

REPORT OF THE BOTANIST.

26 Reg. Rep.

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Secretary of the Board of Regents of the University:

SIR.—Since the date of my last report, specimens of two hundred and eighty-two species of plants have been mounted and placed in the Herbarium of the State Museum of Natural History, of which two hundred and sixty-seven were not before represented therein. A list of the specimens mounted is marked (1).

Specimens have been collected in the counties of Albany, Cayuga, Columbia, Greene, Lewis, Delaware, Onondaga, Otsego, Rensselaer, Ulster, Schoharie and Wayne. These represent two hundred and sixteen species new to the Herbarium and one hundred and four species new to science. The latter are all fungi. A list of the species collected is marked (2). It will be seen that this list is but little less than the corresponding one of the preceding year, while the number of new species detected is even greater. These results, I apprehend, are entirely due to the character of the season just past, it having been one unusually favorable to the production of fungoid plants.

Specimens of forty-eight New York species, new to the Herbarium and not among my collections of the past season, have been contributed or obtained by naming specimens for correspondents. These added to the collected species make the whole number of additions two hundred and sixty-four. A list of the contributors and their contributions is marked (3).

Classified Tabular Statement.

	New to the Herbarium.	New to Science.
Plants collected	{ Flowering plants	1
	{ Ferns	1
	{ Lichens	4
	{ Fungi	210
Total	216	104
Plants contributed	{ Flowering plants	11
	{ Characeæ	2
	{ Lichens	10
	{ Fungi	25
Total	48	7
Collected and contributed	264	111

New species with their descriptions, previously unreported species, new stations of rare plants, etc., are given in a section marked (4).

The plan of making colored sketches of the fleshy fungi to accompany the dried specimens has been continued. The number of species and varieties figured is sixty-five.

It has been my purpose to test the edible qualities of the most promising of our wild plants as opportunity might occur, and also to prove by experiment those fungi already reported in books as edible. Having found some thrifty young plants of the giant Solomon's Seal, *Polygonatum giganteum*, it occurred to me that they might be of some value as an article of food. The succulent character of the plant and its botanical relations suggested the mode of preparation for the table. It was the same as that usually employed in the preparation of the asparagus plant. As might have been expected, the flavor of the plant, when cooked, closely resembled that of asparagus. It does not appear to me to be at all inferior to asparagus as an article of food, and it only remains to determine whether it can be cultivated with equal facility and profit before pronouncing this indigenous plant to be of equal value with the introduced asparagus plant.

It is with pleasure that I record the vermilion *Hygrophorus*, *Hygrophorus miniatus*, as edible. It is a valuable addition to our list of esculent species, as it has not hitherto been classed among

those fit for food. Having made trial of it, I do not hesitate to say that in tenderness of substance and agreeableness of flavor it stands in the first rank. The only thing that detracts from its value is its small size, it being usually scarcely more than one inch in breadth, though under favorable circumstances it sometimes attains a diameter of three inches. Its bright red color and brittle substance make it a fungus easily recognized. It is abundant in the North woods, the favorite habitat of many of our valuable species.

Among the culinary vegetables held in high esteem among the Chinese, says Dr. Hance, is one called by them *Kau sun*, or "cane shoots," which consists of the white solid base of the stem of a grass, *Hydropyrum latifolium*, closely related to our Indian rice, *Zizania aquatica*. It is said by the writer to be one of the most agreeable and nicest of vegetables, and to possess a peculiar richness and delicacy of flavor. He also suggests an examination of our similar American plant to see if it may not yield a similar valuable product.

My investigations, instituted in accordance with this suggestion, were not rewarded by the desired discovery. The nearest approach to it that was found is a tender white basal part in the young offshoots or suckers of the main stem. This tender portion is palatable, and, like its Chinese relative, bears some resemblance in its flavor to boiled green corn, but the quantity produced is too insignificant to be of any value. The main stems are fibrous and hollow to the base.

Having had occasion to visit the celebrated Montezuma marshes in quest of botanical specimens, I could not view with indifference the enormous growth of luxuriant herbaceous vegetation that covered this extensive area of marsh land. Rushes and sedges, reed-grasses and flags, from six to ten feet high, and that too in dense, wide-spreading patches, could not fail to impress the mind with the belief that the capacity of the soil of these marshes for the production of plants is truly wonderful. Enriched as it has been by the deposition of ages and by the decay of crop after crop of marsh vegetation, its present productions are an indication that there lie stored up here elements of wealth more precious than mines of gold. The simple question is, how can they be made available? If the ordinary method of drainage is not practicable, might not a system of dyking and siphon drainage be adopted with advantage? If no system of drainage can be made profitable, and we must wait for the slow processes of nature to bring about the desired result, may not more that is

valuable be secured from the marsh even in its present condition than is now obtained? It is true, some of the firmer places are used as pasture ground for cattle, some of the finer sorts of sedges and grasses are cut and shipped to the New York market to be used as bedding for horses, and a large supply of flag leaves is annually gathered. But in all these ways an extremely small part of the produce of the marshes is utilized. So very many tons of rank vegetation are annually left to rot on the ground that it seems almost wasteful. I would suggest the propriety of instituting a series of experiments with a view to establish the value of some of the grasses which constitute such a large part of the vegetation of the marsh. Especially promising are the Indian rice, *Zizania aquatica*, and the reed-grass, *Phragmites communis*. These might be found, if cut early, to be equal or even superior in value to corn fodder, and the seeds of the former are almost sure to be a good grain for the fattening of fowls. Having established the value of these grasses, it would seem to be but a trifling matter to increase their quantity to such an extent that they might be harvested with profit.

The unusual destruction of vegetation in some localities last winter, and especially of hardy evergreens, has been a theme of considerable comment. It is not my purpose to discuss the various theories that have been advanced in explanation of the unusual occurrence, but simply to record a few interesting cases that have fallen under my own observation.

In a certain locality, in the town of Sand Lake, there is a group of young pines, some of the trees being red pine, *Pinus resinosa*, and some white pine, *Pinus strobus*. None of the former were affected, but the latter had many of their branchlets winter-killed, thus indicating that the former is a more hardy tree than the latter.

The hilly region in the eastern part of Rensselaer county has for many years furnished the Albany market with a plentiful supply of wild blackberries, *Rubus villosus*, and wild raspberries, *Rubus strigosus*. Last summer the crop of the former was an entire failure, the briars being winter-killed, but of the latter there was an ordinary yield, thus indicating that the raspberry is more hardy than the blackberry.

A young white-pine, standing in an opening between two clumps of trees, in such a position as to receive the full force of the strong north-west winds, had many of its branchlets on this exposed side killed, while those on the opposite side of the tree were comparatively

unharmcd. This indication of the destructive agency of the cold winds was not in other cases so clearly shown.

In some instances terminal twigs of hemlocks, *Abies Canadensis*, had their leaves brown and discolored as if winter-killed, but the twigs themselves retained their vitality and in June had commenced to put forth new shoots as if nothing had happened. Grape-vines supposed dead, in some cases sprouted at or near the roots and sent up new shoots which grew with unparalleled vigor.

(1)

SPECIES OF WHICH SPECIMENS HAVE BEEN MOUNTED.

NOT NEW TO THE HERBARIUM.

Claytonia Caroliniana *Mx.*
 Cornus Canadensis *L.*
 Lappa off. var. tomentosa *Gray.*
 Betula lutea *Mx.* •
 Acnida cannabina *L.*
 Scirpus Torreyi *Olney.*
 Equisetum palustre *L.*
 Phegopteris poly. var. multifida.
 Agaricus arvensis *Schæff.*
 Clavaria juncea *Fr.*
 Puccinia Peckiana *Howe.*
 P. Waldsteiniaë *Curt.*
 P. Ast. var. purpurascens.
 Microsphaera penicillata *Lev.*
 M. Friesii var. castanea *C.-P.*

Dicranum palustre *Brid.*
 Orthotrichum sordidum *S. & L.*
 O. Peckii *S. & L.*
 O. pusillum *Mitten.*
 Leucodon julaceus *Hedw.*
 Hypnum Peckii *Aust.*
 Lejeunia hamatifolia *Dumort.*
 Parmelia Borreri *Turn.*
 P. colpodes *Ach.*
 Placodium elegans *Lk.*
 Theloschistes candelarius *L.*
 Gyalecta Pineti *Fr.*
 G. cupularis *Schær.*
 Pannaria nigra *Nyl.*
 P. tryptophylla *Ach.*
 P. crossophylla *Tuck.*
 Lecanora rubina *Vill.*
 L. Hageni *Ach.*
 Biatora russula *Mont.*
 B. decolorans *Hoffm.*
 Rinodina ascociscana *Tuck.*
 Myriangium Curtisii *B. & M.*
 Verrucaria rupestris *Schrad.*
 Arthonia spectabilis *Flot.*
 A. lecideëlla *Nyl.*
 Collema pulposum *Ach.*
 C. cyrtaspes *Tuck.*
 C. pycnocarpum *Nyl.*
 Endocarpum arboreum *Schw.*

NEW TO THE HERBARIUM.

Sesuvium pentandrum *Ell.*
 Pyrus communis *L.*
 Lythrum alatum *Pursh.*
 Utricularia striata *Lec.*
 U. purpurea *Walt.*
 Rumex Patientia *L.*
 Arceuthobium pusillum *Pk.*
 Spiranthes graminea *Lindl.*
 Eleocharis Robbinsii *Oakes.*
 Scirpus Clintonii *Gray.*
 Rhynchospora macrostachya.

- Agaricus russuloides *Pk.*
 A. illinitus *Fr.*
 A. decorosus *Pk.*
 A. multipunctus *Pk.*
 A. rutilaus *Schæff.*
 A. hordus *Fr.*
 A. virescens *Pk.*
 A. fallax *Pk.*
 A. sinopicus *Fr.*
 A. succosus *Pk.*
 A. myriadophyllus *Pk.*
 A. pelianthinus *Fr.*
 A. debilis *Bull.*
 A. subcæruleus *Pk.*
 A. roseocandidus *Pk.*
 A. roridus *Fr.*
 A. pterigenus *Fr.*
 A. olivarius *Pk.*
 A. gracillinus *Weinm.*
 A. albocrenulatus *Pk.*
 A. Acericola *Pk.*
 A. discolor *Pk.*
 A. pallidomarginatus *Pk.*
 A. putrigena *B. & C.*
 A. saccharinophilus *Pk.*
 A. hirtosquamulosus *Pk.*
 A. squamosus *Fr.*
 A. hiascens *Fr.*
 A. silvaticus *Schæff.*
 Coprinus variegatus *Pk.*
 Hygrophorus chlorophanus *Fr.*
 Marasmius umbonatus *Pk.*
 M. semivelutipes *Pk.*
 M. languidus *Fr.*
 Lentinus hæmatopus *Berk.*
 L. vulpinus *Fr.*
 L. tigrinus *Fr.*
 Boletus vermiculosus *Pk.*
 B. castaneus *Bull.*
 B. affinis *Pk.*
 B. separans *Pk.*
 Boletus modestus *Pk.*
 Polyporus picipes *Pk.*
 Merulius lacrymans *Fr.*
 Hydnum strigosum *Swartz.*
 Craterellus cæspitosus *Pk.*
 Thelephora pedicellata *Schw.*
 Clavaria rufescens *Schæff.*
 C. clavata *Pk.*
 Tremella albida *Huds.*
 T. colorata *Pk.*
 Stereum frustulosum *Fr.*
 Corynites Ravenelii *Berk.*
 Cryptosporium Scirpi *Pk.*
 Gelatinosporium abietinum *Pk.*
 G. betulinum *Pk.*
 Sphæronema cæspitosum *Pk.*
 S.⁹ truncatum *Fr.*
 S. minutissimum *Pk.*
 S. pallidum *Pk.*
 S. Magnoliæ *Pk.*
 Acrospermum compressum *Tode.*
 Sphæropsis Platani *Pk.*
 S. linearis *Pk.*
 S. quercina *Pk.*
 S. Pericarpium *Pk.*
 S. Malorum *Berk.*
 Hendersonia Robiniæ *West.*
 H. Sambuci *Pk.*
 Diplodia Lignicola *Pk.*
 D. petiolaris *Pk.*
 D. valsoides *Pk.*
 Darluca filum *Cast.*
 Septoria salicina *Pk.*
 S. ochroleuca *B. & C.*
 S. acerina *Pk.*
 S. mirabilis *Pk.*
 Dinemasporium Graminum *Lev.*
 D. Herbarum *Cooke.*
 Micropera Drupacearum *Lev.*
 Cheirospora botryospora *Fr.*
 Stilbospora Staphyleæ *Schw.*

- Cytispora fugax *Fr.*
 C. chrysosperma *Fr.*
 Torula alnea *Pk.*
 Sporidesmium moriforme *Pk.*
 Røestelia aurantiaca *Pk.*
 Æcidium Convallariæ *Schum.*
 Æ. Gerardiæ *Pk.*
 Æ. Calthæ *Grev.*
 Æ. crassum *Pers.*
 Uredo Ledicola *Pk.*
 Gymnosporangium Juniperi *Fr.*
 G. clavipes *C. & P.*
 Urocystis occulta *Preuss.*
 U. pusilla *C. & P.*
 Cystopus cubicus *Str.*
 Puccinia obtecta *Pk.*
 P. arundinacea *Hedw.*
 P. linearis *Pk.*
 P. Polygonorum *Lk.*
 P. angustata *Pk.*
 P. Lychnidearum *Lk.*
 P. variabilis *Grev.*
 P. pulchella *Pk.*
 P. Myrrhis *Schw.*
 P. Prunorum *Lk.*
 P. Menthæ *Pers.*
 P. Caricis *DC.*
 P. Lobeliæ *Gerard.*
 Uromyces triquetra *Cooke.*
 U. Euphorbiæ *C. & P.*
 U. Sparganii *C. & P.*
 U. pyriformis *Cooke.*
 Protomyces Erythronii *Pk.*
 Gymnosporium arundinis *Cd.*
 Stilbum tomentosum *Schrad.*
 Atractium flammeum *B. & R.*
 Fusarium lateritium *Nees.*
 F. roseum *Lk.*
 Illosporium roseum *Fr.*
 Periconia Azaleæ *Pk.*
 Streptothrix abietina *Pk.*
 Macrosporium Chartarum *Pk.*
 Clasterisporium caricinum *Schw.*
 C. pedunculatum *Pk.*
 Oidium simile *Berk.*
 O. monilioides *Fr.*
 Cladosporium epiphyllum *Nees.*
 Zygodemus fuscus *Cd.*
 Z. olivaceus *B. & C.*
 Ascophora Mucedo *Tode.*
 Myrothecium Fungicola *Pk.*
 Uncinula circinata *C. & P.*
 U. Ampelopsidis *Pk.*
 U. macrospora *Pk.*
 U. Clintonii *Pk.*
 U. flexuosa *Pk.*
 Microsphæra diffusa *C. & P.*
 M. extensa *C. & P.*
 M. densissima *Schw.*
 M. Hedwigii *Lev.*
 M. Dubyi *Lev.*
 M. holosericea *Lev.*
 M. pulchra *C. & P.*
 Sphærotheca Castagnei *Lev.*
 S. pruinosa *C. & P.*
 Podosphæra biuncinata *C. & P.*
 Erysiphe Martii *Lk.*
 Eurotium Herbariorum *Lk.*
 Onygena equina *Pers.*
 Geoglossum simile *Pk.*
 G. glutinosum *Pers.*
 Vibrissea Truncorum *Fr.*
 V. lutea *Pk.*
 Peziza vesiculosa *Bull.*
 P. lacerata *C. & P.*
 P. subochracea *C. & P.*
 P. Resinæ *Fr.*
 P. nigrella *Pers.*
 P. theleboides *A. & S.*
 P. leucoloma *Reb.*
 P. badia *Pers.*
 P. stercorea *Pers.*

- Peziza nivea *Fr.*
 P. coronata *Bull.*
 P. Kalmiæ *Pk.*
 P. Solenia *Pk.*
 P. vincta *C. & P.*
 Helotium epiphyllum *Fr.*
 Bulgaria inquinans *Fr.*
 Patellaria indigotica *C. & P.*
 Nodularia Acericola *Pk.*
 Cenangium seriaticum *Fr.*
 C. Cephalanthi *Schw.*
 Dothidea Kalmiæ *Pk.*
 D. crystallophora *B. & C.*
 Stictis radiata *Fr.*
 Rhytisma lineare *Pk.*
 R. Andromedæ *Fr.*
 Rhytisma Ilicis-Canadensis *Schw.*
 Hysterium commune *Fr.*
 H. petiolare *Fr.*
 H. tortile *Schw.*
 H. ilicinum *De Not.*
 Hypocrea gelatinosa *Fr.*
 Nectria inaurata *B. & Br.*
 Torrubia ophioglossoides *Tul.*
 Xylaria filiformis *A. & S.*
 X. acuta *Pk.*
 Hypoxylon vernicosum *Schw.*
 H. atropurpureum *Fr.*
 Melanconis elliptica *Pk.*
 Diatrype discretata *Schw.*
 D. betulina *Pk.*
 Diatrype Cercidicola *B. & C.*
 Valsa Colliculus *Wormsk.*
 V. ambiens *Fr.*
 V. stellulata *Fr.*
 V. thelebola *Fr.*
 V. quaternata *Fr.*
 V. truncata *C. & P.*
 V. Alni *Pk.*
 V. Platani *Schw.*
 Sphæria moriformis *Tode.*
 S. Coptis *Schw.*
 S. Petiolorum *Schw.*
 S. Kalmiarum *Schw.*
 S. Ramulicola *Pk.*
 S. lilacina *Schw.*
 S. leucoplaca *B. & R.*
 S. bombardata *Batsch.*
 S. Vaccinicola *Schw.*
 S. Fraxicola *Schw.*
 S. salicella *Fr.*
 S. rubella *Pers.*
 S. eccentrica *C. & P.*
 S. hirsuta *Fr.*
 S. melanostyla *Fr.*
 S. Pezizula *B. & C.*
 Sphærella spleniata *C. & P.*
 Venturia pulchella *C. & P.*
 V. orbicula *C. & P.*
 V. compacta *Pk.*
 Hydrodictyon utriculatum *Ag.*
 Nostoc commune *Vauch.*

(2)

PLANTS COLLECTED NEW TO THE HERBARIUM.

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|-------------------------------------|--------------------------------------|
| <i>Pycnanthemum pilosum</i> Nutt. | <i>Agaricus Herbarum</i> Pk. |
| <i>Asplenium montanum</i> Willd. | A. nephrodes B. & C. |
| <i>Pannaria rubiginosa</i> Ach. | A. fulvotomentosus Pk. |
| <i>Biatora rivulosa</i> Ach. | A. stellatosporus Pk. |
| <i>Verrucaria rupestris</i> Schrad. | A. cerasinus Pk. |
| <i>Collema tenax</i> Sw. | A. callistus Pk. |
| <i>Agaricus Friesii</i> Lasch. | A. expansus Pk. |
| A. fuscosquameus Pk. | A. coprinoides Pk. |
| A. felinus Pers. | A. bellulus Pk. |
| A. oblitus Pk. | A. geminellus Pk. |
| A. ponderosus Pk. | A. discomorbidus Pk. |
| A. rubicundus Pk. | A. phyllogenus Pk. |
| A. æstuans Fr. | A. diminutivus Pk. |
| A. flavescens Pk. | A. Howeanus Pk. |
| A. leucocephalus Krombh. | <i>Coprinus insignis</i> Pk. |
| A. laterarius Pk. | C. angulatus Pk. |
| A. Limonium Pk. | <i>Cortinarius sphaerosporus</i> Pk. |
| A. thujinus Pk. | C. porphyropus A. & S. |
| A. fumidellus Pk. | C. claricolor Fr. |
| A. Hebeloma Pk. | C. longipes Pk. |
| A. lacunosus Pk. | C. lilacinus Pk. |
| A. connexus Pk. | C. modestus Pk. |
| A. albissimus Pk. | C. Clintonianus Pk. |
| A. maculosus Pk. | C. torvus Fr. |
| A. Truncicola Pk. | C. lignarius Pk. |
| A. subzonalis Pk. | C. nigrellus Pk. |
| A. Gerardianus Pk. | C. pulcher Pk. |
| A. niger Schw. | <i>Lepista cinerascens</i> Bull. |
| A. conigenus Pers. | <i>Paxillus strigosus</i> Pk. |
| A. coloreus Pk. | P. panuoides Fr. |
| A. miratus Pk. | <i>Hygrophorus purus</i> k. |
| A. echinipes Lasch. | H. eburneus Bull. |
| A. rugosodiscus Pk. | H. Cossus Fr. |
| A. cyaneus Pk. | H. virgatulus Pk. |
| A. granularis Pk. | H. borealis Pk. |
| A. byssisedus Pers. | <i>Lactarius regalis</i> Pk. |
| A. fuscofolius Pk. | L. Gerardii Pk. |
| A. foliomarginatus Pk. | <i>Russula consobrina</i> Fr. |

- Russula sordida* *Pk.*
Marasmius Viticola *B. & C.*
M. cæspitosus *Pk.*
M. longipes *Pk.*
M. glabellus *Pk.*
M. straminipes *Pk.*
Panus strigosus *B. & C.*
Lenzites vialis *Pk.*
Boletus piperatus *Bull.*
B. pallidus *Frost.*
B. chrysensteron *Fr.*
B. ampliporus *Pk.*
Polyporus griseus *Pk.*
P. cæruleoporus *Pk.*
P. flavidus *Pk.*
P. splendens *Pk.*
P. humilis *Pk.*
P. rhipidius *Berk.*
P. maculatus *Pk.*
P. aurantiacus *Pk.*
P. conchifer *Schw.*
P. ferruginosus *Fr.*
P. Armeniaeus *Berk.*
P. sanguinolentus *Fr.*
P. attenuatus *Pk.*
P. violaceus *Fr.*
Hexagona carbonaria *B. & C.*
Cyclomyces Greenii *Berk.*
Hydnum confluens *Pk.*
H. ferruginosum *Fr.*
Sistotrema confluens *Pers.*
Grandinia eoriaria *Pk.*
Thelephora Willeyi *Clinton.*
Stereum tenerrimum *B & R.*
S. radiatum *Pk.*
Corticium bicolor *Pk.*
C. leucothrix *B. & C.*
Clavaria fistulosa *Fr.*
Tremella frondosa *Fr.*
Exobasidium Azaleæ *Pk.*
E. Andromedæ *Pk.*
- Lycoperdon separans* *Pk.*
L. pedicellatum *Pk.*
Aethalium Ferrincola *Schw.*
Spumaria alba *DC.*
Diderma crustaceum *Pk.*
D. Mariæ-Wilsoni *Clinton.*
D. farinaceum *Pk.*
Didymium connatum *Pk.*
D. furfuraceum *Fr.*
D. farinaceum *Fr.*
Physarum cæspitosum *Pk.*
P. pulcherripes *Pk.*
Angioridium sinuosum *Grev.*
Craterium leucocephalum *Ditm.*
C. obovatum *Pk.*
Stemonitis herbatica *Pk.*
Arcyria nutans *Fr.*
Trichia reniformis *Pk.*
Licea cylindrica *Fr.*
Perichæna flavida *Pk.*
Sphæronema Magnoliæ *Pk.*
Pestalozzia Pezizoides *De Not.*
Bactridium flavum *Kze.*
Uromyces Sparganii *C. & P.*
U. pyriformis *Cooke.*
Æcidium Lycopi *Gerard.*
Æ. Hydrophylli *Pk.*
Stilbum ramosum *Pk.*
Ceratium porioides *A. & S.*
C. hydnoideum *A. & S.*
Myrothecium Fungicola *Pk.*
Helicoma Mulleri *Cd.*
Aspergillus glaucus *Lk.*
A. fuliginosus *Pk.*
Polyactis fascicularis *Cd.*
Oidium fulvum *Lk.*
Fusisporium roseolum *Steph.*
Pilacre faginea *B. & Br.*
Mucor inæqualis *Pk.*
Microsphæra Russellii *Clinton.*
M. densissima *Schw.*

Microsphæra Dubyi <i>Lev.</i>	Hypomyces polyporinus <i>Pk.</i>
Erysiphe Euphorbiæ <i>Pk.</i>	Nectria Ribis <i>Tode.</i>
Peziza hesperidea <i>C. & P.</i>	N. coccinea <i>Fr.</i>
P. subochracea <i>C. & P.</i>	N. Celastri <i>Schw.</i>
P. lacerata <i>C. & P.</i>	N. balsamea <i>C. & P.</i>
P. vincta <i>C. & P.</i>	N. Apocyni <i>Pk.</i>
P. Dehnii <i>Rabh.</i>	N. mycetophila <i>Pk.</i>
P. assimilis <i>C. & P.</i>	Diatrype platystoma <i>Schw.</i>
P. pulverulenta <i>Libert.</i>	D. bullata <i>Fr.</i>
P. crocitincta <i>B. & C.</i>	D. Tocciaëana <i>De Not.</i>
P. violacea <i>Pers.</i>	D. moroides <i>C. & P.</i>
P. unicisa <i>Pk.</i>	Melanconis stilbostoma <i>Tul.</i>
P. albumina <i>C. & P.</i>	Valsa bicincta <i>C. & P.</i>
P. corrugata <i>C. & P.</i>	Lophiostoma magnatum <i>C. & P.</i>
Helotium rugipes <i>Pk.</i>	L. turritum <i>C. & P.</i>
H. macrosporum <i>Pk.</i>	Eutypa Acharii <i>Tul.</i>
H. thujinum <i>Pk.</i>	Sphæria canescens <i>Pers.</i>
H. gracile <i>C. & P.</i>	S. staphylina <i>Pk.</i>
H. Limonium <i>C. & P.</i>	S. Desmodii <i>Pk.</i>
Elaphomyces granulatus <i>Fr.</i>	S. viridicoma <i>C. & P.</i>
Hysterium macrosporum <i>Pk.</i>	S. mutans <i>C. & P.</i>
H. sphæroides <i>A. & S.</i>	S. Semen <i>C. & P.</i>
H. exaridum <i>C. & P.</i>	S. subconica <i>C. & P.</i>
H. maculare <i>Fr.</i>	S. fuscella <i>B. & Br.</i>
H. angustatum <i>A. & S.</i>	S. maculæformis <i>Pers.</i>
H. typhinum <i>Fr.</i>	S. Sarmentorum <i>Fr.</i>
Torrubia capitata <i>Fr.</i>	S. racemula <i>C. & P.</i>
Hypocrea alutacea <i>Fr.</i>	Massaria bufonia <i>Tul.</i>

(3)

CONTRIBUTORS AND THEIR CONTRIBUTIONS.

Miss M. L. WILSON, Buffalo, N. Y.

Usnea trichodea <i>Ach.</i>	Lecanora Hageni <i>Ach.</i>
Alectoria Fremontii <i>Tuck.</i>	Gyalecta Pineti <i>Fr.</i>
Ramalina tenuis <i>Tuck.</i>	Buellia turgescens <i>Nyl.</i>
Cladonia muscigena <i>Schær.</i>	Strigula Feei <i>Mont.</i>

H. GILLMAN, Detroit, Mich.

Tanacetum Huronense <i>Nutt.</i>	Aspidium Lonchitis <i>Sw.</i>
Anemone multifida <i>DC.</i>	A. fragrans <i>Sw.</i>
Vaccinium myrtilloides <i>Hook.</i>	

S. N. COWLES, Otisco, N. Y.

Chenopodium polyspermum *L.* | Panicum agrostoides *Spreng.*

J. S. MERRIAM, New York City.

Sesuvium pentandrum <i>Ell.</i>	Utricularia purpurea <i>Walt.</i>
Helianthus angustifolius <i>L.</i>	Æcidium Uvulariæ <i>Schw.</i>
Hiracium murorum <i>L.</i>	Æ. Nesææ <i>Gerard.</i>

E. C. HOWE, M. D., Yonkers, N. Y.

Chara Hedwigii <i>Ag.</i>	Puccinia curtipes <i>Howe.</i>
C. hispida <i>L.</i>	Pestalozzia Pezizoides <i>De Not.</i>
Delesseria Leprieurii <i>Mont.</i>	Uncinula spiralis <i>B. & C.</i>

H. W. YOUNG, Aquebogue, L. I.

Helianthus angustifolius <i>L.</i>	Rhynchospora nitens <i>Vahl.</i>
Utricularia resupinata <i>Greene.</i>	Panicum amarum <i>Ell.</i>
Scirpus debilis <i>Pursh.</i>	Andropogon Virginicus <i>L.</i>
Cyperus Grayii <i>Torr.</i>	Sparganium sim. v. androcladum.
Hypericum Canadense <i>L.</i>	

E. S. MILLER, Wading River, L. I.

Reseda luteola <i>L.</i>	Utricularia minor <i>L.</i>
Drosera filiformis <i>Raf.</i>	U. resupinata <i>Greene.</i>
Galactia mollis <i>Mx.</i>	U. intermedia <i>Hayne.</i>
Desmodium lævigatum <i>DC.</i>	Rhynchospora nitens <i>Vahl.</i>
Potentilla recta <i>Willd.</i>	R. macrostachya <i>Torr.</i>
Myriophyllum tenellum <i>Bigel.</i>	Scirpus subterminalis <i>Torr.</i>
M. amb. var. limosum <i>Gr.</i>	Eleocharis rostellata <i>Torr.</i>
Oldenlandia glomerata <i>Mx.</i>	E. melanocarpa <i>Torr.</i>
Aster concolor <i>L.</i>	Eragrostis poæoides <i>Bv.</i>
Tilia Am. var. pubescens <i>Gr.</i>	Eleusine Indica <i>Gært.</i>
Hypericum Can. var. major <i>Gr.</i>	Botrychium simplex <i>Hitch.</i>

H. WILLEY, New Bedford, Mass.

Cetraria Fendleri <i>Tuck.</i>	Lichina confinis <i>Ag.</i>
Sticta fuliginosa <i>Ach.</i>	Synalissa phylliscina <i>Tuck.</i>
Pannaria Petersii <i>Tuck.</i>	S. phæococca <i>Tuck.</i>
P. brunnea <i>Sw.</i>	Biatora ostreata <i>Hoffm.</i>
P. rubiginosa <i>Ach.</i>	B. rub. var. inundata <i>Fr.</i>
Collema cladodes <i>Tuck.</i>	Agyrium rufum <i>Pers.</i>

Buellia Elizæ <i>Tuck.</i>	Arthonia dispersa <i>Nyl.</i>
B. alboatra <i>Schær.</i>	A. tædiosa <i>Nyl.</i>
B. vernicoma <i>Tuck.</i>	Staurothele circinata <i>Tuck.</i>
B. dyalita <i>Nyl.</i>	Sagedia oxyspora <i>Nyl.</i>
B. myrmecina <i>Fr.</i> [<i>Tuck.</i>]	Verrucaria pingicula <i>Mass.</i>
Lecanactis pr. var. chloroconia	V. pyrenophora <i>Ach.</i>
Opegrapha demissa <i>Tuck.</i>	

W. R. GERARD, Poughkeepsie, N. Y.

Nyctalis asterophora <i>Fr.</i>	Uncinula spiralis <i>B. & C.</i>
Puccinia Lobeliæ <i>Gerard.</i>	U. parvula <i>C. & P.</i>
Æcidium Nesææ <i>Gerard.</i>	Peziza chrysoplithalma <i>Gd.</i>
Æ. Lysimachiae <i>Lk.</i>	Hypomyces Van Bruntianus <i>Gd.</i>
Æ. Clematitidis <i>Schw.</i>	Xylaria Graminicola <i>Gerard.</i>
Uredo Caryophyllaceæ <i>Johnst.</i>	Lophium mytilinum <i>Fr.</i>
Periconia calicioides <i>Fr.</i>	Sphæria Sarmentorum <i>Fr.</i>

HON. G. W. CLINTON, Buffalo, N. Y.

Torilis anthriscus <i>Gert.</i>	Oidium megalosporum <i>B. & C.</i>
Agaricus silvaticus <i>Schæff.</i>	O. fulvum <i>Lk.</i>
Polyporus Gordoniensis <i>B. & Br.</i>	Uncinula spiralis <i>B. & C.</i>
Hexagona carbonaria <i>B. & C.</i>	U. flexuosa <i>Pk.</i>
Hydnum sulphureum <i>Schw.</i>	Microsphæra Russellii <i>Clinton.</i>
Thelephora Willeyi <i>Clinton.</i>	M. Dubyi <i>Lev.</i>
Diderma Mariæ-Wilsoni <i>Clinton.</i>	Peziza hesperidea <i>C. & P.</i>
Phoma brunneotinctum <i>B. & C.</i>	P. theleboloides <i>A. & S.</i>
Diplodia vulgaris <i>Lev.</i>	Colpoma juniperinum <i>C. & P.</i>
Excipula Equiseti <i>Pk.</i>	* <i>Seirosporium Mohrii</i> <i>Clinton.</i>
Dinemasporium acerinum <i>Pk.</i>	Hypocrea contorta <i>Schw.</i>
Bactridium flavum <i>Kze.</i>	Xylaria grandis <i>Pk.</i>
Æcidium album <i>Clinton.</i>	Valsa centripeta <i>Fr.</i>
Perenospora parasitica <i>Pers.</i>	Massaria bufonia <i>Tul.</i>

* *Seirosporium Mohrii* Clinton in litt.

Cups scattered, sessile, slightly concave, margined, black; asci clavate; paraphyses very slender, filiform; spores linear, nearly colorless, closely 25-35 septate, .004-.005 in. long.

Bark of trees. Hawaii Island. Coll. H. Mann.

(4)

PLANTS FOUND GROWING SPONTANEOUSLY IN THE STATE AND NOT BEFORE REPORTED.

POTENTILLA RECTA *Willd.*Ridge near Wading River, Long Island. *E. S. Miller.*TORILIS ANTHRISCUS *Gært.*Buffalo. *G. W. Clinton.* Introduced.HELIANTHUS ANGUSTIFOLIUS *L.*Salt marsh, Peconic river. *H. W. Young.* New Lots, Long Island. *J. S. Merriam.*UTRICULARIA RESUPINATA *Greene.*Ponds, Wading River. *Miller, Young.*PYCNANTHEMUM PILOSUM *Nutt.*

Near Savannah, Wayne county.

CHENOPODIUM POLYSPERMUM *L.*Brewerton, Onondaga county. *S. N. Cowles.*RUMEX ENGELMANNI *Ledeb.*Mouth of Peconic river, L. I. *Young.*RHYNCHOSPORA NITENS *Vahl.*Wading River. *Miller, Young.*PANICUM AMARUM *Ell.*Indian island at the mouth of Peconic river. *Young.*

Long Island seems to be the northern limit of several plants having a southern range.

ASPLENIUM MONTANUM *Willd.*

Rocky precipices. New Paltz, Ulster county.

This is probably its most northern station, and at present its only known locality in the State. The credit of its discovery here belongs, I believe, to *Mr. H. Denslow.*CHARA HISPIDA *L.*New Baltimore, Greene county. *E. C. Howe.* A single specimen.CHARA HEDWIGII *Ag.*New Baltimore. *Howe.*

PANNARIA PETERSII *Tuck.*

Rocks. Trenton Falls and Glen's Falls. *H. Willey.*

PANNARIA RUBIGINOSA *Ach.*

Trunks of trees. Shandaken, Ulster county.

COLLEMA TENAX *Sow.*

Rocks. Helderberg mountains.

COLLEMA CLADODES *Tuck.*

Rocks. Trenton Falls. *Willey.*

LECANORA HAGENI *Ach.*

Rocks. Niagara Falls. *Miss M. L. Wilson.*

GYALECTA PINETI *Schrad.*

Mossy ground. Arcade. *Miss Wilson.* Shawangunk mountains. *C. F. Austin.*

BIATORA RIVULOSA *Ach.*

Rocks and stones. Worcester, Otsego county. The specimens are sterile.

BUELLIA TURGESCENTS *Nyl.*

Old wood. Buffalo. *Miss Wilson.*

LECANACTIS PREMNEA var. CHLOROCONIA *Tuck.*

Bark of hemlock trees. Ithaca. *Willey.*

STAUROTHELE CIRCINATA *Tuck.*

Rocks. Trenton Falls. *Willey.*

VERRUCARIA PINGUICULA *Mass.*

Rocks. Trenton Falls. *Willey.*

VERRUCARIA PYRENOPHORA *Ach.*

Rocks. Trenton Falls. *Willey.*

VERRUCARIA RUPESTRIS *Schrad.*

Rocks. Watkins' Glen, Schuyler county.

AGARICUS FRIESII *Lasch.*

Woods. Fort Edward. *Howe.* Worcester, Otsego county, and Memphis, Onondaga county.

Our specimens do not agree strictly with the description of the species. The stem is not scaly and the odor is scarcely perceptible

unless the plant be cut or wounded or until it is dried. The outer or lower surface of the annulus is scaly.

AGARICUS (LEPIOTA) FUSCOSQUAMEUS *Peck.**

Pileus hemispherical or convex, rough, with numerous erect pointed blackish-brown scales; lamellæ close, white, free; stem equal, thickened at the base, hollow or stuffed with a cottony pith, floccose, brown; spores $.0003 \times .00014$ of an inch.

Plant 2-3 inches high, pileus 1.5-2 inches broad, stem 3 lines thick.

Ground in woods. Croghan, Lewis county. September.

AGARICUS FELINUS *Pers.*

Ground in woods. Croghan and North Elba. August and September.

Fries, in his *Epicrisis*, unites this species with *Ag. clypeolarius*, and indeed in our specimens there is no external mark whereby the one may be separated from the other except the darker color of the scales in *Ag. felinus*. But this difference is so strongly supported by the much smaller spores ($.00028 \times .00016$ in.) that I am constrained to follow Persoon in considering this plant distinct from *Ag. clypeolarius*. *Ag. fuscusquamens* may be separated from it by its stouter habit, bulbous stem and more narrow spores.

AGARICUS (LEPIOTA) OBLITUS *Peck.*

Pileus fleshy, convex or expanded, subumbonate, smooth or obscurely squamose from the breaking up of the veil, viscid, alutaceous, inclining to tawny, the umbo generally darker; lamellæ crowded, free, whitish or yellowish, some of them forked; stem equal or slightly tapering upward, smooth at the top, floccose, viscid, hollow or containing a cottony pith; annulus obsolete; spores $.00016 \times .00012$ in.

Plant 2'-3' high, pileus 2'-3' broad, stem 3" thick.

Ground in frondose woods. Lowville, Lewis county. September.

AGARICUS (ARMILLARIA) PONDEROSUS *Peck.*

Pileus thick, compact, convex or subcampanulate, smooth, white or yellowish, the naked margin strongly involute beneath the slightly viscid persistent veil; lamellæ crowded, narrow, slightly emarginate, white inclining to cream color; stem stout subequal, firm, solid, coated by the veil, colored like the pileus, white and furfuraceous above the annulus; flesh white; spores nearly globose, $.00016$ in. in diameter.

* The species to which the author's name is appended have been published in the *Bulletin of the Buffalo Society of Natural Sciences*, vol. 1, pp. 41-72.

Plant 4'-6' high, pileus 4'-6' broad, stem about 1' thick.

Ground in woods. Copake, Columbia county. October.

The veil for a long time conceals the lamellæ and finally becomes lacerated and adheres in shreds or fragments to the stem and margin of the pileus.

AGARICUS (TRICHOLOMA) RUBICUNDUS *Peck.*

Pileus convex, then expanded or centrally depressed, viscid, slightly tomentose on the margin when young, smooth or sometimes with a few scales either on the disk or on the margin, red; lamellæ close, white becoming spotted with red, some of them forked; stem firm, equal, solid, slightly pruinose, white often stained with red; spores .00028 × .00016 in.

Plant 3'-5' high, pileus 3'-5' broad, stem 6"-8" thick.

Ground in woods. New Scotland, Albany county. October.

The plant is rarely cæspitose. The thin cuticle is separable. The color is suggestive of species of *Russula*.

AGARICUS (TRICHOLOMA) FLAVESCENS *Peck.*

Pileus firm, convex, often irregular, dry, smooth, sometimes cracking into minute scales on the disk, white or pale yellow, minutely tomentose on the margin when young; lamellæ close, floccose on the edge, white or pale yellow; stem firm, solid, often unequal, central or eccentric, colored like the pileus; spores subglobose, .0002 in. in diameter.

Plant cæspitose, 2'-3' high, pileus 2'-3' broad, stem 4"-6" thick.

Old pine stumps. Bethlehem and North Greenbush. October.

AGARICUS (TRICHOLOMA) LACUNOSUS *Peck.*

Pileus convex or expanded, dry, lacunose, densely furfuraceous, bright golden-yellow; lamellæ subdistant, white, the interspaces sometimes veiny; stem firm, solid, equal or slightly tapering downwards, scaly or furfuraceous, colored like the pileus.

Plant 1'-2' high, pileus 1' broad, stem 1" thick.

Fallen branches and decaying wood. Savannah. August.

The colors are well retained in the dried specimens. The lacunæ of the pileus give it a somewhat reticulated appearance.

AGARICUS (TRICHOLOMA) LATERARIUS *Peck.*

Pileus convex or expanded, sometimes slightly depressed in the center, pruinose, whitish, the disk often tinged with red or brown, the thin margin marked with slight subdistant, short, radiating ridges; lamellæ narrow, crowded, white, prolonged in little decur-

rent lines on the stem; stem nearly equal, solid, white; spores globose, .00018 in. in diameter.

Plant 3'-4' high, pileus 2'-4' broad, stem 3"-5" thick.

Ground in woods. Worcester. July.

The ornamentation of the margin of the pileus is a convenient mark of specific distinction.

AGARICUS (TRICHOLOMA) LIMONIUM *Peck.*

Pileus thin, broadly convex or expanded, smooth, yellowish; lamellæ crowded, narrow, not forming decurrent lines on the stem, lemon yellow; stem tapering downwards, smooth, striate, radiating.

Plant 3'-4' high, pileus 2'-3' broad, stem 3"-4" thick.

Ground in woods. Worcester and Croghan. July and September.

The lemon yellow color, especially distinct in the lamellæ, and the tapering root-like prolongation of the stem characterize this species.

AGARICUS LEUCOCEPHALUS *Krombh.*

Ground in woods. Croghan. September.

This plant is sometimes cæspitose. Its stem is narrowed at the base into a tapering root-like prolongation.

AGARICUS (TRICHOLOMA) FUMIDELLUS *Peck.*

Pileus convex, then expanded, subumbonate, smooth, moist, dingy white or clay-color clouded with brown; lamellæ close, subventricose, whitish; stem equal, smooth, solid, whitish; spores .00018 × .00015 in.

Plant 2'-3' high, pileus 1'-2' broad, stem 2'-3" thick.

Ground in woods. New Scotland. October.

The disk is generally darker than the margin. The pileus becomes paler in drying. The stem splits easily.

AGARICUS (TRICHOLOMA) THUJINUS *Peck.*

Pileus convex or centrally depressed, smooth, hygrophanous, pale alutaceous, the margin generally irregular, wavy or lobed; lamellæ crowded, thin, abruptly emarginate, alutaceous; stem slightly thickened at the top, smooth, hollow, concolorous, whitish-villous at the base.

Plant 2' high, pileus 2' broad, stem 2'-3" thick.

Swampy ground, under arbor-vitæ, *Thuja occidentalis*. Memphis. August.

AGARICUS (TRICHOLOMA) HEBELOMA *Peck.*

Pileus broadly conical or subcampanulate, obtuse, thin, hygrophanous, striatulate and brown, with a darker disk when moist, grayish when dry; lamellæ broad, rounded behind and deeply emarginate, yellowish; stem equal, hollow, smooth, pallid; spores .00028 × .00016 in.

Plant 1' high, pileus 6" broad, stem scarcely 1" thick.

Ground in woods. Worcester. July.

This plant so closely resembles some species of the subgenus *Hebeloma* in general appearance, that, in the absence of the spores, it might easily be mistaken for a species of that subgenus.

AGARICUS (CLITOCYBE) CONNEXUS *Peck.*

Pileus thin, convex or expanded, subumbonate, clothed with a minute appressed silkiness, white, the margin sometimes faintly tinged with blue; lamellæ crowded, narrow, white inclining to yellowish; stem equal or tapering downwards, solid, whitish.

Plant 2'-3' high, pileus 2'-3' broad, stem 2" thick.

Ground in woods. Croghan. September.

The lamellæ sometimes terminate rather abruptly and are not strongly decurrent, hence it might easily be mistaken for a *Tricholoma*. The margin of the pileus is sometimes marked with slight ridges as in *Ag. laterarius*. The odor is weak but aromatic and agreeable.

AGARICUS (CLITOCYBE) ALBISSIMUS *Peck.*

Pileus convex or expanded, dry, smooth, soft, pure white; lamellæ close, short-decurrent, white, some of them forked at the base; stem equal, smooth, solid, white.

Plant growing in rings, 2'-3' high, pileus 2'-3' broad, stem 2"-3" thick.

Ground in woods. Croghan. September.

The pure white color and soft texture is retained in the dried specimens.

AGARICUS (CLITOCYBE) MACULOSUS *Peck.*

Pileus convex, centrally depressed, smooth, marked with numerous watery spots when moist, yellowish-white, with slight short radiating ridges on the margin; lamellæ crowded, narrow, long-decurrent, pallid or yellowish, some of them forked; stem slightly thickened at the base, smooth, stuffed or hollow, colored like the pileus.

Plant 2'-3' high, pileus 1.5'-2' broad, stem 2"-3" thick.

Ground in woods. Croghan. September.

The watery spots of the pileus resemble those of *Ag. marmoratus*. They often disappear as the plant becomes dry.

AGARICUS (CLITOCYBE) TRUNCICOLA *Peck*.

Pileus thin, firm, expanded or slightly depressed in the center, smooth, dry, white; lamellæ narrow, thin, crowded, adnate-decurrent; stem equal, stuffed, smooth, often eccentric and curved, whitish.

Plant 1' high, pileus 1' broad, stem 1" thick.

Trunks of frondose trees, especially maples. Croghan. September.

AGARICUS (CLITOCYBE) SUBZONALIS *Peck*.

Pileus thin, centrally depressed or subinfundibuliform, marked with two or three obscure zones, with a slight appressed silkiness, pale yellow; lamellæ close, narrow, equally decurrent, some of them forked, pallid or yellowish; stem equal, slightly fibrillose, stuffed, pale yellow.

Plant 2' high, pileus 2'-3' broad, stem 2"-4" thick.

Ground in woods. Croghan. September.

AGARICUS (CLITOCYBE) GERARDIANUS *Peck*.

Pileus thin, funnel-form, hygrophanous, striatulate when moist, brown, rough with scattered blackish points; lamellæ decurrent, close, a little paler than the pileus, some of them forked; stem rather long, flexuous, smooth, stuffed, concolorous, white at the base.

Plant 2'-3' high, pileus 8"-12" broad, stem .5"-1" thick.

Sphagnous marshes. Sandlake, Rensselaer county. New Paltz. June.

This is related to *Ag. ectypoides*, but it is much more slender and fragile, with a different habitat and without the fibrous radiating lines on the pileus of that species.

AGARICUS NIGER *Schw.*

Decaying wood. Helderberg mountains.

AGARICUS CONIGENUS *Pers.*

Fallen pine cones. Croghan and New Scotland. September.

AGARICUS (COLLYBIA) COLOREUS *Peck*.

Pileus convex, subumbilicate, slightly fibrillose, hygrophanous, yellow, sometimes tinged with red, the margin exceeding the

lamellæ ; lamellæ moderately close, emarginate, yellow ; stem equal, smooth, hollow, sometimes eccentric, yellow.

Plant 1'-2' high, pileus 8"-12" broad, stem 1" thick.

Decaying wood. Croghan. September.

AGARICUS (MYCENA) MIRATUS *Peck.*

Pileus thin, campanulate, umbilicate, smooth, striate, cinereous ; lamellæ close, narrow, slightly uncinata, whitish ; stem long, filiform, smooth, whitish, radicating, villous at the base.

Plant about 2' high, pileus 3"-4" broad and high.

Among fallen leaves. Center, Albany county. October.

This species may be known by the umbilicate pileus and its long striæ which extend to the umbilicus.

AGARICUS ECHINIPES *Lasch.*

Fallen leaves. Center. Oct.

AGARICUS (OMPHALIA) RUGOSODISCUS *Peck.*

Pileus thin, convex, then expanded, smooth, hygrophanous, striatulate when moist, brown, rugulose-wrinkled on the disk, the thin margin often wavy ; lamellæ narrow, close, arcuate, decurrent, white ; stem equal, short, smooth, hollow, often curved, whitish.

Plant 1'-1.5' high, pileus 6"-12" broad, stem .5" thick.

Rotten trunks in woods. Worcester and Croghan. July and September.

The pileus varies from umbilicate to slightly umbonate. The odor and taste of radishes is sometimes perceptible.

AGARICUS (ENTOLOMA) CYANEUS *Peck.*

Pileus convex, dry, minutely scaly, brown or brownish-violaceous ; lamellæ whitish, then tinged with flesh-color ; stem equal or slightly thickened at the base, hollow, scaly and violaceous toward the top ; spores angular, $.00033 \times .00025$ in.

Plant 2' high, pileus 1'-1.5' broad, stem 1" thick.

Decaying wood and old mossy logs in woods. Pine Hill and Worcester. June and July.

It is probable that the violaceous hue becomes obsolete with age.

AGARICUS (PLUTEUS) GRANULARIS *Peck.*

Pileus convex, then expanded, subumbonate, rugose-wrinkled, sprinkled with minute blackish granules, varying in color from yellow to brown ; lamellæ rather broad, close, ventricose, free, whitish, then flesh-colored ; stem equal, solid, pallid or brown,

usually paler at the top, velvety with a short close plush; spores subglobose, about .0002 in. in diameter.

Plant 2'-3' high, pileus 1'-2' broad, stem 1"-2" thick.

Old logs in woods. Pine Hill and Worcester.

The granules form a sort of plush which is more dense on the disk of the pileus and its wrinkles than on the margin. The species is related to *Ag. nanus*, but is larger and has a different stem.

AGARICUS BYSSISEDUS *Pers.*

Rotten wood. Sterling, Cayuga county. August.

AGARICUS (LEPTONIA) FOLIOMARGINATUS *Peck.*

Pileus convex, umbilicate, scabrous on the disk, bluish-brown, the disk a little darker; lamellæ broad, subdistant, plane, whitish, then flesh-colored, the edge entire and colored like the pileus; stem smooth, equal, solid below, with a small cavity above, concolorous.

Plant 1'-2' high, pileus 6"-10" broad, stem .5" thick.

Ground and decaying wood in groves. Maryland, Otsego county. July.

It is related to *Ag. serrulatus*.

AGARICUS (NOLANEA) FUSCOFOLIUS *Peck.*

Pileus thin, conical or campanulate, papillate, smooth, hygrophanous, dark-brown and striatulate when moist, grayish-brown and shining when dry; lamellæ ascending, rather close, narrowed toward each end, brown; stem equal, stuffed, smooth, concolorous, with a white mycelium at the base; spores irregular, nucleate, $.00033 \times .00025$ in.

Plant 1' high, pileus 3"-6" broad, stem .5" thick.

In woods on old logs. Maryland. July.

AGARICUS (CREPIDOTUS) HERBARUM *n. sp.*

Pileus thin, at first resupinate, with the margin incurved, clothed with white down, at length somewhat reflexed, less downy, the thin margin spreading; lamellæ narrow, not crowded, diverging from a naked lateral or eccentric point, white, then tawny; spores slightly curved, $.00028 \times .00014$ in.

Pileus 2"-4" broad.

Dead stems of herbs. North Greenbush. October.

The pileus is attached by white, webby filaments.

AGARICUS NEPHRODES *B. & C.*

Decaying wood. Worcester. July.

Our specimens are mostly spatulate, resembling in shape *Ag. petaloides*.

AGARICUS (CREPIDOTUS) FULVOTOMENTOSUS *n. sp.*

Pileus dimidiate or reniform, sessile, clothed with numerous small tomentose tawny scales; lamellæ close, free, the edge white; spores elliptical, $.0003 \times .0002$ in.

Pileus about 1' in diameter.

Decaying wood. Savannah. August.

AGARICUS (PHOLIOTA) CERASINUS *Peck.*

Pileus broadly convex, smooth, hygrophanous, watery-cinnamon when moist, yellow when dry; lamellæ close, emarginate, yellow, then cinnamon color; stem solid, equal, often curved, furfureous at the top; annulus slight, fugacious; flesh yellow; spores elliptical, rough, $.0003 \times .0002$ in.

Plant cæspitose, 2'-4' high, pileus 2'-4' broad, stem 2"-4" thick.

Old prostrate trunks of trees in woods. Sterling. August.
When fresh it has a strong amygdaline odor.

AGARICUS (HEBELOMA) STELLATOSPORUS *Peck.*

Pileus convex, dry, rough, with numerous squarrose or erect scales, brown; lamellæ pallid, becoming brown; stem equal, scaly, concolorous; spores subglobose, rough with little nodules, $.0003$ in. in diameter.

Plant 2' high, pileus 1' broad, stem 1" thick.

Ground in woods. Croghan. September.

This plant bears a close resemblance to *Ag. mutatus*, but the persistent scales and rough spores distinguish it.

AGARICUS (HEBELOMA) GRISEOSCARBOSUS *Peck.*

Pileus hemispherical or convex, dry, rough with appressed fibres and scales, cinereous, the margin whitish when young; lamellæ close, broad, whitish when young, then ochraceous-brown; stem firm, equal or slightly tapering downward, solid, fibrillose or slightly scaly, subconcolorous; spores smooth, $.00035 \times .0002$ in.

Plant gregarious, 1.5'-2' high, pileus 6"-10" broad, stem 1"-1.5" thick.

Ground in woods. Bethlehem. October.

AGARICUS (NAUCORIA) BELLULUS *Peck.*

Pileus thin, moist, convex, smooth, bright watery-cinnamon; lamellæ crowded, narrow, emarginate, yellow, becoming darker with age; stem equal, hollow, generally curved, smooth, reddish-brown; spores $.0002 \times .00014$ in.

Plant 1' high, pileus 6"-12" broad.

Decaying hemlock trunks in woods. Lowville and Sandlake. September.

It is sometimes cæspitose. It is rare to find a specimen in which the lamellæ do not have a stained or spotted appearance as if bitten by some small insect.

AGARICUS (NAUCORIA) GEMINELLUS *Peck.*

Pileus convex, even, dry, firm, yellowish-red, the margin paler; lamellæ crowded, emarginate, pale yellow; stem equal, smooth, containing a white pith or a small cavity, colored like the pileus; flesh white; spores $.00033 \times .0002$ in.

Rotten wood. Croghan. September.

This plant is closely related to the preceding one, being of the same size and habit, but differing in color and in the size of the spores. As in that species the lamellæ are spotted as if bitten by insects.

AGARICUS (NAUCORIA) DISCOMORBIDUS *Peck.*

Pileus thin, convex or expanded, smooth, slightly viscid, reddish-brown or dull chestnut color; lamellæ narrow, crowded, minutely serrulate, white or pallid, then brownish; stem equal, stuffed, smooth, slightly mealy at the top, white; flesh white; spores nucleate, $.0004 \times .00025$ in.

Plant 2'-3' high, pileus 1'-1.5' broad, stem 1"-2" thick.

Ground in woods. Croghan and Copake. September and October.

In the dried specimens the disk has a dark discolored appearance as if beginning to decay, whence the specific name.

AGARICUS (GALERA) EXPANSUS *Peck.*

Pileus submembranaceous, expanded or centrally depressed, viscid, plicate-striate on the margin, brownish-ochre, sometimes tinged with yellow and pink hues; lamellæ close, attached, ferruginous; stem long, equal, hollow, slightly pruinose, faintly striate, yellow; spores $.00045 \times .00028$ in.

Plant 3'-4' high, pileus 1' broad, stem 1" thick.

Decaying wood. Sandlake and Memphis. August.

AGARICUS (GALERA) CALLISTUS *Peck.*

Pileus thin, expanded, subumbonate, smooth, viscid, striatulate on the margin, olivaceous or ochraceous, the umbo bright chestnut color; lamellæ thin, close, ventricose, attached to but easily separating from the stem, yellowish, becoming bright ferruginous; stem equal, hollow, pruinose, yellow; spores $.00035 \times .0002$ in.

Plant 1'-1.5' high, pileus 6"-10" broad, stem .5" thick.

Exsiccated water holes in swampy woods. Croghan. September.

This is one of the prettiest Agarics known to me. In the dried specimens the lamellæ are white on the edge and the pileus has assumed a dull metallic green color.

AGARICUS (GALERA) COPRINOIDES *Peck.*

Pileus membranaceous, soon expanded, often split on the margin, plicate-sulcate to the small even disk, yellowish, inclining to ochre; lamellæ close, slightly rounded behind, concolorous; stem equal, hollow, minutely hairy-pruinose, white; spores $.00028 \times .0002$ in.

Plant 1' high, pileus 6" broad, stem .5" thick.

Grassy ground. Sterling. August.

The structure of the pileus is like that of some of the smaller Coprini.

AGARICUS SILVATICUS *Schæff.*

Buffalo. *Clinton*. I have seen dried specimens only, but they appear to belong to this species.

AGARICUS (PSALLIOTA) DIMINUTIVUS *Peck.*

Pileus expanded or centrally depressed, sometimes with a slight umbo, dry, alutaceous, the disk rosy-brown and spotted with small appressed silky scales; lamellæ close, thin, free, ventricose, brownish-pink, becoming black; stem equal or slightly tapering upward, stuffed with a whitish pith or hollow, smooth, pallid; annulus thin, persistent, white; spores $.0002 \times .00015$ in.

Plant 1.5'-2' high, pileus 1'-1.5' broad, stem 1'-2" thick.

Ground in woods. Croghan. September.

Sometimes the whole pileus is colored reddish-brown. The flesh is quite brittle.

AGARICUS (STROPHARIA) HOWEANUS *Peck.*

Pileus convex, then expanded, fragile, smooth, subumbonate, yellowish; lamellæ close, thin, rounded behind, eroded on the

edge, whitish, becoming ferruginous-brown; stem smooth, hollow, slightly thickened at the base; annulus thin, fugacious, sometimes adhering to the margin of the pileus; flesh white; spores $.00033 \times .0002$ in.

Plant 3'-4' high, pileus 2'-3' broad, stem 2'-4" thick.

Ground. Center. June.

The surface of the pileus sometimes cracks into areas. The taste is bitter. The color of the spores is not a decided brown, and the plant might, with almost equal propriety, be referred to the subgenus *Pholiota*.

AGARICUS (HYPHOLOMA) PHYLLOGENUS *Peck*.

Pileus firm, convex, sometimes slightly umbonate, hygrophanous, reddish-brown when moist, alutaceous when dry; lamellæ plane, broad, close, brown, white on the edge; stem equal, fibrillose, stuffed or hollow, spreading out at the base into a thin flat disk; spores pale-brown, subglobose, $.0002$ in. in diameter.

Plant 8"-12" high, pileus 2"-4" broad, stem .5" thick.

Fallen leaves in woods. Worcester. July.

This is a very small but distinct species, remarkable for the disk-like base of the stem by which it is attached to the leaves on which it grows.

COPRINUS INSIGNIS *Peck*.

Pileus campanulate, thin, sulcate-striate to the disk, grayish fawn color, the smooth disk sometimes cracking into small areas or scales; lamellæ ascending, crowded; stem hollow, slightly fibrillose, striate, white; spores rough, $.0004 \times .00028$ in.

Plant 4'-5' high, pileus 2'-3' broad, stem 3" thick.

About the roots of trees in woods. Worcester. July.

The species is remarkable for its rough spores. In size and general appearance it bears some resemblance to *C. atramentarius*.

COPRINUS ANGULATUS *Peck*.

Pileus submembranaceous, hemispherical or convex, plicate-sulcate, the disk smooth; lamellæ subdistant, reaching the stem, whitish, then black; stem equal, smooth, whitish; spores compressed, angular, subovate, $.0004 \times .00033$ in.

Plant 1'-2' high, pileus 6"-12" broad, stem .5" thick.

In woods. Croghan. September.

The specific name has reference to the angular character of the spores. These in shape have some resemblance to a very blunt arrow-head, they being slightly excavated on each side of the base

and gradually narrowed toward the very obtuse apex. This and the preceding species are described from dried specimens, they being respectively taken at the time of collecting for forms of *C. atramentarius* and *C. silvaticus*.

CORTINARIUS (MYXACIUM) SPHEROSPORUS Peck.

Pileus convex, smooth, very viscid, pale ochraceous; lamellæ close, nearly plane, slightly emarginate, whitish, then cinnamon; stem tapering upward, solid, floccose, viscid, subconcolorous, white at the top; flesh white; spores nearly globose, about .0003 in. in diameter.

Plant 2'-4' high, pileus 2'-3' broad, stem 3"-5" thick.

Ground in woods. Croghan. September.

CORTINARIUS (PHLEGMACIUM) LONGIPES Peck.

Pileus convex or expanded, slightly fibrillose, viscid, yellowish or pale ochraceous; lamellæ close, plane, brownish-olivaceous, then cinnamon; stem long, slightly fibrillose, tapering upwards, whitish.

Plant 6' high, pileus 2'-3' broad, stem 4" thick.

Ground in woods. Croghan. September.

CORTINARIUS CLARICOLOR Fr.

Ground in woods. Croghan. September.

CORTINARIUS PORPHYROPUS A. & S.

Ground in woods. Copake. October.

This plant is readily known by the purplish or lilac tints it assumes where bruised or wounded.

CORTINARIUS (INOLOMA) LILACINUS Peck.

Pileus firm, hemispherical, then convex, minutely silky, lilac color; lamellæ close, lilac, then cinnamon; stem stout, bulbous, silky-fibrillose, solid, whitish, tinged with lilac; spores nucleate, .0004 × .00025 in.

Plant 4'-5' high, pileus 3' broad, stem 4"-6" thick.

Low mossy ground in woods. Croghan. September.

This is a rare but beautiful plant, allied to *C. alboviolaceus*, from which it may be distinguished by its stouter habit, deeper color and bulbous stem. In the young plant the bulb is much broader than the undeveloped pileus that surmounts it.

CORTINARIUS (INOLOMA) CLINTONIANUS Peck.

Pileus convex or expanded, with a few appressed silky fibrils, reddish-brown, more or less tinged with gray; lamellæ close, dull-

violaceous, then cinnamon; stem solid, silky-fibrillose, tapering upwards, concolorous, violaceous at the top; spores $.0003 \times .00025$ in.

Plant 2'-3' high, pileus 1'-2' broad, stem 2"-3" thick.

Ground in woods. Croghan and New Scotland. September and October.

CORTINARIUS (INOLOMA) MODESTUS *Peck.*

Pileus convex or expanded, subfibrillose, even or slightly rugose-wrinkled, alutaceous; lamellæ close, nearly plane, pallid, then cinnamon; stem bulbous, subfibrillose, hollow, or with a white pith, concolorous; flesh white; spores $.00033 \times .00025$ in.

Plant 2' high, pileus 1'-1.5' broad, stem 2" thick.

Ground in woods. Croghan. September.

It is distinguished from the preceding species by its paler color, more bulbous stem and by the entire absence of violaceous tints in the lamellæ.

CORTINARIUS (TELAMONIA) LIGNARIUS *Peck.*

Pileus smooth, hygrophanous, dark, watery-cinnamon when moist, paler when dry; lamellæ close, thin, concolorous, when young concealed by the copious white webby veil; stem equal, silky-fibrillose, hollow or with a whitish pith, subannulate, with a dense white mycelium at the base; spores $.00028 \times .0002$ in.

Plant subcæspitose, 1'-2' high, pileus 8"-12" broad, stem 1" thick.

Rotten wood. Catskill mountains. June.

CORTINARIUS TORVUS *Fr.*

Ground in woods. Maryland and Worcester. July.

CORTINARIUS (TELAMONIA) NIGRELLUS *Peck.*

Pileus at first conical, then convex or expanded, obtuse or subumbonate, minutely silky, hygrophanous, blackish-chestnut when moist, paler when dry; lamellæ close, narrow, emarginate, brownish-ochre, then cinnamon; stem subequal, silky-fibrillose, pallid, often flexuous; annulus slight, evanescent; spores $.00028 \times .00016$ in.

Plant 2'-3' high, pileus 1'-2' broad, stem 2"-3" thick.

Mossy ground in woods. New Scotland. October.

When moist the pileus has the color of boiled chestnuts, when dry, of fresh ones. The incurved margin of the young pileus is whitened by the veil. The lamellæ are darkest when young. The taste is unpleasant, resembling that of *Ag. melleus*.

CORTINARIUS (HYGROCYPHE) PULCHER *Peck.*

Pileus conical, then broadly convex, umbonate, often irregular, hygrophanous, ochraceous, shining and sometimes striatulate, when moist, pale-ochraceous when dry; lamellæ subdistant, broad, emarginate, uneven on the edge, ochraceous; stem equal, solid, subflexuous, silky-fibrillose, whitish or pale ochraceous; spores $.00033 \times .0002$ in.

Plant gregarious, 2' high, pileus 1'-1.5' broad, stem 1"-2" thick.
Ground in wood. New Scotland. October.

LEPISTA CINERASCENS *Bull.*

Ground in pine woods. Croghan. September.

Our specimens were scarcely mature and the margin of the pileus shows no striations and therefore they are referred to this species with some hesitation.

PAXILLUS STRIGOSUS *Peck.*

Pileus convex, or expanded, dry, brittle, strigose with scattered stiff hairs, whitish; lamellæ close, narrow, subdecurrent, whitish, then pale cinnamon color, some of them forked; stem equal, solid, pruinose, concolorous; spores brownish-ochre, subglobose, $.00018$ in. in diameter.

Plant 2' high, pileus 1'-1.5' broad, stem 1"-1.5" thick.

Ground among fallen leaves in woods. Croghan. September.

The young plant might readily be taken for a species of Clitocybe. It is at best an aberrant species, midway between *Lepista* and *Paxillus*, differing from the former in its highly colored spores and from the latter in its distinct, not anastomosing, lamellæ. Owing to the very brittle character of the pileus the lamellæ are not easily separated from it. The hairs of the pileus are either erect or appressed.

HYGROPHORUS PURUS *n. sp.*

Pure white and very fragile; pileus at first conical, then expanded and cupulate from the recurving of the thin margin, very viscid, often irregular; lamellæ subdistant, broad, ventricose, emarginate, with a slight decurrent tooth; stem smooth, subflexuous, hollow, very viscid; spores $.0003 \times .0002$ in.

Plant 3'-6' high, pileus 1'-2' broad, stem 2"-3" thick.

Ground in open woods. Croghan. September.

It is related to *H. ceraceus*, but besides its different color it is much more fragile.

HYGROPHORUS EBURNEUS *Bull.*

Ground in open woods. Bethlehem and North Greenbush. October.

The whole plant is pure white when fresh, but in drying the lamellæ assume a cinnamon-brown hue.

HYGROPHORUS COSSUS *Fr.*

Ground in open woods. North Greenbush and New Scotland. October.

The disk of the pileus is tinged with red or brown and the lamellæ retain their white color in the dried state.

HYGROPHORUS VIRGATULUS *n. sp.*

Pileus convex or expanded, viscid when moist, minutely virgate with innate blackish fibrils, whitish with a brownish disk; lamellæ distant, arcuate-decurrent, white; stem solid, viscid, equal or tapering downwards, with a few small white floccose scales at the top.

Plant subcæspitose, 2'-4' high, pileus 1'-2' broad, stem 2"-3" thick.

Ground in open woods. North Greenbush. October.
The lamellæ change color in drying as in *H. eburneus*.

HYGROPHORUS BOREALIS *n. sp.*

Pileus thin, convex or expanded, smooth, moist, white, sometimes striatulate; lamellæ arcuate-decurrent, distant, white; stem smooth, equal or tapering downwards, stuffed, white.

Plant 2' high, pileus 8"-12" broad, stem 1" thick.

Ground in woods. Croghan and Copake. September and October.

The species is related to *H. niveus* but the pileus is not viscid.

LACTARIUS REGALIS *Peck.*

Pileus convex, deeply depressed in the center, viscid when moist, often corrugated on the margin, white tinged with yellow; lamellæ close, decurrent, whitish, some of them forked at the base; stem stout, short, equal, hollow, smooth; taste acrid; milk sparse, white, quickly changing to sulphur-yellow; spores .0003 in.

Plant 4'-6' high, pileus 4'-6' broad, stem 1' thick.

Ground in woods. Croghan. September.

This interesting plant rivals *L. piperatus* in size and closely resembles it in general appearance; but the viscid pileus and sparse milk quickly changing to yellow, as in *L. chrysorrhæus*, clearly distinguish it.

LACTARIUS GERARDII *Peck.*

Pileus expanded or centrally depressed, dry, rugose-wrinkled, often with a minute umbo or papilla, sooty-brown, the thin spreading margin sometimes wavy or irregular; lamellæ broad, distant, decurrent, white, the interspaces uneven; stem equal, solid, colored like the pileus; flesh and spores white; taste mild; milk white, unchangeable.

Plant 3'-5' high, pileus 2'-4' broad, stem 4"-6" thick.

Ground in woods and groves. Poughkeepsie. *Gerard.* Albany and Croghan. September.

In the color of the pileus and stem this species is like the large form of *L. fuliginosus*, but its real relationship is with *L. distans*, from which it is separated by its color and its longer equal stem, characters which may prove to be only varietal.

RUSSULA SORDIDA *Peck.*

Pileus firm, convex, centrally depressed, dry, sordid white, sometimes clouded with brown; lamellæ close, white, some of them forked; stem equal, solid, concolorous; spores globose, .0003 in.; taste acid; flesh changing color when wounded, becoming black or bluish-black.

Plant 4'-5' high, pileus 3'-5' broad, stem 6"-12" thick.

Ground under hemlock trees. Worcester. July.

It resembles *L. piperatus* in general appearance. The whole plant turns black in drying.

RUSSULA CONSOBRINA *Fr.*

Ground in open woods. Davenport, Delaware county. Worcester.

Our specimens are very variable in color, but the prevailing hues are green, olivaceous and purple.

NYCTALIS ASTEROPHORA *Fr.*

Decaying fungi. Poughkeepsie. *Gerard.* Mr. G. remarks that thus far this plant has appeared each alternate season.

MARASMIUS VITICOLA *B. & C.*

Fallen branches. Worcester. July.

This plant is not limited to grape vines in its habitat.

MARASMIUS CÆSPITOSUS *Peck.*

Pileus fleshy, convex, even, brown with a lilac tint, the thin margin exceeding the lamellæ; lamellæ close, free, somewhat united with each other at the stem, narrowed outwardly, white; stem

subequal, sometimes compressed at the top, stuffed or hollow, pruinose.

Plant cæs pitose, 1'-2' high, pileus 6"-10" broad.

On a birch stump in woods. Richmondville, Schoharie county. June.

Sometimes the pileus is irregular and the stem eccentric.

MARASMIUS LONGIPES Peck.

Pileus thin, convex, smooth, finely striate on the margin, tawny-red; lamellæ not crowded, attached, white; stem tall, straight, equal, hollow, pruinose-tomentose, radica ting, brown or fawn color, white at the top.

Plant 2'-5' high, pileus 4"-6" broad, stem .5" thick.

Among fallen leaves in woods. Savannah and Bethlehem. August and October.

The tall, straight, slender stem is the characteristic feature of this plant.

MARASMIUS GLABELLUS Peck.

Pileus membranaceous, convex, then expanded, distantly striate, often uneven on the disk, dingy ochraceous; lamellæ broad, distant, unequal, free, ventricose, whitish, the upper margin and the interspaces venose; stem corneous, equal, smooth, hollow, shining, reddish-brown or chestnut, whitish at the top, mycelio-thickened at the base.

Plant 1'-2' high, pileus 6"-10" broad, stem .5" thick.

Fallen leaves in woods. Worcester and Croghan. July and September.

The color of the pileus approaches that of *M. campanulatus*, but it is generally paler and tinged with brown.

MARASMIUS STRAMINIPES Peck.

Pileus membranaceous, hemispherical or convex, smooth, striate, whitish; lamellæ distant, unequal, attached, white; stem corneous, smooth, shining, filiform, inserted, pale straw color.

Plant 1'-2' high, pileus 1"-3" broad.

Fallen leaves of pitch pine, *Pinus rigida*. Center. October.

The pale yellow stem becomes pallid in the dry state and is sometimes tinged with brown at the base.

PANUS STRIGOSUS B. & C.

Decaying wood of deciduous trees. Croghan. September.

It is remarkable for its large size and the dense hairy covering of the pileus and stem.

LENZITES VIALIS *Peck.*

Pileus coriaceous, sessile, dimidiate or elongated, sometimes confluent, obscurely zoned, subtomentose, brown or grayish-brown, the margin cinereous; lamellæ thin, abundantly anastomosing, pallid, cinereous-pruinose on the edge when fresh.

Pileus 6"-12" broad.

Old railroad ties. North Greenbush and Center. October.

This is not as bright colored as *L. sepiaria*, nor so distinctly zoned; the lamellæ are closer, thinner and more anastomosing, forming pores toward the outer margin almost as in the genus *Polyporus*.

BOLETUS PIPERATUS *Bull.*

Ground in open woods. Lowville and Bethlehem. September and October.

BOLETUS CHRYSENTERON *Fr.*

Ground in open woods. Worcester and Memphis. July and August.

BOLETUS PALLIDUS *Frost.*

Pileus soft, viscid when moist, smooth, pale alutaceous; tubes plane, attached, sometimes slightly depressed around the stem, small, subangular, pale yellow, slightly changing color when wounded; stem subequal, smooth, solid, pallid; spores $.00045 \times .00022$ in.

Plant 2'-5' high, pileus 2'-4' broad, stem 4"-6" thick.

Ground in woods. North Greenbush. August.

It is allied to *B. scaber*, from which its plane yellowish tubes and smooth stem will separate it.

BOLETUS AMPLIPORUS *Peck.*

Pileus broadly convex or expanded, sometimes slightly umbonate, dry, squamulose-tomentose, pinkish-brown; tubes convex, attached or slightly decurrent, very large, angular, compound, yellow; stem equal, solid, yellowish-brown, paler at the top and marked by the decurrent walls of the tubes; flesh whitish tinged with yellow, unchangeable; spores pale ochraceous with a greenish tinge, $.00035 \times .00016$ in.

Plant 3'-5' high, pileus 3'-4' broad, stem 3"-6" thick.

Low mossy ground in woods. North Elba and Sandlake. August and September.

Formerly I erroneously referred this plant to *B. subtomento-*

sus, from which it differs in its more tomentose pileus, larger tubes, smaller spores and smoother stem.

POLYPORUS CÆRULEOPORUS *Peck.*

Pileus fleshy, broadly convex, subtomentose, moist or hygrophanous, brown; pores short, angular, decurrent, grayish-blue; stem central or eccentric, solid, colored like the pileus, sometimes tinged with the color of the pores; flesh white.

Plant gregarious or subcæspitose, 2' high, pileus 1'-2' broad, stem 2"-3" thick.

Moist shaded banks. Copake. October.

The peculiar color of the pores is a characteristic feature in this species. It and the three following species belong to the section *Mesopus*.

POLYPORUS GRISEUS *Peck.*

Pileus fleshy, firm, convex, often irregular, smooth or with a minute appressed silkiness, dry, gray; pores small, short, unequal, somewhat angular, pallid, the mouths white; stem central, thick, short, concolorous; flesh pinkish-gray.

Plant 2'-3' high, pileus 3'-5' broad, stem 6"-10" thick.

Shaded banks, Copake. October.

The pores are sometimes decurrent and the walls or dissepiments are thickened on the edge.

POLYPORUS FLAVIDUS *Peck.*

Pileus fleshy, tough, depressed or funnel-form, smooth, rarely a little villous on the disk, zonate, yellow with darker bands, the margin sometimes lobed and wavy; pores short, minute, angular, yellow; stem central, solid, slightly tapering downwards, smooth, subconcolorous.

Plant 3'-5' high, pileus 2'-4' broad, stem 3"-4" thick.

Ground in woods. Worcester. July.

POLYPORUS SPLENDENS *Peck.*

Pileus thin, coriaceous, expanded, subumbilicate, slightly zonate, silky, with close radiating fibers, shining, dark ferruginous when moist, tawny ferruginous when dry, the margin deeply fimbriate; pores small, angular, short; subconcolorous; stem slender, equal, tomentose, concolorous.

Plant 1' high, pileus 6"-10" broad, stem .5"-1" thick.

Much decayed stumps. Center. August.

This is smaller, thinner, brighter colored and more shining than

P. perennis to which it is related. The pores are not at all decurrent and the pileus is nearly horizontal. The umbilicus, when present, is very small.

POLYPORUS HUMILIS *Peck.*

Pileus soft, smooth, spathulate, suborbicular or reniform, white; pores small, subrotund, white; stem lateral, thick, rather long, externally soft and elastic, within firm, whitish, sometimes becoming brown.

Plant 1'-2' high, pileus 8"-12" broad, stem 2"-3" thick.

Half buried sticks and branches in open woods. Sterling. August.

The thick stem, with its soft spongy external coating and hard rigid center, is a peculiar character.

POLYPORUS RHIPIDIUS *Berk.*

Old logs and stumps in woods. Sterling. August.

Without an examination of the hymenium, this might easily be taken for *Panus stipticus*.

POLYPORUS MACULATUS *n. sp.*

Pileus of a cheesy consistence, broad, flattened, sometimes confluent, sessile or narrowed into a short stem, slightly uneven, white or yellowish-white, marked with darker zones and watery spots; pores minute, subangular, short, whitish, sometimes tinged with brown; flesh white.

Pileus 4'-6' broad, 6"-8" thick.

Prostrate trunks of trees in woods. Worcester. July.

In texture and shape this species is related to *P. sulphureus*, but the pores are smaller than in that species. The plants are sometimes cæspitose, sometimes single. The spots in the dried specimens have a smooth depressed appearance.

POLYPORUS AURANTIACUS *n. sp.*

Pileus soft, thin, sessile, dimidiate, sometimes confluent, fibrous-tomentose, obscurely zoned, orange color; pores small, angular, acute, unequal, at length lacerated, pallid inclining to orange; flesh tinged with orange, obscurely zoned.

Pileus 1'-2' broad, pores about 1" long.

Old logs in woods. Richmondville. July.

Related to *P. biformis*.

POLYPORUS CONCHIFER *Schw.*

Decaying wood. Buffalo. Clinton. Lowville.

POLYPORUS FERRUGINOSUS *Fr.*

Prostrate trunks of trees. Niagara Falls. *Clinton*. Sterling. August.

It sometimes spreads to the extent of several feet.

POLYPORUS VIOLACEUS *Fr.*

Prostrate trunks of spruce trees, *Abies nigra*. Croghan. September.

Our specimens are somewhat doubtfully referred to this species. They are not at all violet, but dark red or liver color. This in old specimens changes to a tawny or cinnamon hue and the dissepiments become thin. The plant has a white byssoid margin.

POLYPORUS SANGUIOLENTUS *Fr.*

Rotten logs in woods. Savannah and Croghan. August and September.

POLYPORUS GORDONIENSIS *B. & Br.*

Decaying wood. Buffalo. *Clinton*.

POLYPORUS ARMENIACUS *Berk.*

Old railroad ties. North Greenbush. October.

POLYPORUS ATTENUATUS *Peck.*

Resupinate, effused, very thin, separable from the matrix, pinkish-ochre, the margin whitish; pores minute, subrotund, with thin acute dissepiments.

Prostrate trunks of deciduous trees. Croghan. September.
The pores are scarcely visible to the naked eye.

CYCLOMYCES GREENII *Berk.*

Mossy bank by the side of an old wood road. Sterling. August. A single specimen.

In our plant the pileus is top-shaped or obconic and not at all undulated lobed or zoned, but we hesitate to characterize a new species on the single specimen found and therefore refer it provisionally as above.

HEXAGONA CARBONARIA *B. & C.*

Decaying wood. Portage. *Clinton*. Worcester. July and October.

Not without doubt are our specimens referred to this species. Although agreeing in color with authenticated specimens received from Dr. Curtis, the pores are larger and the plant is not always resupinate.

HYDNUM CONFLUENS *n. sp.*

Pileus thin, tough, expanded or slightly depressed, sometimes confluent, zonate, slightly fibrous-tomentose, hygrophanous, dark brown when moist, drab brown when dry; spines slender, 1''-2'' long, grayish-violet; stem short, surrounded below by a dense mycelioid tomentum spores subglobose, .00012 in. in diameter.

Plant 2'-3' high, pileus 2'-3' broad.

HYDNUM SULPHUREUM *Schw.*

Decaying wood. Buffalo. *Clinton.*

HYDNUM FERRUGINOSUM *Fr.*

Half buried sticks and stems of herbs. Center. October.

SISTOTREMA CONFLUENS *Pers.*

Shaded banks. Copake. October.

In our specimens the pileus is not at all villous, but I am disposed to regard our plant as nothing more than a smooth variety. It is scarcely to be expected that a rigid agreement should always be found to exist between our fungoid plants, modified as they often are by local causes, and the brief descriptions too often drawn up from dried specimens only or from these and the few hasty notes of collectors. The describer, especially of our fleshy species, ought also to be the collector and the observer of them in their native haunts.

GRANDINIA CORIARIA *Peck.*

Effused, membranaceous-tomentose, separable from the matrix, under side and margin tawny-yellow, upper side and minute crowded granules greenish or dingy olivaceous; spores globose, rough, .0003 in. in diameter.

Forming patches 1'-3' in diameter on old scraps of leather in damp places. Greenbush. August.

It is a very distinct but apparently a very rare species.

THELEPHORA WILLEI *Clinton.*

Pileus infundibuliform, thin, smooth, obscurely zoned, white, the margin entire or laciniately toothed and lobed; hymenium smooth, concolorous; stem central, equal or slightly tapering downwards, solid, white.

Plant 1'-1.5' high, pileus 6''-12'' broad, stem .5''-1'' thick.

Ground in woods. Buffalo. *Clinton.* Lowville. September.

Sometimes the pileus is split on one side down to the stem. The species is dedicated to *Mr. H. Willey*, a most active and enthusiastic lichenist.

STEREUM TENERRIMUM *B. & R.*

Mossy ground. Indian Lake and Croghan. September and October.

I have seen no description of this species, and depend, for the correctness of the determination, upon a comparison of our specimens with authenticated ones received from the late Dr. Curtis.

STEREUM RADIATUM *Peck.*

Rusupinate or slightly reflexed, suborbicular or effused, blackish-brown; hymenium uneven, marked with thick corrugations or ridges radiating from the center, cinnamon color.

Old hemlock logs. Catskill mountains. June.

CORTICIUM LEUCOTHRIX *B. & C.*

Under surface of pine chips. Bethlehem. October.

CORTICIUM BICOLOR *Peck.*

Thin, membranaceous, flaccid, smooth, separable from the matrix, under surface greenish-yellow, upper surface white.

Rotten wood. Center. October.

CLAVARIA FISTULOSA *Fr.*

Catskill mountains. October. A single specimen.

TREMELLA FRONDOSA *Fr.*

Old stumps. Buffalo. Clinton. Savannah. August.

EXOBASIDIUM AZALEÆ *Peck.*

Gall subglobose, often lobed or irregular, succulent, fleshy, solid, smooth, pale green or glaucous, becoming pruinose; spores oblong, straight or curved, obscurely uniseptate, white, .0006-.0008 in. long.

Terminal on living branches of the pinxter plant, *Azalea nudiflora*, transforming the flower buds.

North Greenbush and New Scotland. May and June.

These fungus galls are usually from one to two inches in diameter and appear contemporaneously with the blossoms of the shrub they inhabit. They are known in some localities by the name "May apples" and not being unpleasant to the taste they are sometimes eaten by voracious school boys. Upon attaining their full size they soon become dusted by the white spores which are borne upon the apices of minute filaments projecting slightly from the whole surface of the gall.

EXOBASIDIUM ANDROMEDÆ Peck.

Gall usually flattened or somewhat cup-shaped, more or less lobed, hollow, the cavity containing shreds of loose soft cottony filaments, smooth, pale green or green varied with red, paler and pruinose with age; spores narrow, oblong, simple, often curved near one end, white, .0007-.0009 in. long.

Lateral or rarely terminal on living branches of *Andromeda ligustrina*, transforming the leaf buds. Center. May and June.

Sometimes the dried blackened galls of the preceding year are found adhering to the branches in company with the new crop. The loose shreddy substance contained in the cavity of the gall is found by microscopic examination to be composed entirely of coarse irregular jointed filaments.

Smaller but similar galls have been seen on a species of *Vaccinium* at Center and one has been received from Florida, but I have not yet fully determined the characters of these. *Exobasidium Vaccinii* Woronin, occurs in Europe on *Vaccinium Vitis-Idæa*. It is perhaps worthy of remark that thus far these peculiar fungus galls have been observed on Ericaceous plants only.

ÆTHALIUM FERRINCOLA Schw.

Iron rails of railroads. Worcester and Schenevus. July.

GEASTER BRYANTII Berk.

Ground. Schoharie.

LYCOPERDON PEDICELLATUM Peck.

Subpyriform, whitish, the outer peridium persistent, forming dense angular spinose processes which are smaller toward the base of the plant; capillitium and spores greenish ochre or dingy olivaceous, the latter pedicellate, smooth, .00016-.00018 in. in diameter, the pedicel three to five times as long.

Plant about one inch in diameter.

Ground and rotten wood. Croghan and Center. September and October.

In shape this plant resembles the ordinary form of *L. pyriforme*, but the outer peridium is more coarse and shaggy than in that species.

LYCOPERDON SEPARANS n. sp.

Subglobose, sessile, white, the outer peridium forming dense pyramidal substellate warts which easily separate from the membranaceous inner one; capillitium and spores dingy olivaceous, the latter globose, smooth, .00016 in. in diameter.

Ground in pastures and grassy places. Worcester. July.

SPUMARIA ALBA *DC.*

Incrusting sticks and twigs near the ground. Croghan. September.

DIDERMA CRUSTACEUM *Peck.*

Effused or circumambient, crowded, sessile, subglobose, smooth, white, outer peridium crustaceous, like the shell of some small egg, the inner delicate, appearing cinereous to the naked eye, iridescent under the microscope; columella none; spores globose, black, .0005 in. in diameter.

Fallen sticks and leaves under arbor-vitæ. Memphis. August.

DIDERMA MARIE-WILSONI *Clinton.*

Scattered or crowded, sessile, subglobose, smooth, white or pinkish-white, outer peridium crustaceous, like the shell of some small egg, within at the base brownish-pink, inner peridium delicate; columella subglobose, rugulose, slightly colored; spores globose, blackish-brown; .0004 in. in diameter.

Fallen leaves, sticks, moss, etc. Buffalo. *Clinton.* Memphis, Center and Sandlake. August and October.

DIDERMA FARINACEUM *Peck.*

Effused or circumambient, crowded, sessile, subglobose, plumbeous when moist, becoming white rugulose and farinaceous when dry; spores globose, brown, black in the mass, .0004 in. in diameter.

Creeping over mosses and investing fern stems in low woods. Croghan. September.

The moisture from the fresh plant stains white paper lead color.

DIDYMIUM CONNATUM *Peck.*

Peridium depressed or subglobose, cinereous, furfuraceous, stipitate; stems mostly connate at the base, tapering upward, longitudinally wrinkled, whitish or cream color; spores subglobose, black, .0004 in. in diameter.

Decaying fungi. Portville. September.

The subfasciculate mode of growth is characteristic of this species.

DIDYMIUM FURFURACEUM *Fr.*

Rotten wood. Worcester. July.

After the breaking up of the peridium, minute portions of it are seen adhering to the flocci. The spores are globose, smooth, .00033 in. in diameter.

Didymium farinaceum Fr.

Fallen pine leaves. Center. October. Also on mosses. North Elba. August.

Physarum pulcherripes Peck.

Peridium globose, variable in color, ochraceous, gray, brown or black; stem slender, equal or slightly tapering upward, vermilion; spores globose, brown, .00033 in. in diameter.

Rotten wood. Richmondville and Worcester. July.

The bright color of the stem is quite conspicuous notwithstanding the small size of the plant.

Physarum caespitosum Peck.

Peridia aggregated in tufts or clusters, crowded, sessile, smooth, brown or blackish-brown; spores dingy ochre, smooth, globose, .00025 in. in diameter.

Rotten wood. Greenbush. August.

Angioridium sinuosum Grev.

Dead stems of herbs and grass. Center. October.

Craterium leucocephalum Ditm.

Fallen leaves. Croghan and North Elba. August and September.

Craterium obovatum Peck.

Peridium obovate, rugose-wrinkled, glabrous, lilac-brown; flocci whitish; stem colored like the peridium; spores smooth, globose, black, .0005-.0006 in. in diameter.

Rotten wood bark and fallen leaves. Center, Sandlake and Croghan. August and September.

The peridium varies in shape from subglobose to oblong pyriform, but the prevailing form is obovate. The operculum is not distinctly shown, the peridium often appearing to be irregularly ruptured at the apex, so that possibly the species may have to be referred to *Physarum*.

Stemonitis herbatica Peck.

Densely fasciculate; capillitium slender, cylindrical, brown when moist, ferruginous-brown when dry; stem black, arising from a membranaceous hypothallus, penetrating to the apex of the capillitium; spores globose, .0003-.00035 in. in diameter.

Plant 2"-3" high, growing on living leaves of grass and herbs. Albany. June.

The color of this plant is almost the same as in *S. ferruginea* but the spores are much larger, surpassing even those of *S. fusca*. The habitat is peculiar.

ARCYRIA NUTANS *Fr.*

Rotten wood. Richmondville. July.

TRICHIA RENIFORMIS *Peck.*

Peridia gregarious or clustered, sessile, subglobose or reniform, small, brown; flocci few, short, sparingly branched; spores globose, minutely echinulate, yellow-ochre, sometimes tinged with green, .0005 in. in diameter.

Dead bark of striped maple, *Acer Pennsylvanicum*. Portville. September.

LICEA CYLINDRICA *Fr.*

Rotten wood. Worcester and Croghan. July and September.

PERICHÆNA FLAVIDA *Peck.*

Yellow throughout; peridia crowded, clustered, sessile, variable in size and shape, shining; flocci few, short, subnodulose, obtuse, sparingly branched; spores globose, echinulate, .00045 in. in diameter.

Mosses. Sandlake. August.

The mature peridia are sometimes wrinkled at the top. The bright golden yellow color renders the clusters conspicuous.

PHOMA BRUNNEOTINCTUM *B. & C.*

Inside of chestnut burrs. Buffalo. *Clinton.*

SPHÆRONEMA MAGNOLIÆ *n. sp.*

Perithecia scattered, erumpent, black, with a long firm spine-like ostiolum a line or more in length; spores broadly elliptical or subglobose, often with a single nucleus, colored when mature, .0004 in. long.

Dead branches of the cucumber tree, *Magnolia acuminata*. Portville. September.

It has almost exactly the size and appearance of *S. spina*, but the spores constitute a distinguishing character.

DIPLODIA VULGARIS *Lev.*

Dead branches of locust trees. Buffalo. *Clinton.*

EXCIPULA EUISETI *n. sp.*

Perithecia minute, scattered, flattened, black, furnished with a few long straight black bristles; spores straight, nearly cylindrical, colorless, .00035-.0004 in. long.

Dead stems of Equisetum. Buffalo. Clinton.

DINEMASPORUM ACERINUM *Peck.*

Perithecia small, pezizoid, black, hispid with short straight scattered black hairs; spores unequally elliptical, .0003 in. long, the bristle at each end scarcely one-third the length of the spore.

Dry maple wood. Buffalo. Clinton. April.

In *D. Robinia* the spores are shorter and the bristles longer than in this species.

PESTALOZZIA PEZIZOIDES *De Not.*

Bark of dead grape-vines. Fort Edward. Howe. North Greenbush. October.

BACTRIDIIUM FLAVUM *Kze.*

Rotten wood. Buffalo. Clinton. Savannah and Croghan. August and September.

PUCCINIA LOBELIAE *Gerard.*

Sori minute scattered or confluent, tawny-brown, spores oblong-elliptical, slightly constricted at the septum and easily separating into two parts, pale, .0013-.0016 in. long; pedicel short or obsolete.

Lower surface of leaves of *Lobelia syphilitica*. Poughkeepsie. Gerard.

The fragile spores are peculiar.

PUCCINIA CURTIPES *Howe.*

Leaves of *Saxifraga Pennsylvanica*. Yonkers. Howe.

UROMYCES PYRIFORMIS *Cooke.*

Leaves of sweet flag, *Acorus Calamus*. New Baltimore. Howe. Watkins and Montezuma marshes. September.

UROMYCES SPARGANII *C. & P.*

Sori minute, oblong, crowded, black, spores pyriform or oblong-pyriform, about .001 in. long; pedicel colored, shorter than or equal to the spore in length.

Both sides of leaves of Sparganium. Buffalo. Clinton. Montezuma marshes. September. New Baltimore. Howe.

UREDØ CARYOPHYLLACEARUM *Johnst.*

Leaves of *Cerastium*. Poughkeepsie. *Gerard.*

ÆCIDIDIUM LYSIMACHIÆ *Lk.*

Leaves of *Lysimachia quadrifolia*. Poughkeepsie. *Gerard.*

ÆCIDIDIUM ALBUM *Clinton.*

Spots none ; peridia scattered, short, white, the margin subentire ; spores subglobose, white, about .0008 in. in diameter.

Lower surface of leaves of *Vicia Americana*. Buffalo. *Clinton.*

ÆCIDIDIUM LYCOPI *Gerard.*

Spots yellow ; subiculum more or less thickened ; peridia short, scattered or crowded, margin crenate ; spores pale yellow.

Leaves, stems and petioles of *Lycopus Europæus*. Poughkeepsie. *Gerard.* Buffalo. *Clinton.* New Paltz. June.

It appears to be closely related to *Æ. Compositarum*.

ÆCIDIDIUM UVULARIÆ *Schw.*

Leaves of *Uvularia sessilifolium*. New Lots, L. I. *Merriam.*

ÆCIDIDIUM HYDROPHYLLI, *Peck.*

Spots small, few, yellow with a pale greenish border ; subiculum thickened, whitish ; peridia few, generally crowded, short, the margin subcrenate ; spores bright yellow or orange ; spermogonia central, on the opposite side.

Lower surface of leaves of *Hydrophyllum Canadense*. Catskill mountains. June.

CERATIUM HYDNOIDES *A. & S.*

Rotten wood in shaded places. Greenbush and Worcester. June and July.

CERATIUM PORIODES *A. & S.*

Decaying prostrate trunks of trees. Richmondville. July.

STILBUM RAMOSUM *Peck.*

Head subglobose whitish or pale yellow ; stem thick, smooth, branched, white above, pallid or brownish below, sometimes creeping and sending up branches at intervals ; spores minute, oblong.

Dead larvæ of insects buried in rotten wood. Sterling. September.

MYROTHECIUM FUNGICOLA *n. sp.*

Receptacle small, white-margined, the disk black or greenish-black; spores oblong, about .0002 in. long.

Decaying fungi. North Greenbush.

HELICOMA MULLERI *Cd.*

Dead bark of poplar branches. North Greenbush. October.
The flocci vary somewhat from those of the European plant.

ASPERGILLUS GLAUCUS *Lk.*

Vegetable substances in damp places. Albany.

ASPERGILLUS FULIGINOSUS *Peck.*

Creeping flocci white, septate, fertile flocci erect, not septate, crowned with a globose head which is rough with projecting processes; spores globose, sooty black, smooth, .00016 in. in diameter.

Rice paste and other vegetable substances. Albany.

Spores were taken from the paste and planted on apple, on which a new crop was raised.

POLYACTIS FASCICULARIS *Cd.*

Dead stems of *Polygonum*. Greenbush. May.

PERENOSPORA PARASITICA *Pers.*

Leaves of *Cardamine rhomboidea*. Buffalo. Clinton.

OIDIUM MEGALOSPORUM *B. & C.*

Rotten wood. Buffalo. Clinton.

This species is remarkable for its very large globose spores.

OIDIUM FULVUM *Lk.*

Rotten wood. Buffalo. Clinton. Savannah. August.

FUSISPORIUM ROSEOLUM *Steph.*

Decaying potatoes. Sandlake. June.

PILACRE FAGINEA *Fr.*

Old stumps and logs of beech. Maryland. July.

MUCOR INÆQUALIS *n. sp.*

Fertile flocci simple or once or twice divided, white; sporangia globose, at first white, then bluish-black or brownish-black; spores somewhat angular, subglobose, very unequal in size, .0002-.0005 in. in diameter.

Decaying squashes. Albany. October.

UNCINULA SPIRALIS B. & C. (*U. Americana* Howe.)

Leaves of grape-vines. New Baltimore. *Howe*. Buffalo. *Clinton*. Poughkeepsie. *Gerard*.

The very long appendages distinguish this from *U. Ampelopsidis*.

UNCINULA FLEXUOSA *Pk.*

Leaves of horse chestnut, *Æsculus Hippocastanum*. Buffalo. *Clinton*.

The wavy-flexuous appendages are peculiar to this species, and with its more numerous spores separate it from *U. adunca* to which it is sometimes referred.

UNCINULA PARVULA C. & P.

Leaves of the hackberry, *Celtis occidentalis*. Poughkeepsie. *Gerard*. September.

MICROSPHÆRA RUSSELLII *Clinton*.

Amphigenous ; mycelium arachnoid, evanescent ; appendages 8-18, very long, flexuous, colored, paler toward the tips which are simple or one to three times divided ; sporangia ovate, 4-8 ; spores 4, elliptical, .0007-.0008 in. long.

Leaves and petioles of the yellow wood sorrel, *Oxalis stricta*. Buffalo. *Clinton*. North Greenbush. October.

The scanty mycelium and colored appendages separate this species from *M. holosericea*.

MICROSPHÆRA DUBYI *Lev.*

Leaves of honeysuckle, *Lonicera parviflora*. Buffalo. *Clinton*. New Baltimore. *Howe*. Croghan. September.

MICROSPHÆRA DENSISSIMA *Schw.*

Fallen oak leaves. Saratoga. October.

This is a very distinct species, forming definite orbicular patches of dense white filaments.

ERYSIPHE EUPHORBIÆ *Peck.*

Mycelium thin ; conceptacles small, .0035 in. in diameter ; appendages few, long, flexuous, colored ; sporangia broadly ovate, 3-4 ; spores 3-4, large, .001 × .00065 in.

Leaves of *Euphorbia hypericifolia*. Greenbush. October.

The mycelium occurs on both sides of the leaf, but conceptacles were observed on the lower surface only.

PEZIZA HESPERIDEA C. & P.

Among fallen leaves. Goat Island, where it was first found. *Clinton*. Savannah. August.

PEZIZA UNICISA *n. sp*

Cup large, thin, split on one side to the base, sessile or with a short stem, externally rugulose, minutely pulverulent under a lens, yellow, within pale yellow slightly tinged with pink; spores elliptical, usually containing two nuclei, .0005-.0006 in. long.

Ground in woods. Croghan. September.

The cups are about two inches broad. The species is related to *P. onotica*.

PEZIZA VIOLACEA *Pers.*

Burnt ground in woods. Worcester. July.

PEZIZA SUBOCHRACEA *C. & P.*

Dead stems of *Rubus odoratus*. Adirondack mountains. July.

PEZIZA LACERATA *C. & P.*

Dead stems of *Rubus odoratus*. Adirondack mountains. July.

PEZIZA VINCTA *C. & P.*

Decaying wood. Sandlake. October.

PEZIZA CROCITINCTA *B. & C.*

Decaying wood. Poughkeepsie. Gerard. North Greenbush. October.

This seems to be the same as *P. Chlora* Schw.

PEZIZA DEHNII *Rabh.*

Leaves and stems of living *Potentilla argentea*. Bethlehem. June.

PEZIZA PULVERULENTA *Libert.*

Fallen leaves of pine trees. New Scotland. June.

PEZIZA ASSIMILIS *C. & P.*

Dead stems of *Aster puniceus*. West Albany. May.

PEZIZA THELEBOLOIDES *A. & S.*

Spent hops. Buffalo. Clinton.

PEZIZA ALBUMINA *C. & P.*

Cups soft, orbicular or contorted, soon becoming nearly plane, whitish, then pallid, depressed in the center when dry, margin elevated; stem very short, rather thick, concolorous; asci cylindrical; spores sausage shaped, .0003 in. long.

Decorticated sticks. North Greenbush. October.

It resembles, in color and texture, fragments of the albumen of a cocoa nut. The cups are cracked and fissured in drying. In its soft substance it approaches the section *Mollisia*.

PEZIZA CORRUGATA C. & P.

Subgregarious; cups subglobose, then expanded and nearly plane, black, the margin elevated; hymenium corrugated, elevated in the center when dry, attached to the matrix by delicate radiating fibrils; asci subclavate; spores narrowly fusiform, two to three nucleate, .0006-.0008 in. long.

Decaying wood. North Greenbush. November.

It is allied to *P. compressa*. The spores probably become tri-septate.

PEZIZA CHRYSOPLITHALMA Gerard.

Damp earth among mosses. Poughkeepsie. Gerard.

HELOTIUM RUGIPES n. sp.

Cups concave, then expanded, sometimes with a small dimple or umbilicus in the center, externally brown, yellowish in the dried state; disk greenish-brown, sometimes yellowish; stem short, tapering downwards, rugose-lacunose, the wrinkles extending upwards on the cup; asci slender, cylindrical; spores uniseriate, uniseptate, elliptical, .0003 × .00015 in. .

Rotten wood. Worcester. July.

The cups are 2"-4" broad. In the dried specimens before me the hymenium has retained its greenish-brown hue.

HELOTIUM THUJINUM n. sp.

Cup smooth, sessile, concave or nearly plane, orange, externally a little paler; spores globose, .0003 in. in diameter.

Fallen branchlets of arbor vitæ, *Thuja occidentalis*. Lowville. September.

HELOTIUM MACROSPORUM n. sp.

Cups at first nearly closed, then expanded and slightly concave, whitish, externally furfuraceous; stem short, rather thick; spores oblong, containing a single large nucleus, .001-.0012 in. long.

Decaying wood of beech trees. Worcester. July.

The plant changes to a light brown in drying. The long spores suggest the specific name.

HELOTIUM GRACILE *C. & P.*

Ochraceous; cups plane, then convex, immarginate, rather thin, externally slightly paler; stem slender, equal, brownish toward the base, about as long as the diameter of the cup; asci cylindrical; spores cylindrical or subfusiform, obtuse at the extremities, two to three nucleate, .0007-.0008 in. long.

Stems of herbs. Center. October.

In size and habit it resembles *P. cyathoides*, but the cups are never closed.

HELOTIUM LIMONIUM *C. & P.*

Lemon yellow, externally paler; cups plane or slightly convex, immarginate, at first externally delicately farinaceous; stem slender, equal, not longer than the diameter of the cup; asci cylindrical; spores cylindrical, obtuse at each end, curved or straight, .0003 in. long.

Stems of herbs. Center. October.

ELAPHOMYCES GRANULATUS *Fr.*

Under ground in pine woods. Maryland and Croghan. July and September.

HYSTERIUM SPHÆRIOIDES *A. & S.*

Leaves of Labrador tea, *Ledum latifolium*. Sandlake.

HYSTERIUM MACULARE *Fr.*

Leaves of leather leaf, *Cassandra calyculata*. Sandlake. August.

HYSTERIUM TYPHINUM *Fr.*

Dead leaves of *Typha latifolia*. Guilderland. May.

HYSTERIUM EXARIDUM *C. & P.*

Fallen leaves of sheep-laurel, *Kalmia angustifolia*. Sandlake. June.

HYSTERIUM ANGUSTATUM *A. & S.*

Bark of deciduous trees. Sandlake.

HYSTERIUM MACROSPORUM *n. sp.*

Perithecia longitudinally striate; spores crowded, oblong, colored, triseptate, .0016-.002 in. long.

Decorticated pine wood. North Greenbush. November.

COLPOMA JUNIPERINUM *C. & P.*

Bark of juniper trees, *Juniperus Virginiana*. Buffalo. Clinton. Also on balsam trees. Adirondack mountains.

TORRUBIA CAPITATA *Fr.*

Pine woods, growing from *Elaphomyces granulatus*. Maryland and Croghan. July and September.

HYPOCREA ALUTACEA *Fr.*

Fallen leaves in woods. Croghan. September.

HYPOCREA CONTORTA *Schw.*

Among mosses on decaying wood. Buffalo. Clinton.

HYPOMYCES POLYPORINUS *Peck.*

Perithecia minute, ovate or subconical, seated on a pallid subiculum, smooth, yellowish or pale amber; asci narrow, linear; spores fusiform, acuminate at each end, nucleate, .0006-.0007 in. long.

On *Polyporus versicolor*. Richmondville, Worcester and Croghan. July and September.

It seems a little remarkable that this species not before observed, should be found in one season in three distinct localities.

HYPOMYCES VAN BRUNTIANUS *Gerard.*

On *Agaricus*. Poughkeepsie. Gerard.

NECTRIA RIBIS *Tode.*

Dead currant stems. Bethlehem and Greenbush.

NECTRIA COCCINEA *Fr.*

Dead branches of water beech, *Carpinus Americana*. Greenbush. August.

NECTRIA CELASTRI *Schw.*

Dead stems of *Celastrus scandens*. Greenbush. May.

This is often accompanied by its Conidia, *Tubercularia Celastri* Schw.

NECTRIA BALSAMEA *C. & P.*

Bark of dead balsam trees, *Abies balsamea*. North Elba. August.

NECTRIA APOCYNII *Peck.*

Conidia. Subhemispherical or irregular, small, pale red; spores fusiform, straight, .0005-.0006 in. long.

Ascophore. Cæspitose or scattered, dull red; perithecia minute, pale ochraceous and subglobose when moist, dull red collapsed or laterally compressed and rough with minute whitish scales when dry; ostiola minute; spores biseriate, uniseptate, fusiform, usually constricted in the middle, nucleate, .00065-.0008 in. long.

Lower part of dead stems of Indian Hemp, *Apocynum cannabinum*. North Greenbush. October.

NECTRIA MYCETOPHILA *n. sp.*

Perithecia crowded or scattered, minute, smooth, subglobose, pale yellow when young, then pinkish-ochre; ostiola minute, papillate, distinct, darker colored; asci subclavate; spores oblong, simple, .0005 × .00016 in.

Decaying fungi. New Scotland. October.

XYLARIA GRANDIS *n. sp.*

Large, blackish-brown, irregular, obtusely pointed and rusty-brown at the sterile tip, abruptly narrowed at the base; central substance white; perithecia subglobose; spores subfusiform, pointed at each end, straight or slightly curved, .0008-.0009 in. long; stem branched, radicating, often greatly elongated.

Plant 3'-5' high, heads 1.5'-3' long, 8"-12" thick.

Ground. Portage. *Clinton*.

The branching stem and pointed sterile apices of the clubs separate this from *X. polymorpha* which it also surpasses in size. The larger spores distinguish it from *X. digitata*.

XYLARIA GRAMINICOLA *Gerard in litt.*

Club slender, cylindrical, simple, at first greenish pulverulent, then blackish-brown, roughened by the prominent globose perithecia, tips sterile, acuminate; stem smooth, straight or flexuous, brown; spores uniseriate, unequally elliptical, .0004 × .0002 in.

Plant about 2' high, parasitic on the roots of languishing grasses. Poughkeepsie. *Gerard*.

It is allied to *X. Hypoxylon*.

EUTYPA ACHARII *Tul.*

Decorticated poplar. Helderberg mountains. May.

DIATRYPE PLATYSTOMA *Schw.*

Dead branches of maple trees. Tyre and Center. September.

DIATRYPE BULLATA *Fr.*

Bark of dead saplings. Tyre. September.

DIATRYPE TOCCLEANA *De Not.*

Dead hazel and alder branches. Center and Sandlake. October.

DIATRYPE MOROIDES *C. & P.*

Dead branches of alders. Sandlake. September.

MELANCONIS STILBOSTOMA *Tul.*

Dead trunks and branches of white birch, *Betula populifolia*. Center. May.

VALSA BICINCTA *C. & P.*

Dead branches of butternut, *Juglans cinerea*. Greenbush. May.

VALSA CENTRIPETA *Fr.*

Dead alders. Buffalo. Clinton.

LOPHIUM MYTILINUM *Fr.*

Decaying wood. Poughkeepsie. Gerard.

LOPHIOSTOMA MAGNATUM *C. & P.*

Decaying wood. Tyre. September.

LOPHIOSTOMA TURRITUM *C. & P.*

Dead branches of willows. Sandlake. September.

SPHÆRIA CANESCENS *Pers.*

Rotten wood. Portville and Croghan. September.

SPHÆRIA SARMENTORUM *Fr.*

Dead vines of moonseed, *Menispermum Canadense*. Poughkeepsie. Gerard. North Greenbush. November.

SPHÆRIA MACULÆFORMIS *Pers.*

Fallen leaves of basswood, *Tilia Americana*. Helderberg mountains. May.

SPHÆRIA STAPHYLINA *Peck.*

Perithecia minute, black, covered by the epidermis which at length ruptures in a stellate manner or irregularly; spores biseri-

ate, colorless, constricted in the middle, three to five septate, .0009-.001 in. long, the two parts formed by the central septum unequal in diameter.

Dead twigs of *Staphylea trifolia*. Helderberg mountains. May.

SPHÆRIA DESMODII *Peck.*

Perithecia scattered or seriatly placed, minute covered by the epidermis which is pierced by the acute or narrowly conical ostium, black; asci clavate; spores biseriate, fusiform, colorless, quadrinucleate, .00035-.0004 in. long.

Dead stems of *Desmodium*. Garrisons. June.

SPHÆRIA VIRIDICOMA *C. & P.*

Dead branches of beech. Sandlake. October.

SPHÆRIA MUTANS *C. & P.*

Decaying wood. Tyre. September.

SPHÆRIA SEMEN *C. & P.*

Fallen petioles of mountain ash, *Pyrus Americana*. Sandlake. September.

SPHÆRIA SUBCONICA *C. & P.*

Dead stems of herbs. Greig. September.

SPHÆRIA FUSCELLA *B. & Br.*

Dead stems of raspberry, *Rubus strigosus*. Greenbush. June.

SPHÆRIA RACEMULA *C. & P.*

Dead stems of willow herb, *Epilobium angustifolium*. Adirondack mountains. July.

MASSARIA BUFONIA *Tul.*

Bark of white oak trees. Buffalo. Clinton. Poughkeepsie. Gerard. Greenbush. May.

The spores in our plant are a little smaller than in the European, being .0006-.0008 in. long.

NEW STATIONS OF RARE PLANTS, REMARKS AND OBSERVATIONS.

SESUVIUM PENTANDRUM *Ell.*

This plant, found by Mr. Merriam near East Hampton, L. I., and formerly considered a variety of *S. Portulacastrum*, is now believed to be distinct and our only northern species.

HIBISCUS MOSCHEUTOS *L.*

Montezuma marshes. It seems a little strange that this plant with its very large showy flowers should not be cultivated by florists and ornamental gardeners.

TILIA AMERICANA var. PUBESCENS *Gr.*

Wading River, L. I. *Miller.*

DESMODIUM LÆVIGATUM *DC.*

Manorville, L. I. *Miller.*

GALACTIA MOLLIS *Mx.*

Wading River. *Miller.*

GEUM ALBUM *Gmelin.*

Greenfield, Westchester county. *Howe.* This is a variety with very small bright golden yellow petals.

MYRIOPHYLLUM TENELLUM *Bigel.*

Wading River. *Miller.*

MYRIOPHYLLUM AMBIGUUM var. LIMOSUM *Gr.*

Wading River. *Miller.*

ACNIDA CANNABINA *L.*

Not uncommon in the valley of the Hudson river below Poughkeepsie. *Howe.*

TYPHA LATIFOLIA *L.*

The dried leaves of this species are sold for thirty or forty dollars a ton at the markets near the Montezuma marshes, but the allied species, *Typha angustifolia*, is regarded as worthless, the leaves of it not being salable.

NAIAS MAJOR *All.*

Seneca river near Savannah.

POGONIA PENDULA *Lindl.*

Woods near Savannah.

JUNCUS TRIFIDUS *L.*

Shawangunk mountains, Ulster county. This rush has heretofore been found in the State on the high summits of the Adirondack mountains only. This new station is remarkable not only for being much further south, but also at a much less altitude than

are the Adirondack stations. Indeed in the Ulster county locality, this plant with a northern range meets, on common ground, *Asplenium montanum*, a fern with a southern range.

SCIRPUS DEBILIS Pursh.

Long pond near Wading River. *Young.*

SCIRPUS MARITIMUS L.

Montezuma marshes. It occurs here in a small form, about a foot high, with the heads all sessile and involucreal leaves two, one subtending the cluster of spikes, the other appearing like a prolongation of the stem. *Scirpus pungens* growing by its side very much surpasses it in height.

SCIRPUS SUBTERMINALIS Torr.

Wading River. *Miller.*

ANDROPOGON VIRGINICUS L.

Peconic river and Northville. *Young.*

ASPIDIUM ACULEATUM var. *BRAUNII Koch.*

Abundant in the "Deep Notch" between Shandaken and Lexington. Eighteen species of ferns were observed in this locality, all except three of which had previously been noticed in "Stony Clove," a locality similar to this and but a few miles south of it. The three species are *Woodsia obtusa*, *Asplenium Trichomanes*, and *Osmunda cinnamomea*. These two localities together produce one-half the whole number of species of ferns that occur in the State.

OSMUNDA CINNAMOMEA L.

A form was found on Pine hill, Ulster county, having the fertile frond leafy above.

BOTRYCHIUM SIMPLEX Hitch.

Riverhead, L. I. *Miller.*

FISSIDENS GRANDIFRONS Brid.

Wet rocks. Chittenango Falls. *Clinton.* This at present is our most eastern known station of this interesting but sterile moss.

DIDYMODON LURIDUS Hornsch.

Wet rocks. Chittenango Falls. As at Niagara Falls we here find this rare moss associated with *Fissidens grandifrons*.

DELESSERIA LEPRIEURII Mont.

Hudson river at Yonkers. *Howe.*

AGARICUS GALERICULATUS Scop.

Two well-marked varieties of this very variable species were observed the past season. One grows on the ground among fallen leaves. It has a dark-brown pileus, close lamellæ and a very long stem generally of a delicate pink color toward the top. It might be called var. *longipes*. The other grows under pine trees, has a broadly convex or expanded grayish-brown pileus and a short stem. It might be called var. *expansus*.

AGARICUS FIBULA Bull.

A form of a pale color with the center of the pileus and the upper part of the stem brown occurred on mossy logs in woods at Worcester and Croghan. July and September.

AGARICUS GEOPHYLLUS Sow.

The variety with the pileus of a beautiful lilac color occurs in Bethlehem. It is *Ag. affinis* Pers. and might appropriately be named var. *lilacinus*.

MARASMIUS VELUTIPES B. & C.

This with us is one of the most common species of the genus, occurring in all our woods and wooded swamps, but I have never been able to find it with an umbilicate pileus. Can it be that there are two forms, one northern with a convex pileus, the other southern with an umbilicate pileus? Or is our plant a distinct species, yet so nearly related to *M. velutipes* that the absence of an umbilicus is the only available mark of distinction? Our plant sometimes grows in lines or rows several feet in length.

BOLETUS PICTUS Pk.

This plant was erroneously described in a former report as "viscid when moist." Subsequent observations satisfy me that it is not viscid even in the moist state. *Boletus Spraguei* B. & C., since published, is a very closely related species, if indeed it be specifically distinct.

POLYPORUS BOUCHEANUS Fr.

The American plant commonly referred to this species is quite variable and has been a source of considerable perplexity. It has been ascribed by eminent mycologists to Polyporus, Favolus and Hexagona, and Fries in his *Épicrisis* places *P. Boucheanus* in the section Pleuropus, while Berkeley, in his *Notices of N. A. Fungi*, puts it in the section Mesopus, though he adds the remark that it is frequently pleuropous. I have seen very many American specimens of our so-called *P. Boucheanus*, yet in but a single instance have I seen it with a central stem. There are three prominent points of disagreement between our plant and the description of *P. Boucheanus* in the *Épicrisis*. The stem does not become

brown at the base, "deorsum fuscescente," although closely adhering bits of bark sometimes give it such an appearance, the pores are not of an orange color, "dilute aurantiaeis," and the pileus is not smooth then scaly, "lævi dein squamoso," though it is either smooth or scaly. The pores are generally decurrent, yet this prominent character is not mentioned in the description of Fries. In view of these discrepancies it seems almost certain that our plant ought to be regarded as a distinct species, but, in view of its variable character, I hesitate to separate it as such until I shall have had the opportunity of comparing it with authenticated European specimens of *P. Boucheanus*.

GYMNOSPORANGIUM CLAVIPES *C. & P.*

The protospores germinate at each end, the pedicel separating from the base about the time the filament protrudes from the lower or basal cell of the protospore. In *Podisoma Juniperi* the protospores germinate at the septum.

ÆCIDIUM CLEMATITIS *Schw.*

Leaves of *Clematis Virginiana*. Poughkeepsie. *Gerard.*

In the preceding pages, when no name is added to the station or stations, the plant has been found therein by the writer. Dates signify the time of collecting the specimens, and therefore indicate to some extent the time of the occurrence of the plant. The single and double accent marks placed at the right of figures denote respectively inches and twelfths of an inch.

My warmest thanks are due to those Botanists who have kindly aided me by their generous contributions of specimens.

Most respectfully submitted.

CHAS. H. PECK.

ALBANY, *January 3d*, 1873.