This is a brief summary of key results from the 'Detection Dogs towards Predator Free 2050' report. The project aimed to assess factors affecting possum scat detection, including the persistence of scat and the dogs' ability to detect scat of different ages. The potential of scat dogs was also explored by considering their utility in targeting control efforts, and identifying individual possums from scat samples.

Key results (see full report for details):

1. Scat survey surveillance

- Scat surveys were mapped across a grid covering the study area.
- Approximately 60% of grid cells were surveyed, and 30% of surveyed cells had scat detections.
- Results show that scat surveys can improve the efficiency of pest control by focusing resources where scat is detected, rather than blanket coverage.

2. Scat degradation

- Possum scat persisted for at least 50 days in five locations across the country, with some locations showing persistence beyond 100 days.
- Auckland experienced significantly shorter scat persistence in winter compared to other locations.
- Certain characteristics, such as smell and mucous/shine, were useful indicators of fresher scat, while hardness, crumbliness, and a darker internal colour indicated older scat.

3. Aged scat trial

- Dogs successfully detected scat up to 239 days old in a controlled trial, with no significant decrease in success rates across different scat ages.
- The presence of decoys (e.g., rabbit, sheep, and goat scat) did not affect the dogs' success rates.
- The trial confirmed that detection dogs are capable of identifying very old scat samples, which may affect monitoring accuracy if older scat is mistaken for evidence of current possum presence.

4. Scent matching trial

- Two dogs were trialled for their ability to match scat samples from an individual possum among samples from other individuals.
- The rate of success was around 50%. The dogs showed they are capable of matching individuals through scat samples, but further development of this method is required to increase success rates.