Wildlife detection dog and hamster protection - first results from the field

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In recent years the use of wildlife detection dog teams has become an increasingly common method to detect various animal and plant species, especially those that are elusive or occur in low densities over a large area.

How reliable and effective this method is in the context of protecting and monitoring the common hamster (*Cricetus cricetus*) is faced in the present study. Within the framework of the project Feldhamsterland of the German Wildlife Foundation, a comparison between two methods to detect hamster burrows with wildlife detection dog teams and with a human chain was carried out under different vegetation conditions and species densities.

The results showed that the human chain needed more time for every sample, but also finds a higher number of common hamster burrows in all study sites than the dog handler teams. The reason for this discrepancy is the different searching approach. While the humans search for visual signs of hamster presence, the dogs use their olfactory perception to detect the species. Thus they can only detect burrows that have been used recently so that there is still odor adherent. Consequential the weather conditions and activity pattern of the common hamsters are fundamental factors for the detection success. The use of trained wildlife detection dogs can be an efficient method for conducting surveys in large areas and/or areas with dense/high vegetation. However, the method is not suitable for complete burrow mapping, especially with high population densities.

Further research is needed to better define the potential use of wildlife detection dogs teams in common hamster protection.