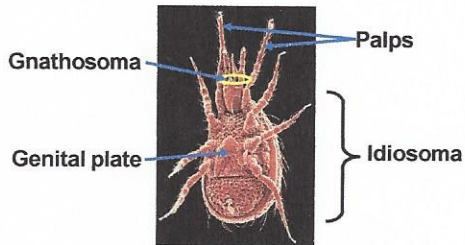


Mites

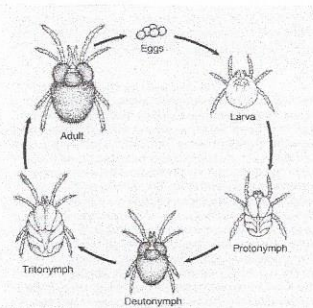
- 250 species that cause med/vet problems
- Four orders
 - Mesostigmata
 - Prostigmata
 - Astigmata
 - Oribatida
- Ectoparasites of skin, scales, feathers, fur, body cavities, respiratory passages



Adult Mite Morphology



Mite Life History



Med/Vet Importance

- Dermatitis
- Skin Invasion
- Allergies
- Fear



Mite-Induced Dermatitis

Chicken or red poultry mite



- Associated with poultry houses, nesting birds around dwellings
- All stages, except larvae, feed on blood
- Chronic infestations cause skin irritation, loss of vigor, reduced egg production
- Dusts and sprays for birds, bedding and buildings

Mite-Induced Dermatitis

Trombiculid mites – chiggers

- Normal hosts: amphibians, birds, mammals, humans incidental hosts
- Attach and feed on skin cells, lymph
- Lesions persist for days
- Repellents, bathing, lotions to relieve itching



Skin-Invading mites

Mange mites

- Skin parasites, live in hair follicles and glands of domestic and wild animals.

Demodectic mange

- Dog follicle mite, *Demodex canis*
- Infestations around eyes, hair loss
- Dogs < 1 year old, rarely in cats
- Most cases are self-limiting, generally life-long immunity
- Mitaban (amitraz), ivermectin, milbemycin prescript only



FIGURE 23.42 Demodectic mange in dog caused by *Demodex canis*

Skin-Invading Mites

- Human follicle mite *Demodex folliculorum*
- Occur in hair follicles and sebaceous glands
- 90-100% of us have follicle mites
- Occur in regions of forehead, eyelids, nose
- Rarely cause clinical symptoms

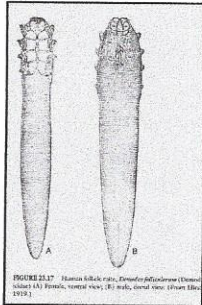


FIGURE 23.17 Human follicle mite, *Demodex folliculorum* (Damon & Wilson 1951; Demodex, ventral view; B) male, dorsal view. (Damon 1951)

Skin-Invading Mites

Sarcoptic mange – *Sarcoptes scabiei*

- ♀ mites burrow into epidermis
- Host response occurs ~3 weeks after infestation; spreads quickly
- Dermatitis, hair loss, lesions, crusting



Skin-Invading Mites

Psoroptic mange - scab mites

- Domestic livestock, wildlife, companion animals
- Feed on lymph, blood, serous fluids
- Heavy crusting, scab formation, hair/wool loss in cattle and sheep



Skin-Invading Mites

Chorioptic scab mites, *Chorioptes bovis*

- Foot or leg mange
- Domestic livestock – cattle, sheep, horses, goats
- Infested animals usually asymptomatic



Mite-Induced Allergies

House-dust mites

- Primary source of house-dust allergies
- Thrive where RH >65-70%; <50% survive 6-11 days; desiccation-resistant protonymph
- Populations increase in summer, remain constant during winter
- Feed on skin flakes, hair, detritus
- Greatest in humid living quarters wherever dust accumulates
- 5000 mites/g of mattress dust; 10,000 per pillow

House-dust Mite