

bears to Middle Silurian series on the south side of the syncline. These quartzites may all be regarded as of Lower Silurian age, probably Calciferous, as *Maclurea* seems to indicate. This would leave the Potsdam period for *metamorphism*, and the Cambrian and Archæan for *formation*. In this way I regard the Auriferous series as Archæo-Cambro-Silurian (Lower).

ARTICLE II.—NOVA SCOTIAN FUNGI.—By J. SOMERS, M. D.

(Read Dec. 10, 1880.)

THE following additions to the list of Fungi published in vol. V., part 2nd, Transactions of the Institute, 1879-80, have been collected during the past season; the greater number are from the vicinity of Halifax, the remainder are specimens principally Polyporei, kindly sent to me by A. H. McKay, Esq., of Pictou; of the latter there are several which I have not yet identified as growing here. Allowing for errors in diagnosis not inseparable from the study of a class of vegetables of which we lack a good American descriptive text book, we are compelled to depend almost solely upon Cook, no mean authority 'tis true, and comprehensive also. Yet one finds many species that depart from the characters of those described by Cook under their common genera. It will not therefore be surprising that we may find it necessary to make corrections in a future revision of the list.

Order Agaricini.

Sub-Gen. Amanita.

1. Agaricus (Amanita) spissus, *Fr.*, clammy Amanita, under Larch, Willow Park, Sept., 1880.

Sub-Gen. Tricholoma, *Fr.*

2. A. (Tricholoma) sejunctus, *Sow.*, N. W. A. woods, Aug. and Sept., 1880.

Sub-Gen. Clitocybe, *Fr.*

3. A. (Clitocybe) candicans, *Fr.*, Park woods, Nov. 1880.
4. A. (Clitocybe) opacus, *With* " "
5. A. (Clitocybe) fumosus, *P* " "

6. *A. (Clitocybe) giganteus* *F.*, N. W. A. woods, Nov., 1880.
7. *A. (Clitocybe)* *Sp.*, Willow Park woods, Oct. '80, approaches *flaccidus*, *Sow.* Not being satisfied with the diagnosis I append the following description: pileus 1 to 1½ inches convex at first, then plane with a small well marked umbo. at length depressed umbilicate or infundibuliform, the umbo. disappearing, colour of pileus, bright orange, shining mucus, the umbo. darker, redish, with lines passing therefrom to the margin, lines delicate formed by tearing or separation of the scales. When the pileus becomes depressed, the colour pales gradually, the red fading out, the orange becoming lemon, margin slightly wavy always involute, stem 3 to 3½ inch, somewhat flexuous stuffed, cortex fibrous, attenuated upwards rooting, colour lemon yellow, paling towards the apex and base, usually eccentric, spores white, gills decurrent, straight, narrow, white at first, becoming pale yellow, more especially towards their free borders, very abundant in swampy places, growing under larch spruce, upon decaying leaves.
8. *Agaricus (Clitocybe) bellus*, *Fr.*, Point Pleasant, under pines. Nov., 1880.
Sub-Gen. *Pleurotus*, *Fr.*
9. *Agaricus (Pleurotus) salignus*, *Fr.*, willow pleurotus, on trunks of living poplars. Oct., 1880.
Sub-Gen. *Collybia*, *Fr.*
10. *Agaricus (Collybia) radicans* *Relh.* On dead wood, Willow Park, Oct., 1880.
Sub. Gen. *Omphalia*, *Fr.*
11. *Agaricus (Omphalia) hepaticus*, *Batsch.* Willow Park, Sept., 1880.
12. *Agaricus (Omphalia) umbelliferous*, *L.* Willow Park, Sept., 1880.
13. *Agaricus (Omphalia) fibula*, *Bull.* Willow Park, Sept., 1880.

Sub-Gen. *Clitopilus*, *Fr.*

14. *Agaricus* (*Clitopilus*) *prunulus*, *Scop.* Willow Park, Sept., 1880.

Sub-Gen. *Claudopus*, *Sm.*

15. *Agaricus* (*Claudopus*) *depluens*, *Batsch.* Near Melville, in a pasture, Sept., 1880.

Sub-Gen. *Pholiota*, *Fr.*

16. *Agaricus* (*Pholiota*) *squarrosus*, *Mull.* On stump, Halifax Common, Oct., 1880.

Sub-Gen. *Naucoria*, *Fr.*

17. *Agaricus* (*Naucoria*) *semiorbicularis*, *Bull.* Willow Park, Oct. 1880.

18. *Agaricus* (*Naucoria*) *melinoides*, *Fr.* Willow Park, Oct. 1880.

Sub-Gen. *Psalliota*, *Fr.*

19. *Agaricus* (*Psalliota*) *arvensis*, *Schaff.* Camp Hill, Sept., 1880.

Sub-Gen. *Psilocybe*, *Fr.*

20. *Agaricus* (*Psilocybe*) *fœniseeii*, *P.* Willow Park, Sept., 1880.

Sub-Gen. *Panæolus*, *Fr.*

21. *Agaricus* (*Panæolus*) *separatus*, *L.* Om. loc. Sept., 1880.

Sub-Gen. *Psathyrella*, *Fr.*

22. *Agaricus* (*Psathyrella*) *gracilis*, *Fr.* Willow Park, Oct., 1880.

23. *Agaricus* (*Psathyrella*) *disseminatus*. Among sphagnum, Willow Park, Oct. 1880.

Gen. 2, *Coprinus*, *Fr.*

24. *Coprinus* *comatus*, *Fr.* Public Gardens, Hx., Sept., 1880.

25. *Coprinus* *ovatus*, *Fr.* " " "

26. *Coprinus* *plicatilis*, *Fr.* In pastures. July, Aug. 1880.

Gen. 3, *Bolbitius*, *Fr.*

27. *Bolbitius* *fragilis*, *Fr.* On cow droppings, Willow Park, Sept. 1880.

Gen. 4, *Cortinarius*, *Fr.*Sub-Gen. *Phlegmacium*, *Fr.*

28. *Cortinarius* (*Phlegmacium*) *turbinatus*, *F.* Pictou, Sept., 1880.

Sub-Gen. *Myxacium*, *Fr.*

29. *Cortinarius* (*Myxacium*) *collinitus*, *Fr.* Willow Park, Sept. 1880.

Sub-Gen. *Inoloma*, *Fr.*

30. *Cortinarius* (*Inoloma*) *callisteus*, *Fr.* Willow Park, Sept., 1880.
 31. *Cortinarius* (*Inoloma*) *sublanata*. Willow Park, Sept., 1880, and Pictou.

Sub-Gen. *Hygrocybe*, *Fr.*

32. *Cortinarius* (*Hygrocybe*) *armeniacus*, *Fr.* Omne loc. Sept., 1880.
 33. *Cortinarius* (*Hygrocybe*) *castaneus*, *Fr.* Willow Park, Sept., 1880.

Gen. 5, *Lepista*, *Sm.*

34. *Lepista nuda*, *Bull.* Willow Park, Sept., 1880.

Gen. 10, *Russula*, *Fr.*

35. *Russula adusta*, *Fr.*, "scorched russula." In Pine Woods, Sept., 1880.
 36. *Russula sanguinea*, *Fr.*, Blood-red russula. In Pine Woods, (common), Sept., Oct., 1880.

Gen. 13, *Masrasmius*, *Fr.*

37. *Masrasmius alliaceous*, *Fr.* N. W. Arm woods, Sept., 1880.
 38. *Masrasmius terjinus*, *Fr.* Willow Park and Pictou, Sept., 1880.

Gen. 15, *Panus*, *Fr.*

39. *Panus stypticus*, *Fr.* Pictou, Oct., 1880.

Gen. 17, *Schizophyllum*, *Fr.*

40. *Schizophyllum commune*, *Fr.* On a spruce stump, Willow Park, Oct., 1880.

Gen. 18, *Lenzites*, *Fr.*

41. *Lenzites betulina*, *Fr.* On old trees, willow, poplar and birch. Sept., 1880. North West Arm woods.
 42. *Lenzites sepiaria*, *Fr.* On pine stumps. Sept., 1880.
 43. *Lenzites flaccida*, *Fr.* On stumps and dead trees. Sept., 1880.

ORDER II.—Polyporei.

Gen. 19, *Boletus*, *Fr.*

44. *Boletus luteus*, *L.* Under spruce. Willow Park, Sept., 1880.
 45. *Boletus flavus*, *With.* Common. Sept., Oct.
 46. *Boletus badius*, *Fr.* Under pine and hemlock. Willow Park woods, Sept., 1880.
 47. *Boletus ampliporus*, *Beck.* Pictou. Oct., 1880.
 48. *Boletus palustris*, *Beck.* Pictou and Willow Park, Oct., 1880.

Gen. 21, *Polyporus*, *Fr.*

49. *Polyporus leptcephalus*, *Fr.* On dead wood, Willow Park, Sept., 1880.
 50. *Polyporus saligenus*, *Fr.* On Willows, Halifax Common, Oct., 1880.
 51. *Polyporus spumeus*, *Fr.* On poplars. Oct., Nov., 1880.
 52. *Polyporus vulgaris*, *Fr.* On rotten wood, Willow Park, Oct., 1880.
 53. *Polyporus incarnatus*, *Fr.* Willow Park, Oct., 1880, and Pictou.
 54. *Polyporus radiatus*, *Fr.* Near Melville Island, Hx., and Pictou, Oct., 1880.
 55. *Polyporus hirsutus*, *Fr.* Common. Melville Island and Pictou, Oct., 1880.
 56. *Polyporus abietinus*, *Fr.* On spruce and hemlock. Oct., 1880.
 57. *Polyporus perennis*, *Fr.* Pictou, Oct.
 58. *Polyporus cinnabarinus*. Pictou, Oct.

Gen. 23, *Dædalia*, *Fr.*

59. *Dædalia confragosa*, *P.* On dead willows. Oct., 1880.
 60. *Dædalia unicolor*, *Fr.* On stumps. Oct., 1880.

Gen. 24, *Merulius*.

61. *Merulius lachrymans*, *Fr.* On rotten plank in a cellar. Aug.

Gen. 26, *Prothelium*, *Fr.*

62. *Prothelium friesii*, *Mont.* Pictou, Oct., 1880.

ORDER III.—Hydnei, *Lin.*Gen. 28, *Hydnum*, *Linn.*

63. *Hydnum zonatum*, *Batsch.* Pictou, Oct., 1880.
Gen. 34, *Odontia*, *Fr.*
64. *Odontia fimbriata*, *Fr.* On dead wood, Willow Park, Oct., 1880.

ORDER IV.—Auricularini.

Gen. 36, *Craterellus*.

65. *Craterellus*, *sp?* Willow Park, Oct., 1880, on the ground.
Gen. 38, *Stereum*, *Fr.*
67. *Stereum purpureum*, *Fr.* On dead branches, Willow Park, Oct., 1880.
68. *Stereum hirsutum*, *Fr.* Common on stumps, &c. Oct., 1880.

Gen. 39, *Hymenochæte*, *Sev.*

69. *Hymenochæte rubiginosa*, *Sev.* Omne loc. Oct., 1880.
Gen. 42, *Cyphella*, *Fr.*
70. *Cyphella fulva*, *B. & Rav.* On dead sticks. Sept., 1880.
W. P.

ORDER V.—Clavariiei.

Gen. 46, *Clavaria*, *L.*

71. *Clavaria coralloides*, *L.* On the ground. Common. Sept., 1880.
72. *Clavaria rugosa*, *Bull.* Pine Woods, Oct., 1880.
73. *Clavaria inequalis*. Pine Woods, Oct., 1880.

ORDER VI.—Tremellini.

Gen. 49, *Tremella*, *Fr.*

74. *Tremella mesenterica*, *Retz.* On dead wood. Oct., 1880.

FAM II.—Gasteromycetes.

ORDER IX.—Trichogastres.

Gen. 69, *Bovista*, *Dill.*

75. *Bovista plumbea*, *P.* North Common, Hx., Oct., 1880.
Gen. 70, *Lycoperdon*, *Tourn.*
76. *Lycoperdon gigantum*, *Batsch.* Giant puff-ball from Mr. R. Morrow's grounds, Sept., 1880.

77. *Lycoperdon, pusillum, Fr.* Little puff-ball, at the roots of willows, North Common, Hx., Oct., 1880.
78. *Lycoperdon saccatum, Vahl.* Elongated puff-ball. N. W. Arm, Oct., 1880.
79. *Lycoperdon pyriforme, Schæff.* Pear-shaped puff-ball. On stumps in various places. Oct., 1880.

Gen. 71, *Scleroderma, F.*

80. *Scleroderma vulgare, Fr.* On roadsides. Common. Aug.

ORDER X.—*Myxogastres.*

Gen. 74, *Lycogala, Mich.*

81. *Lycogala epidendrum, Fr.* On rotten willow stumps. Oct., 1880.

ART. III.—ON THE OCCURRENCE OF LIEVRITE IN NOVA SCOTIA.
 BY EDWIN GILPIN, A. M., F. G. S., *Inspector of Mines.*

(*Read January 17, 1881.*)

I WISH to bring to the notice of the Institute the occurrence in Nova Scotia of a mineral resembling Lievrite, as described by Sir William Logan in his *Geology of Canada*, p. 465.

The mineral as found in this Province came from Gabarus, in the Island of Cape Breton, and was given to me some years ago by a man who thought it was an ore of Molybdenum.

On examination I found the colour to be black, with a faint olive tinge; fracture uneven, glistening, and subvitreous; hardness, 6; specific gravity, 3.75; streak greyish. The specimen was faintly magnetic, but this property may have been more strongly manifested when it was fresh. It fused before the blow-pipe to a dark magnetic slag, and gave the ordinary iron reactions. It gelatinised slightly with Hydrochloric acid.

My analysis of the specimen is as follows, and for the sake of comparison, is placed beside that given by Sir W. Logan, as cited above: