Costa Rica

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 Costa Rica. 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 Costa Rica contributed to 5 peer-reviewed articles citing GBIF use during 2023 and a total of 67 articles since 2008.

▶ Data availability in Costa Rica

Animalia: 23,539,228 occurrences
Plantae: 1,220,317 occurrences
Fungi: 118,863 occurrences
Unknown: 37,424 occurrences
Protozoa: 6,799 occurrences
Bacteria: 7,081 occurrences
Virus: 663 occurrences
Chromista: 16,854 occurrences
Archaea: 159 occurrences

▶ Data mobilization

Institutions from Costa Rica published 3,576,368 new occurrence records during 2023 out of a total of 355,993,458 occurrence records added globally to GBIF.org.

Number of records published by institutions in Costa Rica, categorized by kingdom
Access and usage

Data downloads on GBIF.org from users in Costa Rica

Users from Costa Rica made 1,106 download requests representing 0.2% of all downloads during 2023.

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

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 Costa Rica.

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


Xiao, Liu, Wei et al. (2023) Future climate change accelerates the invasive rhythm of alien marine species: New insights into the invasive potential of the world’s aquaculture species red drum Sciaenops ocellatus. Ecological Indicators. https://doi.org/10.1016/j.ecolind.2023.111069

Rojas-Alvarado, Ospino, Ortiz. (2023) Two new records of the fern genus Lindsaea Dryand. ex Sm. (Lindsaeaceae) from Panama. Check List. https://doi.org/10.15560/19.3.339


Herrera-Martínez, Gómez-Lépiz. (2023) SPHAERODACTYLUS HOMOLEPIS (SQUAMATA: SPHAERODACTYLIDAE). Revista
Data availability

Total data available for selected taxonomic groups in Costa Rica

- **Mammals**: 62,301 occurrences
- **Birds**: 17,024,210 occurrences
- **Bony fish**: 36,285 occurrences
- **Amphibians**: 78,715 occurrences
- **Insects**: 5,560,816 occurrences
- **Reptiles**: 73,270 occurrences
- **Molluscs**: 63,725 occurrences
- **Arachnids**: 32,568 occurrences
- **Flowering plants**: 1,050,849 occurrences
- **Ferns**: 121,675 occurrences
- **Gymnosperms**: 1,346 occurrences
- **Mosses**: 19,478 occurrences
- **Sac fungi**: 64,487 occurrences
- **Basidiomycota**: 49,793 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*
**Ferns** = Phylum *Pteridophyta*
**Mosses** = Phylum *Bryophyta*
**Sac fungi** = Phylum *Ascomycota*
**Basidiomycota** = Phylum *Basidiomycota*

### Change over time in records about biodiversity in Costa Rica

**Occurrence records available about species occurring in Costa Rica**

**Species occurrence records accessible through GBIF over time**

**Number of species having occurrence records accessible through GBIF over time**

**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 Costa Rica

Insecta of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/mykn0u

Onychophora of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/w6lmuz

Myriapoda of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/pftzpd

Arachnida of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/ajgxva

Fungi of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/1gkeqq

Plantae of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/tgno8a

Mollusca of Costa Rica (INBio). *Published by Instituto Nacional de Biodiversidad* (INBio), *Costa Rica*  
https://doi.org/10.15468/iek4ov

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

Newest publishers from Costa Rica

Costa Rica Bird Observatories  
Laboratorio de Recursos Naturales y Vida Silvestre (LARNAVISI). Universidad Nacional de Costa Rica (UNA)  
Organization for Tropical Studies  
Museo Nacional de Costa Rica  
Instituto Nacional de Biodiversidad (INBio), Costa Rica

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

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

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

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

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

Top data contributors about biodiversity in Costa Rica

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country or area</th>
<th>No. of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Costa Rica</td>
<td>20,651,679</td>
</tr>
<tr>
<td>2</td>
<td>International organization or unknown country</td>
<td>2,109,585</td>
</tr>
<tr>
<td>3</td>
<td>United States of America</td>
<td>1,520,925</td>
</tr>
<tr>
<td>4</td>
<td>United Kingdom</td>
<td>224,887</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>114,402</td>
</tr>
<tr>
<td>6</td>
<td>Germany</td>
<td>61,480</td>
</tr>
<tr>
<td>7</td>
<td>Brazil</td>
<td>48,215</td>
</tr>
<tr>
<td>8</td>
<td>Mexico</td>
<td>38,487</td>
</tr>
<tr>
<td>9</td>
<td>Canada</td>
<td>32,099</td>
</tr>
<tr>
<td>10</td>
<td>Estonia</td>
<td>26,496</td>
</tr>
</tbody>
</table>

Table 1. Ranking of countries or areas contributing data about Costa Rica

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

Top datasets contributing data about Costa Rica

- EOD – eBird Observation Dataset. 16,628,834 occurrences in Costa Rica. (Last updated 20 Aug 2023)
- International Barcode of Life project (iBOL). 2,106,555 occurrences in Costa Rica. (Last updated 2 Jan 2024)
- iNaturalist Research-grade Observations. 325,700 occurrences in Costa Rica. (Last updated 2 Jan 2024)
Costa Rica participates in the following projects coordinated by GBIF

**CRBio: Atlas of Living Costa Rica**
, 2016–2016
CRBio integrates occurrence records, species pages, multimedia and scientific literature about the biodiversity of Costa Rica in a single site through the use of several biodiversity informatics APIs, including the ones developed by ALA, GBIF and BHL.
https://www.gbif.org/project/82989

**Enhancing data publication, access and use capacities in the private sector**
*Capacity Enhancement Support Programme, 2022–2023*
https://www.gbif.org/project/CESP2022-010

**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/4YJIFEYJi5kfUJVzNcYH

**Extending knowledge on biodiversity data quality and publication in the Spanish-speaking community**
*Capacity Enhancement Support Programme, 2021–2022*
https://www.gbif.org/project/CESP2021-007

**Workshop on digital documentation: Linking biodiversity data, publications and images**
*Capacity Enhancement Support Programme, 2014–2015*
This project will increase the Latin American region’s capacity to digitize and publish biodiversity data from scientific literature, images and other multimedia objects.
https://www.gbif.org/project/82236

**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