

NEST MONITORING VIA CAMERA SURVEILLANCE

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PURPOSE

Shorebird nests will be monitored with cameras to determine the cause of nest failure and investigate the relative importance of predators.

TIME PERIOD

Nests are monitored throughout incubation, which is generally early June through early July.

PROCEDURE

The RECONYX Silent Image™ – Professional, Model PM35T25 (telephoto) camera will be used to monitor shorebird nests. This camera is equipped with an infrared illuminator, and a Passive InfraRed (PIR) motion detector, housed in an army green pelican case which is well camouflaged on the tundra (see attached product information for camera specific details). Cameras can be programmed to take images when the motion detector is triggered or on a time-lapse basis (up to 5 photos per second) or a combination of both. For camera programming and downloading of images, a laptop and Silent Image software is required.

Cameras should be placed approximately 5 to 10 metres from the nest. Our preliminary results suggest that, in a year of high predation pressure, cameras do not increase predation pressure of shorebird nests. Cameras can be secured to the ground with large 8 inch nails which can be attached to the camera using 20 gage metal wire. Cameras placed further from the nest (>10 m) should be set on time lapse instead of motion sensor trigger setting as increased distance will increase the likelihood of trigger failure. Cameras should be checked at the same frequency at which other monitored nests are checked. Each time the camera is checked, ensure to note both battery level and flash card memory. Ideally, you should have replacement memory cards and batteries when checking cameras. Memory cards can then be returned to camp and images can be downloaded onto a laptop.

PERSONNEL

Camera monitoring of nests is conducted in coordination with other nest monitoring duties such as nest checks. We estimate that monitoring nests using cameras will likely require an additional 2 hours per day for 1 person throughout peak incubation period (2 weeks).

MATERIAL

- Camera RECONYX Silent Image™ – Professional, Model PM35T25 (telephoto)
- Compact Flash Cards (2 GB or 4GB; 2 per camera)
- batteries (8 AA per camera)
- 8 inch nails or posts to secure cameras in place
- 20 gage metal wire
- Silent Image software (comes with camera)
- laptop computer (to download images)
- GPS