

A case report of an uncommon parasitic infection of *Collyriclum faba* in a female Red-backed shrike (*Lanius collurio*) in Hotton (Belgium)

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Introduction

During summer 2022, a wild adult female Red-backed shrike (*Lanius collurio*) was caught during a scientific capture session in Belgium with a large crusted mass within the skin of the cloacal region (**Figure 1**). She presented around 10 vesicles about 5mm of diameter.

It was non obstructive, but she had a poor body condition.

She was transferred in the wildlife rehabilitation center of Hotton (Belgium) for veterinary auscultation. The veterinary decided to bring her at the veterinary faculty of Liège.

Since it was a first case for all the veterinarian team, it was decided to empty the vesicle surgically before treating her with antiparasitic drugs after identification.

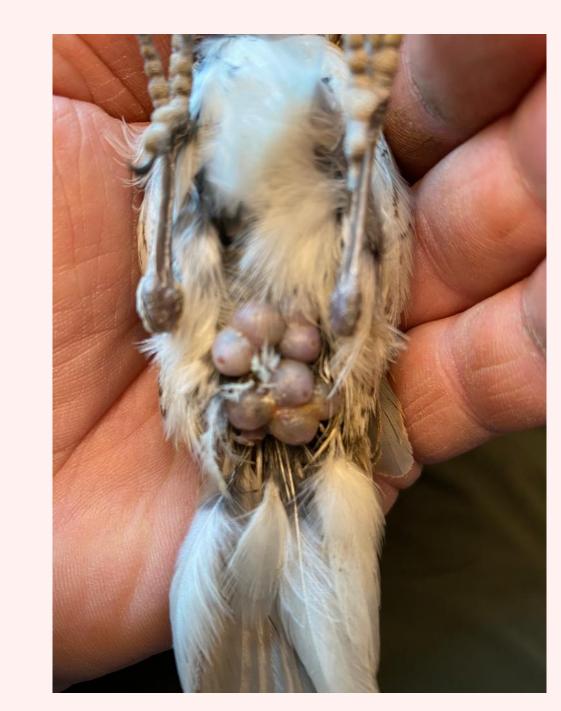


Figure 1: Parasitic vesicles within the skin of the cloacal region.

Materials and methods

Under isoflurane anesthesia, with premedication of 0,2mg/kg intramuscular meloxicam injection, we have carefully opened the vesicles and extracted the parasites. They were in number of one or 2 insides those vesicles. 10 parasites were sampled and kept in 70% ethanol solution for further identification. Pictures were taken under binocular for specific identification (**Figure 2 - 3**). After the procedure, the bird was treated with ivermectine 0,2mg/kg and clorsulon 20mg/kg both subcutaneously injections.



Figure 2: 5 adults Collyriclum faba at zoom x3



Figure 3 : Collyriclum faba, adult at zoom x4

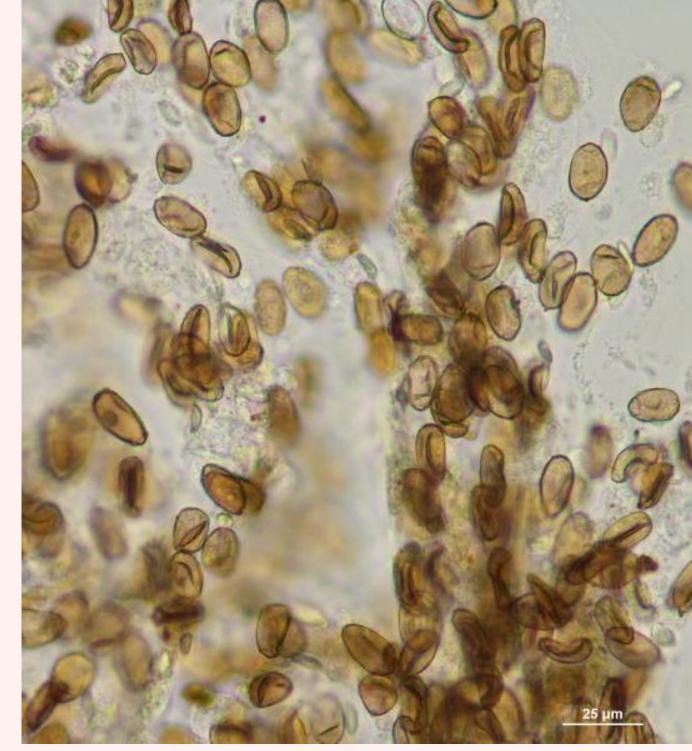


Figure 4: Collyriclum faba, eggs at zoom x6,3

Results

Before the release and antiparasitic treatment of the bird, we identified those parasite as the rarely seen trematode, *Collyriclum faba* (Bremser in Schmalz 1831). The cutaneous monostome trematode is a digenetic flatworm with a hitherto unknown life cycle. The definitive hosts include a broad range of birds; *Erithacus rubecula*, *Sylvia atricapilla*, *Regulus regulus*, *Fringilla coelebs* and *Corvus brachyrhynchos* have been reported the most frequently parasitized species (Petr Heneberg et *al.*, 2015). In its definitive hosts, the passeriform and sporadically some other birds, the adults of *C. faba* occur in pairs in subcutaneous cysts. The cysts are able to develop in less than 13–19 days and may heal spontaneously after a period of several weeks or months. P. Heneberg et *al.* speculate that other species of *Bythinella austriaca* and the closely related genus *Amnicola* may serve as first intermediate hosts in other parts of the distribution range of *C. faba*. Similarly, other *Ephemeroptera* of the family Heptageniidae may serve as the second intermediate hosts of *C. faba*. Dragonflies may also act as intermediate hosts. Eggs (**Figure 4**) seems to be released in water by a cutaneous pore when infested birds are taking a bath. Like other flukes, it has different stadium before it infects his definive hosts as a metacercaria.

Conclusion

The restricted distribution of *B. austriaca* explains the highly focal distribution of *C. faba*, in spite of the broad distribution of its second intermediate and definitive host species (Petr Heneberg et *al.*, 2015). It also explains why this parasite is less seen in Western Europe. The wide range and de migratory habbits within Europe of the Red-backed shrike (*Lanius collurio*) might also explain why this parasite have been found in our country.





