

Practical exercises

Darwin Test

Madrid

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ISSUE 0. INSTALLING DARWIN TEST

TARGET. Install and configure Darwin Test.

1. Copy **Darwin_Test32.mdb** in C:\ root folder.
2. Browse and link the Scientific Name *Species 2000* data base (included in the Darwin Test folder) from the data *Validation configuration* option .

ISSUE 1. DATA VALIDATION

TARGET. Check the data quality from a Darwin Core 1.4 format data base (*Darwincore14.mdb*) with Darwin Test:

1. Browse and link the *Darwincore14.mdb* table from the *Exercises tools* folder.
2. Validate the data and calculate the *Apparent Quality Index*.
3. Check and delete invalid ASCII characters from the table.

ISSUE 2. CORRECTING WRONG DATA DETECTED DURING VALIDATION

TARGET. Check and correct detected wrong data in the previous exercise using the *DwC data verification forms*.



Although there are several fields with “possible” wrong data, the purpose of this practice is not to correct all of them, but understanding how the application works. To achieve this, open the Darwin Core data verification form and check the detected wrong data **just for field GENUS**. Once you have corrected data in the field, don’t forget to press *Validate* button to save the changes!

ISSUE 3. CREATE NEW VALIDATION QUERIES

TARGET. Create a new personalized query to validate data from Darwin Test.


As an example we will design a very simple query which has to detect values different to “Fungi” in field *Kingdom*.

1. Copy and rename the query *Valida Kingdom14*, eg. *Valida Kingdom14_No_Fungi*.

- Open the new query in design view  and edit the conditions to search terms different from "Fungi". Save changes and execute the query  to check the result.

Campo:	Kingdom
Tabla:	DarwinCore14
Orden:	
Mostrar:	<input type="checkbox"/>
Criterios:	<> "Fungi"
o:	

- In *Data validation configuration* section, add the new query for Darwin Core 1.4.


CAMPO A VALIDAR	CONSULTA QUE LANZA	ACTIVO
 Kingdom	Valida Kingdom14_No_Fungi.	<input checked="" type="checkbox"/>

- Uncheck the rest of the queries and revalidate the Darwin Core 1.4 table.

ISSUE 4 COORDINATE CONVERSIONS

TARGET. Convert sexagesimal degrees coordinates to decimal coordinates with Darwin Test.

For this exercise we will use the collection **Darwincorev2 & coordinates.mdb** included in the *Exercises tools* folder. This data base contains the tables *Darwincorev2* and *Coordenadas* which we need for the practice.

- Open the table *Darwincorev2* in design view  and add the new field *MisCoordenadas* (be careful, the name has to be exactly this!)
- Fill the new column with the values included in the table *Coordenadas* (just copy and paste, let's make it easy).
- Convert to decimal coordinates.

ISSUE 5. COORDINATES GENERALIZATION

TARGET. The aim of this practice is to delete or generalize coordinates to different degrees from the records related to sensitive or endangered species in the database. Issue 4 must be completed before doing this practice.

Category	Sensibility	Species	Action	Nº of records
1	Extreme	<i>Apium bermejoi</i>	Delete coordinates	3
2	High	<i>Atropa baetica</i>	Generalize to 0.1 degree	4
3	Medium	<i>Phyllis viscosa</i>	Generalize to 0.01 degree	9
4	Low	<i>Sorbus hybrida</i>	Generalize to 0.001 degree	5
No sensitive	No sensitive	Other species	No generalization	1465

Don't forget to check that values from *Latitude*, *Longitude* and *CoordinatePrecision* fields have been updated. Moreover, field *Notes* should have been updated with a text informing about the generalization or loss of coordinate precision.

ISSUE 6. EXPORT FROM DARWIN CORE 1.2 TO DARWIN CORE ARCHIVE

TARGET. Export to Darwin Core Archive standard from the Darwin Core 1.2 format.

1. To generate this format you need to fill metadata form from the *metadata collection section* or import a metadata file. For this exercise browse and import the *eml.xml* included in the folder from the *Collection Metadata* option in Darwin Test.

2. Export (save as) to the Darwin Core Archive format.
3. Validate the Darwin Core Archive file exported with the GBIF online tool *Darwin Core Archive Validator*: <http://tools.gbif.org/dwca-validator/>.

TARGET. Export to Darwin Core 1.2 standard from a Darwin Core Archive format.

1. Browse and link the file *dwca-guayacanal-parcelasmartos.zip* (Darwin Core Archive).
2. Export to Darwin Core 1.2 format. Previously, you must select a final data base where to save the new table.