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## On a collection of mites occurring on medicinal plants and orchids in Foothills of the Himalayas (West Bengal: India)

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### Abstract

The present paper deals with 86 species of mites under 16 families and 37 genera, including 35 phytophagous species and 48 predatory species. It also contained 2 species not earlier known from India and more or less all the plant species on which these mites were recorded formed new host records (for phytophagous species) and new habitat records (for predatory species).

**Keywords:** Medicinal plants, orchids, India, foothills of Himalayas, West Bengal, mite diversity

### 1. Introduction

The Foothills of the Darjeeling Himalayan region is rich with a diversity of medicinal plants and orchids and those were not adequately explored for occurrence of phytophagous and predatory mites. Some of those are important as pests species and some are important as effective predators. In order to fill in the gap of knowledge, this exploratory work was undertaken in that region and the present paper is based upon identification of those mites. A total of 86 species of mites collected from 69 species of medicinal plants and orchids have been reported in this paper.

### 2. Materials and Methods

The collection of mites was made from Foothills of the Himalayas by undertaking a number of trips each of about 15 days duration during 2020-2021 and leaves of those plants were directly examined under 20X lens in different forests and the mites were picked up by a fine brush moistened with ethyl alcohol. All those were mounted in Hoyer's medium and updated literature were consulted for their identification. Biological information, wherever possible, were noted in the field itself and was presented in this paper.

### 3. Results

A total of 86 species of mites under 16 families and 37 genera were identified, out of which 35 species, 48 species and 3 species belonged to phytophagous, predatory and fungal feeding groups, respectively. All the species have been dealt with in classificatory manner giving their collection data, distribution along with biological information, wherever possible.

#### 1) Phytophagous Group

**Order I:** Trombidiformes

**Suborder A:** Prostigmata

**Family 1:** Tetranychidae Donnadieu

##### 1. *Petrobia harti* (Ewing)

*Neopetrobia harti* Ewing, 1909. Ann. Ent. Soc. Am., 6: 405.

**Material examined:** Several ♀ and ♂, India, West Bengal, Darjeeling district, Mirik ex-*Oxalis corniculata*, 19.10.2020; 3 ♀, Lava, *Oxalis corniculata*, 25.10.2020.

**Distribution:** India (Delhi, Karnataka, West Bengal), Africa, Australia, Brazil, Hawaii, Japan, Middle East, North America, Taiwan.

**Remarks:** *Petrobia harti* was found seriously infesting *Oxalis corniculata* causing severe chlorosis.

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**2. *Aponychus corpuzae* Rimando**

*Aponychus corpuzae* Rimando, 1966. Philip. Agr. 50: 107.

**Material examined:** 10♀, Lolegaon, ex- *Bambusa vulgaris*, 26.10.2020.

**Distribution:** India (Andaman and Nicobar Islands, Assam, Meghalaya, Odisha, Uttar Pradesh, West Bengal), Japan, Philippines, Taiwan, Thailand.

**Remarks:** This mite is common on bamboo tree both in India and outside producing whitish spots on leaves.

**3. *Aponychus sarjui* Gupta**

*Aponychus sarjui* Gupta, 1980. Rec. zool. Surv. India. 77:111-112.

**Material examined:** 3♀, Darjeeling, ex- *Leucas indica*, 18.10.2020.

**Distribution:** India (Andaman and Nicobar Islands, West Bengal).

**Remarks:** This mite was described from Andaman and Nicobar Islands collected from bamboo and its occurrence in North Bengal on *Leucas indica* appeared to be interesting.

**4. *Eutetranychus citri* Attiah**

*Eutetranychus citri* Attiah, 1967. Bull. Soc. Ent. Egypte., 51: 15-16.

**Material examined:** 5♀, 1♂, Kalimpong district, ex- *Citrus sinensis*, 24.10.2020; 7♀, Lolegaon, ex-*Citrus sinensis*, 26.10.2020.

**Distribution:** India (West Bengal), Egypt, South Africa.

**5. *Eutetranychus maximae* Nassar and Ghai**

*Eutetranychus maximae* Nassar and Ghai, 1981, *Oriental Ins.*, 15: 339.

**Material examined:** 4♀, Mirik, ex-*Clerodendrum japonicum*, 19.10.2020; 2♀, Rohini, ex-*Clerodendrum japonicum*, 19.10.2020.

**Distribution:** India (West Bengal, Delhi).

**Remarks:** The record on present host is new.

**6. *Eutetranychus orientalis* (Klein)**

*Eutetranychus orientalis* Klein, 1936, *Bull. Agr. Res. Stn. Rehovot*, 21:3.

**Material examined:** Several ♀ and ♂, Kalimpong district, ex- *Citrus medica*, 24.10.2020; 6♀, Sillerygaon, ex- *Citrus medica*, 27.10.2020.

**Distribution:** India (Andaman & Nicobar Isls., Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal), Afghanistan, Cyprus, Hongkong, Iran, Israel, Japan, Pakistan, Philippines, South Africa, Sudan, Taiwan, Thailand.

**Remarks:** Infested plants turned brownish.

**7. *Eotetranychus hirsti* Pritchard and Baker**

*Tetranychus fici*, Hirst, 1926. Proc. Zool. Soc. Lond., 838.

*Eotetranychus hirsti* Pritchard and Baker, 1960, *Pacific Ent. Coast. Soc. Mem. Ser.*, 2: 200.

**Material examined:** 9♀, Darjeeling, ex-*Cymbidium devonianum*, 18.10.2020.

**Distribution:** India (Cosmopolitan), Pakistan.

**Remarks:** The host *Cymbidium devonianum* is a new host record for this mite.

**8. *Eotetranychus indicus* Gupta and Gupta**

*Eotetranychus indicus* Gupta and Gupta, 1990. Rec. zool.

Surv. India, 88: 20.

**Material examined:** 3♀, 2♂, Rohini, ex-*Physalis divaricata*, 19.10.2020.

**Distribution:** India (West Bengal, Uttar Pradesh), Japan.

**Remarks:** *Physalis divaricata* formed a new host record.

**9. *Eotetranychus suginamensis* (Yokoyama)**

*Tetranychus suginamensis* Yokoyama, 1932. Bull. Seric. Exp. Stn. Japan, (8): 282.

*Eotetranychus suginamensis*, Pritchard and Baker, 1955. Pacific Coast Ent. Soc. Mem. Ser., 2:200.

**Material examined:** 10 ♀, Kalimpong, ex- *Morus alba*, 15.09.2021; 8 ♀, Lava, ex- *Morus alba*, 17.09.2021.

**Distribution:** India (Punjab, West Bengal), Japan.

**Remarks:** *Morus alba* is the host on which it normally occurs. The infested leaves turned pale brown.

**10. *Oligonychus biharensis* (Hirst)**

*Paratetranychus biharensis* Hirst, 1924. *Ann. Mag. nat. Hist. London*, 9(14):522-527.

*Oligonychus biharensis*, Pritchard and Baker, 1955. *Pacific Coast Ent.Soc.Mem.Ser.*,2:364-365.

**Material examined:** 4♀, Sukhlapokhri, ex-*Rosa centifolia*, 23.10.2020; 2♀, Kurseong, ex- *Peristylus constrictus*, 20.09.2021.

**Distribution:** India (West Bengal, Andaman & Nicobar Isls., Bihar, Gujarat, Karnataka, Kerala, Tamil Nadu), Antigua, Brazil, Hawaii, Mauritius, Philippines, Thailand, Taiwan.

**Remarks:** No report of its occurrence on *Peristylus constrictus* was available earlier.

**11. *Oligonychus indicus* (Hirst)**

*Paratetranychus indicus* Hirst, 1923. *Proc. Zool. Soc. London*, Part-4, 990.

*Oligonychus indicus*, Pritchard and Baker, 1955. *Pacific Coast Ent. Soc. Mem. Ser.*, 2:354-355.

**Material examined:** 8♀, 3♂, Darjeeling, Ghoom, ex-*Cynodon dactylon*, 22.10.2020; 5♀, Mongpo, ex- *Cynodon dactylon*, 23.09.2021.

**Distribution:** India (Andhra Pradesh, Bihar, Delhi, Haryana, Karnataka, Odisha, Punjab, Tamil Nadu, Meghalaya, Uttar Pradesh, West Bengal), Pakistan.

**Remarks:** Its occurrence was casual causing no damage.

**12. *Oligonychus mangiferus* (Rahman and Sapra)**

*Paratetranychus mangiferus* Rahman and Sapra, 1940. *Proc. Indian Acad. Sci.*, 11B: 192.

*Oligonychus mangiferus*, Pritchard and Baker, 1955. *Pacific Coast Ent. Soc. Mem. Ser.*, 2:330.

**Material examined:** Several ♀, Mirik, ex- *Coccinia grandis*, 19.10.2020; Sillerygaon, 4♀, ex- *Mangifera indica*, 19.09.2021.

**Distribution:** India (Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Meghalaya, Punjab, West Bengal), Mauritius, South Africa.

**Remarks:** The *Coccinia grandis* is a new addition to its host list.

**13. *Oligonychus pratensis* (Banks)**

*Tetranychus pratensis* Banks. 1912. *Proc. Ent. Soc. Wash.*, 14: 97.

*Oligonychus pratensis*, Pritchard and Baker, 1955. Pacific Coast Ent. Soc. Mem. Ser., 2: 349-354.

**Material examined:** 5♀, Darjeeling, Mongpo, ex-

*Cymbopogon martinii*, 23.09.2021, 3♀, Kalimpong, ex-*Cymbopogon flexuosus*, 15.09.2021.

**Distribution:** India (West Bengal), U.S.A., South America.

**Remarks:** The species was earlier unknown from India and *Cymbopogon martinii*, *Cymbopogon flexuosus* formed new host records.

#### 14. *Panonychus citri* (McGregor)

*Tetranychus citri* McGregor, 1916. *Ann. Ent. Soc. Am.*, 9:284.

*Panonychus citri*, McGregor, 1919. *Proc. U.S. Nat. Mus.*, 56: 641-679.

**Material examined:** Several ♀ and ♂, Kalimpong, ex-*Carica papaya*, 24.10.2020; 2♀, Kalimpong, ex-*Citrus sinensis*, 15.09.2021.

**Distribution:** India (Himachal Pradesh, Jammu & Kashmir, Manipur, Tripura, West Bengal, Meghalaya, Uttar Pradesh, Karnataka, Tamil Nadu, Gujarat), Nepal, South America, Central America, U.S.A, China, Japan, Middle east, New Zealand, South Africa, Thailand, Taiwan, Hong Kong.

**Remarks:** The infestation of this mite on *Carica papaya* made those leaves pale yellow.

#### 15. *Schizotetranychus andropogoni* (Hirst)

*Tetranychus (Schizotetranychus) andropogoni* Hirst, 1926. *Proc. Zool. Soc. Lond.*, 829.

*Schizotetranychus andropogoni*, Gupta and Gupta, 1994. *Mem. Zool. Surv. India*, 18(1): 87-89.

**Material examined:** 5♀, Lolegaon, ex-*Cynodon dactylon*, 26.10.2020.

**Distribution:** India (Bihar, Delhi, Odisha, Punjab, Tamil Nadu, Karnataka, Kerala, Gujarat, Haryana, Uttar Pradesh, West Bengal), Pakistan, Thailand, Mexico.

**Remarks:** This mite occurs frequently on *Cynodon dactylon* on ventral surface and its feeding produced white stipplings arranged in linear row on leaf lamina.

#### 16. *Schizotetranychus baltazari* Rimando

*Schizotetranychus baltazari* Rimando, 1962. *Tech. Bull. Coll. Agric. Univ.*, 11: 534-535.

**Material examined:** 5♀, Kalimpong, ex-*Panisea uniflora*, 15.09.2021.

**Distribution:** India (Assam, Karnataka, West Bengal), Hong Kong, Myanmar, Philippines, Taiwan, Thailand.

**Remarks:** This mite produced yellowish green and white stipplings on leaf lamina visible dorsally.

#### 17. *Tetranychus fijiensis* Hirst

*Tetranychus fijiensis* Hirst, 1924. *Ann. Mag. Nat. Hist.*, (9)14: 523.

**Material examined:** 3 ♀, Mirik, ex-*Ageratum conyzoides*, 19.10.2020; 5♀, Mongpo, ex-*Cinchona officinalis*, 23.09.2021.

**Distribution:** India (Assam, West Bengal, Karnataka, Tamil Nadu, Kerala).

**Remarks:** Its occurrence was casual; no damage was noticed.

#### 18. *Tetranychus hypogaeae* Gupta

*Tetranychus hypogaeae* Gupta, 1976. *Oriental Ins.*, 10: 347-348.

**Material examined:** 4♀, Lolegaon, ex-*Cremastra appendiculata*, 17.09.2021; 2♀, Kalimpong, ex-*Paphiopedilum venustum*, 24.10.2020.

**Distribution:** India (Assam, Bihar, West Bengal, Delhi).

**Remarks:** The host plants on which this mite was recorded

formed new host records.

#### 19. *Tetranychus lombardii* Baker and Pritchard

*Tetranychus lombardii* Baker and Pritchard 1960. *Hilgardia*, 29: 551-552.

**Material examined:** 2 ♀, Ghoom, ex-*Rosa centifolia*, 22.10.2020.

**Distribution:** India (Assam, West Bengal, Karnataka), Africa.

**Remarks:** Its occurrence was casual, no damage was noticed.

#### 20. *Tetranychus ludeni* Zacher

*Tetranychus ludeni* Zacher, 1913. *Mitt. Kais. Biol. Anst. Lond. U. Forstw.* 14:40.

**Material examined:** 3♀, Darjeeling, ex-*Desmodium gangeticum*, 18.10.2020; 3♀, Rishop, ex-*Panisea uniflora*, 18.09.2021.

**Distribution:** India (Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Odisha, Punjab, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal), Australia, Europe (France, Portugal), Hawaii, Mexico, New Zealand, South Africa, South America, U.S.A (Southern part), Zimbabwe.

**Remarks:** This mite colonised on undersurface of the leaves causing chlorosis.

#### 21. *Tetranychus macfarlanei* Baker and Pritchard

*Tetranychus macfarlanei* Baker and Pritchard 1960. *Hilgardia*, 29: 537.

**Material examined:** 5♀, 2♂, Lava, ex-*Urena lobata*, 25.10.2020; 4♀, Lava, ex-*Eupatorium adenophorum*, 17.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., Gujarat, Karnataka, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal), Mauritius.

**Remarks:** The infested leaves had shown chlorosis.

#### 22. *Tetranychus neocaledonicus* Andre

*Tetranychus neocaledonicus* Andre, 1933. *Bull. Mus. Nat. Hist. nat. Paris*, (2)5:302.

**Material examined:** 8♀, Darjeeling, ex-*Clerodendrum japonicum*, *Cinchona officinalis*, 18.10.2020; 6♀, Kalimpong, ex-*Digitalis purpurea*, 15.09.2021.

**Distribution:** India (throughout the country), worldwide.

**Remarks:** This mite was frequently observed on undersurface of leaves where yellowish-brown spots appeared at the points of feeding.

#### 23. *Tetranychus urticae* Koch

*Tetranychus urticae* Koch, 1836. *Deutsche Crustacea, Myriapoda, Fasc.*, 1:10.

**Material examined:** 7♀, 1♂, Pankhabari, ex-*Rosa indica*, *Tagetes erecta*, 20.10.2020; 7♀, Kalimpong, Icchegaon, ex-*Rauvolfia serpentina*, *Chenopodium album*, 27.10.2020.

**Distribution:** India (throughout the country), worldwide.

**Remarks:** The infestation on undersurface of both rose leaves and *Rauvolfia serpentina* turned yellowish browning spots on leaves.

#### Family 2: Tenuipalpidae Berlese

#### 24. *Brevipalpus californicus* (Banks)

*Tenuipalpus californicus* Banks, 1904. *J. NY. Ent. Soc.*, 12:55.

*Brevipalpus californicus*, Gupta *et al.*, 1917. *Indian J. Ent.*,



33: 30-33.

**Material examined:** Several ♀, Darjeeling, ex- *Physalis divaricata*, 18.10.2020; 4♀, Darjeeling ex- *Leucas indica*, 18.10.2020; 5♀, Sillerygaon, ex- *Wisteria chinensis*, 19.09.2021.

**Distribution:** India (West Bengal), Algeria, Angola, Australia, Brazil, Congo, Cyprus, Egypt, France, Greece, India, Israel, Italy, Japan, Malaysia, Mauritius, Mexico, Mozambique, Nepal, Papua New Guinea, Portugal, Senegal, Sri Lanka, South Africa, Thailand, U.S.A., Zimbabwe.

**Remarks:** Infestation of this mite on *Physalis divericata* was high causing browning and drying of leaves.

### 25. *Brevipalpus deleoni* Pritchard and Baker

*Brevipalpus deleoni* Pritchard and Baker, 1958. Univ. Calif. Pub. Ent. 14 (3): 234-235.

**Material examined:** 10♀, Kalimpong, ex- *Cremastra appendiculata*, 15.09.2021.

**Distribution:** India (Punjab, West Bengal), U.S.A.

**Remarks:** *Cremastra appendiculata* the host from where this mite was recorded formed new host record.

### 26. *Brevipalpus euphorbiae* Mohanasundaram

*Brevipalpus euphorbiae* Mohanasundaram, 1982. Entomon, 7(4):427-429.

*Brevipalpus euphorbiae*, Gupta and Mandal, Mem. Zool. Surv. India, 22(2): 19.

**Material examined:** 10♀, Rishop, ex-*Panisea uniflora*, 18.09.2021.

**Distribution:** India (Punjab, Tamil Nadu, West Bengal).

**Remarks:** The present plant formed new host record.

### 27. *Brevipalpus melichrus* Smith- Meyer

*Brevipalpus melichrus* Smith-Meyer, 1979. Ent. Mem. Dept. Agr. Tech. Serv. No. 50: 76.

**Material examined:** Several ♀, Kurseong, ex- *Coccinia grandis*, 21.10.2020.

**Distribution:** India (West Bengal), U.S.A., Africa.

**Remarks:** The record of this mite was casual, causing no damage symptoms.

### 28. *Brevipalpus mitrofanovi* Pegazzan

*Brevipalpus mitrofanovi* Pegazzan, 1975. Redia, 56: 543-553.

**Material examined:** 4♀, Pankhabari, ex- *Rosa centifolia*, 20.10.2020.

**Distribution:** India (Punjab, West Bengal), Africa, U.S.A.

**Remarks:** The present plant formed new host.

### 29. *Brevipalpus obovatus* Donnadieu

*Brevipalpus obovatus* Donnadieu, 1875. *Recherches pour servir a l' historicdes Tetranyques*, p. 116.

**Material examined:** 5♀, Lolegaon, ex- *Psoralea corylifolia*, 26.10.2020.

**Distribution:** India (Delhi, Himachal Pradesh, Punjab, Tamil Nadu, Haryana and West Bengal). This is one of the widely distributed species throughout the world.

**Remarks:** The infestation of this mite on undersurface of *Psoralea corylifolia* leaves produced brownish spots.

### 30. *Brevipalpus phoenicis* (Geijskes)

*Tenuipalpus phoenicis* Geijskes, 1939. *Arten.Meded. Landl-Hoogeach Wageningen*, 42(4):1-68.

**Material examined:** Several ♀, Kalimpong, ex- *Cymbidium pendulum*, 24.10.2020; 3♀, Kalimpong, *Cymbidium*

*devonianum*, 15.09.2021.

**Distribution:** India (West Bengal, Arunachal Pradesh, Assam, Bihar, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Kanataka, Maharashtra, Meghalaya, Odisha, Punjab, Sikkim, Tamil Nadu, Tripura). This species is known from different parts of the world and from India this has been recorded from extensive areas.

**Remarks:** The present plant formed new host record.

### 31. *Raoiella indica* Hirst

*Raoiella indica* Hirst 1924. *Ann. Mag. Nat. Hist.*, (9)14: 522.

**Material examined:** Several ♀, Darjeeling, ex- Garden palm, 18.10.2020.

**Distribution:** India (Karnataka, Kerala, Odisha, Punjab, Tamil Nadu, West Bengal), Africa, Egypt, Mauritius, Sudan.

**Remarks:** This mite colonised on undersurface of leaves producing reddish patches.

### Family 3: Tarsonemidae Kramer

### 32. *Polyphagotarsonemus latus* (Banks)

*Tarsonemus latus* Banks, 1904. *Proc. US. Nat. Mus.*, 32(1553): 615.

**Material examined:** 4♀, Lava, ex- *Datura metel*, 25.10.2020; 2♀, Rishop, ex- *Ocimum sanctum*, 18.09.2021.

**Distribution:** India (Bihar, Karnataka, Maharashtra, Punjab, Uttar Pradesh, West Bengal), China.

### Family 4: Eriophyidae Nalepa

### 33. *Aceria bambusae* ChannaBasavanna

*Aceria bambusae* ChannaBasavanna, 1966. *Univ. Agri. Sci. Bull.*, pp. 58-59.

**Material examined:** 5♀, Lolegaon, ex- *Bambusa vulgaris*, 26.10.2020; 3♀, Mongpo, ex- *Bambusa vulgaris*, 23.09.2021.

**Distribution:** India (Karnataka, Tamil Nadu, West Bengal).

### 34. *Aceria nerii* ChannaBasavanna

*Aceria nerii* ChannaBasavanna, 1966. *Univ. Agric. Sci. Bull.*, 78-79.

**Material examined:** 3♀, Lava, ex- *Nerium indicum*, 25.10.2020; 2♀, Mongpo, ex- *Nerium indicum*, 23.09.2021.

**Distribution:** India (Karnataka, Tamil Nadu, West Bengal).

### 35. *Ectomerus chebulae* Mohanasundaram

*Ectomerus chebulae* Mohanasundaram, 1980. *Indian J. Acarol.* 4: 3-4.

**Material examined:** 6♀, Rangli, ex- *Terminalia chebula*, 24.09.2021.

**Distribution:** India (Tamil Nadu, West Bengal).

## (II) Predatory Group

### Sub order A: Prostigmata (Contd.)

### Family 5: Anystidae Oudemans

### 36. *Anystis nagalandensis* Gupta

*Anystis nagalandensis* Gupta, 1991. *Rec. zool. Surv. India*, 88: 235-236.

**Material examined:** 2 ♀, Rohini, ex- *Citrus sinensis*, 19.10.2020; 3♀, Kalimpong, ex- *Panisea uniflora*, 15.09.2021.

**Distribution:** India (Nagaland, West Bengal).

**Remarks:** New habitat record.

**37. *Walzia darjeelingensis* Gupta**

*Walzia darjeelingensis* Gupta, 1992. In: State Fauna Ser. 3, Fauna of West Bengal, Part-III, p.148.

**Material examined:** 3♀, Darjeeling, ex- *Physalis divaricata*, 18.10.2020.

**Distribution:** India (Sikkim, West Bengal).

**Remarks:** New habitat record for this predatory mite.

**Family 6: Bdellidae Duges****38. *Odontoscirus dubitata* (Womersley)**

*Scirus dubitata* Womersley, 1933. *Trans. Proc. Res. Soc. So. Australia*, 57: 102.

*Odontoscirus dubitata*, Hernandez *et al.* 2016. *Zootaxa*, 4152(1): 75.

**Material examined:** 8♀, Lava, ex- *Rosa centifolia*, 17.09.2021.

**Distribution:** India (West Bengal), Australia.

**Remarks:** Occurrence of the species was unknown earlier from India.

**39. *Odontoscirus grandiflora* (Gupta)**

*Bdellodes grandiflora* Gupta, 1991. *Rec. zool. Surv. India*, 88: 224-225.

**Material examined:** 5♀, Darjeeling, ex- *Cyphomandra betacea*, 18.10.2020.

**Distribution:** India (Arunachal Pradesh, West Bengal).

**Remarks:** The present plant on which it was recorded formed new habitat record for this predatory mite.

**Family 7: Cheyletidae Leach****40. *Cheyletus eruditus* (Scharnk)**

*Acarus eruditus* Scharnk 1981. *Enumeratio insectorum Austrialin digenorum*, p. 513.

**Material examined:** 2♀, Kurseong, ex- *Panicum repens*, 21.10.2020; 5♀, Sillerygaon, ex- *Cinchona officinalis*, 19.09.2021.

**Distribution:** India (Punjab, Haryana, Karnataka, West Bengal), Cosmopolitan.

**Remarks:** This is a predatory mite in stored product.

**Family 8: Cunaxidae Thor****41. *Cunaxa capreolus* (Berlese)**

*Scirus capreolus* Berlese, *Redia* 14:63, *Fasc.*, 7(20):66.

*Cunaxa capreolus*, Gupta 1991. *Rec. zool. Surv. India*, 88: 230.

**Material examined:** 6♀, Mongpo, ex- *Cinchona officinalis*, 23.09.2021.

**Distribution:** India (Arunachal Pradesh, Meghalaya, West Bengal), Cosmopolitan.

**Remarks:** *Cinchona officinalis* is a new habitat record for this mite.

**42. *Cunaxa cynodonae* Gupta and Ghosh**

*Cunaxa cynodonae* Gupta and Ghosh, 1980. *Rec. zool. Surv. India*, 77: 196-198.

**Material examined:** 5♀, Lava, ex- *Cynodon dactylon*, 25.10.2020; 4♀, Lava, ex- *Cynodon dactylon*, 17.9.2021.

**Distribution:** India (Andaman & Nicobar Isls., West Bengal).

**43. *Cunaxa mangiferae* Gupta**

*Cunaxa mangiferae* Gupta, 1992. In: *State Fauna ser. 3, Fauna of West Bengal*, Part-3, pp. 136-138.

**Material examined:** 4♀, Rangli, ex-*Mangifera indica*, 24.09.2021.

**Distribution:** India (Tripura, West Bengal).

**44. *Dactyloscirus machairodus* (Oudemans)**

*Rosenhofia machairodus* Oudemans, 1992. *Ent. Ber.*, 61: 110.

**Material examined:** 3♀, Kalimpong, ex- *Rosa indica*, 24.10.2020; 5♀, Kalimpong, ex- *Aconitum ferox*, 15.09.2021.

**Distribution:** India (Meghalaya, West Bengal), Indonesia.

**Remarks:** It is a new report from Himalayan Foothills region under West Bengal.

**Family 9: Erythraeidae Robineau-Desvoidy****45. *Leptus samsungensis* Gupta**

*Leptus samsungensis* Gupta, 1992. In: *State Fauna Ser. 3, Fauna of West Bengal, Part-III*, p. 122.

**Material examined:** 4♀, Samsung, ex- *Colocasia esculenta*, 19.10.2020.

**Distribution:** India (West Bengal).

**Remarks:** This is a predatory mite.

**46. *Sphaerolophus gigas* Khot**

*Sphaerolophus (Cavannea) gigas* Khot, 1965. *Acarologia*, 7: 64.

**Material examined:** 6♀, Pankhabari, ex- *Costus speciosus*, 20.10.2020.

**Distribution:** India (Delhi, West Bengal).

**Remarks:** *Costus speciosus* was a new habitat record for this predatory mite but no prey mite was found associated.

**Family 10: Eupodidae Koch****47. *Eupodes sigmoidensis* Strandtmann and Goff**

*Eupodes sigmoidensis* Strandtmann and Goff, 1978. *Pacific Insects*, 19: 123-124.

**Material examined:** 5♀, Lava, ex- *Rhododendron arboreum*, 25.10.2020.

**Distribution:** India (Lakshadweep Islands, Mizoram, Sikkim, West Bengal).

**Remarks:** *Rhododendron arboreum* is a new habitat record for this mite.

**Family 11: Iolinidae Andre****48. *Pronematus elongatus* Baker**

*Pronematus elongatus* Baker, 1968. *Annals Ent. Soc. Amer.*, 61: 1093-1094.

**Material examined:** 10♀, Darjeeling, ex- *Solanum khasianum*, 18.10.2020; 5♀, Gorubathan, ex- *Ageratum conyzoides*, 16.09.2021.

**Distribution:** India (Jammu & Kashmir, West Bengal), U.S.A.

**Remarks:** *Solanum khasianum* and *Ageratum conyzoides* formed new habitat record for this predatory mite.

**49. *Pronematus fleschneri* Baker**

*Pronematus fleschneri* Baker, 1968. *Ann. ent. Soc. Am.*, 61(5):1092-1093.

**Material examined:** 2♀, Darjeeling, ex- *Ginkgo biloba*, 18.10.2020; 3♀, Mongpo, ex- *Cinchona officinalis*, 23.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., Bihar, Delhi, Punjab, Sikkim, Tripura, Uttar Pradesh, West Bengal).

#### 50. *Pronematus sextoni* Baker

*Pronematus sextoni* Baker, 1968. *Ann. Ent. Soc. Am.*, 61(5):1092-1093.

**Material examined:** 3♀, Shuklapokhri, ex- *Rhododendron arboreum*, 23.10.2020.

**Distribution:** India (Delhi, Karnataka, Punjab, Uttar Pradesh, West Bengal).

**Remarks:** *Rhododendron arboreum* formed new habitat record for this predatory mite.

#### Family 12: Stigmaeidae Oudemans

#### 51. *Agistemus fleschneri* Summers

*Agistemus fleschneri* Summers, 1960. *Proc. Ent. Soc. Wash.*, 62:237-240.

**Material examined:** 1♀, Kalimpong, ex- *Citrus reticulata*, 24.10.2020; 3♀, Lava, ex- *Citrus reticulata*, 17.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., Arunachal Pradesh, Assam, Delhi, Haryana, Manipur, Meghalaya, Punjab, Sikkim, Tripura, West Bengal), Chili, Mexico, U.S.A.

#### 52. *Agistemus industani* Gonzalez-Rodriguez

*Agistemus industani* Gonzalez-Rodriguez, 1965. *Univ. Calif. Pub. Ent.*, 41: 40.

**Material examined:** 5♀, Kalimpong, ex- *Panisea uniflora*, 24.10.2020.

**Distribution:** India (West Bengal, Arunachal Pradesh, Mizoram, Nagaland, Uttar Pradesh, Punjab, Tamil Nadu, Karnataka).

#### 53. *Agistemus macrommatus* Gonzalez- Rodriguez

*Agistemus macrommatus*, Gonzalez-Rodriguez, 1965. *Univ. Calif. Pub. Ent.*, 41: 38-39.

**Material examined:** 2♀, Rishop, ex- *Dendrobium nobile*, 17.09.2021.

**Distribution:** India (West Bengal, Andhra Pradesh, Lakshadweep, Tamil Nadu, Uttar Pradesh).

**Remarks:** *Dendrobium nobile* formed new habitat record for this predatory mite.

#### 54. *Agistemus obscura* Gupta

*Agistemus obscura* Gupta, 1991. *Rec. zool. Surv. India*, 88: 210-211.

**Material examined:** 3♀, Darjeeling, ex- *Dioscorea deltoidea*, 18.10.2020; 4♀, Kalimpong, ex- *Digitalis purpurea*, 15.09.2021.

**Distribution:** India (Manipur, West Bengal).

**Remarks:** *Dioscorea deltoidea* and *Digitalis purpurea* formed new habitat records but no prey mite was found associated with it.

#### Order II: Mesostigmata

#### Family 13: Ascidae Voigts and Oudemans

#### 55. *Lasioseius quadrisetosus* Chant

*Lasioseius quadrisetosus* Chant, 1960. *Can. Ent.*, 92: 64.

**Material examined:** 3♀, Icchegaon, ex-*Hibiscus rosa-sinensis*, 27.10.2020.

**Distribution:** India (Assam, West Bengal).

#### 56. *Lasioseius terrestris* Menon and Ghai

*Lasioseius terrestris* Menon and Ghai, 1968. *J. Ent.*, 30: 77-79.

**Material examined:** 7♀, Darjeeling, ex- *Achyranthes bidentata*, 18.10.2020.

**Distribution:** India (Delhi, West Bengal).

**Remarks:** The occurrence of the species from West Bengal was unknown.

#### Family 14: Phytoseiidae Berlese

#### 57. *Amblyseius channabasavanai* Gupta and Daniel

*Amblyseius channabasavanai* Gupta and Daniel, 1979. *Oriental Ins.*, 12: 328-329.

**Material examined:** 10♀, Lava, ex- *Coccinia grandis*, 25.10.2020; 3♀, Rishop, ex- *Cymbopogon flexuosus*, 18.09.2021.

**Distribution:** India (Arunachal Pradesh, Kerala, Tamil Nadu, West Bengal, Meghalaya, Sikkim).

#### 58. *Amblyseius excelsus* Chaudhri, Akbar and Rasool

*Amblyseius excelsus* Chaudhri, Akbar and Rasool, 1979. *Report Studies on leaf inhabiting mites of Pakistan*, p. 68.

**Material examined:** 5♀, Rishop, ex- *Cymbidium pendulum*, 18.09.2021.

**Distribution:** India (Jammu & Kashmir, West Bengal), Pakistan.

#### 59. *Amblyseius herbicolus* (Chant)

*Typhlodromus (Amblyseius) herbicolus* Chant, 1959. *Can. Ent.* 91: 84-85.

**Material examined:** 2♀, Kalimpong, ex- *Citrus reticulata*, 24.10.2020; 3♀, Lava, ex- *Rosa indica*, 17.09.2021; 2♀, Ghoom, ex- *Coccinia grandis*, 21.09.2021.

**Distribution:** India (Mizoram, Sikkim, Tamil Nadu, Tripura, West Bengal), Africa, Australia, Brazil, China, Egypt, Europe, Japan, Madagascar, Mexico, North America, Pakistan, Papua- New Guinea, Portugal, South Africa, South America, Taiwan, Thailand, Turkey, West Indies.

#### 60. *Amblyseius largoensis* (Muma)

*Amblyseius largoensis* Muma, 1955. *Ann. Ent. Soc. Am.*, 48:266.

**Material examined:** 4♀, Darjeeling, ex-*Clematis buchananiana*, *Chenopodium album*, 18.10.2020; 6♀, Gorubathan, ex- *Tagetes erecta*, 16.09.2021.

**Distribution:** India (Arunachal Pradesh, Andaman & Nicobar Island, Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Lakshadweep Island, Meghalaya, Mizoram, Nagaland, Odisha, Puducherry, Punjab, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal).

#### 61. *Amblyseius mcmurtryi* Muma

*Amblyseius mcmurtryi* Muma, 1967. *Fla. Ent.*, 50:270.

**Material examined:** 3♀, Mirik, ex- *Hibiscus rosa-sinensis*, 19.10.2020; 2♀, Rohini, ex- *Physalis divaricata*, 19.10.2020; 3♀, Mongpo, ex- *Cinchona officinalis*, 23.09.2021.

**Distribution:** India (Assam, Lakshadweep, Meghalaya, West Bengal), Iran.

#### 62. *Amblyseius paraaerialis* Muma

*Amblyseius paraaerialis* Muma, 1967. *Fla. Ent.*, 50: 270-271.

**Material examined:** 7♀, Kalimpong, Pemling, ex- *Ocimum sanctum*, 28.10.2020.

**Distribution:** India (Arunachal Pradesh, Assam, Kerala,



Meghalaya, Sikkim, West Bengal), Thailand.

**63. *Euseius alstoniae* (Gupta)**

*Amblyseius alstoniae* Gupta, 1975. Internat. J. Acarol., 1(2):31-32.

**Material examined:** Several ♀ and ♂, Kurseong, ex- *Panicum repens*, 21.10.2020; 3 ♀, Kalimpong, ex- *Peristylus constrictus*, 15.09.2021.

**Distribution:** India (Arunachal Pradesh, Bihar, Gujarat, Haryana, Jammu & Kashmir, Kerala, Madhya Pradesh, Meghalaya, Odisha, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh).

**64. *Euseius coccinae* (Gupta)**

*Amblyseius coccinae* Gupta, 1975. Internat. J. Acarol., 1(2):30.

**Material examined:** 3 ♀, Lava, ex- *Nerium indicum*, 25.10.2020.

**Distribution:** India (Arunachal Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Madhya Pradesh, Manipur, Maharashtra, Meghalaya, Puducherry, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal).

**65. *Euseius concordis* (Chant)**

*Typhlodromus (Amblyseius) concordis* Chant, 1959. Can. Ent., 91 (Suppl.12):69.

**Material examined:** 12 ♀, Darjeeling, ex- *Pouzolzia hirta*, 18.10.2020.

**Distribution:** India (Karnataka, West Bengal), Argentina, Central America.

**Remarks:** Casual occurrence, *Pouzolzia hirta* formed new habitat record.

**66. *Euseius finlandicus* (Oudemans)**

*Seiulus finlandicus* Oudemans, 1915. Ent. Ber., 4:183.

**Material examined:** 2 ♀, Kalimpong, ex- *Citrus sinensis*, 24.10.2020; 3 ♀, Kalimpong, ex- *Digitalis purpurea*, 15.09.2021.

**Distribution:** India (Bihar, Himachal Pradesh, Jammu & Kashmir, Karnataka, Lakshadweep, Meghalaya, Tripura, West Bengal) Africa, Canada, Europe, Indonesia, Japan, Mexico, Pakistan, Russia, South America, U.S.A.

**67. *Euseius kalimpongensis* (Gupta)**

*Amblyseius kalimpongensis* Gupta 1969. Bull. Ent., Ent. Soc. India, 10:128-129.

**Material examined:** 6 ♀, Kalimpong, ex- *Coelogyne ochracea*, 15.09.2021.

**Distribution:** India (Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Kerala, Meghalaya, Odisha, Punjab, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal).

**68. *Euseius ovalis* (Evans)**

*Typhlodromus ovalis* Evans, 1953. Ann. Mag. Nat. Hist., 6: 458-461.

**Material examined:** 4 ♀, Darjeeling, ex- *Melissa axillaris*, 18.10.2020; 3 ♀, Gorubathan, ex- *Moringa oleifera*, 16.09.2021.

**Distribution:** India (Andaman Nicobar Isls., Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Puducherry, Punjab, Sikkim, Tamil Nadu, Tripura, West Bengal) Australia, Hawaii, Hongkong, Indonesia, Japan, Malaysia, Mauritius, Mexico, New Zealand, Philippines, Taiwan.

**69. *Euseius rhododendronis* (Gupta)**

*Amblyseius rhododendronis* Gupta, 1970. Oriental Ins., 4: 187-188.

**Material examined:** 7 ♀, Darjeeling, ex- *Rhododendron arboreum*, 18.10.2020.

**Distribution:** India (Karnataka, Mizoram, Sikkim, Tamil Nadu, Tripura, West Bengal) Thailand.

**70. *Neoseiulus cynodona* (Gupta)**

*Amblyseius cynodona* Gupta, 1977. Oriental Ins., 11: 626-627.

**Material examined:** 6 ♀, Mirik, ex- *Cynodon dactylon*, 19.10.2020; 4 ♀, Mongpo, ex- *Cynodon dactylon*, 23.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., West Bengal).

**Remarks:** The occurrence of this species from Darjeeling Himalayan region appeared to be interesting as it was originally described from Andaman & Nicobar Isls.

**71. *Neoseiulus longispinosus* (Evans)**

*Typhlodromus longispinosus* Evans, 1952. Ann. Mag. Nat. Hist., (12)5: 413-416.

**Material examined:** 3 ♀, Darjeeling, ex- *Rauvolfia serpentina*, 18.10.2020; 5 ♀, Kurseong, ex- *Coleus forskohlii*, 20.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., Arunachal Pradesh, Bihar, Karnataka, Kerala, Lakshadweep, Odisha, Puducherry, Sikkim, Tamil Nadu, West Bengal).

**72. *Paraphytoseius bhadraliensis* (Gupta)**

*Amblyseius bhadraliensis* Gupta, 1969. Bull. Ent., 10(2): 127-128.

**Material examined:** 4 ♀, Rohini, ex- *Rhododendron cinnabarinum*, 19.10.2020.

**Distribution:** India (Tripura, Arunachal Pradesh, Mizoram, Assam, Sikkim, Meghalaya, Bihar, Maharashtra, Punjab, Tamil Nadu, Karnataka, Uttar Pradesh, Andhra Pradesh, Andaman & Nicobar Isls., West Bengal).

**Remarks:** *Rhododendron cinnabarinum* formed new habitat record for this mite.

**73. *Paraphytoseius multidentatus* Swirski and Shechter**

*Paraphytoseius multidentatus* Swirski and Shechter, 1961. Israel J. Agric. Res., 11(2): 114-116.

**Material examined:** 3 ♀, Darjeeling, ex- *Rubia cordifolia*, 18.10.2020.

**Distribution:** India (Andaman & Nicobar Isls., Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Karnataka, Maharashtra, Meghalaya, Mizoram, Punjab, Sikkim, Tripura, Tamil Nadu, Uttar Pradesh, West Bengal), Hong Kong, China, Philippines, Nigeria, Madagascar, Malaysia, China.

**74. *Paraphytoseius orientalis* (Narayanan, Kaur and Ghai)**

*Amblyseius orientalis* Narayanan, Kaur and Ghai, 1960. Proc. Nat. Inst. Sci., 226 B:394.

**Material examined:** 3 ♀, Rishop, ex- *Curculigo orchioides*, 18.09.2021.

**Distribution:** India (Andaman & Nicobar Isls., Arunachal Pradesh, Assam, Bihar, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh, West Bengal), China, Hong Kong, Madagascar, Nigeria, Philippines, Thailand.

**75. *Proprioiseiopsis peltatus* (van der Merwe)**

*Amblyseius (Amblyseius) peltatus* van der Merwe, 1968. *Ent. Mem. Dept. Agr. Tech. Serv. Rep. S. Afr.*, 18: 119.

**Material examined:** Several ♀, Mirik, ex- *Curcuma angustifolia*, 19.10.2020.

**Distribution:** India (West Bengal), Australia, Madagascar, Papua New Guinea, South Africa, Thailand.

#### 76. *Scapulaseius suknaensis* (Gupta)

*Amblyseius suknaensis* Gupta, 1970. *Oriental Ins.* 4: 185-186.

**Material examined:** Several ♀ and ♂, Darjeeling, ex- *Hypericum patulum*, 18.10.2020; 8♀, Mirik, ex- *Urena lobata*, 19.10.2020.

**Distribution:** India (Andaman & Nicobar Isls., Arunachal Pradesh, Assam, Kerala, Meghalaya, Mizoram, Odisha, Tripura, Uttar Pradesh, West Bengal).

#### Tribe: Typhlodromipsini Chant and McMurtry 2005

#### 77. *Typhlodromips syzygii* (Gupta)

*Amblyseius syzygii* Gupta, 1975. *Internat. J. Acarol.*, 1(2): 44-45.

**Material examined:** 4♀, Sillerygaon, ex- *Ficus carica*, 27.10.2020; 3♀, Rangli, ex- *Ficus religiosa*, 24.09.2021.

**Distribution:** India (Bihar, Delhi, Karnataka, Kerala, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal).

#### 78. *Paraamblyseius mumai* Gupta

*Paraamblyseius mumai* Gupta, 1980. *Ent. mon. Mag.*, 116: 33-34.

**Material examined:** 5♀, Kalimpong, ex- *Cymbidium devonianum*, 15.09.2021.

**Distribution:** India (Meghalaya, Mizoram, Sikkim, Uttar Pradesh, West Bengal).

#### 79. *Phytoseius kapuri* Gupta

*Phytoseius (Phytoseius) kapuri*, Gupta, 1969. *Israel J. Agric. Res.*, 19(3): 116-117.

**Material examined:** 5♀, Kurseong, ex- *Ixora coccinea*, 21.10.2020.

**Distribution:** India (Andaman & Nicobar Isls., Arunachal Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Kerala, Madhya Pradesh, Meghalaya, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal).

#### 80. *Phytoseius meyeræ* Gupta

*Phytoseius (Dubininellus) meyeræ* Gupta, 1977. *Indian J. Acar.*, 2: 7.

**Material examined:** 6♀, Sillerygaon, ex- *Datura metel*, 27.10.2021; 4♀, Icchegaon, ex- *Chrysanthemum coronarium*, 19.09.2021.

**Distribution:** India (Meghalaya, West Bengal).

#### 81. *Phytoseius roseus* Gupta

*Phytoseius (Dubininellus) roseus* Gupta, 1969. *Israel J. Agric. Res.*, 19: 119-120.

**Material examined:** 5♀, Lava, ex- *Rosa indica*, 25.10.2020; 6♀, Kurseong, ex- *Rosa centifolia*, 20.09.2021.

**Distribution:** India (Gujarat, Jammu & Kashmir, Punjab, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal), Pakistan.

#### 82. *Typhlodromus (Anthoseius) fleschneri* Chant

*Typhlodromus (Typhlodromus) fleschneri* Chant, 1960. *Can. Ent.*, 92: 60-62.

**Material examined:** 6♀, Rangli, ex- *Coccinia grandis*,

24.09.2021.

**Distribution:** India (Assam, Bihar, Karnataka, Meghalaya, West Bengal).

#### 83. *Typhlodromus (Anthoseius) rickeri*

*Typhlodromus rickeri* Chant, 1960. *Can. Ent.*, 92: 62-64.

**Material examined:** 2♀, Kalimpong, ex- *Citrus* spp., 15.09.2021.

**Distribution:** India (Karnataka, Madhya Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Uttar Pradesh, West Bengal), China, Florida.

#### Order III: Sarcoptiformes

#### Suborder: Oribatida

#### Cohort: Astigmata

#### Family 14: Glycyphagidae Berlese

#### 84. *Glycyphagus domesticus* (De Geer)

*Acarus domesticus* De Geer, 1778. *Mem. Hist. Ins.*, 7:106-109.

**Material examined:** 2♀, Mongpo, ex- *Cinchona officinalis*, 23.09.2021.

**Distribution:** India (Haryana, Karnataka, Punjab, West Bengal).

**Remarks:** This is a stored product mite.

#### Family 15: Acaridae Ewing and Nesbitt

#### 85. *Acarus farris* (Oudemans)

*Aleurobius farris* Oudemans, 1905, Hughes, 1976. The mites of stored food & houses. *Minist. Agri. Fish. Food London, Tech. Bull.*, 9: 41-43.

**Material examined:** 2♀, Kurseong, ex- *Coleus aromaticus*, 21.10.2020.

**Distribution:** India (West Bengal), U. K., Netherlands, Germany, Kenya, U.S.A., Poland, Czechoslovakia.

**Remarks:** This is a stored product mite and its occurrence on plant is accidental, may be through wind current.

#### 86. *Acarus siro* Linnaeus

*Acarus siro* var. *farina* Linnaeus, 1758. *Systema Naturae* 10<sup>th</sup> ed.

**Material examined:** 4♀, Pemling, ex- *Bauhinia acuminata*, 28.10.2020.

**Distribution:** Cosmopolitan.

**Remarks:** This is a stored product mite.

#### Discussion

This paper reported a total of 86 species under 16 families and 37 genera of those 35 species, 48 species and 3 species represented phytophagous group, predatory group and fungal feeding group, respectively. Among the phytophagous groups, the maximum representation was from family Tetranychidae (23 species, 8 genera), followed by family Tenuipalpidae (8 species, 2 genera), while the representations from other two phytophagous families of mites were too meagre. Among the phytophagous mites, the species which were found to be more abundant, producing the characteristic mite damage symptoms were *Schizotetranychus baltazari* on *Panisea uniflora*, *Tetranychus macfarlanei* on *Eupatorium adenophorum*, *T. neocaledonicus* on *Cinchona officinalis*, *T. urticae* on *Rosa indica* and *Rauvolfia serpentina* and *Panonychus citri* on *Carica papaya*, *Citrus sinensis*. From the



available data it can be inferred that the families Tarsonemidae, Eriophyidae need more intensive survey because of their poor representations. This paper reported 2 species viz. *Oligonychus pratensis* and *Odontoscirus dubitatus* which were not known earlier from India.

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