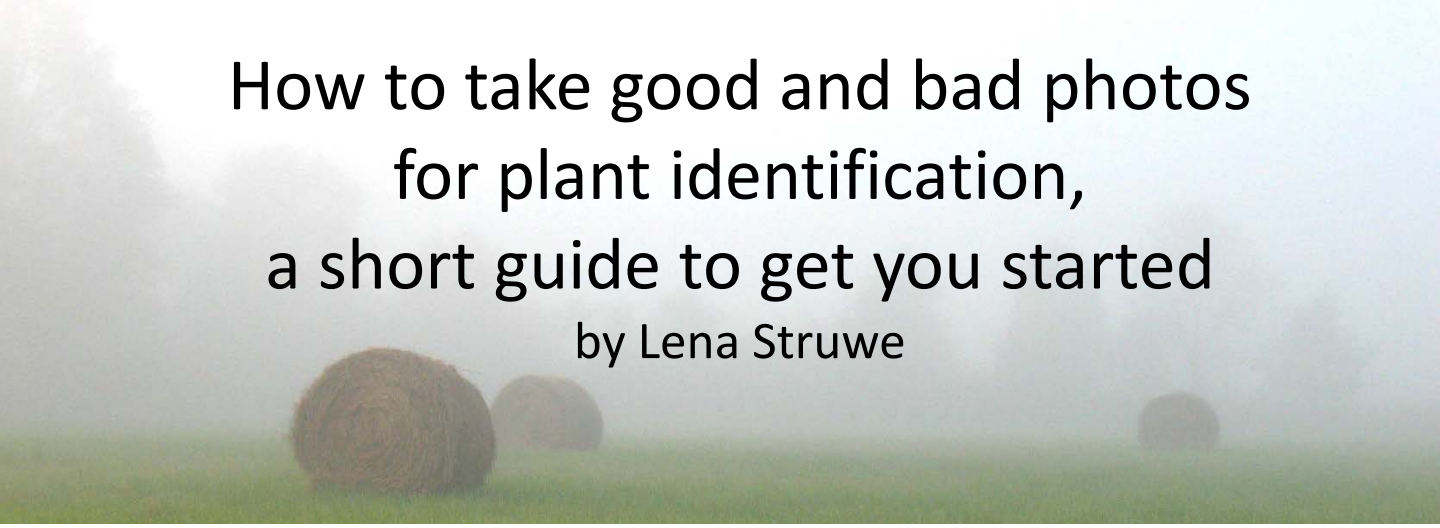

# How to take good and bad photos for plant identification, a short guide to get you started

by Lena Struwe

**Good digital photos are useful for plant identification when using digital and online tools and forums (Naturalist, EoL, Flickr, Facebook, Reddit, etc.), as proof of scientific observations, and as a learning and memory aid for yourself and others. However, many photos posted with identification questions or observation reports are not only bad, but sometimes horrible or worthless. To take good plant ID photos, follow these general guidelines:**

**The goal is to take photos that are:**

**INFORMATIVE and CONTENT-RICH**: photograph all parts of the plant, take several photos of the same plant from different directions, show upper and lower sides of leaves, take closeups of special details or characteristics that look interesting or 'wrong'.

**CLEAR and NOT MESSY:** avoid lots of other 'green things' in the background, and if possible, have a uniform background.

**IN FOCUS:** be aware of what your camera focuses on, don't get too close with the camera, be aware of your settings and the focal depth of your camera (minimum and maximum distance for focus), do not focus on the background, try to get all plant parts at about the same distance from the camera, for small parts hold them in your hand to help with focus, avoid shaky hands which leads to out of focus (hold still!).

**ZOOMED/CROPPED**: zoom in when needed, but often better to take a photo at less zoom with good focus first instead of zooming in with the camera (unless you have a telelens on your DSLR!), then later crop the photo using editing software (this retains focus and reduces granularity especially on smartphones). You can crop photos into smaller sizes on your smartphone or on your computer.

**RESOLUTION**: larger file size = better resolution = more pixels per inch = less pixelated when you zoom in; the resolution is determined by your camera and can sometimes be changed. Higher ISO and low light also leads to more 'grainy' photos.

**LIGHT**: Be aware of dark/light issues on your photos and make sure the object you try to photo have the right amount of light. You can often adjust this on your DSLR camera, so try out different exposure times and F-stops (adjustment is usually +0.3, +0.7, -0.3, etc.). On a smartphone, make sure the focus and light is based on what you want to photograph, not something else (touch the screen to refocus on your plant), and do not focus against a bright light or sky, your plant will look black then. Sometimes you can edit brightness and contrast and make photos look better afterwards.

**SENSE OF SCALE AND SIZE:** include a ruler, your hand, finger, or another object that shows size.

All photos for this manual were taken with an iphone or DSLR camera. Some were taken with the help of a cheap macrolens, handlens, or through the eye piece of a dissecting microscope.

# Photo examples

BAD (too far away, can't see characters or which plant that is being asked about) ⬇

GOOD (but the white flowers are actually pink, color washed out) ⬇

BAD (messy background, out of focus) ⬇

SLIGHTLY BETTER (even background, but still out of focus) ⬇

VERY GOOD (in focus, lots of parts, details clear, with hand for scale) ⬇

VERY GOOD (whole plant, even background, easy to see leaf shapes) ⬇

# Photo examples

GOOD (berries centered) 🡻

EVEN BETTER (cropped) 🡻

NOT SO GOOD (leaf at an angle, other plants in front) 🡻

GOOD (whole leaf, centered) 🡻

GOOD🡻

EVEN BETTER (cropped, hand for scale) 🡻

# Photo examples

BAD (out of focus, too close) ⬇

NOT SO GOOD (too close, the camera cannot focus that close) ⬇

BAD (focus is on background) ⬇

GOOD (focus is on plant) ⬇

GOOD (cropped, shows detailed characters, but low resolution makes it unsharp) ⬇

GOOD (cropped photo, shows back of flower) ⬇

BAD (plant not centered, out of focus) ⬇

GOOD (hand for scale, in focus) ⬇