

Leptothrips mali

Distinguishing features

Both sexes fully winged. Body brown with reddish purple internal pigment; legs including all tarsi brown; antennal segment III yellow, IV largely yellow, V yellow at base (III–V sometimes more extensively brown); major setae brown; fore wings pale, scarcely shaded at base. Antennae 8-segmented; segment III with one sense cone, IV with 4 sense cones, VIII broad at base. Head distinctly longer than wide, widest across eyes; maxillary stylets scarcely retracted to postocular setae, at least one third of head width apart medially; eyes distinctly prolonged ventrally; postocular setae bluntly pointed, shorter than eye length. Pronotum with 4 pairs of weakly capitate major setae, midlaterals not developed, anteromarginals and anteroangulals variably reduced and sometimes pointed; prosternal basantra and ferna well developed, mesopresternum reduced to paired lateral triangles. Fore tarsus without a tooth. Metanotum closely striate medially. Forewing constricted medially, with about 10 duplicated cilia; sub-basal seta S3 pointed and slightly longer than capitate S1 and S2. Tergite IX setae S1 finely acute, longer than tube.

Male similar to female, fore tarsus without a tooth; tergite IX setae S2 short and stout; sternite VIII with no pore plate; pseudovirga of aedeagus slender.

Related species

The genus *Leptothrips* is related to *Haplothrips*, but the metanotal sculpture is closely striate not reticulate, and larvae and adults usually have extensive purple internal pigment. Currently, 30 species are listed under *Leptothrips*, all from the Americas. Johansen (1987) described 22 new species in the genus, with 11 *Leptothrips* recorded from California. However, Mound & O'Donnell (2017) placed nine species into synonymy and recognised only 15 *Leptothrips* species from North America of which nine are reported from California. The holotype of *mali* described by Johansen (1987: 61) was a female from a population in Virginia that was studied by Parrella *et al.* (1982) when investigating the biology of the Black Hunter, *L. mali*. The *mali*-group comprises *heliomanes*, *larreae*, *mali*, *mcconelli* and *papago*, but biological evidence for the existence of each of these as separate entities remains weak. Three further nominal species that are similar to *mali* in general appearance are *cassiae*, *macrocellatus* and *oribates*, but each of these has the pronotum with little or no sculpture medially.

Biological data

Larvae and adults predatory on other small arthropods (Parrella *et al.*, 1982), and associated with many different trees (Parrella *et al.*, 1982). *L. gurdus* was based on five specimens collected from *Juglans* and *Ficus carica*.

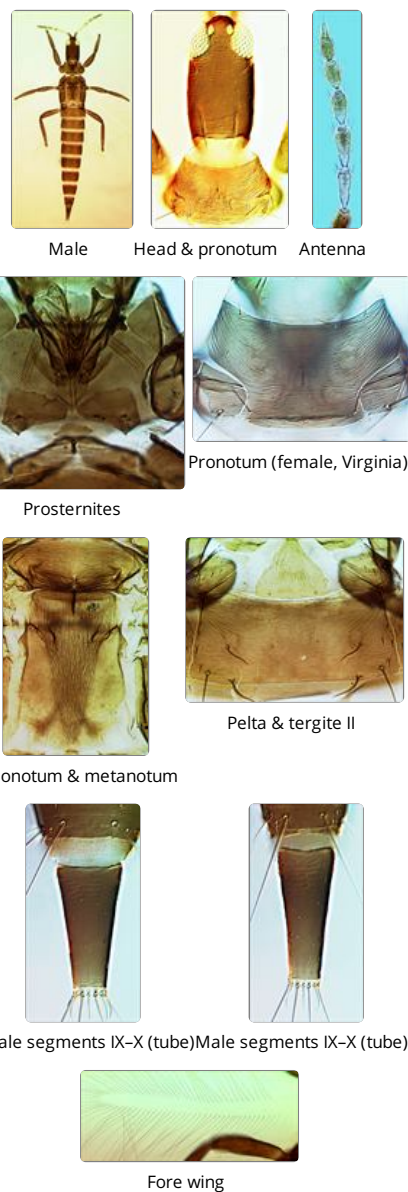
Distribution data

Widespread across North America, from the Northeast to California, and also Mexico, Paraguay, and Argentina.

Family name

PHLAEOTHIRIPIDAE, PHLAEOTHIRIPINAE

Species name



Leptothrips mali (Fitch)

Original name and synonyms

Phloeothrips mali Fitch, 1854: 806

Cryptothrips aspersus Hinds, 1902: 205

Cryptothrips californicus Daniel, 1904: 293

Cryptothrips adirondacks Watson, 1921: 83

Leptothrips gurdus Johansen, 1987: 45

Leptothrips septemtrionalis Johansen, 1987: 55

Leptothrips maliaffinis Johansen, 1987: 61.

References

Johansen RM (1987) El genero *Leptothrips* Hood, 1909 (Thysanoptera: Phlaeothripidae) en el continente Americano: su sistematica, filogenia, biogeografia, biologia, conducta y ecologia. *Monografias del Instituto de Biologia. Universidad Nacional de Mexico* 3: 1-246.

Mound LA & O'Donnell CA (2017) Predation, phytophagy and character state confusion among North American species of the genus *Leptothrips* (Thysanoptera: Phlaeothripinae). *Zootaxa* 4294 (3): 301-315.

Parrella MP, Rowe DJ & Horsburgh RL (1982) Biology of *Leptothrips mali*: a common predator in Virginia apple orchards. *Annals of the Entomological Society of America* 75: 130-135.