Order Thysanoptera



Common name: thrips

Simple diagnosis. Thrips are recognised by their narrow membranous (= translucent) wings, with the margins of the wings fringed with hairs, which are often longer than the width of the wings. They also have a small body, very small mouthparts which are conical in shape), and tarsi which are 1- or 2- segmented.

Technical diagnosis. Thrips have a small (0.5-15 mm) elongate body. They have peculiar small, piercing and sucking mouthparts, which have a cone-like appearance and are asymmetrical. The mandibles are modified and not seen externally. Thrips also have narrow membranous fringed wings with reduced venation, and the fringe can be very long and can exceed the width of the wings. The wings are sometimes reduced or absent. The legs are short and gressorial (= walking). The tarsi are 1- or 2-segmented and have an eversible bladder, and the claws are very small. Eyes are present, but vary in size. Ocelli are present in fully winged forms. Antennae are relatively short, 4- to 9-segmented. The pronotum is conspicuous and the pterothorax (meso- and metathorax) is enlarged in winged species. Abdominal cerci are absent.



The first and second instars resemble adults, but are smaller in size. In the later nymphal instars and 'pupal' instar, thrips are in a resting and non-feeding phase, and they sometimes reside in cocoons. During these stages reconstruction of tissues occurs through incomplete metamorphosis.

What can they be confused with? Winged thrips can be easily distinguished by their fringed wings and mouthparts with modified mandibles. Wingless thrips do no resemble other insect orders.

Wingless thrips are superficially similar to Embioptera and coleopteran rove beetles (Staphylinoidea) externally, as they have an elongate body and short gressorial legs. However, embiopterans differ in having mandibulate (= biting and chewing) mouthparts, antennae with 12-32 segments, enlarged first segment of foretarsus, and two- segmented abdominal cerci. Rove beetles can be separated by the reduced sclerotised elytra and five-segmented tarsi.

Biology. Most thrips are phytophagous, feeding on flowers or leafs. There are also few predacious species that are fungus-feeding.

Diversity in Papua New Guinea. Thrips have a worldwide distribution, with about 4500 described species. The New Guinea fauna is almost unstudied (Miller 2007; Mound 2016).



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Key references for Papua New Guinea.

Mound, L. 2016. World Thysanoptera: Australasia & the Pacific. http://anic.ento.csiro.au/thrips/regions/australasia.html