Instructions for the Meta Database of Marine Research

Contents

General Guidence

The following document contains the instructions to add information on the meta-database of marine research in Mexico. The database has 27 categories to be filled by the user, please note that not all of them are mandatory. However, we encourage you to fill as much as possible. The more information we have the better we will be able to reflect the state of marine research in Mexico!

All fields have one of four non-exclusive possible characteristics:

1. They can be *Mandatory* or *Optional*
2. They can be *Fixed* values or open *Section*
    - Fixed: the inputs are part of a select group and no other value is allowed
    - Open: Inputs can be whatever the author decides
3. There could be *Multiple Values* or a *Single One*

Please consider the following directions as general rules for all categories:

- Do not include accents or special characters (e.g. ñ, ç, etc.)
- Overall, entries can be in both Spanish and/or English (except stated otherwise)
- Separate words (e.g. keywords) by ";" and not by "," or blank spaces.

- If you have the same data for multiple species, each species should be a different row

Contact Information

For any inquiry regarding data input feel free to contact Juliano Palacios (j.palacios@oceans.ubc.ca). More information about the project, the metadata, and preliminary results can all be found on our Website

Metadata Fields

Short Title

- Mandatory / Open / Single

Short informative title of the data set. There are no limitations on the number of words but it should be as informative as possible.

Example

MMID_361: "Catch of Thunnus alalunga in Mexico (Atlantic)" *Original dataset title:* SAU eeZ 944 v1-43

Keywords

- Mandatory / Open / Multiple / Spanish

Words in Spanish that best describe the subject or/and data set. These words will be useful to search data. There is no words limitation. Can be both words and numbers.

Special Situation: When a row contains more than one data-sets the keywords must have all the data-sets available in the repository.

Example

For a "normal" row, the keywords could look something like this:

- *MMID_361:* Captura; Reconstruida; Atlantico; Industrial; Subsistencia; Artesanal; Deportiva; Thunnus alalunga

Special Situation: A good example for this section is *MMID_105* where the Short Title of the data set is "Historic Catch of Calamari for Multiple States". In this case, the original data set has catch for five different states in Mexico. Hence the keywords: *"Calamar; Captura; Campeche; Colima; Oaxaca; Yucatan; Quintana Roo"*

Short_Title	Keywords
Historic Catch of Calamar for Multiple States	Calamar; Captura; Campeche; Colima; Oaxaca; Yucatan; Quintana Roo
Reconstructed Catch of Thunnus alalunga in Mexico (Atlantic)	Captura; Reconstruida; Atlantico; Industrial; Subsistencia; Artesanal; Deportiva; Thunnus alalunga

Author

- Mandatory / Open / Multiple

Principal (first) author of the data set. The author can be a person, group or organization. However, priority must me given to individuals over groups or institutions. In case of multiple authors, an additional *"et al."* should be included after the first author. Do not include all authors. In case there is no information about the author of the data set, whoever is uploading the data should be referenced as author.

Examples

- *MMID_361:* Andres Cisneros-Montemayor
- *MMID_613:* CONABIO
- *MMID_712:* Acosta-Gonzalez, G.; et.al

Institution

- Optional / Open / Single

Institution where the data set lives. In the case of multiple institution provide the one that serves as an umbrella. Please use abbreviations when possible.

Example

- *MMID_361:* SAU (Sea Around Us)
- *MMID_19:* CONAPESCA (even thou CONAPESCA is part of SAGARPA and the Mexican Government, the data lives on CONAPESCA's web page)

Dataset Available

- Mandatory / Fixed / Single

Is the data set available for consultation or download. This section is numeric and the options are:

1. Yes, it is public domain and available for consultation and/or download
2. Yes, it is public domain. However, is not directly available or has some type of limitation (nationality, request, broken link, or is just absent)
3. No, it is a private data set

Examples

- *MMID_361:* 1, The data set is available for download online
- *MMID_1198:* 2, In this case the data set is public domain (Mexican government). However, it is limited to Mexicans and its access is only upon request.
- *MMID_1523:* 3, The metadata is available however, the data is not available. A contact information is provided for further inquiries.

Subject Name

- Mandatory / Open / Single (two words) / Spanish

This category comprehends the name of the principal subject of the data set. In case of species, priority should be given to scientific names (without author and year). In case the scientific name is unknown the common name should be included in Spanish. All entries should be in Spanish, with the clear exception of scientific names.

Example

- *MMID_361:* Thunnus alalunga
- *MMID_19:* Abulon
- *MMID_1198:* Chiapas

MMID	Author	Institution	Dataset_Available	Subject_name
19	CONAPESCA	CONAPESCA	1	Abulon
105	CONAPESCA	CONAPESCA	1	Calamar
361	Andres Cisneros-Montemayor	SAU	1	Thunnus alalunga
613	CONABIO	CONABIO	1	Manglar
712	Acosta-Gonzalez; et al	CONABIO	1	Sistema Arrecifal Veracruzano
1198	SNIIM	SE	2	Chiapas

Area

- Mandatory / Fixed / Single

The broader category of where the data was generated. Fixed options are as follows: - National (When data applies for the whole country or scatter data from both oceans) - Atlantic Ocean (Covers the Gulf of Mexico and Caribbean) - Pacific Ocean (Any part within Mexico's Pacific Ocean) - Freshwater/Terrestrial (When data is related to freshwater and/or land ecosystems)

Region

- Mandatory / Fixed / Single

A less broad location of the data. While this option is mandatory, the option of "NA" (Not Applicable) is valid. However, authors are encourage to select one of the following options:

- Gulf of California
- Northwest Pacific
- South Pacific
- Gulf of Tehuantepec
- Yucatan Peninsula / Mar Caribe
- West Gulf of Mexico.

Special Situation: When data is spread and located in more than one region, authors should act as follow: a. If data is spread within two contiguous locations, author should choose the one that has the more amount of data b. If data is spread within two areas that are not connected, then the category should be "NA"

Example (Special Situation)

- **MMID_630:** In this case the author decided to categorize this data as "Gulf of Tehuantepec" since it covers that whole area and only partial "South Pacific"
- **MMID_636:** For this data set Region was determined as "NA" since the data is spread out the country's coastal line.

Location

- Optional / Open / Single The more specific level of data localization. It can range from a specific state to georeferenced data. It is an open category with no limitations.

Example

- *MMID_1198:* Chiapas
- *MMID_1248:* Georeference
- *MMID_606:* Laguna de Terminos

Start and End Year

- Mandatory / Open / Single The Starting year and end year of the time series.

** Special Situation:** When the row represents multiple data set with different time frames, the section should be "NA" (MMID_612)

Temporal Resolution

- Mandatory / Fixed / Single What is the temporal resolution of the data? The options are as follows:
- Annual
- Monthly
- Semester
- Weekly
- Daily
- Seconds

** Special Situation:** Likewise Location

Data Time Points

- Mandatory / Open / Single This section refers to the amount of data points available in the data set. It is related to the start and end year.

Special Situation: In the case of multiple data-sets within a row, Data Time Points should reflect the amount of data-sets within that row.

Example

MMID_361: 55. The data set starts in 1952 and ends in 2010, hence, there are 52 data-points.
MMID_377: 5. The data set starts in 1954 and ends in 1966, however, there are only 5 years with data and not 13.

Special Situation: MMID_377, has 117 different data-sets regarding socioeconomic information. Hence, while the name is only on data set, the number of data time points become 117.

MMID	Area	Region	Location	Start_Year	End_Year	Data_Time_Points
362	Atlantic	NA	NA	1953	2010	58
377	Atlantic	NA	NA	1954	1966	5
606	Atlantic	Banco Campeche Caribe	Laguna de Terminos	2000	2000	1
630	Pacific	South Pacific	South Pacific	1981	2005	1
636	National	NA	NA	1981	2005	1
1198	Pacific	South Pacific	Chiapas	1998	2017	3
1248	Pacific	Gulf of California	Georeference	2010	2010	1

Unit Type

- Mandatory / Fix / Single They type of unit presented in the data set. The options are:
- Area
- Size
- Weight
- Values
- Counts
- Index
- Temperature
- Concentration
- pH
- Depth

Temporal Resolution

- Mandatory / Fix / Single

What is the temporal resolution of the data set.

Example

MMID_361: Year *MMID_1266:* Month

Spatial Resolution

- Optional / Fix / Single

What is the spatial resolution of the data set.

Example

MMID_361: Area *MMID_1266:* National

MMID	Unit_Type	Temporal_Resolution	Spatial_Resolution
361	Weight	Year	Area
1266	Currency	Month	National

Dataset Title

- Mandatory / Open / Single

Original name of data set (the data specifically, not the source or repository where it was published). This is important in order to localize the data set in a document or a source that has multiple data-sets.

Example

MMID_1266: The name of the row is:"*Valor mensual de Importacion de Productos Pesqueros en (2014)*" but the name of the original data set is *"Exportacion de Productos Pesqueros y Acuicolas 2014/p"*

Compilation Title

- Mandatory[1] / Open / Single

Definition

in case the data is part of a larger aggregation of data, for example a report or a repository, then the name of the report / repository should be included.

Example

- Fish Base
- Anuario Estadístico SAGARPA
- Censo Poblacional de INEGI

These are all mayor aggregations/sources of data

MMID	Dataset_Title	Compilation_Title
361	SAU eeZ 944 v1-43	Unreported Marine Fisheries Catch in Mexico, 1950-2010
1266	Exportacion de Productos Pesqueros y Acuicolas 2014/p	Anuario estadistico de acuacultura y pesca 2013

Publication Year

- Open / Single

Year in which the data set was published or made available for consultation. Note that this is not the sames as when the data was collected.

Reference

Link or address of where the data can be found. In case of scientific articles please include only the DOI (if available), otherwise, include the whole citation. For thesis or gray literature that can't be found on-line, include the physical reference.

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[1]When applicable

Example

- www.repositoryonlinewheredatalives.com
- http://doi.org/10.1016/j.gloenvcha.2015.03.009

User Contact

- Mandatory / Open / Single

Name and email of person who identified and/or added the data to the Metadata

Institution Type

- Optional / Fix / Single

The type of institution that generated the data set (corresponds to "Author" and/or Institution" fields). Options are:

- Academic
- Government (GOV)
- Non-Governmental Organization (NGO)
- Inter-Governmental Organization (IGO)
- Industry (Industry)
- Private (Private)

MMID	Publication_Year	Metadata_name	User_Contact	Institution_Type
361	2013	NA	Juliano Palacios; jepa88@gmail.com	Academic

Research Fund

- Optional / Fix / Single

When possible, please identify what type of organization funded the research. This defers on the Institution Type since sometimes who carries on the research is not the same body that funds it.

Options Are:

- Academic
- Government (GOV)
- Non-Governmental Organization (NGO)
- Inter-Governmental Organization (IGO)
- Industry (Industry)
- Private (Private)

Research Field

- Optional / Fix / Single What was the main reason why the data was gathered. Note, this section refers to the "suject_name" and even thou data could be, for example, economic, the subject could be a fishery.

Options Are:

- Fisheries

- Aquaculture
- Tourism
- Oceanography
- Conservation
- Sociology (includes economic data)
- Biology (Includes ecological or natural science data)

Example:

MMID_1756: Financiamiento al sector pesquero (2004-2013) is actually a "Fisheries" category because the *Subject_Name* is "Sector Pesquero".

MMID_8: Censo Poblacion y Vivienda 2010 is a "Sociology" category *MMID_1502:* Poblacion Total Escenario de Cambio Climatico A2, 2030

Social-Economic Interaction

- Optional / Fix / Single

What type of social-ecological interaction is this data an indicator of. It also refers to the Subject_name.

Options are:

- Benefit (Catch or Landed value)
- State (Stock assessment or Habitat area)
- Pressure (Fishing effort)
- Response (CONAPESCA budget or Protected area coverage)

Example:

MMID_8: State (is evaluating the amount of people living in an area) *MMID_1756:* In this case the *SE_Interaction* is "Pressure" because the *Subject_name* is "Sector Pesquero". The fund is for fishing (subsidies).

MMID	Short_Title	Subject_name	Research_Field	SE_Interaction
8	Censo Poblacion y Vivienda 2010	Poblacion	Sociology	State
1756	Financiamiento al sector pesquero (2004-2013)	Sector Pesquero	Fisheries	Pressure