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Occurrence of *Fascioloides* sp. in Red Deer (*Cervus elaphus*) from Western Romania

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ABSTRACT

Fascioloides magna is an invasive liver fluke affecting wild and domestic ruminants in Europe. This study investigated the occurrence of *Fascioloides* sp. in 21 red deer (*Cervus elaphus*) from Arad County, western Romania. Morphological examination revealed *Fascioloides* sp. in two animals (9.52%), providing evidence of its occurrence in red deer and highlighting the importance of continued parasitological surveillance of wildlife.

1 INTRODUCTION

- *Fascioloides magna* is an invasive liver fluke of North American origin, affecting wild and domestic ruminants in Europe.
- The red deer (*Cervus elaphus*) is an important definitive host, contributing to the maintenance and spread of the parasite in natural ecosystems.
- Data on *Fascioloides* infection in red deer from Romania remain limited.

AIM

To investigate the occurrence of *Fascioloides* sp. infection in red deer (*Cervus elaphus*) from western Romania.

2 MATERIALS AND METHODS

01
- **Study period:** 2025–2026
- **Samples:** 21 red deer

02
- **Origin:** 9 hunting grounds, Arad County, western Romania

03
- **Biological samples:** liver
- **Diagnostic method:** Macroscopic examination of liver samples for adult trematodes

04
- Recovered trematodes were morphologically identified
- Occurrence and spatial distribution were assessed

3 RESULTS

9.52%
overall occurrence

- *Fascioloides* sp. was identified in 2 of the 21 examined red deer.
- Both positive red deer originated from hunting ground No. 5, Sânpetru Ghedus, Arad County.
- The recovered trematodes were morphologically identified as *Fascioloides* sp.

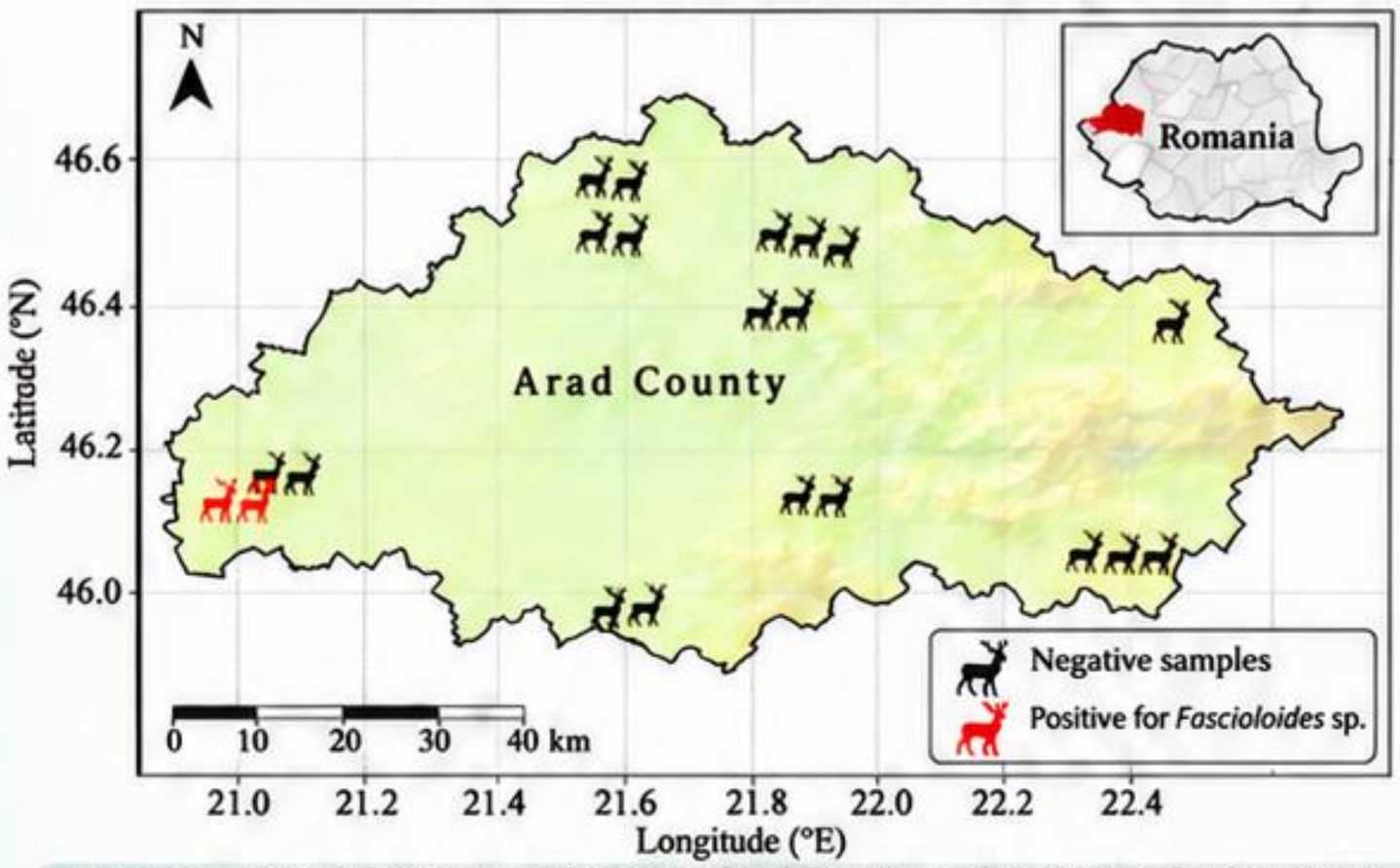


Figure 1. Spatial distribution of examined red deer in Arad County; red silhouettes indicate positive animals, while black silhouettes indicate negative animals

Figure 2. Adult *Fascioloides* sp. recovered from a red deer liver

Figure 3. Stereomicroscopic view of the anterior region of *Fascioloides* sp.

4 CONCLUSIONS

- *Fascioloides* sp. was identified in free-ranging red deer from Arad County, western Romania.
- The occurrence was 2/21 examined animals (9.52%).
- To the best of our knowledge, this is the first report of *Fascioloides* sp. in red deer in Romania.
- Further parasitological and molecular studies are needed to clarify parasite identity and distribution, highlighting the importance of continued parasitological surveillance of wild ruminants in areas suitable for parasite transmission.