

Family : Hippoboscidae

Genus : Hippobosca

Morphology, bionomics, life cycle,
pathogenesis & control.

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Hippobosca : Introduction

Common name : Forest flies .

Host : All types of domesticated animals like ruminants, dog etc.

Species :

Hippobosca equina ,

Hippobosca maculata.

Hippobosca : Morphology

- They are pale reddish brown in colour with yellow spots on body.
- They are larviparous.
- The wings are slightly opaque and brownish in colour. • —————
- The wings are having dark highly-chitinised veins stand out prominently.
- *Hippobosca equina* measures about 9 mm.



Hippobosca equina

Hippobosca : Life cycle

- The adult flies attack horses and cattle to suck blood.
 - The larva deposited on the sheltered spot.
 - Pupation occurs immediately.
 - They cluster in the perineal region .
 - In favourable environmental condition they attain sexual maturity.
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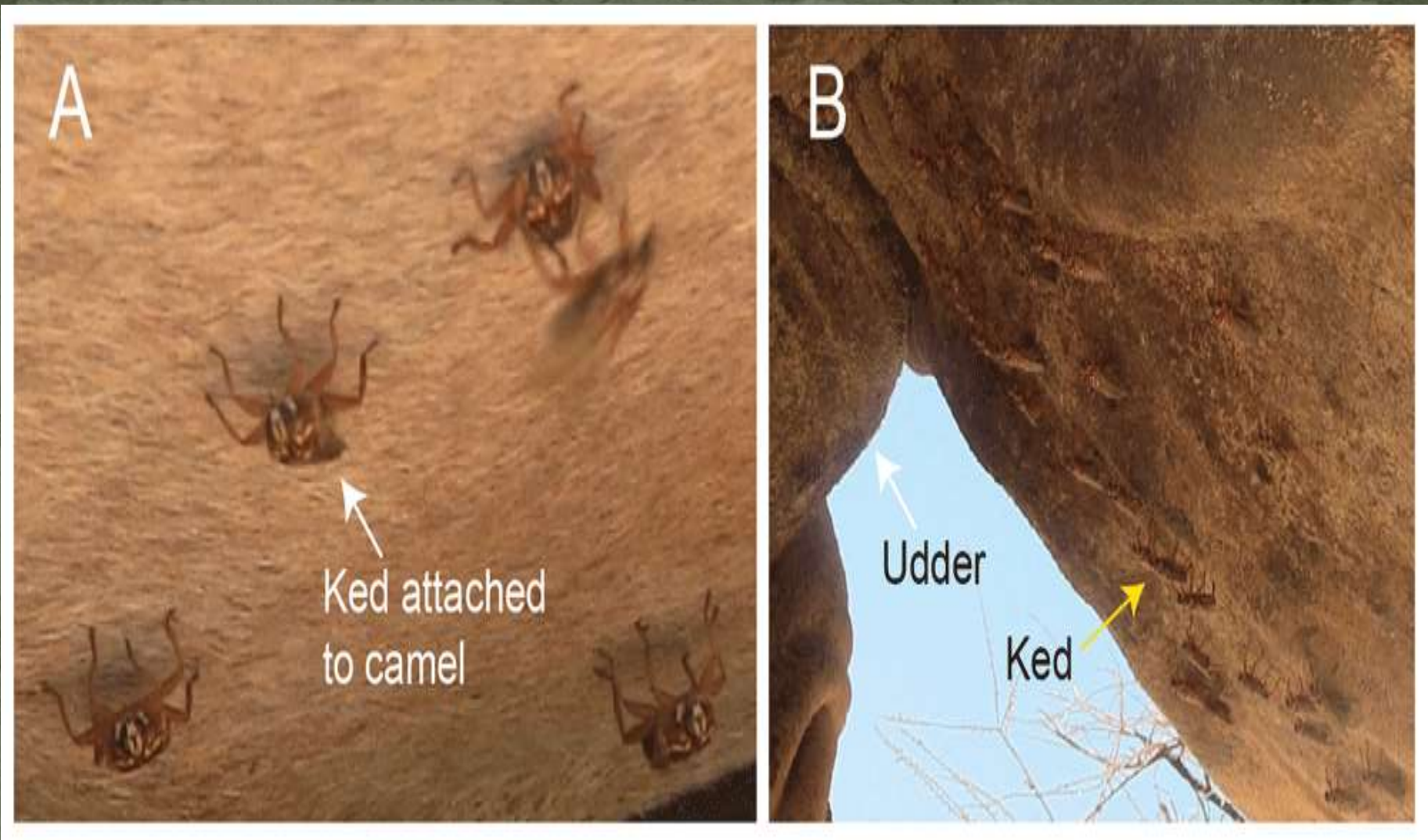
Hippobosca spp. (Forest fly)



Hippbosca : Life cycle

Hippobosca : Pathogenesis

- They are frequently active in summer specially during sunny weather.
- They are responsible for transmission of non-pathogenic *Trypanosoma theileria* to cattle and also transmits *Haemoproteus* spp.
- These flies are source of great irritation to the animals .



Hippbosca : Pathogenesis

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Family : Hippoboscidae

Genus : Melophagus

Common name : Sheep ked.

Host : Sheep.

Species : *Melophagus ovinus*.

Melophagus : Morphology

- They are permanent parasite.
- The body is wingless and leathery.
- The thorax is brown and abdomen is grayish in colour.
- The legs are strong and armed with stout claws.
- They are active during autumn and winter .
- Spread occur from sheep to sheep by contact.



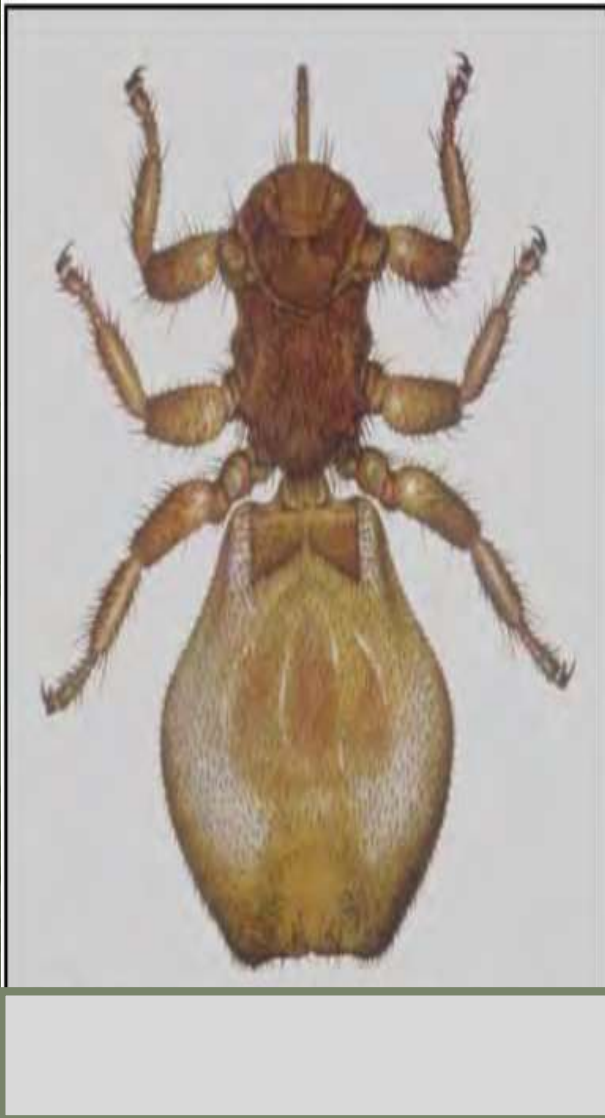
Malophagus ovinus

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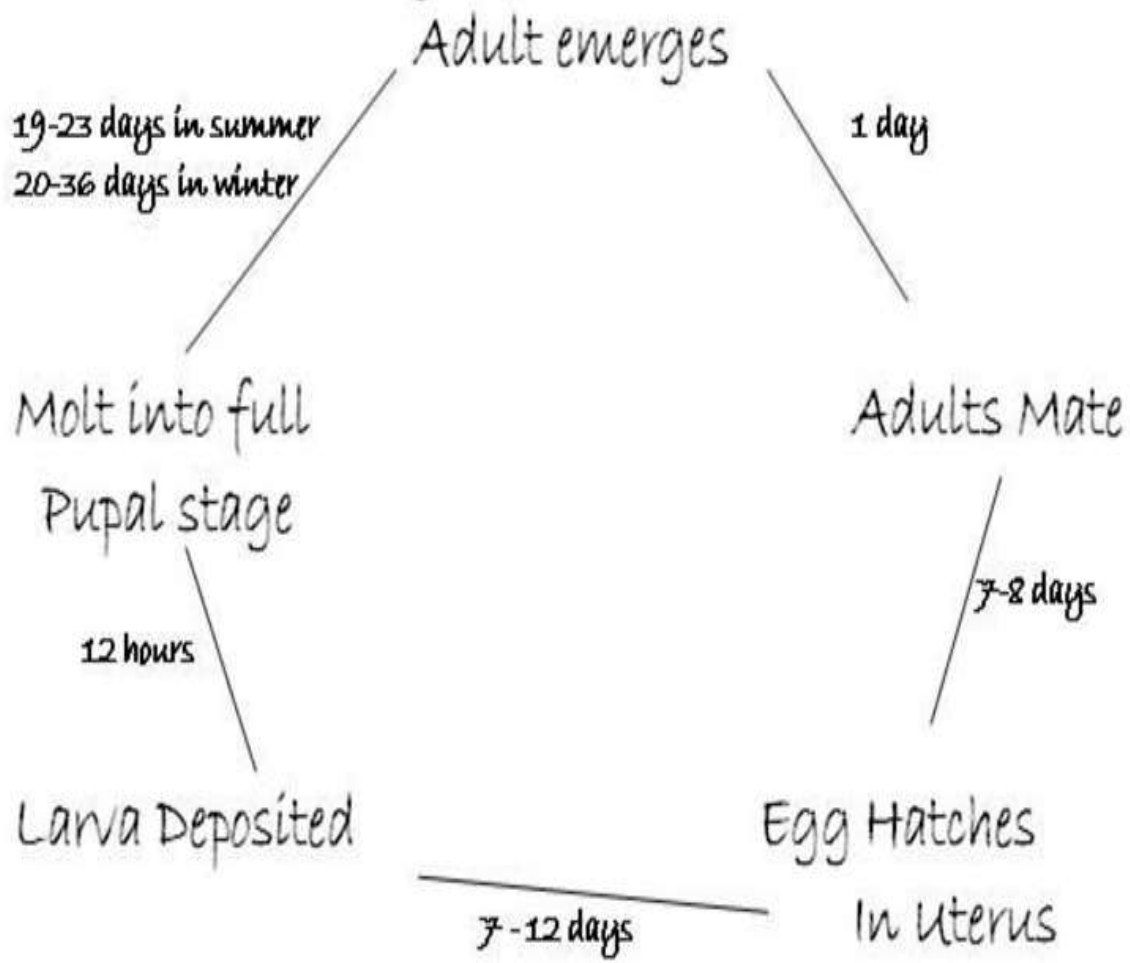
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Melophagus : Life cycle

- The female flies attaches its larva to the wool of the sheep.
- The larva is immobile and ovoid, which is soon turns to coloured pupa.
- The pupal stage longer in winter and shorter in summer.
- The adult flies emerges after completion of pupal stage.
- Copulation occurs, female produce 10-15 larvae.



Life Cycle of Sheep Ked



Malophagus : Life cycle

Melophagus : Pathogenesis

- The parasite live in the wool of the sheep and suck blood.
 - The continuous blood sucking leads to anaemia.
 - They produce intense irritation.
 - The fleece of the ked produce stains in the wool.
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- The keds transmits the non-pathogenic *Trypanosoma melophagium*.



Mallophagus in wool

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Mallophagus in wool

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SOURCE- GOOGLE

Melophagus : Control

- The sheep keds population reduced by shearing.
 - ‘Tip shearing’ is an effective method for control.
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