

The Role of Red Fox (*Vulpes vulpes*) and Raccoon Dog (*Nyctereutes procyonoides*) in the Transmission of *Sarcocystis* Species from Farm Animals and Wild Cervids

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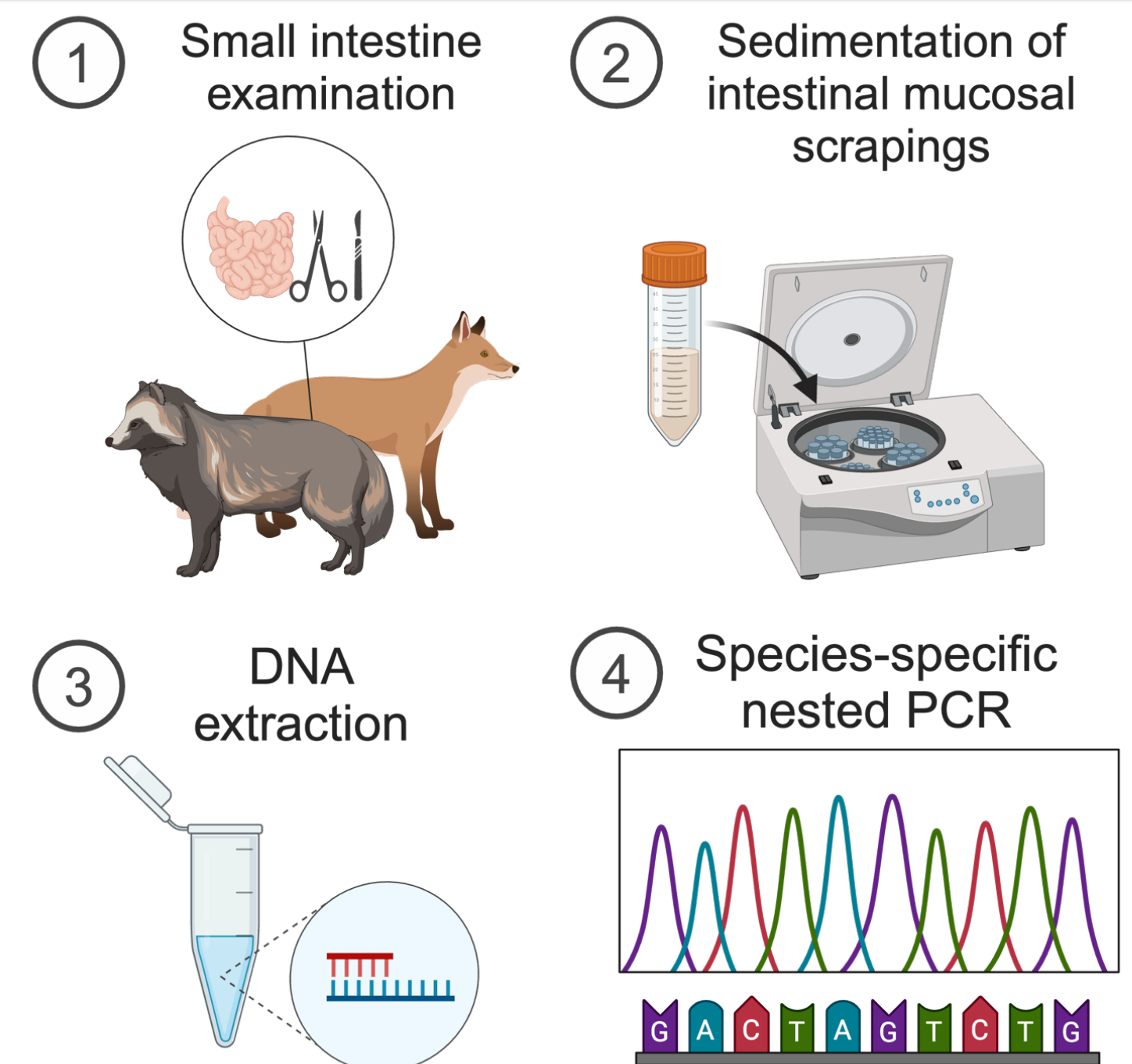
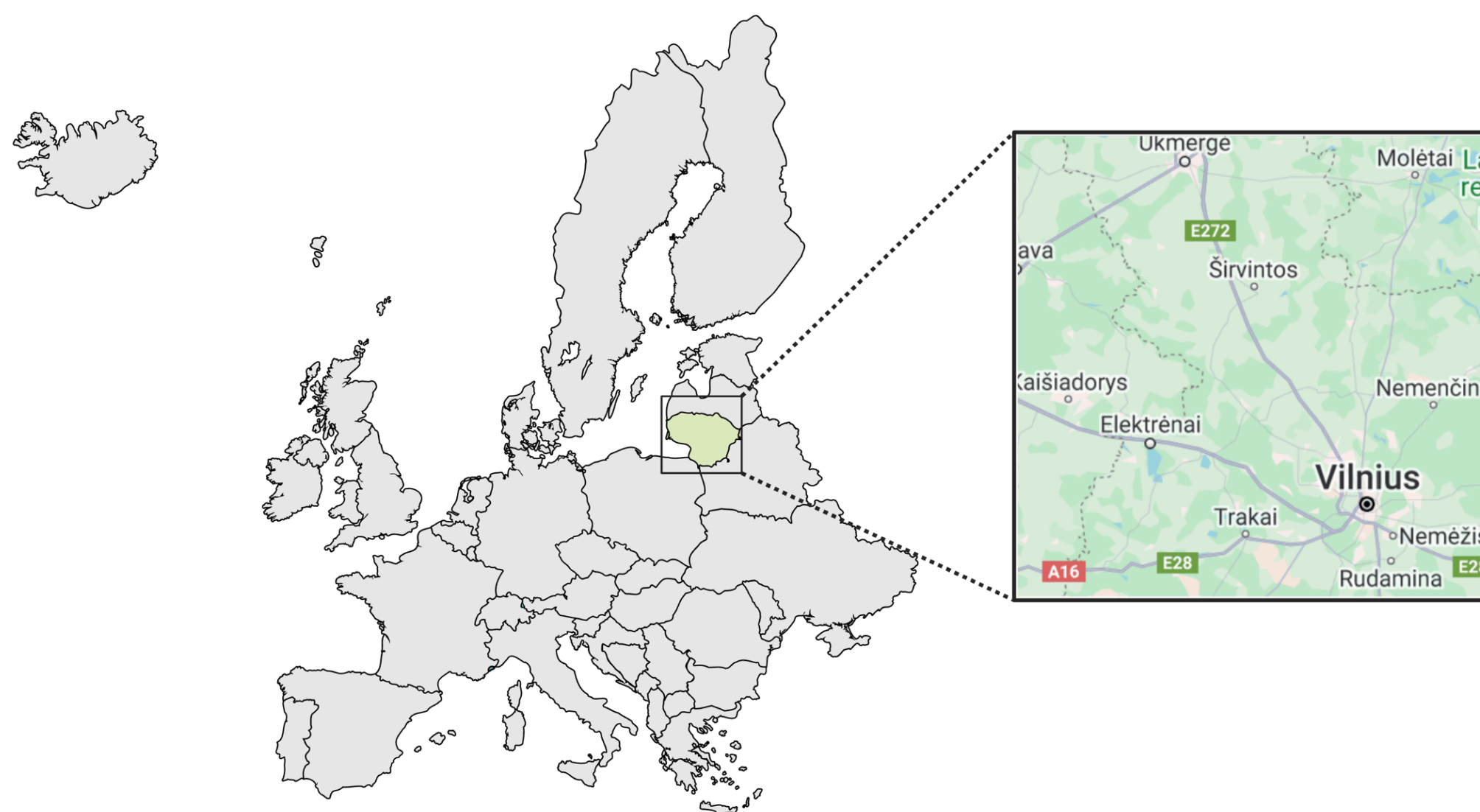
INTRODUCTION & AIM

Sarcocystis are unicellular protozoan parasites that infect various animals through a two-host life cycle, often causing significant economic losses in livestock [1]. Transmission occurs through definitive hosts, primarily predators and scavengers [2]. In Lithuania, the red fox (*Vulpes vulpes*) and raccoon dog (*Nyctereutes procyonoides*) are common wild canids known for their adaptability to different environments [3,4]. However, limited research exists on their role in spreading *Sarcocystis* parasites.

This study aimed to examine the involvement of these canids in the transmission of *Sarcocystis* in Lithuania.

MATERIAL & METHODS

During 2021–2023, intestinal samples were collected from 13 hunted red foxes and 12 raccoon dogs from the south-eastern part of Lithuania.

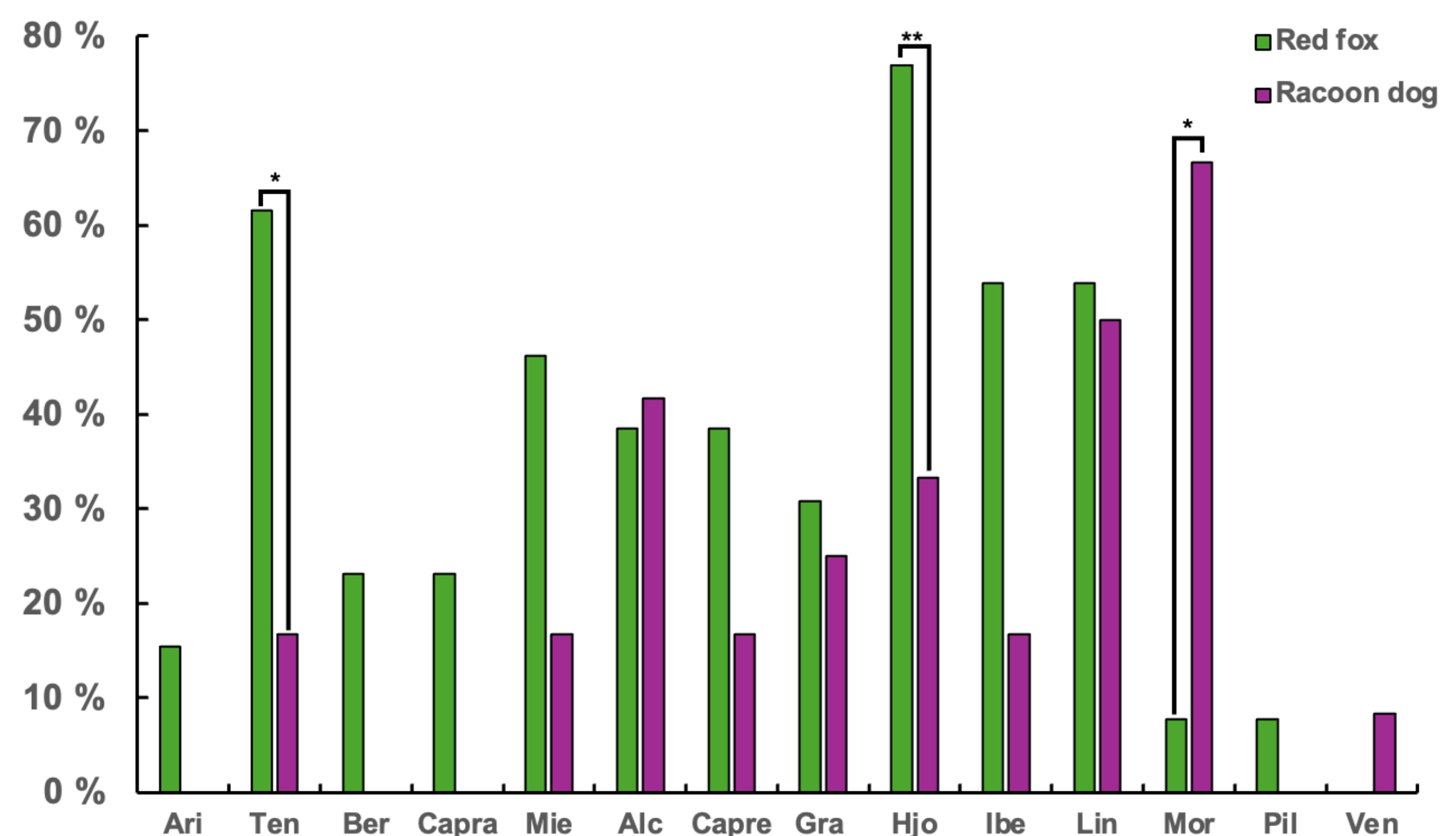


RESULTS

When comparing the overall prevalence of *Sarcocystis* parasites in different definitive hosts, it was observed that red foxes (34.1 %) exhibited a higher prevalence than raccoon dogs (20.8 %).

The predominant *Sarcocystis* species in red foxes were *S. hjorti* (IH: Cervidae) and *S. tenella* (IH: sheep), whereas in raccoon dogs, the most common species were *S. morae* and *S. linearis* (IH: Cervidae).

The preliminary results suggest that red foxes have a higher prevalence of *Sarcocystis* species associated with farm animals compared to raccoon dogs.



CONCLUSION

These findings suggest that red foxes and raccoon dogs play important roles in the transmission of *Sarcocystis* species that impact both farm animals and wild cervids. This highlights their significance in the dynamics of parasite spread. However, additional research is necessary to fully understand the transmission processes and their implications for animal health.

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