

## Agricultural insect pests in Order Thysanoptera (Thrips)

Small or minute slender-bodied insects with short 6---10 jointed antennae, mouth parts, rasping --- sucking, Tarsi 1---2 jointed, each with a terminal vesicle, wings similar in form. when present, long very narrow with greatly reduced venation fringed with long marginal hairs. Cerci absent. Metamorphosis intermediate between gradual and complex (complete) i.e. (Accompanied by one or two inactive pupal stage).

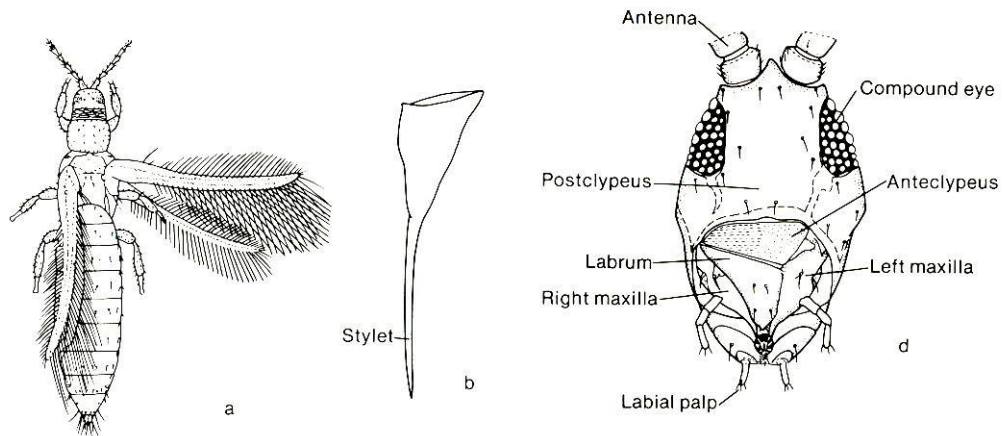


Figure 38 Thysanoptera: a. *Anaphothrips striata*, dorsal aspect; b, mandible, same; c, maxilla, same; (a, b, c from Hinds, 1900;)

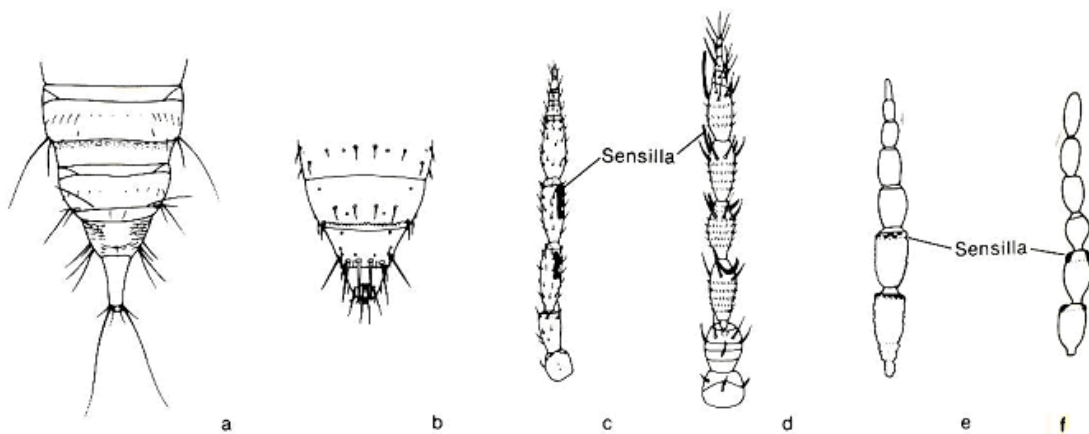


Figure 2 Taxonomic characters of Thysanoptera: a, Suborder Tubulifera, abdominal apex (*Hoplidothrips irretius*, Phlaeothripidae); b, Suborder Terebrantia, abdominal apex (*Anaphothrips striata*, Thripidae); c to f, Antennae, showing arrangement of sensilla; c, Aeolothripidae (*Aeolothrips scabiosatibia*); d, Thripidae (*Anaphothrips striata*); e, Heterothripidae (*Heterothrips salicis*); f, Merothripidae (*Merothrips morgani*). (Adapted from Daly, H.V. et al. 1978)

**Key to the families .**

1-- ovipositor saw--like, apex of abdomen conical in female, bluntly rounded in, forewings with at least one longitudinal vein reaching to the apex, -----

-----Thripida

---Ovipositor absent, apex of abdomen in both sexes usually tubular, for wings almost without venation.-----

Phaeothripidae.

Fam. Thripidae .

Key to the species

1-- Body stout, conical in shape, short and wide, thorax as long as wide, wing vein obvious, antennae short, stout, and tapering at apices.-----

*Retithrips syriacus*

--- Body elongate, cylindrical and narrow, wing vein not obvious, thorax longer than wide, antennae longer and narrower .-----

----- 2.

2-- Cauda short, abdomen wider than thorax, Fore and hind coxae approximated -----

-----*Thrips tabaci* Cauda longer, Abdomen not wider than thorax, fore and

hind coxae separated.----- *Frankliniella tritici*

Fam. Phlaeothripidae.

Key to the species

1-- Size small, head 1.5 as long as wide, first, antennal

segment equals the 2<sup>nd</sup> one.----- *Haplothrips cotei*.

--- Size large, head twice as long as wide, 1<sup>st</sup> antennal segment equals

twice the 2<sup>nd</sup> one.----- *Gynaikothrips ficum*

References

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- Borror, D.J., D.M. DeLong, and C.A. Triplehorn, (1981) An Introduction to The Study of Insects. 5<sup>th</sup> ed. Saunders. Philadelphia
- Pfadt, R.E., (1985) Fundamentals of Applied Entomology. 4<sup>th</sup> Ed. McMillan Publishing Company. New York.