

Potential contributions towards a North American-wide Mycota from Canada

Scott Redhead

Curator: National Mycological Herbarium of Canada (DAOM) Science & Technology Branch, Agriculture & Agri-Food Canada





DAOM = Canadian National Mycological Herbarium >350,000 specimens NATIONAL MYCOLOGICAL HERBARIUM Ð



Jennifer Wilkinson, Assist. Curator

Students: Karla Roberts Kyle Lewis

DAOM general collection – filing 'group' specimen #s - species #s – genera #s Polypores 1 year ago (1481 input)

Now - Polypores sensu lato (excl. Hymenochaetales) 9270 – 614 -94 (partially input)

Boletales somewhat sensu lato 3473 -343 – 22 (completed)

Gomphidiaceae s.l. 206 - 18 - 2 (completed)

Paxillaceae s.l. 351 - 9 - 3 (completed)

Strobilomycetaceae 60 - 3 - 1 (completed)

Hymenochaetales s.l. 266 - 87 - 12 (not yet tackled, will include Phellinus etc.)







Hélène Labbé + Louise Lefebvre (retired)

> 800 cultures sequenced (ITS & LSU), mainly mushrooms and polypores from Canada

	The state of the s	77 Cmith A II Ciana 2	A	B 1045 A 4			
Mushroom		77 Smith, A.H., Singer, R.			A monograph on the genus Cystoderma		
		78 Smith, A.H., Singer, R.		-	New species of Galerina New species of Galerina		
databases:		79 Smith, A.H., Singer, R. 80 Smith, A.H., Singer, R.			New species of Galerina 4 A monograph on the genus Galerina Earle		
databases.		81 Smith, A.H., Solheim, W.G.			3 New and unusual fleshy fungi from Wyoming		
1115 references		82 Smith, A.H., Stuntz, D.E.			New or noteworthy fungi from Mt. Rainier National Park		
1119 IEIEIEIICES		83 Smith, A.H., Stuntz, D.E.			1958 Studies on the genus Pluteus I. Redescriptions of American species based on a study of type species		
searched for		84 Smith, A.H., Thiers, H.D.			1968 Notes on Boletes - I, 1. The generic position of Boletus subglabripes and Boletus chromapes. 2. a comparison of four		
		85 Smith, A.H., Thiers, H.D.		1971 Th	971 The Boletes of Michigan		
N.A. reports		86 Smith, A.H., Thiers, H.D., Watling, R.		1966 A p	1966 A preliminary account of the North American species of Leccinum, Section Leccinum		
		87 Smith, A.H., Thiers, H.D., Watling, R.			1967 A preliminary account of the North American species of Leccinum, Sections Luteoscabra and Scabra		
		88 Smith, A.H., Thiers, H.D., Watling, R.			1968 Notes on species of Leccinum I. Additions to Section Leccinum		
47490 Armillaria	ostoyae	89 Smith, A.H., Trappe, J.I				erimental Forest and vicinity - I. The genus Phaeocollybia (Agaricales	
47491 Armillaria	sinapina	90 Smith, A.H., Walters, N			new species of Cripinallis from Ohio		
47492 Armillaria	gallica	91 Smith, A.H., Walters, N			new species of Crinipellis from Ohio		
47493 Armillaria	cepistipes	92 Smith, A.H., Walters, M.B.			1947 Notes on the genus Armillaria 1936 Contributions to a study of the Fungus Flora of Nova Scotia II, Agaricaceae and Boletaceae		
47494 Armillaria	nadsnona	93 Smith, A.H., Wehmeyer, L.E. 94 Thiers, H.D., Smith, A.H.			1966 An undescribed Bolete in the B. rubellus group		
47495 Armillaria	obscura	95 Thiers, H.D., Smith, A.H.			1967 Comments on Suillus amabilis and Suillus lakei		
47496 Armillaria	bulbosa	96 Thiers, H.D., Smith, A.H.			1969 Hypogeous Cortinarii		
47497 Armillaria	NABS V	97 Josserand, M., Smith, A.H.			1937 Notes on the synonymy of French and American agarics - I		
47498 Armillaria	NABS XI	98 Josserand, M., Smith, A.H.			1941 Notes on the synonymy of French and America agarics - II		
47499 Armillaria	NABS IX	99 Redhead, S.A., Smith, A.H.			1983 Lactarius neotabidus nom. nov. for Lactarius canadensis Smith		
47500 Neolentinus	kauffmanii	100 Redhead, S.A., Smith, A.H.			1986 Two new genera of agarics based on Psilocybe corneipes and Phaeocollybia perplexa		
47501 Lentinus	kauffmanii	101 Guzman, G., Smith, A.H.			1978 Three new species of Psilocybe from the Pacific-Northwest in North America		
47502 Pholiota	populnea	102 Ovrebo, C., Smith, A.H.			1979 Studies on Tricholoma vaccinum and Tricholoma imbricatum in North America		
47503 Pholiota	destruens	103 Singer, R., Smith, A.H.			1958 New species of Psilocybe		
47504 Tricholoma	magnivelare	104 Singer, R., Smith, A.H.			1958b Mycological investigations on teonanacatl, the Mexican hallucinogenic mushroom. Part II. A taxonomic monograph of		
47505 Tricholoma	magnivelare	105 Smith A.H. Evenson V.S. Mitchel D.H.			1949 Mushrooms in their natural habitats 1983 The veiled species of Hebeloma in the western United States		
47506 Agaricus	bisporus	106 Smith, A.H., Evenson, V.S., Mitchel, D.H. 107 Smith, A.H.			1988 Common edible and poisonous mushrooms of southeastern Michigan		
47507 Agaricus	bisporus	108 Smith, A.H., Thiers, H.D.			1964 A contribution toward a monograph of North American species of Suillus (Boletaceae)		
47508 Tricholoma	ponderosum	109 Smith, A.H., Clemencon, H.			1978 Die Verweshslung des Lactarius lepidotus mit Lactarius griseus in Europa		
47509 Russula	paludosa	110 Smith, A.H.			1963 The mushroom hunter's field guide revised and enlarged		
47510 Russula	decolorans	111 Smith, A.H.		1975 A f	1975 A field guide to western mushrooms		
			FALSE TRUE AT	•			
47511 Lactarius	aquifluus				Nagasawa 1983a: 36-37	CONTRACTOR STORY	
47512 Tricholoma	caligatum	cosidontali-	FALSE TRUE AT		Nagasawa 1983b: 34-37		
47513 Armillaria 47514 Tricholoma	caligata zelleri	occidentalis	FALSE TRUE AT		Nagasawa 1983b: 34-37	是多是大型。 1	
47514 Tricholoma 47515 Tricholoma	zelleri		FALSE TRUE AT FALSE TRUE AT BC		Nagasawa 1983b: 34-37	The second secon	
					Nagasawa 1983c: 36-39		
47516 Tricholoma	ponderosum		FALSE TRUE AT		Nagasawa 1983c: 36-39	Virtually all	
47517 Collybia	velutipes		FALSE TRUE QB		Dearness 1911: 76		
47518 Agaricus	campestris		FALSE TRUE ON		Dearness 1911: 76	A.H. Smith	
47519 Lepiota	naucinoides		FALSE TRUE ON		Dearness 1911: 76		
47520 Fuscoboletinus	paluster		FALSE TRUE QB		Pomerleau 1964: 708	mushrooms	
47521 Boletinus	paluster		TRUE FALSE = Fuscoboletinus paluste		Pomerleau 1964: 708	11100111001110	
47522 Boletus	paluster		TRUE FALSE = Fuscoboletinus paluste		Pomerleau 1964: 708	indexed from	
47523 Boletinellus	paluster		TRUE FALSE = Fuscoboletinus paluste	er	Pomerleau 1964: 708	ilidexed iloili	
47524 Amanita	wellsii		FALSE TRUE QB MA NH NC		Pomerleau 1975: 191-194	nu blications	

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TRUE FALSE = Amanita onusta

TRUE | FALSE | = Amanita onusta

TRUE FALSE = Amanita jacksonii

TRUE FALSE = Amanita jacksonii

47525 Amanita

47526 Agaricus

47527 Lepiota

47528 Amanita

47529 Amanita

47530 Amanita

onusta

onustus

drymonia

jacksonii

umbonata Pomerleau

pellucida nom. invalid.

publications

Pomerleau 1975: 194-196

Pomerleau 1984b: 329-330

Pomerleau 1975: 194

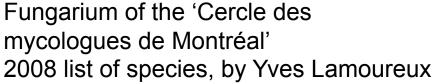
Pomerleau 1975: 194

Pomerleau 1984b: 329

Pomerleau 1984b: 329







4101 specimens representing 1900 species http://www.mycomontreal.qc.ca/etude/fungarium.php

Mycena strobilinoides Pk Mycena stylobates (Pers. : Fr.) Kumm. Mycena subcaerulea (Pk) Sacc. Mycena vulgaris (Pers. : Fr.) Kumm. Pseudobaeospora microspora (Ellis) Y. Lamoureux comb. prov. Resinomycena acadiensis Redh. & Sing. Resinomycena rhododendri (Pk) Redh. & Sing. Rhizomarasmius pyrrhocephalus (Berk.) Pet. Rhodocollybia butyracea (Bull.: Fr.) Lenn. Rhodocollybia maculata (Alb. & Schw.: Fr.) Sing. Rhodocollybia maculata var. scorzonerea (Alb. & Schw.: Fr.) Lenn. Rickenella fibula (Bull.: Fr.) Raith. Rickenella setipes (Fr.) Raith. Xeromphalina campanella (Batsch : Fr.) KŸhn. & Mre Xeromphalina cornui (Quél.) Favre Xeromphalina kauffmanii Sm. Xeromphalina tenuipes (Schw.) Sm. Xerula furfuracea (Pk) Redh., Ginns & Shoem. Xerula megalospora (Cl.) Redh., Ginns & Shoem. Xerula pseudomegalospora Y. Lamoureux nom. prov. Xerula rubrobrunnescens Redh., Ginns & Shoem.

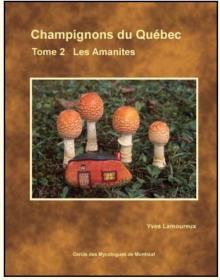
Cortinaires, Crépidotes, Galérines, Hébélomes, Inocybes et analogues

Cortinarius abieticola Y. Lamoureux nom. prov.



Auteurs: Jean Després, Yves Lamoureux,

Raymond Boyer, Raymond Archambault et André Jean



Cortinarius acutus (Pers.: Fr.) Fr. Cortinarius aestivalis Y. Lamoureux nom. prov. Cortinarius albidus Pk Cortinarius alboviolaceus (Pers. : Fr.) Fr. Cortinarius angelesianus Sm. Cortinarius annulatus Pk Cortinarius anomalus (Fr.: Fr.) Fr. Cortinarius argutus Fr. Cortinarius armeniacus (Sch.: Fr.) Fr. Cortinarius armillatus (Fr.: Fr.) Fr. Cortinarius aromaticus Y. Lamoureux nom. prov. Cortinarius atkinsonianus Kauffm. Cortinarius atrocoeruleus Mos. ex Kuhnert & Peintner Cortinarius atropusillus Favre Cortinarius aurilicis Chevass. & Tresc. Cortinarius azureus Fr. Cortinarius balaustinus Fr.

Québec Mycoflora project

- Started in August 2009
- Myco-Québec group
- Cercle des Mycologues Amateur de Québec
- Cercle des Mycologues de Montréal
- fresh samples only
 - -subsamples frozen for DNA extraction
 - -specimens dried for voucher
 - -photos available

Report by Jean Bérubé



- 1430 fresh specimens collected
- 1011 species
- -822 species collected once
- -83 species collected twice
- -39 species collected three times
- -29 species collected four times
- -11 species collected five times
- -9 species collected 6 times (Lycoperdon perlatum, Leccinum holopus)
- -4 species collected 7 times (Lactariu turpis, L. griseus, L. affinis)
- -1 species collected 8 times (Hygrophoropsis aurantiaca)
- -2 species collected 9 times (Leccinum snellii, Russula maculata)
- -1 species collected 11 times (Lactarius thyinos)

- 1430 specimens available
- 914 sequenced
- 61.5% matched with BLAST in Genbank (562)
- 19.8% unmatched as species absent from Genbank (181)
- 8.2% unusable sequences (75)
- 3.9% mislabelled (36)
- at least 6.6% erroneous identifications by amateur mycologists (60)

Contribution of citizen scientists: cost per sample

- Field sampling: \$8* (in kind by mycological clubs)
- Identifications: \$20 (in kind by amateur specialists)
- DNA extraction and lab work: \$4, in cash
- Student lab work: \$30 (in kind by internship students)
- PCR + sequencing: \$5, in cash
- Vouchering: \$30 (in kind, done by collector who receives a tax receipt upon donation to an herbarium)
- Data entry: \$1 (in kind by intership students)
- Data validation: \$10 (in kind by amateur specialists)

Total: \$108 (\$9 in cash, \$99 in kind)

^{*}cost estimate if we had to pay salaries, vehicles, food and accommodations



Newsletter of PFORAY

Jun 21, 2012

Andrus Voitk

LICHENS added!

NEWFOUNDLAND AND LABRADOR

2012 2012 2012 2012 2012 2012 2012 2012 2012 2012 2012 2012 2012

Terra Nova National Park

Headquarters: Terra Nova Hospitality Home September 28-30, 2012

GUEST FACULTY

David Boertmann Gro Gulden Nils Hallenberg



Omphalina

Click on the issue you wish to read. The issue will appear in Adobe's Acrobat Reader in a separate window. Use the Ac toolbar options to download the issue to your computer or to print a copy. Warning: the colour photographs in each issue significant amount of ink on inkjet printers.

Volume One	Volume Two	Volume 7
Issue 1	Issue 1	Issue
Issue 2	Issue 2	Issue
Issue 3	Issue 3	Issue
Issue 4	Issue 4	Issue
Issue 5	Issue 5	Issue
Issue 6	Issue 6	Issue
Issue 7	Issue 7	
	Issue 8	
	Issue 9	





University of British Columbia, and the Vancouver Mycological Society



UBC Herbarium



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Fungal Collection

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History

The collection started form a single case before 1960 by Frank Dickson, with no more than one or two thousand cultures. The original herbarium was contained in a single file case, filed in packets, in the order they were added to the collection and an alphabetized list of cards directed one to each species/ or specimens

Collection

In the past four decades, the collection has grown slowly to the present size of around 15,000 specimens. The collection is small relative to other major fungal collections, however Tremellales is well covered due to Dr. R.J. Bandoni's interest and research in the group. The collection housed a few of his types in the groups: Fibulobasidium sirobasidioides, Mycogloea amethystina, M. bullatospora, M. nipponica, Sirotrema parvula and S. pusilla. The Agaricales (mushrooms) section had expanded rapidly in the recent years. Paul Kroeger, past President of the Mycological Society of Vancouver, and other members have contributed to the strength of collection.

The fungal collection is arranged taxonomically by orders based mainly on "an old system". Within each order the specimens are arranged alphabetically by genera. An index of genera of which order they are filed under and the range of cabinets that house the order is available of users of the collection.

Database

The UBC Herbarium Fungal database is complete and includes label information for all accessioned specimens in our Fungal Collection. Most of the data have not yet been edited for typographical errors, and most annotations for nomenclatural and taxonomic changes in the last 20 years have not been added since the data were originally entered. There are currently over 15 000 specimens databased with new additions each year.

North American Mycoflora project logo







Canada: 9,984,670 sq km U.S.A.: 9,826,675 sq km Mexico: 1,964,375 sq km

- > 3,800 vascular plants
- > 19,400 vascular plants
- > 26,000 vascular plants
- http://rainforests.mongabay.com/03plants.htm



