VMP 930
Veterinary Parasitology

Lice
Lice

- Dorso-ventrally flattened
- Simple metamorphosis
  - Young look similar to adults
- Entire life cycle spent on host
  - Very host specific
**Lice Groups**

**MALLOPHAGAN LICE**

*Chewing Lice*

- Broad head to accommodate chewing mouth parts
  - Mandibles & Muscles
- Feed on fur, feathers, epidermal debris.
- Birds and Mammals

**ANOPLURAN LICE**

*Sucking lice*

- Narrow head w/ piercing / sucking mouth parts
- Feed entirely on blood.
- Mammals only
Lice - Life Cycle

- Eggs (nits) are cemented to hair or feathers
- Hatch in approximately 8-18 days
- Go through a series of nymph stages becoming adults in approximately 18 days - 3 weeks
- Spread via close contact or fomites
Trichodectes canis

All Stages occur on the Host’s Integument

Transmission to Other Hosts via Direct Contact or Infested Grooming Tools

Eggs (Nits) attached to Hair

Adults

Nymphs
Mallophagan (Chewing) Lice

Pathology

- Feed on fur, feathers, & epidermal debris
- Irritation
  - Restless, stressed animals
  - Bite / scratch => skin, fur, wool, feather damage
- Decrease productivity
  - Egg and milk production decline.
  - Decreased Feed conversion.
Some Mallophagans

- *Damalinia (Bovicola) spp.*
  - cattle, horses, sheep
- *Trichodectes canis*
  - dog (intermediate host for Dipylidium)
- *Felicola subrostratus*
  - (only louse of cats)
- *Menopon gallinae*
  - poultry
Mallophagan (Chewing) Lice

Ex. *Trichodectes canis*, *Felicola subrostratus*, *Bovicola bovis*
Anopluran (Sucking) Lice

Pathology

- Feed on Blood
  - Anemia
  - Staining of wool
- Irritation
  - Restless, stressed animals
  - Bite / scratch => skin, fur, wool, feather damage
  - Decrease productivity
Some Anoplurans of domestic animals

Cattle

- *Haematopinus eurysternus*
  - short-nosed cattle louse
- *Linognathes vituli*
  - long-nosed cattle louse
- *Solenopotes capillatus*
  - Little blue cattle louse
Some Anoplurans of domestic animals

Horse
- *Haematopinus asini*

Pig
- *Haematopinus suis*
  - only louse of pigs

Dog
- *Linognathus setosus*
Anopluran (Sucking) Lice

Ex. *Haematopinus, Linognathus, Solenopotes*
Diagnosis of Lice

- Observe lice, nits
- Soiling of coat with lice feces
- Usually a problem under crowded conditions, heavy winter coat
  - most often observed Winter & early Spring
- Evidence of Irritation
  - Scratching
  - hair or feather loss
Treatment of Lice

- Topical insecticides
  - sprays or dips
  - chewing or sucking lice
  - Treat twice at 7 to 14 day intervals (Why?)
    - Insecticides don’t kill nits

- Systemic insecticides
  - sucking lice only
Human Anoplurans

- *Pediculus humanus capitis*
  - Human head louse
  - Nits on hair shaft
Human Anoplurans

- *P. humanus humanus*
  - body louse of man
  - Eggs deposited in clothing (not cemented on hair)
  - *Rickettsia powazekii* (epidemic typhus)
Human Anoplurans

- Phthirus pubis
  - Human crab louse
  - STD (blamed on dog)