

Quick Set: The WildCAM Condensed Guide to Camera Trap Set Up

Version 1 (March 2022), developed by Alexia Constantinou with input from [WildCo Lab](#) and the [WildCAM](#) community. (Full guide available at <https://wildcams.ca/protocols>).

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Shortlist of set-up process:

1. Select location at which to place camera (based on study design, determined before camera set up). Select a target feature at location to maximize animal detectability.
2. Place camera 3-5 metres away and facing the expected point of animal travel, at ~50-100cm height (potentially angled slightly down), to maximize detection at target.
3. Ensure camera is on, with a fresh SD card and full batteries.
4. Ensure camera settings match the pre-determined label, # of photos per trigger, quiet period, motion sensitivity, time-lapse, etc.
5. Ensure the date & time are correct
6. Attach and secure camera to the tree/post (use cable lock and lock box, as needed).
7. Perform a walk test and confirm that you are satisfied with the field of view (can view test photos on portable photo viewer if needed).
8. Arm the camera and take test photos while showing date/location/time (e.g. with whiteboard).

Checklist of set-up features to consider

For a more thorough information sheet to examine the nuances of each of these topics, please visit the [WildCAM Field Guide to Camera Trap Set Up](#).

Factor	Considerations
Target feature (e.g., game trails, human trails, water holes, feeding areas, rub trees, nest/den sites, etc.)	<ul style="list-style-type: none"> - Requires a suitable tree/rock cairn/post to which the camera is attached. - Consider target, place camera 3-5m away from target. - Set camera facing perpendicular to the expected direction of animal travel to maximize the likelihood of capturing the animal in the frame
Height (recorded in centimetres in the field) & Angle	<ul style="list-style-type: none"> - Keep cameras relatively low (50cm – 1m off the ground) and angled slightly downward so that detection bands are optimized to detect both small and large species. - Height and angle will be influenced by slope at the site, angle of tree, size of priority species, and potential for obstruction by snow or vegetation growth.

Direction (influences the amount of light reaching the camera)	<ul style="list-style-type: none"> - Try to point camera north to avoid direct light (sun glare can affect photo quality, which is most problematic for cameras facing due east or west, unless there is thick tree cover blocking the sun)
Lure/attractant (used sometimes to increase detection rates for elusive species)	<ul style="list-style-type: none"> - Critical to follow local regulations & bylaws and obtain permits. - In general, we recommend against the use of bait or lure for projects focused on unbiased detection of as many species as possible.
Visibility (to minimize false triggers and/or flash distortion from vegetation)	<ul style="list-style-type: none"> - Ensure camera is not obstructed by vegetation, logs, boulders (could require repeated clearing of fast-growing vegetation). - Estimate and record the visibility in front of camera trap station. - Take and label site photos facing each of the four cardinal directions from in front of camera.
Camera settings	<ul style="list-style-type: none"> - <i>Photos vs Videos</i>: Videos require more SD memory, drain batteries quicker, and can be more difficult to process. Unless you are interested in monitoring specific animal behaviours, we recommend focusing on photos. - <i>Time-lapse</i>: Allows photos at pre-defined times of day—useful to ensure camera is functioning and monitor vegetation. We recommend at least 1 time-lapse photo daily at noon (in addition to motion-triggered). - <i>No. of photos per motion trigger</i>: dependent on project objectives, but 1 photo usually suffices and saves battery and card memory. - <i>Quiet period</i>: Setting a time delay will reduce the number of photos taken of the same individuals if they remain in the detection zone. Setting <i>No Delay</i> may fill your SD card with more photos per detection but could provide important information about when animals leave and enter the detection zone or about animal behaviours. - We recommend using Reconyx brand cameras, with motion detection settings of 1 photo per trigger and no delay between consecutive triggers. - <i>Sensitivity</i>: Recommend High to capture broadest range of animals, but can be decreased if many false triggers.

The most critical instruction related to camera trap deployment is to ensure that the camera is active when you leave the camera trap station.

FIELD CHECKLIST

Below is a list of general items you will need when setting up or visiting camera trap stations in the field. Please note that individual project needs/items will vary—if there is anything you think should be included here, please let us know.

Safety-related

- Appropriate personal equipment for weather and safety/emergency
- Bear spray
- First aid kit (ensure contents are complete)

Camera equipment

- Reconyx (or equivalent) camera unit with lithium AA batteries and SD memory card.
Make sure you have enough batteries (may vary with camera make/model).
- User manual for your camera make and model for reference/troubleshooting

Camera security

- Python cable **lock (or equivalent) with keys**, with adjustable straps in case extra support is needed (or consider C-bracket)
- Camera security box if additional protection from theft/bear needed (requires drill + screws)

Additional electronics

- GPS unit - note the UTM Zone and set the unit in NAD 83
- Tablet or cell phone with SD card reader (or digital camera) to view photos

Writing materials

- WildCAM Field Data collection sheets for deployment, check or retrieval
 - Should be printed on Rite-In-The-Rain paper; pencils, clipboard
- Whiteboard and dry erase marker (for test photo details)
 - Alternatively can use blank white paper with thick sharpie pen

Additional equipment

- Measuring tape (to measure camera height)
- Compass (to determine camera direction)
- Machete/knife/saw to clear vegetation or branches (gloves also useful)
- Ziplocks for old batteries and/or keep items dry (+ sharpie for labelling)
- Extra key for cable locks! (bolt cutter useful if lock jammed)
- In the winter:** Lighter or for de-icing spray for frozen locks