GBIF Global Biodiversity Information Facility

Activity report

generated January 2025

Mexico

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 Mexico. 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

Researchers from

Mexico

contributed to

168

peer-reviewed articles citing GBIF use during 2024 and a total of

1009

articles since 2008

▸ Data availability in Mexico

Animalia
27,073,722
occurrences

Plantae
6,530,400
occurrences

Fungi
408,356
occurrences

Unknown
42,059
occurrences

Protozoa
23,938
occurrences

Bacteria
140,054
occurrences

Virus
7,441
occurrences

Chromista
262,779
occurrences

Archaea
6,904
occurrences

▸ Data mobilization

Institutions from

Mexico

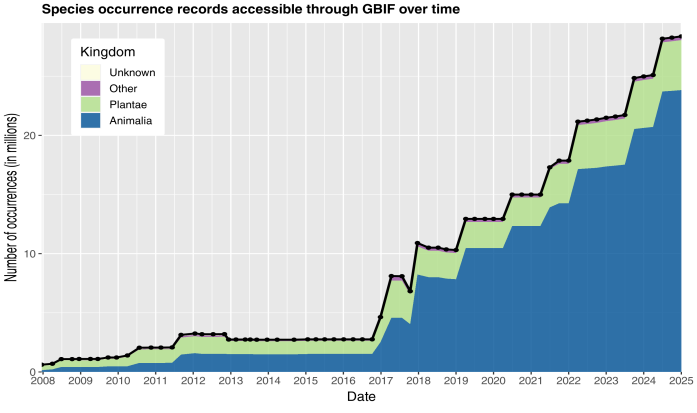
published

3,384,735

new occurrence records during 2024 out of a total of

428,451,251

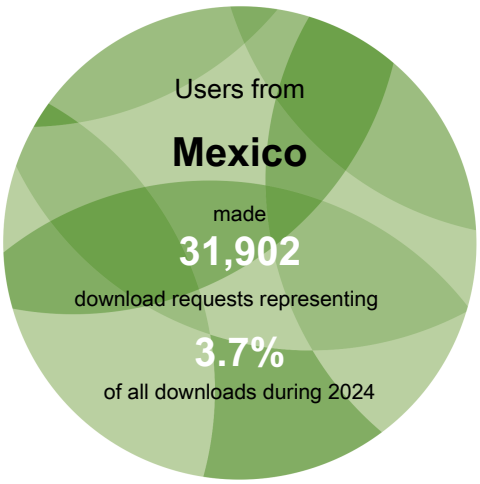
occurrence records added globally to GBIF.org

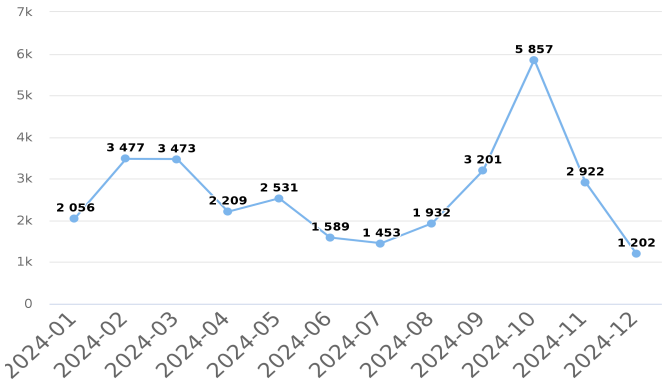


Number of records published by institutions in Mexico, categorized by kingdom

Access and usage

Data downloads on GBIF.org from users in Mexico





Monthly downloads requested by users in Mexico

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

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 Mexico.

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

Perez-Garcia, Pérez-Alquicira, Rico *et al.* (2024) Despite forest fragmentation, river connectivity maintains gene flow and diversity in Guadua trinii, a woody bamboo of the Atlantic Forest in Argentina. *Hydrobiologia.* https://doi.org/10.1007/s10750-024-05764-3

Renteria, Rangel-Cota, Camargo. (2024) The Sinaloan mastiff bat (Molossus sinaloae) is indeed found in Sinaloa, México . *Therya notes.* https://doi.org/10.12933/therya_notes-24-186

Xiang, Yang, Gernandt *et al.* (2024) Ecological and Evolutionary Factors Contribute to the Uneven Diversification of Firs in the Northern Hemisphere. *Journal of Biogeography.* https://doi.org/10.1111/jbi.15055

Encarnación-Luévano, Sigala-Rodríguez, Quintero-Díaz *et al.* (2024) The Effect of Climate Change on Spatio-Temporal Activity in Burrowing Frogs of the Smilisca Group. *Acta Herpetologica.* https://doi.org/10.36253/a_h-15232

Medina-Amaya, Miceli-Méndez, Pérez-Farrera *et al.* (2024) Geographical and ecological distribution analysis of Dalbergia Calderonii Standl. (Fabaceae): implications for the conservation of this critically endangered rosewood. *Plant Ecology.* https://doi.org/10.1007/s11258-024-01473-y

See all research from this country or area
gbif.org/country/MX/publications/from

Data availability

Total data available for selected taxonomic groups in Mexico

Mammals
861,286
occurrences

Birds
20,257,140
occurrences

Bony fish
495,112
occurrences

Amphibians
362,199
occurrences

Insects
3,334,956
occurrences

Reptiles
734,890
occurrences

Molluscs
337,875
occurrences

Arachnids
163,536
occurrences

Flowering plants
5,930,611
occurrences

Ferns
228,657
occurrences

Gymnosperms
111,321
occurrences

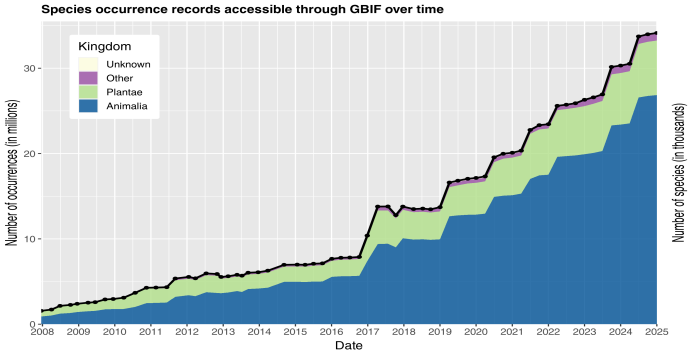
Mosses
132,032
occurrences

Sac fungi
178,859
occurrences

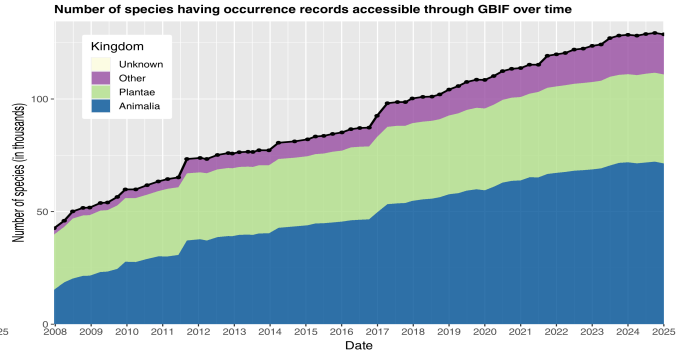
Basidiomycota
201,007
occurrences

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 Mexico



Occurrence records available about species occurring in Mexico



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

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 Mexico

ADNUAA – HUAA Increasing discoverability and curation processes of genetic samples of the ADNUAA collection (central Mexico) – Part1 / 2. *Published by Universidad Autónoma de Aguascalientes*
https://doi.org/10.15468/z839yq

Base de datos programa de rescate ECA-Liquefaction correspondiente a México (Marcado). *Published by ECA Liquefaction S. de R.L. de C.V.*
https://doi.org/10.15468/43tcd6

Base de datos programa de rescate ECA-Liquefaction correspondiente a México (Ahuyentamiento y observación). *Published by ECA Liquefaction S. de R.L. de C.V.*
https://doi.org/10.15468/kngb6a

Base de datos programa de rescate ECA-Liquefaction correspondiente a México (Flora). *Published by ECA Liquefaction S. de R.L. de C.V.*
https://doi.org/10.15468/4p9yrq

Base de datos programa de rescate ECA-Liquefaction correspondiente a México (Recaptura). *Published by ECA Liquefaction S. de R.L. de C.V.*
https://doi.org/10.15468/fna7z9

See all datasets from this country or area: gbif.org/dataset/search?publishing_country=MX

Newest publishers from Mexico

Universidad Michoacana de San Nicolás de Hidalgo Facultad de Biología

Instituto de Ecología A.C. Centro Regional del Bajío

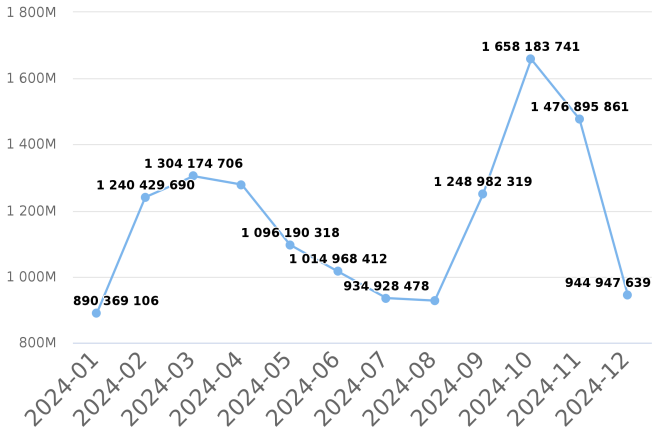
Universidad Autónoma de Aguascalientes

ECA Liquefaction S. de R.L. de C.V.

Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional

See all publishers from this country or area gbif.org/publisher/search?country=MX

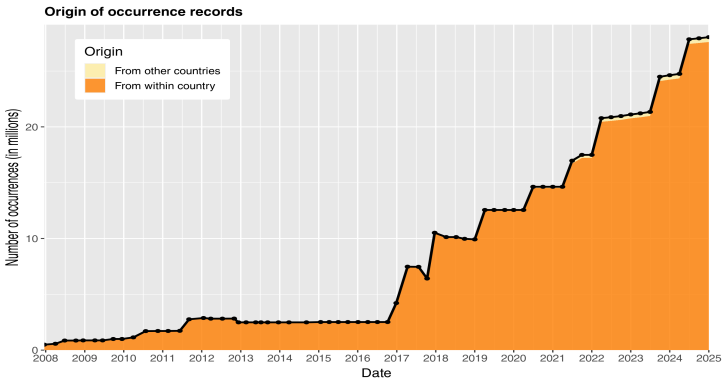
Occurrence records downloaded from GBIF.org, published by institutions in Mexico



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

Data mobilization

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



Data sharing with country or area of origin

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

Top data contributors about biodiversity in Mexico

Rank	Country or area	No. of occurrences
1	Mexico	27,886,360
2	United States of America	5,134,209
3	United Kingdom	284,138
4	Estonia	226,548
5	International organization or unknown country	194,478
6	Canada	120,257
7	Colombia	97,447
8	Netherlands	80,521
9	France	65,217
10	Spain	61,885

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

Top datasets contributing data about Mexico

EOD – eBird Observation Dataset. *18,025,928 occurrences in Mexico.* (Last updated 27 Sep 2024)

iNaturalist Research-grade Observations. *2,993,840 occurrences in Mexico.* (Last updated 30 Dec 2024)

Digitalización y Sistematización de las Colecciones Biológicas Nacionales del Instituto de Biología, UNAM (Plantas vasculares). *990,989 occurrences in Mexico.* (Last updated 11 Apr 2024)

Computarización y actualización de la curación de la Colección de Lepidóptera del Museo de Zoología Alfonso L. Herrera y su base de datos MARIPOSA. FASE I. *548,361 occurrences in Mexico.* (Last updated 11 Apr 2024)

NMNH Extant Specimen Records (USNM, US). *461,374 occurrences in Mexico.* (Last updated 2 Jan 2025)

See all contributing countries and areas or datasets: gbif.org/country/MX/about

Mexico participates in the following projects coordinated by GBIF

Plinian Core Mentoring: strengthening best practices for mobilizing species information
Capacity Enhancement Support Programme, 2014–2015
This project will apply the Plinian Core standard as a means of increasing the quality and interoperability of species data mobilized through the GBIF network.
https://www.gbif.org/project/82229

Integration of biodiversity data of wild bee-plant interactions in Mexico
BID: Biodiversity Information for Development, 2021–2023
https://www.gbif.org/project/BID-CA2020-021-NAC

Improving the visibility of Latin American Natural Science Collections through a Global Collections Network Campaign
Capacity Enhancement Support Programme, 2023–2024
https://www.gbif.org/project/CESP2022-012

Improving biodiversity data quality in Latin America: documenting best practices across data workflows and life cycles
Capacity Enhancement Support Programme, 2020–2022
Addressing and implementing approaches for enhancing the quality of unpublished, published and repatriated biodiversity data
https://www.gbif.org/project/5JJH6ZKCjztKrqT50OAadQ

From shared experiences to shared knowledge and common solutions: collaborating to improve web-based tools in Latin America and the Caribbean
Capacity Enhancement Support Programme, 2020–2022
Participating nodes aim to incorporate shared best practices, protocols, tools and future road maps for representing the region's biodiversity richness and abundance
https://www.gbif.org/project/4YJIFEvYJi5kfuUVzNcfYH

Training in participatory biodiversity monitoring: Building locally, connecting globally
Capacity Enhancement Support Programme, 2017–2018
Instruction in the theory and practice of community-based monitoring hopes to establish a self-sustaining, Spanish-speaking community of practice.
https://www.gbif.org/project/83344

Data quality: Improving primary biodiversity data in the GBIF network
Capacity Enhancement Support Programme, 2014–2015
This regional initiative aims to address data quality by transferring knowledge about best publishing practices and putting them into effect.
https://www.gbif.org/project/82230

See all GBIF projects
gbif.org/resource/search?contentType=project