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Eriophyoid mites (Acari: Eriophyoidea) from Himachal Pradesh, India: New mite and host plant records

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Abstract
The paper reports a total of 11 eriophyoid species collected from Himachal Pradesh, India, providing their diagnosis, host records, collection localities (including GPS data) and biological information wherever observed. This includes *Aculus schlechtendali* (Nalepa) and *Aculus fockeui* (Nalepa and Trouessart) which are first records from India. Besides, 2 other species, viz., *Aceria lycopersici* (Wolffenstein) and *Paraphytoptus chrysanthemi* Keifer are first records from Himachal Pradesh.

Keywords: Eriophyoid mites, Himachal Pradesh, diversity, keys

Introduction
Himachal Pradesh is a mountainous state in the Western Himalayas occupying an area of 55,673 sq km (30^0 22' 40" to 33^0 12' 40" N and 75^0 45' 55" to 79^0 04' 20" E) and with elevation of 350 to 7000 m above mean sea level. Based on the agroclimatic conditions, the state has been divided in four zones: The sub -tropical zone; The subtemperate zone; The sub-temperate wet zone and Dry temperate zone. Owing to the benefit of varied climatic conditions, many crops are cultivated in the state, the major being wheat, maize and paddy; vegetables like cabbage, cauliflower, bell peppers, potato and seed production of vegetable crops; fruits like apple and stone fruits. Ornamental crops like rose, gerbera and chrysanthemum, are also cultivated in the region under open and polyhouse conditions.
The production quality of crops is hampered in the state due to presence of insect-pest. Eriophyoid mites belonging to the family Eriophyidae are tiny obligatory phytophagous arachnids showing high level of adaptability (Amrine 1996) [1]. Many eriophyoids are potential plant pests causing notable damage to plants which include galls, erineum, big buds, russeting, bronzing, silvering etc. Besides, few of them also acting as vectors of plant viruses. Out of the worldwide distribution of 4600 eriophyoid species, more than 482 species have been reported from India. In the present study, 11 eriophyid species have been described with relevant information on diagnostic remarks, Host plant, their relationship and distribution of mite fauna from Himachal Pradesh. Two species, *Aculus schlechtendali* (Nalepa) and *Aculus fockeui* (Nalepa and Trouessart) are first records from India, whereas, *Aceria lycopersici* (Wolffenstein) and *Paraphytoptus chrysanthemi* Keifer are new records from the state.

Results
The identification of the specimens was conducted following the keys to the families, subfamilies, tribe and genera to the subfamily Eriophoidea as provided by Amrine *et al*. 2003 [4].

Family: Eriophyidae Nalepa
Subfamily: Eriophyinae Nalepa
Tribe: Aceriini Amrine and Stasny
Genus: *Aceria* Keifer
Aceria Keifer, 1944, ES XIV, BCDA 33:32
Type: *Eriophyes tulipae* Keifer
Aceria cheriani (Massee)

Eriophyes cheriani, Massee, 1933, Ann. Mag. Natur. Hist., 11: 201-203
Eriophyes cheriani, Mani, 1933, Ann. Mag. Natur. Hist., 12: 138-139
Eriophyes cheriani, Gupta, 1985, Handbook. Plant mite of India, ZSI Pub. 208
Aceria cheriani, Mohanasundaram, 1990, Ind. J. Acar., 12: 59
Aceria cheriani, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 34

Host
Milletia glabra Adema (Fabaceae) Himachal Pradesh, India.

Relationship with the host plant
The mite causes half inch green coloured galls on leaves, mostly observed on the upper surface and rarely on the lower surface (Mani, 1933).

Collection record from Himachal Pradesh
Collected from Solan (30˚ 90′ N, 77˚09′ E), 1550 m. (above mean sea level) on *Milletia glabra* Adema (Fabaceae) on 18.05.1983; Coll.: S. K. Gupta.

Distribution
India (Himachal Pradesh, Tamil Nadu, Punjab).

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of females.

***Aceria ficus* (Cotte)**
Eriophyes ficus, Cotte, 1920, Bull. Soc. Pathol. Veg., France, 7: 28-30
Eriophyes fici, Ewing, 1922: 466
Eriophyes fici, Essig and Smith, 1922: 47
Eriophyes ficus, Baker, 1939, Bull. Cal. Dept. Agri, 28: 266-275
Aceria ficus, Nagaich and Vashisth, 1962, Curr. Sci., 31: 166-167
Aceria ficus, Vashisth and Nagaich, 1968, Indian J. Ent., 30: 322
Eriophyes ficus, Nemoto *et al.*., 1980, Japanese J. of Applied Entomology and Zoology, 24(3): 49-53
Aceria ficus, Meyer, 1981, *Phytophylactica*, 13(3): 117-126
Aceria ficus, Mohanasundaram, 1990, Indian J. of Acarology, 12: 82
Aceria ficus, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p.47
Aceria ficus, Abou-Awad, 1998, *Acarologia*, 40(4): 367-371
Aceria ficus, Gupta, 2000, In: State Fauna Series 7, Fauna of Tripura, Part 2: 15
Aceria ficus, Gupta, 2003, In: State Fauna Series 9, Fauna of Sikkim, Part 2: 29
Aceria ficus, de Lillo and Monfreda, 2004: 295
Aceria fica, Xue *et al.*., 2009, Int. J. of Acarology, 35(6): 461-464
Aceria fica, de Lillo and Amrine, 2011, Computerized catalog of the Eriophyoidea (unpublished database).
Aceria ficus, El-Halawany, 2012, Egyptian Academy Journal of Biological Sciences, 5: 205-216
Aceria fica, Wang *et al.*., 2014, Systematic and Applied Acarology, 19(4): 417-418
Aceria ficas, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany: 55-56

Host: *Ficus carica* L. (Moraceae), Himachal Pradesh, India

Relationship with the host plant
The feeding of the mite on the leaf lamina causes yellowish green spots, which under high infestation may coalesce. The infested leaves become mottled with whitish appearance. Gupta (1985) mentioned the occurrence of this species from Himachal Pradesh and also reported this species transmitting Fig Mosaic Disease. Fig plants occur naturally as well are cultivated in lower hills of Himachal Pradesh.

Collection record from Himachal Pradesh
Collected from Palampur (32˚ 21′ N, 76˚ 32′ E), 1350 m (above mean sea level): on *Ficus carica* L. (Moraceae) on 16.05.1983; Coll.: S. K. Gupta.

Distribution
India (Himachal Pradesh, Tripura, Tamil Nadu, Delhi).

Host in India
Ficus carica L., *F. palmata* Forssk, *F. neriifolia* Sm.

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of females.

***Aceria hirsutivagrans* (Mohanasundaram)**
Artacris hirsutivagrans Mohanasundaram, 1984, Oriental Insects, 18 (1): 258
Aceria hirsutivagrans, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 52
Aceria hirsutivagrans, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany: 57-58**.**

Host: *Hibiscus* sp. L. (Malvaceae), Himachal Pradesh, India

Relationship with the host plant
Hibiscus is a commonly cultivated ornamental plant throughout Himachal Pradesh and the white coloured mite are observed on leaf hairs present on the under surface of the leaf.

Collection records from Himachal Pradesh
Collected from Palampur (32˚21′ N, 76˚32′ E) 1400 m (above mean sea level): on *Hibiscus* sp. L. (Malvaceae) on 26.04.1981; Coll.: M. Mohanasundaram

Distribution
India (Himachal Pradesh).
Host in India:
Hibiscus sp. L.

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of both male and females.

***Aceria lycopersici* (Wolffenstein)**
Phytoptus lycopersici Wolffenstein, 1879, Eriophyid Bull. Ent. Res., 44: 347-348

Eiophyes lycopersici Massee, 1939, Ann. Mag. Natur. Hist., 11: 617-619
Aceria lycopersici, Channabasavanna, 1966, Univ. Agri, Sci. Bull., p. 80-82
Aceria lycopersici, Gupta, 1985, Handbook. Plant mite of India, ZSI Pub. 197-198
Aceria lycopersici, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 60
Aceria lycopersici, Sur, 2020, Taxonomy of eriophyoid mites (Eriophyoidea: Acari) of South Bengal, India, LAP Lambert Publishing House, Germany: p. 105
Aceria lycopersici, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany: 63-64

Host: *Lycopersicon lycopersicum* L. (Solanaceae) Himachal Pradesh, India

Relationship with the host plant
The mite is generally observed feeding on the lower surface of the leaves and also on the stem where it produces erineum. As a result of feeding the number of hair on the stem and leaves is reduced. Severe infestation may result in whitish appearance of the plant. The pest result in severe damage of tomato plants.

Collection records from Himachal Pradesh
Collected from Palampur (32° 10′ N, 76° 52′ E), 1300 m (above mean sea level): on *Lycopersicon lycopersicum* L. (Solanaceae); on 17.06.2021 and 21.06.2021; Coll: S. Bhardwaj

Distribution
India (Himachal Pradesh (new record), Punjab, Karnataka, Tamil Nadu, Delhi, West Bengal).
Host in India:

Lycopersicon lycopersicum L.

Remarks
Female: Prodorsal shield with incomplete admedian lines and empodium 5-rayed (whereas, empodium were 4-rayed and admedian lines on prodorsal shield were complete (Wolffenstein, 1879). This is the first record of *A. lycoperisci* from Himachal Pradesh.

Genus *Paraphytoptus* Nalepa
Paraphytoptus Nalepa, 1896, Anz. Akad. Wiss. Wien., 33: 55

***Paraphytoptus chrysanthemi* Keifer**
Paraphytoptus chrysanthemi Keifer, 1940, Bull. Calif. Dept. Agri., 29: 27
Paraphytoptus chrysanthemi, Channabasavanna, 1966, Univ. Agri. Sci. Bull. p. 87-88
Paraphytoptus chrysanthemi, Gupta, 1985, Handbook. Plant mite of India, ZSI Pub. 210
Paraphytoptus chrysanthemi, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 238
Paraphytoptus chrysanthemi, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany p. 83

Host: *Chrysanthemum indicum* L. (Asteraceae), Himachal Pradesh, India

Relationship with the host plant
The host plant, chrysanthemum is a major ornamental plant cultivated in the region. The pest causes discolouration and curling of the leaves, shortening of internodes and dwarfing of plants and in the number of stems cause witches broom effect. Affected buds may become deformed. It also causes flower phyllody.

Collection records from Himachal Pradesh
Collected from Nauni (30° 86′ N, 77° 17′ E), 1275 m. (above mean sea level): on *Chrysanthemum indicum* L. (Asteraceae) on 30.07.2021; Coll: I. Sharma

Distribution:
India (Himachal Pradesh (new record), Delhi, Karnataka, Tamil Nadu).

Host in India
Chrysanthemum indicum L.

Remarks
Female: the genital cover-flap consists of 3-5 granulated transverse lines with 18 longitudinal ribs, whereas Channabasavanna (1966) reported 3 basal transverse lines of granules with 16 longitudinal ribs. This is the first record of *P. chrysanthemi* from Himachal Pradesh.

Tribe: ERIOPHYINI Nalepa
Genus *Proartacris* Mohanasundaram
Proartacris Mohanasundaram, 1984, *Oriental Insects, 18 (1): 258*
Type: *Proartacris pinivagrans* Mohanasundaram
Proartacris pinivagrans Mohanasundaram
Proartacris pinivagrans Mohanasundaram, 1984, Oriental Insects, 18 (1): 258-259
Proartacris pinivagrans, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 268
Proartacris pinivagrans, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany p. 36

Host: *Pinus* sp. L. (Pinaceae), Himachal Pradesh, India

Relationship with the host plant
The hilly terrain of Himachal Pradesh is very suitable for the natural occurrence of Pines. The mite, feeds on tender pine needles and terminal shoots

Collection records from Himachal Pradesh
Collected from Palampur (32° 21′ N, 76° 32′ E), 1400 m. (above mean sea level): on *Pinus* sp. (Pinaceae) on 29.04.1981; Coll.: M. Mohanasundaram

Distribution
India (Himachal Pradesh).

Host in India: *Pinus* sp.

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of both male and females.

Subfamily: Phyllocoptinae Nalepa
Tribe: CALACARINI Amrine and Stasny
Genus: *Calacarus* Keifer
Calacarus Keifer, 1940, Bull. Cal. Dept. Agri., 29(3): 163

Type: *Calacarus pulviferus* Keifer

***Calacarus carinatus* (Green)**
Phytoptus carinatus Green, 1890, Insect Pests of the Tea Plant, Colombo, Ceylon, pp. 85
Phytoptus carinatus, Green, 1890, Agri. Liv. India, 8: 537-540
Calacarus carinatus Das and Sengupta, 1962, Jour. of the Zoological Society of India, 14: 64
Calacarus carinatus, Mukherjee, 1967, Two and a bud, 14(3): 112
Calacarus carinatus, Rao, Dutta and Ramaseshiah, 1970, Tea Board Sci. Pub. Ser., 5: 53
Calacarus carinatus, Muraleedharan and Chandrasekharan, 1981, Pestology, 5(6): 11-15
Calacarus carinatus, Mohanasundaram, 1982, Oriental Insects, 16(4): 425
Calacarus carinatus, Gupta, 1985, Handbook. Plant mites of India, ZSI Pub., 223
Calacarus carinatus, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 147
Calacarus carinatus, Dyamanagouda, Vishnupriya, Ramaraju and Mohankumar, 2020, Jour. Ent. Zool. Stud., 8(6): 139
Calacarus carinatus, Gupta and Sur, 2021, LAP Lambert Academic Publishing, Germany, pp. 94
Calacarus carinatus, Chakrabarti, Roy and Saha, 2021, Biodiversitat und naturausstattung im Himalaya VII, Erfurt: 134

Relationship with the host plant
The pest is popularly known as tea purple mite. In Himachal Pradesh, tea is mostly grown in the mid-hill region. The infestation of the mite results in coppery brown discolouration which under severe infestation causes purplish bronze discolouration of leaves. The mite affects the growth and caused premature defoliation (Das and Sengupta, 1963).
Collection records from Himachal Pradesh
Collected from Palampur (32° 21′ N, 76° 32′ E), alt: 1300 m. (above mean sea level) on *Camellia sinensis* L. (Theaceae) on 14.05.1983; Coll: S. K. Gupta.

Distribution
India (Himachal Pradesh, Assam, Meghalaya, West Bengal, Tamil Nadu, Kerala).

Host in India: *Camellia sinensis* L.

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of females.

Tribe: Anthocoptini Amrine and Stasny
Genus: *Abacarus* Keifer
Abacarus Keifer, 1939, *Bull. Cal. Dept. Agri.*, 33 (1): 28
Type: *Abacarus acalyptus* (Keifer)
Abacarus palampurensis (Mohanasundaram)
Epiphytimerus palampurensis Mohanasundaram, 1984, *Oriental Insects*, 18 (1): 259-260
Abacarus palampurensis, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the Wolrd, p. 3
Host: Epiphytic plant, Himachal Pradesh, India

Relationship with the host plant
The brown mite is vagrant on under surface of leaf. Ther mite is usually found moving on the lower surface of the leaf.

Collection record from Himachal Pradesh
Collected from Palampur (32° 21′ N, 76° 32′ E), 1400 m. (above mean sea level): on Epiphytic plant on 29.04.1981: Coll: M. Mohanasundaram

Distribution
India (Himachal Pradesh).

Host in India: Epiphytic plant

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of both male and females.

Genus: *Aculus* Keifer
Aculus Keifer, 1959, Eriophyid Studies XXVII, Occ. Paps., 1: 5

Type: *Phyllocoptes ligustri* Keifer
Aculus schlechtendali (Nalepa)
Phyllocoptes schlechtendali Nalepa, 1890, Sitzungsberichte, 99 (2): 41
Vasates schlechtendali, Keifer, 1946, Bull. Calif. Dept. Agri., 39: 563
Aculus schlechtendali, Keifer, 1959, Occ.Paps., 1, Burr. Ent. Calif. Dept. Agri., p. 504
Aculus schlechtendali, Niazee and Rodriguez, 1979, Recent Advances in Acarology, 1: 71-76
Aculus schlechtendali, Abou-Awad, 1981, Acarologia, 22 (4): 371-372
Aculus schlechtendali, Kadono, 1985, Applied Ent. Zool., 20 (4): 462-463
Aculus schlechtendali, Bodingius, 1990, Fruitteelt, 80 (8): 26-27
Aculus schlechtendali, Badowska-Czubik and Pala, 1993, Ochrona Roslin, 37: 12-13
Aculus schlechtendali, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 131
Host: *Malus domesticus* Borkh. (Rosaceae), Himachal Pradesh, India

Relationship with the host plant
This mite is commonly known as ‘Apple Rust mite’ because it causes russeting on lower surface of apple leaves. The infestation of mites on the fruits result in rusting and cracking of the fruits. Infestation of the pest may also affect the colour and size of the fruit. Apple is cultivated in the temperate regions of the state and is one of the most important remunerative fruit crop of Himachal Pradesh.

Collection records from Himachal Pradesh
Collected from Mashobra, Shimla (31˚12′ N, 77˚22′ E) 2146 m. (above mean sea level) on *Malus domesticus* Borkh (Rosaceae) on 26.07.2021 and 01.08.2021; Coll: S. Bhardwaj.

Distribution
India (Himachal Pradesh)

Host in India: *Malus domesticus* Borkh.

Remarks
Female: Prodorsal shield without curved lines and 10 longitudinal ribs on cover flap (whereas design of curved lines on prodorsal shield and genital cover flap with 10-13 longitudinal ribs (Nalepa, 1890). This is the first record of *Aculus schlechtendali* from India.

Collection records from Himachal Pradesh:
Mashobra, Shimla, Theog: on *Malus domesticus.* Date of collection: 26.07.2021 and 01.08.2021; Coll: S. Bhardwaj; GPS: 31˚12′ N, 77˚22′ E, alt: 2146 m.
Aculus fockeui (Nalepa and Trouessart)
Phyllocoptes fockeui Nalepa and Trouessart, 1891, Le Naturaliste. Rev. Illustree des Sciences Naturalles Ser., 2, 13 (93): 26
Phyllocoptes fockeui, Nalepa, 1898, Das Tierreich, p. 52
Phyllocoptes fockeui, Nalepa, 1910, Zoologica, 24: 262
Phyllocoptes cornutus, Banks, 1906, Proc. Entomol. Soc. Wash., 7: 141
Vasates fockeui, Keifer, 1946, Bull. Calif. Dept. Agri., 35: 42
Aculus fockeui, Keifer, 1959, Occ. Paps., 1, Burr. Ent. Calif. Dept. Agri., p. 6
Aculus fockeui, Kadono, 1985, Applied Ent. Zool., 20 (4): 460
Aculus fockeui, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 119-120
Aculus fockeui, Lotfollahi, Irani-Nejad and de Lillo, 2014, *Zootaxa*, 3861 (1): 84

Host: *Prunus domestica* L. (Rosaceae), Himachal Pradesh, India

Relationship with the host plant
Mite infestation results in bronzing of leaves. Under severe infestation the leaves may curl upward and remain dwarf. Plum is mainly cultivated in the temperate and sub-temperate region of the state.

Collection records from Himachal Pradesh
Collected from Shimla (31˚12′ N, 77˚22′ E), 2146 m. (above mean sea level): on *Prunus domestica* L. (Rosaceae) on 04.08.2021; Coll: I. Sharma.

Distribution
India (Himachal Pradesh).

Host in India: *Prunus domestica* L

Remarks
Female: A distinct median line was observed on the prodorsal shield (whereas, the prodorsal shield was with almost indistinct median line (Nalepa and Trouessart, 1891). The present study reports the first record of *A. fockeui* from India.
Female:

Genus: *Tetra* Keifer
Tetra Keifer, 1994, ES XIV, BCDA 33:27
Type: *Phyllocoptruta concava* Keifer

***Tetra anisomelae* Mohanasundaram**
Tetra anisomelae Mohanasundaram 1984, Oriental Insects, 18 (1): 264
Tetra anisomelae, Amrine and Stasny, 1994 [3], Catalog of the Eriophyoidea (Acarina: Prostigmata) of the world, p. 299
Tetra anisomelae, Sur, Roy and Chakrabarti, 2017, Proc. Zool. Soc., Kolkata, 71 (4): 398
Tetra anisomelae, Sur, 2020, Taxonomy of eriophyoid mites (Eriophyoidea: Acari) of South Bnegal, India, LAP Lambert Academic Publishing House, Germany, p. 175
Tetra anisomelae, Dyamanagouda, Vishnupriya, Ramaraju and Mohankumar, 2020, Jour. Ent. Zool. Stud., 8(6): 140
Tetra anisomelae, Gupta and Sur, 2021, LAP Lambert Academic Publishing House, Germany, p. 176

Host: *Anisomeles indica* (L.) Kuntze (Lamiaceae), Himachal Pradesh, India

Relationship with the host plant
This mite occurs on tender stem and lower surface of the leaves of *Anisomeles indica*, a medicinally important plant cultivated in Himachal Pradesh.

Collection records from Himachal Pradesh
Palampur: on *Anisomeles* sp. Date of collection: 28.04.1981; Coll.: M. Mohanasundaram; GPS: 32˚ 21′ N, 76˚ 32′ E, alt: 1400 m.

Distribution
India (Himachal Pradesh, West Bengal).

Host in India: *Anisomeles indica* L.

Remarks
After comparison, it has been found that there are no substantial morphological differences out there in case of both male and females.

Discussion
The present study reports a total of 11 species in 8 genera collected from a total of 11 host plants belonging to 8 families. Out of 11 species, there were 2 species viz., *Aculus schlechtendali* (Nalepa) and *Aculus fockeui* (Nalepa and Trouessart), the occurrence of which were earlier unknown from India and other 2 species *viz*., *Aceria lycopersici* (Wolffenstein) and *Paraphytoptus chrysanthemi* Keifer formed new records from Himachal Pradesh.
The apple rust mite, *Aculus schlechtendali* has been recorded from the main apple growing regions from the world (Jeppson *et al*. 1975, Easterbrook 1996, Easterbrook and Palmer 1996, Li and Cai 1996) [14, 10, 9, 18].
There are numerous reports of the occurrence of the apple rust mite, *Aculus schlechtendali* from various apple growing regions of the world, however the present study documents its first report from India (Jeppson *et al*. 1975, Easterbrook and Palmer 1996, Li and Cai 1996) [14, 9, 18]. The damage symptoms of rusty appearance on the under surface and russeting of fruits as reported in the present study finds support by various workers (Herbert 1974, Kozlowski 1980)

[13, 17]. Further the cultivar, plant age and mite population can influence the intensity of infestation (Herbert 1974, Easterbrook and Fuller 1986) [13, 8]. Similarly, *Aculus fockeui* is a well-established pest on *Prunus* sp. in Europe and North America (Zawadzki, 1975) [24]. The present study reports its presence on plum, whereas peach, cherry plumy and apricot are also reported host of the pest. These mites will directly influence the farmers of the Himalayan region of India where cultivation of apple and stone fruits is the main source of livelihood.

Regarding their distribution under different tribes, 5 species belonged to Aceriini and only one belonged to Eriophyini. The families, Diptilomiopidae and Phytoptidae were not represented in this collection. The genus *Aceria* represented the maximum of 4 species. Among the plant families harbouring the highest number of eriophyoid mites was Rosaceae (2) followed by Malvaceae, Pinaceae, Lamiaceae, Fabaceae, Theaceae, Solanaceae and Asteraceae each represented by one species only.

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