

# Preventing wolf depredation on livestock facilitates the coexistence of humans and wolves in Finland

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The wolf (*Canis lupus*) is classified as a threatened species in Finland. It is strictly protected but efforts to reach a vital wolf population are futile, if people feel that they cannot coexist with wolves. The presence of wolves often causes concerns, fears and losses of domestic animals. One of the key aims for the LIFE BOREALWOLF project is to reduce any negative impact associated with the presence of wolves, thereby increasing the acceptability of wolves in the Finnish society.

A vital approach in reducing wolf depredation is to collaborate face-to-face with livestock owners and help them to execute the most suitable preventive measures in each farm. This work is carried out during 2020–2025 by three recruited planners that have a wide range of tools to offer the farmers, in addition to the face-to-face guidance:

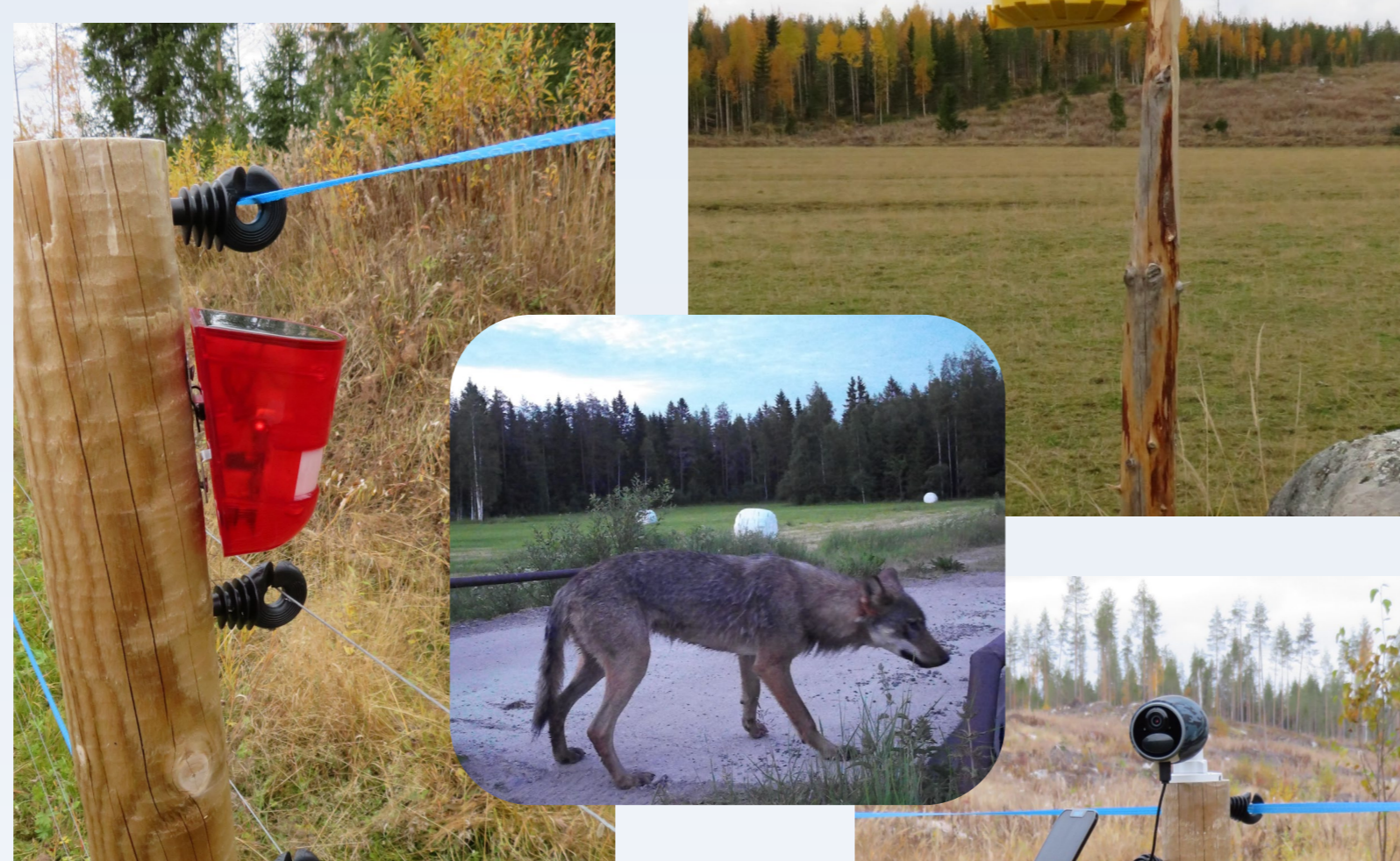
- **FENCES:** Durable electric predator fences are usually the most effective way of preventing depredation. The project offers fence materials to sites where the risk of depredation is high and where animals can be protected cost-effectively. Movable lightweight electric fences are also delivered to use in acute situations (for single pasture season).

All photos by LIFE BOREALWOLF



The laborious maintenance is often considered the biggest drawback of using electric fences. From 2022 onwards, the project tests various methods to limit vegetation growth.

- **DETERRENTS:** The project has acquired several types of light and sound deterrents for short-term use in acute situations, where large carnivores have visited a farm or caused damage – especially when fences are not an option.



- **CAMERAS:** Transmitting trail cameras are used in many farms to help livestock owners to detect the possible presence of large carnivores and to monitor the well-being of animals in real-time.

- **GPS:** The project tests GPS-collars on sheep in semi-natural biotopes and other sites, where fences are not a viable solution. Collars help to identify deviant movement patterns of sheep and alert farmers to check on the animals.



- **FLADRY:** Using fladry is tested both on land and in water areas that outline pastures.

- **SCAREMEN:** An air-pressured deterrent with light and sound can be used periodically e.g., after a wolf has visited the pasture.

From all these methods, LIFE BOREALWOLF collects user feedback annually. This helps the project staff evaluate the utility of the tested methods and to share this information forward to all livestock owners.

## Feedback from farmers

"Nighttime fence breakdowns stopped when I hung a light deterrent in the spot, where deer kept trying to cross the fence."

"I think the sporadically blinking lights deter wolves; there has been no depredation where the lights have been used."

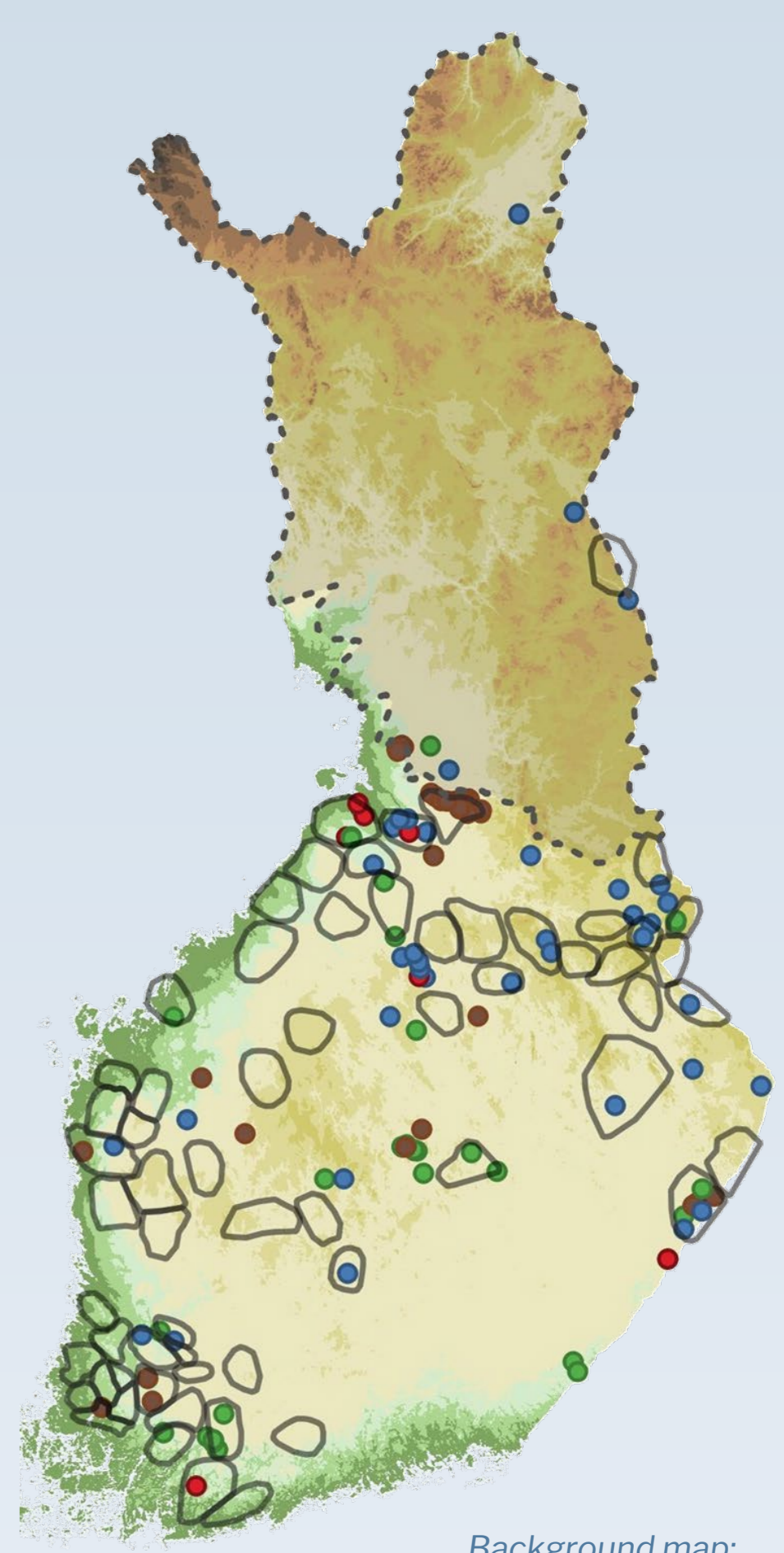
"It is easier to monitor the animals during the day, when you don't have to go on the spot every time to do so."

"My phone gave an alarm, and I checked the pasture livestream. Sheep were moving erratically in the dark. I went to them and banished some animal from outside the enclosure, possibly a wolf."

"Animals with GPS are easier to locate especially on large pastures."



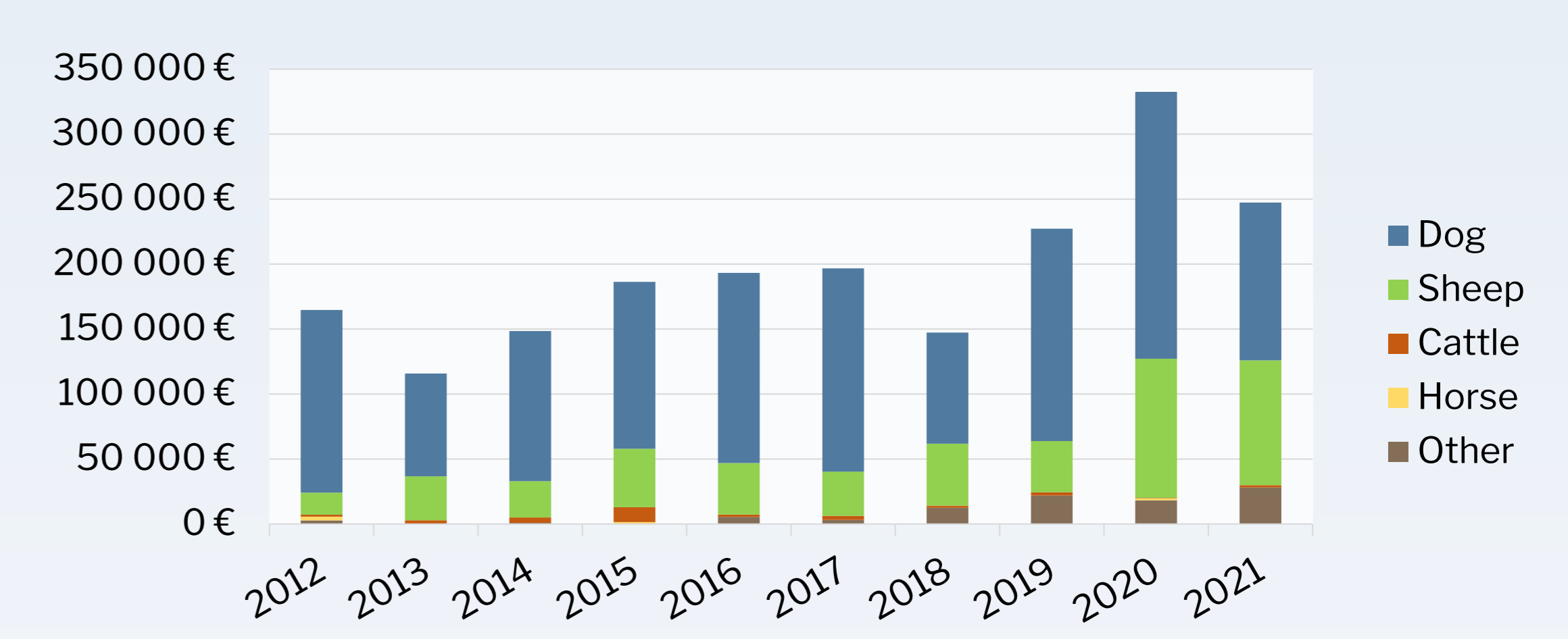
The Finnish wolf population has grown and expanded its range during the 21<sup>st</sup> century. This has caused increasing depredation on domestic animals, especially on sheep (ca. 200–300 compensated for annually) and dogs (ca. 30–50 compensated for annually).



The map presents compensated wolf depredation cases on domestic animals from 2021 (see the chart legend for color codes). Wolf territories from March 2022 are outlined with green. The reindeer husbandry area (northern part of Finland, dotted outline) is not included in project actions.

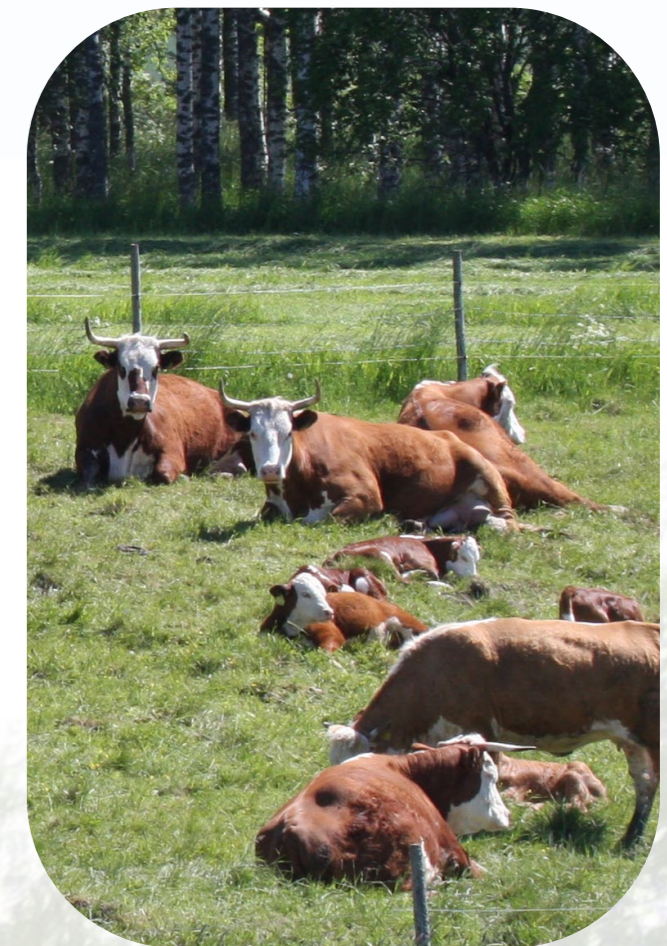
Background map: National Land Survey Finland. Territory data: Nature Resource Institute Finland

The chart shows compensations paid for domestic animals depredated by wolves (reindeer excluded).



## Damage prevention work in 2020–2022

- The project has lent equipment to some 45 farms. These materials include:
  - 111 light deterrents, 60 light and sound deterrents
  - 90 transmitting cameras
  - 38 GPS collars
  - 9 air pressure deterrents
  - 7.5 km of light electric net fence
  - 700 m of water fence, 3 km of fladry
- 39 farms have been provided with electric fences (ca. 67 km, including update materials for existing fences).
- Ca. 10 000 animals (mainly sheep) have received increased protection. Livestock owners have been happy to collaborate and to receive hands-on assistance and guidance. Unfortunately, wolves have attacked some of the protected sites, too.
- Project has published a damage prevention guide for animal owners (1<sup>st</sup> version available on project website), as well as a presentation video on the various protection methods.
- The project staff has been contacted more than 1 000 times regarding damage prevention and other project themes. They have presented wolf-related information in dozens of events.



## Conclusions

It is highly important to meet face-to-face with the people living in wolf territories. This helps to better engage them and allows for increased exchange of information. Farmers feel they are seen and heard, and not left alone with their problems.

