



## Metadata

# AMAZON FISH database

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## General information

### name of the dataset:

full name of the dataset: *AMAZON FISH database*

dataset short name: *AMAZON FISH database*

**type of dataset ([more information](#)):** *species distribution data*

data type: *point data/observation data*

short description of the dataset/summary:

*The title "AMAZON FISH database" is a working title for the Amazonian Freshwater Fish Biodiversity database that was constructed in the framework of the AMAZON FISH (ERANetLAC/DCC-0210) project.*

*In order to construct the AMAZON FISH database, which aims to become a high quality freshwater fish biodiversity database covering the entire Amazon drainage basin, data from a wide range of sources were compiled in a central database. The content of this database can be considered as a collection of curated datasets or dataset exports (as the database only covers the Amazon basin, while source datasets may cover larger areas).*

*These datasets are of different nature and include:*

- A. Information extracted from the literature (published articles, books, gray literature).*
- B. Data available from museums/collections and universities.*
- C. Data held or compiled by project partners (e.g. at country level). Some of these have previously been published through the Global Biodiversity Information Facility (GBIF) network, while others will be released in the framework of AMAZON FISH.*
- D. Data extracted from online databases such as GBIF, FishNet, SpeciesLink and IABIN.*
- E. New data obtained during (a) sampling campaign(s) in the framework of the project.*

*At this stage (December 2018), the database already provides a comprehensive overview of the fish diversity and distribution in the Amazon basin, with over 305.000 occurrence records from 123 sources (mostly covering B, C & D). After the project formally ends, it will still be updated by including new data from the project partners (C), from literature references (A) and potentially by including data from new sampling campaigns (E) to areas for which we identified a gap in the available data.*

*Through the integration of these different data sources, the AMAZON FISH database constitutes a unique resource on the Amazon basin, which concentrates the highest freshwater biodiversity on earth. By compiling the knowledge on the spatial distribution of freshwater fishes and addressing the taxonomic and sampling gaps, this database should enable*

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*comprehensive analysis and modeling. As such it will answer the essential need for understanding this unique ecosystem that has produced such high freshwater fish diversity.*

**keywords according to [GCMD](#):**

topic:

*Biosphere, Biological Classification*

**ISO topic category according to [ISO 19115](#):**

*Biota, Environment, Inland Waters*

**INSPIRE keywords according to [GEMET](#):**

*Species distribution*

**own science keywords:**

*freshwater fish, Amazon river drainage, Amazon basin, occurrence database, species distribution*

**related project:**

*AMAZON FISH (ERANet-LAC/DCC-0210)*

**funding:**

*ERANet-LAC: Network of the European Union, Latin America and the Caribbean Countries on Joint Innovation and Research Activities*

## Technical and administrative specifications

**data format:** *others/specify*  
 others/details: *PostgreSQL*  
**operating system:** *all operating systems*  
**data language:** *English*  
**current access level:** *restricted access*  
 currently available through [GBIF](#): *no*  
 exchange planned: *no*  
 data in data repository: *no*

### Do you plan to publish the data on the Freshwater Biodiversity Data Portal:

*yes*  
**update level:** *update planned*  
**documentation:**  
 type: *others/specify*  
 others/details: *Data Management Plan (<https://doi.org/10.6084/m9.figshare.5150716.v1>)*  
 language: *English*

### contact details:

metadata contact person:  
 first, last name: *Céline Jézequel*  
 email: *celine.jezequel@ird.fr*  
 institution: *Institut de Recherche pour le Développement (IRD)*  
 address: *UMR EDB, 118 route de Narbonne*  
 postal code, city: *31000 Toulouse*  
 country: *France*

technical contact person:  
 first, last name: *Céline Jézequel*  
 email: *celine.jezequel@ird.fr*

scientific contact person:  
 first, last name: *Thierry Oberdorff*  
 email: *thierry.oberdorff@ird.fr*

## Intellectual property rights and citation

(if the dataset is already published):

### dataset creator (data compiler):

contact name: *Thierry Oberdorff*  
 contact email: *thierry.oberdorff@ird.fr*  
 contact institution: *Institut de Recherche pour le Développement (IRD), UMR EDB 5174*

### data contributors to/owners of this dataset:

number: *multiple*  
 20

### provider 1:

provider institute: *Institut de Recherche pour le Développement (IRD), UMR*  
 contact name: *Thierry Oberdorff*  
 contact email: *thierry.oberdorff@ird.fr*  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

### provider 2:

provider institute: *Pontificia Universidad Javeriana, Unidad de Ecología y Sistemática (UNESIS)*  
 contact name: *Javier A. Maldonado-Ocampo*  
 contact email: *maldonadoj@javeriana.edu.co*  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

### provider 3:

provider institute: *Museo de Historia Natural, Universidad Nacional Mayor de San Marcos*  
 contact name: *Hernán Ortega*  
 contact email: *hortega@gmail.com*  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

### provider 4:

provider institute: *Royal Belgian Institute of Natural Sciences (RBINS)*  
 contact name: *Aaike De Wever*  
 contact email: *aaieke.deweever@naturalsciences.be*  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*  
 comments: *No direct data contributions included. Contribution mainly consisted of technical advise during database construction.*

### provider 5:

provider institute: *Instituto Nacional de Pesquisas da Amazônia (INPA)*  
 contact name: *Jansen Zuanon*  
 contact email: *jzuanon3@gmail.com*  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

### provider 6:

provider institute: *Universidade Federal de São Paulo (UNIFESP)*  
 contact name: *Gislene Torrente-Vilara*

contact email: *gtvilara@gmail.com*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 7:**

provider institute: *Universidade Federal do Pará (UFPA)*

contact name: *Leandro M. Sousa*

contact email: *m.sousa@gmail.com*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 8:**

provider institute: *Instituto Nacional De Biodiversidad (INABIO) - Ecuador*

contact name: *Jonathan Valdiviezo*

contact email: *jonathan.valdiviezo@biodiversidad.gob.ec*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 9:**

provider institute: *Museo Nacional de Historia Natural, Instituto de Ecología*

contact name: *Jaime Sarmiento*

contact email: *jsarmientotavel@gmail.com*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 10:**

provider institute: *Universidad Mayor de San Simón, Unidad de Limnología y Recursos Acuáticos (ULRA)*

contact name: *Mabel Maldonado*

contact email: *mabelmaldonado.m@fcyt.umss.edu.bo*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 11:**

provider institute: *Universidad Autónoma del Beni, Centro de Investigación de Recursos Acuáticos*

contact name: *Takayuki Yunoki*

contact email: *takayukiyunoki@yahoo.com*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 12:**

provider institute: *Instituto Alexander von Humboldt (IAvHP)*

contact name: *Carlos Donascimento*

contact email: *cdonascimento@humboldt.org.co*

criteria for using the data in a publication/scientific analysis:

*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 13:**

provider institute: *Instituto Amazónico de Investigaciones Científicas SINCHI (CIACOL)*

contact name: Edwin Agudelo  
 contact email: eagudelo@sinchi.org.co  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 14:**

provider institute: Instituto de Ciencias Naturales, Universidad Nacional de Colombia (ICNMFH)  
 contact name: José Iván Mojica  
 contact email: jimojicac@unal.edu.co  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 15:**

provider institute: Instituto para la Investigación y la Preservación del Patrimonio Cultural y Natu  
 contact name: Raúl Ríos Herrera  
 contact email: raulriosh@gmail.com  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 16:**

provider institute: Universidad del Tolima (CZUT-IC)  
 contact name: Francisco A. Villa-Navarro  
 contact email: favilla@ut.edu.co  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 17:**

provider institute: UNMSM, Peru  
 contact name: Max Hidalgo  
 contact email: mhidalgod@unmsm.edu.pe  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 18:**

provider institute: FAUNAGUA  
 contact name: Fernando M. Carvajal-Vallejos  
 contact email: fernando.carvajal@faunagua.org  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 19:**

provider institute: IRD  
 contact name: Céline Jézéquel  
 contact email: celine.jezequel@ird.fr  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**provider 20:**

provider institute: IRD  
 contact name: Pablo A. Tedesco  
 contact email: pablo.tedesco@ird.fr  
 criteria for using the data in a publication/scientific analysis:  
*The dataset needs to be requested from dataset creator with specific conditions of use.*

**citation of this dataset:**

author(s): Jézéquel, C., Tedesco, P. A., Maldonado-Ocampo, J. A., Prada-Pedrerros, S., Ortega, H., Hildalgo, M., Martens, K., De Wever, A., Zuanon, J., Torrente-Vilara, G., Sousa, L. M., Guiarrizzo, T., Valdiviezo, J., Sarmiento, J., Maldonado, M., Carvajal-Vallejos, F. M., Yunoki, T., Donascimiento, C., Agudelo, E., Mojica, J. I., Herrera, R. R., Villa, F. & Oberdorff, T.

title and journal (name, number, pages):  
*The Amazon Fish database: freshwater fish distribution for the entire Amazon drainage*

year: 2019

**citation of the metadata:**

author(s): Jézéquel, C., Tedesco, P. A., Maldonado-Ocampo, J. A., Prada-Pedrerros, S., Ortega, H., Hildalgo, M., Martens, K., De Wever, A., Zuanon, J., Torrente-Vilara, G., Sousa, L. M., Guiarrizzo, T., Valdiviezo, J., Sarmiento, J., Maldonado, M., Carvajal-Vallejos, F. M., Yunoki, T., Donascimiento, C., Agudelo, E., Mojica, J. I., Herrera, R. R., Villa, F. & Oberdorff, T.

title and journal (name, number, pages):  
*Metadata description of the AMAZON FISH database. Freshwater Metadata Journal 0: 0-0*

year: 0000

doi (if applicable): <https://doi.org/10.15504/fmj.0000.0>

**comments:**

*The AMAZON FISH database integrates a wide range of datasets from different public and project partners sources, and results from a three years international team effort.*

*The entire, curated database at the sub-basins scale (modified HydroBASINS dataset) will be documented and released in a data paper that should be submitted during the year 2019. All occurrence records (point scale data) for which we obtained permission for public release will be made available through the AMAZON FISH data online repository or through the Freshwater Biodiversity Portal (<http://data.freshwaterbiodiversity.eu/>; which is a member of the Freshwater Information Platform). The release of the occurrence records will be effective three years after the official publication of the data paper, a timeframe considered sufficient to publish the analyses suggested in the initial AMAZON FISH projet. During this embargo period, site scale data may be available on request pending agreement of all partners and with authorship negotiation possible.*

*The sub-basins scale data paper will include an extensive database description along with a discussion on the database content, gap analysis and database statistics, in parallel with the on-line release of the database at the sub-basins scale.*

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*In addition to the publication of the datasets and database itself, key maps produced during the AMAZON FISH project will be disseminated through the Global Freshwater Biodiversity Atlas (<http://atlas.freshwaterbiodiversity.eu/>) following the publication of scientific paper(s) describing those results.*



## General data specifications

### regional coverage of the dataset:

spatial extent of the dataset: *catchment*

continents: *South America*

### spatial extent (bounding coordinates):

southernmost latitude [°]: *-25*

northernmost latitude [°]: *5*

westernmost longitude [°]: *-85*

easternmost longitude [°]: *-45*

minimum altitude: *0 metres*

maximum altitude: *6200 metres*

countries: *South America: Bolivia, Brazil, Colombia, Ecuador, Peru, Venezuela*

### world climatic regions according to [Köppen](#):

*Group A: tropical/megathermal climates*

freshwater ecoregions of the world (FEOW) according to [WWF](#):

*South America: Amazonas Estuary & Coastal Drainages, Amazonas Guiana Shield, Amazonas High Andes, Amazonas Lowlands, Guapore - Itenez, Madeira Brazilian Shield, Mamore - Madre de Dios Piedmont, Rio Negro, Tapajos - Juruena, Ucayali - Urubamba Piedmont, Western Amazon Piedmont, Xingu*

**ecosystem type:** *rivers, wetlands*

**covered timeframe:** *1865*

year to: *2017*

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## Site specifications

<b>coordinate system/grid data:</b>	<i>latitude/longitude projected</i>
datum (e.g. WGS84):	<i>WGS84</i>
grid data available:	<i>no</i>
<b>number of sites:</b>	<i>&gt;1000</i>
exact number of sites:	<i>22000</i>

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## Biological data

**biological data origin:**

specify project:

*from sampling,*

specify method:

*AMAZON FISH project ERANetLAC/DCC-0210*

comments:

*Timeframe of the sampled sites: 1865 to 2017.*

organism group addressed:

*fish*

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## Sample resolution

### fish:

#### taxonomic resolution:

percentage of species level data: 100

#### taxonomic coding:

taxalist according to:

*FishBase & California Academy of Sciences-Catalogue of Fishes*

citation:

*Fricke, R., Eschmeyer, W. & Van der Laan, R. (2018). Catalog of Fishes: Genera, Species, References.*

*<http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>*

*Froese, R. & Pauly, D. (2018). FishBase. World Wide Web electronic publication. [www.fishbase.org](http://www.fishbase.org)*

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#### sample specifications:

## Other specifications

### GIS layers, shape files related to the dataset:

others/details: *catchments, river-sub-basins*  
*Modified version of HydroBASINS.*

availability of photos: *no*

availability of maps: *no*

### quality control procedures:

Were any quality control procedures applied to your dataset?

*yes*

quality control protocols and comments:

*To avoid any duplication when integrating data from different sources, all duplicates are identified and excluded during import by either verifying unique identifiers for occurrences (or fields that should constitute unique identifiers when considered together; e.g. institute + collection + collection number) or based on sampling details in combination with the geographical coordinates of the data.*

*Where available, details on provenance, citation, along with a modification/"last updated" timestamp (e.g. only available for GBIF and SpeciesLink) are systematically documented for the retained records.*

*In addition, during import, each record is systematically checked for reliability and consistency, using the FishBase Consortium database, and the California Academy of Science's Catalog of Fishes, as nomenclature authority files. During the process of building the database, a taxonomic checklist work is achieved to validate all species actually present in the Amazon drainage basin. This important work is done in collaboration with taxonomic experts covering all groups and will be made publicly available through a checklist publication.*