



How to photograph and describe my fungus

Free downloadable field guide for photographing and describing fungal specimens.

prepared by Susie Webster @Fungimap and Catherine Marciniak @planet_fungi



Photographs by Stephen Axford

Fungi make up a whole Kingdom of Life that is critical to our living planet.

Without fungi, forests would not exist, we would not exist.

And yet it is a scientific frontier largely unexplored.

Photographs will help increase the body of knowledge of fungal species across the globe.





PHOTOGRAPHY BEST PRACTICE

- **EQUIPMENT:** Camera/phone, macro lens (for digital cameras), tripod or bag of rice/barley/beans, lens cleaning cloth, alfoil, umbrella, remote control (for digital cameras), knee pad, garbage bag to put equipment quickly if it starts to rain.
- Make sure the lens on your phone or camera is clean. Use a lens cloth or soft fabric.
- Know how close you can get with your phone or camera and still get the fungus in focus NB: Many phones or lenses can't focus closer than 40mm
- If you move a little further away with your phone or camera more of the fungus will be in focus
- Take a piece of alfoil with you and use it to reflect light onto the underside of the mushroom so you can see the detail of gills and pores. NB: Without lighting in the forest these will be too dark on the underside to see the detail.
- Take an umbrella to shade the mushroom and its surroundings, if sunny.
- Use a tripod so that you can hold your camera steady. You can rest it on something stable like a rock or piece of wood, or take a small bag filled with rice or barley, or small beanbag to use as a low tripod.
- Make sure your mushroom and the background are in shade.
- Try to select a background that is darker than your mushroom.
- Keep the distance between the mushroom in your foreground and the background as large as possible so that the background is less focused. This will make your mushroom pop out from the background.
- After you have taken your photo magnify it and check that it is in focus before you leave the location.
- A dehumidifier in a plastic container is useful on field trips to dry out equipment if it gets wet.

DOWNLOAD iNATURALIST

<https://www.inaturalist.org/> OR in your phone APP store

**Take 4 photos of any fungus, lichen or slime mould and
upload to iNaturalist on your phone or computer.**

Above 	Side on 
The underside 	The environment showing vegetation (5 – 10 steps back) 

GPS LOCATION

Locate GPS for your specimen. If using your phone camera many phones can collect this data with the image. Otherwise use google maps and note down the coordinates. This helps us accurately map the fungus.

RECORD NOTES ON PAPER OR DICTATE ON YOUR PHONE

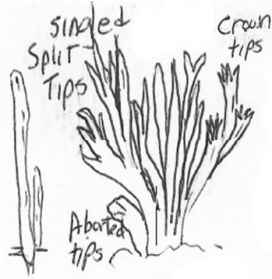
1. What does my fungus look like - does it have gills or pores, or is it a cup or a coral, etc?
2. How big is it?
3. What colour is it?
4. What is the surface like? Is it fuzzy, slimy, dry, smooth, spiny, hairy, scaly, waxy etc.?
5. Does it have a stipe (stem) and if yes what does that look like?
6. What is the substrate (growing out of soil, wood, leaves etc)?
7. What does it smell like? Does it smell sweet, almondy, nutty, citrusy, fishy, oniony, peppery or like something is rotting?

GENERAL CHARACTERISTICS OF FUNGI

Drawings by Susie Webster – Fungimap, Australia | Photographs by Stephen Axford unless credited otherwise

<p>GILLED FUNGI</p> 		
<p>FUNGI WITH PORES</p> 		
<p>TEETH FUNGI</p> 		
<p>CHANTERELLES</p> 		

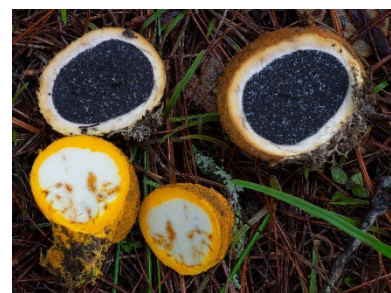
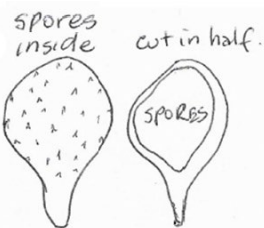
CORAL FUNGI



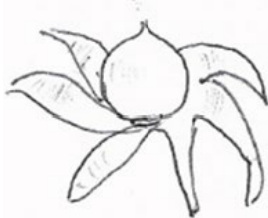
STINKHORN



PUFFBALLS AND EARTH BALLS



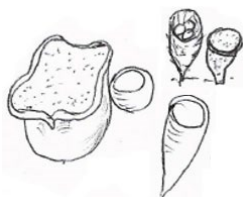
EARTHSTARS



JELLY FUNGUS



CUP FUNGI



FALSE MOREL



Photo: Jason Hollinger, CC via Wikimedia Commons

MORELS

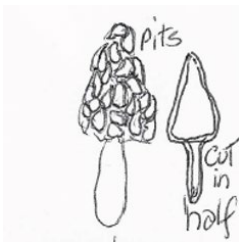


Photo: Sheila Brown - Public Domain license

TRUFFLES



Photo: moi-même - Self-photographed, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=1475134>

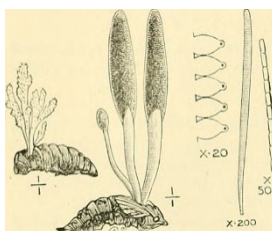
POLYPORES



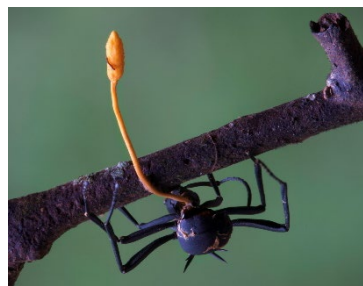
CLUB FUNGI



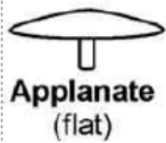
FLESH EATING FUNGI



Internet Archive Book Images, CC0, via Wikimedia Commons



Pileus (Cap) Shape



Applanate
(flat)



Convex
(rounded)



Conical
(cone like)



Campanulate
(bell shaped)

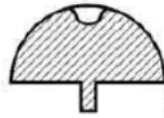


Infundibuliform
(centrally depressed)

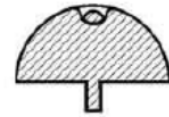
Pileus apex (top)



Umbonate
(central raised bump)



Umbilicate
(central indent)



Papillate
(pimple in indent)

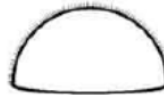
Pileus surface



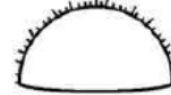
Glabrous
(smooth)



Pubescent
(finely hairy)



Velutinous
(like velvet)



Villose
(coarsely hairy)



Fibrillose
(radiating fibres)

Squamulose
(with scales)



Areolate
(breaking into patches)

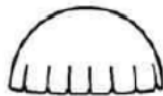
Pileus margin (cap edge)



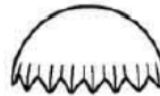
Entire
(smooth)



Striate
(lines at edge)



Tuberculate
(furrowed)



Plicate
(pleated)

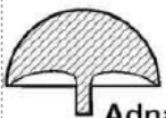


Rimose
(splitting)



Inrolled

Lamellae (gills) attachment



Adnate
(right angled)



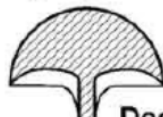
Adnexed
(acute angle)



Emarginate
(very acute)



Free
(not reaching stem)



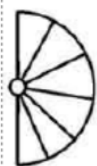
Decurrent
(running down stem)



Sinuate
(notched)



Arcuate
(arched)



Regular
(all gills reach stem)



Intercalated
(with some short gills)

in one series
in two series



Furcate
(splitting)

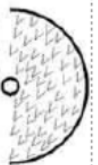


Anastomosing
(cross gills present)

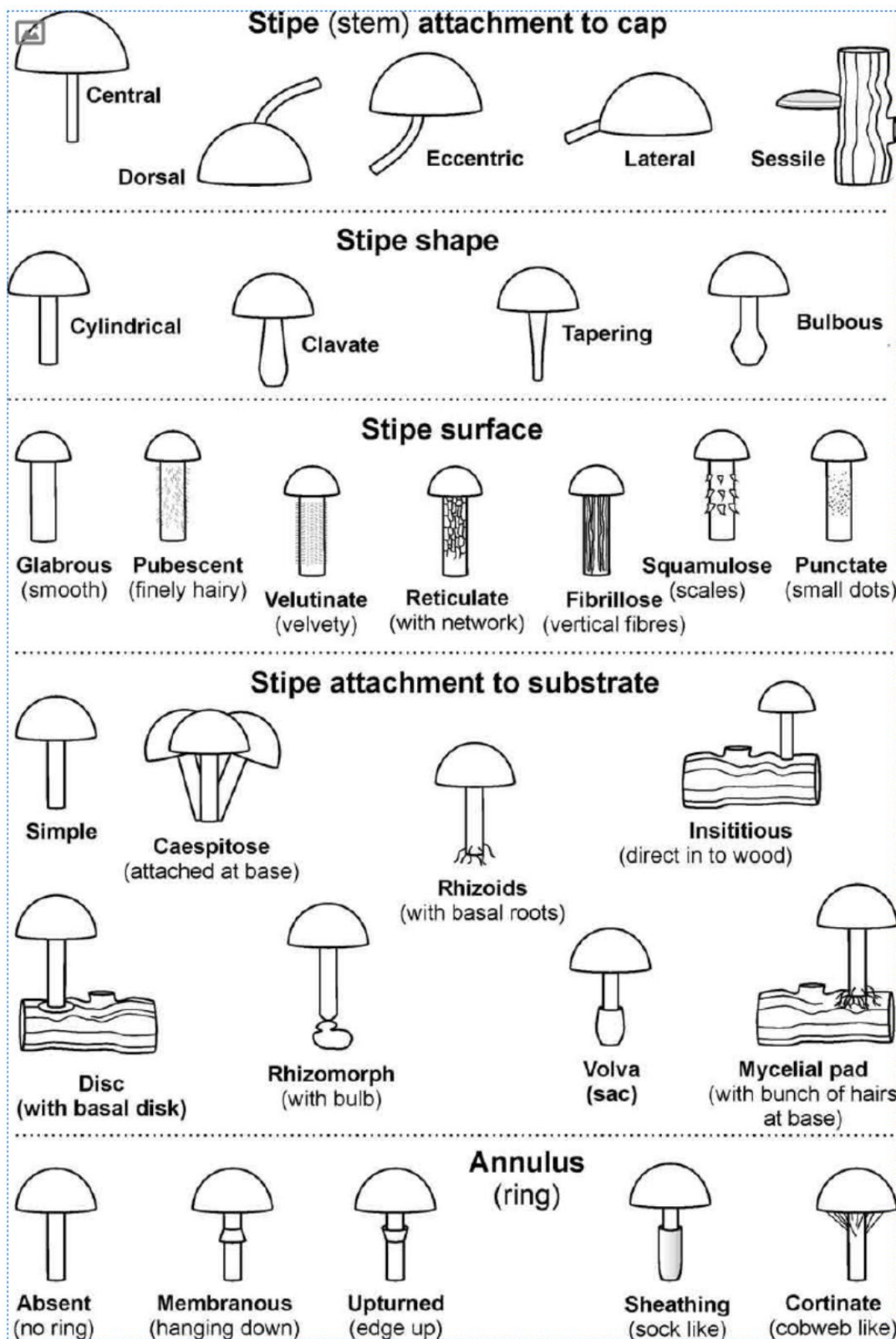


Hydroid
(with teeth)

Pores
(sponge like)



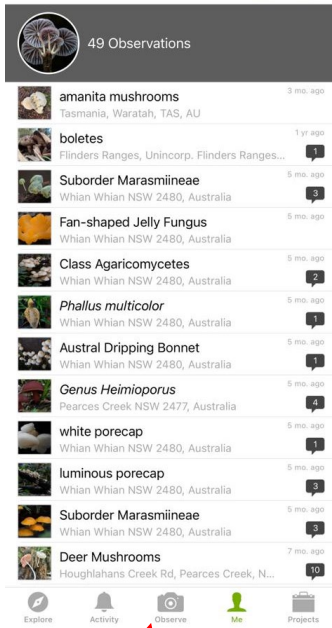
Lamellae arrangement



Illustrations by Will Smith, Queensland Herbarium

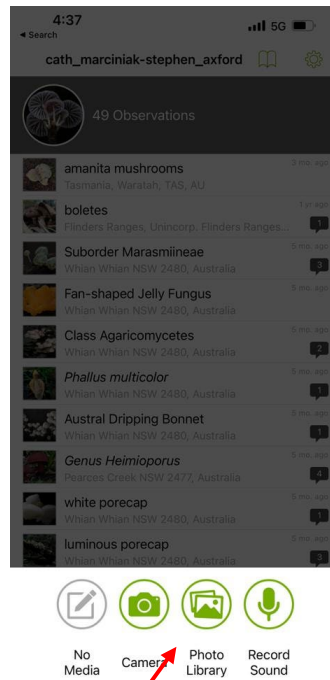
UPLOAD YOUR PHOTOS, GPS LOCATION AND NOTES TO iNaturalist

STEP 1



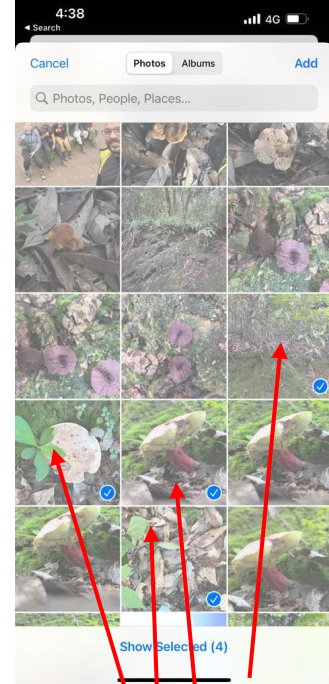
Click observe
the camera icon

STEP 2



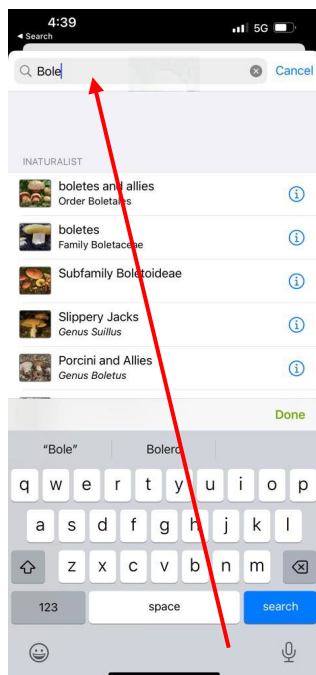
Choose photo library

STEP 3



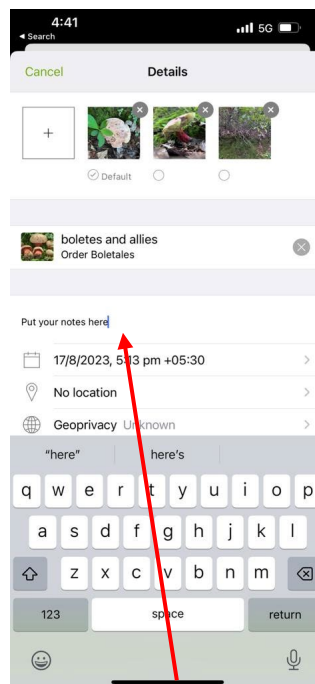
Select your photos – one
from the top, one from the
bottom, wider shot to show
environment

STEP 4



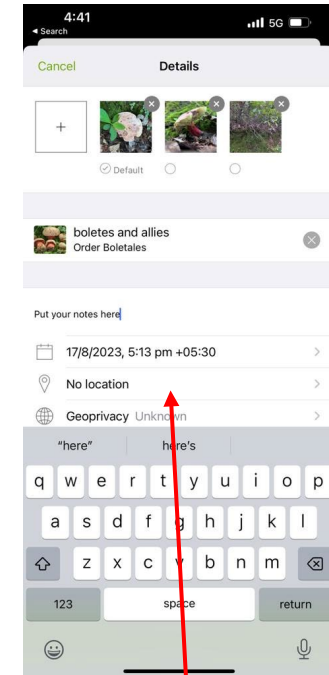
Type in the group if you
know it, otherwise type
"fungi and lichens"

STEP 5



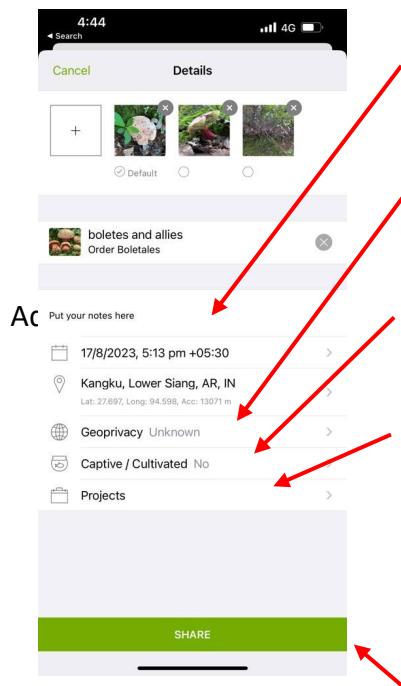
Type your notes and
observations here

STEP 6



Add the date and time of
your observation

STEP 7



STEP 7

Add GPS location

STEP 8

Geoprivacy – none

STEP 9

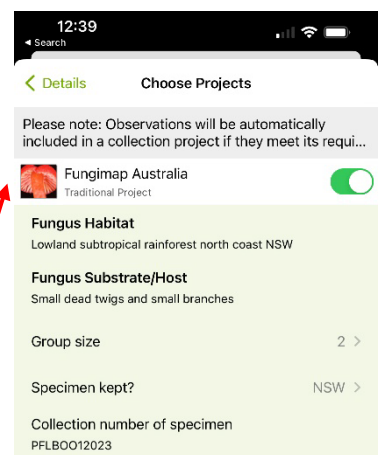
Captive cultivated – only tick if a cultivated mushroom

STEP 10

Add to a project if appropriate. In Australia add to the **Fungimap Australia** project.

STEP 11

SUBMIT



You will be prompted to add mandatory habitat and substrate fields. There is also an option to include group size and any collection information.