

EXOPTERYGOTAN ORDERS- 5

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15. THYSANOPTERA

Synonyms: Physopoda

Etymology: Thysano - fringe; ptera - wings

Common name: Thrips.



Characters

- They are minute, slender, soft bodied insects. Mouthparts are rasping and sucking. Mouth cone is formed by the labrum and labium together with basal segments of maxillae.
- There are three stylets derived from two maxillae and left mandibles. Right mandible is absent. Hence mouthparts are asymmetrical.
- Wings are either absent or long, narrow and fringed with hairs which increase the surface area.
- They are weak fliers and passive flight in wind is common.
- Tarsus is with one or two segments.
- At the apex of each tarsus a protrusible vesicle is present.
- Abdomen is often pointed. An appendicular ovipositor may be present or absent.
- Nymphal stage is followed by prepupal and pupal stages which are analogous to the pupae of endopterygote insects.





Classification

This order is subdivided into two suborders.

1. Terebrantia: Female with an appendicular ovipositor.

Abdomen end is not tube like.

Wing venation is present.

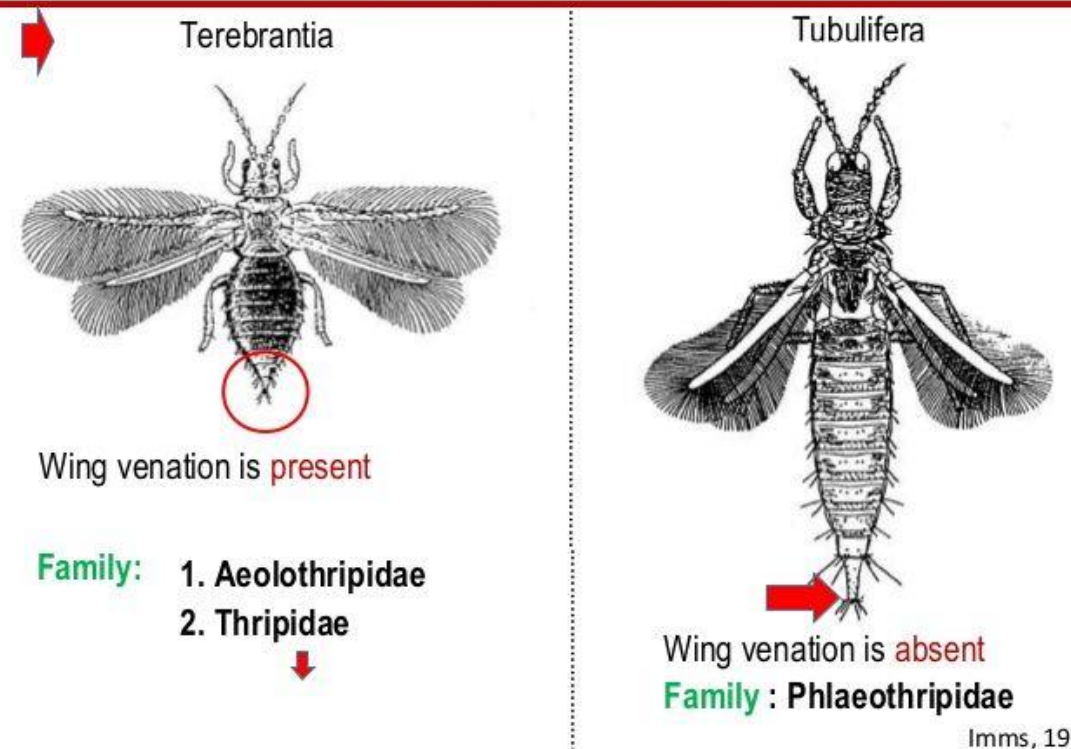
Important family is Thripidae

2. Tubulifera: Ovipositor is absent.

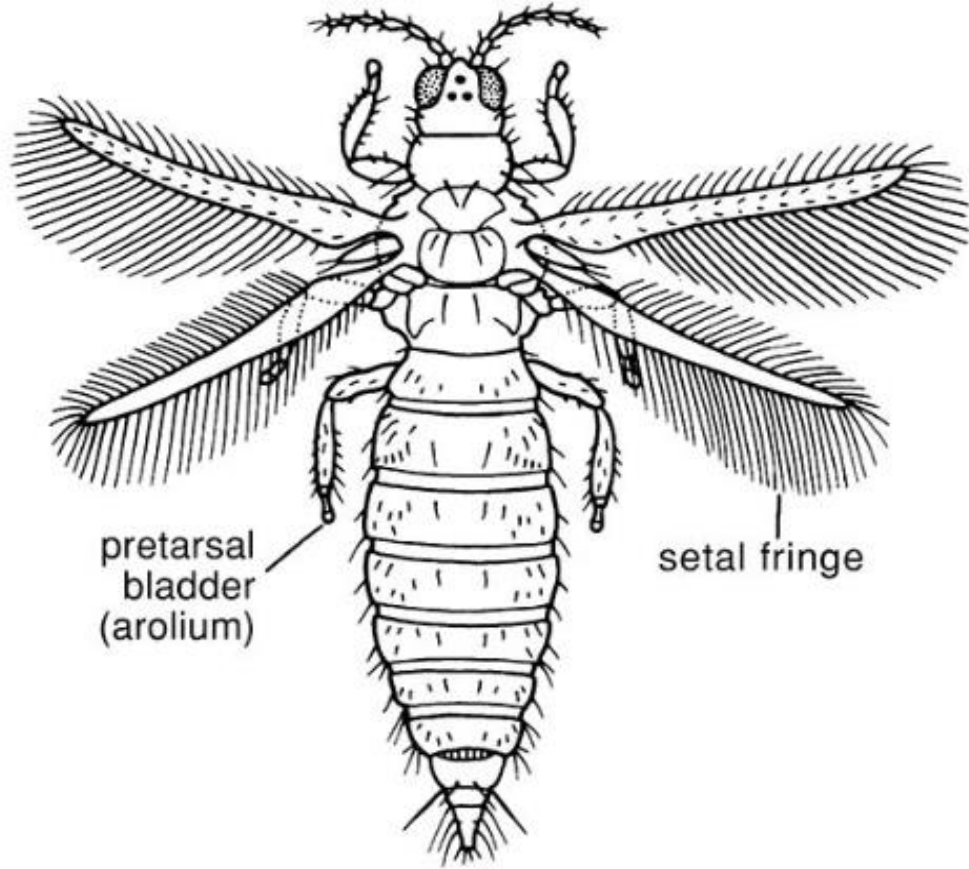
The abdomen end is tubular.

Wing venation is absent.

MAJOR GROUPS OF THRIPS



A slide-mounted thrips

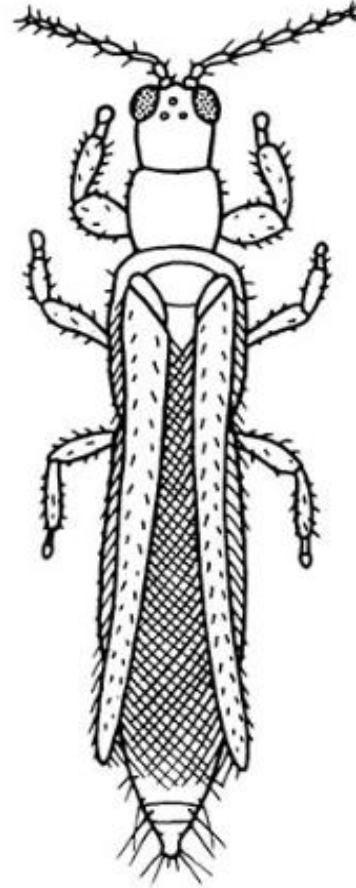


pretarsal
bladder
(arolium)

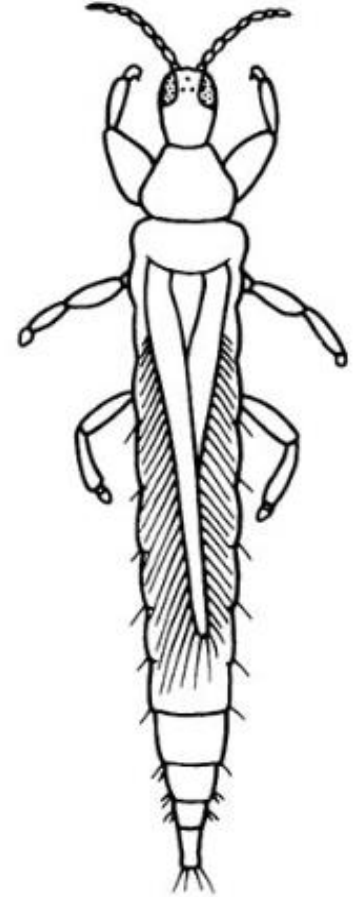
setal fringe

Terebrantia:
Thripidae

Living thrips, at rest



Terebrantia:
Thripidae



Tubulifera:
Phlaeothripidae

Importance

- Most of the thrips species belong to the family Thripidae and are phytophagous.
- They suck the plant sap.
- Some are vectors of plant diseases.
- Few are predators.
- e.g. **Rice thrips: *Stenchaetothrips biformis* is a pest in rice nursery.**



16. ZORAPTERA

Common name: Zorapterans





Characters

- **Winged or apterous insects with nine segmented moniliform antennae.**
- **Y-shaped epicranial suture present.**
- **Wings, when present, capable of being shed by means of basal fractures; venation specialized by reduction.**
- **Prothorax well developed.**
- **Tarsi two segmented.**
- **Cerci very short, one segmented.**
- **Ovipositor absent, male genitalia specialized, sometimes asymmetrical.**
- **Metamorphosis slight.**

