

# *Lipoptena fortisetosa* (Diptera: Hippoboscidae) in a Red Deer in the Center of Portugal

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- ❑ **Deer keds** (Insecta: Diptera: Hippoboscidae: *Lipoptena* spp.) are **haematophagous ectoparasites** of wild as well as domestic animals, being most often associated with cervids, but also can infest Bovidae (cattle, goats, chamois, mouflon, antelopes, etc.), and occasionally humans.
- ❑ Upon finding a suitable mammal host, **deer keds shed their wings**, remaining in a **wingless form** for the rest of their life.  
 These flies are viviparous species and they generate a larvae that falls to the ground and pupates.
- ❑ In **severe infestations**, these ectoparasites can be responsible for dermatitis, allergic rhinoconjunctivitis, and in extreme cases, anaphylactic shock when they bite humans. They also **potential vectors** of several pathogens such as *Babesia* spp., *Theileria* spp., *Bartonella* spp., *Coxiella* spp. and *Anaplasma* spp.
- ❑ Of over 30 species of *Lipoptena* insects worldwide, two of the six known species in Europe, *Lipoptena cervi* along with *L. fortisetosa*, are known to have a relatively wide distribution.



This new finding may represent a **new challenge to the epidemiology of this species in Portugal**, and to the health of its wide range hosts, particularly because it can **transmit several disease-causing pathogens to animals**, as well as to **humans**. Further investigations are worthy of attention on *Lipoptena* species, in Portugal, with a **One Health** perspective.

- ✓ We report for the first time, the presence of *L. fortisetosa* in a **red deer** (*Cervus elaphus*) in Castelo Branco district, in the **Center of Portugal**.
- ✓ There are pertinent **morphological differences** between the two species, that must be taken in account to facilitate their accurate identification, among others, the external features of the head and antennae, features on the thorax, number and distribution of bristles, and in the external genitalia.

