



ISSN 0375-1511

Rec. zool. Surv. India : 112(Part-3) : 35-43, 2012

THYSANOPTERA FAUNA OF THE ITANAGAR WILD LIFE SANCTUARY, (ARUNACHAL PRADESH)

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INTRODUCTION

The earliest work on the faunistic study of thrips of Arunachal Pradesh was initiated by the Zoological Survey of India way back 1970s and that survey resulted in the collection of 8 species along with the discovery of a new species namely *Liothrips ananthakrishmani* Sen, 1976. Subsequently, Sen *et al.*, (1988) gave a consolidated list of all the nine species collected from different places of Arunachal Pradesh. Recently Singh *et al.*, (2010) collected 23 species of thrips from Kane Wildlife Sanctuary, Arunachal Pradesh. But the present study highlights collection of thysanopterans from the Itanagar Wild Life Sanctuary, Arunachal Pradesh. The survey was carried out during autumn (2009) and spring (2010). The specimens were processed for permanent mounting by the standard protocol (Mound and Pitkin, 1972; Bhatti, 1997) and were identified with the help of standard key available for thrips of the Indian Sub continent (Ananthakrishnan & Sen, 1980). The identified specimens are kept in the insect museum of the Department of Life sciences, Manipur University.

The results of the survey indicated the occurrence of 40 thrips species belonging to 30 genera, of which 18 were under the suborder Terebrantia and 22 under Tubulifera. Family wise it indicated the collection of 1, 17 and 22 species respectively under Aeolothripidae, Thripidae and

Phlaeothripidae. Subfamily wise the survey showed the presence of a predator, *Mymarothrips garuda* Ramakrishna & Margabandhu under Mymarothripinae and 34 phytophagous members with the breakup of 11, 6, and 17 species under Thripinae, Panchaethripinae and Phlaeothripinae respectively, besides 5 species of spore feeding Idolothripinae. These individuals were collected from diverse micro-niches like leaf gall, flowers, grasses, leaf sheath, litter and leaves of the plant. The details of the collection records and the systematic accounts of all the specimens are provided below.

Order THYSANOPTERA

Suborder TEREBRANTIA

Family AEOLOTHRIPIDAE

Subfamily MYMAROTHRIPINAE

Genus *Mymarothrips* Bagnall, 1928

1. *Mymarothrips garuda* Ramakrishna and Margabandhu, 1931

1928. *Mymarothrips* Bagnall, *Ann. Mag. Nat. Hist.*, (10) 1: 306.

1990. *Mymarothrips garuda*: Bhatti, *Zoology*, 2(4):243.

Specimen studied: 1♀; ex. leaves; Dt. 3.iii.2010.
(Predatory species)

Host plant : Tumeric leaves (Zingiberaceae)

Key words : *Thysanoptera*, *Thrips*, *Faunistic study*.

Location : Chimpu (500m MSL).

Distribution : Coimbatore (Tamil Nadu).

Remark : This species has been recorded for the first time from NE India.

Family THIRIPIDAE

Subfamily THIRIPINAE

Genus *Anaphothrips* Uzel, 1895

2. *Anaphothrips sudanensis* Trybom, 1911

1911. *Anaphothrips sudanensis* Trybom, *Results Sweedish Zool. Exped. Egypt, pt. 4*: 1-4.

1988. *Anaphothrips sudanensis*: Sen, Pramanik & Sengupta, *Zool. Surv. India, occl. Paper*, 100: 8.

1990. *Anaphothrips sudanensis*: Bhatti, *Zoology*, 2(4): 212.

Specimen studied : 4 ♀♀; ex. Grass; Dt. 29.ix.2009.

Host plant : *Dactyloctenium aegypticum* Beauv. (Poaceae)

Location : Chimpu (500m MSL).

Distribution : India (widely distributed), Asia, Japan, Central and South America, Africa, Australia, West Indies, Bismarck Archipelago (New Britain).

Genus *Ayyaria* Karny, 1926

3. *Ayyaria chaetophora* Karny, 1926

1926. *Ayyaria chaetophora* Karny, *Mem. Dept. Agri. India, Ent. Ser.*, 9: 193.

1980. *Ayyaria chaetophora*: Ananthkrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, 1: 63 and 135.

1992. *Ayyaria chaetophora*: Varatharajan *et al.*, *Bull. Ent.*, 33: 69.

Specimen studied : 3 ♀♀; ex. flowers of *Glycine max*; Dt. 29.ix.2009.

Host plant : *Glycine max* (Fabaceae)

Location : Chimpu (500m MSL).

Distribution : Andhra Pradesh, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Tamil Nadu, Manipur, Nagaland.

Genus *Dichromothrips* Priesner, 1932

4. *Dichromothrips nakahari* Mound, 1976

1976. *Dichromothrips nakahari* Mound, *Biol. J. Linn. Soc.*, 8 (3): 258-259.

1980. *Dichromothrips nakahari*: Ananthkrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*; 1: 67 & 137.

Specimen studied : 3♀♀; ex. flowers of orchids; Dt.03.ix.2009.

Host plant : *Dendrobium* sp. (Orchidaceae)

Location : Batt village (450m MSL).

Distribution : India (Widely distributed), Bangladesh, Burma, Malaya, Indonesia, Hong Kong, Taiwan, Philippines, Japan, Australia, Fizi, Hawaii, Central and South America, and West Indies.

Genus *Fulmekiola* Karny, 1925

5. *Fulmekiola serrata* (Kobus, 1893)

1925. *Fulmekiola serrata* Karny, H. Die an Tabak auf Java and Sumatra angetroffenen Blasenfusser. *Bulletin van het deli Proefstationte Medan*. 23: 1-55.

1990. *Fulmekiola serrata* Bhatti, J. S., *Zoology (Journal of Pure and Applied Zoology)*, 2: 233.

Specimen studied : 2♀♀; ex. Sugarcane leaf; Dt.29.viii.2009.

Host plant : *Saccharum officinarum* Linn. (Poaceae)

Location : Batt village (450m MSL).

Distribution : India - Uttar Pradesh, Haryana, World - Mauritius, Indonesia, Malay Archipelago, Taiwan, Japan and Bangladesh.

Genus *Megalurothrips* Bagnall, 1915

6. *Megalurothrips distalis* (Karny, 1913)

1913. *Taeniothrips distalis* Karny, *Arch. Naturgesch (A)* 79(2): 122-124.

1990. *Megalurothrips distalis*: Bhatti, *Zoology*, 2(4): 239.

1992. *Megalurothrips distalis*: Varatharajan, *et al.*, *Bull. Ent.*, 33(1-2): 70.

Specimen studied : 3 ♀♀; ex. flowers of *Phaseolus lunatus* L.; Dt.29.ix.2009.

Host plant : *Phaseolus lunatus* L. (Fabaceae)

Location : Batt village (450m MSL).

Distribution : India (Widely distributed). Bhutan, Bangladesh, Sri Lanka, Indonesia, Japan, Korea, Taiwan, China, and Philippines.

7. *Megalurothrips peculiaris* (Bagnall, 1918)

1918. *Physothrips peculiaris* Bagnall, *Ann. Mag. nat. Hist.*, 1(9): 206-207.

1980. *Megalurothrips peculiaris*: Ananthkrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, 1: 70.

Specimen studied : 3♀♀; ex. flowers of *Phaseolus lunatus* L (Fabaceae); Dt.29.ix.2009.

Host plant : *Phaseolus lunatus* L (Fabaceae).

Location : Batt village (450m MSL).

Distribution : India - Bihar, Delhi, Karnataka, Tamil Nadu, Uttar Pradesh, Meghalaya, Manipur, Nagaland. World - Nepal, Bangladesh, Philippines.

Genus *Microcephalothrips* Bagnall, 1926

8. *Microcephalothrips abdominalis* (Crawford, 1910)

1910. *Thrips abdominalis* Crawford, *Pomona College J. Ent.* 2(1): 157.

1926. *Microcephalothrips abdominalis*:Bagnall, *Ann. Mag. Nat. Hist.*, 18 (9): 113.

1980. *Microcephalothrips abdominalis*: Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser. 1*: 71.

1992. *Microcephalothrips abdominalis*: Varatharajan *et al.*, *Bull. Ent.*, 33 (1-2): 70.

Specimen studied : 7♀♀; ex. flowers of Marigold; Dt. 29. viii. 2009.

Host plant : *Tagetes erecta* Linn. (Asteraceae)

Location : Chimpu (500m MSL).

Distribution : India- Widely distributed World-widely distributed in the tropics and sub-tropics on Asteraceae flowers

Genus *Sciothrips* Bhatti, 1969

9. *Sciothrips cardamomi* (Ramakrishna, 1935)

1935. *Taeniothrips cardamomi* Ramakrishna, *Bull. Ent. Res.*, 26(3): 357.

1969. *Sciothrips cardamomi*: Bhatti, *Oriental Ins.*, 3(4): 379.

1980. *Sciothrips cardamomi*: Ananthakrishnan & Sen, *Zool. Surv. India. Handbk.Ser.*, 1: 58.

Specimen studied : 2 ♀♀ & 1♂; ex. leaves of Cardamom and other wild Zingiber plants; Dt.29.ix.2009.

Host plant : *Amomum subulatum* (Zingiberaceae)

Location : Chimpu (500m MSL).

Distribution : Assam, Kerala, Tamil Nadu.

Genus *Thrips* Linnaeus, 1758

10. *Thrips flavus* Shrank, 1776

1776. *Thrips flavus* Shrank, *Beitr. Zur., Natur.*, 31-33.

1928. *Thrips nilgiriensis*: Ramakrishna, *Mem. Dept. Argi. India, Ent. Ser.*, 10(7): 262-263.

1988. *Thrips flavus*: Sen, Pramanik & Sengupta, *Zool. Surv. India, Occ. Paper*, 100: 18 & 20.

1990. *Thrips flavus*: Varatharajan, *et al.*, *Bull. Ent.*, 33(1-2): 71.

Specimen studied : 3♀♀; ex. Flowers of *Solanum indicum*; Dt.3.iii.2010

Host plant : *Solanum indicum* Linn. (Solanaceae)

Location : Yupia (800m MSL).

Distribution : India- Punjab, Himachal, Jammu & Kashmir, Tamil Nadu. World- Pakistan, Nepal, Korea, Japan, Europe, N.America

11. *Thrips hawaiiensis* (Morgan, 1913)

1913. *Euthrips hawaiiensis* Morgan, *Proc. U.S. nat. Hist. Mus.*; 46: 3.

1966. *Thrips hawaiiensis*: Ananthakrishnan & Jagadish, *Ent. Tidskr.*, 87 (1-2): 88.

1988. *Thrips hawaiiensis*: Sen, Pramanik & Sengupta, *Zool. surv. India, Occ. Paper*, 100: 18.

Specimen studied : 7 ♀♀; 2 ♂♂; Rose flowers; Dt. 28.viii.09.

Host plant : *Rosa chinensis* Jacq (Rosaceae)

Location : Batt village (450m MSL); Chimpu (500m MSL).

Distribution : Widely distributed.

12. *Thrips tabaci* Lindeman, 1889

1889. *Thrips tabaci* Lindeman, *Bull., Soc. Imp. Nat. Moscow*, 1: 61-75.

1971. *Thrips tabaci*: Ananthakrishnan. *J. Sci. & Ind. Res.*, 30 (3): 2 & 3.

1980. *Thrips tabaci*: Bhatti, *Syst. Ent.*, 5: 157 & 158.

Specimen studied : 4 ♀♀, 1♂; onion leaves and flowers; Dt.3.iii.2010.

Host plant : *Allium cepa* Linn. Liliaceae

Location : Yupia (800m MSL).

Distribution : Worldwide .

Subfamily Panchaetothripinae.

Genus *Helionothrips* Bagnall, 1932

13. *Helionothrips kadaliphilus* (Ramakrishna & Margabandhu, 1931)

1932. *Helionothrips* Bagnall, *Ann. Mag. Nat. Hist.* (10) 10: 506.

1931. *Heliothrips kadaliphilus* Ramakrishna & Margabandu, *J. Bom. Nat. Hist. Soc.*, **34**: 1033-1034.

1968. *Helionothrips kadaliphilus*: Bhatti, *Oriental Insects*, **2** (1): 35.

1988. *Helionothrips kadaliphilus*: Sen, Pramanik & Sengupta, *Zool. Surv. India, Occ. Paper*, **100**: 22.

Specimen studied : 2 ♀♀, ex. Banana leaf; Dt. 18.ix.2009.

Host plant : *Musa paradisiaca* Linn. (Musaceae)

Location : Yupia (800m MSL).

Distribution : India- Tamil Nadu, Kerala, Maharashtra, West Bengal, Manipur, Nagaland, Assam.

Genus *Heliothrips* Haliday, 1836

14. *Heliothrips haemorrhoidalis* (Bouche, 1833)

1833. *Thrips haemorrhoidalis* Bouche, p.42 (Source : Wilson,1975).

1836. *Heliothrips adonidum* Haliday, *Ent. Mag.*, **3** : 443 (Source: Bhatti, 1990).

1980. *Heliothrips haemorrhoidalis*: Ananthakrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, **1**: 81

1982. *Heliothrips haemorrhoidalis*: Mound & Walker, *Fauna of New Zealand* **1**: 41.

Specimen studied : 4 ♀♀; ex. Leaves of *Bauhinia variegata*; Dt. 18.ix.09.

Host plant : *Bauhinia variegata* Linn. (Caesalpiniaceae)

Location : Bhatt (450m MSL).

Distribution : India- Andaman & Nicobar Island, Karnataka, Kerala, Tamil Nadu, Manipur, Nagaland. World- Burma, Thailand, Malaya, Sri Lanka, Hong Kong, Taiwan, Hawaii, New Guinea, Borneo, North & South America

Genus *Monilothrips* Moulton, 1929

15. *Monilothrips kemp* Moulton, 1929

1929. *Monilothrips kemp* Moulton. *Rec. Indian Mus.*, **31**:94-95.

1988. *Monilothrips kemp*: Sen, Pramanik & Sengupta, *Zool. Surv. India, Occ. Paper*, **100** :23-24.

1990. *Monilothrips kemp*: Bhatti, *Zoology*, **2** (4):241.

Specimen studied : 2♀♀; ex. Wild grasses and fern; Dt. 29.vi.2009.

Host plant : *Dryopteris marginata* (Polypodiaceae)

Location : Batt village (450m MSL).

Distribution : India- West Bengal, Uttar Pradesh, Tamil Nadu, Manipur, Nagaland. World- South Africa, North America.

Genus *Panchaetothrips* Bagnall, 1912

16. *Panchaetothrips indicus* Bagnall, 1912

1912. *Panchaetothrips indicus* Bagnall, *Rec. Indian Mus.*, **7**: 258-260.

1928. *Panchaetothrips indicus*: Ramakrishna, *Mem. Dept. Agri. India, Ent.*, **7**(10):273.

1980. *Panchaetothrips indicus*: Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser.*, **1**: 81 & 144.

1990. *Panchaetothrips indicus*: Bhatti, *Zoology*, **2**(4): 244.

Specimen studied : 3♀♀; 1♂; ex leaves of turmeric; Dt.29.vi.09.

Host plant : *Curcuma longa* Linn. (Zingiberaceae).

Location : Chimpu (500m MSL).

Distribution : India – Goa, Kerala, Tamil Nadu, Manipur, Assam, Nagaland, Uttar Pradesh. World- Bangladesh, Thailand, China.

Genus *Rhipiphorothrips* Morgan,

17. *Rhipiphorothrips pulchellus* Morgan 1913

1913. *Rhipiphorothrips* Morgan, New genera and species of Thysanoptera with notes on distribution and food plants. *Proceeding of the United States National Museum*, **46**: 155

1990. *Rhipiphorothrips pulchellus*: Bhatti, *Zoology*, **2**(4): 249.

1995. *Rhipiphorothrips pulchellus*: Kudo, *Insecta Matsumurana*, **52**: 99

Specimen studied : 5♀♀; ex. leaves of castor; Dt. 29.ix.09.

Host plant : *Jatropha sp.* (Euphorbiaceae)

Location : Batt village (450m MSL).

Distribution : India (Madhya Pradesh), Burma, Indonesia (Java), Philippines.

Remark : This species has been recorded for the first time from NE India.

Genus *Selenothrips* Karny, 1911

18. *Selenothrips rubrocinctus* (Giard, 1901)

1901. *Physopus rubrocinctus* Giard, *Bull. Soc. Ent. Fra.*, **15** : 263-265.

1911. *Heliothrips (Selenothrips) decolor*: Karny, *Ent. Rund.*, **28**(23): 179-181.

1980. *Selenothrips rubrocinctus*: Ananthakrishnan & Sen
Zool. Surv. India Handbk. Ser., 1: 81 & 145.

Specimen studied : 10♀♀; 3♂♂; ex leaves of Mango and Oak; Dt 10.vi.09.

Host Plant: *Mangifera indica* Linn. (Anacardiaceae) and Oak foliage (Fagaceae)

Location : Batt village (450m MSL).

Distribution : India-Andaman & Nicobar, Kerala, West Bengal, Assam, Nagaland, Manipur. World: Bangladesh, Burma, Honduras, Mexico, Philippines, Sri Lanka, Taiwan, Thailand.

Sub order TUBULIFERA

Family PHLAEOTHIRIPIDAE

Subfamily PHLAEOTHIRIPINAE

Genus *Androthrips* Karny, 1912

19. *Androthrips flavitibia* Moulton 1932

1932. *Androthrips flavitibia* Moulton, *Indian Forest. Rec.*, 19(1): 1-2.

1964. *Androthrips flavitibia*: Ananthakrishnan, *Opusc. Ent. Suppl.*, 25: 31.

1982. *Androthrips flavitibia*: Muraleedharan, *Rec. zool. Surv. India*, 79: 373.

Specimen studied : 3♀♀; ex. Galls; Dt.29.ix.2009.

Host plant : *Ficus sp* (Moraceae)

Location : Yupia (800m MSL).

Distribution : Assam, Dehradun, Manipur.

Genus *Araeothrips* Ananthakrishnan, 1976

20. *Araeothrips longisetis* Ananthakrishnan, 1976

1976. *Araeothrips longisetis* Ananthakrishnan, 1976, *Proc. Indian Acad. Sci.*, 83B (5): 202-204.

1980. *Araeothrips longisetis* :Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser.*, 1: 149

1988. *Araeothrips longisetis*: Sen, Pramanik & Sengupta, *Zool.surv. India Occl., Paper*, 100: 39

Specimen studied : 3♀♀; ex. Sal foliage; Dt. 29.ix.2009.

Host plant : *Dalbergia sp* (Papilionaceae)

Location : Batt village (450m MSL).

Distribution : Western Ghats, Madhya Pradesh, NE India.

21. *Araeothrips vamana* Muraleedharan, 1982

1982. *Araeothrips vamana* Muraleedharan, *Rec. Zool. surv. India*, 79: 374-376.

1988. *Araeothrips vamana*: Sen, Pramanik & Sengupta, *Zool. surv. India. Occ. Paper*, 100:40-41.

Specimen studied : 4♀♀; ex. leaf; Dt.2.xi.2009.

Host plant : *Quercus serrata* (Fagaceae)

Location : Chimpu (500m MSL).

Distribution : Manipur, Nagaland. (Endemic to NE India)

Genus *Athlibothrips* Priesner, 1952

22. *Athlibothrips inquilinus* (Ananthakrishnan & Varadarasan, 1978)

1978. *Thlibothrips inquilinus* Ananthakrishnan & Varadarasan, *Oriental Insects*, 12(3): 391-402.

1980. *Thlibothrips inquilinus*: Ananthakrishnan & Sen, *Zool. Surv. India. Handbk. Ser.*, 1: 115 & 165.

1981. *Athlibothrips inquilinus*: Okajima, *Transactions of Shikoku Entomological Society*. 15: 141-150.

Specimen studied : 4♀♀; ex. Oak leaf gall; Dt. 3.ix.2009.

Host plant : *Quercus sp.* (Fagaceae).

Location : Chimpu (500m MSL).

Distribution : Jharkhand, Manipur, Nagaland, Tamil Nadu, Kerala.

Genus *Dolichothrips* Karny, 1912

23. *Dolichothrips assimilis* Priesner & Seshadri, 1952

1952. *Dolichothrips assimilis* Priesner & Seshadri, *Indian J. Agri. Sci.*, 22.

1980. *Dolichothrips assimilis*: Ananthakrishnan & Sen, *Zool. Surv. India. Handbk. Ser.*, 1: 90 & 151.

Specimen studied : 8♀♀; ex foliage of *Quercus*; Dt. 2.xi.09.

Host plant : *Quercus sp* (Fagaceae)

Location : Yupia (800m MSL).

Distribution : Eastern Ghats, Nagaland.

24. *Dolichothrips montanus* Ananthakrishnan, 1964

1964. *Dolichothrips montanus* Ananthakrishnan, *Ent. Ts. Agr.*, 85 (1-2): 99-120.

1980. *Dolichothrips montanus*: Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser.*, 1: 90 &151.

Specimen studied : 6♀♀; ex. leaves; Dt. 2.ix.09.

Host plant : *Lantana camara* Linn. (Verbenaceae)

Location : Yupia (800m MSL).

Distribution : Western Ghats, Nagaland.

Genus *Ecacanthothrips* Bagnall, 1910

25. *Ecacanthothrips tibialis* (Ashmead, 1905)

1905. *Idolothrips tibialis* Ashmead, *Ent. News.* 16: 20.

1908. *Acanthothrips sanguineus* Bagnall, *Ann. Mag. nat. Hist.*, (8)1 : 362.

1980. *Ecacanthothrips tibialis*: Ananthakrishnan & Sen, *Zool. surv. India, Handbk. Ser.*, 1: 92

1988. *Ecacanthothrips tibialis*: Sen. Pramanik & Sengupta, *Zool. surv. india, Occ. Paper*, 100: 52

Specimen studied : 3♀♀; ex. Dry twigs; Dt. 30.iii.09.

Host plant : *Manihot esculenta* (Euphorbiaceae).

Location : Itanagar (460m MSL).

Distribution : Widely distributed.

Genus *Gigantothrips* Zimmerman, 1900

26. *Gigantothrips elegans* Zimmerman, 1900

1900. *Gigantothrips elegans* Zimmerman, *Bull. Inst. Bot. Bull.*, 7: 18-19.

1926. *Gigantothrips elegans*: Karny, *Mem. Dept. Agri. India. Ent. Ser.*, 9(6): 239.

1980. *Gigantothrips elegans*: Ananthakrishnan & Sen, *Zool. Suro. India, Handbk. Ser.*, 1: 92 & 152.

Specimen studied : 3♀♀; ex. *Ficus* leaf; Dt. 30.iii.09.

Host plant : *Ficus* sp (Moraceae).

Location : Itanagar (460m MSL).

Distribution : India- Tamil Nadu, Karnataka, Orissa, Bihar, Manipur, Mizoram, Nagaland. World- Philippines, Siam, Japan, Java, Thailand.

27. *Gigantothrips tibialis* (Bagnall, 1921)

1921. *Cercothrips tibialis* Bagnall, *Ann. Mag. Nat. Hist.*, 9(7): 355-368.

1964. *Cercothrips tibialis* : Ananthakrishnan, *Opuscula Ent. Suppl.*, 25: 36.

1980. *Gigantothrips tibialis* : Ananthakrishnan & Sen, *Zool. Suro. India. Handbk. Ser.*, 1: 92 & 152.

Specimen studied : 2♀♀; ex. *Ficus* leaf; Dt. 1.xi.2009.

Host plant : *Ficus* sp (Moraceae).

Location : Itanagar (460m MSL), Chimpu (500m MSL).

Distribution : Kerala, Karnataka, Uttar Pradesh, Uttaranchal, Nagaland.

Genus *Haplothrips* Amyot & Serville, 1843

28. *Haplothrips gowdeyi* (Franklin, 1908)

1908. *Androthrips gowdeyi* Franklin, *Proc. U.S. nat. Mus.*, 33: 724.

1980. *Haplothrips gowdeyi*: Ananthakrishnan & Sen, *Zool. surv. India Handbk. Ser.*, 1: 95 & 153.

1992. *Haplothrips gowdeyi*: Varatharajan *et al.*, *Bull. Ent.* 33(1-2): 72

Specimen studied : 6♀♀ & 2♂♂; ex flowers; Dt. 2.xi.09.

Host plant : *Lantana camara* Linn. (Verbenaceae)

Location : Batt village (450m MSL), Chimpu (500m MSL), Itanagar (460m MSL).

Distribution : Polyphagous and widely distributed.

29. *Haplothrips montanus* (Ananthakrishnan & Jagadish, 1970)

1970. *Neoheergeria montana* Ananthakrishnan & Jagadish, *Oriental Insects*, 4 (3): 262-264.

1980. *Neoheergeria montana*: Ananthakrishnan & Sen, *Zool. Suro. India, Handbk. Ser.*, 1: 109 & 160.

2007. *Haplothrips montanus*: Mound & Minaei, *Journal of Natural History*, 41(45-48): 2919-2978.

Specimen studied : 2♀♀; ex inflorescences; Dt. 2.ix.2009.

Host plant : *Amaranthus* sp (Amaranthaceae).

Location : Chimpu (500m MSL).

Distribution : West Bengal, Manipur, Nagaland.

30. *Haplothrips tenuipennis* Bagnall, 1918

1918. *Haplothrips tenuipennis* Bagnall, *Ann. Mag. nat. Hist.*, 9(1): 210.

1968. *Haplothrips tenuipennis*: Mound, *Bull. Br. Mus. nat. Hist. (Ent.)*, Suppl, 11: 118.

1980. *Haplothrips tenuipennis*: Ananthakrishnan & Sen, *Zool. surv. India, Handbk. Ser.*, 1: 95

1992. *Haplothrips tenuipennis*: Varatharajan, *et al.*, *Bull. Ent.*, 33(1-2): 72.

Specimen studied : 5♀♀ & 1♂; ex. leaves of Mango; Dt. 28.viii.09.

Host Plant : *Mangifera indica* (Anacardiaceae)

Location : Itanagar (459m MSL); Yupia (800m MSL).

Distribution : Widely distributed.

Genus *Leeuwenia* Karny, 1912

31. *Leeuwenia eugeniae* Bagnall, 1924

1924. *Leeuwenia eugeniae* Bagnall, R.S. Brief description of new Thysanoptera- XIV. *Ann. Mag. Nat. Hist.* (9)14: 640. (Source: Ananthakrishnan, T.N. (1970) *Oriental Insects*, 4(1): 50.

Specimen studied : 3♀♀; ex leaves of unidentified plant; Dt.19.iii.2010

Location : Chimpu (500m MSL).

Distribution : India-Tamil Nadu.

Remarks : This species has been recorded for the first time from NE India.

Genus *Liothrips* Uzel, 1895

32. *Liothrips aequilus* Ananthakrishnan & Jagadish, 1969

1969. *Liothrips aequilus* Ananthakrishnan & Jagadish, *Marcellia*, 36 (1-2): 7-103.

1974. *Liothrips aequilus*: Ananthakrishnan & Muraleedharan, *Oriental Insects suppl.*, 4: 10 & 46.

1980. *Liothrips aequilus*: Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser.*, 1: 100 & 156.

Specimen studied : 2♀♀, ex. Leaf galls; Dt. 7.iv.09.

Host plant : *Pouzolzia zeylanica* (Urticaceae).

Location : Itanagar (460m MSL).

Distribution : Andhra Pradesh, Nagaland.

33. *Liothrips himalayanus* Ananthakrishnan & Jagadish, 1970

1970. *Liothrips himalayanus* Ananthakrishnan & Jagadish, *Oriental Insects*, 4(3): 259-261.

1980. *Liothrips himalayanus* :Ananthakrishnan & Sen, *Zool. Surv. India Handbk. Ser.*, 1: 100

1988. *Liothrips himalayanus*: Sen, Pramanik & Sengupta, *Rec. zool. Surv. India Occ. Paper*, 100: 74.

Specimen studied : 3♀♀, ex. Leaf galls; Dt 7.iv.2009.

Host plant : *Pouzolzia zeylanica* (Urticaceae)

Location : Itanagar (460m MSL).

Distribution : Darjeeling, Manipur, Nagaland.

Genus *Preeriella* Hood, 1939

1939. *Preeriella* Hood JD, *Revista de Entomologia.*, 10: 550-619.

Specimen studied : 2♀♀, ex. Mixed leaf litter; Dt. 01.xi.2009.

Location : Yupia (800m MSL).

Distribution : Florida, Brazil, Mexico, Angola, South Africa, Japan, Taiwan, Thailand, Malaya-Peninsular.

Remark : This genus has been recorded for the first time from India and the identity of the species is yet to be established.

Diagnostic character : Body length <1mm (smallest among the tubuliferan). Head longer than wide. Antennal segment 3 cup shaped. Mouthcone broadly rounded. Wings extremely narrow. Tube relatively short and slender.

Genus *Xylaplothrips* Priesner, 1928

35. *Xylaplothrips debilis* Ananthakrishnan & Jagadish, 1971

1971. *Xylaplothrips debilis* Ananthakrishnan & Jagadish, *Zool. Anz.*, 186: 266-267.

1976. *Xylaplothrips debilis*: Pitkin, *Bull. Br. Mus. Nat. Hist. (Ent)*. 34: (4): 268-269.

1980. *Xylaplothrips debilis*: Ananthakrishnan & Sen, *Zool. Surv. India. Handbk. Ser.*, 1: 116.

Specimen studied : 1♀; ex. Mixed leaf litter, Dt. 30.x.2009.

Host plant : Bamboo, Croton etc.

Location : Batt village (450m MSL).

Distribution : Kerala, Andhra Pradesh, West Bengal.

Subfamily IDOLOTHRIPINAE

Genus *Elaphrothrips* Buffa, 1909

36. *Elaphrothrips denticollis* (Bagnall, 1909)

1909. *Dicaiothrips denticollis* Bagnall, *Trans. Nat. Hist. Soc. Northumb.*, 3: 527

1934. *Elaphrothrips beesoni* Ramakrishna, *Indian For. Rec.*, 20 (4): 7.

1978. *Elaphrothrips denticollis*: Palmer & Mound, *Bull. Br. Mus. Nat. Hist. (Ent)*, 37 (5): 179-180.

1981. *Elaphrothrips denticollis*: Muraleedhran & Sen, *Rec. Zool. Surv. India* 79: 209.

Specimen studied : 2♀♀; ex. bamboo leaf litter; Dt -3-xi-09

Host plant : Bamboo (Poaceae)

Location : Itanagar (460m MSL).

Distribution : India- West Bengal, Manipur, Meghalaya, Nagaland. World- Bhutan, Laos, Thailand, Malaya, Sumatra, Germany.

37. *Elaphrothrips greeni* (Bagnall, 1914)

1914. *Dicaiothrips greeni* Bagnall, *Am. Mus. Nat. Hist.*, **8**, 13: 289.

1934. *Elaphrothrips beesoni* Ramakrishna, *Indian forest Rec.* **20**(4): 7-8.

1980. *Elaphrothrips greeni*: Ananthakrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, **1**: 119

Specimen studied : 1♀; ex leaf litter; Dt. 3.ix.2009.

Host plant : Bamboo (Paoceae)

Location : Yupia (800m MSL).

Distribution : Tamil Nadu, Kerela, Karnataka, Maharastra, Assam.

Genus *Meiothrips* Priesner, 1929

38. *Meiothrips menoni* Ananthakrishnan, 1964

1964. *Meiothrips menoni* Ananthakrishnan, *Opus. Ent. Sypppl.*, **25**: 99-101.

1980. *Meiothrips menoni*: Ananthakrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, **1**: 121 & 169.

Specimen studied : 1♀; ex: Dry twigs and leaf litter, Dt.30.xi.09.

Host plant : *Lantana camara* (Verbenaceae)

Location : Yupia (800m MSL).

Distribution : Kerala, Karnataka, Andhra Pradesh, Manipur, Nagaland.

Genus *Nesothrips* Kirkaldy, 1907

39. *Nesothrips lativentris* (Karny, 1913)

1913. *Rhaebbothrips lativentris* Karny, *H. Sauter's Formosa-Ausbeute. Suppl. Ent.*, **2**: 129-130.

1988. *Nesothrips lativentris*: Sen, Pramanik & Sengupta, *Zool. Surv. India. Occ. Paper*, **100**: 118.

Specimen studied : 2♀♀; ex. Leaf litter; Dt. 30.ix.2009.

Host plant : *Dipterocarpus* (Dipterocarpaceae)

Location : Batt village (450m MSL).

Distribution : **India**- West Bengal, Tripura, Assam. **World**- Mauritius, Philippines, Japan, Guam, Queensland, Hawaii, Jamaica, Virgin Is.

Genus *Oidanothrips* (Schmutz, 1909)

40. *Oidanothrips enormis* Ananthakrishnan, 1969

1969. *Oidanothrips enormis*: Ananthakrishnan *Oriental Insects*, **3** (3): 302-303.

1980. *Oidanothrips enormis*: Ananthakrishnan & Sen, *Zool. Surv. India, Handbk. Ser.*, **1**: 122

Specimen studied : 1♀; ex dry twigs and leaf litter; Dt .30-10-09.

Host plant : *Croton* sp. (Euphorbiaceae).

Location : Itanagar (460m MSL).

Distribution : Tamil Nadu, Andhra Pradesh.

SUMMARY

18 species of terebrantians and 22 species of tubuliferans were recorded from the Itanagar Wild Life Sanctuary, Arunachal Pradesh during autumn [2009] and spring seasons [2010]. The collection records revealed the occurrence of 11 and 6 species under the subfamily Thripinae and Panchaethripinae, one species under Mymarothripinae, 17 and 5 species of Phlaeothripinae and Idolothripinae respectively. Of the 40 species belonging to 30 genera, 6 species are reported for the first time from North East India. In terms of their feeding habit and habitat, the survey revealed the presence of 10 species of foliage feeders, 8 flower dwellers, 7 litter thrips, 5 gall makers, 5 pests, 3 grass invaders and 2 predatory forms.

ACKNOWLEDGEMENTS

The authors are grateful to the Head, Department of Life Sciences, Manipur University, for the laboratory facilities and encouragement and to the Principal Chief Conservator of Forest, Arunachal Pradesh for granting permission to collect the insects from the Sanctuary. This paper is dedicated to Shri. Samir Sen, Retired Zoologist of Z.S.I., Kolkata.

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