

Digitizing Canada's Biodiversity and Natural History Records

Bénédicte Rivière
Canadensys



@Canadensys



Why Mobilize Biodiversity Data?

- Secure data on the long term
- More visibility and better access to Canadian data
- Better knowledge of past and present Canadian biodiversity
- Make this crucial information available to researchers and decision-makers
- Solve environmental, health or economic issues
- Education



2011 ANHMC Development Strategy

- “Create alliances with organizations which hold other collections relevant to Canadian biodiversity”
- “Establish a web interface for searching ANHMC collections”
- “Canadensys”



Canadensys at that time



CUBC-Canadensys creation

2006

CFI (Canadian Foundation for Innovation) Grant

CUBC

(Canadian University Biodiversity Consortium)

11 Canadian Universities

Acadia U, Udm, McGill, U.Laval, York U, U.Guelph, U.Toronto, U Manitoba,
U.Saskatchewan, U. Alberta, UBC



Canadensys Mission

Make biodiversity information
freely and openly available to everyone



Initial Objective

Mobilize 20% of entire holdings

30 collections

Plants, insects and fungi



INNOVATION.CA

CANADA FOUNDATION
FOR INNOVATION

FONDATION CANADIENNE
POUR L'INNOVATION

Canadensys Milestones

2006 CFI grant

2008 CUBC renamed Canadensys

2011 ANHMC Development Strategy

2011 VASCAN

2011 Community page

2012 Explorer

2012-2014 New universities and museums

2014 Official Associate Participant in GBIF



« Once operational, the network will be available to any collection or researcher that is not part of the initial application. »

University of
Lethbridge



Agriculture and
Agri-Food Canada



Biological Survey of Canada
Commission biologique du Canada

INNOVATION.CA

CANADA FOUNDATION
FOR INNOVATION

FONDATION CANADIENNE
POUR L'INNOVATION



What does Canadensys offer now?



Community page





Welcome to Canadensys

Canadensys makes biodiversity information freely and openly available to everyone. We are a network of researchers, collectors, curators, information technologists, students, and educators that shares data on the occurrence and identity of plant, animal, and fungal species in Canada.

We are active members of the [Canadian Biodiversity Information Facility \(CBIF\)](#) and the [Global Biodiversity Information Facility \(GBIF\)](#).

Canadensys received funding from the [Canada Foundation for Innovation \(CFI\)](#) for its initial development.



Tweets



Canadensys

20 Oct

@Canadensys

New publication: Historical anthropogenic disturbances influence patterns of non-native earthworm and plant inva... ift.tt/1ptKmaL

Expand



Canadensys

17 Oct

@Canadensys

The Marie-Victorin Herbarium (MT), dx.doi.org/10.5886/rzav8b... now has images of ~2,400 specimens on the Explorer, bit.ly/1ugpHs5



Canadensys

17 Oct

@Canadensys

We improved the presentation of images on occurrence pages & include contact info. and recommended citations e.g. data.canadensys.net/en/resources/m...



TDWG

17 Oct

@tdwg

Tweet to @Canadensys

Data page





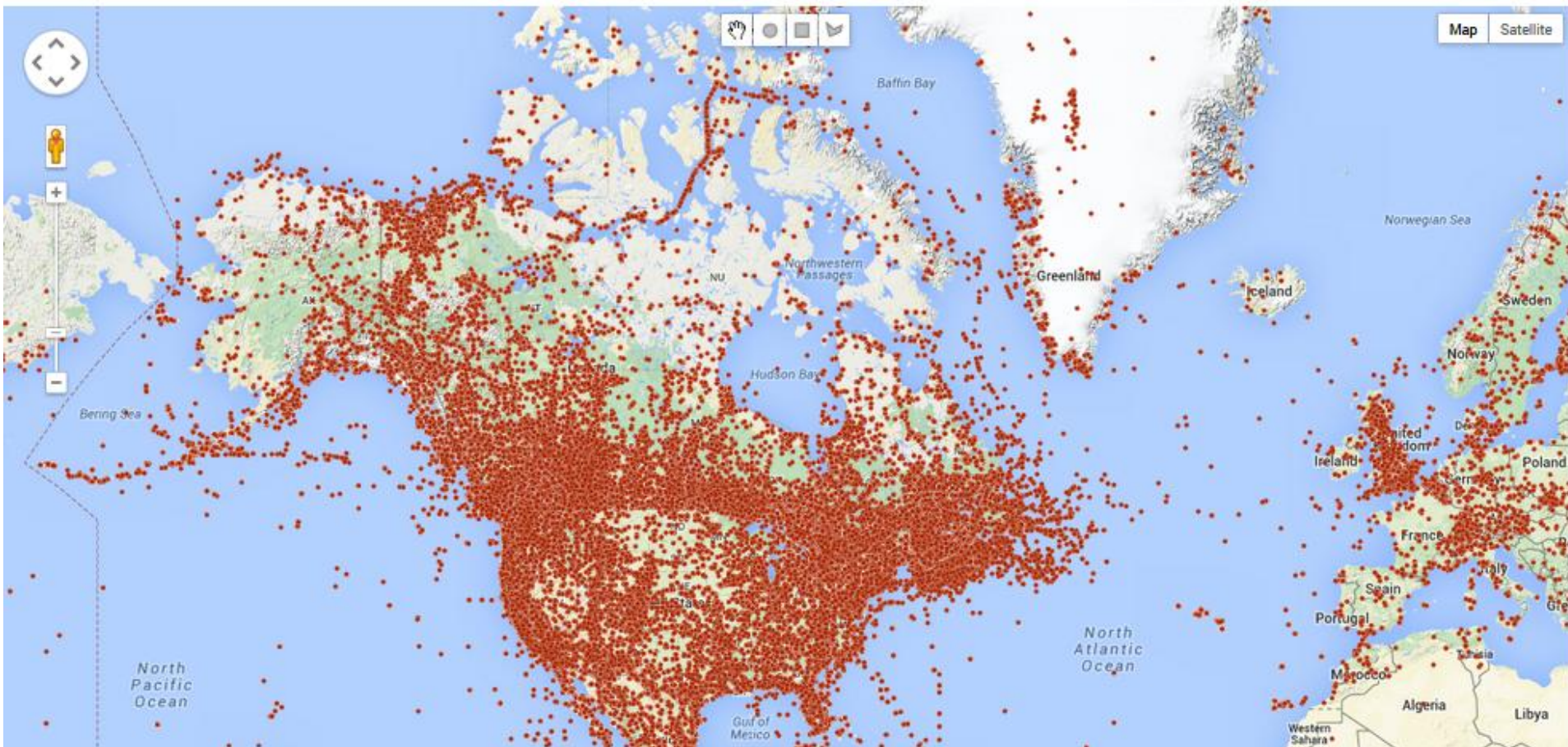
All 2,544,567 records

(showing only georeferenced records: 1,994,199)

Map view

Table view

Stats view





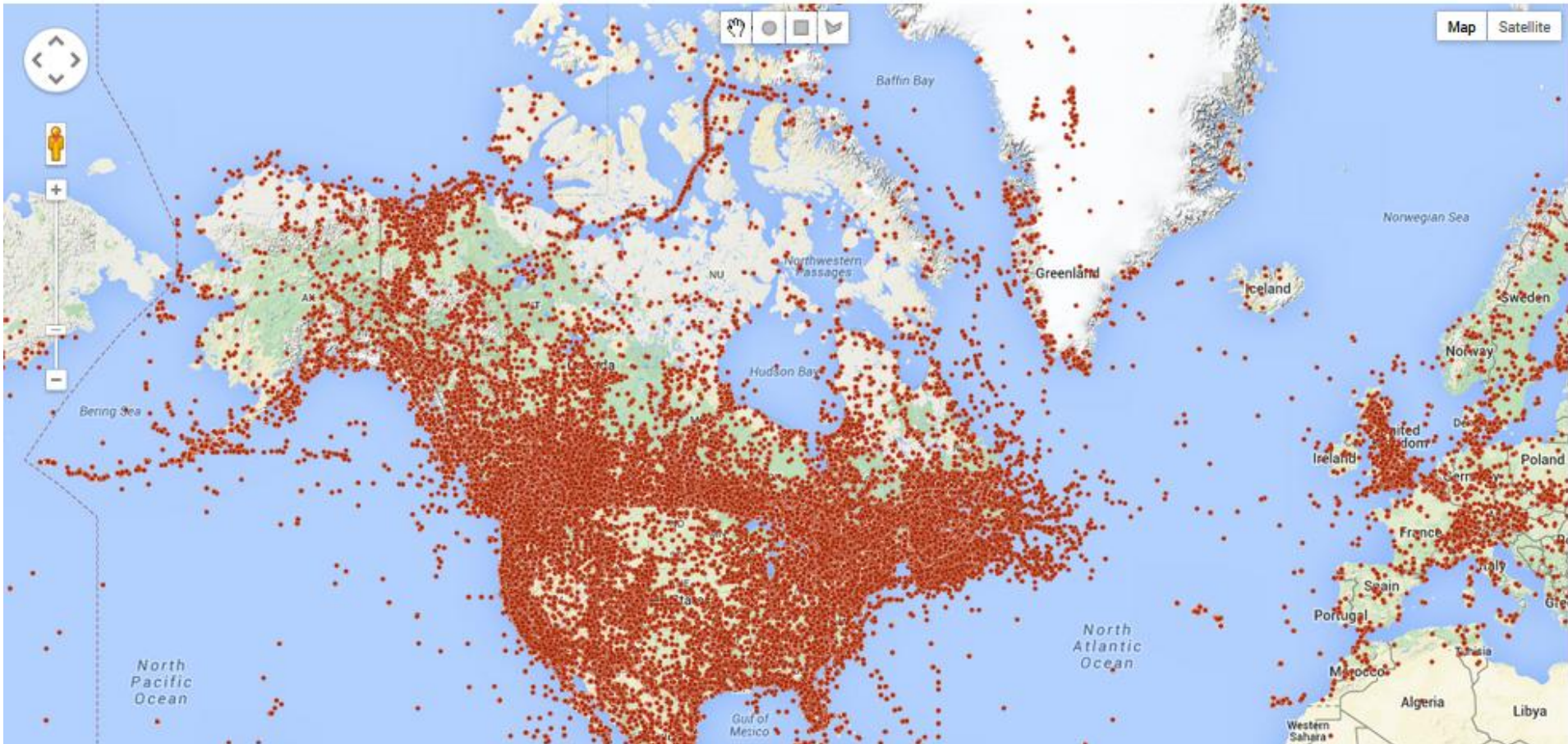
All 2,544,567 records

(showing only georeferenced records: 1,994,199)

Map view

Table view

Stats view





Rosa blanda

ACC *Rosa blanda* Aiton is an accepted species name sensu FNA Ed. Comm., in prep. b.

Vernacular names

ACC rosier inerme	Marie-Victorin, 1995
SYN églantier	Marie-Victorin, 1995
SYN rosier agréable	Louis-Marie, 1953
SYN rosier sauvage	Marie-Victorin, 1995
ACC smooth rose	Hinds, 2000
SYN meadow rose	Hinds, 2000
SYN smooth wild rose	Harms, 2006

Synonyms

SYN <i>Rosa blanda</i> Aiton var. <i>blanda</i>	TROPICOS
SYN <i>Rosa blanda</i> var. <i>glabra</i> Crépin	FNA Ed. Comm., in prep. b
SYN <i>Rosa johannensis</i> Fernald	FNA Ed. Comm., in prep. b
SYN <i>Rosa roousseauiorum</i> B. Boivin	FNA Ed. Comm., in prep. b
SYN <i>Rosa roousseauiorum</i> var. <i>chryscarpa</i> B. Boivin	IPNI
SYN <i>Rosa subblanda</i> Rydberg	FNA Ed. Comm., in prep. b
SYN <i>Rosa williamsii</i> Fernald	FNA Ed. Comm., in prep. b

Distribution

Map view List view

NAT NATIVE **INT** INTRODUCED **EPH** EPHEMERAL **EXC** EXCLUDED **EXT** EXTIRPATED **?** DOUBTFUL

Name search

Checklist builder

About

API

Download

See the taxon page for this

Print this page



Dr. Luc Brouillet

Université de Montréal Biodiversity Centre



Hosted resources available through this IPT

Follow our [7-step guide](#) to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
	Biodiversity Institute of Ontario (BIOUG)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
	Cercle des mycologues de Montréal Fungarium (CMMF)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-08
--	Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-15
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
--	Distribution Data for <i>Megachile chomskyi</i>	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17



Hosted resources available through this IPT

Follow our [7-step guide](#) to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
	Biodiversity Institute of Ontario (BIOUG)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
	Cercle des mycologues de Montréal Fungarium (CMMF)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-08
--	Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-15
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
--	Distribution Data for <i>Megachile chomskyi</i>	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17



Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.

All 8238 species-group taxa of Coleoptera known to occur in Canada and Alaska are recorded by province/territory or state, along with their author(s) and year of publication, in a classification framework. Only presence of taxa in each Canadian province or territory and Alaska is noted. Labrador is considered a distinct geographical entity. Adventive and Holarctic species-group taxa are indicated. References to pertinent identification keys are given under the corresponding supraspecific taxa.

Summary	Date Published	Mar 11, 2014
	Version	7 (Latest)
	Darwin Core Archive	download (439 KB) 12599 records
	EML	download (12 KB)
	RTF	download (8 KB)
	GBIF Registration	7a9bccd4-32fc-420e-a73b-352b92267571
	Organisation	Université de Montréal Biodiversity Centre
	Endorsing Node	Canada Biodiversity Information Facility

Keywords Checklist; Inventory; regional; Coleoptera; Canada; Alaska

Language
Metadata Language English
Resource Language English

External Links
Resource Homepage <http://data.canadensys.net/ipt/resource.do?r=coleoptera-ca-sk>
GBIF data portal <http://www.gbif.org/dataset/7a9bccd4-32fc-420e-a73b-352b92267571> UTF-8 HTML

Resource Contact
Name Patrice Bouchard
Position Research Scientist (Curator - Coleoptera Unit)
Organisation Agriculture and Agri-Food Canada
Address 950 Carleton Avenue, Ottawa, Ontario, CANADA, Postal Code: K1A 0G6

[Download dataset](#)

[Download metadata as an EML file](#)

[Download metadata as an RTF file](#)

[Explore this dataset on GBIF](#)



Dr. Yves Bousquet

Canadian National Collection of Insects, Arachnids and Nematodes Agriculture and Agri-Food Canada

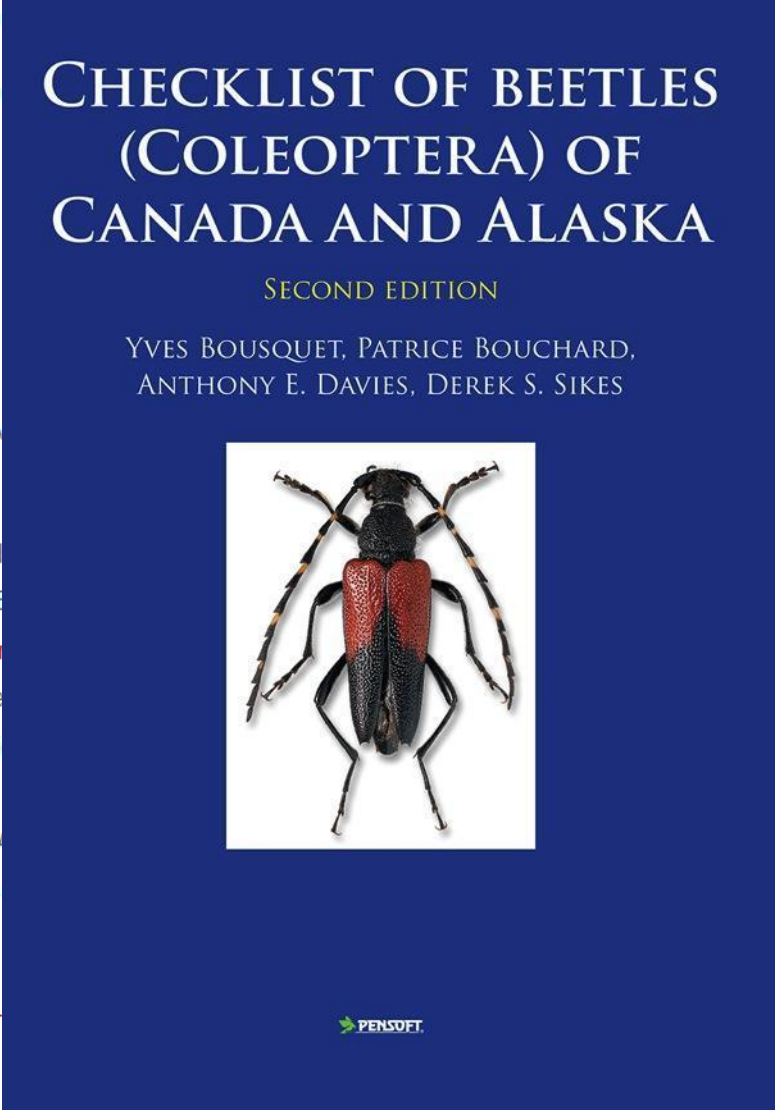


Dr. Patrice Bouchard

Geographic Coverage	Description	This checklist includes records from all provinces and territories of Canada as well as Alaska.
	Bounding Coordinates	41.14, 83.32 / -169.43, -51.7 (min, max Latitude / min, max Longitude)
Taxonomic Coverage	Description	All extant described species in the order Coleoptera known to occur in Canada and Alaska are included.
	Order	Coleoptera (Beetles)
Temporal Coverage	Start Date / End Date	1758-01-01 / 2013-01-01
Project Data	Title	Dr.
	(Personnel) Name	Patrice Bouchard
	(Personnel) Role	Author
	Funding	A-base funding (Agriculture and Agri-Food Canada)
Citations	Citation Identifier	doi:10.5886/998dbs2a
	Resource Citation	Yves Bousquet, Patrice Bouchard, Anthony E. Davies, and Derek S. Sikes. 2013. Data associated with CHECKLIST OF BEETLES (COLEOPTERA) OF CANADA AND ALASKA. SECOND EDITION. DATA PAPER. ZooKeys. http://dx.doi.org/10.5886/998dbs2a
	Citation	Bousquet, Y., Bouchard, P., Davies, A.E. and Sikes, D.S. in press. Checklist of beetles (Coleoptera) of Canada and Alaska. Second edition. Pensoft, Sofia. 402pp.
	Citation Identifier	doi:10.3897/zookeys.360.4742
	Citation	Bousquet Y, Bouchard P, Davies AE, Sikes DS (2013) Checklist of beetles (Coleoptera) of Canada and Alaska. Second edition. ZooKeys 360: 1–44. doi: http://dx.doi.org/10.3897/zookeys.360.4742
Alternative Identifiers	7a9bccd4-32fc-420e-a73b-352b92267571 http://data.canadensys.net/ipt/resource.do?r=coleoptera-ca-ak	
Additional Metadata	Hierarchy Level	dataset
	IP Rights	OGLC 2.0, http://data.gc.ca/eng/open-government-licence-canada



Geographic Coverage	Description	This checklist includes records from all provinces and territories of Canada as well as Alaska.
	Bounding Coordinates	41.14, 83.32 / -169.43, -51.7 (min)
Taxonomic Coverage	Description	All extant described species in the
	Order	Coleoptera (Beetles)
Temporal Coverage	Start Date / End Date	1758-01-01 / 2013-01-01
Project Data	Title	Dr.
	(Personnel) Name	Patrice Bouchard
	Author	Author
	A-base funding (Agriculture and A	A-base funding (Agriculture and A
Citations		doi:10.5886/998dbs2a
		Yves Bousquet, Patrice Bouchard
		CHECKLIST OF BEETLES (COLE
		PAPER. ZooKeys. http://dx.doi.org
	Citation	Bousquet, Y., Bouchard, P., Davies
		Canada and Alaska. Second editi
	Citation Identifier	doi:10.3897/zookeys.360.4742
	Citation	Bousquet Y, Bouchard P, Davies A
		Alaska. Second edition. ZooKeys
Alternative Identifiers		7a9bccd4-32fc-420e-a73b-352b92267571
		http://data.canadensys.net/ipt/resource.do?r=coleoptera-ca
Additional Metadata	Hierarchy Level	dataset
	IP Rights	OGLC 2.0, http://data.gc.ca/eng/open-government-licence-canada





Hosted resources available through this IPT

Follow our [7-step guide](#) to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
	Biodiversity Institute of Ontario (BIOUG)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
	Cercle des mycologues de Montréal Fungarium (CMMF)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-08
--	Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-15
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
--	Distribution Data for <i>Megachile chomskyi</i>	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17

Data associated with new species

Leafcutter bee new to science with specimen data on Canadensys

Thursday, 4 April 2013

Dr. **Cory Sheffield**, Research Scientist & Curator of Invertebrate Zoology at the Royal Saskatchewan Museum in Regina, SK had a paper published April 3, 2013 in the journal **ZooKeys** in which he named and described *Megachile chomskyi*. This new species of leafcutter bee is approximately 13mm long, has a relatively long tongue, white pubescence and is named after **Noam Chomsky**, Professor Emeritus in the Department of Linguistics & Philosophy at MIT. The male holotype and female allotype are deposited at the Royal Saskatchewan Museum and were both collected in Winkler Co., Texas.



Male holotype of the newly described bee, *Megachile chomskyi* Sheffield, 2013.

Credit: Cory S. Sheffield (Royal Saskatchewan Museum). Usage Restrictions: [CC-BY 3.0](https://creativecommons.org/licenses/by/3.0/).



Dr. Cory Sheffield
Curator of Invertebrate Zoology,
Royal Saskatchewan Museum

[Français](#)[explorer](#)[repository](#)[tools](#)[vascan](#)

Hosted resources available through this IPT

Follow our [7-step guide](#) to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
	Biodiversity Institute of Ontario (BIOUG)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
	Cercle des mycologues de Montréal Fungarium (CMMF)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-08
--	Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-15
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
--	Distribution Data for Megachile chomskyi	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17

IPT

Integrated Publishing Toolkit



IPT (Integrated Publishing Toolkit)

Source Data

No file selected.

Your source data files for generating a Darwin Core Archive. You can upload delimited text files (csv, tab, and files using an or compressed (zip or gzip). Excel files are also supported. To (re)upload a file, please select the local file then click "Add".

Alternatively, you can configure *SQL views* to databases in your local network. To create a new SQL source, please click "C any file chosen.

mt-identification [file]	48.3 MB, 224,671 rows, 19 columns. 14/10/14	<input type="button" value="Edit"/>
mt-image [file]	1.1 MB, 2,584 rows, 13 columns. 14/10/14	<input type="button" value="Edit"/>
mt-occurrence [file]	131.9 MB, 150,566 rows, 71 columns. 14/10/14	<input type="button" value="Edit"/>

Darwin Core Mappings

Darwin Core Occurrence

Your mapping between the source data and Darwin Core terms.

Darwin Core Occurrence	70 terms mapped to mt-occurrence	<input type="button" value="Edit"/>
Darwin Core Identification	18 terms mapped to mt-identification	<input type="button" value="Edit"/>
History		
Simple Multimedia	12 terms mapped to mt-image	<input type="button" value="Edit"/>

Metadata

The Marie-Victorin Herbarium (MT) is the second largest university herbarium in Quebec, and ranks fo...

Keywords MT; Marie-Victorin Herbarium; Herbarier Marie-Victorin; Université de Montréal; WAT; Canaden...

Published Release

When publishing a new release, a new EML version, RTF version, and a Darwin Core Archive (DwC-A) will be created. A D with mappings and metadata in one zipped archive.

Visibility *Private*

This resource is private to managers. To make this resource available to everyone, please make it public.

Resource Managers

Resources can be managed by several managers. You can grant other managers permission to modify testoccurrences.

IPT (Integrated Publishing Toolkit)

Source Data

No file selected.

Your source data files for generating a Darwin Core Archive. You can upload delimited text files (csv, tab, and files using an... or compressed (zip or gzip). Excel files are also supported. To (re)upload a file, please select the local file then click "Add".

Alternatively, you can configure *SQL views* to databases in your local network. To create a new SQL source, please click "C... any file chosen.

mt-identification [file]	48.3 MB, 224,671 rows, 19 columns. 14/10/14	<input type="button" value="Edit"/>
mt-image [file]	1.1 MB, 2,584 rows, 13 columns. 14/10/14	<input type="button" value="Edit"/>
mt-occurrence [file]	131.9 MB, 150,566 rows, 71 columns. 14/10/14	<input type="button" value="Edit"/>

Darwin Core Mappings

Darwin Core Occurrence

Your mapping between the source data and Darwin Core terms.

Darwin Core Occurrence	70 terms mapped to mt-occurrence	<input type="button" value="Edit"/>
Darwin Core Identification	18 terms mapped to mt-identification	<input type="button" value="Edit"/>
Simple Multimedia	12 terms mapped to mt-image	<input type="button" value="Edit"/>

Metadata

The Marie-Victorin Herbarium (MT) is the second largest university herbarium in Quebec, and ranks fo...

Keywords MT; Marie-Victorin Herbarium; Herbar Marie-Victorin; Université de Montréal; WAT; Canaden...

Published Release

When publishing a new release, a new EML version, RTF version, and a Darwin Core Archive (DwC-A) will be created. A D... with mappings and metadata in one zipped archive.

Visibility *Private*

This resource is private to managers. To make this resource available to everyone, please make it public.

Resource Managers

Resources can be managed by several managers. You can grant other managers permission to modify testoccurrences.

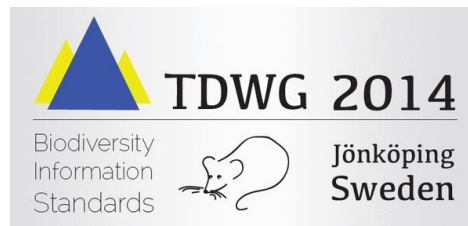
Darwin Core terms

TDWG = Biodiversity Information Standards

(formerly Taxonomic Databases Working Group)

- International
- Standard Terms
- Controlled vocabulary
- Revised every year with user input

Biodiversity
Information
Standards
T D W G



IPT (Integrated Publishing Toolkit)

The screenshot shows the IPT interface with three main sections:

- Source Data:** Contains a "Browse..." button, the text "No file selected.", a "Connect to database" button, and a "Clear" button.
- Darwin Core Mappings:** Contains a dropdown menu with "Darwin Core Occurrence" selected and an "Add" button below it.
- Metadata:** Contains an "Edit" button.

Darwin Core Archive :
files in an international format,
including metadata



Hosted resources available through this IPT

Follow our [7-step guide](#) to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
	Biodiversity Institute of Ontario (BIOUG)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
	Cercle des mycologues de Montréal Fungarium (CMMF)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-08
--	Checklist of Beetles (Coleoptera) of Canada and Alaska. Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-15
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
--	Distribution Data for <i>Megachile chomskyi</i>	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17

Data Aggregation and Re-use



GBIF INTEGRATED PUBLISHING TOOLKIT (IPT)

Home About

Hosted resources available through this IPT

Logo	Name	Organisation	Type	Subtype	Records	Last modified	Last publication	Next publication
	University of Alberta Entomology Collection (UASM)	University of Alberta Museums	Occurrence	Specimen	301,965	2014-08-07	2014-08-07	--
	University of Alberta Vascular Plant Herbarium (ALTA)	University of Alberta Museums	Occurrence	Specimen	70,738	2014-08-08	2014-08-08	--

Showing 1 to 2 of 2 resources

The most recently updated resources are also available as an RSS feed.

IPT Version 2.1.1-4640 About the IPT project User manual Report a bug Request new feature

©2012 Global Biodiversity Information Facility. Data publishers retain all rights to data.

Global Biodiversity Information Facility IPT

Home About

Hosted resources available through this IPT

Logo	Name	Organisation	Type	Subtype	Records	Last modified	Last publication	Next publication
R·M	Herpetology Collection - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	45,271	2014-10-02	2014-09-04	--
R·M	Ichthyology Collection - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	88,703	2014-09-04	2014-09-04	--
R·M	Mammalogy Collection - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	100,169	2014-10-02	2014-09-04	--
R·M	Ornithology Collection Non Passeriformes - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	60,564	2014-10-02	2014-08-25	--
R·M	Ornithology Collection Passeriformes - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	108,333	2014-10-02	2014-08-25	--
R·M	Vertebrate Paleontology Comparative Osteology Collection - Royal Ontario Museum	Royal Ontario Museum	Occurrence	Specimen	9,961	2014-09-04	2014-09-04	--

Showing 1 to 6 of 6 resources

The most recently updated resources are also available as an RSS feed.

GBIF INTEGRATED PUBLISHING TOOLKIT (IPT)

Home About

Hosted resources available through this IPT

Logo	Name	Organisation	Type	Subtype	Records	Last modified	Last publication	Next publication
	A Study of Attached Benthic Foraminifera Associated With The Deep-Sea Coral <i>Primnoa resedaeformis</i> On The Scotian Margin	Not registered	Occurrence	Observation	2,568	2014-03-02	2014-03-02	--
	American eel distribution on the east coast of Canada as inferred from fishing records	Not registered	Occurrence	Observation	3,345	2014-02-16	2014-02-16	--
	An Illustrated Catalogue of Foraminifera and Ostracoda from Carso Strait and Chedabucto Bay, Nova Scotia	Not registered	Occurrence	Observation	201	2014-03-31	2014-03-31	--
	Arctic Lakes Atlantic cod	Not registered	Occurrence	Observation	504	2014-03-18	2014-03-18	--

Atlantic Reference Canadian Atlantic

Canadensys data | community

repository manage resources administration

Hosted resources available through this IPT

Follow our 7-step guide to publish your own dataset on this repository.

Logo	Name	Organisation	Type	Subtype	Records	Last publication
Y	Biodiversity Institute of Ontario (BIOUO)	University of Guelph	Occurrence	Specimen	321020	2014-07-25
C	Cercle des mycologistes de Montréal Fungarium (CMFM)	Université de Montréal Biodiversity Centre	Occurrence	Specimen	5730	2014-10-07
	Checklist of Beetles (Coleoptera) of Canada and Alaska, Second Edition.	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	12599	2014-03-11
	Click beetles and wireworms (Coleoptera: Elateridae) of Alberta, Saskatchewan, and Manitoba	Biological Survey of Canada	Checklist	Inventory Regional	352	2014-09-19
	Database of Vascular Plants of Canada (VASCAN)	Université de Montréal Biodiversity Centre	Checklist	Inventory Regional	28141	2014-08-25
	Distribution Data for <i>Megachile chomskyi</i>	Université de Montréal Biodiversity Centre	Occurrence	Specimen	19	2013-12-06
	E. C. Smith Herbarium (ACAD)	Acadia University	Occurrence	Specimen	54179	2014-06-17
	Forum jeunesse de l'île de Montréal (FJM) - Bioblit Urbain 2013	Not registered	Occurrence	Observation	217	2013-12-17

IPTs in Canada

searchable Explorer

Canadensys data | community

explorer repository tools vascan

All 2,538,478 records (showing only georeferenced records, 1,987,967)

Map view Table view Stats view

Search Download Display

Create a new filter

Scientific name

Filter starts with: [Add filter](#)

Passer domesticus domesticus	7425
Megascops asioaugur	7410
Anthomyiidae	7192
Apollates	7124
Phoxinus phoxinus	6841
Delta platara	6699
Chrysois	5901
Inermis	5856
Conioscinella	5183
Peromyscus maniculatus	4704

Current filters

No filters selected.

[search current filters](#)

Explorer



Canadensys

data | community

explorer repository tools vascan

4,853 Results

(showing only georeferenced records: 2,327)

Map view

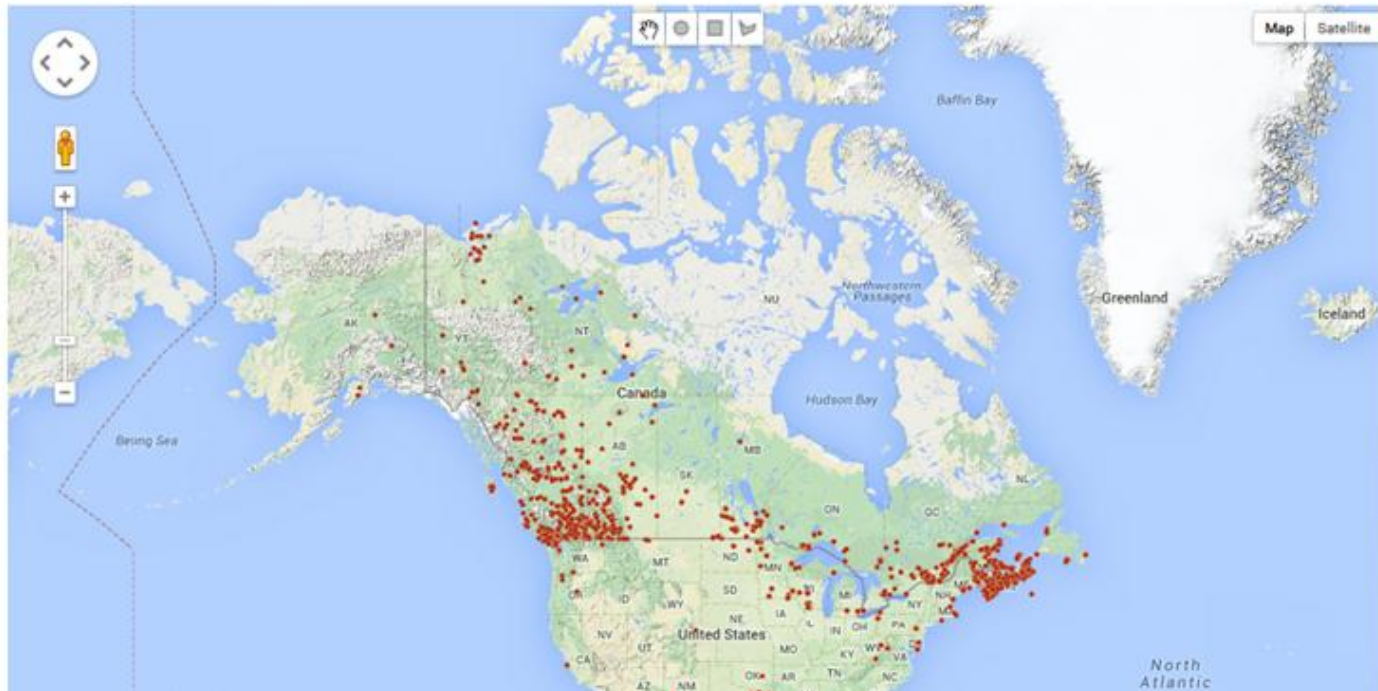
Table view

Stats view

Search

Download

Display



Create a new filter

Scientific name

Classification

Scientific name
Kingdom
Phylum
Class
Order
Family
Taxon rank

Dataset

Institution
Dataset name
IPT resource

Specimen

Collection code
Catalog number
Collector
Collector number

Date

Date

Location

Continent
Country
State/Province
County
Municipality
Locality
Altitude (in meters)

Extra

Coordinates
Image(s)
Sequence(s)
Type specimens



All 2,225,891 records

(showing only georeferenced records: 1,804,415)

Map view

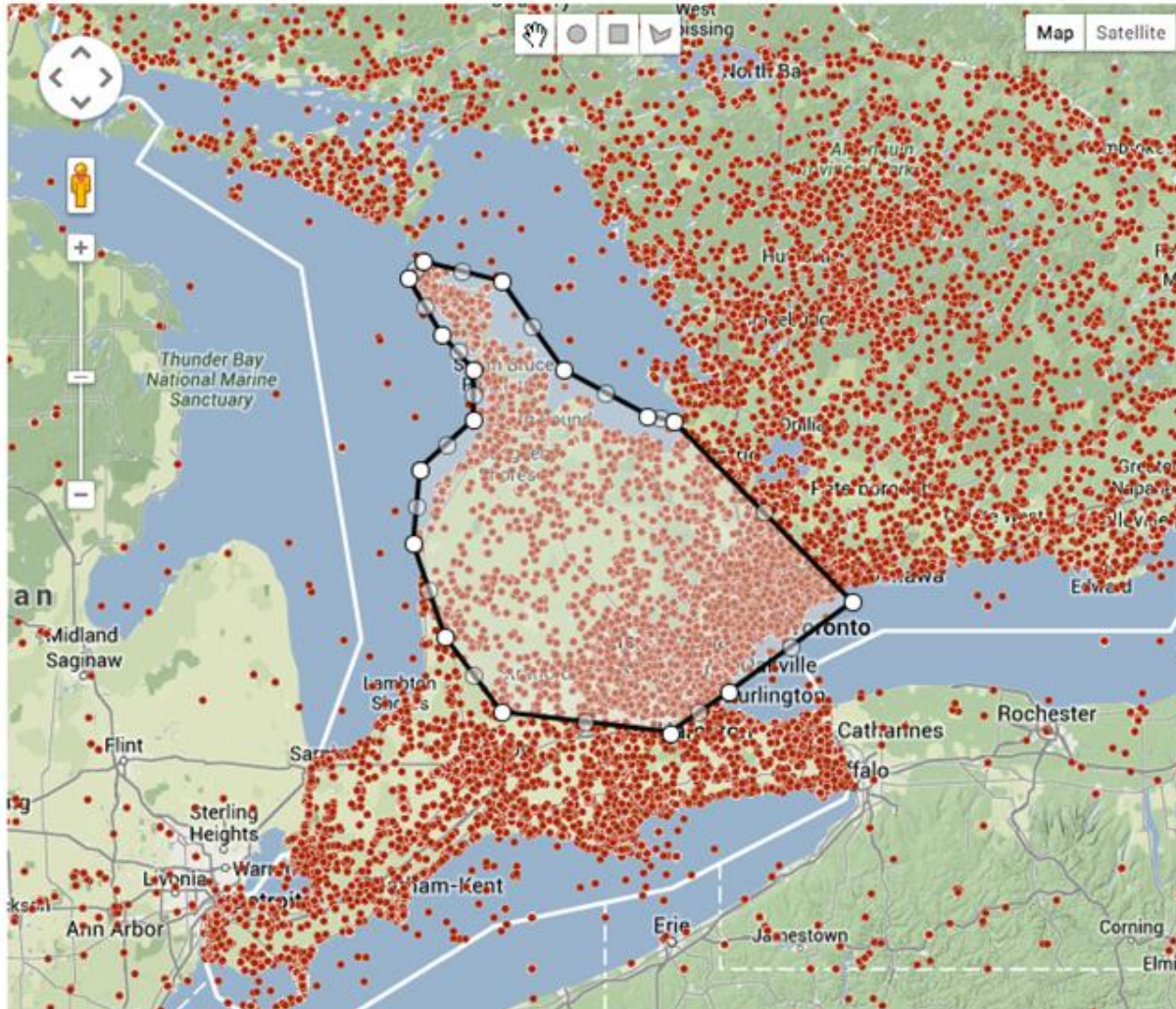
Table view

Stats view

Search

Download

Display



Create a new filter

Type specimens

Type specimens: Yes No

Add filter

Current filters

Type specimens

Yes (exact)



Custom drawing (polygon)

(is in)



search current filters

46 Results

(showing only georeferenced records: 36)

Map view

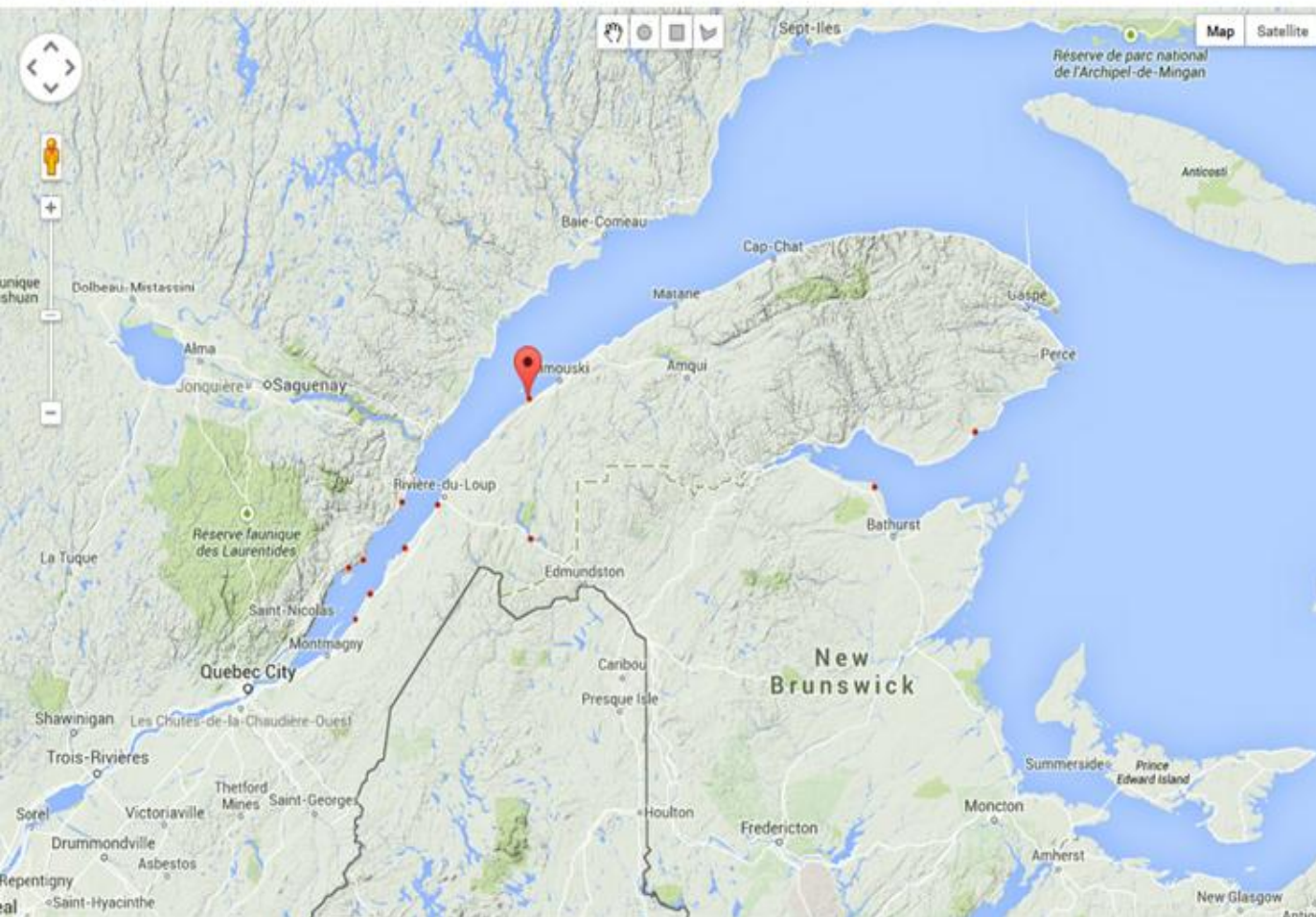
Table view

Stats view

Search

Download

Display



Rosa blanda

Kingdom: Plantae > Phylum: Magnoliophyta > Class: > Order: >
Family: Rosaceae > Genus: Rosa > Verbatim scientific name:
Rosa blanda Aiton

[View full record](#)

Institution	Université de Montréal Biodiversity Centre
Dataset name	Marie-Victorin Herbarium (MT)
Catalog No.	MT00163453
Collector	Mercure, Marjorie; Brouillard, Jocelyn
Collector No.	150
Date	2005-08-21
Country	Canada
State/Province	Québec
Locality	Parc national du Bic, secteur de la Ferme Rioux; champs abandonnés le long de la grève dans l'Anse-à-Damase.
Lat./Long.	48.357 -68.797
Altitude	
Habitat	Bois de Populus sp. en bordure de la grève avec Leymus arenarius, Lathyrus maritimus, Atriplex prostrata. Rosa rugosa et l'hybride entre R. blanda et R. rugosa sont occasionnels. Rosa blanda est très abondant.

Associated media 1 image(s)

Rosa blanda

Occurrence record for: MT MT00163577

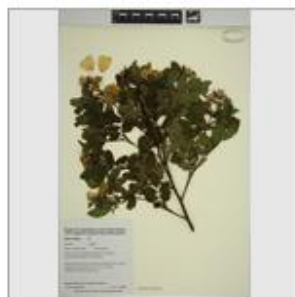
Normal view

Darwin Core view

Classification

Kingdom	Plantae
Phylum	Magnoliophyta
Class	
Order	
Family	Rosaceae
Genus	Rosa
Scientific name	Rosa blanda (interpreted from: Rosa blanda Alton)
Authorship	Alton

Images



Created by: Léonard, Roland; Nault, Lorraine

Location

Country	Canada
State/Province	Québec
County	Kamouraska
Municipality	Kamouraska
Locality	Kamouraska, grève à l'ouest du quai municipal. Près de l'intersection Leblanc et Lemesurier.
Latitude	47.5621667
Longitude	-69.87425
Coord. uncertainty (m)	
Min. altitude (m)	5
Max. altitude (m)	5



Herbier: Gènes, entre la Saône et un musée de béton, avec B.

ANHMC data already on the Explorer



ROM 342 429 records

TRT 90 799 records



BEATY
BIODIVERSITY
MUSEUM

535 395 records



espace
pour la
vie **jardin botanique**
montréal

24 583 records

993 206 records

ANHMC options to publish data on GBIF

- One central IPT
 - + Almost all ANHMC at one place
 - Hire someone for informatics and/or contract Canadensys
- Use of Canadensys IPT
 - + Nothing to install nor maintain & help with data publication
 - No automatic uploads
- Each institution has its own IPT
 - + Can make direct access to their db = no export needed + regular automatic uploads
 - Hire someone to maintain the system and make updates
- Each institution has its own IPT with Canadensys contracts
 - + Can make direct access to their db = no export needed + regular automatic upload
 - Contract Canadensys for their IPTs set up and maintenance

ANHMC options to publish data on GBIF

- One central IPT
 - + Almost all ANHMC at one place
 - Hire someone for informatics and/or contract Canadensys
- Use of Canadensys IPT
 - + Nothing to install nor maintain & help with data publication
 - No automatic uploads
- Each institution has its own IPT
 - + Can make direct access to their db = no export needed + regular automatic uploads
 - Hire someone to maintain the system and make updates
- Each institution has its own IPT with Canadensys contracts
 - + Can make direct access to their db = no export needed + regular automatic upload
 - Contract Canadensys for their IPTs set up and maintenance

**Then, open source datasets published from any IPT
will be displayed on the Explorer**

Licensing



To avoid

material must not be modified (CC-ND)

readily available for non-commercial
personal use only (CC-NC)

Data may not be transferred to another database
for distribution to others without prior written
permission



Biodiversity data

ENCOURAGE the use of these data, not discourage !

One license :

easier for aggregation + one strong community

An open license :

allowing our data to be really used.

A clear license :

users can focus on using the data,
instead of figuring out the fine print.

Giving credit where credit is due :

building social norms among data publishers and users



Biodiversity data

Standardized Facts

No owner

Use without restriction bit.ly/cc0-for-data



Open Biodiversity Knowledge Management

BOUCHOUT DECLARATION 

Multimedia data

Pictures of specimens, pictures in the field, videos,
sound recordings ...

New standards : multimedia extension



LICENSES

TERMS



Attribution

Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you



No Derivative Works

Others can only copy, distribute, display or perform verbatim copies of your work



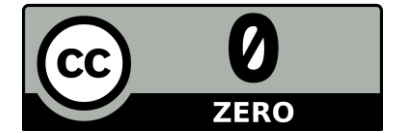
Share Alike

Others can distribute your work only under a license identical to the one you have chosen for your work



Non-Commercial

Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.



ZERO



Licensing ANHMC data

Rights Holder ?

Goal ?



Collaborations



Collaborations with GBIF

Global Biodiversity Information Facility

Biodiversity data shared across national boundaries

- Contributions to GBIF since 2006 :
Code Development (IPT customization,
DwC-A Validator...) and Consultations



- Associate Participant of GBIF since 2014



International Collaborations

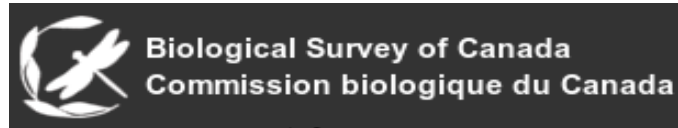
Working collaborations with
France, Colombia, Brazil, French Guiana



Canadian Collaborations

Canada 

BRYOQUEL 



A census of Canadian species

Working collaborations with
CBIF, Biological Survey of Canada, OBIS Canada,
Citizen Science (Bioblitz, Wildlife Sightings, e-Butterfly*),
Société de Bryologie du Québec, HydroQc*, Datacite Canada



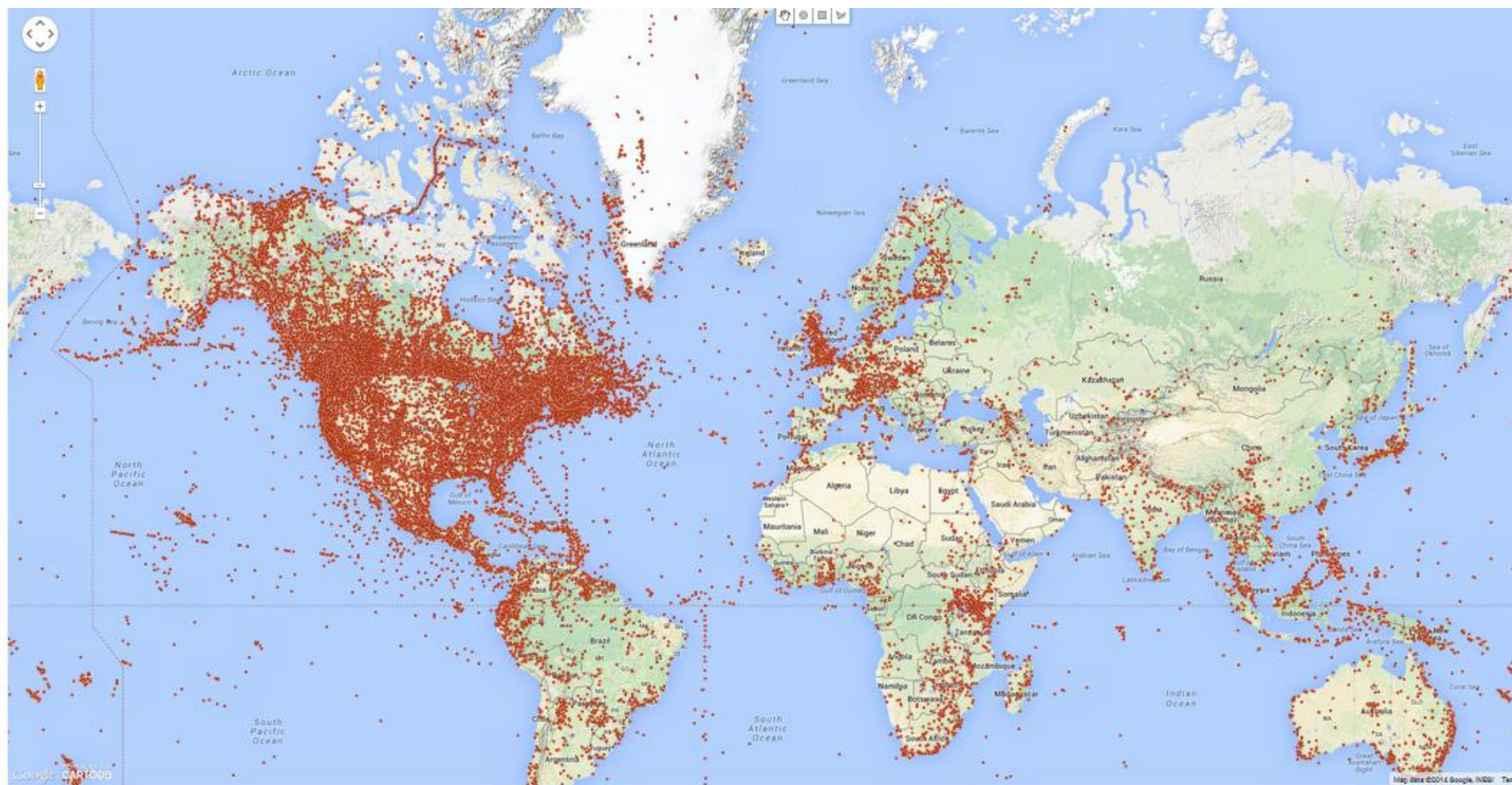
DFO Maritimes Region Cetacean Sightings



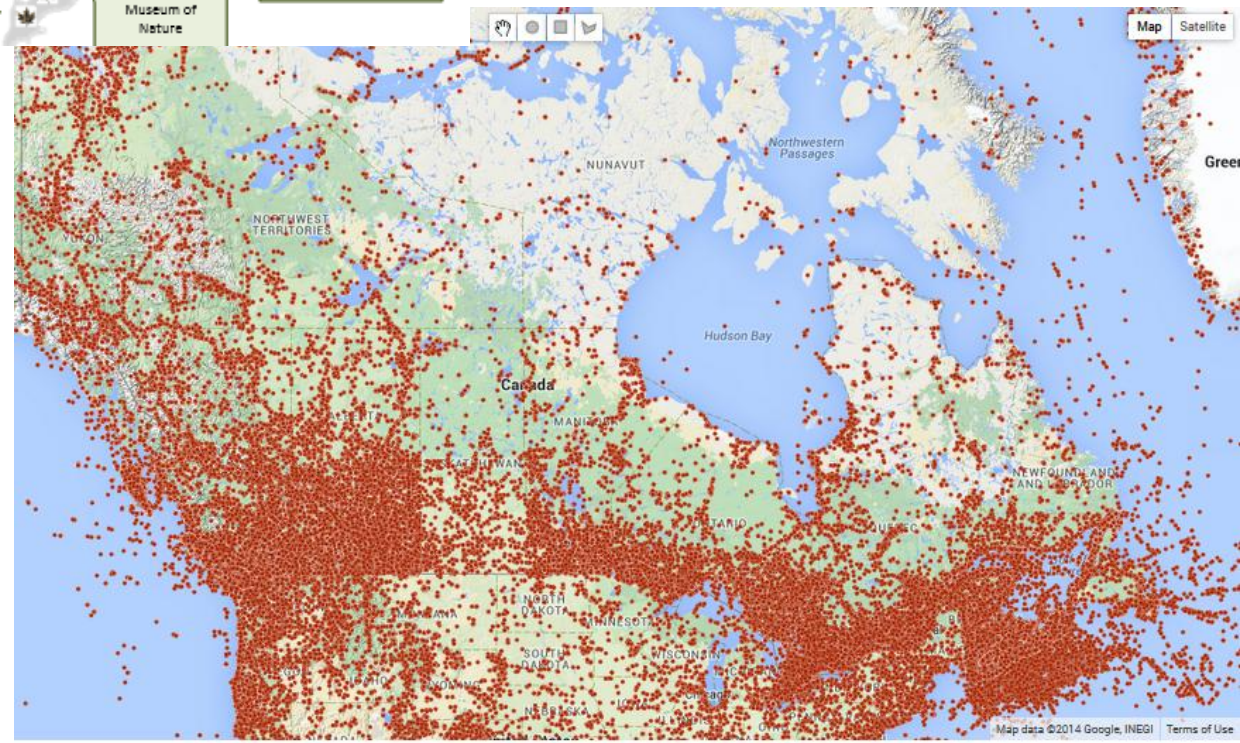
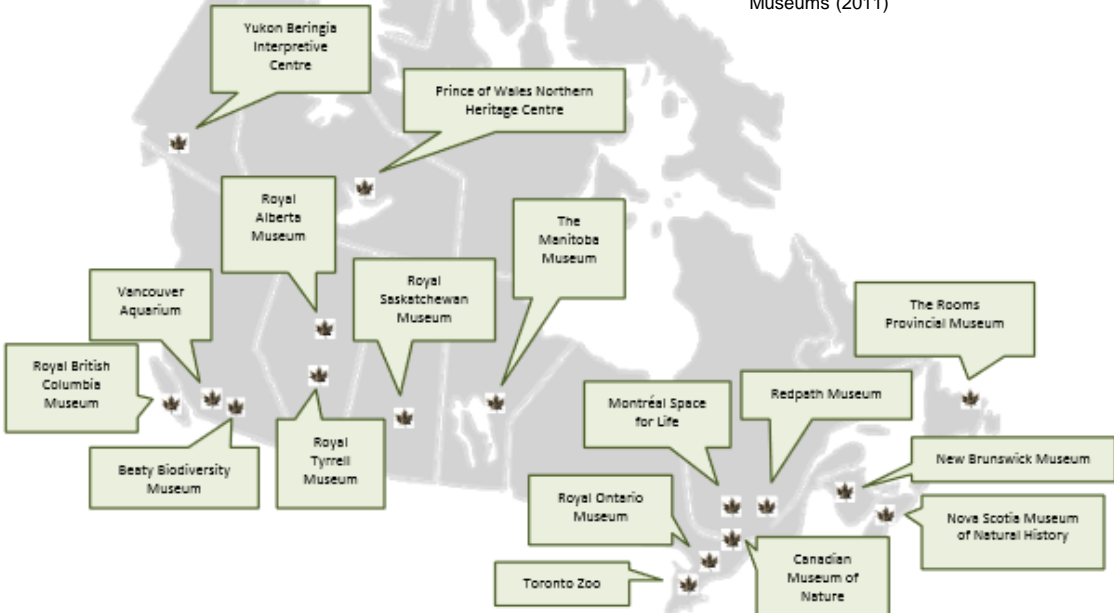
A Look to the Future




ANHMC Data ?



**Alliance of
Natural History
Museums of Canada**
A National Collections
Development Strategy For
Canada's Natural History
Museums (2011)



Future Workshops

- Innovative application of occurrence data
 - First week in December, 2014 (tentative)
 - Towards CFI grant  CANADA FOUNDATION FOR INNOVATION | FONDATION CANADIENNE POUR L'INNOVATION
 - computational morphometrics, modeling vagility of invasive species, perturbations in trophic networks
- Data Mobilization via the IPT
 - January 13-14, 2015
 - Collaboration with CBIF and iDigBio
 - Co-located in Gainesville, FL & Ottawa, ON
 - Data standards, Data publication, using an IPT



Questions ?

benedicte.riviere@umontreal.ca
david.shorthouse@umontreal.ca

