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 123 peer-reviewed articles citing GBIF use during 2023 and a total of 826 articles since 2008.

▶ Data availability in Mexico

- **Animalia**: 23,611,058 occurrences
- **Plantae**: 6,184,469 occurrences
- **Fungi**: 394,914 occurrences
- **Unknown**: 46,265 occurrences
- **Protozoa**: 23,736 occurrences
- **Bacteria**: 139,486 occurrences
- **Virus**: 7,435 occurrences
- **Chromista**: 262,154 occurrences
- **Archaea**: 6,906 occurrences

▶ Data mobilization

Institutions from Mexico published 3,492,329 new occurrence records during 2023 out of a total of 355,993,458 occurrence records added globally to GBIF.org.
Access and usage

Data downloads on GBIF.org from users in Mexico

Users from Mexico made 32,467 download requests representing 5.2% of all downloads during 2023.

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.


Lara-Galván, Martin, Martínez-Montoya et al. (2023) Assessing the distribution of the West Mexican Coral Snake, Micrurus distans Kennicott, 1860, in Zacatecas State, Mexico, using modelling based on multiple data sources. Herpetology Notes.
Data availability

Total data available for selected taxonomic groups in Mexico

- **Mammals**
  - 840,540 occurrences

- **Birds**
  - 17,164,311 occurrences

- **Bony fish**
  - 490,577 occurrences

- **Amphibians**
  - 358,413 occurrences

- **Insects**
  - 3,063,616 occurrences

- **Reptiles**
  - 703,447 occurrences

- **Molluscs**
  - 325,386 occurrences

- **Arachnids**
  - 152,081 occurrences

- **Flowering plants**
  - 5,624,046 occurrences

- **Ferns**
  - 209,772 occurrences

- **Gymnosperms**
  - 108,304 occurrences

- **Mosses**
  - 128,647 occurrences

- **Sac fungi**
  - 174,172 occurrences

- **Basidiomycota**
  - 192,394 occurrences

Mammals = Class Mammalia
Birds = Class Aves
Amphibians = Class Amphibia
Insects = Class Insecta
Reptiles = Class Testudines, Sphenodonta, 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

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

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

Lista de especies de abejas nativas del Parque Nacional Barranca del Cupatitzio (Área de montaña), Uruapan, Michoacán, México. Published by Instituto de Ecología A.C. Centro Regional del Bajío
https://doi.org/10.15468/mzjp8k

Dataset of the Lampyridae (Coleoptera) from Morelia, Michoacán, México. Published by Universidad Michoacana de San Nicolás de Hidalgo Facultad de Biología
https://doi.org/10.15468/3asucq

Anfibios y reptiles de las regiones 30 (Parque Natural Sierra Maderas del Carmen); 31 (Sierra El Burro-Río San Rodrigo); 36 (Sierra La Encantada); y 37 (Sierra El Pino), Coahuila. Published by Comisión nacional para el conocimiento y uso de la biodiversidad
https://doi.org/10.15468/j3gwfk

Puntos de presencia en Baja California (Herps). Published by Comisión nacional para el conocimiento y uso de la biodiversidad
https://doi.org/10.15468/7f62wf

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

Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional

Instituto Politécnico Nacional, CIIDIR Unidad Durango

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

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

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

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

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country or area</th>
<th>No. of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mexico</td>
<td>24,544,615</td>
</tr>
<tr>
<td>2</td>
<td>United States of America</td>
<td>4,783,716</td>
</tr>
<tr>
<td>3</td>
<td>United Kingdom</td>
<td>245,856</td>
</tr>
<tr>
<td>4</td>
<td>Estonia</td>
<td>226,539</td>
</tr>
<tr>
<td>5</td>
<td>International organization or unknown country</td>
<td>139,622</td>
</tr>
<tr>
<td>6</td>
<td>Canada</td>
<td>101,949</td>
</tr>
<tr>
<td>7</td>
<td>Colombia</td>
<td>96,894</td>
</tr>
<tr>
<td>8</td>
<td>Netherlands</td>
<td>73,732</td>
</tr>
<tr>
<td>9</td>
<td>Spain</td>
<td>60,110</td>
</tr>
<tr>
<td>10</td>
<td>France</td>
<td>58,328</td>
</tr>
</tbody>
</table>

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

Top datasets contributing data about Mexico

- EOD – eBird Observation Dataset. 15,142,345 occurrences in Mexico. (Last updated 20 Aug 2023)
- iNaturalist Research-grade Observations. 2,424,863 occurrences in Mexico. (Last updated 2 Jan 2024)
- Digitalización y Sistematización de las Colecciones Biológicas Nacionales del Instituto de Biología, UNAM (Plantas vasculares). 990,990 occurrences in Mexico. (Last updated 17 Aug 2023)
- NMNH Extant Specimen Records (USNM, US). 459,395 occurrences in Mexico. (Last updated 2 Jan 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. 455,641 occurrences in Mexico. (Last updated 12 Sep 2023)

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

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/4YJlFfG7jz5kfuUVzNcfYH

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/5JH62zKjztKrqT50OAadQ

Training in participatory biodiversity monitoring: Building locally, connecting globally
*Capacity Enhancement Support Programme, 2017–2018*
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