

CONTRIBUTION TO THE FUNGUS FLORA OF  
NORTHEASTERN NORTH AMERICA. II<sup>1</sup>HOWARD E. BIGELOW AND MARGARET E. BARR<sup>2</sup>

Field work in Massachusetts during 1960 and 1961, and studies of specimens collected in previous years throughout the northeast, have revealed some agarics and pyrenomycetes which seem worthy of description. The fruiting of several other fungi is reported as well in order to extend knowledge of their distribution. Two new combinations are proposed: *Clitocybe morgani* (Peck) Bigelow and *Phaeostoma sphaerophila* (Peck) Barr.

We wish to express our appreciation to Stanley J. Smith, Senior Curator of Botany, New York State Herbarium, and to Dr. Clark Rogerson, Curator of Fungi, New York Botanical Garden, for the opportunity of studying the type material of several of the species discussed. Dr. Alexander H. Smith, Director, University of Michigan Herbarium and Dr. Kenneth A. Harrison, Research Station, Kentville, Nova Scotia have helped in loan of specimens. We gratefully acknowledge the financial support of the Faculty Research Council, University of Massachusetts. Field work in Massachusetts during 1958, 1959, and 1960 would not have been possible without the assistance of the Council. Our research in the fall of 1961 has been supported by National Science Foundation Grant G 19534.

The colors cited in the descriptions of agarics are from Ridgway, R. 1912. Color standards and color nomenclature. Washington, D. C.

## BASIDIOMYCETES

*Amanita parcivolvata* (Peck) Gilbert, in Bresadola, Icon. Myc. 27, suppl. 1: 226. 1941.

*Amanitopsis parcivolvata* Peck, Bull. Torrey Club 27: 610. 1900.

Pileus 5-8.5 cm. broad, convex to plane, margin striate, disc shallowly depressed in age, surface with yellow ("maize yellow", "buff yellow") coating, powdery or somewhat floccose, glabrescent near disc,

<sup>1</sup>I. Rhodora 62: 186-198. 1960. Contribution from the Department of Botany, University of Massachusetts, Amherst.

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margin appendiculate with yellow-floccose patches at first, soon appressed, ground color orange-yellow ("light orange yellow") or darker; flesh thin, firm, concolorous with pileus or paler, odor none, taste not known.

Lamellae free, distant from stipe, close, moderately broad (up to 1 cm.), light yellow ("massicot yellow", "straw yellow"), edges dentate to crenate from particles of partial veil.

Stipe 8-15 cm. long, 5-10 mm. in diameter at apex, 1-2.5 cm. at base, base clavate to subbulbous, fragments of universal veil forming orange-yellow floccose patches on base of stipe, whitish beneath, apex and median portion of stipe concolorous with lamellae, fibrillose or furfuraceous from remains of partial veil, yellow, powdery to flocculent, central, stuffed or hollow.

Spores 10-13 x 6-8  $\mu$ , elliptical, smooth, not amyloid, white in mass; basidia 32-46 x 8.5-13  $\mu$ , 4-spored; cystidia: cheilocystidia and pleurocystidia present but scattered, basidioid to saccate, 15-21  $\mu$  in diameter, smooth; pileus tissue: surface often with cells from veil, broadly fusoid to cylindrical or saccate, 7.5-50  $\mu$  in diameter, walls smooth or slightly roughened, thin or slightly thickened, cuticle thin, hyphae cylindrical, 3-5  $\mu$  in diameter, trama thin, hyphae cylindrical to inflated, 1.5-11  $\mu$  in diameter, clamp connections present, scattered laticiferous hyphae present; gill trama bilateral, hyphae cylindrical to inflated, 5.5-15.5  $\mu$  in diameter.

Solitary, on soil or humus in open hardwoods of beech, birch, and maple.

Material examined: *Bigelow 9232*, D.A.R. State Forest, Goshen, Massachusetts, Sept. 1, 1960; *9778*, Conway, Sept. 5, 1961; *9956*, Conway, Oct. 9, 1961.

*A. parcvolvata* appears to be typical of a more southern agaric flora, but does appear in the northern states in small quantity upon occasion. Hesler (1960) has published a photograph of the species.

Pilát (1954) lists *A. parcvolvata* as a synonym of *Amanita muscaria*. The two species are quite distinct by the nature of the veils. In *A. parcvolvata* both veils are powdery and very fragile, never forming warts or a persistent, membranous annulus as in *A. muscaria*.

*Cantharellus minor* Peck, N. Y. State Cab. Rep. 23: 122. 1872. Plate 1268.

Pileus 5-30 mm. broad, convex at first, becoming plane with a narrowly decurved margin and the disc slightly depressed, finally infundibuliform with the margin arched and undulate, even, glabrous, yellow-orange to orange when moist ("orange"), fading to pale orange-buff or pale orange; flesh concolorous with pileus, thin, no odor or taste when fresh, at times developing fragrant odor like *Cantharellus cibarius* after drying.

Lamellae decurrent (unevenly), distant, very narrow, forked, not



intervenose, edges even, somewhat thickened, straight, concolorous with the moist pileus ("orange").

Stipe 1.5-2.5(-5) cm. long, 3-7(-9) mm. thick at the apex, base attenuated, central, hollow, glabrous, compressed and furrowed at



PLATE 1268. *Cantharellus minor* Peck  $\times 1$ .

times, often curved and flexuous, concolorous with moist pileus or paler ("deep chrome"), not fading, base slightly more yellowish where embedded in humus.

Spores 6-11.5  $\times$  4-6  $\mu$ , usually broadly elliptical or elliptical to oblong, at times bent on apicular side, smooth, not amyloid, light yellowish-orange in mass; basidia (34-)39-65  $\times$  4.5-8.5  $\mu$ , 4-spored; cystidia not differentiated; pileus tissue: light yellow-orange or yellow in KOH, pigment dilute in cell contents, cuticle thin and indistinct, hyphae mostly cylindrical, 2.5-5.5  $\mu$  in diameter, tramal hyphae cylindrical to inflated, 3-12(-16)  $\mu$  in diameter, clamp connections present; gill trama interwoven, hyphae mostly cylindrical, 1.5-4.5  $\mu$  in diameter.

Scattered to gregarious, on humus, in open hardwoods, particularly of beech and maple. July to August.

Material examined: *Bigelow 3755*, Madawaska, Maine, Aug. 2, 1956; *7015*, Amherst, Massachusetts, July 23, 1958; *7080*, Amherst, July 24, 1958; *7229*, Amherst, July 30, 1958; *7549*, Mt. Tom State Reservation, Holyoke, Aug. 19, 1958; *8888*, Williamsburg, July 14, 1960; *9052*, Conway State Forest, Conway, Aug. 9, 1960; *9524*, Amherst, July 14, 1961; *9542*, Amherst, July 18, 1961; *9587*, Conway State Forest, Conway, July 23, 1961; *9622*, Pittsfield State Forest, Pittsfield, July 26,



1961; 9632, Conway State Forest, Conway, July 27, 1961; 9661, New Salem, Aug. 2, 1961; *C. H. Peck*, Greenbush, New York, July (type of *C. minor*).

The position of this fungus is difficult to determine. It resembles *C. cinnabarinus* Schw. in stature, but *C. cibarius* Fr. in color. On the other hand, there is a waxy quality which first led me to try and determine it in *Hygrophorus*. Possibly, *C. minor* occupies an intermediate position between the two genera, but certainly the colored spore deposit indicates a closer relationship to *Cantharellus*.

Of uncertain relationship is *Cantharellus Friesii* Quélet which occurs in Europe. According to the literature this species seems very close to *C. minor*.

*Clitocybe morgani* (Peck) Bigelow, *comb. nov.*

*Cantharellus morgani* Peck, Bot. Gaz. 7: 43. 1882.

*Cantharellus olidus* Quélet, Ench. Fung. p. 138. 1886.

*Cantharellus rosellus* Peck, N. Y. State Mus. Rep. 42: 24. 1889.

*Clitocybe olida* (Quélet) Konrad, Bull. Soc. Myc. Fr. 45: 60. 1929.

*Hygrophoropsis olida* (Quélet) Métrod, Rev. de Myc. 14, Suppl., p. 15. 1949.

Material examined: *Bigelow* 3432, near Guerette, Aroostook Co., Maine, July 23, 1956; 3569, July 26, 1956; 3594, 3626, July 29, 1956; 3704, Aug. 1, 1956; 4442, Aug. 28, 1956; *J. Dearness*, 2696, Kilworth woods, near Toronto, Ontario, Sept. 14, 1928; *K. Harrison* 191, Heighbury, Nova Scotia, Oct. 10, 1932; 2466, Glenmont, Sept. 28, 1953; 3984, Waternish, Guysborough Co., Sept. 5, 1957; 3985, Cape Split, Kings Co., Sept. 1, 1958; 4630, Sept. 1954; 4631, Aspen, Antigonish Co., Sept. 2, 1956; 4641, Glenmont, Kings Co., Oct. 11, 1952; 4642, Casey's Corner, Kings Co., Oct. 12, 1952; 4643, Ayleford Lake, Kings Co., Oct. 10, 1952; *A. P. Morgan*, Vermont (type of *Cantharellus morgani*); *C. H. Peck*, North Elba, New York, September (type of *Cantharellus rosellus*).

Formerly, this agaric was treated by most investigators under the name *Clitocybe olida*. A complete description based on specimens from Oregon and Washington has been published by Smith (1944). However, recent study of type material in the Peck Herbarium at Albany reveals that *Cantharellus morgani* is identical, necessitating a new combination in *Clitocybe*. The dried carpophores of the type agree in all observable details with specimens determined as *Clitocybe olida* from several localities in North America. Peck's description also compares favorably in most respects with that of *Cantharellus olidus* Quélet. Peck did not mention any odor for *C. morgani*, but this discrepancy does not seem serious in view of the collaborating evidence of other field characters and microscopic features.

*Clitocybe morgani* appears confined to a coniferous habitat, particularly spruce and fir in the northeastern region. The distribution of



the species in North America is broader than previously known though fruiting seems abundant only in certain restricted localities. Besides the collections cited above I have had also the opportunity to examine material deposited at the University of Michigan Herbarium from Colorado, Idaho, Michigan, Oregon, and Washington.



PLATE 1269. *Laccaria trullisata* (Ellis) Peck.  $\times 1/2$ .

***Laccaria trullisata*** (Ellis) Peck, N. Y. State Mus. Bull. 157: 90. 1912. Plate 1269.

*Agaricus trullisatus* Ellis, Bull. Torrey Club 5: 45. 1874.

*Clitocybe trullisata* (Ellis) Saccardo, Syll. Fung. 5: 195. 1887.

Pileus 2.5-6 cm. broad, convex to plane with an incurved margin, even, disc depressed at times, surface dry, matted-fibrillose to scaly, areolate and cracked at times, color often irregular, streaked and mottled, with various shades of brown and buff ("vinaceous buff", "avellaneous", "fawn", "army brown", "wood brown", "russet", "mikado brown", "tawny", "cinnamon brown", "cinnamon"); flesh rather thick, soft, concolorous with pileus or lamellae, no odor or taste.

Lamellae adnate to decurrent (unevenly), subdistant to distant, broad (up to 12 mm.), not forked or intervenose, color purplish when young ("vinaceous purple", "slate purple", "deep slate purple", "dark lavender"), rufous in age (nearest "army brown", "sorghum brown"), pruinose at times, edges even, thick, brittle.

Stipe 2-10 cm. long, 5-20 mm. thick at apex, tapering upward from a long clavate or clavate-bulbous base, deeply embedded in sand, often



compressed, solid-stuffed, central, surface fibrillose-streaked above, reddish brown ("tawny", "russet", "mars brown", "cinnamon brown"), base purplish and concolorous with young lamellae, often with purplish mycelium.

Spores  $11.5-19 \times 6-7 \mu$ , elliptical to oblong, finely punctate under oil immersion, not amyloid, white in deposit; basidia  $42.5-60 \times 10-13 \mu$ , mostly 4-spored, occasionally 2-spored, sterigmata  $4.5-7.5 \mu$  long; cheilocystidia present in some sections, basidioid to broadly cylindrical or broadly fusoid,  $14-19 \mu$  broad,  $31-46 \mu$  long, protruding beyond hymenium  $15-30 \mu$ ; pileus tissue: cuticle brownish in KOH, pigment dilute in cell contents or in slightly thickened walls, cuticular hyphae interwoven, numerous end cells protruding beyond surface, cylindrical or subclavate, hyphae mostly cylindrical,  $5.5-11.5 \mu$  in diameter, trama hyaline, hyphae  $7.5-14.5 \mu$  in diameter, cylindrical to inflated, clamp connections large and abundant; gill trama regular to subparallel, hyphae mostly cylindrical,  $4-8 \mu$  in diameter.

Solitary, scattered, or subcespitose. In sand, near open white pine. September to October.

Material examined: *Bigelow 6314*, North Sunderland, **Massachusetts**, Sept. 24, 1957; *7837*, Sept. 25, 1958; *9342*, Sept. 22, 1960; *9792*, Sept. 6, 1961; *9922*, Northfield, Oct. 7, 1961.

Abundant fruitings of *L. trullisata* are common on certain dunes along the Connecticut River valley. While associated with white pine in this region, this agaric occurs under jack pine on the Lake Superior shore of northern Michigan.

The spores of this species are reported as smooth in the literature. However, under the oil immersion lens there are very fine punctations at least on some of the spores. These markings are difficult to observe and it was not possible to tell if they were protrusions or pits. The presence of some ornamentation lends support for maintaining this species in *Laccaria*.

***Lentinus haematopus*** Berkeley, Grev. 1: 33. 1872.

Material examined: *Bigelow 3401*, Guerette, Aroostook Co., **Maine**, July 20, 1956; *4060*, Aug. 16, 1956.

This species, unusual because of the curious red coating on the stipe, has been reported from a variety of locations in the northeast. It seems widely distributed but fruits seldom and then only in small numbers. I know of collections from Vermont, New Hampshire, Ontario, New York, Michigan, and Saskatchewan, as well as the new records cited above. Solitary specimens were found on birch or maple logs in both Maine collections. A complete description and photograph are found in Overholts (1934).

***Mycena urania*** (Fr.) Gillet, Champ. Fr. 1: 279. 1878.

***Agaricus uranius*** Fries, Syst. Myc. 1: 144. 1821.

Material examined: *Bigelow 5256* and *5257*, Mt. Albert, Gaspé Parc, **Quebec**, July 7, 1957.



Numerous carpophores were found on wet moss near a stream by the Park Headquarters at Mt. Albert, Quebec. This species is noted as rare by Smith (1947), in his monograph of *Mycena*. Previous records from North America are from Michigan, North Carolina, and Tennessee.

*Tricholoma davisiae* Peck, Bull. Torrey Club 27: 611. 1900.

*Melanoleuca davisiae* (Peck) Murrill, N. Am. Fl. 10: 14. 1914.

Pileus 10-13 cm. broad, obtuse conic at first, becoming plane with a slight broad umbo, margin narrowly incurved, even, sinuate or lobed at times, somewhat elevated and recurved in places when old, surface dry, radiate-fibrillose on the disc, fibrillose-scaly at the margin, ground color dull yellow, fibrils smoky gray; flesh whitish, moderately thick on the disc, thin at the margin, odor and taste farinaceous.

Lamellae sinuate, close, broad, yellow but bruising reddish, edges uneven, undulate.

Stipe 10-11 cm. long, 2-4 cm. thick at apex, base abruptly tapered, central, solid-stuffed, surface silky fibrillose, white but bruising reddish.

Spores 6-7.5 x 4.5-5.5  $\mu$ , subglobose to elliptical, smooth, not amyloid, white in mass; basidia 21.5-30 x 5.5-7.5  $\mu$ , 1-, 2-, and 4-spored; cheilocystidia present, clustered or scattered, obtuse or clavate, sometimes pedicellate, smooth, hyaline or with yellowish contents in KOH, 23-36  $\mu$  long, 6-15  $\mu$  in largest diameter, two-celled at times, pleurocystidia also present at times but rare, size and shape same as cheilocystidia; pileus tissue: cuticle pale yellowish in KOH, pigment apparently in slightly thickened walls or as very fine encrustation, hyphae cylindrical to somewhat inflated, 4.5-18  $\mu$  in diameter, cells short, 11.5-84.5  $\mu$  long, trama hyaline, hyphae cylindrical or somewhat inflated, 4-13  $\mu$  in diameter, smooth, walls thin, cells short to long, clamp connections absent; gill trama regular to subparallel, broad, hyphae cylindrical to inflated, 3-12  $\mu$  in diameter.

Gregarious, on humus at roadside in mixed woods. September to November.

Material examined: *Bigelow* 9288, Conway State Forest, Conway, Massachusetts, Sept. 18, 1960; 9381, Sept. 29, 1960; *H. C. Davis*, Falmouth, Maine, November, 1899 (type of *Tricholoma davisiae*).

As far as I have been able to determine, this is the first record of fruiting for this species since the original description based on specimens found in Falmouth, Maine. The Massachusetts collections cited above were found growing along a roadside in a mixed woods of beech, birch, maple, pine, and hemlock.

*T. davisiae* is a striking species by virtue of the colors and size of carpophore as well as the microscopic characteristics. Particularly noteworthy is the cuticular structure of the pileus and the presence of cystidia on the lamellae. The cuticle, composed of very short cells, cannot be considered "hymeniform", for the cells are recumbent and apparently form from the fibrils on the cap surface. The cystidia

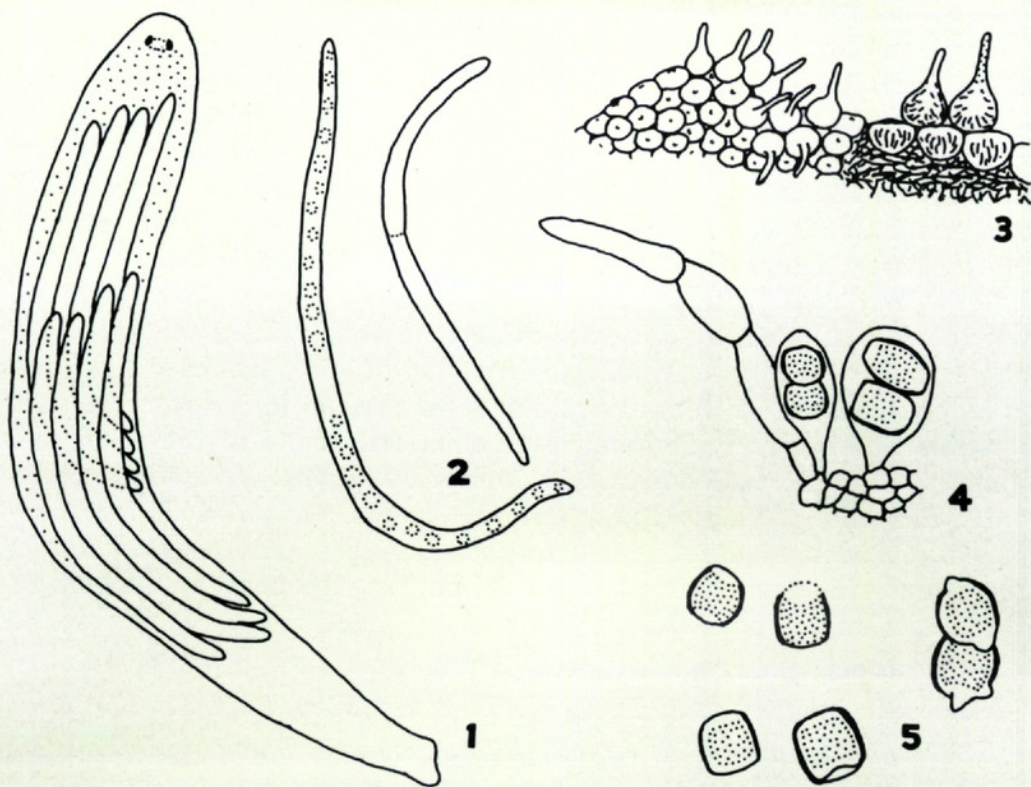


usually do not protrude beyond the basidia to any great extent, but they are conspicuous by their diameter and frequent two-celled nature. One-spored basidia were observed upon occasion but they did not attain the size of the cystidia. Cheilocystidia were not difficult to locate in the Massachusetts collections, but pleurocystidia seemed less frequent than in the type collection.

*Xeromphalina kauffmanii* A. H. Smith, Pap. Mich. Acad. I. 38: 81. 1953.

Material examined: *Bigelow 9605*, Pittsfield State Forest, Massachusetts, July 27, 1961.

The type collection and additional material of this species were found on oak stumps during late spring and early summer in Michigan according to Smith (1953). The Massachusetts collection is small in number of carpophores and was found on a birch stump.



Figs. 1, 2. *Ophiodothella vaccinii* Boyd: 1, ascus, 2, two spores, on the right showing a pseudoseptum in Melzer's reagent. Figs. 3-5. *Phaeostoma sphaerophila* (Peck) Barr, *comb. nov.*: 3, habit of fungus over black knot, 4, asci and hypha from centrum, 5, ascospores, those on the right showing scattered protrusions. Figs. 1, 2, 4, 5,  $\times 1500$ ; fig. 3,  $\times 15$ .

#### ASCOMYCETES

*Ophiodothella vaccinii* Boyd, Mycologia 26: 465. 1934. Figures 1, 2.

Material examined: *Barr 2855*, Mt. Toby, Leverett, Massachusetts, Oct. 20, 1960; *W. H. Davis 2884*, Leverett, Oct. 20, 1922 (as *Rhytisma*



*vaccinii* Schw.); E. S. Boyd, Athens, Georgia, April, 1933 (cotype of *Ophiodothella vaccinii*).

This fungus appears to be predominantly southern in distribution. Most of the herbarium specimens examined were from Georgia, Mississippi, and South Carolina, on *Vaccinium arboreum*. The Davis specimen cited above was on *V. stamineum*, and although immature was identical with my collection on *V. corymbosum*.

My collection was immature when gathered but after four days in moist chamber produced asci and spores. It agrees in most respects with Boyd's (1934) detailed description and with authentic material of the species. Smaller leaf spots, lack of a conidial stage, and only partial development of a second beak in the Massachusetts material were the differences noted. Boyd's description should be corrected in one respect. There is no amyloid reaction (I+) in the ascus, as she stated, but the inner perithecial wall turns blue in Melzer's reagent.

Boyd suggested that *Ophiodothella* should be placed in the Clypeosphaeriaceae, because of the development of a clypeus. However, the sphaeriaceous structure, immersed perithecia, and stroma of superficial blackened clypeus and light-colored hyphae within the substrate, all agree with the Polystigmataceae of modern authors. *O. vaccinii* and the other species of *Ophiodothella* which I have examined are quite closely related to *Polystigma*, *Phyllachora*, and *Diachora* of the Polystigmataceae, differing chiefly in the filiform or cylindrical spores. *O. vaccinii* appears to be particularly closely related to *Diachora onobrychidis* (Fr.) J. Mueller, the type of that genus (Arx and Mueller, 1954). Both fungi have immersed perithecia, blackened crusts in epidermal layers, hymenium in an equatorial band at the sides, and inner perithecial wall amyloid in Melzer's reagent. *Diachora* apparently has only a single beak, and the spores are ellipsoid and one-celled. *O. vaccinii* differs from the other species of *Ophiodothella* in the equatorial arrangement of asci and the frequent occurrence of two beaks on the perithecium.

**Phaeostoma sphaerophila** (Peck) Barr, *comb. nov.* Figures 3-5.

*Periconia sphaerophila* Peck, N. Y. State Mus. Rep. 34: 50. 1881.

*Sporocybe sphaerophila* (Peck) Saccardo, Syll. Fung. 4: 609. 1886.

Perithecia 200-400  $\mu$  in diameter, globose, with beaks 200-300  $\mu$  long (up to 1 mm. at times), 80-100  $\mu$  in diameter near base, tapering to 50-60  $\mu$  at truncate apex, thickly grouped in patches over surface of ascostromata of *Apiosporina morbosa*, superficial on a thin basal stroma of compacted brown hyphae; perithecial wall 27-40  $\mu$  wide at sides, 55-75  $\mu$  wide at base, composed of numerous layers of slightly compressed, polygonal brown cells, inner wall tissue of hyaline to yellowish layers of compressed cells, 10-15  $\mu$  wide, wall of beak of blackish-brown, parallel rows of elongate cells, canal periphysate, wall roughened externally by protruding hyphae and discharged spores.



Asci 11-16.5 x 6.5-10  $\mu$ , ovoid, with a delicate stalk of variable length, wall single, thin, deliquescent, 2-spored, numerous, arising from interior of centrum wall, interspersed with short, broad, septate hyphae.

Spores 6-10 x 4.5-6.5 (-7.5)  $\mu$ , oblong to doliform in side view, ovate in end view, hyaline becoming light brown, pigment concentrated in a broad band across the middle of cell, leaving ends hyaline, one-celled, wall double, thick and brown at sides, hyaline over ends, at times, especially when mounted in Melzer's reagent, bearing scattered low hyaline protrusions over surface, usually remaining in pairs after deliquescence of ascus wall.

Hyperparasitic on ascostromata of *Apiosporina morbosa* (Schw.) Arx, on various species of *Prunus*.

Material examined: *Barr 2099*, Lake Munroe, Mt. Tremblant Park, Quebec, July 24, 1957; *2164*, July 29, 1957; *2839*, Conway State Forest, Conway, Massachusetts, Sept. 18, 1960; *C. H. Peck*, Edmond's Pond, Adirondack Mts., New York, July, 1880 (type of *Periconia sphaerophila*).

I first became aware of the ascomycetous nature of this fungus on studying the Quebec and Massachusetts specimens. Type material of *Periconia sphaerophila* is likewise an ascomycete with well-developed perithecia and delicate, deliquescent asci, agreeing in all respects with my collections. Additional records of the species were obtained from herbarium collections of *Apiosporina morbosa* at the Universities of Massachusetts and Michigan. These are: *W. G. Solheim 622*, Mycoflora Saximontanensis Exsiccata, Williams Canyon, Manitou Springs, Colorado, Dec. 22, 1949; *V. M. Spaulding*, Ann Arbor, Michigan, 1879; *E. Bartholomew 2335*, Fungi Columbiani, Long Pine, Nebraska, Oct. 12, 1906; *A. H. Povah*, Dells, Wisconsin, May, 1929. From the scattered distribution records thus obtained, it seems that *Phaeostoma sphaerophila* must be of frequent occurrence on the common black knot disease of plums. The species is readily recognized in the field by the rough, spiny surface caused by the long protruding beaks over the otherwise smooth knot.

The superficial perithecia with carbonaceous dark wall, long beak, thin-walled asci, and one-celled brownish spores are characteristic of the genus *Phaeostoma* Arx and Mueller (1954). Doguet (1955) discussed the fungus, as *Melanospora sphaerophila* Sacc. He noted that this name was given on the label of *Reliquiae Farlowianae 56*, but he could not discover if Saccardo had actually published the combination. I was also unable to find valid publication of the combination. According to Doguet's description, *Reliquiae Farlowianae 56* is identical with specimens which I have examined. Doguet observed the similarity in shape of the ascospores of this species and *Melanospora barbata* (Fr.) Dur. and Mont. (cf. Barr, 1959), but recognized that the carbonaceous



walls of the perithecia differed entirely from the soft, thin wall of *Melanospora*.

Within the genus *Phaeostoma*, *P. sphaerophila* differs from the three previously described species in habit, in two-spored asci, and in differently shaped ascospores. *P. vitis* (Fekl.) Arx and Mueller, the type species, occurs on rotting roots of various plants such as *Vitis* and *Humulus*, has four-spored asci and spores which are 5-6 x 3-4  $\mu$ , ellipsoid to ovoid, with a germ pore at the lower end. *P. juniperina* (Ellis and Everh.) Arx and Mueller occurs on species of *Juniperus* and forms gall-like growths on twigs. It has six- to eight-spored asci, with ellipsoid to globose spores 3-4  $\mu$  in diameter, and a small germ pore. *P. lagenarium* (Pers. ex Fr.) Munk develops on old fruiting bodies of *Polyporus*. The asci are four-spored, the spores 13-16 x 7-10  $\mu$  with apiculus and germ pore at each end.

The recent publication of Wehmeyer's Monograph of *Pleospora* and its segregates (1961) is of great value in the determination of these fungi. Included here are records of three species of *Pleospora*, to extend our knowledge of the distribution of these fungi.

***Pleospora calvescens*** (Fr.) Tul., Sel. Fung. Carp. 2: 266. 1863.

Additional synonym: *Leptosphaeria eutypoides* Peck, N. Y. St. Mus. Rep. 38: 105. 1885. Type material from the Peck Herbarium at Albany, collected by C. H. Peck, on dead stems of *Chenopodium album*, W. Albany, New York, May, 1884, agrees in all respects with Wehmeyer's description of *P. calvescens*. The spores are three-septate and lack a vertical septum, which undoubtedly influenced Peck in his choice of the generic name.

***Pleospora laricina*** Rehm, Hedwigia 21: 121. 1882. var. *laricina*.

On branches of *Cornus florida*, Amherst, Mass., Aug. 10, 1959, Barr 2619.

***Pleospora straminis*** Sacc. and Speg., Michelia 1: 407. 1879.

On overwintered stalks of *Zea mays*, North Amherst, Mass., April 29, 1959, Barr 2549. This collection has spores somewhat broader (10.5-15  $\mu$ ) than does *P. straminis*, and approaches *P. pulchra* Kirschst. in that respect. However, the spores are shorter than in *P. pulchra*, have fewer septa, and are less strongly asymmetrical. Both species occur on reddish spots on the substrate, as does my collection.

On leaves of *Carex* sp., Mt. Albert, Gaspé Parc, Quebec, July 11, 1957, Barr 2020. Although the substrate was not reddened, this collection is otherwise identical with that on *Zea*, and with Wehmeyer's description.

#### LITERATURE CITED

- ARX, J. A. VON and MUELLER, E. 1954. Die Gattungen der amero-sporen Pyrenomyceten. Beitr. Kryptogamenfl. Schweiz 11(1): 1-434.



- BARR, M. E. 1959. Northern Pyrenomycetes I. Canadian Eastern Arctic. Contr. Inst. Bot. Univ. Montréal 73: 1-101.
- BOYD, E. S. 1934. A developmental study of a new species of *Ophi-dotheella*. Mycologia 26: 456-468.
- DOGUET, G. 1955. Le Genre "Melanospora". Botaniste 39: 1-313.
- HESLER, L. 1960. Mushrooms of the Great Smokies. U. of Tenn. Press, Knoxville. 289 pp.
- OVERHOLTS, L. O. 1934. Mycological notes for 1933. Mycologia 26: 502-515.
- PILAT, A. 1954. Mushrooms. H. W. Bijl, Amsterdam. 342 pp.
- SMITH, A. H. 1944. Unusual North American agarics. Am. Midl. Nat. 32: 669-698.
- . 1947. North American Species of *Mycena*. U. of Mich. Press, Ann Arbor. 521 pp.
- . 1953. New and rare agarics from the Douglas Lake region and Tahquamenon Falls State Park, Michigan, and an account of the North American species of *Xeromphalina*. Pap. Mich. Acad. I. 38: 53-87.
- WEHMEYER, L. E. 1961. A world monograph of the genus *Pleospora* and its segregates. U. of Mich. Press, Ann Arbor. 451 pp.

## THE NOSEBURN (TRAGIA, EUPHORBIACEAE) OF WESTERN TEXAS

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Widespread in the arid grasslands and brush of northern Mexico, north to Arizona, Colorado, and Kansas, occur the humble, nondescript, stinging herbs which the English-speaking natives usually call stinging-nettle, and the Spanish-speaking natives *chichicastle*, a term also loosely applied to several stinging herbs. A more specific name, applied by some cowmen in western Texas, is noseburn, an allusion to the effect of the plants on stock. Noseburns are often quite abundant in grazed grasslands, and are among that great retinue of noxious, toxic or unpalatable plants which flourish under the abusive practices of overstocking which are the rule rather than the exception in the range-lands of western Texas. Noseburns can be recognized among our other genera of this family by the weak, trailing or even vine-like stem, the stinging hair, the serrate leaf,





Bigelow, Howard E. and Barr, Margaret E. 1962. "Contribution to the fungus flora of north-eastern North America. II." *Rhodora* 64, 126–137.

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