


# World of Crayfish

A short guide on how to complete the provided Excel template

Hello! First of all, thank you for contributing to this project!

This document will help you understand better how to complete the provided Excel template. Each column of the template is explained below.

- 1) The **first section** lets you specify what the source for the provided information is.
  - **DOI**
    - Represents the unique identifier of the source article
    - This field is **mandatory** if a DOI exists for the source article
    - If the DOI is not available, leave the field blank
    - **Caution: be careful when use to drag for auto filling the excel cells, it automatically fill successive increasing values altering the original DOI!!!!**
  - **URL**
    - Represents the URL where the article can be found
    - If the DOI is not available for the article
    - If the DOI is available, this field is **no longer required**
  - **Citation**
    - Represents the citation text for the source article APA format (search the article title in <https://scholar.google.com>, click the cite symbol (  ) and select the APA format)
    - If the DOI is not available for the article, this field is mandatory
    - If the DOI is available, this field is **no longer required**
    - If the data are not published but they belong to you or have the permission to use, then type „unpublished”
  
- 2) The **second section** consists of
  - **Location** represented by coordinate information in the form of (X) latitude and (Y) longitude. This field is **mandatory**. Information may be in separate column X and Y, in one of the forms (but please don't mix them):

- Degrees, Minutes and Seconds - DMS (X: 24°11'22"N and Y: 14°19'25"E)
- Degrees and Decimal Minutes – DDM (X: 24°11.22'N and Y: 14°19.25'E)
- Decimal Degrees – DD (X: 24.1894°S and Y: 14.3236°E)

**Note!** Records should indicate hemisphere (E or W and N or S) or, with Decimal Degrees, minus (–) signs to indicate western and/or southern hemispheres (X: –29.2136 and Y:–21.2579).

**- Accuracy**

- Represents a flag that specifies how accurate the provided coordinates are related to the place of field observation
- This field is mandatory
- Can have one of these values:

Value	Meaning	Precision*
<b>High</b>	data extracted from published maps at hydrographic level; data extracted from published toponymy with good details; or exact coordinates;	being able to pin-point the precise river/lake – useful for SDM
<b>Low</b>	data from continental/national grid systems; data locations estimated from published maps at national level; data extracted from published toponymy with low details	not being able to pin-point the precise river/lake – useful for range estimation

**Note!** Do not store multiple records in the same spot for the same species (time series monitoring would only produce data inflation), therefore the most valuable for mapping is the oldest one. The rationale is „once on the map, always on the map”. Still, there is a function to claim extinction for a previously recorded population/spot (see below). The same rationale for *A. astaci*, very important to claim extinction if an infection outbreak was certainly documented as being eradicated.

**IMPORTANT:** The next two sections are optional. However, completing at least one of them is mandatory. Therefore, you can complete them in the following ways:

- Only the **green section**, if the observation includes only a crayfish species
- The **green and the red sections**, if the observation includes the presence of a pathogen on a certain crayfish species
- Only the **red section**, if the observation includes only the presence of a pathogen, but not discovered on a certain crayfish species (i.e., eDNA)

If one of the fields in a section is completed, the validation rules below will apply.

- 3) The **third section** lets you specify what crayfish species observed at the specified coordinates.
  - **Crayfish scientific name**

- Represents the scientific name of the observed crayfish species
  - This field is **mandatory**
  - **Status**
    - Represents the status of the crayfish specie at the specified coordinates
    - Can have one of these values:
      - **Native**
      - **Alien**
      - **Write "type locality" here if you are indexing the paper in which a species has been described. This will make it possible to display this information on the map, which will be very useful for future searches**
    - This field is **mandatory**
  - **Year of record**
    - Represents the year when the observation of the crayfish species was made
    - This field is **mandatory** (if this is unknown, then use the year of paper publication)
  - **NCBI COI accession code**
    - Represents the accession number in NCBI's GenBank for COI sequence (example: MK645042)
    - This field is **optional**
  - **NCBI 16S accession code**
    - Represents the accession number in NCBI's GenBank for 16S sequence (example: MK652440)
    - This field is **optional**
  - **NCBI SRA accession code**
    - Represents Sequence Read Archive in NCBI's GenBank (example: SRS5949851)
    - This field is **optional**
  - **Claim extinction**
    - If there is certain information that a crayfish population has completely disappeared, then insert a distinct record and type "extinct" in the **claim extinction** cell. This kind of record will discard the spot from the map starting with its year of record. **This must be addressed to the very same location as previously recorded and must be a distinct line in the excel, with the appropriate reference proving the extinction.**
- 4) The **fourth section** lets you specify the details of the crayfish plague pathogen identified at the specified coordinates
- **Pathogen/Symbiont scientific name**
    - List *Aphanomyces astaci* or *Branchiobdella spp.* (use the full name) detection.
    - This field is **optional**

- The pathogen/symbiont can be either on a crayfish (species name will be listed in the crayfish specific section) or detected based on *eDNA*. For the latter instance, the crayfish species box left empty.
- **NCBI COI accession code**
  - Represents the accession number in NCBI's GenBank for COI sequence for the pathogen/symbiont (**not for the crayfish host**)
  - This field is **optional**
- **NCBI 16S accession code**
  - Represents the accession number in NCBI's GenBank for COI sequence for the pathogen/symbiont (**not for the crayfish host**)
  - This field is **optional**
- **Genotype group**
  - Represents the genotype group of the identified pathogen/symbiont
  - This field is **optional**
  - Can have one or more of these values (values must be separated by / ):
    - A
    - B
    - D
    - E
    - Up
    - Name other, if described
- **Haplotype**
  - Represents the mitochondrial haplotype (rnnS + rnnL) of the identified pathogen/symbiont
  - This field is **optional**
  - Can have one of these values:
    - d1
    - d2
    - Name other, if described
- **Year of record**
  - Represents the year when the pathogen/symbiont was sampled
  - This field is **mandatory** (if this is unknown then the year of paper/publication will be registered here)

5) The **fifth section** lets you provide any additional information that might be worth mentioning

- **Comments**
  - Represents any additional information that might be worth mentioning
  - This field is **optional**
- **Confidentiality level**
  - Referring to the degree of openness that the contributor has chosen for their data

- Use "0" or leave the cell blank for no restrictions - data will be displayed and downloaded with the exact location
  - Use "1" for normal restrictions - non-registered users will see data displayed in a 25 km hexagonal shape and downloaded as present for the selected area but with no specific location. Registered users will see data displayed and downloaded with the exact location
  - Use "2" for high restrictions - all users will see data displayed in a 25 km hexagonal shape and downloaded as present for the selected area but with no specific location. Registered users will see data displayed and downloaded with the exact location only upon a well-reasoned request approved by the IAA
- **Contributor**
- Represents the name of the contributor to the database (not necessarily the author of the source paper)
  - This field is **mandatory**

Save the final document with the label „WoC-Country-Name”.

### **Important!**

**World of Crayfish™ can be a repository option for your datasets involving distributions. We can provide „accession codes” for your unpublished records.**