



## AN UPDATED CHECKLIST OF INDIAN PHYTOSEIID MITES (ACARI : MESOSTIGMATA)

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### INTRODUCTION

The mites of the family Phytoseiidae have received worldwide attention because of their importance in biological control of mite and some of the soft-bodied insect pests of various crops. This is probably the most explored and exploited among all the predatory mites. In view of their importance, these mites have also been explored in India, from where many new species have been described since 1960. Apart from these, some work has also been carried out in India on their bioecology, predator-prey interactions, and the effects of pesticides on these mites, which have been reviewed in Gupta (2003a). Gupta (1986) published a comprehensive account on Indian Phytoseiidae wherein he dealt with 139 species of this family while his review of Oriental Phytoseiidae included 142 species (Gupta, 1987a). Since then, several workers have explored the phytoseiid fauna of India from different parts of the country and raised the total to 207 species. However, after Gupta (1986, 2003a), no effort was made to consolidate the available information in India though many of which has been included in the catalogs of Moraes *et al.*, 2004 and Chant and McMurtry, 2007. Despite those, many other species have been added to the Indian phytoseiid fauna and present

exercise is to collate the available information which indicates 207 species under 21 genera of eight tribes and three subfamilies arranged as per the classificatory scheme of Chant and McMurtry (2007). In addition, another 4 species two under *Euseius* and one each under *Neoseiulus* and *Amblyseius* are described separately Karmakar and Gupta, (2014) and hence the total now comes to 211 species described/reported till date from India.

### REVIEW OF INDIAN PHYTOSEIIDAE

The genus *Phytoseius* was established by Ribaga in 1904 with *Gamasus plumifer* Canestrini and Fanzago, 1876, as its type. The name of the family Phytoseiidae is based upon the genus *Phytoseius* Ribaga. The first contribution to Indian phytoseiid fauna came in 1960 when Narayanan and Kaur (1960a) described two new species of the genus *Amblyseius* Berlese. Narayanan and Kaur (1960b) and Narayanan *et al.* (1960) discussed in detail the important taxonomic characters of the family Phytoseiidae. They emphasized the number, arrangement, nature, position, and relative length of the setae together with some other anatomical features being important taxonomic characters of this family. Narayanan *et al.* (1960) reported eight

species under the genus *Typhlodromus* Scheuten and *Phytoseius* which included descriptions of three new species.

Chant (1960) described four new species of the genus *Typhlodromus* and *Amblyseius* from India (Mysore and Assam). Narayanan and Ghai (1963), while investigating the mango malformation, caused by *Aceria mangiferae* Sayed, found some predatory mites associated with the colony of malformation mite which included some Phytoseiids and one of which was described as new to science under the genus *Typhlodromus*.

Ghai (1964) while reviewing work on mites of economic importance from India, listed the 17 phytoseiid species known till then from India. Ghai (1965) in her PhD thesis of Indian Agricultural Research Institute, New Delhi, recorded 35 species of Phytoseiidae from India under 10 genera.

Ghai and Menon (1967) reported 16 species including seven new ones then placed in *Amblyseius*, and provided a key for the first time for the Indian species considered to belong to that genus.

From the material received from India, Muma (1967) described four new species.

Ghai and Menon (1969) established two new genera *Indoseiulus* and *Indodromus* with one new species in each.

Gupta (1969a) described a new species of *Typhlodromus* from West Bengal. Gupta in his subsequent publications (1969b, 1969c, 1970a, 1970b) described 10 new species of the genera *Amblyseius*, *Typhlodromus*, and *Phytoseius*. Besides he recorded 25 other known species of this family.

Rao and Rao (1964) reported two species of Phytoseiidae not hitherto known from India. Bhattacharya (1969) added further to phytoseiid taxonomy by describing two new species, one each of *Amblyseius* and *Phytoseius*.

Later, Gupta, through a series of papers (Gupta, 1974, 1975, 1977a, 1977b, 1977c, 1977d, 1978a, 1978b, 1978c, 1979, 1980a, 1980b, 1980c, 1980d, 1981a, 1981b, 1982a, 1982b), explored Phytoseiid

fauna from different states of India which included descriptions of many new species.

Prasad (1974), in his catalogue of Indian mites, listed the occurrence of 58 species.

Gupta and Dhooria (1974), Dhooria *et al.* (1971), Gupta and Nahar (1981), Gupta and Ray (1981a, 1981b), and Ray and Gupta (1981, 1983) contributed further in this field, bringing the total number of species from India to 139.

Gupta (1986) for the first time made a consolidated account of Phytoseiidae of India, which included 139 species, belonging to 10 genera under three subfamilies, and provided full descriptions and illustrations of all the species along with information on habitats, type localities, type repositories, and distribution in India and abroad. Keys for all those taxa were also provided. He included descriptions and illustrations of 10 new species. General morphological features on which the phytoseiid taxonomy was based were also discussed. He also synonymized some species and indicated doubtful identification in respect of five species. Gupta (1987b) reviewed the phytoseiid fauna from the oriental region and reported 142 species from India. Apart from giving a diagnosis of each species, type localities, type repositories, type habitats, distribution, and keys to all the taxa were provided.

Some of the other important contributions made in the progress of taxonomic research on Indian phytoseiids by different authors and the respective regions were Chatterjee and Gupta (1996) from West Bengal, Gupta (1987b) from North-East India, Gupta (1988) from India as a whole, Gupta (1992a) from West Bengal, Gupta (1992b) from Arunachal Pradesh, Gupta (1995) from Meghalaya, Gupta (1996) from Thor desert of Rajasthan, Gupta (2000) from Tripura, Gupta (2003b) from Sikkim, Gupta and Ghosal (2004) from Sundarbans Biosphere Reserve, Gupta and Chatterjee (1997) from Delhi, Gupta and Chatterjee (1999) from Lakshadwip, Gupta and Chatterjee (2007) from Mizoram, Gupta *et al.* (2007) from Andhra Pradesh, and Gupta and Gupta (1989) from West Bengal, Gupta and Karmakar

(2011), Karmakar and Gupta (2011) reported some mites from different agri-horticultural crops which included some phytoseiids. Through all these publications many new species were described and earlier unrecorded species were reported.

Other works reporting phytoseiid species from agri-horticultural crops of India were Karg (1983) from Bangalore, Sadana *et al.* (1990) and Dhooria (1990) from Punjab, Mathur *et al.* (1995) from Hissar, Haryana, Singh *et al.* (1989) from West Bengal, Singh and Singh (1996) from Varanasi, Uttar Pradesh (including the description of one new species), and Tagore and Putatunda (1995) from Hissar. The phytoseiid fauna of the Kashmir region was studied by Rather and his co-workers (Rishi and Rather, 1983, 1984; Rather, 1984, 1985, 1986, 1987, 1989, 1999; Denmark and Rather, 19884, 1996), with descriptions of several new species, which significantly enhanced our knowledge of Indian phytoseiid fauna.

From Kerala significant contributions about the phytoseiid fauna were made by Anithalatha (2005), Anithalatha Sadanandan (2006a, 2006b) and Anithalatha Sadanandan and Ramani (2007), the latter describing five new species of this family.

Currently, a total of 211 species under 21 genera, three subfamilies of Phytoseiidae are known from India those have been listed hereunder.

## CHECKLIST OF INDIAN PHYTOSEIIDAE

### Subfamily AMBLYSEIINAE

Muma, 1961: 267–302; Chant and McMurtry, 2007: 12

#### Tribe NEOSEIULINI

Chant and McMurtry, 2003:6; Chant and McMurtry, 2007: 13

#### Genus *Neoseiulus* Hughes, 1948

Hughes, 1948: 141; Chant and McMurtry, 2007: 22.

1. *aceriae* (Gupta), 1975:30–31; Gupta, 1986: 102; Gupta, 2003a:48; Moraes *et al.*, 2004: 98; Chant and McMurtry, 2007: 13.
2. *bindrai* (Gupta), 1977c: 34–35; Gupta, 1986: 112; Chant and McMurtry, 2007: 25.

3. *baraki* (Athias-Henriot), 1966: 211–212; Gupta, 1986: 105; Gupta, 2003a: 49; Moraes *et al.*, 2004: 104; Chant and McMurtry, 2007: 25.
4. *cucumeris* (Oudemans), 1930: 69–70; Gupta, 1986: 2; Gupta, 2003a: 50; Moraes *et al.*, 2004: 107; Chant and McMurtry, 2007: 25.
5. *cynodonae* (Gupta), 1977c: 626–627; Gupta, 1986: 207; Gupta, 2003a: 51; Moraes *et al.*, 2004: 117; Chant and McMurtry 2007: 29.
6. *dhooriai* (Gupta), 1977d: 30–31; Gupta, 1986: 105; Chant and McMurtry 2007: 29.
7. *fallacis* (Garman), 1948: 13; Gupta, 1986: 109; Gupta, 2003a: 51; Moraes *et al.*, 2004: 119; Chant and McMurtry 2007: 29.
8. *ficusi* (Gupta), 1986: 146; Gupta, 2003a: 67; Moraes *et al.*, 2004: 121; Chant and McMurtry 2007:29.
9. *imbricatus* Corpuz-Raros and Rimando), 1966: 127; Gupta, 1986: 114; Gupta, 2003a: 53; Moraes *et al.*, 2004: 124; Chant and McMurtry 2007: 29.
10. *indicus* (Narayanan and Kaur), 1960a: 2–5; Gupta, 1986: 112; Gupta, 2003a: 54; Moraes *et al.*, 2004: 125; Chant and McMurtry 2007: 29.
11. *lablabi* (Ghai and Menon), 1967: 72–73; Gupta, 1986: 154; Gupta, 2003a: 70; Moraes *et al.*, 2004: 127; Chant and McMurtry 2007: 29.
12. *longispinosus* (Evans), 1952:413–416; Gupta, 1986: 116; Gupta, 2003a: 54; Moraes *et al.*, 2004: 129; Chant and McMurtry 2007: 29.
13. *neoghonii* (Gupta), 1986: 174; Gupta, 2003a: 77; Moraes *et al.*, 2004: 219; Chant and McMurtry 2007: 29.
14. *paspalivorus* (De Leon), 1957: 143–144; Gupta, 1986: 119; Gupta, 2003a: 50; Moraes *et al.*, 2004: 137; Chant and McMurtry 2007: 29.
15. *reticulatus* (Oudemans), 1930: 70-71; Gupta, 2003a: 58; Moraes *et al.*, 2004: 141; Chant and McMurtry 2007: 31.

- Tribe KAMPIMODROMINI Kolodochka, 1998  
Kolodochka, 1998: 59; Chant and McMurtry, 2007: 33–35.
- Subtribe KAMPIMODROMINA Chant and McMurtry, 2007
- Chant and McMurtry, 2007: 36.
- Genus *Okiseius* Ehara, 1967
- Ehara, 1967a: 67–82; Gupta, 1986: 210; Gupta, 2003a: 93; Chant and McMurtry, 2007: 40.
16. *laaensis* (Gupta, 1986), Moraes *et al.*, 2004: 198; Chant and McMurtry, 2007: 43.
17. *himalayana* Gupta, 1986: 211; Gupta, 2003a: 93; Moraes *et al.*, 2004: 154; Chant and McMurtry, 2007: 43.
18. *sikkimensis* Gupta, 1986: 213; Gupta, 2003a: 94; Moraes *et al.*, 2004: 155; Chant and McMurtry, 2007: 43 (erroneously mentioned as *himalayanus*).
19. *yazuliensis* Gupta, 1986: 215; Gupta, 2003a: 95; Moraes *et al.*, 2004: 156; Chant and McMurtry, 2007: 43.
- Genus *Proprioseius* Chant, 1957
- Chant, 1957a: 357; Chant, 1965: 371 (in part); Gupta, 1986: 138; Gupta, 2003a: 64; Chant and McMurtry, 2007: 45.
20. *kumaonensis* Gupta, 1982a: 28; Gupta, 1986: 138; Gupta, 2003a: 64; Moraes *et al.*, 2004: 193; Chant and McMurtry, 2007: 45.
- Subtribe PARAPHYTOSEIINA Chant and McMurtry, 2003
- Chant and McMurtry, 2003: 211; Chant and McMurtry, 2007: 47.
- Genus *Amblyseiulella* Muma, 1961
- Muma, 1961: 276; Gupta, 1986: 210; Gupta, 2003a: 93; Chant and McMurtry, 2007: 47–49.
21. *heveae* (Oudemans), 1930: 97; Gupta, 1986: 67; Gupta, 2003a: 29; Moraes *et al.*, 2004: 10; Chant and McMurtry, 2007: 49.
22. *hyauliangensis* (Gupta), 1986: 69; Gupta, 2003a: 30; Moraes *et al.*, 2004: 11; Chant and McMurtry, 2007: 49.
23. *nucifera* (Gupta), 1979: 80; Gupta, 1986: 71; Gupta, 2003a: 30; Moraes *et al.*, 2004: 11; Chant and McMurtry, 2007: 49.
- Genus *Paraphytoseius* Swirski and Schechter, 1961
- Swirski and Schechter, 1961: 113; Chant and McMurtry, 2007: 49.
1. *Amblyseius (Paraphytoseius)* Ehara, 1967a  
Ehara, 1967a: 77; Gupta, 1986: 122; Gupta, 2003a: 58; Chant and McMurtry, 2007: 49.
2. *Proprioseius (Paraphytoseius)* Karg, 1983  
Karg, 1983: 302; Chant and McMurtry, 2007: 49.
3. *Ptenoseius* Schuster and Pritchard, 1963  
Schuster and Pritchard, 1963: 198
24. *apocynaevagrans* Chinniah and Mohansundaram, 2001a: 73; Chant and McMurtry, 2007: 53.
25. *arjunae* Anithalatha Sadanandan, 2006a: 188.
26. *bhadrakaliensis* (Gupta), 1969a: 127; Gupta, 1986: 123; Gupta, 2003a: 59; Moraes *et al.*, 2004: 160; Chant and McMurtry, 2007: 53.
27. *horrifer* (Pritchard and Baker) 1962: 205–309; Gupta, 1986: 123; Moraes *et al.*, 2004: 163; Chant and McMurtry, 2007: 53.
28. *multidentatus* Swirski and Schechter, 1961: 114; Gupta, 1986: 123; Gupta, 2003a: 59; Moraes *et al.*, 2004: 162; Chant and McMurtry, 2007: 53.
29. *nicobarensis* (Gupta), 1977b: 631; Gupta, 1986: 123; Gupta, 2003a: 59; Moraes *et al.*, 2004: 162; Chant and McMurtry, 2007: 53.
30. *orientalis* (Narayanan *et al.*) 1960: 394; Gupta, 1986: 123; Gupta, 2003a: 59; Moraes *et al.*, 2004: 162; Chant and McMurtry, 2007: 53.
31. *scleroticus* (Gupta and Ray), 1981a: 42; Gupta, 1986: 123; Gupta, 2003a: 60; Moraes *et al.*, 2004: 164; Chant and McMurtry, 2007: 53.
- Tribe TYPHLODROMIPSINI Chant and McMurtry, 2005b
- Chant and McMurtry, 2005b: 318; Chant and McMurtry, 2007: 55.



- Genus *Scapulaseius* Karg and Ooman-Kalsbeek 1987
- Karg and Ooman-Kalsbeek 1987: 132; Chant and McMurtry, 2005a: 331; Chant and McMurtry, 2007: 65.
4. *Newsami* group
- Chant, 1959: 95.
5. *markwelli* species group
- Schicha, 1987: 25.
6. *oguroi* species group
- Wu and Ou, 1999: 103.
32. *andamanicus* (Gupta), 1980c: 213; Gupta, 1986: 198; Gupta, 2003a: 87; Moraes *et al.*, 2004: 206; Chant and McMurtry, 2007: 67.
33. *asiaticus* (Evans 1953); Moraes *et al.*, 2004: 207; Chant and McMurtry, 2007: 67 (earlier report of this species by Narayannan *et al.*, 1960 and Gupta (1970) appeared to be miss identification however, the present report of this species made from India is based on correct identification and confirmed by Dr. G.J.de Moraes through per.comm. and therefore this is treated as new record from India.)
34. *arecae* (Gupta), 1977c: 624; Gupta, 1986: 160; Gupta, 2003a: 73; Moraes *et al.*, 2004: 207; Chant and McMurtry, 2007: 67.
35. *assamensis* Chant 1960: 60; Gupta, 1986: 104; Chant and McMurtry, 2007: 67; Moraes *et al.*, 2004: 208.
36. *augusta* (Roy *et al.*) 2008: 1.
37. *daturae* (Gupta), 1975: 34; Gupta, 1986: 185; Moraes *et al.*, 2004: 146; Chant and McMurtry, 2007: 67.
38. *eucalypticus* (Gupta), 1978a: 330; Gupta, 1986: 144; Gupta, 2003a: 66; Moraes *et al.*, 2004: 177; Chant and McMurtry, 2007: 67.
39. *hapoli* (Gupta) 1986: 200; Gupta, 2003a: 88; Moraes *et al.*, 2004: 88; Chant and McMurtry, 2007: 67.
40. *meghalayensis* (Gupta, 1978b: 67); Gupta, 1986: 170; Gupta, 2003a: 76; Moraes *et al.*, 2004: 218; Chant and McMurtry, 2007: 121.
41. *officinaria* (Gupta), 1975: 39; Gupta, 1986: 176; Gupta, 2003a: 78; Moraes *et al.*, 2004: 219; Chant and McMurtry, 2007: 67.
42. *polyantheae* (Gupta), 1975: 42; Gupta, 1986: 178; Gupta, 2003a: 79; Moraes *et al.*, 2004: 221; Chant and McMurtry, 2007: 67.
43. *sapienticola* (Gupta), 1977c: 633; Gupta, 1986: 182; Gupta, 2003a: 80; Moraes *et al.*, 2004: 223; Chant and McMurtry, 2007: 68.
44. *sorghumae* (Gupta), 1977c: 635; Gupta, 1986: 157; Gupta, 2003a: 72; Moraes *et al.*, 2004: 204; Chant and McMurtry, 2007: 68.
45. *suknaensis* (Gupta), 1970a: 185; Gupta, 1986: 185; Gupta, 2003a: 81; Moraes *et al.*, 2004: 146; Chant and McMurtry, 2007: 68.
- Genus *Typhlodromips* De Leon, 1965
- De Leon, 1965: Chant and McMurtry, 2007: 63.
46. *syzygii* (Gupta), 1975: 44; Gupta, 1986: 188; Gupta, 2003a: 82; Moraes *et al.*, 2004: 227; Chant and McMurtry, 2007: 63.
- Tribe AMBLYSEIINI Muma, 1961
- Muma, 1961: 273; Chant and McMurtry, 2007: 68.
7. *Amblyseiinae* Muma, 1961
- Muma 1961: 273.
8. *Amblyseiini* Wainstein, 1962
- Wainstein, 1962: 26; Chant and McMurtry, 2007: 68.
- Subtribe AMBLYSEIINA Chant and McMurtry, 2004
- Chant and McMurtry, 2004: 179; Chant and McMurtry, 2007: 69.
- Genus *Transeius* Chant and McMurtry, 2004
- Chant and McMurtry, 2004: 181; Chant and McMurtry, 2007: 69.
47. *bangalorensis* Karg, 320; Gupta, 2003a: 74; Moraes *et al.*, 2004: 209; Chant and McMurtry, 2007: 71.
48. *tetranychivorus* (Gupta), 1978b: 337; Gupta, 1986: 190; Gupta, 2003a: 83; Moraes *et al.*, 2004: 228; Chant and McMurtry, 2007: 71.

- Genus *Amblyseius* Berlese, 1914  
 Berlese, 1914: 143; Gupta, 1986: 33; Gupta, 2003a: 12; Chant and McMurtry, 2007: 73.
9. *Amblysiopsis* Garman, 1948  
 Garman, 1948: 17; Gupta, 1986: 33; Chant and McMurtry, 2007: 73.
10. *Amblyseius (Amblyseius)* Muma, 1961  
 Muma, 1961: 287; Chant and McMurtry, 2007: 73.
11. *Amblyseius (Amblyseialus)* Muma, 1961  
 Muma 1961: 287; Chant and McMurtry, 2007: 73.
12. *Amblyseialus* Muma 1965  
 Muma 1965: 245; Chant and McMurtry, 2007: 73.
13. *Proprioseius (Peloiseius)* Karg, 1983  
 Karg, 1983: 303; Chant and McMurtry, 2007: 73.
14. *Amblyseius (Multiseius)* Denmark and Muma 1989  
 Denmark and Muma 1989: 82; Chant and McMurtry, 2007: 73.
15. *Amblyseius (Pauciseius)* Denmark and Muma 1989  
 Denmark and Muma, 1989: 132; Chant and McMurtry, 2007: 73.
49. *adhatodae* Muma, 1967: 50; Gupta, 1986: 37; Gupta, 2003a: 15; Moraes *et al.*, 2004: 12; Chant and McMurtry, 2007: 74.
50. *aerialis* (Muma), 1955: 264; Athias-Henriot 1957: 338; Rao and Rao, 1964: 38; Prasad, 1974: 160; Gupta, 1975: 31; Gupta, 2003a: 15; Moraes *et al.*, 2004: 13; Chant and McMurtry, 2007: 75.
51. *amitae* Bhattacharyya, 1969: 677; Moraes *et al.*, 2004: 28; Chant and McMurtry, 2007: 75.
52. *amtalaensis* Gupta, 1977a: 53; Moraes *et al.*, 2004: 35; Chant and McMurtry, 2007: 75.
53. *andersoni* Chant, 1957b: 296; Gupta, 1986: 180; Gupta, 2003a: 79; Chant and McMurtry, 2007: 75.
54. *apocynae* Chinniah and Mohanasundaram, 2001b: 66; Chant and McMurtry, 2007: 75.
55. *channabasavannai* Gupta and Daniel, 1978: 328 (originally described as channabasavanni); Gupta, 1986: 41; Gupta, 2003a: 15; Moraes *et al.*, 2004: 19; Chant and McMurtry, 2007: 78 (mentioned as Channabasavanni).
56. *charui* Gupta, 1969c: 126; Gupta, 1986: 180; Moraes *et al.*, 2004: 15; Chant and McMurtry, 2007: 78.
57. *coffae* Sadanandan, 2006: 39.
58. *crotolariae* Gupta, 1977d: 53; Gupta, 1986: 162; Gupta, 2003a: 74; Chant and McMurtry, 2007: 78.
59. *cucurbitae* Rather, 1985: 291; Gupta, 2003a: 17; Moraes *et al.*, 2004: 21; Chant and McMurtry, 2007: 78.
60. *deleoni* Muma and Denmark, 1970: 68; Gupta, 1986: 45; Gupta, 2003a: 20; Moraes *et al.*, 2004: 28; Chant and McMurtry, 2007: 78.
61. *eujeniae* Gupta, 1977c: 627; Gupta, 1986: 164; Gupta, 2003a: 75; Moraes *et al.*, 2004: 197; Chant and McMurtry, 2007: 78.
62. *excelsus* Chaudhri *et al.*, 1979: 68; Rather, 1985: 291–295; Gupta, 2003a: 18; Moraes *et al.*, 2004: 23; Chant and McMurtry, 2007: 78.
63. *fraterculus* Berlese, 1917: 172; Gupta, 1986: 111; Gupta, 2003a: 52; Moraes *et al.*, 2004: 24; Chant and McMurtry, 2007: 78.
64. *giganticus* Gupta, 1981a: 33–35; Gupta, 1986: 45; Moraes *et al.*, 2004: 29; Chant and McMurtry, 2007: 78.
65. *guajavae* Gupta, 1978b: 63; Gupta, 1986: 166; Gupta, 2003a: 75; Moraes *et al.*, 2004: 197; Chant and McMurtry, 2007: 78.
66. *hapoliensis* Gupta, 1986: 43; Gupta, 2003a: 18; Moraes *et al.*, 2004: 213; Chant and McMurtry, 2007: 78.
67. *herbicolus* Chant, 1959: 84–85; Gupta, 1986: 45–47; Gupta, 2003a: 18–20; Moraes *et al.*, 2004: 28; Chant and McMurtry, 2007: 78.

68. *herbiculoides* McMurtry and Moraes, 1984: 27–37; Moraes *et al.*, 2004: 27; Chant and McMurtry, 2007: 78; Seeja and Ramani, 2010: 48.
69. *indirae* Gupta, 1985: 209; Gupta, 1986: 47; Gupta, 2003a: 20; Moraes *et al.*, 2004: 30; Chant and McMurtry, 2007: 78.
70. *ipomoeae* Ghai and Menon, 1967: 71; Gupta, 1986: 37; Moraes *et al.*, 2004: 31; Chant and McMurtry, 2007: 78.
71. *jarooa* Gupta, 1977b: 629; Gupta, 1986: 148; Gupta, 2003a: 68; Moraes *et al.*, 2004: 198; Chant and McMurtry, 2007: 78.
72. *koothaliensis* Anithalatha, 2005: 83.
73. *kulini* Gupta, 1978a: 62; Gupta, 1986: 30; Gupta, 2003a: 22; Moraes *et al.*, 2004: 33; Chant and McMurtry, 2007: 78.
74. *laaensis* (Gupta, 1986): 266; Gupta, 1986: 51; Gupta, 2003a: 22; Moraes *et al.*, 2004: 33; Chant and McMurtry, 2007: 78.
75. *largoensis* Muma, 1955: 266; Gupta, 1986: 51; Gupta, 2003a: 22; Moraes *et al.*, 2004: 33; Chant and McMurtry, 2007: 78.
76. *manipurensis* Gupta, 1978b: 66; Gupta, 1986: 156; Gupta, 2003a: 71; Moraes *et al.*, 2004: 201; Chant and McMurtry, 2007: 78.
77. *mcmurtryi* Muma, 1967: 270; Gupta, 1986: 55; Gupta, 2003a: 23; Moraes *et al.*, 2004: 37; Chant and McMurtry, 2007: 80.
78. *mohanasundaramai* Anithalatha, 2005: 81.
79. *mulberricus* Anithalatha Sadanandan and Ramani, 2007: 215.
80. *muraleedharani* Gupta, 1985: 57; Gupta, 1986: 13; Gupta, 2003a: 25; Moraes *et al.*, 2004: 39; Chant and McMurtry, 2007: 80.
81. *neocrotalariae* (Gupta), 1978b: 325; Gupta, 1986: 172; Gupta, 2003: 77; Moraes *et al.*, 2004: 219; Chant and McMurtry, 2007: 80.
82. *neorykei* Gupta, 1977a: 56; Gupta, 1986: 59; Gupta, 2003a: 25; Moraes *et al.*, 2004: 41; Chant and McMurtry, 2007: 80.
83. *orientalis* Ehara, 1959: 55; Gupta, 1986: 61; Gupta, 2003a: 26; Moraes *et al.*, 2004: 25; Chant and McMurtry, 2007: 80.
84. *paraaerialis* Muma, 1967: 270; Gupta, 1986: 63; Gupta, 2003a: 27; Moraes *et al.*, 2004: 46; Chant and McMurtry, 2007: 80.
85. *pseudorientalis* Chinniah and Mohanasundaram, 2001a: 68; Chant and McMurtry, 2007: 81.
86. *rangatensis* (Gupta), 1977c: 632–633; Gupta, 1986: 121; Gupta, 2003a: 57; Moraes *et al.*, 2004: 222; Chant and McMurtry 2007: 29.
87. *rosica* Gupta, 1992a: 166; Gupta, 2003a: 71; Moraes *et al.*, 2004: 203; Chant and McMurtry, 2007: 81.
88. *rubiae* Chinniah and Mohanasundaram, 2001a: 70; Chant and McMurtry, 2007: 81.
89. *shoreae* Gupta, 1977c: 57; Gupta, 1986: 63; Gupta, 2003a: 28; Moraes *et al.*, 2004: 224; Chant and McMurtry, 2007: 81.
90. *sijiensis* Gupta, 1986: 183; Gupta, 2003a: 81; Moraes *et al.*, 2004: 225; Chant and McMurtry, 2007: 81.
- Subtribe PROPRIOSEIOPSINA Chant and McMurtry, 2004  
Chant and McMurtry, 2004: 219; Chant and McMurtry, 2007: 85.
- Genus *Proprioseiopsis* Muma, 1961  
Muma, 1961: 277; Gupta, 1986: 131; Gupta, 2003a: 62; Chant and McMurtry, 2007: 87.
16. *Phytoseiulella* Muma, 1961: 276
17. *Amblyseius (Pavlovskius)*  
Wainstein, 1962: 12
18. *Amblyseius (Skironodronus)*  
Wainstein, 1962: 12
19. *Amblyseius (Proprioseiopsis)* van der Merwe, 1968: 161
20. *Proprioseiopsis (Amblyseiulus)*  
Karg, 1983: 303
91. *arunachalensis* (Gupta), 1986: 132; Moraes *et al.*, 2004: 171.
92. *keralaensis* (Chinniah and Mohanasundaram), 2001b: 76; Chant and McMurtry, 2007: 78.
93. *peltatus* (van der Merwe), 1968: 119; Gupta, 1986: 134; Gupta, 2003a: 63; Moraes *et al.*, 2004: 185; Chant and McMurtry, 2007: 89.

94. *punicae* (Gupta), 1980a: 213; Gupta, 1987b: 50; Gupta, Moraes *et al.*, 2004: 186; Chant and McMurtry, 2007: 89.
95. *synachattiensis* (Gupta), 1986: 136; Gupta, 2003a: 63; Moraes *et al.*, 2004: 190; Chant and McMurtry, 2007: 89.  
Subtribe ARRENOSEIINA Chant and McMurtry, 2004  
Chant and McMurtry, 2004b: 220; Chant and McMurtry, 2007: 94.  
Genus *Phytoscutus* Muma, 1961  
Muma, 1961: 275; Chant and McMurtry, 2007: 98.
96. *bakeri* (Gupta), 1980b: 214; Gupta, 1986: 202; Gupta, 2003a: 89; Moraes *et al.*, 2004: 165; Chant and McMurtry, 2007: 101.
97. *salebrosus* (Chant), 1960: 58; Gupta, 1986: 128; Gupta, 2003a: 61; Moraes *et al.*, 2004: 166; Chant and McMurtry, 2007: 101.  
Genus *Paraamblyseius* Muma, 1962  
Muma, 1962: 8; Gupta, 1986: 202; Gupta, 2003a: 89; Chant and McMurtry, 2007: 101.
98. *fragariae* Gupta, 1980a: 215; Gupta, 1986: 204; Gupta, 2003a: 90; Moraes *et al.*, 2004: 157; Chant and McMurtry, 2007: 103.
99. *mumai* Gupta, 1980b: 33; Gupta, 1986: 206; Gupta, 2003a: 90; Moraes *et al.*, 2004: 158; Chant and McMurtry, 2007: 103.
- Tribe INDOSEIULINI Ehara and Amano, 1998  
Ehara and Amano, 1998: 48; Chant and McMurtry, 2007: 105  
Genus *Gynaeseius* Wainstein, 1962  
Wainstein, 1962: 14; Chant and McMurtry, 2007: 105.
100. *eharai* (Gupta), 1986: 193–195; Gupta, 2003a: 85; Moraes *et al.*, 2004: 89; Chant and McMurtry, 2007: 107.
101. *ghaiiae* (Denmark and Kolodochka), 1993: 237; Gupta, 2003a: 85; Moraes *et al.*, 2004: 89; Chant and McMurtry, 2007: 107.
102. *ricini* (Ghai and Menon), 1969: 348; Gupta, 1986: 195; Gupta, 2003a: 86; Moraes *et al.*, 2004: 89; Chant and McMurtry, 2007: 107.
- Tribe EUSEIINI Chant and McMurtry, 2005  
Chant and McMurtry, 2005b: 191; Chant and McMurtry, 2007: 107.  
Subtribe TYPHLODROMALINA Chant and McMurtry, 2005  
Chant and McMurtry, 2005b: 195; Chant and McMurtry, 2007: 109.  
Genus *Amblydromalus* Chant and McMurtry, 2005  
Chant and McMurtry, 2005b: 203; Chant and McMurtry, 2007: 117.
103. *swaga* (Pritchard and Baker), 1962: 73; Gupta, 1986: 184; Moraes *et al.*, 2004: 204; Chant and McMurtry, 2007: 117.  
Subtribe EUSEIINA Chant and McMurtry, 2005  
Chant and McMurtry, 2005a: 209; Chant and McMurtry, 2007: 118.  
Genus *Euseius* Wainstein, 1962  
Wainstein, 1962: 15; Gupta, 1986: 78; Gupta, 2003a: 31; Chant and McMurtry, 2007: 118.
104. *ahaiensis* (Gupta), 1992b: 160; Gupta, 2003a: 32; Moraes *et al.*, 2004: 60; Chant and McMurtry, 2007: 120.
105. *alstoniae* (Gupta), 1975: 31; Gupta, 1986: 74; Gupta, 2003a: 32; Moraes *et al.*, 2004: 61; Chant and McMurtry, 2007: 120.
106. *bambusae* (Ghai and Menon, 1967: 66); Gupta, 1986: 76; Gupta, 2003a: 34; Moraes *et al.*, 2004: 62; Chant and McMurtry, 2007: 120.
107. *chikmagalurensis* (Gupta) 1985: 434; Gupta, 1986: 141; Gupta, 2003a: 65; Moraes *et al.*, 2004: 196; Chant and McMurtry, 2007: 120.
108. *chitradurgae* (Gupta), 1985: 435; Gupta, 1986: 146; Gupta, 2003a: 66; Moraes *et al.*, 2004: 196; Chant and McMurtry, 2007: 120.
109. *coccineae* Gupta, 1975: 30; Gupta, 1986: 80; Gupta, 2003a: 35; Moraes *et al.*, 2004: 64; Chant and McMurtry, 2007: 120.
110. *cocosocius* (Ghai and Menon), 1967: 67; Gupta, 1986: 80; Gupta, 2003a: 36; Moraes *et al.*, 2004: 64; Chant and McMurtry, 2007: 120.



111. *concordis* (Chant), 1959: 69; Jagdish *et al.*, 1994: 244; Gupta, 2003a: 37; Moraes *et al.*, 2004: 64; Chant and McMurtry, 2007: 120.
112. *delhiensis* (Narayanan and Kaur), 1960b: 5; Gupta, 1986: 82; Gupta, 2003a: 37; Moraes *et al.*, 2004: 64; Chant and McMurtry, 2007: 120.
113. *eucalypti* (Ghai and Menon), 1967: 69; Gupta, 1986: 84; Gupta, 2003a: 39; Moraes *et al.*, 2004: 66; Chant and McMurtry, 2007: 120.
114. *finlandicus* (Oudemans), 1915: 183; Ghai and Menon, 1967: 70; Gupta, 1986: 86; Gupta, 2003: 39; Moraes *et al.*, 2004: 66; Chant and McMurtry, 2007: 121.
115. *hibisci* (Chant), 1959: 68; Gupta, 1970b: 98; Prasad, 1974: 165; Gupta, 1986: 86; Moraes *et al.*, 2004: 70; Chant and McMurtry, 2007: 121.
116. *indica* (Chatterjee and Gupta, 2003: 70, new name proposed in place of *Amblyseius* (*Typhlodromalus*) *mangiferae*, 2003 which is a junior homonym)
117. *insanus* (Khan and Chaudri), 1969: 52; Rather, 1985: 292; Gupta, 2003a: 41; Moraes *et al.*, 2004: 72; Chant and McMurtry, 2007: 121.
118. *kalimpongensis* (Gupta), 1969a: 128; Gupta, 1986: 150; Gupta, 2003a: 68; Moraes *et al.*, 2004: 72; Chant and McMurtry, 2007: 121.
119. *kodaikanalensis* (Gupta), 1978c: 331; Gupta, 1986: 96; Moraes *et al.*, 2004: 80; Chant and McMurtry, 2007: 121.
120. *macrospatulatus* (Gupta), 1986: 89; Gupta, 2003a: 41; Moraes *et al.*, 2004: 73; Chant and McMurtry, 2007: 121.
121. *mangiferae* (Ghai and Menon, 1967: 74); Gupta, 1986: 168; Gupta, 2003a: 76; Moraes *et al.*, 2004: 73; Chant and McMurtry, 2007: 121.
122. *neococcineae* (Gupta, 1978b: 60); Gupta, 1986: 90; Gupta, 2003a: 41; Moraes *et al.*, 2004: 75; Chant and McMurtry, 2007: 121.
123. *ovalis* (Evans), 1953: 458; Narayanan *et al.*, 1960: 388; Gupta, 1986: 92; Gupta, 2003a: 42; Moraes *et al.*, 2004: 77; Chant and McMurtry, 2007: 121.
124. *papayensis* Anithalatha Sadanandan, 2006b: 179.
125. *prasadi* (Chant and McMurtry), 1975: 40; Gupta, 1986: 94; Gupta, 2003a: 43; Chant and McMurtry, 2005b: 187–224; Chant and McMurtry, 2007: 123.
126. *rhododendronis* (Gupta, 1970b: 187); Gupta, 1986: 96; Gupta, 2003a: 44; Moraes *et al.*, 2004: 79; Chant and McMurtry, 2007: 123.
127. *sacchari* (Ghai and Menon), 1967: 75; Gupta, 1986: 98; Gupta, 2003a: 45; Moraes *et al.*, 2004: 81; Chant and McMurtry, 2007: 123.
128. *scutalis* (Athias-Henriot), 1958: 23–43; Rather, 1999: 20; Gupta, 2003a: 46; Moraes *et al.*, 2004: 82; Chant and McMurtry, 2007: 123.
129. *vignus* (Rishi and Rather), 1983: 303; Gupta, 2003a: 46; Moraes *et al.*, 2004: 86; Chant and McMurtry, 2007: 123.
- Subfamily PHYTOSEIINAE Berlese, 1913
- Phytoseiini** Berlese, 1913: 3
- Phytoseiinae** Vitzthum, 1941: 768; Gupta, 1986: 216; Gupta, 2003a: 95; Chant and McMurtry, 2007: 125.
- Chantiini** Pritchard and Baker, 1962: 211
- Chantiinae** Chant and Yoshida-Shaul, 1986: 2025
- Genus *Phytoseius* Ribaga, 1904
- Ribaga, 1904: 177; Gupta, 1986: 219; Gupta, 2003a: 96; Chant and McMurtry, 2007: 127.
21. *Phytoseius* (*Phytoseius*)  
Wainstein, 1959: 1361
22. *Phytoseius* (*Dubininellus*)  
Wainstein 1959: 1361
23. *Dubininellus* Muma, 1961: 293
24. *Plumifer* species group Chant and Yoshida-Shaul 1992: 12
130. *bandipurensis* Gupta, 1980d: 53; Gupta, 1986: 229; Gupta, 2003a: 100; Moraes *et al.*, 2004: 233; Chant and McMurtry, 2007: 129.

131. *brevicrinis* Swirski and Shechter, 1961: 106; Gupta, 1987b: 86; Gupta, 2003a: 101; Moraes *et al.*, 2004: 233; Chant and McMurtry, 2007: 129.
132. *coheni* Swirski and Shechter, 1961: 104; Gupta *et al.*, 1971: 298; Gupta, 2003a: 102; Moraes *et al.*, 2004: 235; Chant and McMurtry, 2007: 129.
133. *corniger* Wainstein, 1959: 1362; Gupta, 1981b: 44; Gupta, 1986: 230; Gupta, 2003a: 102; Moraes *et al.*, 2004: 235; Chant and McMurtry, 2007: 129.
134. *crinitus* Swirski and Shechter, 1961: 102; Ray and Gupta 1983: 303; Gupta, 1986: 232; Gupta, 2003a: 103; Moraes *et al.*, 2004: 236; Chant and McMurtry, 2007: 129.
135. *domesticus* Rather, 1985: 14; Gupta, 2003a: 103; Moraes *et al.*, 2004: 237; Chant and McMurtry, 2007: 129.
136. *indicus* Bhattacharyya, 1969: 679; Gupta, 1986: 234; Gupta, 2003a: 104; Moraes *et al.*, 2004: 241; Chant and McMurtry, 2007: 129.
137. *intermedius* Evans and Mcfarlane, 1962: 587; Gupta, 1970b: 98; Gupta, 1986: 236; Gupta, 2003a: 104; Moraes *et al.*, 2004: 242; Chant and McMurtry, 2007: 129.
138. *jaunpurensis*, Gupta 1982b: 367; Gupta, 1986: 252; Moraes *et al.*, 2004: 252; Chant and McMurtry, 2007: 129.
139. *jujuba* Gupta, 1977d: 13; Gupta, 1986: 238; Gupta, 2003a: 105; Moraes *et al.*, 2004: 242; Chant and McMurtry, 2007: 129.
140. *kapuri* Gupta, 1969c: 116; Gupta, 1986: 221; Gupta, 2003a: 97; Moraes *et al.*, 2004: 243; Chant and McMurtry, 2007: 129.
141. *macropilis* Banks, 1909: 136; Narayanan *et al.*, 1960: 386; Gupta, 1986: 240; Gupta, 2003a: 106; Moraes *et al.*, 2004: 244; Chant and McMurtry, 2007: 129.
142. *macrosetosus* Gupta, 1977d: 16; Gupta, 1986: 242; Gupta, 2003a: 107; Moraes *et al.*, 2004: 246; Chant and McMurtry, 2007: 129.
143. *maldahaensis* Gupta, 1992a: 177; Gupta, 2003a: 107; Moraes *et al.*, 2004: 246; Chant and McMurtry, 2007: 129.
144. *meyerae* Gupta, 1977d: 7; Gupta, 1986: 244; Gupta, 2003a: 107; Moraes *et al.*, 2004: 247; Chant and McMurtry, 2007: 129.
145. *minutus* Narayanan *et al.*, 1960: 391; Gupta, 1986: 223; Gupta, 2003a: 98; Moraes *et al.*, 2004: 247; Chant and McMurtry, 2007: 129.
146. *mixtus* Chaudhri, 1973: 83; Ray and Gupta, 1983: 301; Gupta, 1986: 246; Gupta, 2003a: 108; Moraes *et al.*, 2004: 247; Chant and McMurtry, 2007: 129.
147. *namdaphaensis* Gupta, 1986: 225; Gupta, 1986: 225; Gupta, 2003a: 99; Moraes *et al.*, 2004: 248; Chant and McMurtry, 2007: 129.
148. *neglecta* Gupta, 1969c: 117; Gupta, 1986: 234; Moraes *et al.*, 2004: 242; Chant and McMurtry, 2007: 129.
149. *neocorniger* Gupta, 1977a: 13; Gupta, 1986: 248; Gupta, 2003a: 110; Moraes *et al.*, 2004: 249; Chant and McMurtry, 2007: 129.
150. *neoferox* Ehara and Bhandhufalck, 1977: 49; Gupta, 1986: 250; Gupta, 2003a: 110; Moraes *et al.*, 2004: 249; Chant and McMurtry, 2007: 129.
151. *nipponicus* Ehara, 1962: 58; Rather, 1985: 13; Gupta, 2003a: 111; Moraes *et al.*, 2004: 249; Chant and McMurtry, 2007: 129.
152. *punjabensis* Gupta, 1977a: 16; Gupta, 1986: 252; Gupta, 2003a: 111; Moraes *et al.*, 2004: 252; Chant and McMurtry, 2007: 129.
153. *rachelae* Swirski and Shechter, 1961: 108; Gupta, 1980d: 52; Gupta, 1986: 253; Gupta, 2003a: 112; Moraes *et al.*, 2004: 253; Chant and McMurtry, 2007: 129.
154. *roseus* Gupta, 1969b: 119; = *rugulosus* Chaudhri 1973: 82; Gupta, 1986: 255; Gupta, 2003a: 112; Moraes *et al.*, 2004: 254; Chant and McMurtry, 2007: 129.
155. *rugosus* Denmark, 1966: 100; Gupta, 1977c: 7; Gupta, 1986: 257; Gupta, 2003a: 113; Moraes *et al.*, 2004: 255; Chant and McMurtry, 2007: 129.

156. *swirskii* Gupta, 1980c: 210; Gupta, 1986: 259; Gupta, 2003a: 114; Moraes *et al.*, 2004: 257; Chant and McMurtry, 2007: 131.
157. *viscosum* Roy and Saha, 2010: 123.
158. *wainsteini* Gupta, 1981b: 43; Gupta, 1986: 260; Gupta, 2003a: 114; Moraes *et al.*, 2004: 258; Chant and McMurtry, 2007: 131.
159. *woodburyi* De Leon, 1965: 11–21; Gupta, 1986: 242; Moraes *et al.*, 2004: 258; Chant and McMurtry, 2007: 131.
- Genus *Platyseiella* Muma 1961
- Muma, 1961: 280; Gupta, 1986: 206; Gupta, 2003: 92; Chant and McMurtry, 2007: 131.
160. *mumai* Ray and Gupta, 1981a: 277; Gupta, 1986: 206; Gupta, 2003a: 92; Moraes *et al.*, 2004: 259; Chant and McMurtry, 2007: 125.
- Subfamily TYPHLODROMINAE  
Wainstein 1962
- Typhlodromus** Scheuten, Evans, 1958: 223
- Typhlodromini** Wainstein, 1962: 26
- Typhlodrominae** Chant and McMurtry, 2007: 131
- Tribe PARASEIULINI Wainstein, 1976
- Wainstein, 1976: 697; Chant and McMurtry, 2007: 141.
- Genus *Paraseiulus* Muma, 1961
- Muma, 1961: 299; Chant and McMurtry, 2007: 141.
- Genus *Kuzinellus* Wainstein, 1976
- (Wainstein), 1976: 699; Chant and McMurtry, 2007: 143.
161. *kuzini* Wainstein, 1962: 231; Rather, 1987: 356; Gupta, 2003a: 138; Moraes *et al.*, 2004: 272; Chant and McMurtry, 2007: 144.
162. *neosoleiger* Gupta, 1981a: 41; Gupta, 1986: 310; Gupta, 2003a: 139; Moraes *et al.*, 2004: 273; Chant and McMurtry, 2007: 144.
- Tribe TYPHLODROMINI Wainstein
- Typhlodromini** Wainstein, 1962: 26; Chant and McMurtry, 2007: 144
- Genus *Neoseiulella* Muma, 1961
- Muma, 1961: 295; Chant and McMurtry, 2007: 145.
25. *Typhloctonus* Muma, 1961: 299; Chant and McMurtry, 2007: 145
26. *Typhlodromus* (*Nesbitteius*) section *Nesbitteius* Wainstein 1962: 23
27. *Typhlodromus* section *Kallistoscius* Wainstein, 1962b: 23
163. *celtis* Denmark and Rather, 1996: 69; Gupta, 2003a: 140; Moraes *et al.*, 2004: 292; Chant and McMurtry, 2007: 147.
164. *nesbitti* (Womersely), 1954: 179; Narayanan and Ghai, 1964: 541; Gupta, 1986: 312; Gupta, 2003a: 141; Moraes *et al.*, 2004: 294; Chant and McMurtry, 2007: 147.
165. *prunus* Denmark and Rather, 1984: 173; Gupta, 2003a: 141; Moraes *et al.*, 2004: 298; Chant and McMurtry, 2007: 147.
166. *transitans* (Gupta), 1981a: 40; Gupta, 1986: 314; Gupta, 2003a: 141; Moraes *et al.*, 2004: 298; Chant and McMurtry, 2007: 147.
- Genus *Typhlodromus* Scheuten, 1857
28. *Typhlodromus* Scheuten, 1857: 111; Gupta, 1986: 262; Gupta, 2003a: 115; Chant and McMurtry, 2007: 147
- Subgenus *Anthoseius* De Leon, 1959: 258; Gupta, 1986: 289; Gupta, 2003a: 131; Chant and McMurtry, 2007: 149
29. *Amblydromella* Muma, 1961: 294; Gupta, 1986: 264; Gupta, 2003a: 116.
30. *Clavidromus* Muma, 1961: 296
31. *Typhlodromella* Muma, 1961: 299
32. *Chanteius* (Colchodromus) Wainstein, 1962: 12
33. *Typhlodromus* (*Neoseiulus*) Huges, Wainstein, 1962: 21
34. *Brethria* Tuttle and Muma 1973: 35
167. *arunachalensis* Gupta, 1986: 265; Gupta, 2003a: 117; Moraes *et al.*, 2004: 310; Chant and McMurtry, 2007: 152.
168. *bakeri* Garman, 1948: 15; Gupta, 1986: 270; Gupta, 2003a: 118; Moraes *et al.*, 2004: 311; Chant and McMurtry, 2007: 152.
169. *bambusicolus* Gupta, 1977d: 2; Gupta, 1986: 267; Gupta, 2003a: 118; Moraes *et al.*, 2004: 313; Chant and McMurtry, 2007: 152.

170. *channabasavannai* Gupta, 1978c: 50; Gupta, 1986: 298; Gupta, 2003a: 134; Moraes *et al.*, 2004: 317; Chant and McMurtry, 2007: 152.
171. *chrysanthemii* Gupta, 1977c: 11; Gupta, 1986: 269; Gupta, 2003a: 119; Moraes *et al.*, 2004: 318; Chant and McMurtry, 2007: 152.
172. *communis* Gupta, 1978a: 53; Gupta, 1986: 316; Gupta, 2003a: 142; Moraes *et al.*, 2004: 319; Chant and McMurtry, 2007: 152.
173. *dactylifera* Chaudhri *et al.*, 1974: 212; Gupta, 1986: 276; Gupta, 1987: 316; Moraes *et al.*, 2004: 320; Chant and McMurtry, 2007: 152.
174. *dalii* Rather, 1984: 105; Gupta, 2003a:119; Moraes *et al.*, 2004: 320; Chant and McMurtry, 2007: 152.
175. *darjeeligenis* Gupta, 1986: 270; Gupta, 2003a: 120; Moraes *et al.*, 2004: 320; Chant and McMurtry, 2007: 152.
176. *denmarki* (Rather), 1984: 103; Gupta, 2003a: 121; Moraes *et al.*, 2004: 321; Chant and McMurtry, 2007: 152.
177. *divergentis* (Chaudhri *et al.*), 1974: 217; Dhooria, 1982: 4; Gupta, 1986: 276; Gupta, 2003a: 121; Moraes *et al.*, 2004: 321; Chant and McMurtry, 2007: 152.
178. *eharai* Gupta, 1978c: 54; Gupta, 1986: 270; Moraes *et al.*, 2004: 320; Chant and McMurtry, 2007: 152.
179. *fleschneri* Chant, 1960: 60; Gupta, 1986: 272; Gupta, 2003a: 122; Moraes *et al.*, 2004: 323; Chant and McMurtry, 2007: 152.
180. *garhowalicus* Gupta, 1982a: 29; Gupta, 1986: 318; Gupta, 2003a: 143; Moraes *et al.*, 2004:325; Chant and McMurtry, 2007: 152.
181. *gopali* Gupta, 2 1969a: 77; Gupta, 1986: 274; Gupta, 2003a: 123; Moraes *et al.*, 2004: 325; Chant and McMurtry, 2007: 152.
182. *hadii* Chaudhri, 1965: 632; Gupta, 1986: 300; Gupta, 2003a: 135; Moraes *et al.*, 2004: 327; Chant and McMurtry, 2007: 155.
183. *himalayensis* Gupta, 1981a: 32; Gupta, 1986: 276; Gupta, 2003a: 123; Moraes *et al.*, 2004: 329; Chant and McMurtry, 2007: 155.
184. *homalii* Gupta, 1970b: 188; Gupta, 1986: 278; Gupta, 2003a: 124; Moraes *et al.*, 2004: 329; Chant and McMurtry, 2007: 155.
185. *kashmiricus* Gupta, 1981b: 37; Gupta, 1986: 300; Moraes *et al.*, 2004: 327; Chant and McMurtry, 2007: 155.
186. *kodaikanelensis* Gupta, 1978c: 47; Gupta, 1986: 280; Gupta, 2003a: 125; Moraes *et al.*, 2004: 334; Chant and McMurtry, 2007: 155.
187. *majumderi* Gupta, 1986: 291; Gupta, 2003a: 131; Moraes *et al.*, 2004: 336; Chant and McMurtry, 2007: 155.
188. *manipurensis* Gupta, 1977c: 1; Gupta, 1986: 302; Gupta, 2003a: 135; Moraes *et al.*, 2004: 336; Chant and McMurtry, 2007: 155.
189. *meerutensis* (Ghai and Menon), 1969: 349; Gupta, 1986: 217; Gupta, 2003a: 96; Moraes *et al.*, 2004: 337; Chant and McMurtry, 2007: 155.
190. *mori* Gupta, 1981a: 39; Gupta, 1986: 282; Gupta, 2003a: 126; Moraes *et al.*, 2004: 338; Chant and McMurtry, 2007: 155.
191. *neorhenanus* Gupta, 1977b: 2; Gupta, 1986: 320; Gupta, 2003a: 144; Moraes *et al.*, 2004: 339; Chant and McMurtry, 2007: 155.
192. *neotransvaalensis* Gupta, 1978a: 49; Gupta, 1986: 296; Gupta, 2003a: 133; Moraes *et al.*, 2004: 339; Chant and McMurtry, 2007: 155.
193. *nilgiriensis* Gupta, 1986: 282; Gupta, 2003a: 126; Moraes *et al.*, 2004: 339; Chant and McMurtry, 2007: 155.
194. *orissaensis* Gupta, 1977c: 4; Gupta, 1986: 304; Gupta, 2003a: 136; Moraes *et al.*, 2004: 340; Chant and McMurtry, 2007: 155.
195. *persicus* Gupta, 1992b: 181; Gupta, 2003a: 127; Moraes *et al.*, 2004: 342; Chant and McMurtry, 2007: 155.



196. *pruni* Gupta, 1970b: 189; Gupta, 1986: 305; Gupta, 2003a: 136; Moraes *et al.*, 2004: 343; Chant and McMurtry, 2007: 155.
197. *rhenanus* (Oudemans), 1905: 78; Narayanan *et al.*, 1964: 539; Gupta, 1986: 285; Gupta, 2003a: 127; Moraes *et al.*, 2004: 345; Chant and McMurtry, 2007: 155.
198. *rhododendroni* Gupta, 1978b: 50; Gupta, 1986: 287; Gupta, 2003a: 128; Moraes *et al.*, 2004: 347; Chant and McMurtry, 2007: 155.
199. *rickeri* Chant, 1960: 62; Gupta, 1986: 307; Gupta, 2003a: 137; Moraes *et al.*, 2004: 348; Chant and McMurtry, 2007: 155.
200. *sijiensis* Gupta, 1986: 321; Gupta, 2003a: 144; Moraes *et al.*, 2004: 351; Chant and McMurtry, 2007: 155.
201. *sonprayagensis* Gupta, 1985: 211; Gupta, 1986: 289; Gupta, 2003a: 129; Moraes *et al.*, 2004: 351; Chant and McMurtry, 2007: 155.
202. *umbratus* (Chaudri), 1974: 215; Rather, 1984: 103; Gupta, 2003a: 129; Moraes *et al.*, 2004: 356; Chant and McMurtry, 2007: 157.
203. *viniferae* (Rather), 1999: 20; Gupta, 2003a: 130; Moraes *et al.*, 2004: 357; Chant and McMurtry, 2007: 157.
204. *zafari* Chaudri, 1965: 632; Rather, 1984: 106; Gupta, 2003a: 130; Moraes *et al.*, 2004: 359; Chant and McMurtry, 2007: 157.
- Subgenus TYPHLODROMUS Scheuten, 1857  
Scheuten, 1857: 111; Chant and McMurtry, 2007: 157.
205. *confusus* Narayanan *et al.*, 1960: 392; Gupta, 1986: 293; Gupta, 2003a: 132; Moraes *et al.*, 2004: 363; Chant and McMurtry, 2007: 157.
206. *roshanlali* Narayanan and Ghai, 1964: 539; Gupta, 1986: 294; Gupta, 2003a: 132; Moraes *et al.*, 2004: 369; Chant and McMurtry, 2007: 157.
207. *torbatejamae* Denmark and Danesshvar 1982; Gupta, 2003: 129; Chant and McMurtry, 2007: 157.

#### Additional four new species:

208. *metaliensis* Karmakar and Gupta, 2014: 687.
209. *Paranadae* Karmakar and Gupta, 2014: 691.
210. *Sativum* Karmakar and Gupta, 2014: 689.
211. *Vikrami* Karmakar and Gupta, 2014: 691.

#### SUMMARY

This paper provides a review and checklist of Indian Phytoseiidae listing 207 species under 21 genera, eight tribes and three subfamilies besides, another four new species have been mentioned raising the total Indian species to 211.

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