

Guidance To Photographing Live Tortoises and Freshwater Turtles for Identification

Tortoises and freshwater turtles are widely traded but the identification of specimens in trade can be challenging. When there is uncertainty about the species identity of specimens at the point of inspection, it is advisable to seek specialist assistance with identification. Most turtle species can be identified reliably from photographs, provided that the photographs are correctly focused, exposed, and show the critical features for identification. This guide aims to show how a turtle specimen should be pictured with just a few images taken with a cellphone, so that the images can be sent to specialists located elsewhere who can provide or confirm identification.

This guide demonstrates how to take useful pictures of a turtle specimen. For simplicity, and to match real-world conditions, and animal welfare considerations, most of the photos were taken of a plastic toy turtle using a standard cellphone camera.

For the great majority of tortoise and freshwater turtle species, **3 pictures of good quality are sufficient for reliable identification:**



View of the whole animal more or less from the side

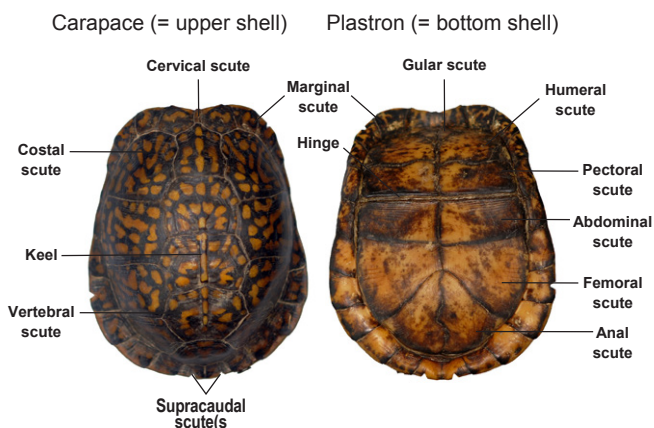


Close-up of the head



View of the plastron (underside of the shell)

Diagram of the names for parts of a turtle shell:



Helpful hints when photographing turtles:

- Focus on the eye of the animal
- Place a ruler or other scale in the picture for reference
- Use a uniform, medium-brightness background; this reduces the chance that the turtle shows too dark (bright background) or washed-out (dark background) in the pictures
- Fill the picture with the subject

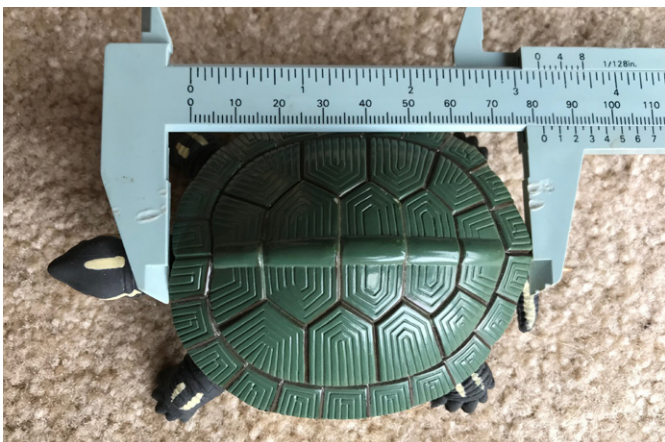
This guidance was prepared for CITES by the IUCN SSC Tortoise and Freshwater Turtle Specialist Group (Peter Paul van Dijk, Ernie Cooper, Bruce Weissgold) with support from Global Wildlife Conservation, the Turtle Conservancy, and Cooper Consulting. Please report corrections and suggestions to the CITES Secretariat and/or ppvandijk@globalwildlife.org.



For a few groups of turtles, more photos of **specific details** may be needed:

- **Mud Turtles of the genus *Kinosternon*:** a picture of the marginal scutes above the hind legs, and a picture of the inside of the hind leg (to show presence or absence of rough scale patch in males) is desirable.
- **Tortoises (Family Testudinidae):** a picture of the cervical (or nuchal) scute (or its absence) at the front of the shell above the neck, and a picture of the suprapygals scute(s) above the tail, are helpful.
- **Soft-shelled Turtles (Family Trionychidae):** A clear picture of the front edge of the shell (where it connects to the soft skin of the neck) is very helpful.
- **Sea turtles (Family Cheloniidae):** include a clear picture of the whole carapace (upper shell) from straight above, to illustrate all carapace scutes, and a picture of the forehead to show the head scales between the eye and nose. A plastron picture is rarely necessary so don't turn the animal over unnecessarily.

How to measure the **size** of a turtle:



Tortoises and freshwater turtles are measured in a straight-line distance, normally the maximum front-to-back length of the carapace parallel to its midline: *Straight Carapace Length, SCL*



Sea Turtles are measured using a flexible tape across the curve of the carapace: *Curved Carapace Length, CCL*

If possible, **avoid** the following common problems when photographing turtles for identification:



Turtle does not show head or legs
Possible solutions: Wait and be patient; gently tickle the back of the animal.



Turtle is badly out of focus
Possible solutions: On a smartphone screen, point at a part of the picture that you want to focus on; use the focus ring of a normal camera; increase the distance between turtle and camera.



Unusual objects used for scale
Possible solutions: find and include a measuring tape or ruler.



Picture under- or over- exposed
Possible solutions: Use the camera's flash; point at a part of the picture that you want the phone to use to determine exposure settings; use a different background.



Distracting reflections or shadows
Possible solutions: Dry the animal; change position relative to the light source; use (or don't use) the camera flash.



NOTE: If a turtle is active, it can be put on a mug, shotglass or other tall smooth stable object to raise its legs far enough off the ground to stop it from running away.