COORDINATE CONVERSION

CESP Project: Strengthening Zimbabwe’s GBIF node through collaboration with GBIF Spain

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# INTRODUCTION

Through this use case, you will learn how to convert and standardize coordinates expressed in many different formats to present them as decimal degrees, as it is required by the Darwin Core standard. The used tool is an adaptation of a Microsoft Office Access® database made by [GBIF Spain](http://www.gbif.es).

PREVIOUS CONSIDERATION

The [*coordinate converter*](https://drive.google.com/open?id=1gvK1KGS3j3IwIfIRqWeJs6k9S9g1PSB7) used in this use case is based on Microsoft Office Access® databases and it has been developed by [GBIF Spain](http://www.gbif.es/). It allows the transformation of coordinates expressed in many different formats (UTM, MGRS, sexagesimal, etc.) to decimal degrees as it is required by the Darwin Core standard. Coordinates need to be introduced import as follow:

* For UTM - MGRS (Military Grid Reference System) there should not be any blank spaces. Eg: 30TUV4050.
* For UTM with Easting and Northing, there should be a blank space between Zone and Easting and between Easting and Northing. Eg: 30T 440 4650.
* Geographical coordinates in sexagesimal degrees need to be imported like Gradesºminutes'seconds"[NS] Gradesºminutes'seconds"[EW], with a blank space between latitude and longitude. Eg: 30º50'15"N 2º30'10"W.
* For geographical coordinates in decimal degrees, they should be imported as [-]latitude and [-]longitude, with a blank space between them and, if applied, indicating the negative symbol [-]. Eg: 40.3388 -2.0220.

# YOU WILL NEED

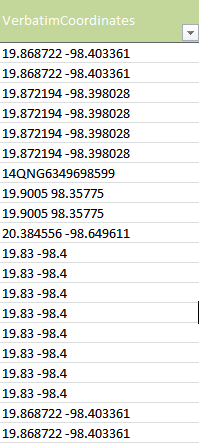
GBIF.ES Date Converter tool: <https://bit.ly/2m5oo7X>

Standardized document: [Use Case 5 - Coordinates Mexican Fish.xlsx](https://drive.google.com/file/d/1ShVN98JqfHYj9yVnqZCtspegW6cLlmSF/view?usp=sharing)

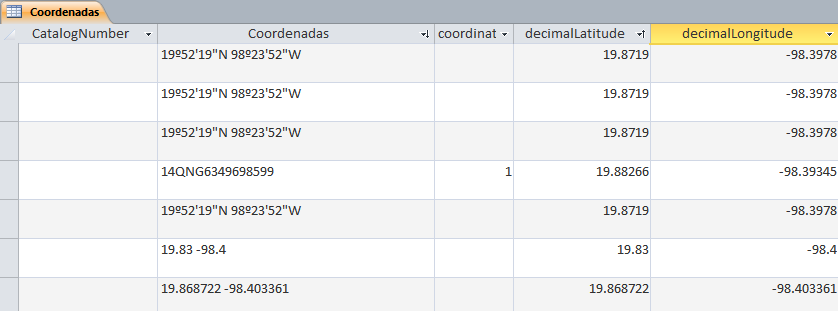
INSTRUCTIONS

***Step 1****.* **Coordinate conversion**

1. Copy (Ctrl + C) the **VerbatimCoordinates** column from your standardized file.

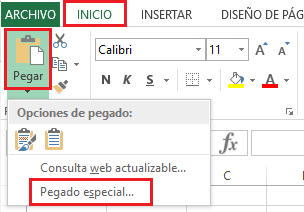


1. Download and decompress the tool and double click to open it.
2. Open the **Coordinates** table  by double click. Paste in the **Coordinates** column the original coordinates to be converted (Crtl + C).
3. Next, double click on the query **0\_Coordinate Conversion** . Click **Yes** to the emerging messages.
4. The generated results can be found in the table **Coordinates** (if you cannot visualize the results, press F5 to refresh).

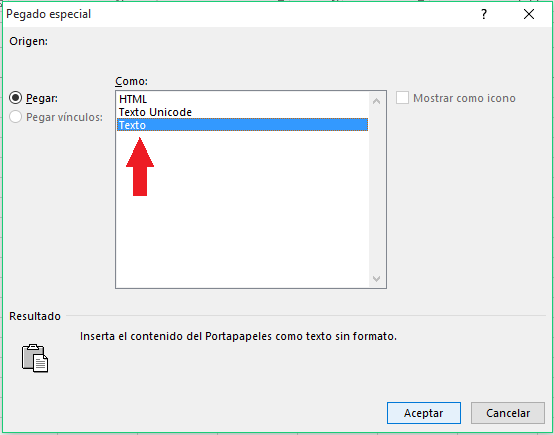


***Step 2*. Import the results to the standardized file**

1. From the **Coordinates** table, select and copy each column (*decimlaLatitude*, *DecimalLongitude* and *coordinateUncertaintyInMeters)*.
2. In the standardized Excel document, open a new empty sheet.
3. Paste the copied columns in this new sheet using the “special paste” functionality.



Then, choose the “**text**” option and click **Accept**.



1. Paste this information in the corresponding fields of the Standardized file.
2. Save the results.