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Virtual Fencing System experiment: Testing the response of sheep on various audio signals

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What?

- Create a virtual fencing system
- Remove physical barriers and replace them with “virtual” barriers

Why?

- Improve biodiversity
- Prevent overgrazing
- Reduce soil erosion and water pollution

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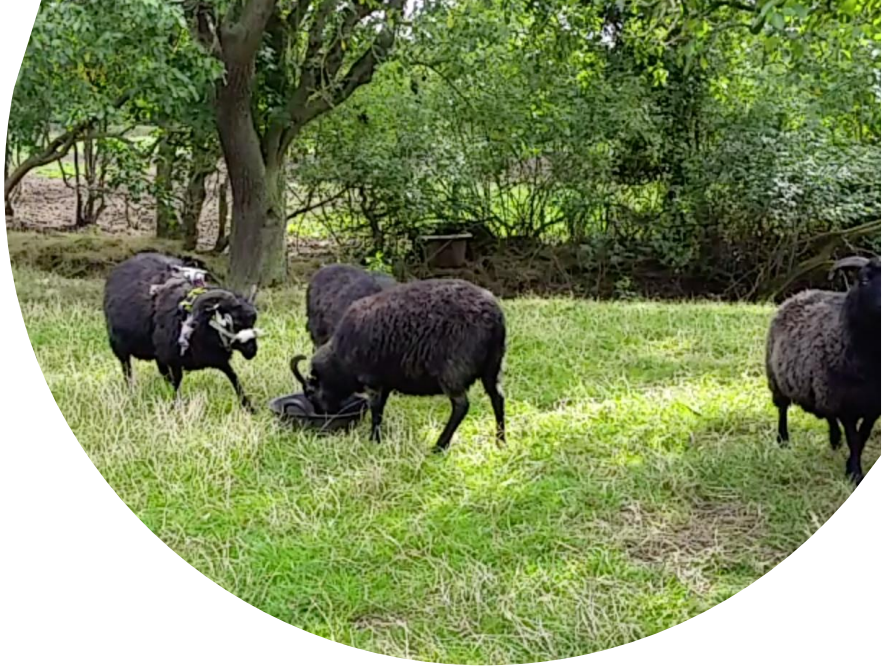
How?



- examine the response of the animals on the acoustic cues: which sounds restrict them access to an attractant?
- Five Hebridean sheep were used in the pilot experiment
- Frequencies between 200 Hz – 17000 Hz
- A sound cue was emitted manually from the laptop to the speakers when the animal was approaching the attractant

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Preliminary results and conclusion

- High frequencies can cause the desired reaction (ex. **17000 Hz with 86.67%** success)
- **White noise was 95% successful** however it caused stress to the animals
- The animals' **temperament** is important: timid animals are easier to be trained in comparison to stronger animals in character
- Next experiment will use a larger cohort of animals with focus on frequencies higher or equal to 17000 Hz
- White noise will be emitted only when necessary