



Laser Fence Experiments: Rabbits and Lasers

Bickley Hall Farm, Cheshire, UK

July – September 2017

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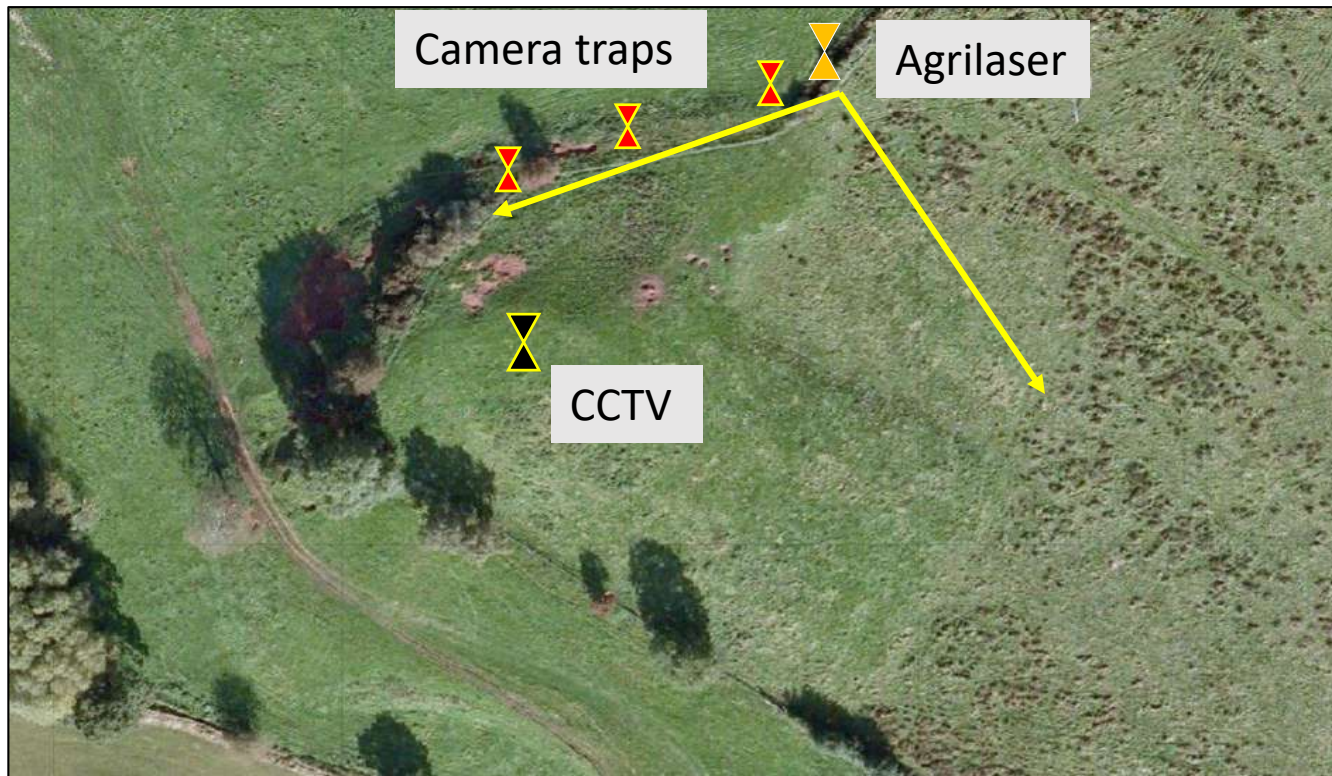
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Rabbit behaviour responses to the 100mW green automomic Agrilaser[®] were monitored at Bickley Hall Farm, Cheshire.



The rabbit activity at a pillow mound was monitored by using the Bushnell® camera traps and CCTV apparatus.



Rabbit behaviours were examined in the area between the yellow lines (450 m²) using camera traps and a CCTV.

The 100mW green automatic Agrilaser® ran 24/7 between June and September 2017.

The advantage of having an automatic Agrilaser® and camera recording was that rabbits could be monitored in the absence of humans.

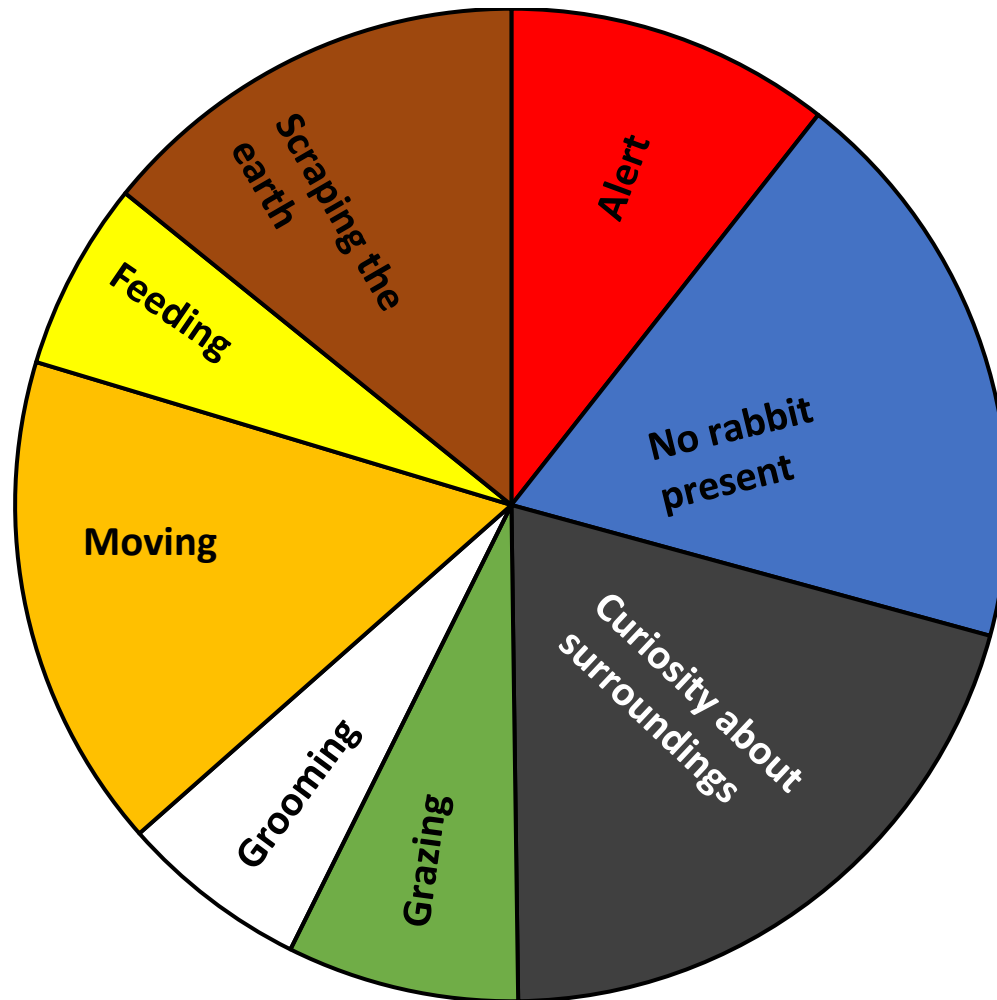
How effective were the camera traps?

The percentage of total video clip time triggered by rabbits:

- 3% of 842 trap events in June
- 31% of 1030 video clip events in July
- 21% of 497 video clip events in August
- 26% of 425 video clip events in September

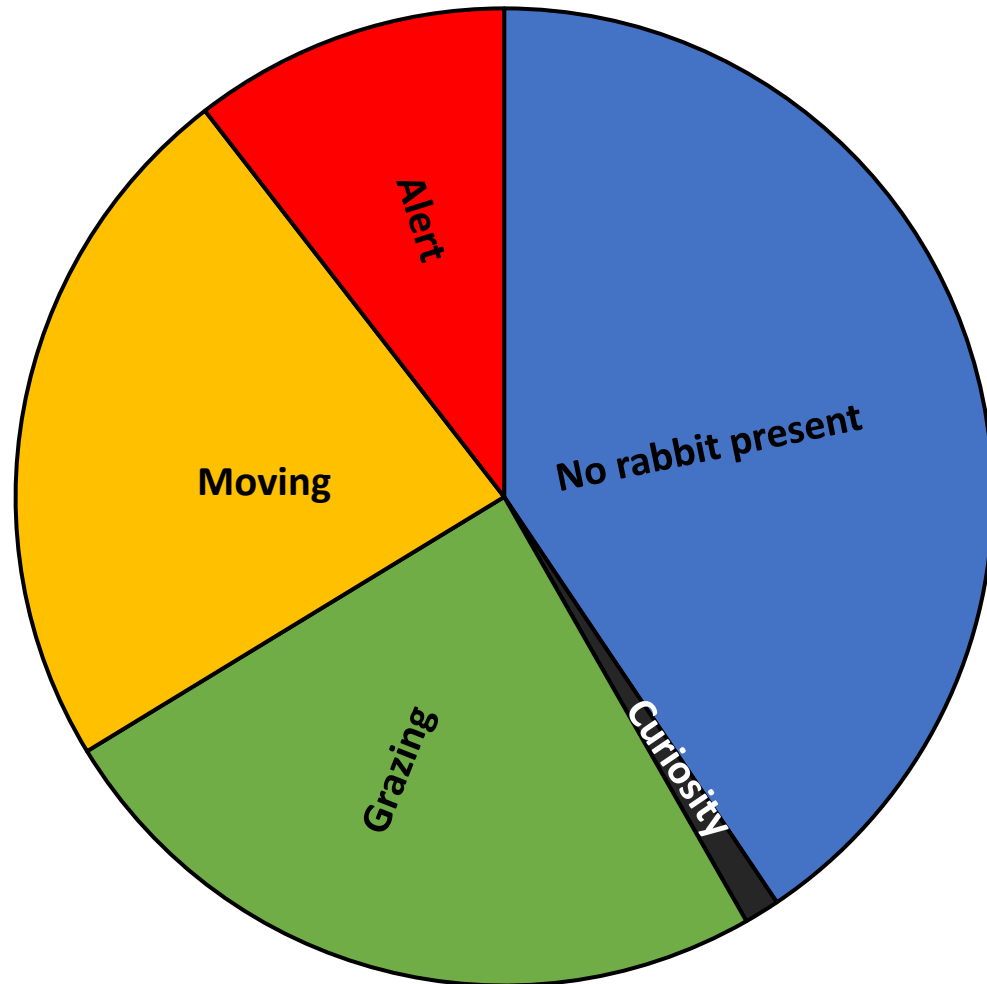
Preliminary observations indicated that windy weather moving vegetation triggered the camera trap.

Rabbit behaviours over a week in camera trap videos **one week** after autonomic Agrilaser[®] installation with beam on 11 pm to 6 am.



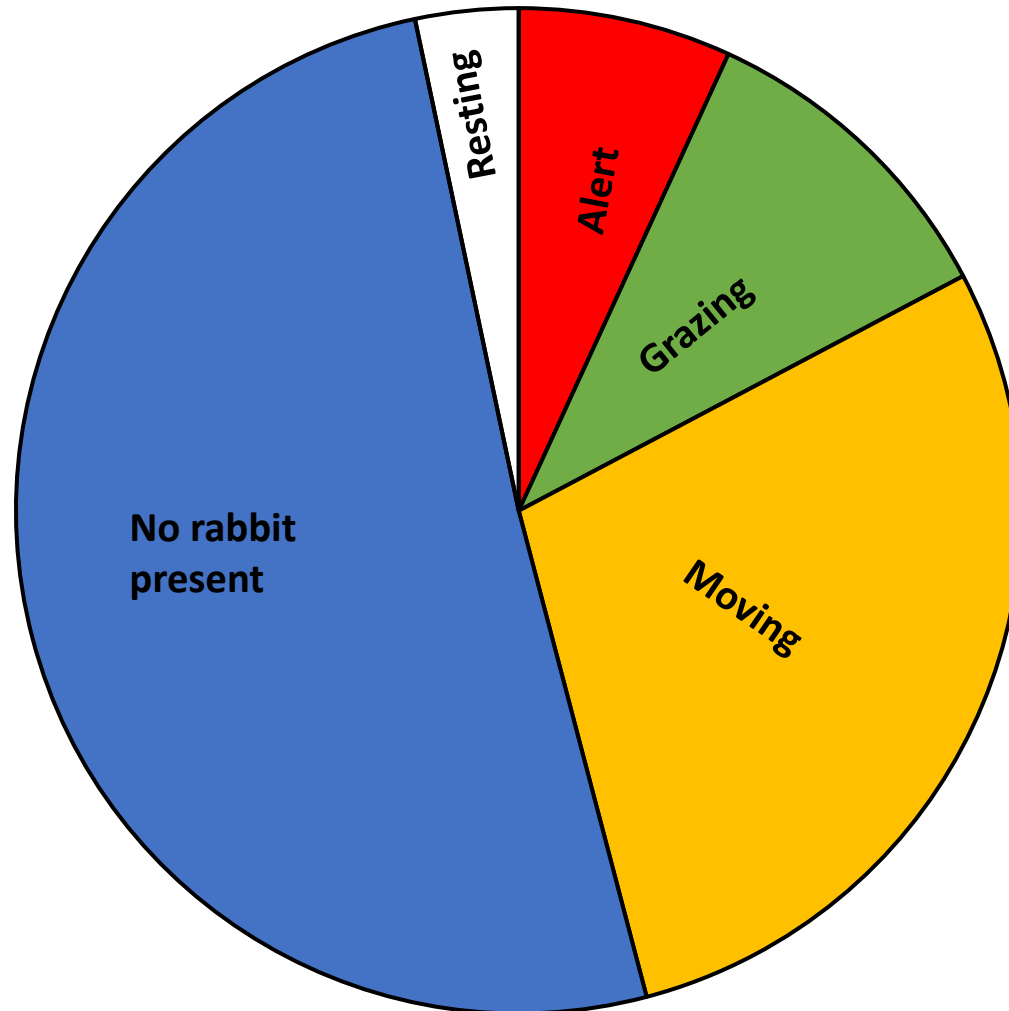
Normal suite of behaviours while rabbits adjusted to the Agrilaser beam.

Rabbit behaviours over a week in camera trap videos **two weeks** after autonomic Agrilaser[®] installation with beam on 11 pm to 6 am.



Smaller range of behaviours. More blank screens where rabbits moved off or were not present. The rabbit started to react to Agrilaser beam.

Rabbit behaviours over a week in camera trap videos **one month** after autonomic Agrilaser® installation with beam on 11 pm to 6 am.



Maintained smaller range of behaviours. Predominantly blank screens and where rabbit moved off or was not present; rabbits still reacting to Agrilaser beam.

You Tube video clip link address	Description of clip across timescale of study
1. https://youtu.be/dP1gyTovRuY	12.7.17 Night of installation of Agrilaser. Night grazing. Response to laser beam: more locomotion then moved off.
2. https://youtu.be/NZu7yRDIbsQ	16.7.17 Four days post installation of Agrilaser. Crepuscular light relaxed grazing no response to laser beam.
3. https://youtu.be/hh1Bk75k--l	17.7.17 Night grazing. Moved off by laser beam.
4. https://youtu.be/hS_M4c-VCBM	23.7.17 Day grazing outside times of laser beam
5. https://youtu.be/FHOQTd9kgMY	27.7.17 Night grazing. Moved off by laser beam.
6. https://youtu.be/RtiTVpuAXO8	18.9.17 Night grazing. Moved off by laser beam.

Conclusions

- The 100mW green Agrilaser beam had a gradually discouraging effect on the rabbits, gently moving them off after a two weeks adjustment phase.
- The best responses were seen at night when the field view was limited.



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