FUNGI OF NOVA SCOTIA: FIRST SUPPLEMENTARY LIST.—BY A. H. MACKAY, LL. D., F. R. S. C., HALIFAX.

Read 11th December 1905; revised to November 1907.

This list is the first supplement to the "provisional list" presented to the Institute on the 8th December, 1902—three years ago—and published in the Transactions, vol. xi, page 122. My colleagues contributing to this list are (1), Mr. R. R. Gates, M. A., of Middleton, Annapolis county [in 1907, doing post-graduate work at Chicago University]; (2), Mr. Clarence L. Moore, M. A., of Pictou Academy [at present, 1907, principal of county academy and public schools, Sydney] and formerly a post-graduate student in Johns Hopkins University; (3), Miss Minnie C. Hewitt, science teacher in the Lunenburg Academy; and (4), Mr. W. P. Fraser, B. A., science master in the Pictou Academy (last collection in 1906). The list is not large, and some of the determinations may be inexact, but it is hoped that the annual publication of new species found will stimulate these and our other students of the fungi to more energetic and systematic exploration and study of the species indigenous to the province.

It is also expected that the corps of workers now taking an interest in our fungi will, before long, enable us to correct any wrong determinations, if there are any, in this and in the provisional list of 1902. The nomenclature will then be revised so as to keep in touch with the most modern classification, and a new and more complete list be published. In the meantime, the general order and nomenclature of M. C. Cooke, which were followed by our earliest fungologists and by the provisional list, will generally govern the order and nomenclature of this supplementary list as far as convenient. The author-

ities are noted in the usual manner by their condensed initials; RRG, CLM, MCH, WPF, and AHMK.

Species Not Reported in the "Provisional List."

Amanita frostiana Pk. Point Pleasant Park, Halifax, AHMK. Middleton, RRG. Poisonous. It approaches in appearance A. muscaria, but is much smaller. Lunenburg, MCH. New Glasgow, WPF.

A. rubescens Pers. Point Pleasant Park, Halifax, AHMK. Common in woods, Middleton. Said to be edible; but even the expert should use caution if experimenting with it. It is distinguished from the other Amanitas by the reddish color which suffuses the stem and other parts when bruised, RRG. New Glasgow and West River, Pictou county, WPF.

A. flaviconia Atkinson. New Glasgow, WPF.

Lepiota cristata A. & S. Lunenburg, MCH.

L. granulosa Batsch. Lunenburg, MCH.

L. illinita Fr. Lunenburg, MCH.

Armillaria robusta A. & S. Middleton, edible, RRG. Lunenburg, MCH.

A. viscipedes Pk. Lunenburg, MCH.

A. ponderosa Pk. (?). Lunenburg, MCH.

Tricholoma schumacheri Fr. Middleton, RRG.

T. imbricatum Fr. Lunenburg, MCH.

T. virgatum Fr., var. acutum. Middleton, RRG.

T. brevipes Bull. Lunenburg, MCH.

T. albobrunneum Pers. Middleton, RRG.

Clitocybe ectypoides Pk. Middleton, RRG.

C. ochropurpurea Berk. Middleton, edible, RRG.

C. fumosa Pers. Lunenburg, MCH.

Collybia butyracea Bull. Middleton, edible, RRG.

C. acervatus Fr. Lunenburg, MCH.

Pleurotus petaloides Bull. Lunenburg, MCH.

Mycena la!ifolia Pk. Middleton, edible, RRG.

M. leaiana Berk. Middleton, RRG.

Omphalia campanella Batsch. New Glasgow, WPF.

Pluteus cervinus Shæff. New Glasgow, WPF.

Clitopilus micropus Pk. Middleton, rare, RRG.

Pholiota caperata Pers. Middleton, edible, RRG.

P. squarosoides Pk. Lunenburg, MCH.

Hebeloma glutinosum Lind. Lunenburg, MCH.

H. crustuliniforme Bull. Lunenburg, MCH.

Galera tenera Schæff. Lunenburg, MCH.

Stropharia aruginosa Curt. A group of this species was found in October of 1904 near the door steps of the house of Mr. Watson Bishop, in Dartmouth. It was remarkable on account of its more or less azure-blue green color, due to the colored slime mainly, for the ground color was more or less yellowish. Its spores were purple tinged. This fall only very small caps developed in the same spot, presumably on account of the unusually dry autumn season, AHMK.

S. stercoraria Fr. Dartmouth Park, Halifax Co., AHMK.

Hypholoma perplexum Pk. Halifax and Dartmouth, AHMK. Middleton; "From H. sublateritium it is distinguished by its usually smaller size, more slender hollow stem, the yellow-greenish and purplish tints of the gills, and the absence of a bitter flavor;" C. H. Peck, Memoir, N. Y. State. Museum, No. 4, vol. 3, Nov. 1900, RRG. Lunenburg, MCH.

Cortinarius cinnamomeus Fr., var. semi-sanguineus Fr. Middleton, edible, RRG.

Paxillus involutus (Batsch) Fr. Middleton, edible, RRG.

P. atro-tomentosus (Batsch) Fr. New Glasgow, WPF.

Hygrophorus pudorinus Fr. Middleton, RRG.

H. fuligineus Frost. Middleton, edible although exceedingly glutinous. Common in woods, especially under pines after the autumn frosts, occurring with the following Middleton species, RRG.

H. limacinus Fr. Lunenburg, MCH.

H. flavodiscus Frost. Middleton, edible, RRG. Lunenburg, MCII.

H. distans Berk. Lunenburg, MCH.

H. puniceus Fr. Halifax, AHMK. Lunenburg, MCH.

H. coccineus Schæff. Lunenburg, MCH.

Lactarius scrobiculatus Scop. Middleton, RRG.

L. aurantiacus Fr. Middleton, RRG.

L. deceptivus Pk. Middleton, edible, RRG.

L. theiogalus (Bull) Fr. Middleton, edible, RRG.

L. volemus Fr. New Glasgow, WPF.

L. hysginus Fr. Middleton, edible, RRG.

L. chelidonium Pk. New Glasgow, WPF.

L. pallidus Fr. Dartmouth, AHMK.

Russula foctens Fr. Middleton. Has a heavy empyreumatic odor, RRG. Pictou county, WPF.

R. brevipes Pk. Lunenburg, MCH.

R. flavida Pk. Lunenburg, MCH.

R. variata Bann. Purple capped Russula, Dartmouth, AHMK.

Craterellus cantharellus (Schw.) Fr. Dartmouth, AHMK.

Marasmius cohærens (Fr.) Bres. Pt. Pl. Park, Halifax, ÄHMK.

Boletinus porosus Pk. On new made lawn, New Glasgow, WPF.

Boletus piperatus Bull. Common in open fields, Middleton, RRG. New Glasgow, WPF.

B. scaber Fr., var. fuligineus. Middleton, edible, RRG. var. fuscus, Lunenburg, MCH.

B. ornatipes Pk. Middleton, edible, RRG.

B. subglabripes Pk. Middleton, RRG.

B. versipellis Fr. Common, New Glasgow, WPF.

B. salmonicolor Frost. Dartmouth, spores, 8-9 microns x 3. AHMK.

B. rubinellus Pk. Under conifers, New Glasgow, WPF.

- B. unicolor Frost Lakes, Dartmouth, AHMK.
- B. peckii Frost, var. lævipes. Pt. Pl. Park, Halifax, ÄHMK.
 - B. eximius Pk. Point Pleasant Park, Halifax, AHMK.
- B. conicus Rav. Spores 12 x 4 microns, Dartmouth, AHMK.
 - B. affinis Pk. Waverley, Halifax county, AHMK.
 - B. purpureus Fr. Dartmouth, AHMK.
 - B. bovinus L. Lunenburg, MCH. Dartmouth, AHMK.

Polyporus (fomes) ribis Fr. On the bases of old red currant bushes, Dartmouth, AHMK.

- P. hispidoides Pk. On dead trunks of Picea. New Glasgow, WPF.
- P. schweinitsii Fr. Dartmouth, AMHK. Lunenburg, MCH. (Phæolus sistotremoides Murrill.)

Hydnum cyathiforme Schæff. Common near Pictou town, in thickets of spruce and fir, CLM.

- H. scabrosum Fr. Lunenburg, MCH.
- H. graveolens subzonatum Pk. Middleton, RRG.

Phæodon fennicus (Karst.) Hennings. On the ground under conifers. Merigomish, WPF.

Tremellodon gelatinosum Pers. A few specimens were found on decaying firs or spruce lying on mossy ground in the woods above Hartley's Waterfall, Pirate's Cove near Mulgrave, Strait of Canso, Nova Scotia, on the 29th Sept., 1904. Dr. G. U. Hay and AHMK.

The following descriptive note was made on the largest specimen about 36 hours after collection, when it must have shrunken considerable. Pileus white, opal-like, spatulate, spines white, 500 by 600 microns long, 250 to 300 microns broad at the base, from which they taper to the points which are distinctly recurved towards the stipe. Length of specimen 15mm, breadth of the fan-shaped frond 7 mm, and of the stipe 4 mm. Spores 6 to 7 microns in diameter. The whole was shrinking

very rapidly while drying and becoming smoky brown and opaque.

Clavaria pistillaris Linn. Middleton, edible, RRG.

- C. fusiformis Sow. Middleton, common, edible, RRG.
- C. vermicularis Scop. Lunenburg, MCH.
- C. ligula Schæff. Growing under conifers. French River and New Glasgow, WPF.
- C. mucida Pers. Growing on decaying log. New Glasgow, WPF.

Exidia glandulosa Fr. Middleton, RRG.

Dacromyces stillatus Nees. On railroad ties, Middleton, RRG. New Glasgow, WPF.

Phallus dæmonum Rumph. Lunenburg, MCH.

Bovista pila B. & C. Common, Pictou, WPF.

Lycoperdon wrightii B. & C. Lunenburg, MCH.

Septoria acerina Peck. On leaves of Acer pensylvanicum, New Glasgow, WPF.

S. œnotheræ West. On leaves of Oenothera biennis, New Glasgow, WPF.

Colletotrichum lindemuthianum (Sacc. and Magnus) Briosi and Cavara. On cultivated beans. New Glasgow, WPF.

Phragmidium subcorticium (Schrank) Wint. Common on Rosa, New Glasgow, WPF. On Rosa blanda, Pictou, CLM.

Triphragmium clavellosum Berk. On leaves of Aralia nudicaulis, New Glasgow and West River, WPF. Pictou, CLM.

Gymnoconia interstitialis (Schlecht) Lagerh. Cæoma nitens (Schw.). Sori form orange colored confluent patches on the under side of the leaves of Rubus strigosus. Pictou, CLM.

Coleosporium solidaginis (Schw.) Thum. On Aster patens. Pictou, CLM.

Melampsora medusæ Thum. On leaves of Populus grandidentata. The areas surrounding the sori become almost coal black in color early in autumn. Pictou, CLM.

Peridermium balsameum Peck. The aecidia are white, arranged in two irregular rows on the under side of the leaves. The whole leaf takes on a bleached appearance. I have only found this species occurring at considerable altitudes. Pictou, CLM.

Peridermium decolorans. Peck. On Picea rubra. Pictou, CLM.

Peridermium elatinum (A. & S.) K. & S. On Abies balsamea, causing the formation of "witches' brooms." Pictou, CLM.

Puccinia suaveolens (Pers.) Rostr. Pictou, appearing throughout spring and summer on the leaves and stems of the Canada thistle. Affected plants appears very rarely to mature seed if at all, CLM. On leaves of Carduus lanceolatus. New Glasgow, WPF.

- P. taraxaci Plow. On Taraxacum officinale. Pictou, CLM.
- P. coronata Corda. Common on leaves of Avena sativa. Pictou and New Glasgow, CLM, WPF.
- P. rubigo-vera (DC.) Wint. On leaves of Agropyron vulgare. New Glasgow, WPF.
- P. orbicula Peck and Clinton. On Nabalus. New Glasgow, WPF.
- $P.\ menth\alpha$ Pers. On Mentha. Piedmont Valley, WPF. Pictou, CLM.
- P. circææ Pers. On Circæa. French River and New Glasgow, WPF. Saltsprings, Pictou, CLM.
- P. cicutæ Larch. On leaves of Cicuta maculata. Piedmont Valley, WPF. Pictou, CLM.
- P. asteris Duby. Common on Aster macrophyllum. Westville, WPF.
- P. violæ (Schum.) DC. Common on Viola. Pictou, CLM and WPF.
- P. claytoniata (Schw.) Syd. On Claytonia virginica. Loch Broom, WPF.

Puccinia acuminata Peck. The sori form cushion-like, dark purple spots on the under sides of the leaves of Cornus canadensis. On the upper side a corresponding depression marks the position of the sorus. Pictou, CLM.

Puccinia sessilis Perse (?). On Maianthemum canadense. Pictou, CLM.

Ustilago levis (Kellerman and Swingle) Magnus. On Avena sativa, WPF.

U. nuda (Jensen) Kellerman and Swingle. Common on Hordeum vulgare, WPF.

Sphacelotheca hydropiperis (Schum.) DeBary. On Polygonum sagittatum. Pictou and Piedmont Valley, WPF.

Entyloma lineatum (Cke.) Davis. On leaves of Zizania aquatica. New Glasgow, WPF.

Uromyces trifolii. (Hedw). Lev. On Trifolium pratense and T. repens. Pictou, CLM.

Uromyces caladii (Schw.) Farlow. On Arisæma trifolia. New Glasgow, WPF. Saltsprings, Pictou, CLM.

Chrysomyxa pirolæ (DC.) Rost. Middleton, forming a bright yellow coating on the under surface of the leaf of Pyrola elliptica, RRG.

Cystopus candidus (Pers.) Lev. Picton, common on Capsella Bursapastoris, CLM.

Uredo agrimonia (DC.) Schreet. Common on leaves of Agrimonia eupatoria, WPF. Saltsprings, Pictou, CLM.

Cercospora callæ Peck and Clinton. On leaves of Calla palustris. New Glasgow, WPF.

C. leptosperma Peck and Clinton. On the leaves of Aralia nudicaulis. New Glasgow, WPF.

Cladosporium herbarum (Pers.) Link. On decaying fungi. New Glasgow, WPF.

Sepedonium chrysospermum (Bull.) Fr. Common on Boleti, (Conidial stage of Hypomyces chrysospermus), WPF.

Empusa muscæ Cohn. Pictou, common everywhere on the house fly, more particularly during the autumn months, CLM.

Sporodina grandis Link. Pictou and New Glasgow on decaying Boleti, WPF.

Onygena equina (Wild) Pers. Growing on the hoofs of horses. New Glasgow, WPF.

Sphærotheca castagnei Lev. Collected at Pictou 28th Aug., 1905, on Bidens frondosa; and 21st Sept., 1905, on Taraxacum officinale, CLM.

Phyllactinia suffulta (Reb.) Sacc. Pictou, 2nd Oct., 1905, on leaves of Alnus incana, CLM.

Uncinula salicis DC. Collected at Pictou, 15th Sept., 1905, on species of Salix, probably discolor, CLM.

U. circinata C & P. Pictou, 10th Oc., 1905, on leaves of Acer rubrum, CLM

Podosphæra oxyacantha. Pictou, on Spiræa salicifolia. Noted on S. tomentosa, CLM.

Microsphæra alni D. C. Pictou, very common on Lilac, the mycelium appearing in July and spores maturing in August and until late in the fall. Also common on Alnus incana, 2nd Oct., 1905; and on Viburnum cassinoides, CLM. On leaves of Syringa vulgaris, New Glasgow and Pictou, WPF.

M. erineophila Peck. Collected near Saltsprings, Pictou county, 10th August, 1905, on leaves of Fagus ferruginea affected with leaf mites, CLM.

M. vaccinii (Schw.) Pictou, 3rd Oct., 1905, on Gaylussacia resinosa; 1st Oct., 1905, on Epigæa repens, CLM.

Erysiphe communis Wall. Collected at Pictou, 29th Aug., 1905, on Oenothera biennis, Ranunculus acris, and R. repens. CLM.

E. cichoracearum DC. Collected at Picton, 23rd Sept., 1905, on various species of Solidago, CLM.

E. galeopsides DC. Pictou, 10th Aug., 1905, near Saltsprings on Chelone glabra. Common on this host in shaded situations and on the lower shaded leaves of plants growing closely together, CLM.

E. aggregata Peck. Collected at Pictou, 25th Aug., 1905, Very common on the fertile aments of Alnus incana—as many as two-thirds of them being affected over considerable districts. Spores were forming at date of collection but were not mature. Spores mature about May of the spring following. Alnus viridis does not seem to be so susceptible to its attacks, CLM.

Helvella crispa Fr. Middleton, RRG.

Geopyxis carbonaria (A. & S.) Sacc. Middleton, RRG. Peziza vesiculosa Bull. Middleton, RRG.

Chlorosplenium æruginosum Tul. Pictou county. Ascocarps on rotting trunks of Fagus ferruginea, 3rd Sept., 1905. Also on decaying Alnus incana. The fructification of this species is said to be rather uncommon, CLM. Middleton, commonly occurring on rotten wood giving it a green color and making it phosphorescent, RRG.

Exoascus robinsonianus Giesenhagen. Deforming the bracts in the pistillate aments of Alnus incana. Very common, WPF.

Elaphomyces cervinus (Pers.) Schroter. Pictou, under beech trees; parasitized by Cordyceps ophioglossoides, CLM. Subterranean at the base of pine stump, Pictou WPF.

Claviceps purpurea Fr. Pictou, on barley, 2 Oct., 1905, CLM. On Agroyprum repens, New Glasgow, WPF.

Cordyceps ophioglossoides Ehr. Collected at Pictou, 23rd Sept., 1905, growing in leaf mould under beech trees in a subterranean fungus probably a species of *Elaphomyces*, CLM. Parasitic on *E. cervinus*, Pictou, WPF.

Hypomyccs viridis (Albertini and Schweinitz). Middleton, rare. The same as H. luteo-virens. Identified by Prof. W. G. Farlow, Cambridge, Mass., U. S. A. The host in this case was not determined with certainty, but it appeared to be Hygrophorus pudorinus Fr. The gill surface only was attacked, becoming a dark green.

Xylaria polymorpha Grev. Pictou, collected in August and September, and at Saltsprings. Appears-here to grow exclusively on rotting Fagus ferruginea on which it occasionally becomes very abundant, CLM. Middleton, RRG.

Daldinia concentrica (Bolton) Ces. and DeNot. On dead Ulmus americanus, New Glasgow, WPF.

Phyllachora graminis (Pers.) Fckl. On Agropyrum repens New Glasgow, WPF.

Dothidea pteridis Fr. On Pteris aquilina, near Yarmouth, by Miss E. Chesley Allen, AHMK.

Dimerosporium collinsii (Schw.) Collected at Pictou 10th Sept., 1905, on leaves of Amelanchier canadensis. The affected leaves frequently persist on the branches through the winter and spores mature in May of the following spring.

Podospora amphicornis Ell. Collected 10th Aug., 1905, on rabbits' dung at Saltsprings, Pictou county, CLM.

The Myxomycetes.

Mr. C. L. Moore, M. A., published in *The Bulletin of the Pictou Academy Scientific Association*, Vol. I., No. 1, June, 1906, a list and general sketch of *thirty-three* species of *Myxomycetes*, under the title, "The Myxomycetes of Pictou County," Nova Scotia. A monograph of the Myxomycetes of Pictou County by Mr. Moore, may appear soon in the Transactions of the Institute; so that there will be no advantage in the enlargement of the present list to contain a reprint of the list of 1906.

Species Previously Reported but Found in New Localities, with Notes.

Amanita vaginata Bull. Amanitopsis vaginata (Bull) Roz. Middleton, generally mouse colored, but often variable; a yellowish brown form occurring in this vicinity; also the deadly poisonous A. phalloides, common in woods, RRG.

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Lunenburg, MCH, and also verna, cæsarea, and muscaria. New Glasgow, vaginata, verna, and muscaria, WPF.

Armillaria mellea Vahl. Common on decaying stumps, especially of coniferæ, in the neighbourhood of Halifax, Pictou, Middleton, AHMK and RRG. Lunenburg, MCF.

Tricholma equestre, sejunctum and columbetta. Lunenburg. MCH.

Clitocybe laecata Scop. Common near Halifax. (Var. striatula), Pictou and Middleton. Variable, not poisonous, RRG and AHMK.

Clitocybe nebularis, candicans and multiceps. Lunenburg, MCH.

C. clavines Pers. Shelburne, CSB. Middleton, RRG.

C. infundibuliformis Schæff. Pictou, September, CLM.

Pleurotus serotinus Schrad. Edible. Middleton, RRG. Truro, JMS. Pictou, AHMK. Lunenburg, MCH.

P. lignatilis Pers. Lunenburg, MCH.

Collybia platyphylla and dryophila. Lunenburg, MCH. C. radicata, New Glasgow, WPF.

Mycena galericulata Scop. Lunenburg, MCH.

Omphalia umbellifera L. Lunenburg, MCH.

Pluteus cervinus Schdæff. Edible, Middleton, RRG, Halifax, JS.

Naucoria pediades Fr. Lunenburg, MCH.

Psalliota campestris, Stropharia semi-globata, and Hypholoma sublateritium. Lunenburg, MCH.

Psylocybe famisecii P. Willow Park, Halifax, JS. Glace Bay, Cape Breton, N.S., R. A. H. MacKeen, M. D. This latter species was identified by C. H. Peck, State botanist, of New York, to whom I referred it after receiving it with a communication containing the following information from Dr. MacKeen:—

"Early this week I was called to attend three children ranging in age from 3.5 to 4.5 years. The history I obtained was practically the same in each case.

"The parents noticed a staggering gait, inability to talk, and a tendency to laugh in a hysterical way. When I saw the patients some time had elapsed from the appearance of the first symptoms. There was a marked dilation of the pupils, flushed face, inability to stand, restlessness, occasionally an idiotic laugh. The appearance was one of intoxication. The children lived some distance apart but had been playing in the backyard when taken sick. There was practically nothing alarming as pulse, temperature and respiration were normal. The whole impression seems to have been made on the nervous system.

"The appearance was suggestive of belladonna poisoning, but as there was no way of their obtaining that plant, we had to look elsewhere. The mother of one patient handed me a mushroom or toadstool which he had brought her, saying it was "good to eat berries." This looked like evidence of the infant's having eaten of this fungus. The other children, I learned subsequently, had been playing among the same fungi. What puzzles me is that I have always understood this class of poisons produced gastro-intestinal irritation, vomiting and purging. Not only were these symptoms absent, but it was extremely difficult to provoke vomiting. Happily, after a few hours the symptoms passed away, leaving no after effects."

This description was written on the 21st of September, 1905, and a week or two later, Mr. Peck wrote as follows:

"The specimens of mushroom sent are in my opinion a small form of Psilocybe fænisecii (Pers.) Fr., called the Mowers' mushroom or Haymakers' mushroom. It is usually found growing among grass in meadows, pastures or lawns. I have eaten it when cooked and regard it as an edible species, having never experienced any ill effects from it. It is not pleasant in flavor when raw, and I would not think children would eat enough of it in the raw state to produce any ill effects."

This genus of fungi has purple-brown spores, but when old is not easily distinguished from others of similar habit such as

Panceolus which is black spored, and Stropharia which is reddish spored. The spores of the Glace Bay specimens were rather larger than the measurements given of Psilocybe by M. C. Cooke: so that it may not be identical with the species reported from elsewhere. Cook's measurements give the size about 10 x 6.25 microns, while those of our species varied from 13 x 8 to 14 x 9 microns. Again, although the cooked fungus might be safe, the uncooked might be deleterious. In order to stimulate the observation and recording of experiments on these fungi I report some of the observations already made on the genera referred above. Of Panæolus campanulatus to MacIlvane says:

"Mr. R. K. Macadam, Boston, Mass., informs me that he has information of a case of poisoning by this fungus. 'The victim experiences dizziness, dimness of vision, trembling and loss of power and memory. He recovered after simple treatment, and was well inside 24 hours.' A full account of this case is to be found in 'The London Medical and Surgical Journal,' vol. 36, Nov., 1816. The poison acts as a sedative. I have several times eaten of this fungus in small quantities, because larger could not be obtained, and with no other than pleasant effect. There does not appear to be any case of poisoning reported of it since 1816, which, considering the inquisitiveness of man, is singular. Caution is advised."

With respect to the nearly related species, $Panxolus\ papilionaceus$, MacIlvane says:

"The effects of eating this fungus are very uncertain. I have seen it produce hilarity in a few instances, and other mild symptoms of intoxication, which were soon over and with little reaction. Many personal testings have been made without effect. Testing upon others vary with the individuals. It is not dangerous, but should be eaten with caution. Being of small size, and not a prolific species, quantities of it are

difficult to obtain. Moderate quantities of it have no effect whatever."

Of the reddish spored Stropharia, he says:

"The entire genus has been under a cloud. Writers upon it assert some of its members to be dangerously poisonous. So far as carefully tested by the writer (MacIlvane) no doubtful species has been encountered, and one (S. semiglobata) has been eaten by himself and friends since 1881, notwithstanding its dangerous reputation."

It was Sowerby who drew attention to the above discussed species as dangerous, and intimated that in one case it had been fatal. A near relative of the Glace Bay species, *Psylocybe semilanceata*, a dark-purple spored agaric of the same general appearance, has its spores nearly of the same size. And, according to M. C. Cooke, a careful English authority, it has a dangerous reputation, having been said to have proved fatal to children when eaten raw. MacIlvane says it is not deleterious when cooked.

As there is much to learn yet about the effects of eating the different species of our fungi, it is hoped that all well attested experiences may be reported for publication and record. A fatal case of poisoning was reported from the neighborhood of Kentville the previous year; but the species were not known. The victim was an old man who had collected them for his supper, which it is presumed he had often done before. The symptons were those of Amanita poisoning, and the accidental inclusion of one specimen in the collection would have been sufficient to account for the results.

This case was thus described in a communication from W. B. Moore, M. D., on the 11th August, 1904:

"Mr. M., a farmer age 62 years, came home from his work late in the evening, apparently in good health, and very hungry. On his way home he hastily gathered a lot of mushrooms, and as hastily prepared them, with the assistance of his old wife (no one else living in the house) for supper with meat, etc. He ate them all, the old lady not partaking, and soon afterwards developed marked symptoms of poisoning from an irritant and depressing agent. There was severe pain and distress in stomach and bowels, with vomiting and rapid exhaustion accompanied by abdominal distension, drawn features and haggard countenance with clammy and cold skin, subnormal temperature and cardiac failure, suppression of urine and paralysis of bowels. Although eliminative and supportive measures were used thoroughly it was impossible to prevent death, which occurred in about 33 hours from the time he ate the supper—apparently from paralysis of the heart from the effects of some toxic agent.

"Ptomaines might produce a similar train of symptoms, but there was no evidence to show that the food he ate had undergone any decomposition likely to produce poisonous alkaloids. I think the most reasonable assumption is that some poisonous fungus was included in the lot he gathered, although this cannot be proven as the fungi were eaten. The old lady could not give a clear idea of the different kinds which might have been present.

"I saw a somewhat similar case a few years ago, in which the man recovered; and in this case it was also impossible to demonstrate the kind or kinds of mushrooms eaten. As I have seen only these two cases during a period of more than twenty years in general practice, in a community in which large quantities of mushrooms are consumed, I assume that the poisonous fungi are few and far between in this region of the province; for I think there is doubtless much carelessness among people in the matter of selection."

Panæolus retirugis Fr. Edible, Middleton, RRG. Antigonish, JMS.

Panæolus campanulatus L. Lunenburg, MCH.

Coprinus comatus Fr. Middleton, RRG. Common throughout the province, and one of the most valuable edible species, AHMK. Lunenburg, MCH.

C. micaceus (Bull.) Fr. Middleton, RRG. New Glasgow, WPF.

C. plicatilis Fr. Lunenburg, MCH.

Cortinarius violaceus (L) Fr. Middleton, edible with an earthy flavor, RRG. Reported in "provisional list" from other parts of the province, AHMK.

C. albo-violaceus and cinnamomeus. Lunenburg, MCH.

Lactarius resimus Fr. Middleton, rather common in pine woods, RRG. Antigonish, JMS.

L. lignyotus Fr. Middleton, RRG. Pennant, Halifax, JS. The "bright crimson surface resembling fine silk plush" reported by Dr. John Somers and quoted in the "provisional list" of 1902, has not been observed by any other collector, and is supposed to be an accidental error.

L. vellereus Fr. Lunenburg, MCH.

L. piperatus Fr. Middleton, RRG.

L. subdulcis Fr. Middleton, extremely variable. RRG.

Russula heterophylla Fr. Dartmouth, AHMK. Shelburne, CSB. Lunenburg, MCH. MacIlvane has eaten specimens cooked repeatedly without harm. RRG.

R. adusta, depallens and alutacea. Lunenburg, MCH.

Cantharellus cibarius, aurantiacus and floccosus. Lunenburg, MCH; cibarius, New Glasgow, WPF.

Panus stypticus Fr. Middleton, common on stumps, tastes unpleasant in the throat, RRG. New Glasgow, WPF.

Schizophyllum commune Fr. Lunenburg, MCH. Middleton, RRG. New Glasgow, WPF.

Lenzites sepiaria Fr. Middleton, RRG. Lunenburg, MCH. L. abietina Fr. New Glasgow, WPF.

L. betulina Fr. Lunenburg, MCH.

Boletus caripes Kalchb.—(Boletinus pictus). Pt. Pl. Park, Halifax, AHMK; also at New Glasgow, WPF.

- B. clintonianus, luteus, subluteus, edulis (claviceps). Lunenburg, MCH; also at New Glasgow, americanus, granulatis, chrysanteron, chromapes and felleus, WPF.
- B. felleus Bull. Pt. Pl. Park, Halifax, spores 14-15 x 4 microns, AHMK.

Polyporus lucidus Fr. (Ganoderma tsugæ Murrill). Middleton, RRG. Lunenburg, MCH. New Glasgow, WPF; also picipes.

- P. sulphureus Fr. Cow Bay, on decaying coniferous stump Halifax county, AHMK.
 - P. albellus Pk. Middleton, RRG.
- P. fomentarius Fr. Middleton, common, RRG. Lunenburg, MCH. (Coltricia, Murrill). New Glasgow, WPF.
 - P. epileucus Fr. Lunenburg, MCH.
 - P. chioneus Fr. Middleton, RRG. Lunenburg, MCH.
- P. applanatus Fr. Middleton, RRG. Lunenburg, MCH. New Glasgow and Pictou, WPF.
 - P. circinatus Fr. Middleton, RRG. Lunenburg, MCH.
- P. betulinus Fr. Middleton, common on birch, RRG. New Glasgow, WPF.
 - P. elegans Fr. Lunenburg, MCH.
- P. brumalis Fr. Middleton, RRG. Lunenburg, RRG. New Glasgow, WPF.
- P. perennis Fr. and cinnamomeus (Jacq.) Sac. Lunenburg, MCH. (Coltricia, Murrill). New Glasgow, WPF.
- P. versicolor Fr. Polystictus versicolor, Middleton, very common, RRG. Lunenburg, MCH.
 - P. abietinus Fr. Lunenburg, MCH.
- P. hirsutus Fr. Middleton. RRG. Lunenburg, MCH. New Glasgow, WPF; also pinicola (Swartz) Fr., pergamenus Fr., cinnabarinus, ignarius and Favolus europæus.

Dædalia confragosa P. Lunenburg, MCH. New Glasgow, WPF; also quercina and unicolor.

Hydnum imbricatum L. Middleton, RRG. New Glasgow, WPF.

H. zonatum. Lunenburg, MCH.

H. repandum L. Middleton, RRG. Lunenburg, MCH.

Hydnum coralloides Scop. Mt. Thom, Pictou Co., on Fagus ferruginea, CLM. Lunenburg, MCH.

Stereum hirsutum Fr. Middleton, RRG.

Clavaria cinerea Bull. Middleton, RRG. Lunenburg, MCH.

C. botrytis, cristata, rugosa and stricta. Lunenburg, MCH.

C. aurea Schæff. Dartmouth, AHMK.

Clavaria coralloides L. Pictou, September, on ground, CLM.

Tremella lutescens Fr. Lunenburg, MCH.

Hirneola auricula-judæ Pk. New Glasgow, WPF.

Cyanophallus caninus Fr. Lunenburg, MCH.

Lycoperdon gemmatum Fr. Middleton, RRG. Pictou, LCH. Lunenburg, MCH. New Glasgow, WPF.

L. pyriforme Schæff. Lunenburg, MCH.

Scleroderma vuigare Fr. Lunenburg, MCH. New Glasgow, WPF.

Crucibulum vulgare Tul. On decaying trunks of deciduous trees, Pictou, CLM. New Glasgow, WPF.

Puccinia graminis Pers., Ustilago tritici Jen., U. avenæ Jen. New Glasgow, WPF. Pictou, on wheat and oats, CLM.

Ascophora mucedo Tode = Mucor mucedo L. = Rhizopus nigricans Ehrenb. (The common black mould of bread, &c.). Common, Halifax, Pictou, &c., AHMK, CHM, and WPF.

Morchella conica Pers. Middleton, RRG.

Gyromitra esculenta Fr. Middleton, common, May in sandy soil under pines, and reputed poisonous, RRG. Dartmouth, AHMK.

Mitrula vitellina Sac., var. irregulare Pk. Near Dartmouth, AHMK. Pictou, CLM. Lunenburg, MCH.

Spathularia velutipes Cook & Farlow. Middleton, RRG.

Leotia lubrica Pers. Lunenburg, MCH.

Peziza badia P. Middleton, RRG.

Hypomyces lactifluorum (Schw.) Tul. Middleton, common, RRG. Pictou, common, CLM.

Scorias spongiosa (Schw.) Fr. Specimen growing on alder found near Halifax by Mr. Harry Piers, within a few weeks ago, reported previously from Bedford Range and Yarmouth.