

A Preliminary survey of thrips (Thysanoptera) from Kashmir Himalaya

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Abstract

A preliminary taxonomic survey has been conducted on Thrips of Kashmir region. The species collected have been systematically arranged in their respective families and subfamilies. The study is based on the personal collection of the senior author.

Keywords: *Thrips, taxonomic survey, Kashmir, India.*

Introduction

The thrips belong to the order Thysanoptera. They are tiny, slender insects with fringed wings. They are also referred to as bladder footed insects. Most of them are phytophagous and very few are known to be predaceous feeding mostly on mites, coccids, white ants and psocids. Besides, many species act as vectors and transmit a number of bacterial, fungal and viral diseases in plants (Sakimura, 1947; Mound, 1973; Reddy and Wightman, 1988 and Amin, 1980). Some species induce gall formation in the plant tissues. The rolled leaf gall on *Piper* and *Ficus* trees are produced by few species in oriental region (Ananthakrishnan, 1978).

Some species of thrips are very useful and act as pollinators especially in oil palm (Syed, 1979). They also act as biological control agents (Lewis, 1973; Palmer and Mound, 1989 and Beattie, 1985).

In India significant contributions on the taxonomy of thrips have been made by Moulton (1929), Ananthakrishnan (1969a, 1969b, 1969c, 1971a, 1971b, 1973a, 1973b), Ananthakrishnan and Sen (1980), Bhatti (1969a, 1969b, 1972, 1978, 1980, 1982, 1988, 1994, 1998, 2000,

2006), Bhatti and Mound (1980) and Mound (1976). A very little work has been carried out on this aspect from Kashmir region, however, important contributions include: Singh (1947) and Lone and Bhagat (1984).

In the present study a preliminary taxonomic survey has been conducted on Thrips of Kashmir region; the species are catalogued systematically under the respective suborders, families and genera.

SUBORDER TEREBRANTIA

Family Aeolothripidae

Genus: *Aeolothrips*

Aeolothrips collaris Priesner

Material examined: 5 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Shalimar garden on *Zinnia*, 4.viii.2010 (Nafisa Akhtar).

Aeolothrips fasciatus (Linnaeus)

Material examined: 8 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Shalimar garden on *Zinnia*, 4.viii.2010 (Nafisa Akhtar).

Family Thripidae

Genus: *Actinothrips*

Actinothrips rufus Haliday

Material examined: 6 ♀, 3 ♂, INDIA, Jammu and Kashmir, Srinagar, Botanical Garden, University of Kashmir on Dandelion, 20.iv.2010 (Nafisa Akhtar).

Genus: *Anaphothrips*

Anaphothrips obscurus (Muller)

Material examined: 4 ♀, 2 ♂, INDIA, Jammu and Kashmir, Budgam, Khanda on Saffron, 20.x.2010 (Nafisa Akhtar).

Genus: *Frankliniella*

Frankliniella intonsa Trybom

Material examined: 6 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Nageen lake on Lily, 17.ix.2010 (Nafisa Akhtar)

Frankliniella schultzei Trybom

Material examined: 4 ♀, 4 ♂, INDIA, Jammu and Kashmir, Srinagar, Nageen lake on Lily, 17.ix.2010 (Nafisa Akhtar).

Genus: *Microcephalothrips*

Microcephalothrips abdominalis (Crawford)

Material examined: 5 ♀, 5 ♂, INDIA, Jammu and Kashmir, Nehru Memorial botanical Garden on Marigold, 10.v.2010 (Nafisa Akhtar), 4 ♀, 6 ♂, Shalimar garden on Zinnia, 4.viii.2010 (Nafisa Akhtar).

Genus: *Megalurothrips*

Megalurothrips distalis (Karny)

Material examined: 7 ♀, 8 ♂, INDIA, Jammu and Kashmir, Srinagar, Shalimar garden on

Roses, 23.v.2010 (Nafisa Akhtar), 5 ♀, 6 ♂, Botanical garden university of Kashmir on Dahlia, 23.vi.2010 (Nafisa Akhtar), 4 ♀, 3 ♂, Shalimar garden on Zinnia, 4.viii.2010 (Nafisa Akhtar), 5 ♀, 5 ♂, Budgam, Khanda on Saffron, 4.x.2010 (Nafisa Akhtar).

Megalurothrips peculiaris (Bagnall)

Material examined: 6 ♀, 6 ♂, INDIA, Jammu and Kashmir, Srinagar, Shalimar garden on Roses, 23.v.2010 (Nafisa Akhtar), 5 ♀, 5 ♂, Shalimar garden on Zinnia 4.viii.2010 (Nafisa Akhtar).

Genus: *Heliothrips*

Heliothrips haemorrhoidalis (Bouche)

Material examined: 3 ♀, 4 ♂, INDIA, Jammu and Kashmir, Srinagar, Botanical garden university of Kashmir on Dandelion 20.iv.2010 (Nafisa Akhtar), 5 ♀, 5 ♂, Shalimar garden on Roses, 23.v.2010 (Nafisa Akhtar).

Genus: *Thrips*

Thrips tabaci Lindeman

Material examined: 6 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Indira Gandhi memorial Tulip garden on Tulips, 24.iv.2010 (Nafisa Akhtar), 3 ♀, 4 ♂, University of Kashmir botanical garden on Marigold, 10.v.2010 (Nafisa Akhtar), 4 ♀, 4 ♂, Nageen lake on lily, 17.ix.2010 (Nafisa Akhtar).

Thrips flavus Schrank

Material examined: 3 ♀, 3 ♂, INDIA, Jammu and Kashmir, Srinagar, Nehru memorial botanical garden on Roses, 10.v.2010 (Nafisa Akhtar), 4 ♀, 6 ♂, Shalimar garden on Roses, 4.vi.2010 (Nafisa Akhtar).

Thrips coloratus Schmutz

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Material examined: 7 ♀, 7 ♂, INDIA, Jammu and Kashmir, Nehru memorial botanical garden on Roses, 10.vi.2010 (Nafisa Akhtar), 4 ♀, 3 ♂, Shalimar garden on Zinni, 4.vii.2010 (Nafisa Akhtar).

Thrips nigropilosus Uzel

Material examined: 6 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Gulmarg on *Chrysanthemum*, 17.vii.2010 (Nafisa Akhtar).

Thrips trehernei Priesner

Material examined: 5 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, University of Kashmir botanical garden on Dandelion, 20.iv.2010 (Nafisa Akhtar), 4 ♀, 3 ♂, Shalimar garden on Roses, 23.v.2010 (Nafisa Akhtar).

Thrips hawaiiensis (Morgan)

Material examined: 3 ♀, 4 ♂, INDIA, Jammu and Kashmir, Srinagar, Indira Gandhi memorial Tulip garden on Tulips, 24.iv.2010 (Nafisa Akhtar), 3 ♀, 3 ♂, University of Kashmir botanical garden on Marigold, 10.v.2010 (Nafisa Akhtar), 2 ♀, 2 ♂, Nageen lake on Lily, 17.ix.2010 (Nafisa Akhtar).

Thrips simplex (Morison)

Material examined: 8 ♀, 4 ♂, INDIA, Jammu and Kashmir, Srinagar, Dal lake on Lotus, 17.ix.2010 (Nafisa Akhtar), 3 ♀, 2 ♂, Ganderbal, floriculture farm house on *Gladiolus*, 23.vi.2010 (Nafisa Akhtar).

Genus: *Scirtothrips*

Scirtothrips dorsalis Hood

Material examined: 5 ♀, 5 ♂, INDIA, Jammu and Kashmir, Srinagar, Nehru memorial botanical garden on Marigold, 10.v.2010 (Nafisa Akhtar), 4 ♀, 3 ♂, Shalimar garden on Zinnia 4.viii.2010 (Nafisa Akhtar).

Family Phlaeothripidae

Genus: Haplothrips

Haplothrips robustus Bagnall

Material examined: 3 ♀, 2 ♂, INDIA, Jammu and Kashmir, Budgam, Khanda on Saffron 20.x.2010 (Nafisa Akhtar).

Haplothrips verbasci (Osborn)

Material examined: 4 ♀, 5 ♂, INDIA, Jammu and Kashmir, Budgam, Khanda on saffron, 20.x.2010 (Nafisa Akhtar).

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