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Flower Infesting Thrips and Their Plant Hosts

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Thrips (Insecta:Thysanoptera) on plants may infest different parts of a plant or confine themselves to flowers. Thrips on flowers cause scarring, browning and withering. Such damage in export horticultural crops in particular causes economic losses. Many flower living thrips act as pollinators. Very little is known in Sri Lanka of thrips on flowers. The objective of this study was to record flower-infesting thrips and their plant hosts. Thrips on flowers were collected from agricultural, horticultural, floricultural, natural vegetation and weeds in 15 locations in 8 districts; with emphasis on export floriculture and ornamental flowers. Slide mounted specimens were identified using keys descriptions and help from experts.

Twenty four morphospecies of thrips belong to 2 families and 2 subfamilies were collected. Of them, 17 (in 7 genera) were identified to species level, 2 up to generic level and 5 up to subfamily level. Flower infesting thrips were recorded from 153 plant species in 105 genera and 42 families that comprised vegetable crops, fruit crops, weeds, lianas, horticultural plants, large trees, herbs, shrubs etc. Of the identified species, *Thrips orientalis, T. subdunula* & *T. paravispinus* have not been previously recorded from Sri Lanka. *Haplothrips gowdeyi* was the most common species occurring in 36 plant species belonging 9 families followed by *Thrips hawaiianis* on 25 plant species in 15 families. Majority of the thrips were generalists. Only 2 species were host family specific. Thus, *Microcephalothrips abdominalis* was confined to family Asteraceae and *Megalurothrips usiatus* to family Fabaceae. Although majority of the thrips were confined to flowers, Thrips *palmi* and *Scirtothrips dorsalis* were present on leaves and shoots of host plants as well. Five thrips species known to be viral vectors worldwide were recorded from flowers. Chilly infested with *Scirtothrips dorsalis*, *Frankinella scultzi* and *Thrips palmi* showed symptoms of leaf curl disease. Withering of flowers, browning of petals and scarring of petals were observed occasionally in few of the thrips infested flowers. From export flowers 5 thrips species were recorded that are known to occur world over. Thrips recorded had a wide distribution except *Thrips flavus* that was confined to the Nuwara Eliya district and the Knuckles forest range. On certain occasions, more than one species of thrips was found on the same flower. Thus, of the 153 flower species, 39 had more than one thrips species infesting its flowers.

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