

## INSTRUCTIONS CETABASE

To just see photos go to photo gallery and enjoy. Remember always to contact the entity/person who added the photo if you want to use it for anything but personal joy. Cetabase is a free educational tool. Please inform cetabase of your educational uses to keep the profile up to date.

### 1. HOW TO REGISTER AS A USER

The first step to using the resources CETABASE makes available is to register as a user. To do this, select *Collaborate* in the main menu. You must fill in a series of details and add a brief explanation of your objectives, the species and study area.

The screenshot shows the registration page for the Cetabase database. The header includes the ULL logo and the text 'Cetaceans sighting database'. Below the header, there is a navigation menu with 'Collaborate' highlighted in red. The main content area contains a registration form with the following fields: 'username (e-mail)', 'password', 'Organization', 'Contact person', 'Password', 'Remember this name, You will need it if you forget your password', 'Confirm password', and 'e-mail'. There is also a large text area for a 'Short description of your activity and objectives' with a 'Send' button. A 'Back' button is also present. At the bottom, there is a note: 'Once you send your details you can login using your e-mail as your username and password so as to add sightings:'.

Once registered, each time you access Cetabase you have to log in as a user. The username is your e-mail and you choose the password.

You can alter or update your details at any time via the *Change My Data* tab that appears in the menu on the left.

To use the catalogue of Cetabase you need to add data in this order:

- i) add the animal and all information about it. Then add its photos qualified by quality of the photo and of the marks of the animal
- ii) add the sighting where the animal was observed and associate the individual/s to the sighting
- iii) in further sightings where this animal is observed, you only need to add the sighting and include the animal by its code, and update the photos of the animal with better/more recent pictures if required.

## 2. PHOTO-IDENTIFICATION CATALOGUE

Cetabase offers a unique tool to create a virtual photo-identification catalogue according to species and sighting area, so that anyone, wherever they are in the world can create their own catalogue and/or access the different catalogues available.

### 2.1 Create a new individual

To add a new individual, you enter through the menu, *Individuals: New individual*. Various fields are displayed, ready to be filled in. ALL are mandatory except for *Name (Mnemo)* and *Observations*.

The screenshot shows the 'Individuals insertion form' in the Cetaceans sighting database. The form includes a sidebar with navigation options like 'Home', 'I don't remember my password', and 'Change my data'. The main form area contains the following fields and options:

- Code:** A text input field.
- Name (Mnemo):** A text input field.
- Species:** A dropdown menu.
- Level of markings quality:** A dropdown menu.
- Level of photos quality:** A dropdown menu.
- Type:** A dropdown menu.
- Mother with calf:** A checkbox.
- Observations:** A large text area.

At the bottom right, there are 'Create' and 'Back' buttons. A note states: 'You will can to add the photos when the individual be created'.

- ◆ **Code:** that of the profile we create for an animal.  
Example: MdH1 = *Mesoplodon densirostris* sighted around El Hierro, specimen 1.
- ◆ **Name (Mnemo):** a mnemonic that refers to a particular feature of the animal, or whatever name we give it (e.g. Toro). This box can be left blank if no name is yet assigned to the animal.
- ◆ **Species:** select one from the tab. If the species under study is not on the menu, contact the administrator (via the *Contact* box that appears in the main menu).
- ◆ **Overall level of markings quality (M) of the animal:**
  - 1 = very clean animal, free of marks.
  - 2 = animal with some marks.
  - 3 = animal with enough marks or other distinguishing feature (notches or deformations on the dorsal fin that serve to identify it, even if there are not so many body markings).
  - 4 = heavily marked animal, many scars.

◆ **Overall level of photos quality (Q) of the animal:**

**1 = EXCELLENT.** Clear, focussed, well lit image, with the animal in parallel, close, without water marks or reflected sunshine. The scars and marks, if any, are clearly visible to perfection.

**2 = GOOD.** Picture less clear, most of the marks and/or scarring can be clearly distinguished. May present some 'shine', water marks (splash drops, reflections). Can be used for PhotoID and mark-recapture analysis.

**3 = REGULAR.** We cannot clearly distinguish all the marks of the animal. This may be because of glare, poor lighting, water marks, pixellated or blurred image and even a rotated position of the animal, preventing clear observation of all the area to assess. May be used for some objectives, but not in population analysis.

**4 = VERY POOR QUALITY.** The marks and special characteristics of the animal (e.g. shape of the fin) are NOT distinguishable due to being backlit, blurred, or too far away. NOT usable for PhotoID, so it would be better not to include the photo unless it is the **only** picture we have of that animal.

◆ **Type:** the following types of **beaked whales** are distinguished:

- **Male:** teeth visible, numerous scars:
- **Female:** Adult size, no teeth and few or some scars. Sighted on at least two separate occasions with a calf.
- **Indeterminate:** Adult-length animals whose gender is impossible to distinguish due to the lack of markings or absence of associated calves. They may be adult females not associated with calves, or sub-adult animals of either sex.
- **Juvenile:** An individual with a total length about two-thirds adult size, few scars and more homogeneous colouration than adult or indeterminate animals. May appear swimming near an adult or independently.
- **Calf:** Length about half the adult size. Sometimes with foetal marks on the body, remaining in the first month of life and little or no scarring. Normally closely associated with another individual.

◆ **Mother and calf:** It is very important to remember to check this box when we are adding a female or calf/juvenile. In *Observations* you can indicate the association female-calf/juvenile concerned.

◆ **Observations:** This field is optional. Use it to add any clarification or important aspect you want to emphasize.

Once the form is completed, click *Create*. **You can only add photos once the individual's profile is 'created'**.

## 2.2 Insert a photograph

In the main menu select *Individuals: Photo Management*. This option allows you to find the individual you are interested in, by selecting one or more headings to narrow the search: name, species, area, type, etc.

The screenshot shows the 'Cetaceans sighting database' search page. The left sidebar contains navigation links: 'New Individual', 'photo management' (highlighted), 'Change/Delete Individuals', 'Home', 'I don't remember my password', 'Change my data', 'Instructions', and 'Photo Gallery'. The main content area is titled 'Individuals search for photo management:' and includes a 'Send' button. Below this, there are search criteria: 'Enter code manually' (text input), 'Search by name:' (dropdown menu with 'MDH100 LUNA'), 'Search by species:' (dropdown menu with 'Blainville's beaked whale'), 'Search by zone:' (dropdown menu with 'El Hierro'), 'Search by type:' (dropdown menu with 'Any'), 'Search by marking quality:' (dropdown menu with 'Any'), 'Search by photo quality:' (dropdown menu with 'Any'), 'Search by collaborator:' (dropdown menu with 'ULL, Universidad de La Laguna'), 'Search by body zone photo:' (dropdown menu with 'Any'), and 'Is it a Mother and calf?' (checkbox). A 'Search' button and a 'Back' button are at the bottom.

A list of individuals will be generated according to the criteria you have selected. Just select and click on the code of the individual you want to manage:  
Example: MdH100 Luna.

The screenshot shows the 'List of found individuals' page. The left sidebar is identical to the previous screenshot. The main content area has a title 'List of found individuals' and 'Cancel' and 'Back' buttons. Below the title, it says 'Make click in the individual code you want to manage photos.' A table lists the found individuals:

CODE	NAME	SIGHTINGS
MDH100	LUNA	[dropdown menu]

By clicking on the code for the individual, the identification file-card opens:

The screenshot shows the 'Individuals photo-identification card' for MDH100, 'LUNA'. The left sidebar is identical. The main content area has a title 'MDH100, "LUNA"' and the following information: 'Species: Blainville's beaked whale, (Mesoplodon densirostris)', 'Type: indetermined', and 'Individual added by: ULL, Universidad de La Laguna'. To the right, there is a legend: 'Q Indicates the photo quality', 'M Indicates the marking identification quality (both from 1 to 4)', and 'Remember that picture quality is better when it is lower and the clearest markings have the highest index.' Below the legend are 'Cancel' and 'Back' buttons. At the bottom, there are two photo slots: 'Anterior left' and 'Anterior right'. Each slot has a 'Q:' and 'M:' label and a large red 'X' with the text 'CLICK TO ADD PICTURE' below it.

Each profile contains all the information on the individual: code, name, species, type, the entity adding it, and photos that identify the animal with their photo (Q) and mark quality (M). There are different models of cards according to species:

- For photo-identification of *beaked whales*, pictures of the three body regions (upper, middle, and caudal/tail) on the right and left sides are necessary. So, for each individual there will be a total of 6 body-zones:

Upper-left / Upper-right  
Mid-left / Mid-right  
Caudal-left / Caudal-right

- For *dolphins and pilot whales*: photos of the dorsal fin from both sides.

- For *humpback and sperm whales*: photos of the tail fin taken when they lift it out of the water before diving.

In addition, for each species a close-up photo can be added to highlight some distinguishing feature, and a diagram illustrating the pattern of its markings.

To add such an extra image, for example of the upper-left third, you click on that body-zone and it immediately opens a window to load the photo.

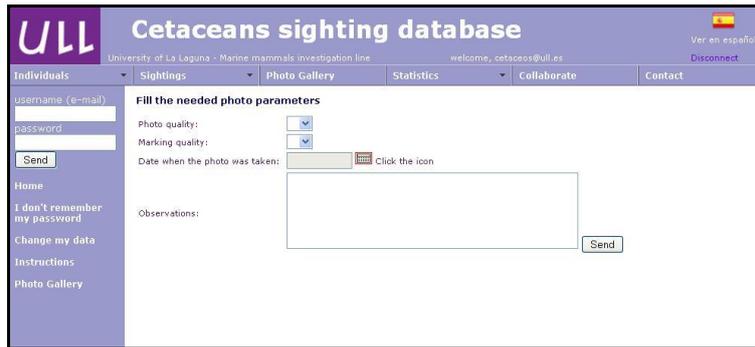


The screenshot shows the 'Cetaceans sighting database' interface. The header includes the ULL logo, the title 'Cetaceans sighting database', and a language selector for Spanish. A navigation menu contains 'Individuals', 'Sightings', 'Photo Gallery', 'Statistics', 'Collaborate', and 'Contact'. The main content area is titled 'To add photos:' and contains instructions: 'Choose the photo for individual: MDH100 "LUNA"', 'In the category: anterior left side', and 'File name cannot contain special characters like "\*" or "%" or it will not work.' Below the instructions is a file upload field with 'Examinar...' and 'Send' buttons, and a 'Back' button. A sidebar on the left contains links for 'Home', 'I don't remember my password', 'Change my data', 'Instructions', and 'Photo Gallery'.

**IMPORTANT: Please upload photos of good quality only, less than 500 KB and with an acceptable resolution (at least 800x600).** Remember that the file-name should not contain symbols like accents etc.: "á, %, or +". In these cases, the **photo will NOT be loaded.**

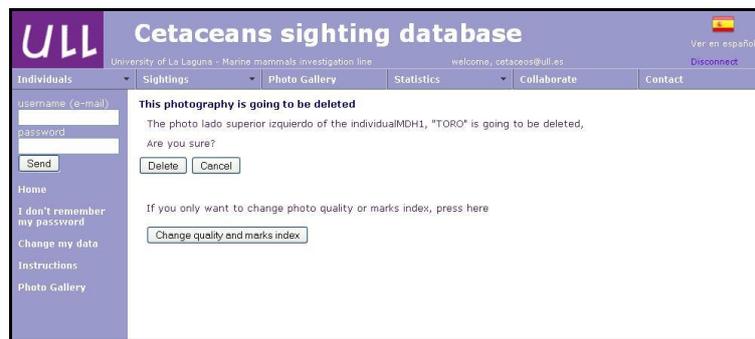
For each uploaded photo, these details must be filled in:

- Photo Quality (Q)
- Quality of Marks (M)
- Date Taken
- Comments: optional



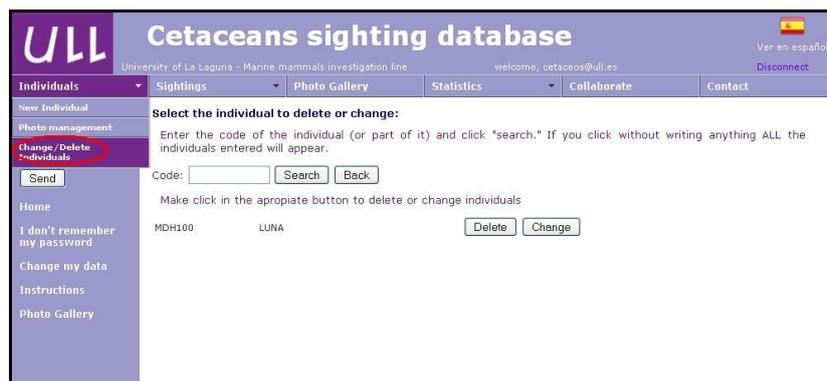
## 2.3 Change or delete a photo. Modify Q and M

If you want to delete or change a picture, or modify its quality (Q) or that of the markings (M), click on the *Change* box at the top right of the photo.



## 2.4 Change/Delete individuals

This option allows you to delete individuals or modify their details. Also, to merge them if you recognize an individual as repeated: e.g. MdH100 turned out to be MdH46 after taking better photos. In this case MdH100 can be given the code MdH46 and the data previously associated with MdH100 will thus become part of the register of MdH46. In this case, the photos associated with MdH100 will disappear, so if it had better, more recent pictures than those in MdH46, the profile of MdH46 should be updated with those new photos before re-coding MdH100.



### 3. SIGHTINGS MANAGEMENT

#### 3.1 Creating a sighting zone

To include a new zone, go to the main menu and select *Sighting: Sighting Zones: Add new zone*.

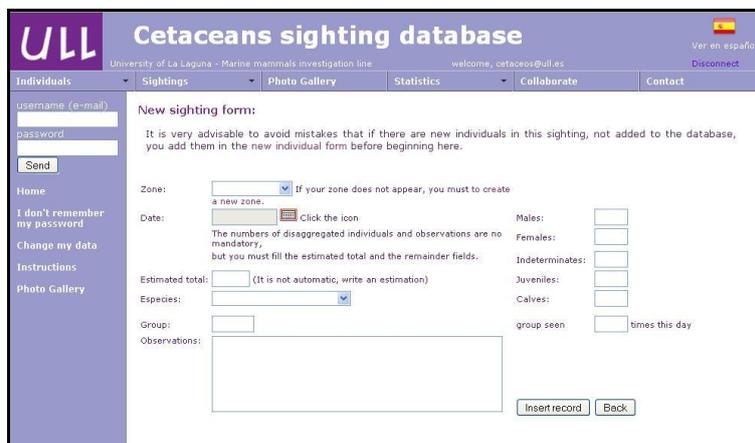
Then choose the country. Example: Spain. *Send*. Select an area: an area may be existing or new. *Send*



#### 3.2 New sighting

To create a sighting form choose the option *Sighting: new sighting* in the main menu.

If there are new individuals in the sighting, not yet added to the database, it is advisable to register them with the [individual entry form](#) before starting here.



### 3.3 Sightings management

Once the sighting forms are created you can associate, edit or delete individuals photographed in this sighting. You can do this anytime from now on searching for the sighting for date, species or study area, or a combination of these.

a) *Associating individuals*: to associate one individual to a sighting, you must select it in the menu where they are all displayed according to their codes. Remember to fill in the picture (Q) and markings (M) quality fields of pictures taken during the sighting. Although tedious, you will find this process extremely useful in further analyses. Remember that Q = 1 is the best quality and M = 4 corresponds to the most strongly marked animals (the reasoning is that with a photo quality 1 you can detect even the bad markings of a M=1)

b) *Update*: edit the sighting.

c) *Delete*: delete a sighting.

## 4. PHOTO GALLERY

In this section, **both users and guests** can access the photo gallery. Try to narrow down your search by selecting the parameters of the animals whose pictures you wish to see.

The screenshot shows the 'Photo Gallery' section of the 'Cetaceans sighting database' website. The page has a purple header with the ULL logo and navigation tabs for 'Individuals', 'Sightings', 'Photo Gallery' (which is circled in red), 'Statistics', 'Collaborate', and 'Contact'. Below the header, there is a search form with the following fields and options:

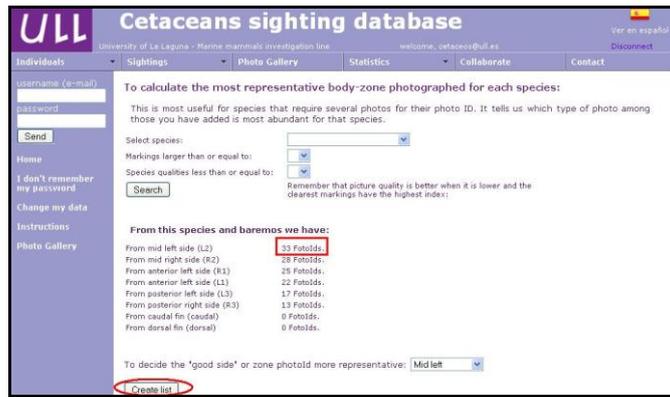
- Search by name: dropdown menu with 'Any' selected.
- Search by species: dropdown menu with 'Any' selected.
- Search by sighting zone: dropdown menu with 'Any' selected.
- Search by type: dropdown menu with 'Any' selected.
- Search by marking quality: dropdown menu with 'Any' selected.
- Search by photo quality: dropdown menu with 'Any' selected.
- Search by collaborator: dropdown menu with 'Any' selected.
- Search by body zone: dropdown menu with 'Any' selected.
- Is it a Mother and calf?: checkbox (unchecked).

Below the search fields is a 'Search' button and a note: 'Try to limit your search, there are a lot of individuals and the page load can take a while'. On the left side of the page, there is a sidebar with links for 'Home', 'I don't remember my password', 'Change my data', 'Instructions', and 'Photo Gallery'.

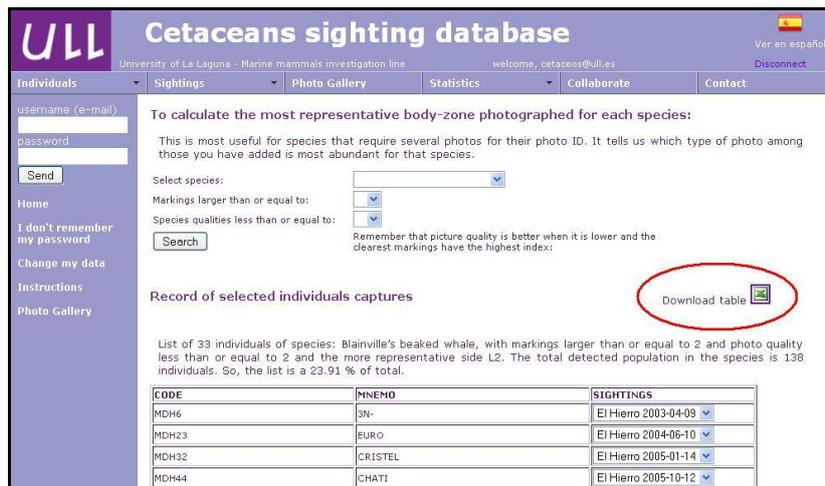
## 5. STATISTICS

### 5.1-PhotoID

For species that require multiple photos for their identification, you can calculate the most representative body-zone photographed. Select the species and quality values of photos and markings you're interested in from the Thumbnails. It will generate a list that tells you the number of photo-identified individuals by zones.



You can select the most representative Photo ID zone or that which interests you most. Then a downloadable Excel table will then be automatically generated, listing all individuals who meet the characteristics selected with their code, Mnemo and reported sighting dates.



## 5.2- Individuals/Sightings

Sighting Statistics: the following tables may be generated:

- Overall record of captures catches with Q and M:
- Capture case-histories for each species
- Table of sightings arranged by season
- General table of sightings with individuals
- Social Composition Table (under construction)**

**ULL** Cetaceans sighting database

University of La Laguna - Marine mammals investigation line welcome, cetaceos@ull.es Ver en español Disconnect

Individuals Sightings Photo Gallery **Statistics** Collaborate Contact

username (e-mail)   
password

Home  
I don't remember my password  
Change my data  
Instructions  
Photo Gallery

**Sightings statistics:**

Microsoft Office Excel is rather sensitive with the  
If you see a warning message on opening the downloaded file, simply click "Yes" or "Accept".

FotoId  
Individuals/Sightings

Overall record of captures catches with Q and M:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Table of capture case-histories for each species:	<input type="button" value="Go"/>	
Select species: <input type="text"/>		
Table of sightings arranged by season:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
General table of sightings with individuals:	<input type="checkbox"/>	<input checked="" type="checkbox"/>