

FIELD GUIDE

How to install lured trail cameras for predator detection

Purpose

This field guide is designed to help you install a lured trail camera in the field, for the purpose of detecting predators.

It should be used alongside the Finding on our website, Using lured trail cameras to detect predators at low density, which describes ZIP's current approach to possum, rat and stoat detection using lured trail cameras.

You will need...

- 1 Browning Dark Ops trail camera (recommended), and
- 2 the installation strap that comes with the camera
- 3 Six rechargeable AA batteries¹
- 4 16GB SD card
- 5 Mobile phone
- 6 SD card reader
- 7 Tape measure

To attract animals to the camera, you will either need...

8 ZIP MotoLure (with mayonnaise lure)

- 9 A high torque (60 NM+) electric drill driver with a cross-brace, *or* an electric impact driver
- 0 Cut-resistant work gloves

OR

- 11 Corflute chew card (with peanut butter/ icing sugar lure)
- 12 30 mm flat-head nail
- 13 Hammer

Note: MotoLures and chew cards each attract possums and rats; only the MotoLure will also attract stoats.

Refer to the Finding on our website 'Using lured trail cameras to detect predators at low density' for the battery brand(s) that we currently use.





1. Ideally, both camera and lure should be mounted to sturdy, upright trees that

Method

will not sway in the wind.

It is important to select a tree on which to mount the camera that does not lean away from the target area, which would make it difficult to reliably aim the camera at the target.

If using the MotoLure, it is preferable to select a tree on which to mount the MotoLure that is either upright, or slightly angled away from the other tree, so that the lure collects on the trunk not far below the base of the MotoLure – providing a clear point of focus for the camera.

If you are seeking to detect multiple species (i.e. possums, rats, stoats and/or mice), a distance of 1.2-2.5 metres between the camera and lure is recommended.

In areas where there is insufficient vegetation, we recommend the use of steel fence posts (Waratahs) or wooden stakes, driven securely into the ground. However, for convenience, this guide will refer only to an installation onto two trees.



2. Begin by attaching the lure to one of the two trees. The base of the MotoLure or the chew card should sit 20–30cm above ground level, facing the tree that the camera will be mounted on.

MotoLure installation instructions are available on the ZIP website.

The chew card can be attached using a single nail, hammered in to a depth of 5–10 mm so it can easily be removed when it comes time to refresh the lure. The flutes of the card should be horizontal, to prevent the lure from dripping out of the card, or being washed out by rain.



3. Insert batteries and SD card into the camera, turn camera on and check/adjust the settings.

Still images are recommended in most circumstances, to preserve storage space on the SD card, and reduce both battery consumption and the time and labour required to review footage. The optimal settings for detecting possums, rats and stoats on the Browning Dark Ops range are:

Operation Mode	Trail cam
Quality	High (8 MP)
Picture delay	Minimum delay between bursts (for our purposes, we prefer to use cameras with a 1 second delay)
Multi shot mode	3-shot rapidfire
Trigger speed	Fast

Video footage may be preferable if you need to clearly distinguish between mice and rats. In this specific context, we recommend the following settings:

Operation Mode	Video
Video quality	High (1280 X 720p)
Video length	20 Secs
Trigger speed	Fast

When the settings are correct, turn the camera off until you have completed the installation.



4. Strap the camera firmly to the second tree, approximately level with the bottom of the lure, facing the lure.

The camera should be high enough above the ground to enable you to cleanly open the bottom and remove the battery tray, and to avoid muddy splashback from raindrops hitting the ground (i.e. minimum 30 cm off the ground). We advise aiming the camera at the lure on a slight downward angle. This focuses the camera on the area in front of the lure and reduces triggers from background foliage. This can often be achieved using the natural angle of the tree trunk.

In some instances, this may require an additional step. When required, our field team use two methods to achieve this:



- a. Cut a fresh, green, straight stick approximately 150-200 mm long, and 20–30 mm in diameter. Gently roll the stick down into the gap between the camera and the tree until it is snug, and the camera is sitting firmly (pictured left).
- b. Insert a 50 mm tech screw into the tree behind the camera, and adjust the depth to alter the camera angle. Be careful not to tighten the camera strap excessively while using this method, as the tech screw may damage the camera backing.

It is important to note that angle between the camera and tree should not be greater than 45°. If this occurs, it is best to look for a more suitable tree. 5. Clear any loose foliage or wind susceptible objects (e.g. grass, small branches or leaves) within the camera's field of view. This will help prevent unnecessary triggering of the PIR sensor, resulting in false triggers and unwanted footage capture.



6. Check the trail camera field of view by: (i) turning it on; (ii) triggering the PIR sensor for several seconds; (iii) turning it back off; (iv) removing the SD card; and (v) checking the camera field of view on the SD card using an SD card reader and mobile phone.

The area directly below the chew card or base of the MotoLure (where animals will feed) should be in the centre of the frame.

You will need to check the camera field of view each time the camera is serviced, as some movement is inevitable when changing batteries and SD cards.



7. When you are satisfied with the camera angle, **tighten the camera strap as firmly as possible**, so that it is less likely to be knocked out of place by an animal or falling branch.

Then, securely tuck in the excess strap so that it doesn't flap in the wind, which could result in unnecessary footage capture. 8. Before leaving the site, remember to turn the camera back on.



This installation guide is current as at

24 August 2020.

From time to time, we may make improvements – check out our website, **zip.org.nz**, for the latest version!

If you would like to share your feedback or suggestions, please contact us at **products@zip.org.nz**.

Photos by Becky Clements



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