Camera traps for monitoring invasive mammals

Al Glen
Captive trials

- **Trigger speed:**
  - 0.2 – 2.1 s
- **Motion sensor:**
  - Infrared or microwave
- **Flash type:**
  - White or infrared
- **Type of images:**
  - Video or still
Trigger speed
Sensor type

- Microwave sensor:
  - >90% false triggers
  - Often not triggered by animals

- Infrared sensor:
  - 0.2 – 8% false triggers
  - 80 – 90% success rate
Flash type

White flash  Infrared

BUT…white flash may be more likely to frighten animals
Photo or video?

- Similar success rates
- Video files 10.4 Mb, photos 250 – 750 Kb
- Time consuming to review video files
Recommendations

• Field trial of cameras with:
  – Trigger speed up to 1.6 s
  – Infrared sensor
  – Infrared flash combined with scent lure
Field trials

Macraes Flat

Tasman Valley
RESEARCH ARTICLE

Comparison of camera traps and kill traps for detecting mammalian predators: a field trial

AS Glen*, B Warburton, J Cruz and M Coleman

Table 1 Capture rates (%) for each species at Macraes Flat and Tasman Valley: cameras cf. kill traps.

<table>
<thead>
<tr>
<th>Species</th>
<th>Macraes Flat Camera traps</th>
<th>Macraes Flat Kill traps</th>
<th>Tasman Valley Camera traps</th>
<th>Tasman Valley Kill traps</th>
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</thead>
<tbody>
<tr>
<td>Stoat</td>
<td>0</td>
<td>0.03</td>
<td>0.1</td>
<td>0.04</td>
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<td>Cat</td>
<td>2.0</td>
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<td>0.5</td>
<td>0.03</td>
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<td>Hedgehog</td>
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<td>0.1</td>
<td>0</td>
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<td>Rabbit</td>
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<td>Possum</td>
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<td>0</td>
<td>11.9</td>
<td>0</td>
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</tbody>
</table>
Conclusions

• Camera traps more sensitive than kill traps for detecting cats and hedgehogs
• Need field trials in areas with more stoats
• Cameras also good at detecting rabbits, possums, pigs etc
Take-home message

• If you’re controlling pest mammals, camera traps are a cost-effective way to monitor your results
Questions?