The feasibility of using scent detection dogs to locate bat hibernacula

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Radio telemetry is often costly, inconclusive, labor intensive, and is challenging in rugged landscapes.

Western bat researchers need a reliable, non-invasive alternative to radio telemetry to locate hibernacula.
Temperate coastal rainforest

2 ridges with 10 known hibernacula sites
Approach

Contracted with Rogue Detection Teams for a dog-handler team

Conducted local dog training using guano, fur, dead bats, live bats, “bat rocks”, and a “hot-spot”

Surveyed from 22 July - 21 August 2019
Surveyed outcrops on both hibernacula ridges

Deployed detectors and game cameras to verify subsequent bat activity

Re-deployed equipment in late summer to confirm hibernation

Documented 5 new hibernacula
Azimuth/Bearing: 044° N44E 0782mils (Error)
Elevation Angle: -23.8°
Horizon Angle: +01.2°
Zoom: 1X
f09 guano hit main hole
Bat detection dog work 2019
Replicate method with new dog; test whether it is possible to train a dog without a “hot spot”
Future Directions

Replicate method with new dog; test whether it is possible to train a dog without a “hot spot”

Apply method in locations where bats are not already known to hibernate, where previous data indicate bats may be overwintering
Thank You

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