

Hemimetabolous Exopterygota

Neoptera (new wing)

Hemipteroid orders

- Psocoptera- book lice*
- Pthiraptera- Wingless lice*
 - Suborder Mallophaga – chewing lice
 - Suborder Anoplura – sucking lice
- Thysanoptera – thrips*
- Hemiptera – True bugs*
 - Suborder Heteroptera –plant and predaceous bugs
 - Suborder Homoptera- leaf hoppers, aphids cicadas and more

*= commonly encountered or problematic in ornamental systems.

Hemipteroid Neopterous Exopterygota

- Psocoptera- Book lice
- Pthiraptera- Wingless lice
- Thysanoptera - Thrips
- Hemiptera – True bugs

Psocoptera- Barklice and Booklice



Psocoptera Web in Lake Tawakoni Texas Summer 2007



Pthiraptera- Wingless Lice

Two Suborders

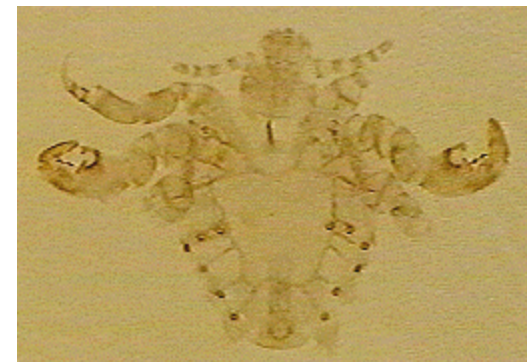
- * Mallophaga -chewing lice
- * Anoplura - sucking lice

Sucking Lice (Anoplura)

2 obligate human parasites

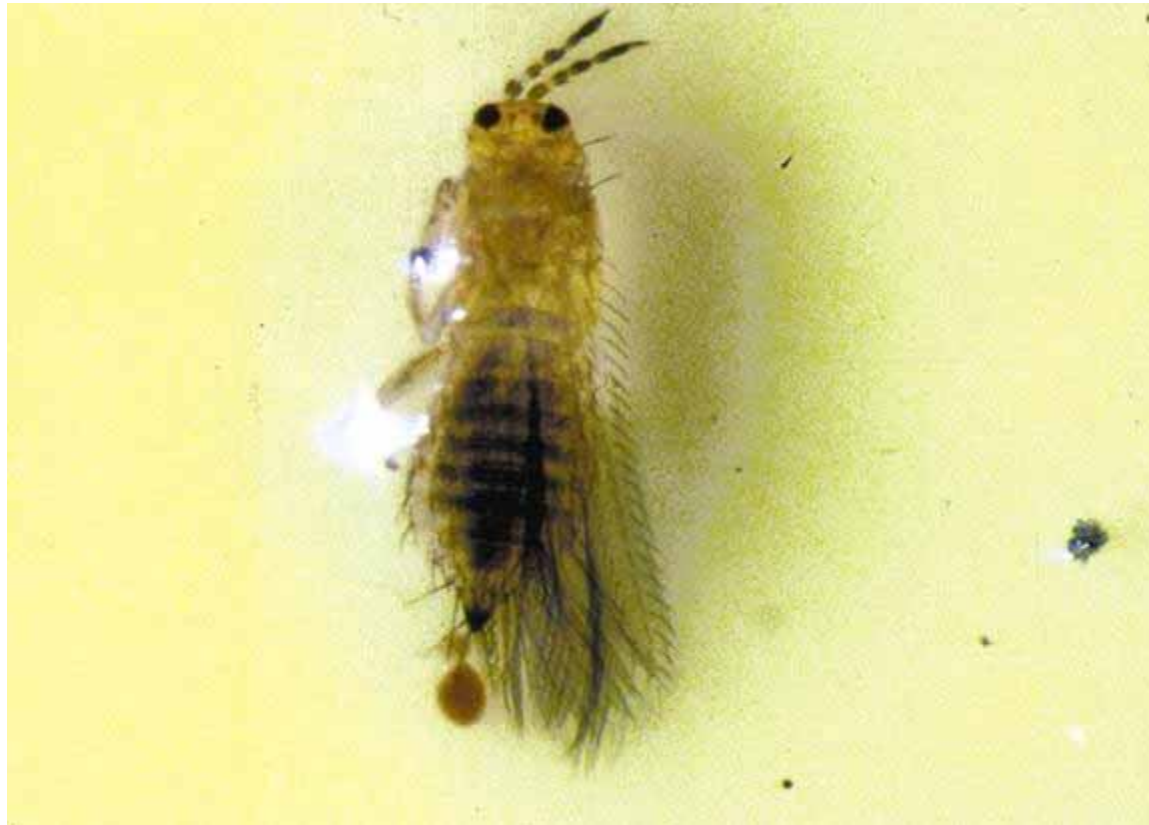


Head, or body louse



Pubic louse

Thysanoptera - Thrips



Just like a deer,
there's no singular here



Hemiptera (True Bugs)

Suborders:

- Heteroptera- Plant and predaceous bugs
- Homoptera -Aphids, scales, cicadas,etc

Heteroptera



Heteroptera



Heteroptera

Homoptera

Homoptera



Holometabolus Endopterygota

Neuroptera -- Lacewings, antlions, *

Coleoptera-- Beetles*

Diptera -- true flies *

Mecoptera -- scorpionflies

Siphonaptera -- fleas

Trichoptera -- caddisflies

Lepidoptera -- butterflies and moths*

Hymenoptera—ants, wasps, and bees*

* of ornamental importance or interest

Neuroptera (Lacewings and others)



Neuroptera (Lacewings and others)



Coleoptera - Beetles



Diptera - True Flies



Siphonaptera - Fleas



Lepidoptera - Butterflies and Moths



Hymenoptera - Ants, Wasps, and Bees

