøe & Spooner (1994).
Status: Nomen nudum (ING). *Lopadostoma* (Shear 1938, EH).
Number of epithets: 29+
Important literature: Shear (1938, nomenclature & taxonomy).
Notes: although Fuckel (1870) included a description of two species in *Fuckelia*, he did not give a generic diagnosis and the very short 'emended' diagnosis at subgeneric (or sectional ?) level given in Saccardo (1882) can be regarded as validating. Cooke (l.c.) then raised the name to generic rank and accepted 29 species. The type species was studied by Laessøe & Spooner (1994) and found to be quite distinct and very different from *Lopadostoma turgidum* and *L. gastrinum*. It cannot be placed satisfactorily within the family at present, but, as can be seen, the generic name is preoccupied.

Graphostroma Piroz. [-] **GRAPHOSTROMATACEAE**
Canadian Journal of Botany 52(10): 2131 (**1974**).
Typus: *G. platystoma* (Schwein.) Piroz. (Basionym *Sphaeria platystoma* Schwein.).
Location of type: K (Pirozynsky l.c.).
Type studies: Pirozynsky (l.c.)
Anamorph: *Nodulisporium*-like (Pirozynsky l.c.).
Status: *Xylariaceae* (Pirozynsky l.c., Rogers 1979, Jensen 1985).
Calosphaeriaceae (Barr 1990).
Graphostromataceae (Barr & al. 1993, EH)
Important literature: Jensen (1985, peridium structure).
Notes: the placements in *Calosphaeriaceae* and later in *Graphostromataceae* were based on centrum structure (Barr 1990, Barr & al. 1993), although Pirozynsky (l.c.) was convinced about its placement in the *Xylariaceae*.

Hypodiscus Lloyd [(*)] **NOM.ILLEG.**
Mycological Writings 7, Mycological Notes 68: 1181 & fig. 2379 (**1923**). - non C.G.D. Nees 1836.

Typus: *H. rickii* Lloyd.
Location of type: BPI (Lloyd herbarium, lectotype, Rogers & al. in manus.).
Type studies: Miller (1961), Rogers & al. (in manus).
Anamorph: not known.
Status: *Hypoxylon* (Miller 1961, EH).
Notes: Rogers & al. (in manus.) found characters in the type comparable with those in *Hypoxylon cerebrinum* and proposed a new genus to replace Lloyd's preoccupied generic name. The taxon is relegated to an uncertain position in the currently poorly defined family *Amphisphaeriaceae*.

Leveillea Fr. [(*)] **NOM. ILLEG.**
Summa vegetabilium scandinaviae: 409 (**1849**). - non *Leveillea* M.J. Decne. 1839.
Typus: *L. caelata* (Fr.) Fr. (*Sphaeria caelata* Fr.).
Location of type: lost (?).
Anamorph: not known.
Status: = *Phylacia* (Dennis 1959).
Hypoxylon (Saccardo 1882, EH).
Number of epithets:
Notes: according to Dennis (1959) Fries (l.c.) proposed this name as replacement for *Phylacia* (thought to be a later homonym of *Phylacium* Benn.), but he chose to typify his name with *L. caelata*, the type specimen of which seems to have been lost (Dennis 1959). By this action, Fries (l.c.) did in fact introduce a younger homonym. Synonymy is likely to be with *Phylacia* and probably not with *Hypoxylon*. Saccardo (1882) followed Cesati (1879) and Cooke (1883) in his placement. Lloyd (1917) considered *L. caelata* to be the same as *P. turbinata* (Berk.) Dennis.

Loculohypoxylon M.E. Barr [IS] **DOTHIDEALES**
Mycotaxon 3: 326 (**1976**).
Typus: *L. grandineum* (Berk. & Ravenel) M.E. Barr (basionym: *Diatrype grandinea* Berk. & Ravenel).
Location of type: K (holotype and presumed isotypes), MASS (isotype ?).
Type studies: Barr (1976) studied the presumed isotype at MASS.
Anamorph: unknown (?).
Status: *Dothideales* inc. sed. (EH)
Didymosphaeriaceae (Barr 1976).
Dacampiaceae (Barr 1987).
Number of epithets: 1.
Notes: the type species was accepted as a member of the genus *Hypoxylon* in the monograph by Miller (1961).

Oostroma Bonord. [(*)] **MELANCONIDACEAE, = PSEUDOVALSA**
Abhandlungen der Naturforschenden Gesellschaft zu Halle 8: 84 [not seen]/Abhandlungen aus dem Gebiete der Mykologie: 84 (**1864**).
Lectotypus (chosen here): *Sphaeria lanciformis* Fr.: Fr. (≡ *Pseudovalsa lanciformis* (Fr.: Fr.) Ces. & De Not.).

Location of type: UPS (Scler. Suec., not formally selected).
Type studies: Wehmeyer (1941, 'cotype' from Scler. Suec.).
Anamorph: not known ?.
Status: *Hypoxylon* (EH).
Number of epithets: 0?
Notes: Bonorden (l.c.) placed the following taxa in the genus: *Sphaeria lanciformis* Fr., *S. colpoma* Corda and *S. nummularia* Fr. The third species typifies *Biscogniauxia* while the first belongs in *Pseudovalsa* Ces. & De Not. (1863) and the second clearly can be excluded from the *Xylariaceae*. To keep stability *S. lanciformis* is selected as type since choosing *S. nummularia* would create an earlier name for *Biscogniauxia*.

Phaeaspis Kirschst. [(-)] **NOM.ILLEG.**
Annales Mycologici 37: 112 (**1939**). - non Petch ex Clem. & Shear 1931.
Typus: *P. calamophila* Kirschst. (= *Anthostomella punctulata fide* Petrak 1940, = *Phomatospora* cf. *berkeleyi* Sacc. *fide* Francis 1975).
Location of type: B (Francis 1975)
Type studies: Francis (1975), ? Petrak (1940), von Arx & Müller (1954).
Anamorph: unknown.
Status: *Anthostoma* (Petrak 1940, von Arx & Müller 1954).
Anthostomella (Müller & von Arx 1973).
Vizella, *Vizellaceae* (EH)

Poroconiochaeta Udagawa & Furuya [*] **CONIOCHAETACEAE**
Transactions of the mycological Society of Japan 20(1): 5-6, f.1 p.9 (**1979**).
Typus: *P. discoidea* Udagawa & Furuya.
Location of type: NHL (holotype), SANK (isotype).
Type studies: Udagawa & Furuya (l.c.).
Anamorph: 'conidia one-celled, simple, produced on small phialides, sometimes lacking' (Udagawa & Furuya l.c.).
Status: *Xylariaceae*, *Poroconiochaeta* (EH).
Number of epithets: 2.
Notes: the characters noted by the authors are consistent with those of the *Coniochaetaceae* and the placement given in EH cannot be justified.

Rhizomorpha Roth: Fr. [0] **MYCELIA STERILIA**
Annalen der Botanik (ed. Usteri) 1: ? (**1791**). [not seen; in Vegetabilia cryptogamica ... p. 5 - 12 *fide* Pfister & al. 1990].
Lectotypus: *R. fragilis* Roth (*fide* Donk 1962).
Location of type: ?, plate usable?.
Status: *Rhizomorphaceae* (Chevallier 1826).
Armillaria mellea - rhizomorphs (Donk 1962 and refs therein).
Notes: by the lectotypification this name could be excluded from the *Xylariaceae*. Fries (1828) had erroneously (*fide* Donk 1962) indicated a species of *Xylaria* as type and it has also been associated with the genus *Thamnomyces* (e.g. Bonorden 1864) and has been used for *Xylaria hippotrichoides* (Fuckel 1870). Lloyd (1917) also erroneously claimed *X. setosa* as type (a

synonym of *X. hippotrichoides*). ING also lists *Rhizomorpha* Ach. in Luyk. (1809) but this will not be treated further here being a younger, non-sanctioned homonym.

Sarawakus Lloyd [-] **HYPOCREACEAE**
Mycological Notes 7, Mycological Writings 71: 1258 (**1924**).
Typus: *S. lycogaloides* (Berk. & Broome) Lloyd (*Hypoxylon lycogaloides* Berk. & Broome).
Location of type: K (holotype).
Type studies: Rifai (1969).
Anamorph: 'phialidic, conidiophores with *Verticillium*-, *Gliocladium*-, or *Trichoderma*-like branching, conidia green' (Samuels & Rossman 1992).
Status: *Hypocreaceae* (Samuels & Rossman 1992, EH).
Xylariaceae (von Arx & Müller 1954).
Monograph: Samuels & Rossman (1992; 10 species).
Important literature: Samuels & Rossman (1992 and refs therein).
Notes: the type species has been combined in *Hypoxylon*, *Penzigia* and *Sarcoxylon* in the *Xylariaceae* and in several genera belonging to the *Hypocreaceae*.

Sphaeropyxis Bonord. [(-)] **= CONIOCHAETA**
Abhandlungen der Naturforschenden Gesellschaft zu Halle 8: 83, 157 [not seen]/Abhandlungen aus dem Gebiete der Mykologie: 83 & 157 (**1863/1864**).
Typus: *S. hispida* Bonord.
Location of type: ?
Anamorph: not known.
Status: *Rosellinia* (Saccardo 1882, Müller & von Arx 1973).
= *Coniochaeta* (Petrini 1992, EH).
Number of epithets: 1.
Notes: The synonymy given by Petrini (1992) was based on the description in Saccardo (1882). Bonorden (l.c.) described the spores as 'globosis, fusconigris' and, in fact, introduced the new genus based on this character. He also described short hairs on the ascomata and the synonymy with *Coniochaeta* should be safe.

Valsa Adans. [(*)] **≡ DIATRYPE**
Familles des plantes 2: 9 (**1763**). - non *Valsa* Fr. nom. cons.
Lectotypus: *Sphaeria disciformis* Hoffm. (*Diatrype disciformis* (Hoffm.: Fr.) Fr. (Cannon & Hawksworth 1983).
Status: *Hypoxylon* (EH).
Important literature: Cannon & Hawksworth (1983, nomenclature).
Notes: EH erroneously cited *Valsa* Adans. as a synonym of the conserved genus *Hypoxylon*. It is instead a synonym of *Diatrype* based on the typification proposed by Cannon & Hawksworth (1983).

Xylaria Gray [(-)] **CLAVICIPITALES, ≡ CORDYCEPS**
A natural arrangement of British plants 1: 510 (1.XI.**1821**).
Lectotypus: *Sphaeria militaris* (L.: Fr.) Ehrh. (Donk 1964: 22).
Status: = *Cordyceps* (EH).
Notes: a younger homonym of *Xylaria* Hill ex Schrank. Proposed by Donk (1964) and Holm & Müller (1965) for rejection and simultaneous conservation of *Cordyceps* with the same type (Donk 1964).

GENERA INCERTAE SEDIS

Ascotricha Berk. [*] **ASCOTRICHA**
The Annals and Magazine of Natural History, Ser. 1, 1: 257 (VI.**1838**).
Typus: *A. chartarum* Berk.
Location of type: K (holotype).
Type studies: Hawksworth (1971).
Anamorph: *Dicyma* Boulanger (Ellis 1971; Hawksworth 1971).
Status: *Chaetomiaceae* (Hawksworth 1971).
Xylariaceae, *Ascotricha* (Khan & Cain 1977, EH)
Number of epithets: 15+.
Monograph: Hawksworth (1971; 8 species).
Important literature: Hawksworth & Wells (1973, hairs); Kahn & Cain (1977, taxonomic position).
Notes: there are many similarities with members of the *Coniochaetaceae* as noted by Hawksworth & Wells (1973). The amyloid plug and type of anamorph seem to favour position within the *Xylariaceae* but e.g. the non-stromatic nature is highly unusual within that family and I prefer to exclude it pending further study.

Ascotrichella Valldos. & Guarro [?] **? CONIOCHAETACEAE**
Transactions of the British mycological Society 90(4): 601 (**1988**).
Typus: *A. hawksworthii* Valldos. & Guarro.
Location of type: FMR (holotype), IMI (isotype).
Type studies: Valldosera & Guarro (l.c.).
Anamorph: *Humicola*-like (Valldosera & Guarro l.c.).
Status: ? *Xylariaceae*, *Ascotrichella* (EH).
Number of epithets: 1.
Notes: according to the authors 'this is a typical non-stromatic member of the *Xylariaceae*'. They furthermore suggest inclusion of the *Coniochaetaceae* in the *Xylariaceae* making it easier to acommodate the non-amyloid *A. hawksworthii* in the family. The anamorph seems to be out of place in the *Xylariaceae* and its position within this family seems doubtful.

Discoxylaria J.C. Lindq. & J.E. Wright [-?] **DISCOXYLARIA**
Darwiniana 13(1): 139, illustration p. 140 & pl. 1 (**1964**).
Typus: *D. mirmecophila* J.C. Lindq. & J.E. Wright.
Location of type: LPS (holotype).

Type studies: Lindquist & Wright (l.c.).
Anamorph: *Hypocreodendron sanguineum* Henn. (Lindquist & Wright 1959); Rogers & al. (unpubl., in culture).
Status: *Sarcostromellaceae* (Lindquist & Wright l.c.).
? *Boliniaceae* (EH).
Xylariaceae (Pérez-Silva 1974).
Notes: this monotypic genus exhibits a very unique set of characters, including a very peculiar anamorph arrangement described by Lindquist & Wright (1959). It does not seem possible to place it within any family as presently circumscribed, although Rogers (in litt.) supports a placement in *Xylariaceae* based on unpublished culture studies. The original authors placed this genus close to *Pseudoxylaria*, typified by *Xylaria nigripes*, but in doing so they trusted erroneous observations by Boedijn (1959), who claimed that the species lacks a germ slit. In fact, *X. nigripes* has a longitudinal germ slit (see e.g. Rogers & al. 1987).

Nipicola K.D. Hyde [0] **NIPICOLA**
Cryptogamic Botany 2(4): 330, fig. 1 - 15 p. 331, fig. 16 p. 332 (VI.**1992**).
Typus: *N. carbospora* K.D. Hyde.
Location of type: BRIP (holotype).
Type studies: Hyde (l.c.).
Notes: characters suggest *Sordariales* or *Xylariales* but no family assignment was possible based on the available characters.

Pleosporopsis Oerst. [(*)] **? = CONIOCHAETA**
Naturhistorisk Forening. Videnskabelige Meddelelser: 231 (**1866**, as "1865").
Typus: *P. strobilorum* Oerst.
Location of type: ?.
Anamorph: various possibilities can be deduced from Oersted's account and the true anamorph could be the one depicted as f. 33, pl. 6.
Status: *Rosellinia* (von Arx & Müller 1954).
? *Coniochaeta* (Petrini 1992).
Coniochaeta (EH).
Number of epithets: 1.
Notes: Oersted (l.c.) based his new genus on a holomorph concept after discovering what he thought were four, possibly five, different stages of this fungus occurring in succession on pine cone scales. The described teleomorph is possibly xylariaceous but some of the other 3(4) stages obviously belong with another fungus (or fungi). Petrini (1992) removed the genus from the synonymy of *Rosellinia* based on the illustrations by Oersted. However, Oersted described the perithecium wall as being very thick and firm, which would suggest *Rosellinia* rather than *Coniochaeta*. On the other hand the very indistinct (? lacking) ostiole does not suggest *Rosellinia*.

Sphaerodermatella Seaver [(-?)] **INC.SED.**
Mycologia 1(5): 182 (**1909**).
Typus: *S. helleri* (Earle) Seaver (*Melanospora helleri* Earle).

Location of type: NY (?).
Type studies: none since Seaver (l.c.).
Anamorph: unknown?
Status: ? *Coniochaeta* (EH).
Notes: several points in the type description create uncertainty about the synonymy with *Coniochaeta* and the type should be reexamined.

Synaptospora Cain [-?] **INC.SED.**
Sydowia, Beiheft 1: 4 - 5, pl. 2 & 3 (**1957**).
Typus: *S. petrakii* Cain.
Location of type: TRTC (holotype).
Type studies: Cain (l.c.).
Status: cf. *Xylariaceae* (Cain l.c.).
Trichosphaeriaceae (Jeng & Cain 1976).
Sordariaceae (Dennis 1981).
cf. *Coniochaetaceae* (Barr 1990, EH).
Number of epithets: 2.
Notes: the author remarked that the genus could not be placed satisfactorily, but 'it appears to resemble the *Xylariaceae* more closely than any other family'. The second species accepted by Cain (l.c.) is cleistocarpic. The ascospores apparently have no germ apparatus and the ascus apical apparatus, although present, is not amyloid. Later, Jeng & Cain (1976) referred the genus to the *Trichosphaeriaceae*. I tend to favour Barr's (1990) tentative conclusion.

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SUMMARY

Lectotypes have here been proposed for the following genera:

Xylariaceae: *Acrosphaeria, Ascostroma, Institale, Perisphaeria, Pyrenodermium*. Other families: *Oostroma*.

Selection of plates as types has been done in the following instances:

Biscogniauxia nummularia, Chaenocarpus setosus, Daldinia concentrica, Discosphaera radians.

The following genera are accepted (including as a synonym) in the family but not so in EH (or only with ?; those with * are here accepted as synonyms only and those with ** were not included in EH):

Astrocystis, Creosphaeria, Collodiscula, Epixylon,**, Euepixylon***, *Euhypoxylon*,**, Pseudoxylaria**, Pyrenomyxa*** and *Seynesia*.

Here accepted with ? but not included in family in EH:

*Leptomassaria, Sclerodermatopsis*** and *Steganopycnis*.

The following genera have been excluded from the family or placed in insertae sedis but were accepted in EH (or listed with ?; those with * are excluded on nomenclatural grounds, mostly due to homonymy):

Ascotricha, Ascotrichiella, Cryptosordaria, Entosordaria Speg.*, Fassia, Fuckelia*, Hypodiscus*, Leveillea*, Oostroma, Poroconiochaeta, Sphaeropyxis* and *Valsa*.

The following accepted in EH as taxonomically sound have here been placed into synonymy with other accepted genera:

Daldinia, Penzigia, Pulveria, Ustulina and *Versiomyces*.

The following genera given as synonyms in EH are here accepted as taxonomically distinct:

Chaenocarpus, Holttumia, Nemania and *Obolarina*.

The synonymy of the following genera has been changed from that accepted in EH:

Albocrustum, Ascostroma, Coenocarpus, Cryptothamnium, Gamosphaera, Hemisphaeria, Peripherostoma, Simonius and *Stromatosphaeria*.

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The following genera are accepted in EH but are here considered as of uncertain status or listed as insertae sedis:

Ascotricha, Entoleuca, Kretzschmariella, Leptomassaria, Myconeesia, Neesiella, Paranthostomella, Perisphaeria, Pleosporopsis, Porodiscella, Stilbohypoxylon and *Xylocrea.*