Evaluating Rapid Response Devices for Island Biosecurity

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Introduction

- **The Channel Islands** are home to a wide array of **rare flora and fauna** that is threatened by *Rattus rattus*, or the Black rat.
- **Black rats are invasive** and easily disrupt ecosystems due to their ability to thrive and compete in a wide range of environments.
- **Rapid response biosecurity devices** such as Goodnature A24 traps were trialed on SCI and COPR in order to protect native island species.

Goodnature® A24 traps without blocker (left) and with blocker (right). Photo from goodnature.co.nz, retrieved September, 2024

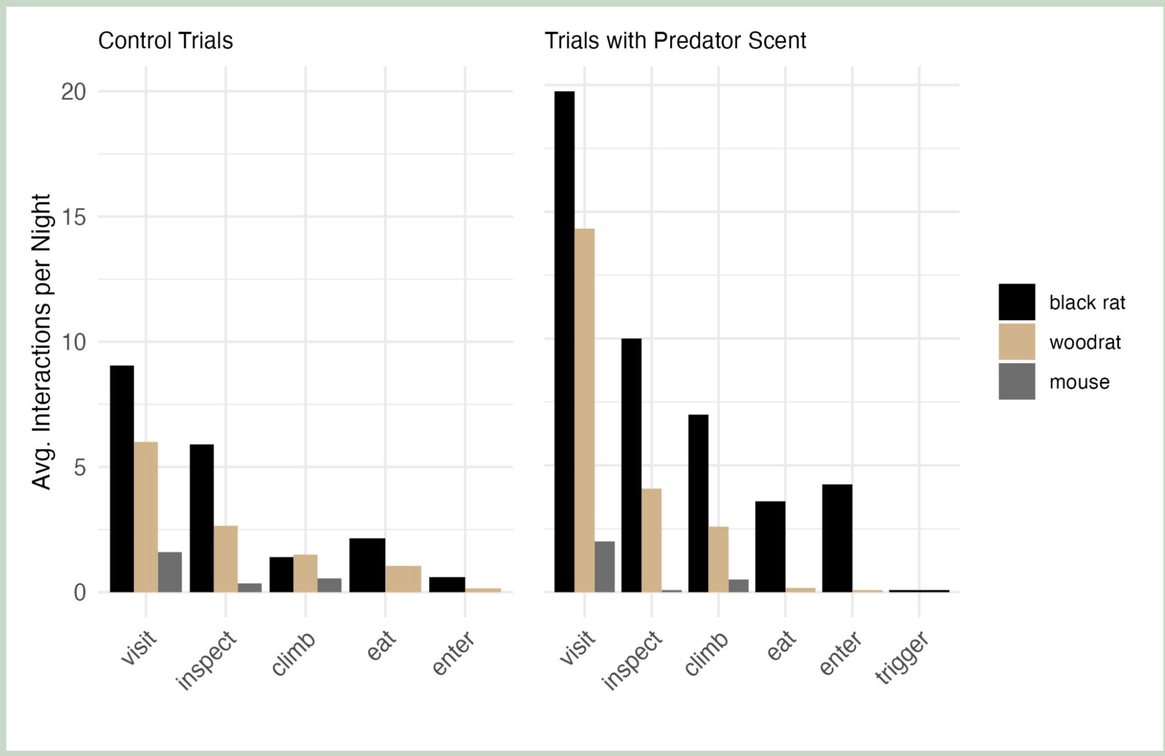
Methodology

- **12 stations**, spaced 100 meters apart, consisting of a motion-activated camera trap and an A24 device.
- Trials of **disarmed A24 traps** with and without blockers, and trials with predator scent (fox urine).
- Data was uploaded to Timelapse, where files were tagged by species and behavior.

Results

Goodnature A24 trap with a blocker deter foxes and scrub jays, but do not deter rats even with the presence of predator scent.

- Mice are able to enter the device due to their small stature.
- Black rats can enter A24 devices with a blocker attached, but **only one rat triggered a device**.
- **Black rats were not deterred** from entering A24 devices with the presence of predator scent.



Conclusion

While the A24 device ensures safety of larger native island species, further experimentation is recommended to investigate trap effectiveness for rat extermination and risk to native island mice.

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