



generated January 2025

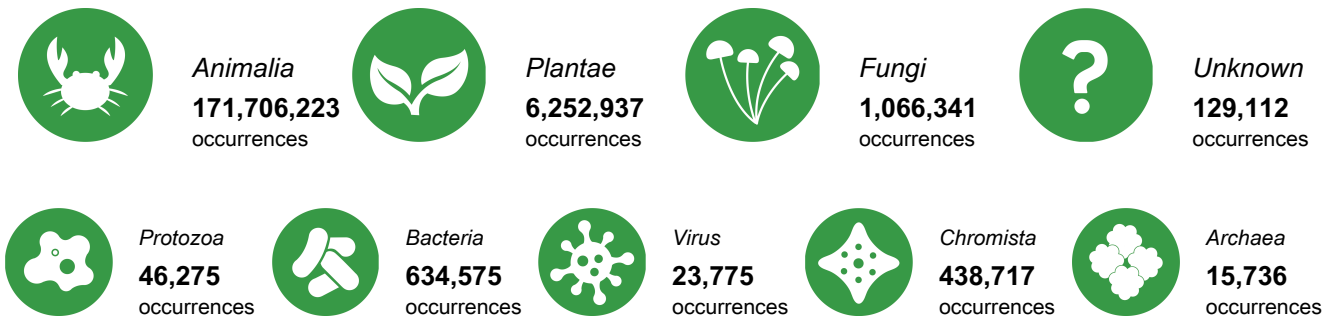
## Canada

This report provides a series of summary charts, statistics and other details about the mobilization and use of open-access species data through the GBIF network, relating to users and participating institutions in Canada. These metrics show status at the time of report generation, unless otherwise noted. Taken together, the elements of this report can help guide and measure progress toward the information needs for biodiversity research, as well as for national commitments on biodiversity and sustainable development.

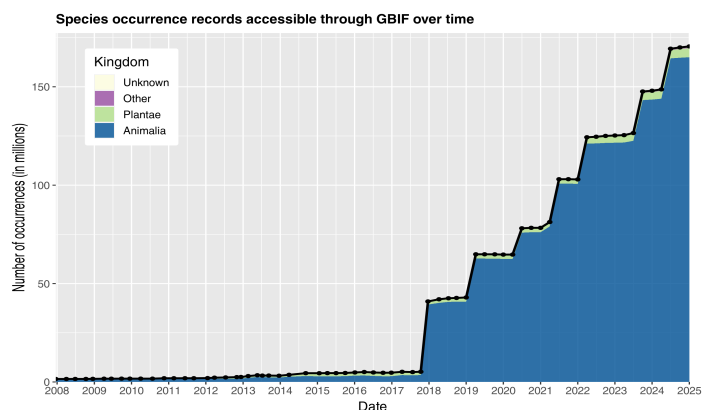
### ► Access and usage



### ► Data availability in Canada



### ► Data mobilization

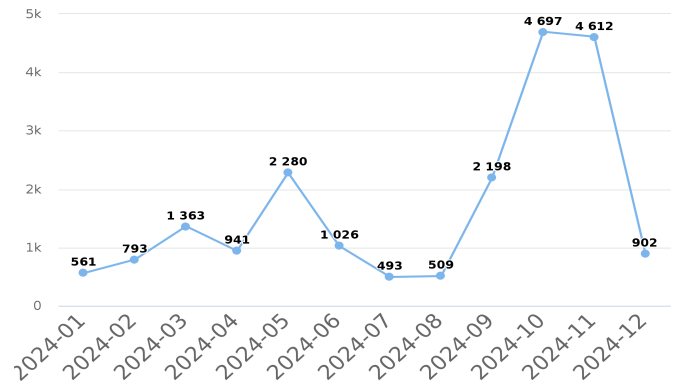
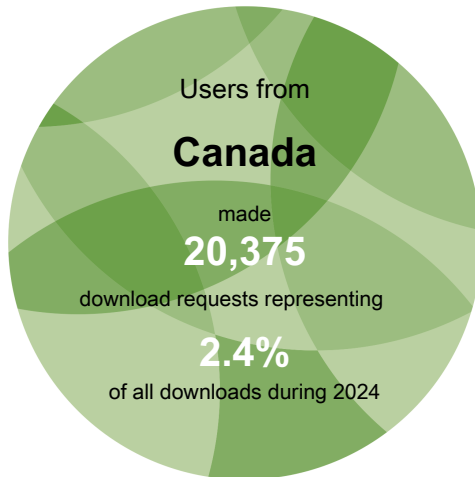


Number of records published by institutions in Canada, categorized by kingdom



## Access and usage

### Data downloads on GBIF.org from users in Canada



Monthly downloads requested by users in Canada

### Recent peer-reviewed articles using GBIF-mediated data by co-authors based in Canada

The GBIF Secretariat maintains and reports on an ongoing literature tracking programme, giving priority to substantive uses of GBIF-mediated data in peer-reviewed literature while identifying the countries or areas of the authors' institutional affiliations. The citations below represent the five most recent journal articles with at least one co-author from Canada.

Those interested in assisting the Secretariat in identifying additional peer-reviewed uses of GBIF-mediated data may forward relevant citations to [comms@gbif.org](mailto:comms@gbif.org).

Jain, Cunha, Bunsen *et al.* (2024) Insect Identification in the Wild: The AMI Dataset. *Lecture Notes in Computer Science, Computer Vision – ECCV 2024*.

[https://doi.org/10.1007/978-3-031-72913-3\\_4](https://doi.org/10.1007/978-3-031-72913-3_4)

McCune, Baldwin, Bennett *et al.* (2024) The state of plant conservation in Canada: a survey of practitioners. *FACETS*.

<https://doi.org/10.1139/facets-2023-0216>

Chowdhury, Cardillo, Chapman *et al.* (2024) Protected area coverage of the full annual cycle of migratory butterflies. *Conservation Biology*.

<https://doi.org/10.1111/cobi.14423>

Echeverri, Batista, Wolny *et al.* (2024) Toward Sustainable Biocultural Ecotourism: An Integrated Spatial Analysis of Cultural and Biodiversity Richness in Colombia. *People and Nature*.

<https://doi.org/10.1002/pan3.10755>

Pizante, Frost, Acorn. (2024) New records for hoverflies (Diptera: Syrphidae) in Alberta, Canada. *The Canadian Entomologist*.

<https://doi.org/10.4039/tce.2024.32>

See all research from this country or area  
[gbif.org/country/CA/publications/from](https://gbif.org/country/CA/publications/from)



## Data availability

### Total data available for selected taxonomic groups in Canada



**Mammals**  
735,628  
occurrences



**Birds**  
149,688,659  
occurrences



**Bony fish**  
7,159,976  
occurrences



**Amphibians**  
255,946  
occurrences



**Insects**  
8,929,837  
occurrences



**Reptiles**  
160,509  
occurrences



**Molluscs**  
522,085  
occurrences



**Arachnids**  
554,735  
occurrences



**Flowering plants**  
4,947,273  
occurrences



**Ferns**  
285,203  
occurrences



**Gymnosperms**  
188,033  
occurrences



**Mosses**  
521,434  
occurrences



**Sac fungi**  
560,279  
occurrences



**Basidiomycota**  
459,023  
occurrences

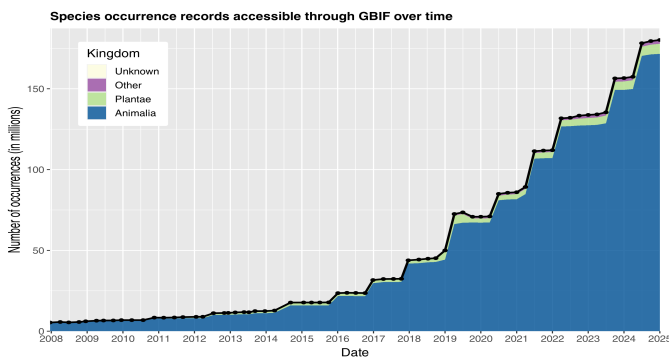
Mammals = Class *Mammalia*  
Birds = Class *Aves*  
Bony fish = Superclass  
*Osteichthyes* p.p.  
Amphibians = Class *Amphibia*

Insects = Class *Insecta*  
Reptiles = Class *Testudines*,  
*Sphenodontia*, *Squamata* &  
*Crocodylia*  
Molluscs = Phylum *Mollusca*

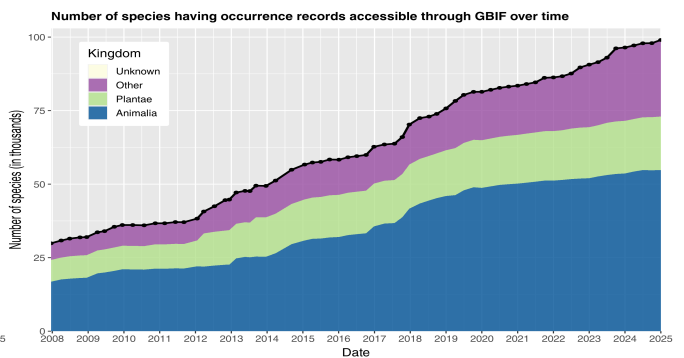
Arachnids = Class *Arachnida*  
Flowering plants = Phylum  
*Magnoliophyta*  
Gymnosperms = Superclass  
*Gymnospermae*

Ferns = Phylum *Pteridophyta*  
Mosses = Phylum *Bryophyta*  
Sac fungi = Phylum *Ascomycota*  
Basidiomycota = Phylum  
*Basidiomycota*

## Change over time in records about biodiversity in Canada



Occurrence records available about species occurring in Canada



Species for which at least one occurrence record is available in Canada

### WHY MIGHT THE AMOUNT OF MOBILIZED DATA DECREASE?

Datasets are sometimes removed by publishers, but more often decreases in the number of records are due to the removal of duplicate records and datasets.

**SPECIES COUNTS** represent the number of binomial scientific names for which GBIF has received data records, organized as far as possible using synonyms recorded in key databases like the Catalogue of Life



### Most recent datasets from publishers in Canada

The first record of a gynandromorph *Halictus scabiosae* (Rossi, 1790) (Hymenoptera: Halictidae).

*Published by Specimen Micropublications*  
<https://doi.org/10.56222/28166531.2024.39>

DFO Maritimes Biofouling Monitoring Program. *Published by Fisheries and Oceans Canada*

<https://doi.org/10.25607/gctbuf>

A new variant of the rare *Phrynocaria funebris* (Crotch) (Coleoptera: Coccinellidae), with first illustrations of the female genitalia. *Published by Specimen Micropublications*

<https://doi.org/10.56222/28166531.2024.38>

Beaty Biodiversity Museum Marine Invertebrate Collection. *Published by University of British Columbia*

<https://doi.org/10.15468/h3psqf>

A new case of gynandromorphism in the *Halictus simplex* species group (Hymenoptera: Halictidae).

*Published by Specimen Micropublications*  
<https://doi.org/10.56222/28166531.2024.37>

New country record and commentary for *Aulacidea hei* Wang et al. (Hymenoptera: Cynipidae: Aulacideini). *Published by Specimen Micropublications*

<https://doi.org/10.56222/28166531.2024.36>

See all datasets from this country or area: [gbif.org/dataset/search?publishing\\_country=CA](https://gbif.org/dataset/search?publishing_country=CA)

### Newest publishers from Canada

Students on Ice Foundation

Pacific Salmon Foundation

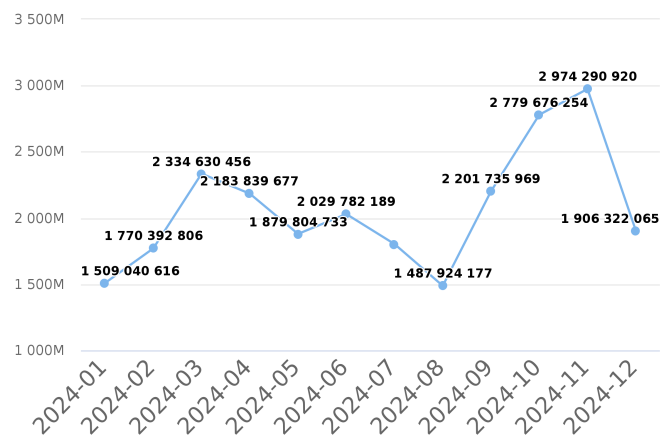
Ocean Networks Canada Society

Natural History Collection, Department of Biology,  
University of Saskatchewan

Specimen Micropublications

See all publishers from this country or area  
[gbif.org/publisher/search?country=CA](https://gbif.org/publisher/search?country=CA)

### Occurrence records downloaded from GBIF.org, published by institutions in Canada

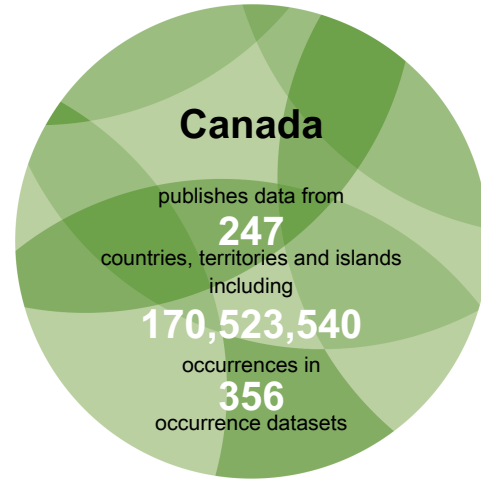
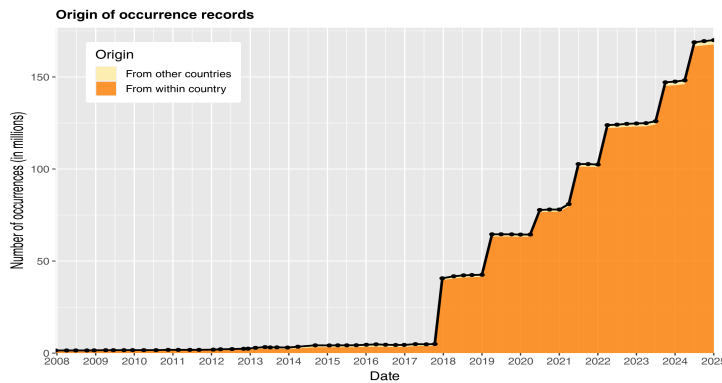


Number of occurrence records downloaded via GBIF.org published by institutions in Canada



## Data mobilization

### Data sharing with country or area of origin by national institutions in Canada



Data sharing with country or area of origin

The chart above shows the number of records shared over time by publishers within Canada, with separate colours for records about species occurring within undefined and those occurring elsewhere.

### Top data contributors about biodiversity in Canada

Rank	Country or area	No. of occurrences
1	Canada	167,659,335
2	United States of America	6,266,978
3	United Kingdom	2,871,949
4	International organization or unknown country	2,773,393
5	France	188,361
6	Sweden	140,898
7	Netherlands	63,686
8	Belgium	52,424
9	Estonia	51,016
10	Norway	46,349

Table 1. Ranking of countries or areas contributing data about Canada

### Top datasets contributing data about Canada

- EOD – eBird Observation Dataset. 146,121,176 occurrences in Canada. (Last updated 27 Sep 2024)
- iNaturalist Research-grade Observations. 8,436,231 occurrences in Canada. (Last updated 30 Dec 2024)
- International Barcode of Life project (iBOL). 2,620,325 occurrences in Canada. (Last updated 7 Aug 2024)
- DFO Pacific: Herring Biosample Database. 1,961,557 occurrences in Canada. (Last updated 23 Mar 2022)
- Pacific Multispecies Small Mesh Bottom Trawl Survey. 1,946,835 occurrences in Canada. (Last updated 23 Mar 2022)

See all contributing countries and areas or datasets: [gbif.org/country/CA/about](https://gbif.org/country/CA/about)



## Canada participates in the following projects coordinated by GBIF

### Workshops on usage of the Atlas of Living Australia (ALA) and GBIF.org data portals

*Capacity Enhancement Support Programme, 2018–2019*

The current project will include two main activities comprising of a series of workshops in Canada and the development of multilingual documentation to help users of the ALA framework and GBIF portal to efficiently use the platforms and tools available, and to understand how to use the published data.

<https://www.gbif.org/project/5PI7kol7h6UKuASqU6CeUo>

### Canadensys

*, 2016–2016*

<https://www.gbif.org/project/82984>

### Regional capacity enhancement by setting up Uruguay's data portal

*Capacity Enhancement Support Programme, 2015–2016*

Project to provide mentorship to Uruguay in establishing a national biodiversity website and data-portal, as well as an efficient data publication workflow.

<https://www.gbif.org/project/82209>

### International Living Atlases workshop

*Capacity Enhancement Support Programme, 2017–2018*

This project will support and strengthen the growing international community of practice around open-source software developed by the Atlas of Living Australia.

<https://www.gbif.org/project/83337>

### Francophone mentoring and translation of the open-source ALA platform

*Capacity Enhancement Support Programme, 2017–2018*

Working with GBIF France as a technical mentor, Canadensys will deploy a new instance of the ALA platform while liberally adding French translations to help make this common infrastructure more accessible and visible to GBIF's Francophone nodes.

<https://www.gbif.org/project/83349>

[See all GBIF projects  
gbif.org/resource/search?contentType=project](https://www.gbif.org/resource/search?contentType=project)