

MYCOTAXON

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REDISPOSITION OF SOME TAXA DESCRIBED BY J. B. ELLIS

MARGARET E. BARR

9475 Inverness Avenue, Sidney, British Columbia, Canada
V8L 5G8

SUMMARY

A number of pyrenomycetous taxa described or transferred by Ellis and coworkers are dispersed to modern genera. Several synonymous names are noted under other species. A new genus *Jobellisia* is described to accommodate *Letendraea luteola* and *Herpotrichia nicaraguensis*. One new species *Acanthostigma filisporum* is proposed. The new name *Lasiosphaeria ellisii* replaces the later homonym *Sphaeria longispora* and *Phillipsiella ellisii* replaces the later homonym *Patellaria cyanea*. Additional new combinations are proposed for 31 species.

A listing of the pyrenomycetes described or transferred to other genera by J. B. Ellis and his coworkers is being prepared by Barr, Huhndorf, and Rogerson, in commemoration of the 1892 publication of *North American Pyrenomycetes*. A number of species that I have studied over the years require transfer to modern genera. In addition to some recently published articles (Barr 1989, 1990a, 1990b, 1990c, 1991a, 1991b, 1992a), an article in press (Barr 1992b) deals with species in the Lophiostomataceae and contains some of the needed combinations. Changes in position of several other fungi are proposed here. The new names are arranged alphabetically in ordinal and family sequence according to Barr (1987b, 1990b) and unpublished emendations.

HYMENOASCOMYCETES

Sordariales

Lasiosphaeriaceae

Cercophora spinosa (Harkness) Barr, comb. nov. Fig. 1a-c
Rosellinia spinosa Harkness, Bull. California Acad.

Sci. 1: 42. 1884.

Acanthostigma spinosum (Harkness) Ellis & Everh. N.
Amer. Pyrenomyc. 156. 1892.

Ascomata superficial, scattered, globose, 180-280 μm diam; apex obtuse, ostiole inconspicuous; peridium brown externally, two or three rows of large pseudoparenchymatous cells, 10-12 μm wide, pallid internally, compressed rows of cells, 10-12 μm wide; setae over apex, yellowish, thick walled, ends obtuse, 50-120 μm long, 10-14 μm wide at base; sparse yellowish hyphae from base. Asci 55-68 x 8-10 μm , oblong, unitunicate; apex slightly thickened, nonamyloid. Ascospores 11-12 x 5.5-6.5 μm , upper cell dark brown, lower cell hyaline or yellowish, obovoid, 1-septate submedian, lower cell ca. 1/2 length of upper; wall smooth, germ pore variable in position in brown cell; globules in brown cell; obliquely uniseriate in the ascus.

On periderm of *Eucalyptus globulus* Labill. California: San Francisco, Cemetery, Sep 1881, H. W. Harkness 2842, holotype (CAS now UC).

This small *Cercophora* has nonappendaged ascospores that are most similar to but smaller than those of *C. solaris* (Cooke & Ellis) R. & O. Hilber (R. Hilber and O. Hilber 1979). The thick-walled appendages on the ascomata are comparable to those of *Lasiosphaeria munkii* R. & O. Hilber (O. Hilber et al. 1987).

Chaetosphaeria atriella (Cooke & Ellis) Barr, comb. nov.

Fig. 1d,e

Sphaeria atriella Cooke & Ellis, *Grevillea* 6: 94.
1878.

Zignoella atriella (Cooke & Ellis) Sacc. *Michelia* 1:
346. 1878.

Psilosphaeria atriella (Cooke & Ellis) Cooke,
Grevillea 16: 51. 1887.

Ascomata superficial, gregarious, ovoid, 220-275 μm wide, 330-385 μm high; apex short papillate, ostiole periphysate; peridium dark reddish brown, 20-30 μm wide, rows of compressed cells; surface roughened by protruding short hyphae (perhaps remnants of conidiophores). Asci 80-120 x 10-12 μm , cylindric, short stipitate, unitunicate; apical ring narrow, nonamyloid. Paraphyses remnants delicate, 1-2 μm wide. Ascospores 23-32 x 4-5 μm , hyaline to yellowish, oblong, ends obtuse, 3-(5-)septate, slightly constricted at median, first-formed septum; wall smooth; guttulate; overlapping biseriate in the ascus.

On decorticated wood of *Acer*, New Jersey: Newfield, holotype (K) (not seen). Additional collections: New Jersey: Newfield, "on bare dead limb lying partly in the water," 17 May 1877, J. B. Ellis 2457 (possible isotype); N.A.F. 783, *Kalmia latifolia* L. New Jersey: Newfield, Oct 1879, J. B. Ellis (NY).

Ellis and Everhart (1892) consigned this taxon to synonymy under *Acanthostigma decastylum* (Cooke) Sacc., a species with somewhat collabent, setose ascomata that may

well belong in *Lasiosphaeria*. *Chaetosphaeria atriella* seems most closely allied to *C. pulviscula* (Currey) Booth (Booth 1957), and has somewhat longer ascospores. One could expect to find an anamorph in *Menispora* in this taxon also.

Chaetosphaeria barbicincta (Ellis & Everh.) Barr, comb. nov.

Byssosphaeria barbicincta Ellis & Everh. J. Mycol. 4: 63. 1888.

Trichosphaeria barbicincta (Ellis & Everh.) Sacc. Syll. Fung. 9: 603. 1891.

Herpotrichia barbicincta (Ellis & Everh.) Ellis & Everh. N. Amer. Pyrenomyc. 158. 1892.

Niesslia barbicincta (Ellis & Everh.) Barr in Bigelow & Barr, *Rhodora* 65: 305. 1963.

On old periderm of *Magnolia*. New Jersey: Newfield, 25 Oct 1887, J. B. Ellis, holotype; N.A.F. 1958, isotype (NY).

Barr in Bigelow and Barr (1963) redescribed this species under *Niesslia*, from old periderm and wood, as well as dead leaves of *Vaccinium*. It differs from species of *Niesslia* (Hypocreales) in centrum structure. The glabrous, noncollabent ascomata are seated in a thin subiculum that produces conidiophores closely around the ascomata. Fresh material on *Vaccinium macrocarpon* Aiton (Massachusetts: Ruggles Pond, 13 Oct 1967, M. E. Barr 5088, NY) bore a *Codinaea* anamorph whose hyaline, one-celled conidia measure 14-17 x 1.5-2 μm . *Chaetosphaeria barbicincta* is close to *C. callimorpha* (Mont.) Sacc., has slightly smaller ascospores, and differs in habit.

Iodosphaeria arundinariae (Ellis & Everh.) Barr, comb. nov. Fig. 1f,g

Trichosphaeria arundinariae Ellis & Everh. N. Amer. Pyrenomyc. 153. 1892.

Ascomata superficial, gregarious in brown subiculum, globose to ovoid, 220-275 μm wide, 330-355 μm high; apex stoutly papillate, ostiole periphysate; peridium brown, small pseudoparenchymatous cells bearing septate hyphal appendages similar to and merging with hyphae of subiculum. Asci p.sp. 100-110 x 8-10 μm , stipe 20-30 μm long, cylindrical, unitunicate; apical ring narrow, non-amyloid. Paraphyses sparse. Ascospores 18-20 x 6-7.5 μm , hyaline, ellipsoid fusoid, one celled; wall finely verruculose at maturity; usually three globules; uniseriate in the ascus.

On old culm of *Arundinaria*. Louisiana: sine loc., Jul 1888, A. B. Langlois 1412, holotype (NY).

The papillate ascomata and ellipsoid fusoid ascospores separate this species from others in the genus (Samuels et al. 1987). No anamorph was found on the holotype collection.

- Lasiosphaeria ellisii* Barr, nom. nov. Fig. 1h, i
Sphaeria longispora Ellis, Bull. Torrey Bot. Club 6:
 135. 1877, non Currey 1859 nec Karsten 1873.
Ophioceras longispora (Ellis) Sacc. Syll. Fung. 2:
 360. 1883.
Ceratostomella longispora (Ellis) Cooke, Grevillea
 17: 50. 1889.

Ascomata superficial, scattered, ovoid, ca. 220 μm wide, 275 μm high, often pinched in at sides when dry; apex obtuse, papilla minute, of short dark brown setae, up to 15 μm long; peridium bright brown, 12-16 μm wide, large pseudoparenchymatous cells. Asci 90-100 x 10-12 μm , stipe short, unitunicate; apical ring shallow, nonamyloid, chitinoid. Paraphyses remnants delicate. Ascospores 50-70 x 3-4 μm , hyaline, elongate, apex often obtuse, tapered to base, delicately 3-7-septate or more; wall smooth; guttulate; in fascicle in the ascus.

On branch of *Kalmia latifolia* on ground. New Jersey: Newfield, 20 Jul 1874, J. B. Ellis, holotype (NY).

A collection from New York: Clyde, Sep 1881, O. F. Cooke 119 (NY) is referable to this species. Another collection in NY labelled in Ellis's hand *S. longispora* Ellis (on rotten maple, New Jersey: Newfield, 29 Jun 1882) also has well-developed short setae forming the papilla, large ascomata, peridium of thick-walled cells, the surface verrucose, and longer, 7-9-septate ascospores, 80-100 x 3-4 μm in longer asci, 100-120 x 10-13 μm . This taxon would require at least varietal separation when the complexities of the species in *Lasiosphaeria* having elongate ascospores are finally assorted.

Ellis and Everhart (1892) thought that *Sphaeria longispora* might be the same as *Sphaeria atriella* Cooke & Ellis and suggested that it too was a synonym of *Acanthostigma decastylum* (Cooke) Sacc. The latter taxon has setae over the peridium and 3-5-septate ascospores, 22-30 x 4-4.5 μm ; it may be a species of *Lasiosphaeria* also. *Sphaeria atriella* is transferred to *Chaetosphaeria* in this article.

When Saccardo erected *Ophioceras* subgenus *Acerbia* (Syll. Fung. 11: 353. 1895) for *O. hyptidis* P. Henn., he thought perhaps that *O. longispora* could be related. Berlese (1899) tentatively placed Ellis's species as a synonym of *Acerbia bacillata* (Cooke) Sacc. That is a different fungus entirely, *Daruvedia bacillata* (Cooke) Dennis, and a member of the Clypeosphaeriaceae (Xylariales) according to my studies. *Acerbia* may well belong in the Lasiosphaeriaceae, and the species having elongate ascospores could be arranged there. On the other hand, many species accepted in *Lasiosphaeria* have somewhat elongate ascospores and there is precedent to arrange the present species in that genus, as Carroll and Munk (1964) did for *L. raciborskii* (Penzig & Sacc.) Carroll & Munk, and Rossman (1977) for three long-spored species.

Nitschkiaceae

Acanthonitschkea horrida (Ellis & Everh.) Barr, comb. nov.
Fig. 1j-1

Trichosphaeria horrida Ellis & Everh. in C. L. Smith,
Bull. Lab. Nat. Hist. State Univ. Iowa 2: 399.
1893.

Ascomata superficial, gregarious in compact subiculum, collabent, 660-715 μm or more wide, 440-495 μm high; apex rounded; peridium 60-70 μm wide, rows of large pseudoparenchymatous cells, blackened externally, brown internally, Munk pores in cell walls; surface setose, setae dark reddish brown, septate, 165-275 μm long, 10 μm wide at base, tapered to point, occasionally branched; Quellkörper conic, extending nearly to base, ca. 250 μm deep, 140 μm wide in upper regions. Asci p. sp. 30-35 x 8-9 μm , stipe 10-30 μm long, numerous, thin walled, unitunicate, 12-16-spored. Ascospores 7.5-10 x 2.5-3 μm , hyaline, fusoid, one celled or 1-septate; wall smooth, guttulate; overlapping bi- to triseriate in the ascus.

On bark. Nicaragua: Ometepe, 1893, C. L. Smith, Nicaraguan Fungi 93, holotype (NY).

This species is closest to *A. foveolata* (Berk. & Curtis ex Berk.) Nannf., of those described by Nannfeldt (1975). That species has smaller ascomata, smaller octosporous asci and shorter ascospores of similar shape.

Coniochaetaceae

Several Ellis species that belong in *Coniochaeta* may be referred as synonyms to other taxa, e.g., *Sphaeria ovalis* Ellis (Bull. Torrey Bot. Club 8: 125. 1881), *Sphaeria pholidigena* Ellis (Bull. Torrey Bot. Club 10: 54. 1883), *Rosellinia parasitica* Ellis & Everh. (Proc. Acad. Nat. Sci. Philadelphia 42: 227. 1890), *Rosellinia bigeloviae* Ellis & Everh. (Amer. Nat. 31: 341. 1897) and *Rosellinia subcompressa* Ellis & Everh. (Bull. Torrey Bot. Club 24: 277. 1897) all agree with the concept of *Coniochaeta pulveracea* (Ehrenb.: Fr.) Munk (Munk 1957). This species is closely related to *C. velutina* (Fuckel) Cooke and both have ellipsoid ascospores. One species that differs from these in forming fusoid rather than ellipsoid ascospores must be transferred to *Coniochaeta*.

Coniochaeta arctespora (Cooke & Ellis) Barr, comb. nov.
Fig. 1m-p

Sphaeria arctespora Cooke & Ellis, Grevillea 5: 93.
1877.

Rosellinia arctespora (Cooke & Ellis) Sacc. Syll.
Fung. 1: 268. 1882.

Sphaeria xylariaespora Cooke & Ellis, Grevillea 6:
94. 1878.

Rosellinia xylariaespora (Cooke & Ellis) Sacc. Syll.
Fung. 1: 272. 1882.

Coniochaeta xylariaespora (Cooke & Ellis) Cooke,

Grevillea 16: 16. 1887.

Ascomata superficial, gregarious, globose to ovoid, 150-192 μm wide, up to 220 μm high; apex obtuse, ostiole small, periphysate; peridium narrow, 10-20 μm wide, compressed rows of cells, surface setose, setae blackish brown, pointed, scattered, 10-25 μm long. Asci (40-)45-75 x 6-8 μm , oblong, unitunicate; apical ring shallow, nonamyloid. Paraphyses delicate. Ascospores 9-13 x 5-6 x 3-4 μm , brown, fusoid, compressed, one celled; wall smooth, germ slit straight, nearly full length; guttulate; uniseriate in the ascus.

On branches. New Jersey: *Andromeda*, Vineland, 12 Nov 1876, J. B. Ellis, isotype; *Azalea viscosa* = *Rhododendron viscosum* (L.) Torr., Nov 1878, J. B. Ellis; N.A.F. 594 (NY).

The narrow ascospores separate this species from all but *C. saccardoi* (Marchal) Cain where the ascospores are larger. Ellis and Everhart (1892) united *Sphaeria arctespora* and *S. xylarispora* under the earlier name in *Rosellinia*. P. Martin (1967) thought the taxon to be a synonym of *Coniochaeta* (*Helminthosphaeria*) *ligniaria* (Grev.) Masee, but that species has wider, ellipsoid ascospores.

Hypocreales

Niessliaceae

In a manuscript in preparation on this family, several names fall into synonymy; one Ellis and one Dearness name require new combinations to accommodate some of these synonyms.

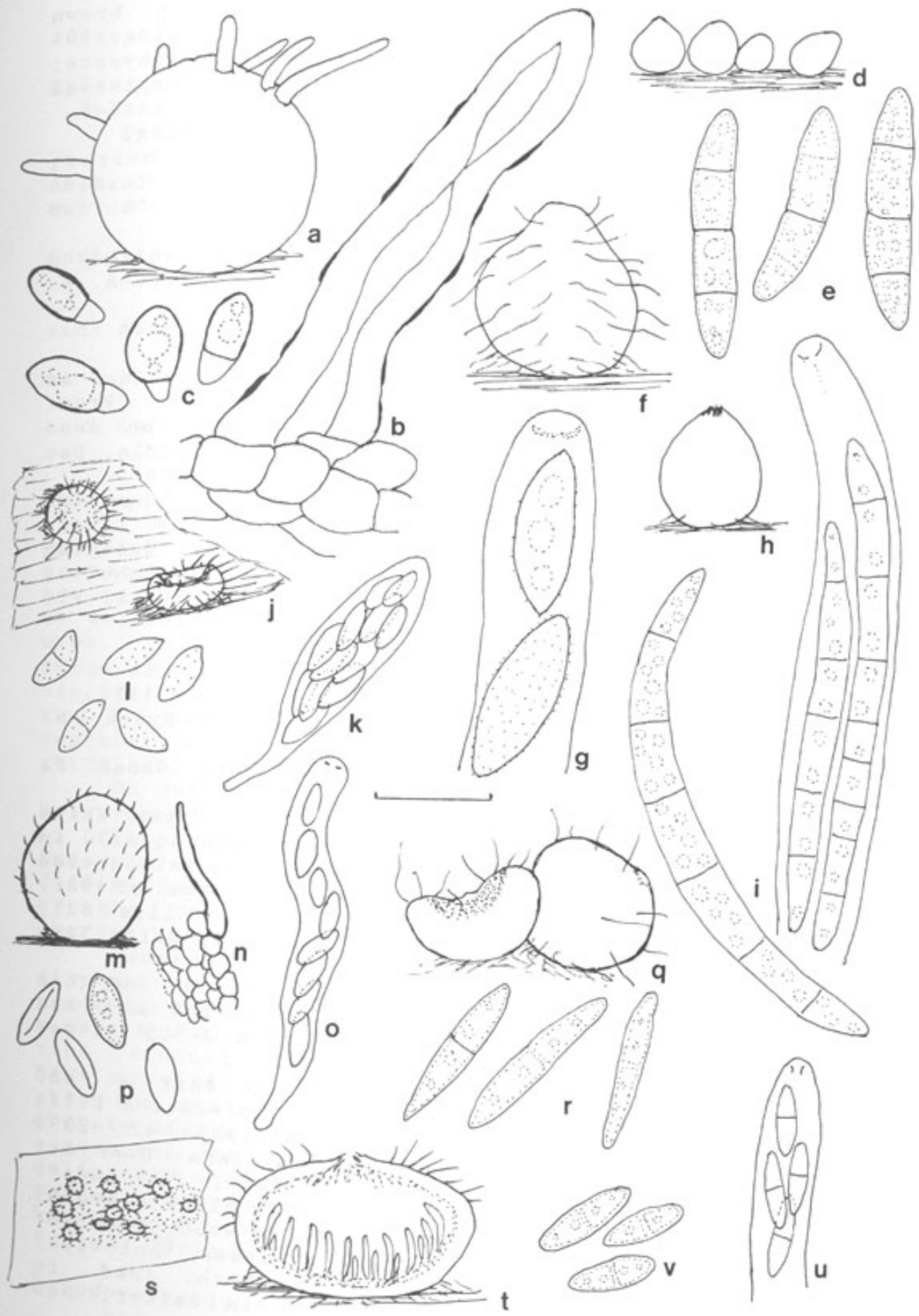
Niesslia erysipheoides (Ellis & Everh.) Barr, comb. nov.

Fig. 1q,r

Venturia erysipheoides Ellis & Everh. J. Mycol. 3: 128. 1887.

Venturia graminicola Ellis & Everh., nom.nud. in Barr, Canad. J. Bot. 46: 859. 1968.

Fig. 1. a-c. *Cercophora spinosa*, a, ascoma in outline, b, seta, c, ascospores. d,e. *Chaetosphaeria atriella*, d, habit of ascomata, e, ascospores. f,g. *Iodosphaeria arundinariae*, f, ascoma in outline, g, ascus apex and ascospores. h,i. *Lasiosphaeria ellisii*, h, ascoma in outline, i, ascus apex and ascospores. j-l. *Acanthonitschkea horrida*, j, habit of ascoma, k, ascus, l, ascospores. m-p. *Coniochaeta arctespora* m, ascoma in outline, n, seta and peridium cells, o, ascus, p, ascospores. q,r. *Niesslia erysipheoides*, q, ascomata in outline, r, ascospores. s-v. *Niesslia lanea*, s, habit of ascomata on hyphal weft, t, ascoma in vertical section, u, ascus apex, v, ascospores (s-u from holotype). Standard line = 150 μm for ascomata, 15 μm for asci, ascospores, setae. Habit sketches not to scale.



Ascomata superficial, gregarious in thin brown subiculum, nearly globose, collabent, 150-200 μm wide, 90-120 μm high; apex obtuse, ostiole minute, periphysate; peridium brown, 10-13 μm wide, rows of small compressed cells; setose, setae scattered over peridium, blackish brown, 15-65 μm long. Asci 33-44 x 7.5-9 μm , oblong, unitunicate, 4-6-(8-)spored; apical ring narrow, nonamyloid. Ascospores 16.5-25 x 2-3 μm , hyaline, fusoid elongate, 1-septate; wall smooth; guttulate; in two overlapping fascicles in the ascus.

On dead culms of *Panicum curtisii* = *P. angustifolium* Elliott. Louisiana: Pointe à la Hache, 24 Feb 1887, A. B. Langlois, Fl. Ludov. 1023, 2 packets, holotype (NY).

This species has the longest ascospores of those that I recognize as North American species of *Niesslia*.

Niesslia exilis (Alb. & Schwein.: Fr.) Winter has as synonymous name *Venturia vaccinii* Ellis & Everh. (Proc. Acad. Nat. Sci. Philadelphia 46: 325. 1894; on dead leaves of *Vaccinium ovatum* Pursh, Washington: Seattle, Dec 1893, C. V. Piper 225, holotype, NY).

Niesslia exosporioides (Desm.) Winter has as synonymous name *Venturia sabalicola* Ellis & Everh. [Proc. Acad. Nat. Sci. Philadelphia 43: 233. 1891; on decaying leaves of *Sabal palmetto* (Walter) Schult. & J. H. Schult., Louisiana: Bayou Chene, 25 Oct 1888, A. B. Langlois, Fl. Ludov. 1546, holotype, NY].

Niesslia lanea (Dearness) Barr, comb. nov. Fig. 1s-v

Venturia lanea Dearness, Mycologia 18: 246. 1926.

Venturia barbula var. *foliicola* Ellis & Everh. N. Amer. Pyrenomyc. 141. 1892.

Venturia hispida Ellis, nom. nud. in Barr, Canad. J. Bot. 46: 854. 1968.

Holotype on *Chamaecyparis*, Washington: Upper White River, Sep 1924, J. M. Grant 6018 (Herb. Dearness 5730 in DAOM). On withered pine leaves on branches in fallen tree top. New Jersey: Newfield, Jan 1880, holotype of var. *foliicola*, N.A.F. 792; 18 Jan 1881, J. B. Ellis 821, holotype of var. *hispidula*; 15 Jan 1881, J. B. Ellis 325a as *V. hispida*; several packets of each (NY).

This species is comparable to *N. exilis*, but has larger ascomata [160-300(-330) vs. (65-)80-165 μm] and relatively wider ascospores [(7.5-)9-13.5 x 2-3.5 μm vs. (8-)10-15 x 1.5-2.5(-3) μm].

Niesslia pulchriseta (Peck) Barr in Barr et al. (1986) has as synonymous names: *Venturia parasitica* Ellis & Everh. (Proc. Acad. Nat. Sci. Philadelphia 42: 233. 1890; on old *Hypoxylon* on *Magnolia*, Louisiana: near St. Martinsville, 21 Jan 1889, A. B. Langlois, Fl. Ludov. 1781, holotype, NY); *Trichosphaeria flavida* Ellis & Everh. (N. Amer. Pyrenomyc. 152. 1892; on rotten wood, Ontario: London, J. Dearness and 18 Sep, J. Dearness, holotype, NY).; *Trichosphaeria cellaris* Ellis & Everh. ined. in Herb. (on bark of hickory barrel hoop in cellar, New

Jersey: Newfield, 9 Aug 1890, J. B. Ellis, NY).

Xylariales

Boliniaceae

Diatrype microspora Ellis (Bull. Torrey Bot. Club 8: 74. 1881) and var. *exutans* (Peck) Ellis & Everh. (N. Amer. Pyrenomyc. 582. 1892) are synonyms of *Camarops microspora* (Karsten) Shear.

Endoxyla luteobasis (Ellis) Barr, comb. nov. Fig. 2a-c

Sphaeria luteobasis Ellis, Bull. Torrey Bot. Club 6: 134. 1877.

Eutypa luteobasis (Ellis) Sacc. Syll. Fung. 1: 171. 1882.

Byssosphaeria luteobasis (Ellis) Cooke, Grevillea 15: 122. 1887.

Lasiosphaeria luteobasis (Ellis) Ellis & Everh. N. Amer. Pyrenomyc. 147. 1892.

Ascomata immersed erumpent, gregarious in yellowish, hyphal stroma, globose, up to 450 μm diam; beak short and wide, ca. 200 μm , apex blackened, ostiole periphysate; peridium externally yellowish brown, 45-70 μm wide, pseudoparenchymatous cells, internally yellowish to hyaline, 20 μm wide, compressed rows of cells; surrounded by yellowish brown or hyaline interwoven hyphae, 3.5-4 μm wide. Asci p.sp. 38.5-44 x 5.5-6.5 μm , stipe 27.5-44 μm long, peripheral, numerous; apical ring shallow if visible, nonamyloid. Paraphyses narrow. Ascospores 9-12 x 2-2.5 μm , brown, oblong allantoid, one celled or one septate; wall thin, smooth, minute pore at one end; guttulate; overlapping biseriate in upper part of ascus.

On *Quercus* wood. New Jersey: Newfield, J. B. Ellis, holotype; N.A.F. 99; Nov 1887, N.A.F. 1959 (NY).

Rappaz (1987) noted that this species belonged in *Endoxyla*, but he did not propose the combination. It differs from *E. operculata* (Alb. & Schwein.: Fr.) Fuckel by the conspicuous, yellowish stromatic tissues, by shorter beaks and narrower ascospores.

Endoxyla, excluding *Ceratostomella*, seems best disposed in the Boliniaceae (Rappaz, pers. comm.) The ascomata are immersed separately in wood or gregarious in a soft hyphal stroma. Short beaks are usually wide at the tips, rounded with an annular margin or sulcate. Asci have no visible apical ring or a shallow one and do not show the refractive pulvillus that is characteristic of members of the Clypeosphaeriaceae and *Ceratostomella*. The ascospores are brown, oblong to allantoid, one celled or delicately one septate and contain a germ pore in one end. *Sphaeria avocetta* Cooke & Ellis (Grevillea 8: 15. 1879) has recently been transferred to the genus (Romero and Samuels 1991).

Pseudovalsaria allantospora (Ellis & Everh.) Barr, comb. nov.

Valsaria allantospora Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 46:343. 1894.

Endoxylina allantospora (Ellis & Everh.) Shoemaker & Egger, F. Canad. 227. 1982.

Valsaria coloradensis Ellis & Everh. Amer. Nat. 32: 342. 1897.

Shoemaker and Egger (1982) redescribed and illustrated this species and compared it to *Endoxylina astroidea* (Fr.) Romell; in that species the main differences they noted were separately immersed ascomata beneath a blackened clypeal zone, asci having an narrow apical ring, and narrower, more truly allantoid ascospores. Rappaz (1987) transferred *Endoxylina astroidea* to *Eutypa* (Diatrypaceae) and *Valsaria allantospora* does not belong in that genus or family.

Pseudovalsaria was described to accommodate *P. foedans* (Karsten) Spooner (Spooner 1986), a species that is known on several woody plants in North America (e.g., *Diatrype moroides* Cooke & Peck, Barr et al. 1986) as well as Europe. Barr (1990b) inserted the genus in the Clypeosphaeriaceae, but with study of a European specimen contributed by J. Rappaz and consideration of his opinion on this taxon, it appears to be better arranged in the Boliniaceae. Ascospores are brown, one celled or one septate, have a terminal germ pore and measure (9-)10-13 x 3-5 μm . Rappaz (personal communication) suggested that *Pseudovalsaria* could be united with *Camarops*, but I prefer to retain two genera because of the larger, more heavily pigmented, often one-septate, not compressed ascospores in species of *Pseudovalsaria*. *Pseudovalsaria allantospora* is a species that is similar in most features to *P. foedans* but deviates by the formation of a blackened marginal zone surrounding the light yellowish-brown pseudostroma that contains the grouped ascomata. Ascospores are similar in shape, slightly longer, 11-16.5(-20) x 3.5-5.5 μm , and have thin regions at both ends.

Amphisphaeriaceae

Amphisphaeria multipunctata (Fuckel) Petrak has as additional synonym *Didymella corylina* Ellis & Everh. (Bull. Torrey Bot. Club 25: 504. 1898; on *Corylus*, Ontario: London, J. Dearness 2638, holotype, NY) and *Didymosphaeria major* Ellis & Everh. (Bull. Torrey Bot. Club 24: 130. 1897; *Rhus glabra*, Kansas: Rooks Co., 12 Sep 1895, E. Bartholomew 1934, holotype, NY). *Amphisphaeria pardalina* (Ellis & Everh.) Barr and *A. andropogonis* (Ellis & Langlois) Barr were transferred to the genus earlier (Barr 1989).

The name *Discostroma corticola* (Fuckel) Brockmann is predated by *D. fuscella* (Berk. & Broome) Huhndorf (Huhndorf 1992a) and includes as a synonym *Sphaeria lejostega* Ellis (Bull. Torrey Bot. Club 8: 91. 1881).

- Discostroma cupulum* (Ellis) Barr, comb. nov. Fig. 2d,e
Sphaeria cupula Ellis, Amer. Nat. 17: 317. 1883;
 Bull. Torrey Bot. Club. 10: 90. 1883.
Didymosphaeria cupula (Ellis) Sacc. Syll. Fung. 9:
 934. 1891.
Microthelia cupula (Ellis) Kuntze, Rev. Gen. Pl. 3:
 493. 1898.
Amphisphaeria cupula (Ellis) Schrantz, Bull. Soc.
 Mycol. France 76: 334. 1960.
Cainia cupula (Ellis) Müller in Müller & von Arx,
 Beitr. Kryptogamenfl. Schweiz. 11(2): 706.
 1962.
Sphaeria (*Didymosphaeria*) *quercifolia* Ellis, ined. in
 Herb.

Ascomata immersed in leaf tissues, gregarious, sphaeroid, 200-280 μm wide, 100-180 μm high; apex rounded, ostiole periphysate; peridium 11-20 μm wide, rows of compressed pallid cells at sides, blackened above and at base as clypeus. Asci 55-75 x 6-10 μm , cylindric, unitunicate; apical ring shallow, refractive, amyloid. Paraphyses narrow. Ascospores 10.5-13(-16.5) x 5-6.5 μm , hyaline becoming light yellowish brown to dull brown, ellipsoid, ends obtuse, often inequilateral, 1-septate, not or slightly constricted; wall smooth or finely verruculose as longitudinal striae; uniseriate in the ascus.

In dead, overwintered leaves still attached to broken branches of *Quercus coccinea* Muenchh. New Jersey: Newfield, 31 Mar 1882, J. B. Ellis, holotype (NY). Additional collections include the following, all from Newfield: Apr 1882 [as *Sphaeria* (*Didymosphaeria*) *quercifolia* ined.]; Apr 1882; N.A.F. 1338; Apr 1898, F. Col. 1320; *Castanea*, 4 Apr 1891 (on holotype of *Laestadia castanicola*) (NY).

The pigment and fine verruculae of the ascospores separate this species from *Sphaeria succinea* Roberge in Desm. (Ann. Sci. Nat. 3 ser., 10: 354. 1849), which is known from Europe and from a Californian collection. Müller's transfer to *Cainia* was based upon the presumed presence of germ pores terminally in the ascospores and on the presence of delicate long striations. The tips are slightly darker than the rest of the wall, but no pores are evident. Species of *Cainia* produce brown, larger, ellipsoid ascospores that bear several longitudinal germ slits (Krug 1977). Krug pointed out that these slits differed from the verruculose striae on ascospores of *C. cupula* and did not accept this species in the genus. He suggested disposition in *Amphisphaeria* but *Discostroma* is a more suitable genus; the species is related to *D. tostum* (Berk. & Broome) Brockmann.

Under *Discostroma massarina* (Sacc.) v. Arx is included *Homostegia kelseyi* Ellis & Everh. (Proc. Acad. Nat. Sci. Philadelphia 42: 248. 1890; *Ribes rotundifolia*, Montana: Helena, 23 Jan 1889, F. D. Kelsey 80/3; F. W.

Anderson 398, syntypes, NY).

Discostroma muricatum (Ellis & Everh.) Barr was added to the genus (Barr 1983).

Discostroma rubicola (Ellis & Everh.) Barr, comb. nov.

Fig. 2f,g

Metasphaeria rubicola Ellis & Everh. Bull. Torrey Bot. Club 24: 279. 1897.

Ascomata immersed erumpent, separate or gregarious in rows, sphaeroid, 300-550 μm wide, 250-495 μm high; apex papillate, ostiole periphysate; peridium brown to pallid below, blackened above, 25-30 μm wide, compressed rows of cells, hyphae from sides into substrate. Asci 100-160 x 9-13 μm , cylindric, unitunicate; apical ring shallow, amyloid, pulvillus small, chitinoid. Paraphyses rather wide, thin walled. Ascospores 15.5-24 x 6.5-9 μm , hyaline, oblong, ends rounded, (1-2-)3-(4-)septate, slightly constricted; wall thick, smooth; guttulate; uniseriate in the ascus.

Associated anamorph acervular, somewhat overmature; conidia detached and conidiogenous cells not seen; conidia 22-30 x 9-10(-12) μm , yellowish brown or clear brown, paler toward base often, obovoid, rounded above, tapered to truncate base, 3-distoseptate, wall smooth, thick.

In canes of *Rubus deliciosus* Torr. Colorado: Deansbury, Apr 1897, E. Bethel, holotype; N.A.F. 3525 isotype (NY). The species is known from other species of *Rubus* in other localities: Canada: British Columbia: Sidney, 11 Feb 1991, M. E. Barr 7427, 15 Jan 1992, M. E. Barr 7938 (DAOM); USA: Arizona: Pima Co., Bear Wallow, Santa Catalina Mts., 2 Aug 1980, M. E. Barr 6789 (NY).

Discostroma rubicola is close to *D. massarina*, but has slightly smaller ascospores that form fewer septa. The associated anamorph is more in accord with that of *D. corticola* than that of *D. massarina*.

Lepteutypa alpestris (Ellis & Everh.) Barr, comb. nov.

Fig. 2h

Melanomma alpestre Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 46: 328. 1895.

Stromata pulvinate, erumpent superficial, 1-1.5 mm wide, stromatic tissues dark reddish brown, pseudoparenchymatous cells, sometimes lacking at base; ascomata one to three together, globose, 440-550 μm diam; apex to surface, ostiole periphysate; peridium reddish brown, 15-20 μm wide, compressed rows of cells, internally hyaline, up to 20 μm wide. Asci 100-110 x 7.5-15 μm , cylindric or oblong, unitunicate; apical ring shallow, amyloid. Paraphyses narrow. Ascospores 20-27 x 5-7.5 μm , reddish brown, oblong or ellipsoid, slight taper to ends, often inequilateral or slightly curved, 3-septate, septa narrow; wall thick, smooth, surrounded by narrow hyaline coating; granular; uniseriate in the ascus.

In twigs of *Arctostaphylos nevadensis* A. Gray.

Washington: Mt. Paddo, Jul 1886, W. N. Suksdorf 268, holotype; Fl. Washington 342, isotype (NY).

The ascospores have narrow septa whereas their wall is wide, smooth and surrounded by a firm, narrow, hyaline coating. In sizes, this species is close to *L. cupressi* (Natrass, Booth & Sutton) Swart.

Lepteutypa sabalicola (Ellis & G. Martin) Barr, comb. nov.

Fig. 2i,j

Sphaeria sabalicola Ellis & G. Martin, Amer. Nat. 16: 810. 1892.

Leptosphaeria sabalicola (Ellis & G. Martin) Sacc. (as Ellis & G. Martin) Syll. Fung. 2: LVII. 1883.

Heptameria sabalicola (Ellis & G. Martin) Cooke, Grevillea 18: 32. 1889.

Ascomata immersed in yellowish areas of substrate, gregarious or separate under blackened clypei, sphaeroid, 260-495 μm wide, 130-275 μm high; apex papillate, opening to surface, ostiole periphysate; peridium brown, 10-20 μm wide, compressed rows of cells, darkened and thickened above as clypeus, brown hyphae from sides into substrate surrounding vascular bundles. Asci 44-65 x 7.5-10 μm , clavate cylindrical, unitunicate; apical ring scarcely visible, nonamyloid. Paraphyses narrow, interspersed with granules. Ascospores 11-15.5 x 3.5-4.5 μm , reddish brown, ellipsoid, oblong or somewhat obovoid, (0-1-2-)3-septate, slightly constricted at first-formed septum; wall verruculose beneath outer firm layer; one globule per cell; uniseriate or partly biseriate above in the ascus.

In *Sabal serrulata* = *Serenoa serrulata* (Michx.) G. Nicholson. Florida: sine loc., winter 1882, G. Martin 3678, holotype (NY). Specimens in N.A.F. 1963 (Florida, 1887, W. W. Calkins) that were examined are overmature.

The ascomata are usually gregarious beneath a conspicuous blackened clypeus. Ascospores are verruculose under the narrow hyaline coating. Another collection from Florida, on *Aralia spinosa* L. (Horticultural Farm, Univ. Florida, Gainesville, 10 Aug 1985, M. E. Barr 7073, NY) is identical in asci and ascospores, but the ascomata form beaks that protrude 330-440 μm beyond the blackened clypeus.

Lepteutypa ulmicola (Ellis & Everh.) Barr, comb. nov.

Fig. 2k

Clypeosphaeria ulmicola Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 45: 138. 1894.

Ascomata immersed, separate or gregarious, sphaeroid, 325-455 μm wide, (175-)300-350 μm high; apex papillate, ostiole periphysate; peridium brown, 10-16 μm wide, compressed rows of cells, thickened and darkened above as clypeus, 50-60 μm wide. Asci 108-150 x 9-10.5 μm , cylindrical, unitunicate; apical ring amyloid. Paraphyses 1.5-3 μm wide, guttulate. Ascospores 16.5-21(-28) x 7.5-9

um, light to dark brown, ellipsoid or oblong, ends obtuse, (0-1-)3-septate, constricted at first-formed septum; wall dark, thick, verruculose or punctate beneath outer firm hyaline to brownish coating, 1-1.5 μm wide; one globule per cell; uniseriate in the ascus.

In branches of *Ulmus americana* L. Canada: Ontario: London, May 1893, J. Dearness; N.A.F. 3023 (Dearness Herb. in DAOM, NY); Aug 1895, N.A.F. 3327 (NY).

The holotype (NY, not seen) was described from the same locality, collected in Apr 1892 and labelled J. Dearness 1776. Dearness had annotated his copy of N.A.F. 3023 with this number also. The ascospores may become strongly pigmented and the wall is irregularly roughened beneath the outer coating.

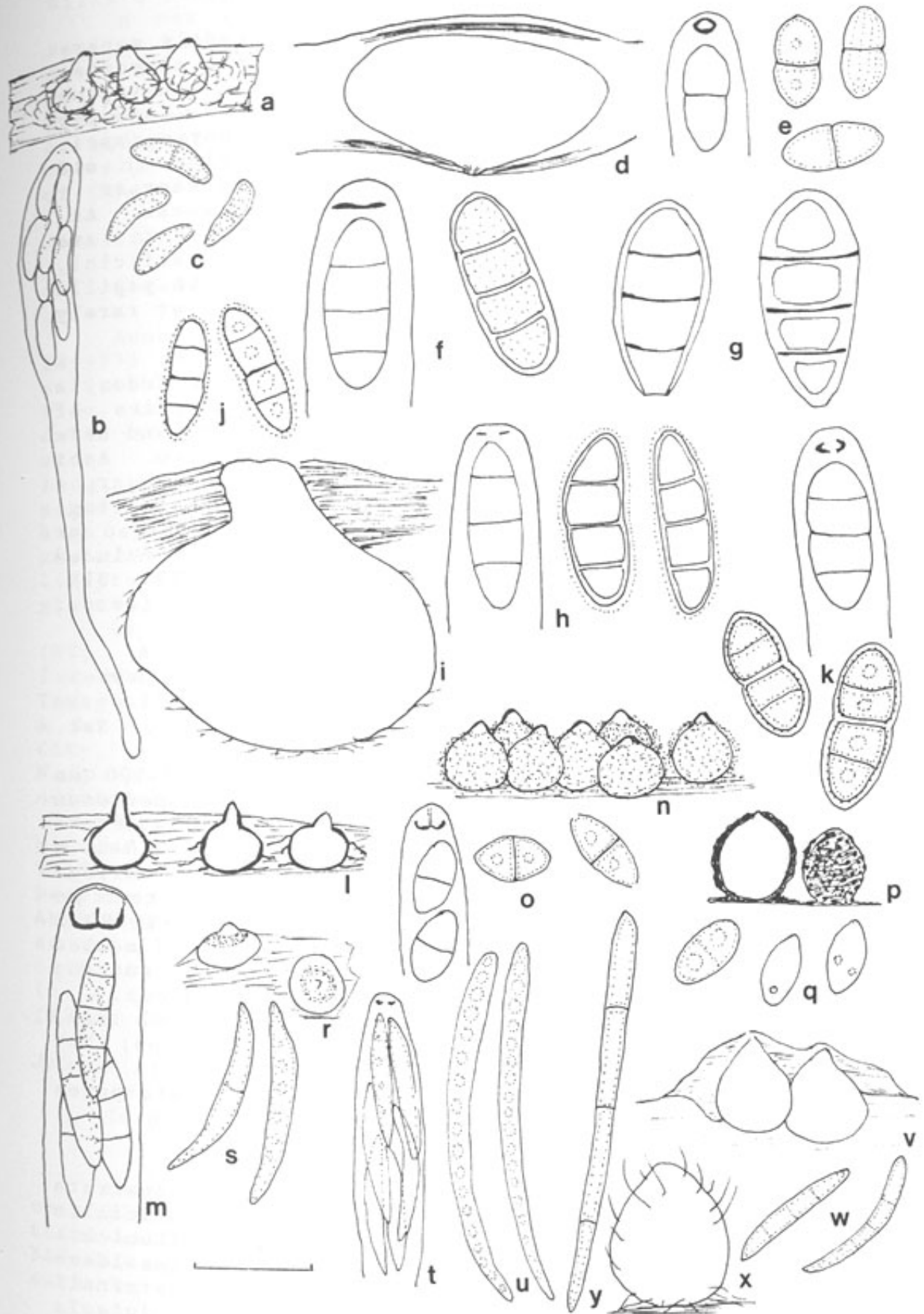
Thyridiaceae

According to Barr (1983) *Thyridium vestitum* (Fr.) Fuckel includes *Fenestella amorphia* Ellis & Everh. (J. Mycol. 4: 58. 1888; *Carya*, New York: Lyndonville, Apr 1888, C. E. Fairman, holotype, NY) and *F. ulmicola* Ellis & Everh. (Proc. Acad. Nat. Sci. Philadelphia 45: 143. 1893; *Ulmus americana*, Ontario: London, Aug 1892, J. Dearness, holotype, NY).

Didymosphaeria sphaerophora Ellis & Everh. (Bull. Torrey Bot. Club 22: 439. 1895; *Agave*, Mexico: Matamoras, Jun 1885, Dr. Egeling, holotype, NY) was transferred to *Valsaria* (Barr 1989).

The epithet *Valsonectria hypoxyloides* (Ellis & Everh.) Barr (Mycotaxon 39: 137. 1990) is predated by *V. cinnamomi* (Ces.) Huhndorf (Huhndorf 1992b).

Fig. 2. a-c. *Endoxyla luteobasis*, a, habit of ascomata, b, ascus, c, ascospores. d,e. *Discostroma cupulum*, d, ascoma in outline, clypei in both surfaces of leaf, e, ascus, apex tilted to show amyloid ring, and ascospores. f,g. *Discostroma rubicola*, f, ascus apex and ascospores, g, conidia. h. *Lepteutypa alpestris*, ascus apex and ascospores. i,j. *Lepteutypa sabalicola*, i, ascoma in outline, j, ascospores. k. *Lepteutypa ulmicola*, ascus apex and ascospores. l,m. *Ceratostomella conica*, l, habit of ascomata, m, ascus apex and ascospores. n,o. *Jobellisia luteola*, n, habit of ascomata, o, ascus apex and ascospores. p,q. *Jobellisia nicaraguensis*, p, habit of ascomata, one showing surface where crustose stroma was removed, q, ascospores. r-t. *Cresporhaphis rhoina*, r, habit of ascomata, s, ascospores, t. ascus apex and ascospores. u. *Linocarpon hamasporum*, ascospores. v,w. *Monographella fusariispora*, v, ascomata in outline under clypeus, w, ascospores. x,y. *Acanthostigma filisporum*, x, ascoma in outline, y, ascospore. Standard line = 150 μm for ascomata, 15 μm for asci, ascospores, conidia. Habit sketches not to scale.



Clypeosphaeriaceae

Taxa assigned to this family are most readily separated from those of the Amphisphaeriaceae by the clypeate, nearly globose ascomata and a well-developed pulvillus above a shallow or deep apical ring that is usually nonamyloid, rarely amyloid, in the cylindrical asci. Immersed or emergent ascomata typically develop in old wood, rather than in or beneath periderm of branches or leaves and stems as they do in the Amphisphaeriaceae. As in members of the Amphisphaeriaceae, ascomata are typically immersed but may become erumpent to superficial, whereupon the clypeus may persist as a thickened papilla or beak, a stromatic coating around the peridium or rarely even form a subiculum and hyphal appendages.

Ceratostomella is recognized as separate from *Endoxyla* which is assigned to the Boliniaceae. Species of *Ceratostomella* are typically immersed in old wood and have an erumpent, thickened beak that tapers to the tip. Asci are cylindrical clavate, usually stipitate and bear a refractive pulvillus above the narrow apical ring. Ascospores are hyaline, ellipsoid fusoid, one celled or delicately septate. Von Arx (1952) had included *Ceratostoma albocoronatum* Ellis (Amer. Nat. 17: 318. 1883) as one of numerous synonyms of *C. cirrhosa* (Pers.: Fr.) Sacc.

Ceratostomella conica (Ellis & Everh.) Barr, comb. nov.

Fig. 21,m

Ceratostoma conicum Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 42: 226. 1890.

Ascomata immersed, gregarious, globose, 300-500 μm diam; beak 200 μm or longer, ostiole periphysate; peridium dark brown, 32-40 μm wide, compressed rows of cells, brown hyphae in wood near surface as thin clypeus. Asci 80-90 x 7-9 μm , cylindrical, unitunicate; apical ring shallow, nonamyloid, pulvillus nearly as wide as apex, up to 5 μm high, chitinous. Paraphyses narrow. Ascospores 15-20 x 3.5-4.5 μm , hyaline, fusoid, inequilateral, one celled then delicately (1-)3-(4-5-)septate; wall thin, smooth; guttulate; overlapping uni- to biseriata in the ascus.

In rotten pine logs. New Jersey: Newfield, Jul 1889, J. B. Ellis, holotype (NY); N.A.F. 2348, isotype; Nov 1892, N.A.F. 2921 (NY).

The narrower, more elongate fusoid ascospores separate this species from *C. cirrhosa*.

Jobellisia Barr, gen. nov.

Stromata crustosa cingens ascomata vel rostrata apicum. Ascomata immersa vel erumpentia superficialia gregaria globosa papillata vel rostrata. Asci unitunicati cylindrici paraphysati. Ascosporae brunneae ellipsoideae unicellulares vel uniseptatae, pori germinali terminali vel subterminali. Species typicus *Letendreaa luteola*

Ellis & Everh.

A new genus is required to accommodate a group of species having brown, ellipsoid, one-celled or one-septate ascospores that usually contain terminal germ pores. Asci are typical of the Clypeosphaeriaceae and ascomata are gregarious or separate, papillate or beaked, immersed in or erumpent from the substrate. Stromatic tissues form a closely adhering crust around erumpent ascomata or beaks of immersed ascomata.

Jobellisia luteola (Ellis & Everh.) Barr, comb. nov.

Fig. 2n,o

Letendraea luteola Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 47: 415. 1895.

Ascomata closely gregarious, superficial, globose, 385-735 μm diam; apex light reddish, abruptly papillate, ostiole periphysate; peridium reddish brown, ca. 40-45 μm wide, compressed rows of cells, surrounded by layer of dull yellowish cells and granular matter, up to 30 μm wide. Asci p.sp. 45-80 x 5-7.5(-9) μm , stipe 20-40 μm long, cylindric, unitunicate; apical ring narrow, nonamyloid, pulvillus refractive, chitinoid, up to 3.5 μm high. Paraphyses narrow. Ascospores 9-12(-16) x 4-5(-6) μm , reddish brown, ellipsoid, straight or inequilateral, 1-septate; wall smooth, two terminal germ pores; one globule per cell; uniseriate in the ascus.

On rotten wood. Ohio: J. P. Morgan 1109, holotype (NY). Additional material of this species includes: as *L. luteola*?, *Populus* decorticated wood, Ontario: Lake Temagami, Temagami For. Reserve, 7 Aug 1931, H. S. Jackson & S. M. Pady, UT 2605 (BPI); as *L. luteola*, Iowa: Iowa City, 4 Jun 1936, G. W. Martin (slides FH, NY); as *Neopeckia diffusa*, old wood, New York: Old Forge, Adirondacks, 22 Aug 1934, R. F. Cain 3277 (GA 7883).

This fungus had been assigned to the Hypocreales because of bright pigmentation and soft texture (Seaver 1910), but an annotation by A. Rossman on the sheet bearing the holotype suggested that it could belong in the Amphisphaeriaceae. The globose ascomata and well developed pulvillus in the ascus are characteristics that indicate its position in the Clypeosphaeriaceae. *Letendraea* is a genus of bitunicate fungi in the Tubeufiaceae (Pleosporales) (Samuels 1973, Barr 1987b).

Jobellisia nicaraguensis (Ellis & Everh.) Barr, comb. nov.

Fig. 2p,q

Herpotrichia nicaraguensis Ellis & Everh. in C. L. Smith, Bull. Iowa Univ. Lab. Nat. Hist. 2: 400. 1893.

Ascomata gregarious, superficial on and surrounded by thin blackish, crustose stromatic tissues of dark brown, thick-walled pseudoparenchymatous cells; ascomata ovoid, 385-440 μm high, 330 μm wide; scarcely papillate; peridium dark brown externally, 30 μm wide, compressed rows of

cells, hyaline internally, up to 30 μm wide. Asci p.sp. 50-80 x 6-7 μm , stipe ca. 20 μm long, cylindrical, unitunicate; apical ring narrow, nonamyloid, pulvillus refractive. Paraphyses numerous. Ascospores 10-12 x 4.5-5 μm , oblong ellipsoid, brownish, one celled or occasionally 1-septate; wall smooth, one or two minute germ pores terminal or subterminal; two globules; uniseriate in the ascus.

On rotten wood. Nicaragua: Ometepe, Lake Nicaragua, winter (Jan-Feb) 1893, B. Shimek, Nicaragua F. 77, holotype; Central Amer. F. C. L. Smith 8, isotype (NY).

The two packets are obviously parts of a single collection. The species deviates from *J. luteola* in denser, more deeply pigmented stromatic covering and in variable position of germ pores in the ascospores.

Hyponectriaceae

Species in *Exarmidium* were treated by Barr and Boise (1985). *Exarmidium morthieri* (Fuckel) Barr & Boise includes *Sphaeria soluta* Cooke & Ellis (Grevillea 5: 54. 1876) and *S. albocincta* Cooke & Ellis (Grevillea 7: 9. 1878). *Exarmidium diaphanum* (Cooke & Ellis) Barr & Boise includes *Sphaeria diaphana* Cooke & Ellis (Grevillea 5: 53. 1876). *Didymosphaeria catalina* Ellis & Everh. (Bull. Soc. California Acad. Sci. 4: 63. 1905) is an additional synonymous name (*Artemisia californica*, California: Catalina Island, Mar 1904, C. F. Baker 404, holotype; Avalon, 14 Mar 1904, Pacific Slope F. 4041, isotype, NY).

Leiosphaerella fusariospora (Ellis & Everh.) Barr, comb. nov. Fig. 2r,s

Sphaeria (*Coelosphaeria*) *fusariospora* Ellis & Everh. ined. N.A.F. 1957. 1888.

Coelosphaeria fusariospora Ellis & Everh. J. Mycol. 4: 65. 1888.

Leptosporella (?) *fusariospora* (Ellis & Everh.) v. Höhnelt, Ann. Mycol. 16: 105. 1918.

Ascomata eruptent from periderm cells, separate, shining black, sphaeroid, collabent, 200-220 μm wide, 120 μm high; apex papillate, ostiole periphysate; peridium brown, 10-25 μm wide, compressed rows of cells, hyaline internally. Asci 40-60 x 7-9 μm , oblong, unitunicate; apical ring shallow, nonamyloid. Paraphyses narrow, in matrix. Ascospores (22-)24-45 x (1-)2-3.5 μm , hyaline, elongate fusoid, often slightly curved, one celled or 1-septate; wall smooth; guttulate; in two overlapping fascicles in the ascus.

On periderm of living *Populus* and *Celtis*. Kansas: sine loc. et dat., G. Egeling, comm. J. W. Eckfeldt, holotype; N.A.F. 1957, isotype; Rockport, Nov 1893, E. Bartholomew, N.A.F. 3016 (NY).

Leiosphaerella rhoina (Ellis & Everh.) Barr, comb. nov. Fig. 2t

globules. No appendages were found on ascospores of *L. hamasporum*.

Monographella fusariispora (Ellis & Everh.) Barr, comb. nov. Fig. 2v,w

Rhopoglyphus fusariispora Ellis & Everh. Erythea 2: 23. 1894.

Exarmidium fusariispora (Ellis & Everh.) Theissen & Sydow, Ann. Mycol. 13: 424. 1915.

Clypei subepidermal, blackened, elongate elliptic, 1-3 mm long or longer by confluence, 385-440 μ m wide, reddish brown, small pseudoparenchymatous cells, 20-30 μ m wide; ascomata in single or double row beneath clypeus, sphaeroid, 165-220 μ m wide, 137-165 μ m high; apex short papillate, ostiole periphysate; peridium narrow, pallid to brownish, 12-20 μ m wide, compressed rows of cells. Asci 45-66 x 8-9 μ m, oblong, unitunicate; apical ring amyloid. Paraphyses narrow. Ascospores 20-32 x 3-3.5 μ m, hyaline, fusoid, usually curved, ends acute, 1-2-3-septate; wall smooth; minutely guttulate; in two fascicles in the ascus.

In culms of *Panicum virgatum* L. Kansas: sine loc., 32 Mar 1893, E. Bartholomew, holotype, two packets, NY; Rooks Co., 5 May 1902, E. Bartholomew, F. Col. 1675 (NY).

In this species the darkened ellipsoid-fusoid clypeus may extend for several millimeters in culms and may cover several ascomata.

Trichosphaeriaceae

Acanthostigma perpusillum De Not., the type of that genus, is represented in North America by a collection bearing the unpublished name *Acanthostigma atrobarbum* var. *pinium* Ellis & Ever. (Ontario: Ottawa, 23 Jul 1897), with ascospores 20-35 x 2-3 μ m, (1-)3-(5-)septate. It was found also on N.A.F. 186 of *Sphaeria barbirostris*. The fungus under another unpublished name differs in longer and narrower ascospores and is described below.

Acanthostigma filisporum Ellis & Everh. ex Barr, sp. nov. Fig. 2x,y

Ascomata superficialia globosa vel collabentia (80-) 120-200 μ m diametro, setae fuligineae 45-90 μ m longae, ad apices acutae. Asci unitunicati oblongi 33-52 x 7.5-9 μ m. Ascospores (33-)42-48 x 1.5-2 μ m hyalinae elongatae triseptatae fasciculatae. Holotypus in cortice interiore Mali, "Newfield, New Jersey, 8 Dec 1889" a J. B. Ellis lecti in Herb. NY depositus.

Ascomata separate to gregarious, superficial, black, globose becoming somewhat collabent, (80-)120-200 μ m diam; setae numerous, blackish brown, septate, tapered to pointed apex, 45-90 μ m long; peridium narrow, ca. 22 μ m wide. Asci 33-52 x 7.5-9 μ m, oblong, unitunicate; apical ring not seen. Ascospores (33-)42-48 x 1.5-2 μ m, hyaline, elongate, 3-septate, contents minutely guttulate, in a fascicle in the ascus.

Additional collection: Massachusetts: *Fraxinus*, Franklin Co., Conway, Baptist Hill, 16 Dec 1979, M. E. Barr 6648 (NY).

Three North American collections described under two specific epithets are closely related and are grouped together here under the earlier epithet. They strongly resemble *Cresporhaphis wienkampii* (Lahm ex Hazslin) Aguirre, the type of that genus (Aguirre-Hudson 1991), although the connection to an epiphloedal thallus is obscure and no conidiomata were observed. The collections have ascomata similar to those of *C. wienkampii*, the hymenial gel is light bluish in iodine, but asci are shorter and narrower, and the ascospore range is greater. This taxon occurs on wood or periderm of *Rhus*, *Populus*, and *Celtis* in North America, whereas *C. wienkampii* was described from *Salix*, *Robinia*, and *Quercus* in Europe.

Cresporhaphis rhoina (Ellis & Everh.) Barr, comb. nov.

Fig. 2r-t

Sphaeria (*Winteria*) *rhoina* Ellis & Everh. J. Mycol. 1: 92. 1885.

Winteria rhoina (Ellis & Everh.) Berlese & Voglino in Sacc. Syll. Fung. Addit. 1-4: 181. 1886.

Winterella rhoina (Ellis & Everh.) Berlese & Voglino in Sacc. Syll. Fung. 9: 910. 1891.

Leptospora rhoina (Ellis & Everh.) v. Höhnel, Sitzungsber. Kaiserl. Akad. Wiss. Math.-Naturwiss. Kl. Abt. 1, 118: 1211. 1909.

Sphaeria (*Coelosphaeria*) *fusariospora* Ellis & Everh. ined. N.A.F. 1957. 1888.

Coelosphaeria fusariospora Ellis & Everh. J. Mycol. 4: 65. 1888.

Leptospora (?) *fusariospora* (Ellis & Everh.) v. Höhnel, Ann. Mycol. 16: 105. 1918.

Ascomata erumpent from decorticated wood or periderm, separate to gregarious, dull or shining black, globose then collabent, 200-280 μm wide, 120-180 μm high; apex papillate, ostiole periphysate; peridium dark brown, 10-30 μm wide, cells isodiametric or compressed rows, hyaline internally. Asci 40-66 x 7-9 μm , oblong, short stipitate, unitunicate; apical ring shallow, nonamyloid. Paraphyses narrow, guttulate, in gel matrix, light bluish in iodine. Ascospores 20-30(-45) x (1-)2.5-3.5 μm , hyaline, elongate fusoid to falcate, one celled or delicately 1-septate; wall smooth; guttulate; in two or three overlapping fascicles in the ascus.

On wood and periderm of living or dead trees. Kansas: *Populus*, sine loc. et dat., G. Egeling, comm. J. W. Eckfeldt, holotype of *Sphaeria fusariospora*; N.A.F. 1957, isotype; *Celtis*, Rockport, Nov 1893, E. Bartholomew, N.A.F. 3016 (NY). New Jersey: *Rhus copallina* L., Newfield, May 1885, J. B. Ellis, holotype of *Sphaeria rhoina*; N.A.F. 1669, isotype (NY).

Franklin Co., Conway, Baptist Hill, 16 Dec 1979, M. E. Barr 6648 (NY).

LOCULOASCOMYCETES

Arthoniales Arthoniaceae

Arthonia xylogena (Ellis & Everh.) Barr, comb. nov.
Fig. 3a,b

Dimerosporium xylogenum Ellis & Everh. J. Mycol. 2:
102. 1886.

Ascomata superficial, scattered, rounded in face view, pulvinate in side view, 150-200 μm wide, up to 150 μm high; peridium externally 10-12 μm wide, brown pseudo-parenchymatous cells, surface irregular by protruding clumps of cells, internally and basally yellowish, more compressed rows of cells. Asci in one layer, separated by compressed rows of paraphysoids merging above as pseudo-parenchymatous rows of cells, 27.5-38.5 x 20-24 μm , obovoid to subglobose, bitunicate. Ascospores 15.5-17.5 x 6-7 μm , yellowish hyaline, ellipsoid or somewhat obovoid, 1-septate; wall thin, smooth; guttulate; crowded in the ascus.

On decaying *Salix* wood. Louisiana: sine loc., 21 Feb 1886, A. B. Langlois 374, probable holotype (NY).

The combination into *Arthonia* is made with some diffidence, for this small fungus showed no thallus in the holotype specimen on old wood. Three similar packets bear the Herbarium name *Dimerosporium populi* Ellis & Everh. (nom. nud. in Kelsey, J. Mycol. 5: 81. 1889, from periderm of *Populus tremuloides*, Montana: Helena, 25 Mar 1889, F. D. Kelsey 213, NY). The rounded ascomata arise from a thin thallus; ascus and ascospore shapes are similar to those of *A. xylogena*; both are a little larger, 27.5-40 x 19-24.5 μm and 13-19 x 5-5.10 μm , respectively.

Phillipsiellaceae

Barr (1987a) proposed the combination *Johansonia cupulata* (Ellis & G. Martin) Barr for *Venturia cupulata* Ellis & G. Martin (Amer. Nat. 18: 69. 1884), a species having ascospores 9-13 x 3-4.5 μm . This fungus was collected on leaves of *Quercus laurifolia* Michx. (Florida: Green Cove Springs, 26 Mar 1883, G. Martin, N.A.F. 1298, isotype, NY). An unpublished name, *Venturia psilotricha* Ellis & G. Martin on *Gelsemium sempervirens* (L.) W.T. Aiton (Florida: Green Cove Springs, Feb 1884, G. Martin, NY) is scarcely different. Another taxon differs in larger ascospores and the following combination is proposed.

Johansonia formosa (Ellis & G. Martin) Barr, comb. nov.

Venturia formosa Ellis & G. Martin, N. Amer.
Fig. 3c

Pyrenomyc. 139. 1892.

Ascomata superficial, scattered, rounded in face view, discoid in side view, 180-280 μm wide, 80-100 μm high, seated on and surrounded by delicate weft of light brown hyphae, hyphae bearing scattered brown, septate setae, 160-300 μm long; peridium at base pallid brown, at sides dark olivaceous, few rows of pseudoparenchymatous cells. Asci scattered in paraphysoids that form pseudoepithecium of digitate tips, asci 33-60 x 14.5-28 μm , short clavate, thick walled, bitunicate. Ascospores 21-25.5 x 7.5-9 μm , yellowish, obovoid, 1-septate; wall smooth; granular; crowded in the ascus.

On leaves of *Olea americana* = *Osmanthus americana* (L.) Benth. & J.D. Hook. Florida: Green Cove Springs, 15 Apr 1885, G. Martin, holotype (NY).

The same host plant bears *Plochmopeltis ellisii* v. Arx (von Arx 1959), a nonsetose species whose ascospores are smaller, 13-16 x 4-5 μm .

Phillipsiella ellisii Barr, nom. nov. Fig. 3d,e

Patellaria cyanea Ellis & G. Martin, J. Mycol. 1: 97. 1885, non Cooke 1880.

Patellea cyanea (Ellis & G. Martin) Sacc. Syll. Fung. 8: 784. 1889.

Ascomata superficial, scattered, hypophyllous, rounded in face view, discoid in side view, 275-385 μm wide, 65-110 μm high, seated on and surrounded by delicate weft of bluish hyphae, lacking setae; peridium at base light blue, at sides dark blue, interwoven hyphae in matrix. Asci parallel in paraphysoids that form a pseudoepithecium of rounded, dark blue, encrusted tips, asci 18-25 x 7.5-9 μm , short clavate, bitunicate. Ascospores 6-9 x 2-3 μm , hyaline, oblong to somewhat obovoid, 1-septate; wall smooth; homogeneous, crowded in the ascus.

On leaves of *Quercus (laurifolia.)* Florida: Green Cove Springs, Feb 1885, G. Martin, holotype; two isotypes ex Herb. Farlow; N.A.F. 1781 (NY).

The striking blue pigmentation of hyphae, peridium and pseudoepithecium sets this species apart from *P. atra* Cooke, which it otherwise resembles quite closely. On the N.A.F. collections the host was named as *Ilex coriacea*, but Cash (1954) corrected its identification and the holotype and isotype collections were correctly identified as *Quercus*.

Dothideales

Pseudosphaeriaceae

Monascostroma eckfeldtii (Ellis) Barr, comb. nov. Fig. 3f,g

Sphaeria eckfeldtii Ellis, Bull. Torrey Bot. Club 8: 91. 1881.

Melanomma eckfeldtii (Ellis) Sacc. Syll. Fung. 2: 105. 1883.

Amphisphaeria eckfeldtii (Ellis) Cooke, *Grevillea* 16: 89. 1888.

Zignoella eckfeldtii (Ellis) Sacc. in Ellis, *Cat. Pl. New Jersey* 519. 1889.

Melanopsamma eckfeldtii (Ellis) Ellis & Everh. *N. Amer. Pyrenomyc.* 178. 1892.

Ascomata erumpent from wood fibers, gregarious, globose, 135-190 μm diam; apex rounded; peridium brown, ca. 15 μm wide, pseudoparenchymatous cells; surface bearing short, blunt, septate, brown hyphal appendages, 26-40 μm long, hyphae into substrate. Asci 48-65 x 23-32 μm , oblong, bitunicate, few. Cellular tissues present between and above asci. Ascospores 29-35 x 7.5-9 μm , yellowish, becoming dull brownish in age, fusoid oblong, 1-septate, not constricted; wall verruculose in age, no gel coating seen; guttulate, finally several globules; overlapping bi- to triseriate or crowded in the ascus.

In bleached wood of *Castanea*. Pennsylvania: near Philadelphia, Jan 1880, J. Eckfeldt, holotype; Ellis N.A.F. 593, isotype (NY).

This species poses problems in classification, evident by the disparate genera to which it has been assigned in the past. The centrum is pseudosphaeriaceous and asci and ascospores are quite in accord with the smaller ones of *M. innumerosa* (Desm.) v. Höhnelt, even though the substrate is unusual for members of the genus.

Chaetothyriales

Chaetothyriaceae

Ceramothyrium martinii (Ellis & Sacc.) Barr, comb. nov.

Fig. 3h,i

Saccardia martini Ellis & Sacc. *Michelia* 2: 373. 1881.

Phaeosaccardinula martinii (Ellis & Sacc.) v. Höhnelt, *Sitzungsber. Kaiserl. Akad. Wiss. Math.-Naturwiss. Kl. Abt. 1*, 124: 57. 1915.

Ascomata scattered, superficial, hypophyllous, on and beneath thin weft of brownish branching hyphae, collabent, 104-250 μm wide, 80-130 μm high; apex minutely papillate; peridium up to 12 μm wide, rows of small pseudoparenchymatous cells, surface covered by hyphal weft. Asci 37-60 x 15-20 μm , oblong, bitunicate, in gel matrix beneath short periphysoids. Ascospores 20-27(-30) x 7-9 μm , hyaline, oblong, ends obtuse or one end mucronate, 5-7-(9-)septate, longitudinal septum in one or two cells at times; wall thick, smooth; granular or guttulate; overlapping and crowded in the ascus.

Holotype not seen, presumably at PAD. Possible syntypes on leaves of *Quercus laurifolia*, Florida: Crescent City, Winter 1880, G. Martin (three packets), NY; Green Cove Springs, 1881, G. Martin, ex Farlow Herb., NY. Additional collections on *Quercus* include sine loc. et dat., G. Martin; N.A.F. 1289a; on *Magnolia glauca* = *M.*

virginiana L., N.A.F. 1289b; as var. *major* ined. N.A.F. 1289c (NY). The species was illustrated on *Quercus* (Ellis and Everhart 1892).

Because of the thin peridium, delicate hyphal weft and hyaline ascospores, this species appears better assigned to *Ceramothyrium* than to *Phaeosaccardinula*, even though some ascospores may show one or two longitudinal septa. The ascospores are mostly obtusely ended, similar to those of *C. carniolicum* (Rehm) Petrak rather than bearing the mucronate tips described for *C. linnaeae* (Dearness) Hughes (Constantinescu et al. 1989). No *Stanhughesia* anamorph has been observed for *C. martinii*.

Chaetothyrium berenice (Berk. & Curtis) Barr, comb. nov.

Fig. j-l

Sphaeria berenice Berk. & Curtis, *Grevillea* 4: 108. 1876.

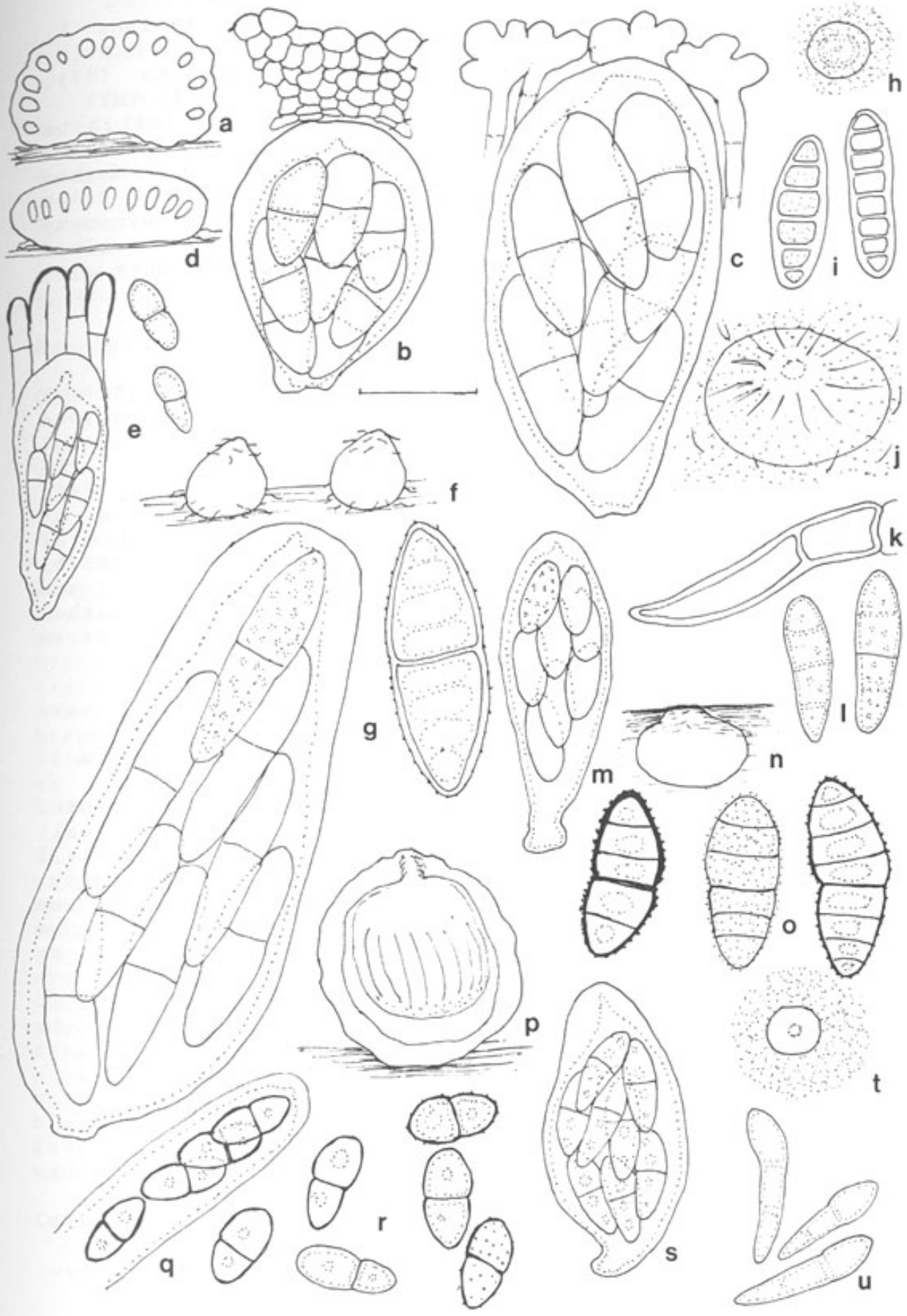
Acanthostigma berenice (Berk. & Curtis) Sacc. *Syll. Fung.* 2: 210. 1883.

Venturia saccardioides Ellis & G. Martin, *Amer. Nat.* 18: 69. 1884.

Acanthostigma saccardioides (Ellis & G. Martin) Sacc. *Syll. Fung.* 9: 854. 1891.

Ascomata scattered, hypophyllous, superficial on and in thin weft of brown hyphae, collabent, 100-150 μm wide, 80-100 μm high; apex minutely papillate; peridium narrow, light brown, pseudoparenchymatous cells; surface covered by hyphal weft bearing brown, usually septate setae, 55-100 x 5.5-9 μm . Asci 37.5-55 x 9-17.5 μm , oblong or saccate, in gel matrix beneath delicate periphysoids. Ascospores 11-20(-22) x 2.5-3.5(-5.5) μm , hyaline to yellowish, oblong to obovoid, ends obtuse, rarely mucronate, (1-)3-septate; wall thin, smooth; guttulate;

Fig. 3. a,b. *Arthonia xylogena*, a, outline of ascoma showing position of asci, b, ascus, ascospores and upper cellular layer. c. *Johansonia formosa*, ascus, ascospores and tips of paraphysoids. d,e. *Phillipsiella ellisii*, d, outline of ascoma showing position of asci, e, ascus, ascospores and tips of paraphysoids. f,g. *Monascostroma eckfeldtii*, f, habit of ascomata, g, ascus and ascospores. h,i. *Ceramothyrium martinii*, h, habit of ascoma, i, ascospores. j-l. *Chaetothyrium berenice*, j, outline of ascoma beneath setose hyphal weft, k, seta, l, ascospores. m. *Guignardia apocyni*, ascus and ascospores. n,o. *Chaetomastia scelestia*, n, habit of ascoma, o, ascospores. p-r. *Immotthia atrograna*, p, outline of ascoma showing basally wide peridium, q, ascus apex and ascospores (from *A. confertissima*), r, ascospores (left from *A. deformata*, right from *A. pilosella*). s. *Chaetothyria applanata*, ascus and ascospores. t,u. *Micropeltis subcyanea*, t, habit of ascoma, u, ascospores. Standard line = 150 μm for ascomata, 15 μm for asci, ascospores, seta. Habit sketches not to scale.



overlapping and crowded in the ascus.

On leaves of *Magnolia glauca* = *M. virginiana* L. Florida: Green Cove Springs, Mar 1883, G. Martin, holotype of *Venturia saccardioides*, two packets (NY). Also on holotype of *Venturia applanata*, 2 Mar 1883 (NY).

As in the material of *Ceramothyrium martinii*, the hyphae are lightly pigmented, contain one or two globules per cell, and are branched and anastomose. The darker setae develop on the hyphae and from peridium cells. Ellis and Everhart (1892) reduced *V. saccardioides* to synonymy under the Berkeley and Curtis name. That was described from *Magnolia macrophylla* Michx. Ellis and Everhart also noted specimens from Louisiana on *M. grandiflora* L.

Pleosporales

Botryosphaeriaceae

Guignardia Viala & Ravaz and *G. bidwellii* (Ellis) Viala & Ravaz have been proposed to be conserved (Hawksworth and David 1989) and the Committee for Fungi and Lichens (Gams 1992) has recommended acceptance. The genus was introduced to replace *Laestadia* Auersw. 1869, non Kunth ex Lessing 1832, and would thus be typified by *L. alnea* (Fr.) Auersw., which in turn is a species of *Plagiostoma* (Barr 1978). Bissett (1986) and Barr (1987b) utilized *Discochora* v. Höhnelt for *Guignardia bidwellii* and related species but because of the numerous plant pathogens that are involved, the proposal to conserve *Guignardia* in this sense has much merit.

Guignardia apocyni (Ellis & Everh.) Barr, comb. nov.
Fig. 3m

Laestadia apocyni Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 42: 230. 1890.

Ascomata immersed, separate or gregarious, sphaeroid, 150-200 μm wide, 120-165 μm high; apex plane, small ostiole; peridium dark brown, narrow. Asci 40-52 x 9-14.5 μm , oblong, bitunicate. Pseudoparaphyses scanty. Ascospores 9.5-14.5 x 5-6.5 μm , hyaline, oblong to obovoid, usually tapered to base, inquilateral, one celled; wall thin, smooth; guttulate; overlapping bi- to triseriate in the ascus.

On stems of *Apocynum*. Ontario: London, Jun 1890, J. Dearness 1734, holotype (NY); isotype (Dearness Herb. in DAOM); N.A.F. 2540 (NY).

Leptosphaeriaceae

Didymolepta anomala (Ellis & Everh.) Barr, comb. nov.

Leptosphaeria anomala Ellis & Everh. J. Mycol. 3: 117. 1887.

Didymosphaeria anomala (Ellis & Everh.) Sacc. Syll. Fung. 9: 730. 1891.

Microthelia anomala (Ellis & Everh.) Kuntze, Rev. Gen. Pl. 3: 498. 1898.

Wettsteinina anomala (Ellis & Everh.) Barr, Contrib. Univ. Michigan Herb. 9: 548. 1972.

Didymella anomala (Ellis & Everh.) Shoemaker & Babcock, Canad. J. Bot. 65: 387. 1987.

The separation of species in *Didymolepta* from those in *Didymella* (Phaeosphaeriaceae) was justified by Barr (1987b, 1992a). As Ellis and Everhart noted when they described *L. anomala*, this species is leptosphaeroid in shape and consistency of ascomata; it fits well with others in *Didymolepta*. It was redescribed and illustrated by Shoemaker and Babcock (1987). The holotype specimen is on dead herbaceous stems (Utah Territory, Jun 1887, S. J. Harkness, NY).

Dacampiaceae

Chaetomastia scelestia (Cooke & Ellis) Barr, comb. nov.

Fig. 3n,o

Lophiostoma scelestum Cooke & Ellis, Grevillea 6: 12. 1877, for *Lophiostoma microstoma* Cooke & Ellis, Grevillea 4: 179. 1872, non Niessl.

Navicella microstoma Kuntze, Rev. Gen. Pl. 3: 500. 1898.

Ascomata immersed, separate, ellipsoid, up to 1000 μm long, 550 μm wide and high; apex rounded with elongate, low, compressed papilla; peridium dark reddish brown, up to 50 μm wide, rows of small pseudoparenchymatous cells, hyphae in wood in upper regions. Asci 100-130 x 16-18 μm , clavate, bitunicate. Pseudoparaphyses narrowly cellular, numerous. Ascospores 21-26(-30) x 7-9 μm , dark reddish brown, oblong to obovoid, ends obtuse, often inequilateral, (3-)5-7-septate, slightly constricted at median or submedian, first-formed septum; wall dark, heavily verruculose; one globule per cell; biseriate in the ascus.

On old wood of *Acer*. New Jersey: Newfield, N.A.F. 96, F. Nova-Caes. 92, Spring 1876; fragment "one of the original slice", isotype; Feb 1880; *Viburnum*, no data; another packet, no data; Ohio: *Acer saccharum* Marsh., Morgan 1188 (NY).

Specimens on *Quercus* and *Malus* wood under this name are instead *Platystomum obtectum* Peck (Melanommatales, Barr 1990a). Ellis and Everhart (1892) added *Sphaeria pachyascus* Cooke & Ellis (Grevillea 4: 179. 1872) as a synonym, but the specimen F. Nova-Caes. 93 of *Sphaeria pachyascus* on *Quercus* (New Jersey: Newfield, 31 Jul 1876) while overmature is more like *P. obtectum*. The reddish brown, verruculose ascospores and the small-celled peridium of *C. scelestia* are not lophiostomataceous, even though the apex is somewhat elongate and compressed.

Immotthia atrograna (Cooke & Ellis) Barr, comb. nov.

Fig. 3p-r

Spnaeria atrograna Cooke & Ellis, Grevillea 8: 15. 1879.

- Amphisphaeria atrograna* (Cooke & Ellis) Sacc. Syll. Fung. 1: 722. 1882.
Gibbera atrograna (Cooke & Ellis) Sivanesan, Trans. Brit. Mycol. Soc. 65: 396. 1975.
Amphisphaeria deformata Ellis & Langlois, J. Mycol. 4: 123. 1888.
Amphisphaeria pilosella Ellis & Everh. Proc. Acad. Nat. Sci. Philadeophia 47: 418. 1895.
Gibbera pilosella (Ellis & Everh.) Sivanesan, Trans. Brit. Mycol. Soc. 65: 395. 1975.
Amphisphaeria confertissima Ellis & Everh. Proc. Acad. Nat. Sci. Philadelphia 47: 418. 1895.
Gibbera confertissima (Ellis & Everh.) Sivanesan, Trans. Brit. Mycol. Soc. 65: 395. 1975.

Ascomata separate to densely gregarious, erumpent superficial from blackened stromatic crust, globose or nearly so, (130-)180-385 μm wide; apex rounded or short papillate, pore area pallid in surface view, ostiole periphysate; peridium soft, reddish brown, small pseudo-parenchymatous cells, 20-40 μm wide at sides, base widened by rows of hyaline cells, 50-80 μm , occasionally base columnar; surface roughened with protruding cells. Asci 50-90 x 5-8(-10) μm , cylindrical or oblong, bitunicate, (4-6-)8-spored. Pseudoparaphyses narrowly cellular. Ascospores 9-14(-16) x 4.5-6(-7) μm , clear brown or reddish brown, wall and septum darkened, obovoid, lower cell often shorter and narrower than upper, 1-septate, constricted; wall smooth or sparsely verruculose; one globule per cell; uniseriate or partially biseriate in the ascus.

In blackened crustose stromatic base on wood. The type specimen of *Sphaeria atrograna* in K, described from *Liquidambar* (New Jersey: Malaga, J. B. Ellis, Cooke 3179) was investigated by Sivanesan (1975); two isotypes are at NY, dated Sep 1878 and 14 Sep 1878. Other matching collections include the following. Louisiana: old cedar post, Pointe à la Hache, 21 Mar 1886, A. B. Langlois, Fl. Ludov. 1459, holotype of *Amphisphaeria deformata*; Massachusetts: *Tilia*, Franklin Co., Conway, Baptist Hill, 5 Nov 1978, M. E. Barr 6523; Ohio: wood, summer 1894, Morgan 1103, holotype of *A. pilosella*; wood, Morgan 1028, holotype of *A. confertissima*; Morgan 1039 (NY).

Despite minor variations, the specimens noted above are not separable into four species and are merged under the earliest name. Morgan 1039 bears pycnidial conidiomata identical to the ascomata, containing light reddish brown, one celled conidia, 7-8 x 3.5-4 μm . A collection from North Carolina (Macon Co., Ellicott Rock Trail, 14 Oct 1990, Y. Doi, A. Y. Rossman and G. J. Samuels, BPI) is close to *I. atrograna*, but is slightly smaller and the pallid ascospores measure 6-8(-9) x 2-3 μm . Pycnidial conidiomata are interspersed with ascomata; conidia are hyaline, one celled, 4-5 x 1 μm .

Coleroa pusiola (Karsten) Sivanesan may well be

another species in the genus, although the illustration of *ascomata* shows a thinner peridium (Sivanesan 1975). Ascospores are smaller than in *I. atrograna*.

Micropeltidaceae

Two species described under *Venturia* were excluded from that genus and were tentatively referred to *Chaetothyria* (Barr 1968).

Chaetothyria applanata (Ellis & G. Martin) Barr, comb. nov. Fig. 3s

Venturia applanata Ellis & G. Martin, Amer. Nat. 18: 69. 1884.

Ascomata superficial, hypophyllous, scattered, dimidiate scutate, up to 200 μm wide, apex with rounded pore; peridium blackish brown above, hyaline at base, small pseudoparenchymatous cells, in surface view approaching *textura epidermoidea*, extending on substrate as thin radiating pellicle, bearing scattered, dark brown, septate setae, 33-100 x 3.5-5.5 μm . Asci 33-38.5 x 11-14.5 μm , oblong saccate, bitunicate. Pseudoparaphyses narrowly cellular. Ascospores 10-13.5 x 3.5-5 μm , hyaline, obovoid, ends obtuse, 1-septate, not constricted; wall smooth; two globules per cell; crowded in the ascus.

On living leaves of *Magnolia glauca* = *M. virginiana*. Florida: Green Cove Springs, 12 Mar 1883, G. Martin, holotype (NY).

This fungus is similar to *C. asterinoides* (Ellis & G. Martin) Barr (Mycotaxon 29: 504. 1987; *Venturia asterinoides* Ellis & G. Martin, N. Amer. Pyrenomyc. 138. 18792). The latter was collected at the same time and locality on leaves of *Quercus laurifolia*. It has larger asci (38.5-46 x 13-16.5 μm) and ascospores (15.5-17.5 x 4.5-6 μm), in addition to the different host tree.

Micropeltis subcyanea (Ellis & G. Martin) Barr, comb. nov. Fig. 3t,u

Asterina subcyanea Ellis & G. Martin, Amer. Nat. 18: 1148. 1884.

Asterella subcyanea (Ellis & G. Martin) Sacc. Syll. Fung. 9: 395. 1891.

Microthyrium subcyaneum (Ellis & G. Martin) Theissen, Ann. Mycol. 10: 191. 1912.

Dictyothyrium subcyaneum (Ellis & G. Martin) Theissen, Oesterr. Bot. Z. 62: 278. 1912.

Ascomata superficial, hypophyllous, dimidiate scutate, 190-220 μm wide, apex with wide rounded pore, 65-80 μm ; peridium bluish brown above, hyaline at base, approaching *textura epidermoidea* in surface view, extending as thin bluish pellicle of delicate hyphae. Asci 50-60 x 12-14 μm , oblong, bitunicate. Pseudoparaphyses narrowly cellular. Ascospores 15-21 x (2.5-)3.5-4.5 μm , hyaline, narrowly obovoid, tapering toward base, ends obtuse, 2-septate, not constricted; wall

(NY).

This fungus, closely related to species of *Chaetothyria*, has more elongate, two-septate ascospores, lacks setae, and appears to be best assigned to *Micropeltis*.

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