

Protocol for the scientific collection of fungi from **THE FUNGI FOUNDATION**

• **SCIENTIFIC COLLECTION MATERIALS**

- Camera or phone
- Size reference: ruler or coin
- Pencil and notepad
- Label with reference number
- Knife
- Collecting box, paper bag or basket
- Note label (see below)

• **GENERAL RECOMMENDATIONS**

- 1.- Collect 4-6 representative samples of the mushrooms cycle. Do not collect rotten mushrooms.
- 2.- Observe the place where the fungus grows (substrate). Write down all data and observations in a notebook for later use in the process of determining the species. Include odor and changes in color when collecting.
- 3.- Use numbers or correlative codes for samples of different species collected on the same date. Never duplicate numbers or codes.
- 4.- To remove fungi with the buried base, carefully check how far the stipe extends with your finger so as not to break it when removing. Fungi without their base are not adequate as a scientific collection.

• **STEPS FOR COLLECTING**

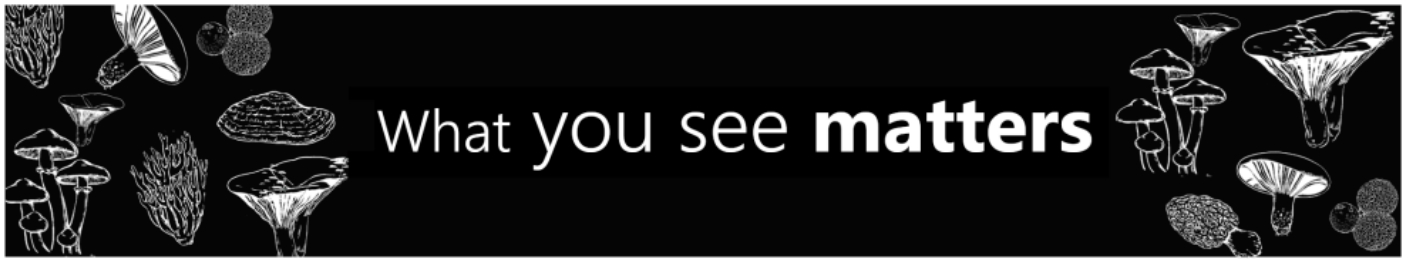
I Observation of the field

Observe the surroundings and take notes on the conditions in which the specimen was found. Take photographs of the fresh specimen and as many details as possible, using the following sequence:

- a.- Complete specimen
 - b.- Complete specimen with size reference (ruler, coin, your hand, etc)
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FFungi



- c.- Specimen with label (correlative number). This will allow you to have an order between your collection and the backup photographs.
- d.- Details of the specimen (lamellae, stipe, scales, etc.)
- e.- Detail of the base of the stipe.
- f.- Cut the fungus transversely. Observe and photograph how the lamellae insert into the stipe and what it looks like inside.
- g.- Photograph the environment in which it was found.

II Sampling

- a.- The entire specimen should be extracted either by digging it up from the base or by removing it with part of the substrate (in the case of species that grow on transportable substrates such as leaves or small branches)
- b.- Once the fungus has been extracted, the changes that may occur should be observed (it stains when touched, changes color, exudes some liquid, etc.)
- c.- Photograph new details (size, color, lamellae, pileus). Include the size reference.
- d.- Write down the data in your notepad.
- e.- Store the sample in a paper bag for later dehydration in a ventilated place watching not to cook it!

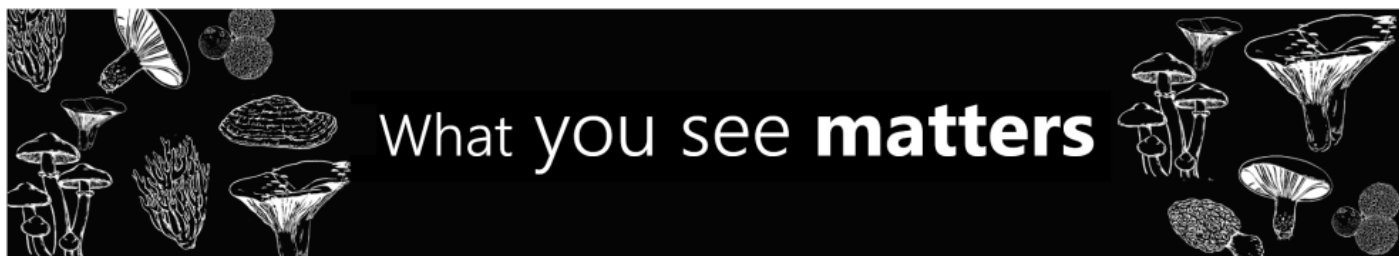
III Technical photographs (optional)

At the end of the day of collecting, technical photographs should be taken of all samples.

Follow the following sequence:

- a.- Place the specimen on an opaque monochromatic background (black or gray ideally)
- b.- Photograph the specimen with its label and a ruler next to it.
- c.- Section the specimens (transverse and longitudinal)
- d.- Photograph the sections. The sectioned specimen should be photographed from all angles for later analysis.

*The background color of the photographs should be as even as possible.



IV Dehydration

Fungi are composed of a large percentage of water, therefore this step is essential to complete your collecting process and send your sample to our FFCL Fungarium.

Samples should be dried with a continuous air flow, and not enclosed in containers, near a heat source (electric dehydrator or heater) that does not exceed 45°C/113°F. This temperature is important to keep the DNA (genetic material) intact.

Samples must have their identification numbers with them during the drying process. Once the fungi dehydrate they change in shape and color and many can be very similar to one another.

To avoid mixing samples, we recommend leaving similar specimens far apart from each other. Fungi continue to sporulate once collected, therefore puffballs should be dried in closed paper bags.

The dehydration time varies for each species, however 14-24 hours is a suitable time range. Before storing them, make sure that they do not store any humidity, as they can rot later on.

To store the dehydrated samples, the use of an airtight bag is essential, and their label and/or unique collection number should be inserted in this bag. We recommend plastic resealable bags.

Once stored, keep at room temperature and protect the material from breaking, crushing or deteriorating.

· REFERENCE LABEL



<u>2 cm</u>	Collector: _____
Date ____ / ____ / ____	Sample n° _____
Species _____	
Location _____	
Coordinates _____	
Altitude _____ / Substrate _____	