

216 Task 3 Ectoparasites in animals

The difference between insects and arachnids

Insects - possess 3 pairs of legs and have a body divided into 3 segments (head, thorax and abdomen).

Arachnids - possess 4 pairs of legs and have a body divided in 2 segments (cephalothorax and abdomen).

Three insects that commonly infest domestic animals

1. Dipteran fly larvae
2. Fleas (*Ctenocephalides* Spp.)
3. Lice

The name given to parasitism by dipteran fly larvae (the maggots of blue- black- and green-bottles) is **Myiasis** commonly known as **fly-strike** or **fly-blown**. Rabbits are most commonly affected by myiasis (fly-strike).

Fleas

How to check for fleas

- Use the damp cotton wool test - sit the animal on a sheet of white paper and rub its coat vigorously. Collect sample from sheet of paper, remove any hair present and transfer to damp cotton wool.
- Any flea faeces present will stain the cotton wool red/brown.
- Even if adult fleas are not found on the animal, the presence of flea faeces indicates a household infestation.

Conditions associated with flea infestation

- Flea allergic dermatitis (FAD) / miliary dermatitis
- *Haemobartonella felis*

Lice

The correct term for louse infestation is 'Pediculosis'.

The two species of louse are:

- Biting louse (*Trichodectes canis*/*Felicola subrostratus*).
- Sucking louse (*Linognathus setosus*).

The characteristics of lice are:

- Highly host specific.
- Have no larval stage.
- Young or debilitated animals are worst affected.
- Infection is transmitted by close contact (lice spend their entire life cycle on the host).
- Life cycle is 2-3 weeks.
- Cause irritation, self inflicted dermatitis and in severe cases - anaemia.
- Louse eggs are also known as 'Nits'.

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Differences between the biting louse and sucking louse

- The biting louse is more yellow than the sucking louse which tends to be grey or reddish in colour.
- The biting louse has a rounded head whilst that of the sucking louse is more elongated.
- The biting louse has mandibular mouth parts whilst the sucking louse has piercing mouth parts.

Ticks

The most common species of tick is **Ixodes ricinus** (the sheep tick).
Lyme disease is associated with tick infestation.

How ticks should be removed

- Use an effective insecticide and either wait for the ticks to die and drop off of their own accord or use a tick hook.
- Care must always be taken to avoid leaving the mouth parts embedded in the skin since this may cause infection.

Mites

The two main groups of mites:

- Burrowing mites
- Surface mites

The four main types of burrowing mite seen in domestic animals:

- *Sarcoptes scabiei* (mainly affects dogs, but occasionally cats).
- *Notoedres* sp. (mainly affects cats but also seen in dogs and rats).
- *Cnemidocoptes* spp.
- *Demodex*.

The name of the burrowing mite responsible for causing "scaly face/leg" in birds is known as **Cnemidocoptes**.

The name of the burrowing mite found in the guinea pig is known as **Trixacarus caviae**.

The four main types of surface mite seen in domestic animals are:

- *Otodectes cynotis* - the ear mite.
- *Cheyletiella* - the "walking dandruff mite".
- *Trombicula autumnalis* - the harvest mite.
- *Dermanyssus* - the red mite.

Chickens are most commonly affected by **Dermanyssus mites?**

<https://www.vetnurse.co.uk/nursing/w/vet-nurse-revision-2/628/common-ectoparasites-answers>

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KNOWLEDGE QUESTIONS

1. What is the difference between insects and arachnids?
2. What are three insects that commonly infest domestic animals?
3. What is Myiasis commonly known as?
4. How can you check for fleas?
5. What is the correct term for louse infestation?
6. Give three characteristics of lice:
7. Give one difference between the biting louse and the sucking louse:
8. What is another name for the tick '*Ixodes ricinus*'?
9. How should ticks be removed?
10. What is the name of the burrowing mite found in Guinea Pigs?
11. What mites are chickens most commonly affected by?