

# First report of *Oestrus ovis* infesting roe deer (*Capreolus capreolus*) in an area with high sympatry between wild and domestic ruminants

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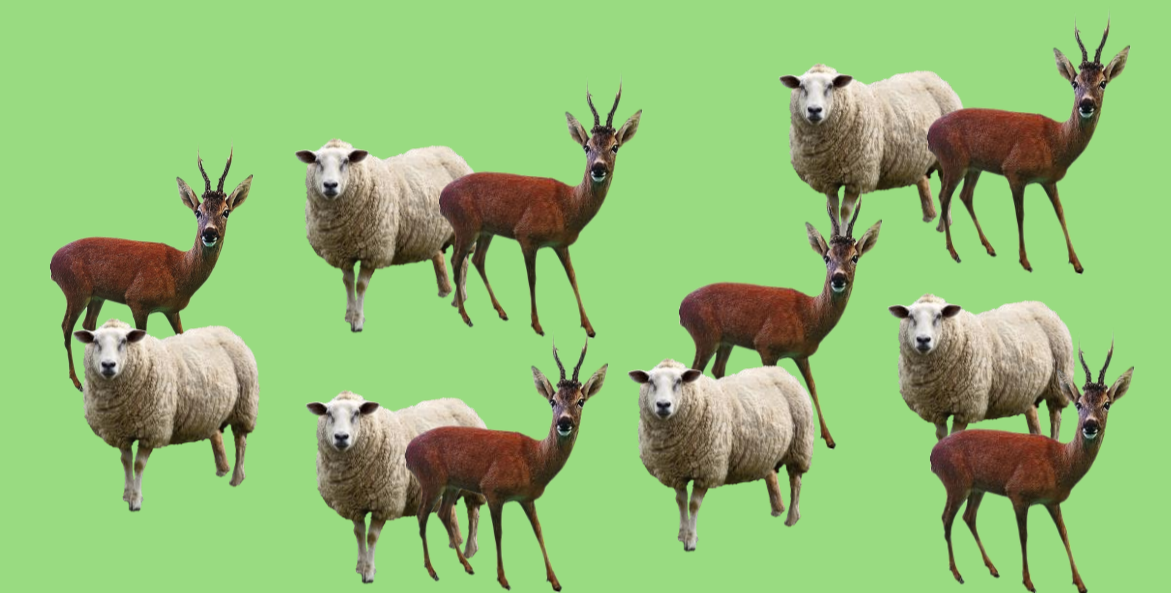
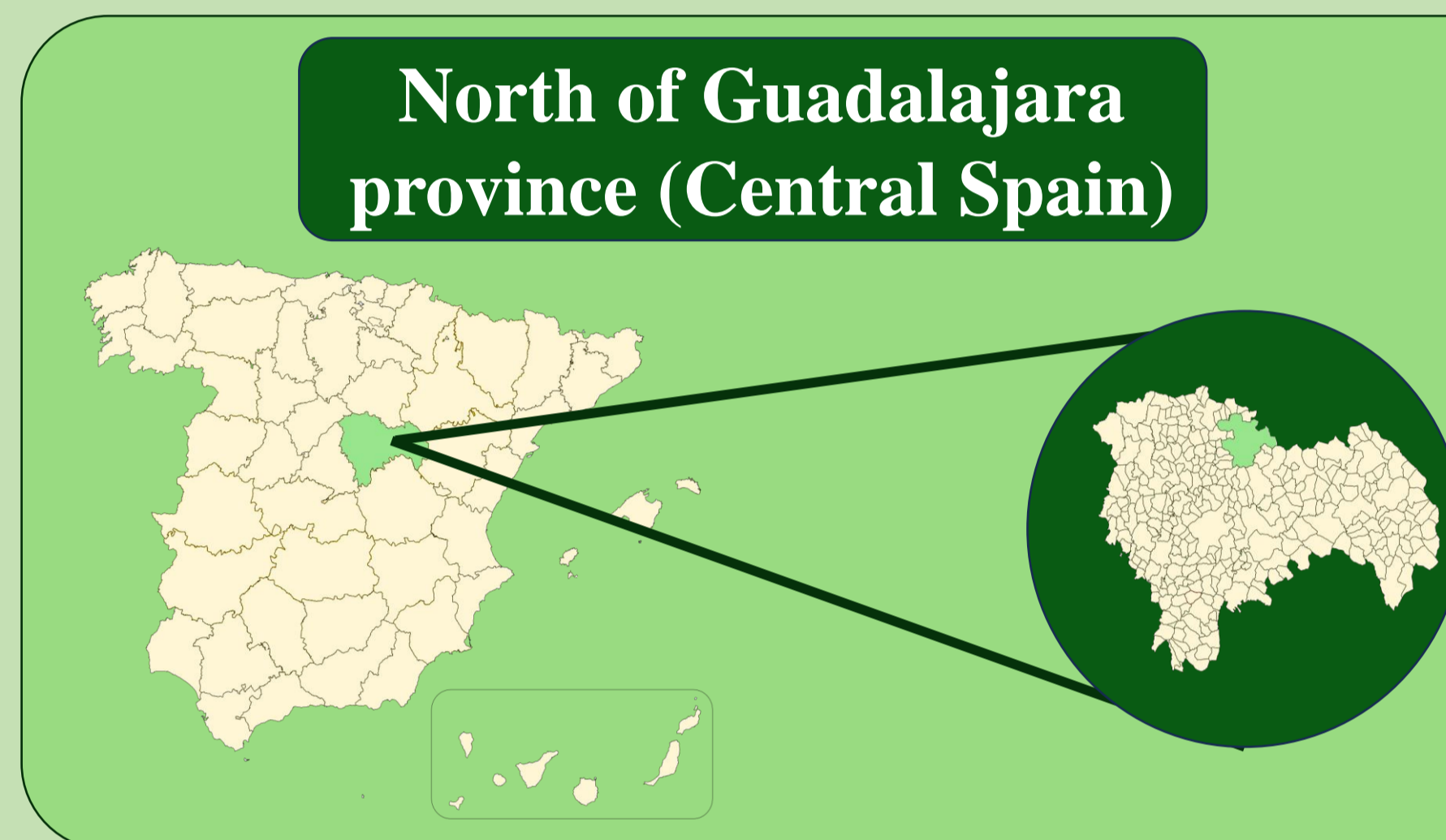
<sup>2</sup> Asociación del Corzo Español (ACE).



## Background and aims

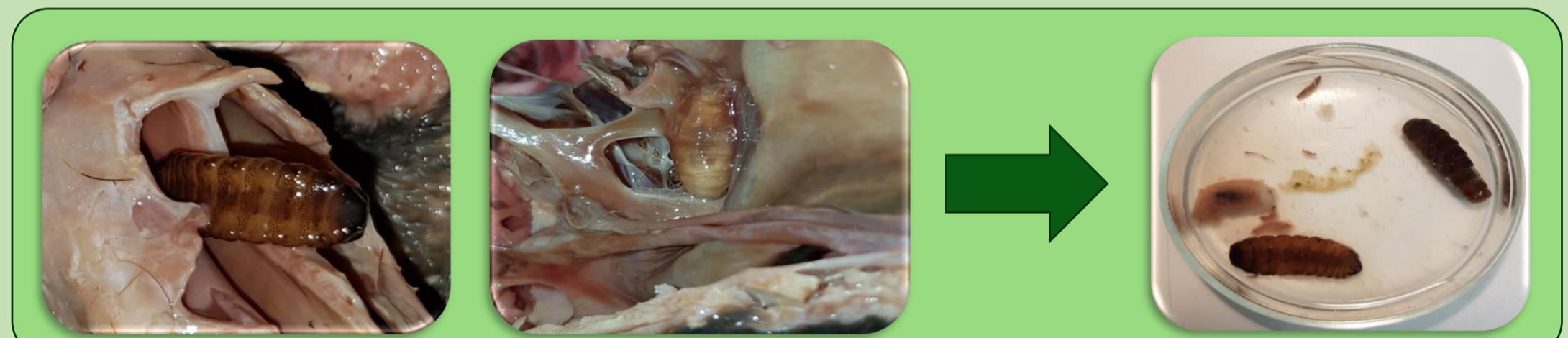
Herein we present the first report of a nasal myiasis by *Oestrus ovis* (Diptera: Oestrinae) in roe deer (*Capreolus capreolus*).

## Methods



High density of sheeps and roe deers coexist

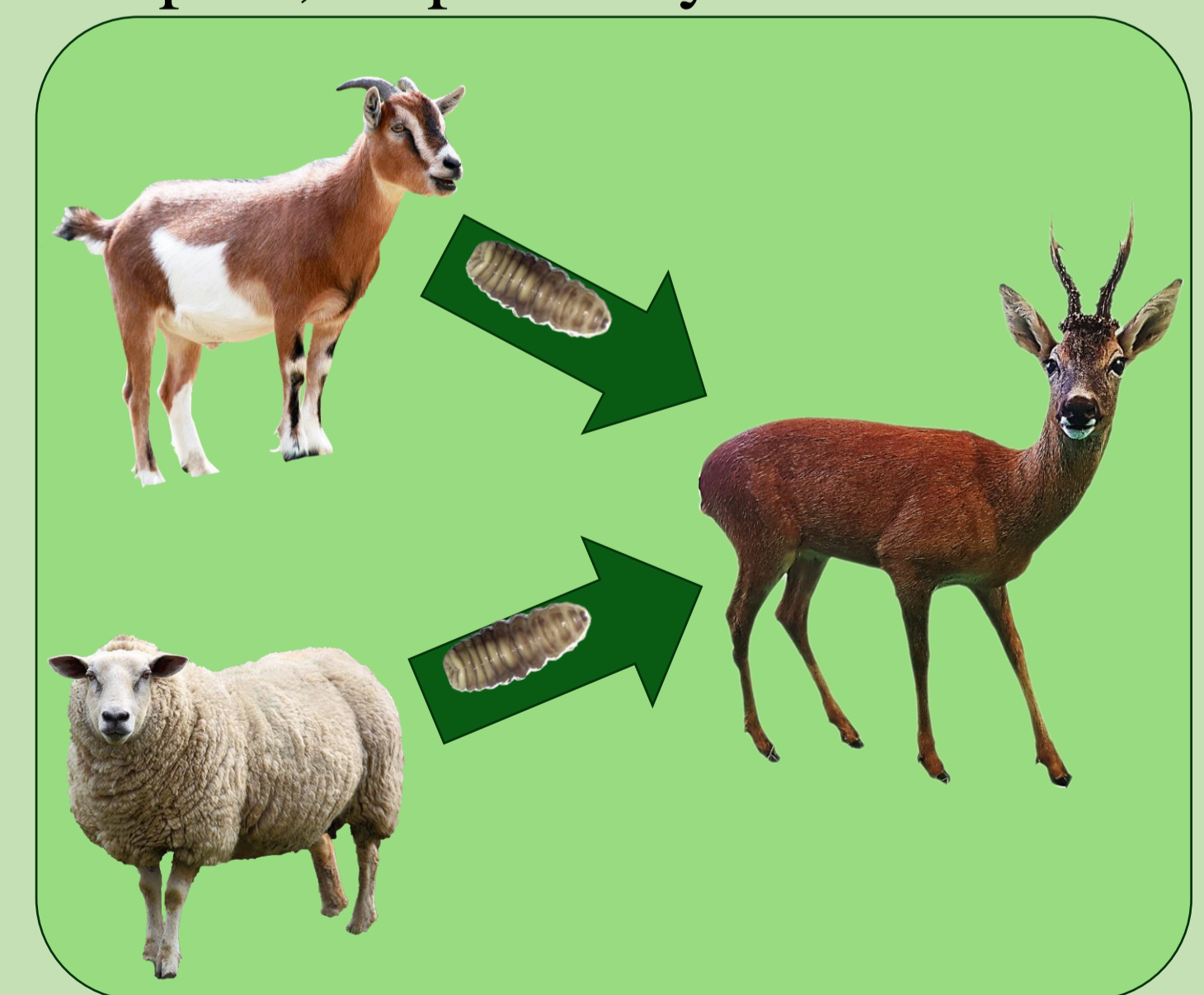
After a careful examination of the nasal cavity, six larvae were recovered and stored into 70% ethanol for further morphological and molecular identification.



## Results and discussion

All the larvae were morphologically identified as different larval stages (one L-1, two L-2 and three L-3) of *Oestrus ovis*. The *cox1* gene partial sequence analysis showed a 99.53% identity when compared to the deposited sequences KP974906.1, KP974869.1 and KP974836.1 of *O. ovis* parasitizing European mouflon, sheep, and goat from Spain, respectively.

*Oestrus ovis* is highly prevalent in sheep and goats from Spain. The presence of high roe deer populations sharing habitat with sheep flocks in northern Guadalajara may have increased the risk of cross-infection. Moreover, the presence of mature L-3 suggests that *O. ovis* could complete their life cycle in the roe deer. Traditionally, oestrids have been considered strongly host specific but it has been recently demonstrated that this specificity mostly relies on the host availability, so changes in the distribution pattern of different hosts may favoured sympatry between them, thus leading appearance of cross-infections.



## Conclusions

This report highlights the importance of monitoring oestrosis not only in sheep and goats but also in sympatric wild ruminants, since the latter may contribute to the maintenance of this myiasis in small ruminant flocks despite effective chemoprophylactic measures.