Photographing flowers, grasses and insects for effective iNaturalist identification.

An activity sponsored by the Castlemaine Field Naturalists Club

This activity is not a lesson in photography, rather 'tips and hints' to maximise the quality of a photo subject for accurate identification when uploaded into iNaturalist. Patience is required.

Preparation
Clean the front of your lens (iPhone and individual lens) with a lens cleaning cloth.

Ensure you have a fully charged battery. If a DSLR camera, carry an extra battery, if a mobile phone, carry a portable charger.

Not all photos need to be shot in 'RAW', but high quality jpegs can still require significant storage– carry a reserve memory card. Direct transfer to the 'cloud' may not be possible if you don't have mobile storage.

If available, a small tripod can be useful.

General
Get as close as possible to your subject. A telephoto or zoom lens can be useful when you are unable to get close to your subject. Fill your frame/viewfinder, get closer to your subject or crop the photo.

If photographing in low light, or if your subject is in the shadows, a small LED torch can add extra light.

Be aware of the minimum focussing distance for your camera lens. If you find a small spider, your camera may not be able to find it to focus on. Sometimes a piece of backing cardboard will improve the camera's ability to focus on a small subject.

It is more valuable to take several photos of <u>one</u> observation.

Do not rely on the inbuilt AI identification apps to identify your specimens. Use iNaturalist: the many experts who monitor the uploaded photos will identify the specimens, frequently to the species level and research grade.

Do not enhance your photos using AI tools. These may add or remove features of the subject.

Plants
It is not just about the petals. Endeavour to photograph the whole of a stem or branch showing the arrangement of the leaves and, if present, the buds and fruit. Equally for grasses, photograph the seed head and the stem/leaf blades. For Eucalypt trees, photograph the nature of the bark on the trunk, the leaves and flowers (if in flower) and, importantly, the nuts.

In your effort to get to a flower in the bush be very mindful not to trample on other small delicate specimens, and protect the area surrounding the plant you are photographing; orchids, for example, often drop seeds close to the parent plant. Refer to supplementary notes.

No one can do everything, but everyone can do <u>something</u> for biodiversity. (Carrie Seltzer, iNaturalist).

Fungi
You might have to kneel down close to the ground. If the subject is a common shape, i.e. common mushroom shape, take a photo of the whole from the base of the stalk (stipe) to the cap. If you have a small mirror, place it under the cap to identify 'gills' or 'pores'. Do not break the fungus to identify these features, rather leave it intact.

Birds
Photo observations of common birds, such as magpies, galahs, wood ducks, tawny frogmouths etc. are valid and an OK photo of these will suffice. However quality photos of small, flighty birds such as thornbills, wrens, robins etc are very challenging, even more so if a breeze is blowing. In many cases a telephoto lens is required. A possible alternative is to make a recording of the birdsong (recordings can be uploaded into iNaturalist).

Insects
Insects can be equally challenging. Flies, wasps, butterflies, etc will fly off if you get too close. Do not cast a shadow over the insect – it will fly off. If you love your macro lens, you can capture some stunning images, however a strong telephoto lens can also take good photos of insects without the need to get in so close. A telephoto lens is particularly useful for butterflies and dragonflies. Beetles, leaf hoppers and spiders may be more obliging. Insects are generally more sedate on early cold mornings.

Clip-on macros lenses are available for smart phones if a DSLR macro lens is not an option.

Please also note: if you move a stone, log or bark to uncover insects make sure that you replace them as originally found.

See if you can focus on the less common, less obvious species which may be overlooked. Until there is a better density of mapping of a species, it is difficult to say where a species may be disappearing from or migrating to (in response to climate change).

Supplementary Notes

More detailed information on photographing Plants, Birds and Bird Ethics and is available.