

Updated Checklist of Food Plants of Macrosiphini (Aphididae: Hemiptera) in India – 1

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Abstract: *The Macrosiphini is one of the 2 tribes of the subfamily Aphidinae (Aphididae: Hemiptera) containing about 2166 species/subspecies assigned to 242 genera. Out of these, only 96 genera and 374 species are recorded from India infesting hundreds of plant species belonging to several families. The food plants of Indian Macrosiphini is catalogued alphabetically (aphid species-wise) in three parts. In this contribution, food plants of only 25 genera and 109 species of aphids belonging to the tribe Macrosiphini (Acutosiphon to Dysaphis) are catalogued. These aphids feeds on 400 plant species belonging to 79 families. Most suffered families are Asteraceae (81 species) followed by Rosaceae (35 species), Fabaceae (27 species), Brassicaceae (22 species), Lamiaceae (18 species) and Solanaceae (17 species). Among them, several species are crops of agricultural and horticultural importance. The update checklist of food plants of rest of Macrosiphini will be dealt in successive articles.*

Keywords: *Food plant, Macrosiphini, aphid, checklist.*

1. INTRODUCTION

Aphids are a group of over 5000 species of small plant sap sucking insects, popularly known as plant-lice or ant-cows and vary in size between 0.7 to 7.0 mm in length. Many species of aphids are Agricultural and horticultural crop pests. In India, Raychaudhuri [1] for the first time catalogued the food-plants of Indian Aphididae, later on, Chakrabarti and Sarkar [2] added additional records. Since then, there are several reports that deal with the food plant records of the Indian aphids. Recently, Singh and Singh [3-6] and Tiwari & Singh [7] have initiated to compile the food plant records of the aphids in India. This series of publication is a comprehensive, systematic, up-to-date catalogue of the recorded aphid species of India, their recorded host plants and relevant literature. The present paper deals with the food plant records of Indian aphids belonging to tribe Macrosiphini (Aphidinae: Aphididae: Hemiptera) based on the survey of literature up to 1 January, 2017. In the most of the literature published earlier, several errors crept in scientific names of the aphids and plants even in the recent ones. It happens because such contents become outdated quickly and, due to their perceived comprehensiveness, readers sometimes overlook newer sources of data. Additionally, the researches on aphid taxonomy as well as their host plants is continued with the description of new taxa, the modified status of others, and the publication of other nomenclatural decisions. In the present compilation, attempts have been made to correct these errors in the scientific names of the aphids following recent taxonomic literatures [8-11] and for plants, <http://www.ars-grin.gov> and <http://www.theplantlist.org> (version 1.1). At several places, their synonymies were also mentioned.

The tribe Macrosiphini Wilson, 1910 is one of the two tribes (Aphidini and Macrosiphini) of the subfamily Aphidinae (Aphididae: Hemiptera) which is the largest subfamily of the aphids containing 2166 species assigned to 242 genera [11]. The Macrosiphini can be differentiated by Aphidini by the following morphological characters: spiracles of abdominal segments 1 and 2 are placed closed, lateral abdominal tubercles are usually absent from segments 1 and 7 but variably present on segments 2-3 or completely absent, and the antennal tubercles are often well developed. Several members of the tribe are major agricultural pests damaging the crops directly by sucking their sap or by transmitting viral diseases. *Myzus persicae* (Sulzer) alone transmit about 180 plant viruses [7, 12]. The food plants of Aphidini was recently catalogued [6].

2. APHID - FOOD PLANTS RECORD OF MACROSIPHINI

As mentioned earlier, the tribe Macrosiphini is largest tribe of the family Aphididae containing more than two thousand species, the checklist of food plants are being published in 3 parts and this one is the first in series. Aphid species marked with § seems to be invalid while species marked with * are wrongly reported for another valid species. Following is their food plant record:

1. *Acutosiphon obliquoris* Basu, Ghosh & Raychaudhuri, 1970

- *Carex cespitosa* L. (=*Carex arex* auct. nonn. ? *Carex ferax* Raeuch.) (Cyperaceae) [13]
- *Carex filicina* Nees (=*Carex filicosa* auct. nonn.) (Cyperaceae) [14-20]
- *Carex* sp. (Cyperaceae) [18, 19, 21]
- *Cotula* sp. (Asteraceae) [18-20, 22]
- *Cyperus* sp. (Cyperaceae) [17, 23]
- *Fragaria nilgerrensis* Schltdl. ex J. Gay (Rosaceae) [14, 15]
- *Geranium* sp. (Geraniaceae) [14, 15]
- *Poa* sp. (Poaceae) [24]
- Undet.: Cyperaceae [1]; Poaceae) [14]

2. *Acyrtosiphon (Acyrtosiphon) ? caraganae* (Cholodkovsky, 1907)

- = *Acyrtosiphon* nr. *caraganae* (Cholodkovsky, 1907) [19, 25]
- = *Metopolophium (Metopolophium) ? caraganae* (Cholodkovsky, 1907) [1]
- *Cajanus cajan* (L.) Millsp. (Fabaceae) [19, 20, 26]
- *Lablab purpureus* (L.) Sweet (=*Dolichos lablab* L.) (Fabaceae) [19, 25]

3. *Acyrtosiphon (Acyrtosiphon) gossypii* Mordvilko, 1914

- = *Acyrtosiphon sesbaniae* David, 1956 [27]
- = *Macrosiphum (Acyrtosiphon) gossypii* Mordvilko [27]
- *Sesbania grandiflora* (L.) Pers. (Fabaceae) [28, 29]
- *Sophora tomentosa* L. (Fabaceae) [27]

4. *Acyrtosiphon (Acyrtosiphon) ignotum* Mordvilko, 1914

- = *Acyrtosiphon (Metopolophium) spireae* Ghosh, Chakrabarti, Chowdhuri & Rauchaudhuri, 1969
- = *Acyrtosiphon (Metopolophium) spireae canescens* Chakrabarti & Rauchaudhuri, 1974 [17]
- *Dactylus* sp. (Poaceae) [17, 30]
- *Deutzia corymbosa* Craib. (Hydrangeaceae) [31]
- *Spiraea canescens* D. Don (Rosaceae) [17, 30]

5. *Acyrtosiphon (Acyrtosiphon) kondoi* Shinji, 1938

- *Medicago sativa* L. (Fabaceae) [32]

6. *Acyrtosiphon (Acyrtosiphon) malvae* (Mosley, 1841)

- = *Acyrtosiphon pelargonii* (Kaltenbach, 1843) [24, 33, 34]
- = *Acyrtosiphon pelargonii geranii* (Kaltenbach, 1843) [19]
- = *Metopolophium (Metopolophium) malvae* complex [1]
- *Anemone rivularis* Buch.-Ham. ex DC. (Ranunculaceae) [19]
- *Calceolaria* sp. (Scrophulariaceae) [35, 36]
- *Geranium* sp. (Geraniaceae) [19, 20, 26]
- *Potentilla* sp. (Rosaceae) [14, 19]
- *Rosa* sp. (Rosaceae) [19]
- *Rubus ellipticus* Sm. (Rosaceae) [31]
- *Salvia cuspidata* subsp. *gilliesii* (Benth.) J.R.I.Wood (=*Salvia glandulosa*, probably *Salvia gilliesii* var. *glandulosa* Griseb.) (Lamiaceae) [17, 37]
- *Senecio* sp. (Asteraceae) [34]
- *Sisymbrium* sp. (Brassicaceae) [14, 19, 33]
- Undet.: Acanthaceae [19]; Fabaceae [38]

7. *Acyrtosiphon (Acyrtosiphon) moltchanovi* Mordvilko, 1914

- *Lactuca sativa* L. (Asteraceae) [39, 40]

8. *Acyrthosiphon (Acyrthosiphon) ? moltshanovi* Mordvilko, 1914

- *Lactuca sativa* L. (Asteraceae) [17]
- *Peucedanum tenuifolium* Thunb. (Apiaceae) [17, 41]

9. *Acyrthosiphon (Acyrthosiphon) phaseoli* Chakrabarti, Ghosh & Raychaudhuri, 1971

- *Phaseolus* sp. (Fabaceae) [17, 39, 42]

10. *Acyrthosiphon (Acyrthosiphon) pisum* (Harris, 1776)

= *Illinoia pisii* Kaltenbach [43]

= *Macrosiphum pisii* Kaltenbach [44-46]

- *Alhagi maurorum* Medik. (= *Alhagi camelorum* Fisch.) (Fabaceae) [28, 47]
- *Cajanus cajan* (L.) Millsp. (Fabaceae) [48]
- *Chenopodium album* L. (Chenopodiaceae) [14, 49]
- *Cicer arietinum* L. (Fabaceae) [39, 50]
- *Dianthus dampieri* (Caryophyllaceae, misident. ?) [28, 47]
- *Glycine max* (L.) Merr. (Fabaceae) [14]
- *Lablab purpureus* (L.) Sweet (= *Dolichos lablab* L.) (Fabaceae) [28, 47]
- *Lathyrus odoratus* L. (Fabaceae) [28, 47, 51-54]
- *Lathyrus sativus* L. (Fabaceae) [50, 52, 53, 55]
- *Launaea nudicaulis* (Linn.) Hook.f. (Asteraceae) [801]
- *Lens culinaris* Medik. (Fabaceae) [52, 53]
- *Lens culinaris* Medik (= *Lens esculenta* Moench.) (Fabaceae) [55]
- *Medicago falcata* L. (= *Medicago falcatum*) (Fabaceae) [28]
- *Medicago lupulina* L. (Fabaceae) [28, 45, 47]
- *Medicago polymorpha* L. (= *Medicago denticulata* Willd.) (Fabaceae) [28, 45, 47]
- *Medicago sativa* L. (Fabaceae) [28, 45, 47, 50, 53]
- *Melilotus albus* Medik (Fabaceae) [28, 47]
- *Peganum harmala* L. (Nitrariaceae) [28, 47]
- *Pisum sativum* L. (Fabaceae) [14, 26, 28, 39, 43, 47, 49, 56-60]
- *Pisum* sp. (Fabaceae) [19, 20, 26]
- *Prinsepia utilis* Royle (Rosaceae) [14, 19]
- *Pyrus communis* L. (Rosaceae) [19]
- *Sesbania grandiflora* (L.) Pers. (Fabaceae) [28, 43]
- *Solanum tuberosum* L. (Solanaceae) [19, 47]
- *Trifolium alexandrinum* L. (= *Trigonella alexandrium*, misident. ?) (Fabaceae) [50]
- *Trigonella foenum-graecum* L. (Fabaceae) [28, 50, 53]
- *Vicia faba* L. (Fabaceae) [19, 20, 26, 50, 52, 53]

11. *Acyrthosiphon (Acyrthosiphon) ranunculum* Ghosh, 1986

= *Acyrthosiphon (Metopolophium) ranunculum* Ghosh, 1986

- *Thalictrum pauciflorum* Royle (Ranunculaceae) [37]

12. *Acyrthosiphon (Acyrthosiphon) rubi* (Narzikulov, 1957)

= *Acyrthosiphon rubi elliptici* Stroyan & Nagaich, 1964 [14, 36, 61, 62]

= *Acyrthosiphon (Metopolophium) rubi* Narzikulov, 1957 [14, 17, 41, 63, 64, 65, 66]

= *Acyrthosiphon rubi* (Narzikulov, 1957) [17, 19, 23, 63]

= *Metopolophium (Metopolophium) rubi* (Narzikulov, 1957) [1]

= *Metopolophium sonchifoliae* Raychaudhuri, Ghosh & Das, 1980

- *Catamixis baccaroides* Thomson (Asteraceae) [17]
- *Desmodium* sp. (Fabaceae) [67]
- *Fagopyrum esculentum* Moench (Polygonaceae) [41, 68]
- *Fagopyrum tataricum* (L.) Gaertn. (Polygonaceae) [17, 41]
- *Hieracium lachenalii* subsp. *cruentifolium* (Dahlst. & Lübeck) Zahn (= *Hieracium vulgatum* Fr.) (Asteraceae) [17, 41]
- *Polygonum* sp. (Polygonaceae) [67]

- *Rhododendron* sp. (Ericaceae) [17]
- *Rubus croceacanthus* H. Lév (=*Rubus asper* Wall. ex D. Don) (Rosaceae) [14, 19]
- *Rubus ellipticus* Sm. (Rosaceae) [17, 19, 20, 24, 26, 67, 69, 70]
- *Rubus fruticosus* Lucviatour. JPG (Rosaceae) [71]
- *Rubus niveus* Thunb. (Rosaceae) [14]
- *Rubus plicatus* Weihe & Nees (=*Rubus fruticosus* L.) (Rosaceae) [72]
- *Rubus* sp. (Rosaceae) [14, 17, 23, 26, 41, 63, 67]
- *Rubus ulmifolius* Schott (Rosaceae) [31]
- *Rumex nepalensis* Spreng. (Polygonaceae) [14, 64, 73]
- *Rumex* sp. (Polygonaceae) [17, 19, 20, 26, 41]
- *Saussurea costus* (Falc.) Lipsch. (=*Saussurea lappa* (Dacne.) C.B. Clarke) (Asteraceae) [17, 41]
- *Senecio* sp. (Asteraceae) [34]
- *Sonchus oleraceus* L. (Asteraceae) [14]
- *Sonchus* sp. (Asteraceae) [68]
- Undet.: Rosaceae [20, 26, 41, 68]

13. *Acyrtosiphon (Acyrtosiphon) rubifoliae* Raychaudhuri, Ghosh & Basu, 1975 (1978)

= *Metopolophium (Microlophium) rubifoliae* Raychaudhuri, Ghosh & Basu, 1975 (1978) [1]

- *Potentilla nepalensis* Hook (Rosaceae) [68]
- *Rubus ellipticus* Sm. (Rosaceae) [1, 19, 20, 26, 79, 106]
- *Rubus plicatus* Weihe & Nees (=*Rubus fruticosus* L.) (Rosaceae) [55]
- *Rubus rosifolius* Sm. (=*Rubus rosaefolia* auct.) (Rosaceae) [19, 25]
- *Rubus* sp. (Rosaceae) [19]

14. *Acyrtosiphon (Acyrtosiphon) ? soldatovi* Mordvilko, 1914

- Undet.: [17]

15. *Acyrtosiphon (Acyrtosiphon) sp.*

- *Bothriochloa* sp. (Poaceae) [74]
- *Catamixis* sp. (Asteraceae) [39]
- *Euphorbia pilosa* L. (Euphorbiaceae) [75]
- *Hieracium* sp. (Asteraceae) [39]
- *Medicago sativa* L. (Fabaceae) [72]
- *Ranunculus muricatus* L. (Ranunculaceae) [72]
- *Salix elaeagnos* Scop. (=*Salix elegans* auct. non.) (Salicaceae) [76]

16. *Acyrtosiphon calatropi* Sathe & Jadhav, 2008§

- *Calotropis gigantea* (L.) W.T. Aiton (Apocynaceae) [77]

17. *Acyrtosiphon vatanii* Sathe & Jadhav, 2008§

- *Pisum sativum* Linn. (Fabaceae) [77]

18. *Akkaia bengalensis* Basu, 1968

- *Koenigia mollis* (D. Don) T. M. Schust. & Reveal (=*Polygonum molle* D. Don.) (Polygonaceae) [19, 78]
- *Persicaria barbata* (L.) H. Hara (=*Polygonum barbatum* L.) (Polygonaceae) [19, 78, 79]
- *Persicaria glabra* (Willd.) M. Gomez (=*Polygonum glabrum* Willd.) (Polygonaceae) [19, 78]
- *Persicaria perfoliata* (L.) H. Gross (=*Polygonum perfoliatum* L.) (Polygonaceae) [19]
- *Polygonum alatum* Buch.-Ham. ex D. Don (Polygonaceae) [19, 78, 79]
- *Polygonum microcephalum* var. *sphaerocephalum* (Wall. ex Meisner.) (=*Polygonum sphaerocephalum* Wall. ex Meisner.) (Polygonaceae) [80]
- *Polygonum runcinatum* Buch.-Ham. ex D. Don (Polygonaceae) [19]
- *Polygonum* sp. (Polygonaceae) [18-20, 78, 81]
- *Raphanus sativus* L. (Brassicaceae) [81]
- *Rumex* sp. (Polygonaceae) [18, 19]

19. *Akkaia neopolygoni* Ghosh, Ghosh & Raychaudhuri, 1970

- *Koenigia mollis* (D. Don) T. M. Schust. & Reveal (=*Polygonum molle* D. Don.) (Polygonaceae) [19, 78, 79]
- *Persicaria decipiens* (R.Br.) K.L.Wilson (=*Polygonum serrulatum* Lagasca) (Polygonaceae) [19, 82]
- *Polygonum* sp. (Polygonaceae) [18-20, 25, 82]

20. *Akkaia sikkimensis* Agarwala & Raychaudhuri, 1977

- *Raphanus sativus* L. (Brassicaceae) [78, 83]

21. *Amphicercidus japonicus* (Hori, 1927)

=*Amphicercidus indicus* Hille Ris Lambers & Basu, 1966

- *Lonicera glabrata* Wall. (Caprifoliaceae) [20, 84]

22. *Amphicercidus lonicerae* Maity & Chakrabarti, 1982

- *Lonicera quinquelocularis* Hardw. (Caprifoliaceae) [31]
- *Lonicera* sp. (Caprifoliaceae) [85]

23. *Amphicercidus tuberculatus* David, Narayanan & Rajasingh, 1970

- *Buxus wallichiana* Baill. (Buxaceae) [17]
- *Lonicera quinquelocularis* Hardw. (Caprifoliaceae) [17, 86, 87]
- *Lonicera* sp. (Caprifoliaceae) [88]

24. *Amphorophora (Amphorophora) ampullata ampullata* Buckton, 1876

- *Asplenium* sp. (Aspleniaceae) [89]

25. *Amphorophora (Amphorophora) ampullata bengalensis* Hille Ris Lambers & Basu, 1966

- *Asplenium* sp. (Aspleniaceae) [17, 19, 20]
- *Athyrium* sp. (Dryopteridaceae) [19, 20]
- *Cheilanthes* sp. (Pteridaceae) [19, 20, 89, 90]
- *Eriosorus* sp. (Pteridaceae) [78]
- *Gleichenia* sp. (Gleicheniaceae) [19]
- *Hypolepis polypodioides* (Blume) Hook. (Hypolepidaceae) [91]
- *Polypodium* sp. (Polypodiaceae) [19, 20]
- *Pteridium aquilinum* (L.) Kulm (=*Pteris aquilina* L.) (Pteridaceae) [19, 20, 89, 90]
- *Pteris* sp. (Pteridaceae) [78]
- *Rosa* sp. (Rosaceae) [78]

26. *Amphorophora (Amphorophora)* sp.

- *Rubus assamensis* Focke (Rosaceae) [50]
- *Rubus ellipticus* Sm. (Rosaceae) [50]
- *Rubus moluccanus* L. (Rosaceae) [50, 92]

27. *Anaulacorthum fagopyri* (Ghosh & Raychaudhuri, 1972)

=*Aulacorthum (Anaulacorthum) fagopyri* Ghosh & Raychaudhuri, 1972

- *Fagopyrum acutatum* (Lehm.) Mansf. ex K. Hammer (=*Fagopyrum cymosum* (Trev.) Meisn) (Polygonaceae) [20, 93]
- *Persicaria perfoliata* (L.) H. Gross (=*Polygonum perfoliatum* L.) (Salicaceae) [20, 55]

28. *Aphidura ornatella* Narzikulov & Umarov, 1969

=*Aphidura bharatia* David, Sekhon & Bindra, 1970

- *Saponaria* sp. (Caryophyllaceae) [94]

29. *Aphidura* sp.

- *Saponaria* sp. (Caryophyllaceae) [95]

30. *Aspidophorodon (Aspidophorodon) harvensis* Verma, 1966

- *Populus ciliata* Wall. ex Royle (Salicaceae) [96]
- *Salix* sp. (Salicaceae) [96-98]

31. *Aspidophorodon (Eoessigia) indica* (David, Rajasingh & Narayanan, 1972)

- = *Eoessigia indica* David, Rajasingh & Narayanan, 1972
= *Raychaudhuriella myzaphoides* Chakrabarti, 1978
= *Raychaudhuriella potentillae* Chakrabarti & Maity, 1984
- *Cotoneaster* sp. (Rosaceae) [17, 37, 86]
 - *Cotoneaster bacillaris* Wall. ex Lindl. (= *Cotoneaster obtusus* Wall. ex Lindl.) (Rosaceae) [99]
 - *Potentilla* sp. (Rosaceae) [99, 100]

32. *Aspidophorodon (Eoessigia) sorbi* (Chakrabarti & Maity, 1984)

- = *Indotuberoaphis sorbi* Chakrabarti & Maity, 1984
- *Sorbus foliolosa* (Wall.) Spach (Rosaceae) [100]

33. *Aulacorthum (Aulacorthum) cornaceae* Ghosh, 1969

- Undet.: Cornaceae [20]

34. *Aulacorthum (Aulacorthum) dasi* Ghosh, Basu & Raychaudhuri, 1970

- *Artemisia* sp. (Asteraceae) [19]
- *Solanum torvum* Sw. (Solanaceae) [19, 20, 78]
- Undet.: Asteraceae) [20, 101]

35. *Aulacorthum (Aulacorthum) linderae* (Shinji, 1922)

- *Cucurbita moschata* Duchesne (Cucurbitaceae) [102]

36. *Aulacorthum (Aulacorthum) rhamni* Ghosh, Ghosh & Raychaudhuri, 1970 (1971)

- *Callistemon linearis* (Schrad. & Wendl.) Colv. ex Sweet (Myrtaceae) [19]
- *Duranta* sp. (Verbenaceae) [2]
- *Eurya* sp. (Ternstroemiaceae) [19, 20]
- *Rhamnus napalensis* (Wall.) M.A. Lawson (Rhamnaceae) [19, 20, 103]
- *Saruma* sp. (Aristolochiaceae) [20, 78]
- Undet.: Euphorbiaceae [20]

37. *Aulacorthum (Aulacorthum) sclerodorsi* (Kumar & Burkhardt, 1971)

- = *Acyrthosiphon (Aulacorthum) sclerodorsi* Kumar & Burkhardt, 1971 [17]
- *Nepeta* sp. (Lamiaceae) [17, 104]

38. *Aulacorthum (Aulacorthum) sensoriatum* (David, Narayanan & Rajasingh, 1970 (1971))

- = *Acyrthosiphon (Aulacorthum) sensoriatum* David, Narayanan & Rajasingh, 1970 (1971)
- Undet.: [17]

39. *Aulacorthum (Aulacorthum) solani* (Kaltenbach, 1843)

- = *Acyrthosiphon (Aulacorthum) solani* (Kaltenbach, 1843) : David & Rajasingh, 1969
- *Ageratum conyzoides* L. (Asteraceae) [19]
 - *Bidens* sp. (Asteraceae) [67]
 - *Brassica oleracea* L. (Brassicaceae) [19]
 - *Calla* sp. (Araceae) [81]
 - *Cardamine hirsuta* L. (Brassicaceae) [17]
 - *Cestrum fasciculatum* (Schltdl.) Miers (Solanaceae) [19]
 - *Chrysanthemum* sp. (Asteraceae) [67]
 - *Cineraria* sp. (Asteraceae) [47]
 - *Clinopodium umbrosum* (M. Bieb.) K. Kuntze (= *Calamintha umbrosa* (M. Bieb.) Fisch. & C. A. Mey.) (Lamiaceae) [14, 105]

- *Consularia* sp. (Asteraceae) [67]
- *Datura* sp. (Solanaceae) [20]
- *Dianthus* sp. (Caryophyllaceae) [106]
- *Digitalis purpurea* L. (Plantaginaceae) [28, 47]
- *Drymaria cordata* (L.) Willd. ex Schult. (Caryophyllaceae) [19]
- *Fagopyrum acutatum* (Lehm.) Mansf. ex K.Hammer (=*Fagopyrum cymosum* (Trev.) Meisn) (Polygonaceae) [19, 20]
- *Gerbera* sp. (Asteraceae) [16]
- *Gladiolus* sp. (Iridaceae) [67]
- *Hibiscus rosa-sinensis* L. (Malvaceae) [55, 101, 106]
- *Hydrangea* sp. (Hydrangeaceae) [31]
- *Lobelia* sp. (Campanulaceae) [81]
- *Nepeta* sp. (Lamiaceae) [2]
- *Nicotiana tabacum* L. (Solanaceae) [19, 20]
- *Oxalis* sp. (Oxalidaceae) [107]
- *Paphiopedilum venustum* (Wall. ex Sim.) Pfitzer (Orchidaceae) [20, 101]
- *Poa* sp. (Poaceae) [107]
- *Pseudognaphalium luteoalbum* (L.) Hill. & Burtt (=*Gnaphalium luteoalbum* L.) (Asteraceae) [20]
- *Ranunculus arvensis* L. (Ranunculaceae) [14, 19, 105]
- *Rosa* sp. (Rosaceae) [17]
- *Salvia* sp. (Lamiaceae) [17]
- *Sechium edule* (Jacq.) Sw. (Cucurbitaceae) [108]
- *Solanum donianum* Walp. (=*Solanum verbascifolium* L.) (Solanaceae) [81]
- *Solanum melongena* L. (Solanaceae) [108]
- *Solanum* sp. (Solanaceae) [20]
- *Solanum tuberosum* L. (Solanaceae) [19, 20, 47, 81, 107]
- *Tagetes patula* L. (Asteraceae) [106, 108]
- *Viola* sp. (Violaceae) [14, 17, 19, 39]
- *Xerochrysum bracteatum* (Vent.) Tzvelev (=*Helichrysum bracteatum* (Vent.) Andrews) (Asteraceae) [81]
- Undet.: Acanthaceae [67]; Asteraceae [109]

40. *Aulacorthum* (*Aulacorthum*) *spinacaudatum* (Kumar & Burkhardt, 1971)

= *Acyrthosiphon* (*Aulacorthum*) *spinacaudatum* Kumar & Burkhardt, 1971

- *Cucumis sativus* L. (Cucurbitaceae) [17, 104]

41. *Aulacorthum* (*Aulacorthum*) sp.

- *Artemisia* sp. (Asteraceae) [19, 20, 70, 82]
- *Pterospermum* sp. (Malvaceae) [70, 82]
- *Solanum* sp. (Solanaceae) [19, 70, 82]

42. *Aulacorthum* (*Perillaphis*) *perillae* (Shinji, 1924)

= *Perillaphis perillae* (Shinji, 1924) [1, 67]

- *Artemisia vulgaris* L. (Asteraceae) [55]
- *Grewia* sp. (Tiliaceae) [55]
- *Impatiens racemosa* DC. (Balsaminaceae) [2]
- *Perilla frutescens* (L.) Britton (Lamiaceae) [13, 19, 20, 107]
- *Perilla* sp. (Lamiaceae) [19, 20, 55, 70]
- *Prunus* sp. (Rosaceae) [17, 37]
- *Rhododendron campylocarpum* Hook.f. (Ericaceae) [70]
- Undet.: Labiateae [110]; Verbenaceae [70]

43. *Brachycaudus* (*Prunaphis*) *cardui* (Linnaeus, 1758)

= *Brachycaudus* (*Acaudus*) *cardui* (Linnaeus, 1758) : [1, 63, 111]

= *Aphis cardui* Linnaeus, 1758 : [112]

- *Cajanus cajan* (L.) Millsp. (Fabaceae) [112]
- *Carduus edelbergii* Rech.f. (Asteraceae) (= *Carduus delbergii*) [111]
- *Carduus* sp. (Asteraceae) [63]

44. *Brachycaudus (Brachycaudus) helichrysi* (Kaltenbach, 1843)

- =*Anuraphis helichrysi* Kaltenbach [50, 113]
= *Anuraphis helichrysi* var. *warei* (Theobald, 1923) [114]
= *Anuraphis padi* (Linnaeus) [115]
= *Brachycaudus (Anuraphis) helichrysi* (Kaltenbach, 1843) [116]
- *Acmella paniculata* (Wall. ex DC.) Jansen (= *Spilanthes acmella* (L.) Murray) (Asteraceae) [78]
 - *Aesculus indica* Colebr. (Hippocastanaceae) [14]
 - *Ageratum conyzoides* L. (Asteraceae) [19, 21, 28, 50, 54, 56, 59, 67, 78, 81, 106]
 - *Ageratum* sp. (Asteraceae) [67, 113, 114]
 - *Amaranthus* sp. (Amaranthaceae) [19]
 - *Anaphalis araneosa* DC. (Asteraceae) [19]
 - *Anaphalis cinnonomea* C.B. Clarke (Asteraceae) [67, 75]
 - *Anaphalis contorta* Hook.f. (Asteraceae) [14, 19]
 - *Anaphalis marginata* L. (Asteraceae) [117]
 - *Anaphalis nepalensis* (DC.) Aswal (Asteraceae) [2]
 - *Anaphalis* sp. (Asteraceae) [67, 75, 78]
 - *Anaphalis triplinervis* Benth. Ex Hance (Asteraceae) [17, 19]
 - *Artemisia nepalensis* Nees (Asteraceae) [106]
 - *Artemisia* sp. (Asteraceae) [78, 118]
 - *Artemisia vestita* Wall (Asteraceae) [17]
 - *Artemisia vulgaris* L. (Asteraceae) [14, 19]
 - *Asclepias curassavica* L. (Apocynaceae) [81]
 - *Atropa belladonna* L. (Solanaceae) [14, 19]
 - *Beta vulgaris* L. (Chenopodiaceae) [78]
 - *Bidens bipinnata* L. (Asteraceae) [2]
 - *Bidens pilosa* L. (Asteraceae) [19, 78, 106]
 - *Blumea lacera* (Burm.f.) DC. (Asteraceae) [19, 28, 59]
 - *Blumea mollis* (D. Don) Merr. (Asteraceae) [48]
 - *Blumea* sp. (Asteraceae) [50]
 - *Bomarea caldasii* (Kunth) Herb. (Alstroemeriaceae) [28, 59]
 - *Bougainvillea spectabilis* Willd. (Nyctaginaceae) [55]
 - *Brassica napus* L. (Brassicaceae) [19]
 - *Brassica oleracea* L. (Brassicaceae) [19]
 - *Buddleja* sp. (Scrophulariaceae) [19]
 - *Butea minor* Ham. (Fabaceae) [55]
 - *Cajanus cajan* (L.) Millsp. (Fabaceae) [78]
 - *Calamintha* sp. (Lamiaceae) [19]
 - *Canna* sp. (Cannaceae) [106]
 - *Cerastium fontanum* ssp. *vulgare* (Hartm.) Greuter & Burdet (= *Cerastium vulgatum* auct.) (Caryophylliaceae) [14, 19]
 - *Cestrum fasciculatum* (Schltdl.) Miers (Solanaceae) [19]
 - *Chenopodium* sp. (Chenopodiaceae) [19]
 - *Chromolaena odorata* (L.) King & H.E. Robins. (Asteraceae) [48]
 - *Chrysanthemum indicum* L. (Asteraceae) [19]
 - *Chrysanthemum* sp. (Asteraceae) [28, 67]
 - *Cineraria* sp. (Asteraceae) [19, 28, 59]
 - *Cleome gyandra* L. (= *Cleome pentaphylla* L.) (Cleomaceae) [19]
 - *Clerodendrum* sp. (Lamiaceae) [56]
 - *Cnicus* sp. (Asteraceae) [19]
 - *Cnicus wallichii* Hook.f. (Asteraceae) [119]

- *Colocasia* sp. (Araceae) [106]
- *Conyza angustifolia* Horst. Par. ex DC. (Asteraceae) [14]
- *Conyza bonariensis* (L.) Cronq. (=*Erigeron bonariensis* L.) (Asteraceae) [120]
- *Conyza canadensis* (L.) Cronq. (=*Erigeron canadensis* L.) (Asteraceae) [14, 28]
- *Cosmos bipinnatus* Cav. (Asteraceae) [14, 33]
- *Crataeva religiosa* Forst.f. (Capparidaceae) [19]
- *Crepis* sp. (Asteraceae) [78]
- *Crotalaria pallida* Aiton (=*Crotalaria brownie* Bertero ex DC.) (Fabaceae) [19]
- *Croton* sp. (Euphorbiaceae) [31]
- *Cryptomeria japonica* (L.f.) D.Don (Cupressaceae) [78]
- *Cucurbita maxima* Duchesne (Cucurbitaceae) [19]
- *Cynodon dactylon* (L.) Pers. (Poaceae) [78]
- *Cynoglossum furcatum* Wall. (Boraginaceae) [28]
- *Cynoglossum* sp. (Boraginaceae) [2]
- *Cynoglossum wallichii* G. Don (Boraginaceae) [19]
- *Cynoglossum wallichii* var. *glochidiatum* (Wall. ex Benth.) Kazmi (=*Cynoglossum glochidiatum* Wall. ex Benth.) (Boraginaceae) [2]
- *Datura metel* L. (=*Datura fastuosa* L.) (Solanaceae) [19, 78]
- *Dichrocephala integrifolia* (L.f.) Kuntze (=*Dichrocephala latifolia* (Pers.) DC.) (Asteraceae) [19]
- *Digitalis grandiflora* Mill. (Plantaginaceae) [14, 19]
- *Digitalis lanata* Ehrh. (Plantaginaceae) [14]
- *Digitalis purpurea* L. (Plantaginaceae) [14, 19]
- *Digitalis* sp. (Plantaginaceae) [19, 78]
- *Drymaria cordata* (L.) Willd. ex Schult. (Caryophyllaceae) [19, 78]
- *Duranta erecta* L. (Verbenaceae) [78]
- *Dysophylla* sp. (Lamiaceae) [19]
- *Elephantopus* sp. (Asteraceae) [55]
- *Eleusine coracana* (L.) Gaertn. (Poaceae) [55, 106]
- *Engelhardtia* sp. (Juglandaceae) [19, 78]
- *Erechtites* sp. (Asteraceae) [78, 106]
- *Erechtites valerianaeifolia* DC. (Asteraceae) [19]
- *Erigeron* sp. (Asteraceae) [19]
- *Eupatorium adenophorum* Spreng. (Asteraceae) [50, 78]
- *Eupatorium odoratum* L. (Asteraceae) [50, 55, 78, 81, 106]
- *Eupatorium* sp. (Asteraceae) [21]
- *Eupatorium wallichii* DC. (Asteraceae) [19]
- *Euphorbia hirta* L. (Euphorbiaceae) [19]
- *Galinsoga parviflora* Cav. (Asteraceae) [78]
- *Gamochaeta purpurea* (L.) Cabrera (=*Gnaphalium purpurium* L.) (Asteraceae) [19]
- *Gardenia jasminoides* J. Ellis (=*Gardenia florida* L.) (Rubiaceae) [19]
- *Geranium ocellatum* Cambess. (Geraniaceae) [19]
- *Gerbera* sp. (Asteraceae) [28, 121]
- *Glebionis coronaria* (L.) Cass. ex Spach (=*Chrysanthemum coronarium* L.) (Asteraceae) [78]
- *Gnaphalium* sp. (Asteraceae) [75]
- *Gonostegia hirta* (Hassk.) Miq. (=*Pouzolzia hirta* Blume ex Hassk.) (Urticaceae) [78]
- *Gynura crepidioides* Benth. (Asteraceae) [50, 122]
- *Gynura cusimbua* (D. Don) S. Moore (=*Gynura angulosa* DC.) (Asteraceae) [58, 54]
- *Gynura nepalensis* DC. (Asteraceae) [19, 81]
- *Helianthus annuus* L. (Asteraceae) [55, 19]
- *Heliotropium indicum* L. (Boraginaceae) [14, 19]
- *Hibiscus* sp. (Malvaceae) [19]
- *Holmskioldia sanguinea* Retz. (Verbenaceae) [19]
- *Hypochaeris glabara* L. (Asteraceae) [81]
- *Inula cappa* (Buch.-Ham. Ex D. Don) DC. (Asteraceae) [14]

- *Inula* sp. (Asteraceae) [2]
- *Jatropha curcas* L. (Euphorbiaceae) [55]
- *Jatropha* sp. (Euphorbiaceae) [17]
- *Lablab purpureus* (L.) Sweet (=*Dolichos lablab* L.) (Fabaceae) [123]
- *Lactuca* sp. (Asteraceae) [19]
- *Laggera flava* (DC.) Benth. (Asteraceae) [55]
- *Laggera pterodonta* (DC.) Benth. (Asteraceae) [14]
- *Laggera* sp. (Asteraceae) [55]
- *Lantana camara* L. (Verbenaceae) [19]
- *Leucaena leucocephala* (Lam.) deWit. (=*Leucaena glauca* auct.) (Fabaceae) [78]
- *Levisticum officinale* W.D.J. Koch (Apiaceae) [14]
- *Lycopersicon esculentum* Mill. (Solanaceae) [17, 19, 70, 78]
- *Maesa chisia* Buch.-Ham. ex D. Don (Maesaceae) [78]
- *Maesa* sp. (Maesaceae) [19]
- *Malus domestica* Borkh. (=*Pyrus malus* L.) (Rosaceae) [2]
- *Mangifera indica* L. (Anacardiaceae) [55]
- *Mikania scandens* (L.) Willd. (Asteraceae) [19]
- *Morus alba* L. (=*Morus indica* L.) (Moraceae) [55]
- *Musa* sp. (Musaceae) [106]
- *Nicotiana tabacum* L. (Solanaceae) [14, 19]
- *Notonia grandiflora* DC. (Asteraceae) [51]
- *Osbeckia chinensis* L. (Melastomaceae) [78, 55]
- *Oxalis corniculata* L. (Oxalidaceae) [14, 19]
- *Papaver orientale* L. (Papaveraceae) [14]
- *Passiflora foetida* L. (Passifloraceae) [19]
- *Pedicularis gracilis* Wall. ex Benth. (Orobanchaceae) [17]
- *Persicaria barbata* (L.) H. Hara (=*Polygonum barbatum* L.) (Polygonaceae) [78]
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) [19]
- *Petunia integrifolia* (Hook) Schinz & Thell. (=*Petunia violacea* Lindl.) (Solanaceae) [14]
- *Petunia* sp. (Solanaceae) [19]
- *Philadelphus coronaries* L. (Hydrangeaceae) [19]
- *Photinia* sp. (Rosaceae) [19]
- *Pogostemon* sp. (Lamiaceae) [55]
- *Polygonum* sp. (Polygonaceae) [14, 19]
- *Prunus armeniaca* L. (Rosaceae) [28, 39, 55]
- *Prunus cerasoides* Buch.-Ham. ex D. Don (=*Prunus puddum* (Rox. Ex Ser.)) (Rosaceae) [55]
- *Prunus cerasus* L. (Rosaceae) [19]
- *Prunus cornuta* (Wall. ex Royle) Steud. (Rosaceae) [124]
- *Prunus domestica* L. (Rosaceae) [14, 19, 28, 39, 55, 59]
- *Prunus dulcis* (Mill.) D.A. Webb. (=*Prunus amygdalus* Batsc) (Rosaceae) [28, 39, 75]
- *Prunus padus* L. (Rosaceae) [28]
- *Prunus persica* (L.) Batsch (Rosaceae) [14, 17, 19, 28, 39, 50, 55, 59, 115, 106, 116]
- *Prunus persica* (L.) var.*flordasun* (Rosaceae) [71]
- *Prunus salicina* Lindl. (=*Prunus triflora* Roxb.) (Rosaceae) [19]
- *Prunus* sp. (Rosaceae) [22, 67, 70, 78]
- *Pseudognaphalium luteoalbum* (L.) Hilliard & Burtt (=*Gnaphalium luteoalbum* L.; *Gnaphalium album* auct.nonn.; *Anaphalis luteoalbum* misident.) (Asteraceae) [14, 19, 124]
- *Punica granatum* L. (Punicaceae) [17, 19]
- *Pyrus* sp. (Rosaceae) [75]
- *Quercus* sp. (Fagaceae) [19]
- *Rhododendron arboreum* Sm. (Ericaceae) [19]
- *Rhododendron* sp. (Ericaceae) [14]
- *Rosa webbiana* Wall. ex Royle (Rosaceae) [125]
- *Rosa* sp. (Rosaceae) [14, 78]

- *Rubia cordifolia* L. (Rubiaceae) [14, 19]
- *Rubus ellipticus* Sm. (Rosaceae) [14, 19]
- *Rubus* sp. (Rosaceae) [19]
- *Rudbeckia tagetes* James (=*Rudbeckia tageteoides* (auct.) (Asteraceae) [106]
- *Rumex nepalensis* Spreng. (Polygonaceae) [78]
- *Salix* sp. (Salicaceae) [55]
- *Salvia* sp. (Lamiaceae) [19]
- *Sambucus javanica* Reinw. ex Blume (Adoxaceae) [19]
- *Saussurea costus* (Falc.) Lipsch. (=*Saussurea lappa* (Dacne.) C.B. Clarke) (Asteraceae) [17, 39, 41]
- *Schima wallichii* (DC.) Korth. (Theaceae) [19]
- *Senebiera pinnatifida* DC. (Brassicaceae) [19]
- *Senecio alatus* Wall. ex DC. (Asteraceae) [14]
- *Senecio chrysanthemoides* DC. (Asteraceae) [2, 17]
- *Senecio densiflorus* Wall. ex DC. (Asteraceae) [14]
- *Senecio diversifolius* (Hook. & Arn.) DC. (Asteraceae) [14]
- *Senecio scandens* Buch.-Ham. ex D. Don (Asteraceae) [19, 78]
- *Senecio setulosus* Phil. (Asteraceae) [14]
- *Senecio* sp. (Asteraceae) [55]
- *Solanum erianthum* D. Don (=*Solanum verbascifolium* L.) (Solanaceae) [19]
- *Solanum melongena* L. (Solanaceae) [55]
- *Solanum multifidum* Lam. (=*Solanum pinnatifidum* Ruiz. & Pav.) (Solanaceae) [19]
- *Solanum* sp. (Solanaceae) [19]
- *Solanum tuberosum* L. (Solanaceae) [14, 55]
- *Solanum virginianum* L. (=*Solanum xanthocarpum* Schrad.) (=*Solanum surattense* Burm. f.) (Solanaceae) [14]
- *Solanum xanti* A. Gray (Solanaceae) [14]
- *Solidago* sp. (Asteraceae) [2]
- *Solidago virgaurea* L. (Asteraceae) [14]
- *Sonchus arvensis* L. (Asteraceae) [78]
- *Sonchus* sp. (Asteraceae) [19]
- *Sorbus vestita* (Wall. ex G. Don) Lodd. (=*Pyrus vestita* Wall ex G. Don) (Rosaceae) [2]
- *Spiraea bella* Sims. (Rosaceae) [2]
- *Spiraea corymbosa* Raf. (Rosaceae) [19]
- *Symplocos cratigeoides* Buch.-Ham. ex D. Don (Symplocaceae) [19]
- *Tephrosia* sp. (Fabaceae) [2]
- *Tridax procumbens* L. (Asteraceae) [19, 78]
- *Triumfetta pilosa* Roth (Tiliaceae) [78]
- *Urtica parviflora* Roxb. (Tiliaceae) [126]
- *Vigna unguiculata* (L.) Walp. ssp. *cylindrica* (L.) Verdc. (=*Vigna catjang* (Burm.f.) Walp.) (Fabaceae) [19]
- *Vinca* sp. (Apocynaceae) [17, 19]
- *Vitex* sp. (Lamiaceae) [19]
- *Xerochrysum bracteatum* (Vent.) Tzvelev (=*Helichrysum bracteatum* (Vent.) Andrews) (Asteraceae) [81]
- Undet.: Acanthaceae [127]; Araceae [78]; Asteraceae [14, 38]; Urticaceae [14]; indet. Families [17, 95]

45. *Brachycaudus (Brachycaudus)* sp.

- *Anaphalis cinnonomea* C.B. Clarke (Asteraceae) [75]
- *Anaphalis* sp. (Asteraceae) [75]
- *Gnaphalium* sp. (Asteraceae) [75]

46. *Brachycaudus (Mordvilkomemor) pilosus* (Mordvilko ex Nevytsky, 1929)

- Undet.: Asteraceae [40]

47. *Brachycaudus (Mordvilkomemor)* sp.

- = *Mordvilkomemor* sp. [39, 128, 129]
• *Artemisia vestita* Wall (Asteraceae) [39, 128]

48. *Brachycaudus (Scrophulaphis) persicae* (Passerini, 1860)

- = *Brachycaudus (Acaudus)persicae* (Passerini) [71]
• *Prunus dulcis* (Mill.) D.A.Webb (= *Prunus dulcis* (Miller)) [71]
• *Prunus persica* (L.) Batsch (Rosaceae) [71]

49. *Brachycaudus (Thuleaphis) amygdalinus* (Schouteden, 1905)

- = *Thuleaphis amygdalinus* Schouteden, 1905 [14]
= *Thuleaphis ?amygdalinus* Schouteden, 1905 [105]
• *Fagopyrum acutatum* (Lehm.) Mansf. ex K.Hammer (= *Fagopyrum cymosum* (Trev.) Meisn) (Polygonaceae) [14, 105]
• *Nicotiana* sp. (Solanaceae) [14]

50. *Brachycaudus (Thuleaphis) rumexicolens* (Patch, 1917)

- = *Thuleaphis rumexicolens* Patch, 1917 [39, 64, 130]
• *Fagopyrum acutatum* (Lehm.) Mansf. ex K.Hammer (= *Fagopyrum cymosum* (Trev.) Meisn) (Polygonaceae) [64]
• *Rumex hastatulus* Baldwin (Polygonaceae) [17, 23, 39]
• *Rumex nepalensis* Spreng. (Polygonaceae) [17]

51. *Brachycaudus (Thuleaphis)* sp.

- *Rumex hastatulus* Baldwin (Polygonaceae) [131]

52. *Brachymyzus jasmini* Basu, 1964

- *Eleusine* sp. (Poaceae) [19]
• *Jasminum humile* L. (Oleaceae) [19, 20]
• *Nellia* sp. (Rosaceae) [70, 78]
• *Pilea macrocarpa* (L.) Liebm. (Urticaceae) [70, 78]

53. *Brachysiphoniella montana* (van der Goot, 1917)

- = *Brachycolus gramini* Takahashi, 1920 [114]
= *Semiaphis (Brachysiphoniella) montana* (van der Goot, 1917) [132]
• *Cynodon dactylon* (L.) Pers. (Poaceae) [133]
• *Cynodon plectostachyus* (K. Schum.) Pilg. (Poaceae) [28, 121]
• *Cynodon* sp. (Poaceae) [50]
• *Eleusine* sp. (Poaceae) [107]
• *Leersia* sp. (Poaceae) [48]
• *Misanthus* sp. (Poaceae) [48]
• *Pennisetum* sp. (Poaceae) [48]
• *Phragmites* sp. (Poaceae) [48]
• *Poa* sp. (Poaceae) [107]

54. *Brevicoryne barbareae* Nevsky, 1929

- *Barbarea vulgaris* R. Br. (Brassicaceae) [17, 39, 41, 134]
• *Brassica* sp. (Brassicaceae) [134]
• *Nasturtium* sp. (Brassicaceae) [17, 39, 41, 134]
• *Raphanus sativus* L. (Brassicaceae) [134]

55. *Brevicoryne brassicae* (Linnaeus, 1758)

- = *Aphis brassicae* Linnaeus, 1758 [112]
• *Atropa belladonna* L. (Solanaceae) [14]
• *Beta vulgaris* L. (Chenopodiaceae) [19, 20, 134]
• *Brassica juncea* L. Czern. (Brassicaceae) [14, 28, 134]

- *Brassica napus* L. (Brassicaceae) [14, 19, 20, 55, 134]
- *Brassica nigra* (L.) W.D.J. Koch (Brassicaceae) 52, 57]
- *Brassica oleracea* L. (Brassicaceae) [14, 17, 19, 20, 30, 39, 55, 60, 70, 134]
- *Brassica oleracea* L. var. *botrytis* L. (=*Brassica oleracea* var. *cauliflora* (misnomen.) (Brassicaceae) [28, 39, 45, 50])
- *Brassica oleracea* L. var. *capitata* L. (Brassicaceae) [28, 39, 45, 50, 60]
- *Brassica oleracea* L. var. *gongyloides* L. (Brassicaceae) [50]
- *Brassica oleracea* L. var. *viridis* (=*Brassica oleracea* var. *acephala*) DC. (Brassicaceae) [72]
- *Brassica oleracea* L. var. *kashmiriana* Naqshi & Javeid (Brassicaceae) [71]
- *Brassica rapa* L. (Brassicaceae) [28]
- *Brassica rapa* ssp. *dichotoma* (Roxb.) Hanelt (=*Brassica dichotoma* misnomen.) (Brassicaceae) [36]
- *Brassica rapa* ssp. *campestris* (L.) A.R. Clapham (= *Brassica campestris* L.) (Brassicaceae) [14, 19, 20, 28, 32, 50, 60, 134]
- *Brassica* sp. (Brassicaceae) [78, 14, 33, 45, 70, 106, 131]
- *Cajanus cajan* (L.) Millsp. (Fabaceae) [112]
- *Capsella bursapastoris* (L.) Medik (Brassicaceae) [20]
- *Cardamine hirsuta* L. (Brassicaceae) [20, 134]
- *Cardamine impatiens* L. (Brassicaceae) [14]
- *Cleome gyandra* L. (=*Cleome pentaphylla* L.; *Gynandropsis pentaphylla* (L.) DC) (Cleomaceae) [48]
- *Ficus* sp. (Moraceae) [14]
- *Iberis* sp. (Brassicaceae) [135, 136]
- *Lycopersicon esculentum* Mill. (Solanaceae) [56]
- *Matthiola incana* (L.) W. T. Aiton (=*Guettarda incana* misident.) (Brassicaceae) [14]
- *Nasturtium officinale* R. Br. (Brassicaceae) [2]
- *Petunia integrifolia* (Hook) Schinz & Thell. (=*Petunia violacea* Lindl.) (Solanaceae) [14]
- *Raphanus sativus* L. (Brassicaceae) [14, 19, 20, 28, 33, 45, 112, 131, 134]
- *Scutellaria scandens* Buch.-Ham. ex D. Don (Lamiaceae) [14]
- *Solanum tuberosum* L. (Solanaceae) [14, 39]
- *Solanum virginianum* L. (=*Solanum xanthocarpum* Schrad.; *Solanum surattense* Burm. f.) (Solanaceae) [14]
- *Veronica agrestis* L. (Plantaginaceae) [17]
- *Zea mays* L. (Poaceae) [17]
- Undet.: Brassicaceae [14, 39]; Lamiaceae, Moraceae, Solanaceae [134]

56. *Brevicoryne capsici* Sathe & Jadhav, 2008§

- *Capsicum annuum* Linn. (Solanaceae) [77]

57. *Capitophorus archangelskii* Nevsky, 1928

- *Tricholepis furcata* DC. (Asteraceae) [15]

58. *Capitophorus carduinus* (Walker, 1850)

- *Anemone rivularis* Buch.-Ham. ex DC. (Ranunculaceae) [19, 20, 136]
- *Cnicus* sp. (Asteraceae) [19, 20, 34, 136]
- *Cnicus wallichii* Hook.f. (Asteraceae) [123, 137]
- *Cosmos* sp. (Asteraceae) [19]
- *Geranium* sp. (Geraniaceae) [19, 101]
- *Osbeckia capitata* Bentm. Ex Naudin (Melastomaceae) [19]
- *Rubus ellipticus* Sm. (Rosaceae) [19]

59. *Capitophorus cirsiphagus* Takahashi, 1961

- *Cnicus* sp. (Asteraceae) [132]

60. *Capitophorus elaeagni* (del Guercio, 1894)

- *Carduus edelbergii* Rech.f. (Asteraceae) [87]
- *Cnicus involucratus* Wall. ex DC. (Asteraceae) [50]
- *Cnicus* sp. (Asteraceae) [19, 20, 78, 136]
- *Cnicus wallichii* Hook.f. (Asteraceae) [137]
- *Cousinia thomsoni* Clarke (=*Cnicus thomsoni* auct. nonn.) (Asteraceae) [2, 137]
- *Cynara cardunculus* L. (=*Cynara scolymus* L.) (Asteraceae) [28, 138]
- *Polygonum viscosum* Buch.-Ham. ex D. Don (Polygonaceae) [19]
- *Swertia* sp. (Gentianaceae) [88]

61. *Capitophorus formosartemisiae* (Takahashi, 1921)

- *Anaphalis cinnonomea* C.B. Clarke (Asteraceae) [2]
- *Artemisia dentata* Willd. (Asteraceae) [19, 35, 36]
- *Artemisia nepalensis* Nees (Asteraceae) [106, 139]
- *Artemisia roxburghiana* Bess (Asteraceae) [21]
- *Artemisia* sp. (Asteraceae) [17, 19, 20, 70, 78, 136]
- *Artemisia vulgaris* L. (Asteraceae) [14, 16, 19, 21, 50, 55, 78, 105, 106, 139]
- *Chrysanthemum indicum* L. (Asteraceae) [106]
- *Cosmos* sp. (Asteraceae) [2]
- *Erigeron* sp. (Asteraceae) [19]
- *Inula orientalis* Lam. (=*Inula grandiflora* Willd.) (Asteraceae) [2]
- *Inula* sp. (Asteraceae) [2]
- *Maesa indica* (Roxb.) A. DC. (Maesaceae) [34, 136]
- *Musa paradisiaca* L. (Musaceae) [2]
- *Polygonum* sp. (Polygonaceae) [19]
- *Saussurea albescens* Hook.f. & Thoms. ex C.B. Clarke (Asteraceae) [2]
- *Saussurea costus* (Falc.) Lipsch. (=*Saussurea lappa* (Dacne.) C.B. Clarke) (Asteraceae) [34]
- *Senecio triligulatus* Ham. (Asteraceae) [55]

62. *Capitophorus himachali* Chakrabarti & Maity, 1980

- *Polygonum* sp. (Polygonaceae) [140]

63. *Capitophorus himalayensis* Ghosh, Ghosh & Raychaudhuri, 1971

- *Hippophae* sp. (Elaeagnaceae) [2, 137]
- Unidentified plants (Polygonaceae) [20, 136]

64. *Capitophorus hippophaes hippophaes* (Walker, 1852)

- *Persicaria barbata* (L.) H. Hara (=*Polygonum barbatum* L.) (Polygonaceae) [25]
- *Hippophae* sp. (Elaeagnaceae) [141]
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) [36, 122, 125]
- *Persicaria hydropiper* (L.) Delarbre (=*Polygonum hydropiper* L.) (Polygonaceae) [96]
- *Polygonum* sp. (Polygonaceae) [50]
- *Spermadictyon sauveolens* Roxb. (=*Hamiltonia sauveolens* auct. nonn.) (Rubiaceae) [19]

65. *Capitophorus hippophaes javanicus* Hille Ris Lambers, 1953

- *Aconogonon molle* (D. Don) H. Hara (=*Polygonum molle* D. Don.) (Polygonaceae) [78]
- *Ageratum conyzoides* L. (Asteraceae) [19]
- *Eupatorium wallichii* DC. (Asteraceae) [19]
- *Mirabilis jalapa* L. (Nyctaginaceae) [19]
- *Persicaria barbata* (L.) H. Hara (=*Polygonum barbatum* L.) (Polygonaceae) [14, 19, 20, 64, 78, 81, 136]
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) [55]
- *Persicaria glabra* (Willd.) M. Gómez (=*Polygonum glabrum* Willd.) (Polygonaceae) [19, 20, 136]
- *Persicaria hydropiper* (L.) Delarbre (=*Polygonum hydropiper* L.) (Polygonaceae) [19, 20, 34, 55, 136]

- *Persicaria mollis* (D. Don). Don H. Gross (=*Polygonum paniculatum* Blume) (Polygonaceae) [13]
- *Persicaria orientale* (L.) Spatch (=*Polygonum orientale* L.) (Polygonaceae) [19, 58, 78]
- *Persicaria perfoliata* (L.) H. Gross (=*Polygonum perfoliatum* L.) (Polygonaceae) [19, 136]
- *Persicaria pubescens* (Blume) H. Hara (=*Polygonum flaccidum* auct.) (Polygonaceae) [16]
- *Polygonum alatum* Buch.-Ham. ex D. Don (Polygonaceae) [19, 20, 78, 136]
- *Polygonum flaccidum* Roxb. (=*Polygonum serrulatum* Lagasca) (Polygonaceae) [19, 20, 34, 136]
- *Polygonum* sp. (Polygonaceae) [14, 17, 20, 35, 36, 50, 67]

66. *Capitophorus litanensis* Raychaudhuri, Singh & Raychaudhuri, 1984

- *Bidens* sp. (Asteraceae) [142]

67. *Capitophorus meghalayensis* Basu & Raychaudhuri, 1976

- = *Capitophorus archangelskii* Nevsky, 1928* [22]
- *Elaeagnus* sp. (Elaeagnaceae) [20, 22, 70, 136]

68. *Capitophorus mitegoni* Eastop, 1956

- = *Capitophorus indicus* Ghosh & Raychaudhuri, 1968 [1]
- = *Capitophorus hippophaes indica* Ghosh & Raychaudhuri, 1968 [79, 109]
- = *Capitophorus hippophaes mitegoni* Eastop, 1956: [1, 108]
- = *Capitophorus polygoni* Ghosh, Ghosh & Raychaudhuri, 1971 [1]
- *Aconogonon molle* (D. Don) H. Hara (=*Polygonum molle* D. Don.) (Polygonaceae) [19, 20, 78, 136]
- *Amaranthus cruentus* L. (= *Amaranthus paniculatus* L.) (Amaranthaceae) [2]
- *Boehmeria* sp. (Urticaceae) [19]
- *Cosmos* sp. (Asteraceae) [31]
- *Desmodium* sp. (Fabaceae) [19]
- *Eupatorium wallichii* DC. (Asteraceae) [19]
- *Ipomoea* sp. (Convolvulaceae) [19]
- *Lamium album* L. (Lamiaceae) [2]
- *Persicaria barbata* (L.) H. Hara (=*Polygonum barbatum* L.) (Polygonaceae) [78]
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) [54, 55, 136, 143]
- *Persicaria glabra* (Willd.) M. Gómez (=*Polygonum glabrum* Willd.) (Polygonaceae) [19]
- *Persicaria hydropiper* (L.) Delarbre (=*Polygonum hydropiper* L.) (Polygonaceae) [144, 145]
- *Persicaria mollis* (D. Don). Don H. Gross (=*Polygonum paniculatum* Blume) (Polygonaceae) [13]
- *Persicaria nepalensis* (Meisn.) H. Gross (=*Polygonum nepalense* Meisn.) (Polygonaceae) [20]
- *Persicaria orientale* (L.) Spatch (=*Polygonum orientale* L.) (Polygonaceae) [19, 20, 136]
- *Persicaria perfoliata* (L.) H. Gross (=*Polygonum perfoliatum* L.) (Polygonaceae) [20, 136]
- *Polygonum alatum* Buch.-Ham. ex D. Don (Polygonaceae) [19, 20, 136]
- *Polygonum sinensis* P.E. Resreratrol (Polygonaceae) [20]
- *Polygonum* sp. (Polygonaceae) [17, 32, 55, 78, 106, 108]
- *Rumex nepalensis* Spreng. (Polygonaceae) [19, 20, 136]
- *Rumex* sp. (Polygonaceae) [19]
- Undet.: Polygonaceae) [20, 136]

69. *Capitophorus similis* van der Goot, 1915

- *Aralia thomsoni* L. (Araliaceae) [19]

70. *Capitophorus tricholepidis* Chakrabarti, 1976

- *Tricholepis furcata* DC. (Asteraceae) [146]

71. *Capitophorus* sp.

- *Anaphalis cinnonomea* C.B. Clarke (Asteraceae) [75]
- *Anaphalis* sp. (Asteraceae) [75]
- *Artemisia* sp. (Asteraceae) [63, 75]
- *Artemisia vestita* Wall (Asteraceae) [75]
- *Artemisia vulgaris* L. (Asteraceae) [50, 75]
- *Brassica oleracea* var. *botrytis* L. (Brassicaceae) [50]
- *Centaurea iberica* Trevir. ex Spreng. (Asteraceae)[125]

- *Gnaphalium* sp. (Asteraceae) [75]
- *Hippophae salicifolia* D. Don (Elaeagnaceae) [17, 39]
- *Leucosceptrum cannum* Sm. (Lamiaceae) [50]
- *Osbeckia crinata* Benth. (Melastomaceae) [50]
- *Polygonum* sp. (Polygonaceae) [50]

72. *Carolinaia (Juncomyzus) scirpi* (van der Goot, 1917)

- = *Aulacorthum (Aulacorthum) scirpi* van der Goot, 1917: [1]
• *Scleria cochinchinensis* (Lour.) Druce (=*Scleria elata* Thwaites) (Cyperaceae) [20, 147]

73. *Carolinaia (Juncomyzus) sp.*

- *Scleria cochinchinensis* (Lour.) Druce (=*Scleria elata* Thwaites) (Cyperaceae) [19]

74. *Cavariella (Cavaraiellia) aquatica* (Gillette & Bragg, 1916)

- *Hordeum vulgare* L. (Poaceae) [71]
- *Salix elaeagnos* Scop. (=*Salix elegans* auct. non.) (Salicaceae) [76]
- *Salix* sp. (Salicaceae) [17, 39, 41, 70]

75. *Cavariella (Cavariella) ? kanoi* Takahashi, 1939

- *Geranium lucidum* L. (Geraniaceae) [17]
- *Pimpinella diversifolia* DC. (Apiaceae) [17]
- *Pimpinella umbellata* ? (Apiaceae) [17]

76. *Cavariella (Cavariella) aegopodii* (Scopoli, 1763)

- *Geranium* sp. (Geraniaceae) [37]
- *Glochidion* sp. (Phyllanthaceae) [132]
- *Heracleum sosnowskyi* Manden (Apiaceae) [19, 20]
- *Heracleum* sp. (Apiaceae) [14, 105]
- *Pimpinella diversifolia* DC. (Apiaceae) [14, 17, 19, 20]
- *Polygonum* sp. (Polygonaceae) [67]
- *Salix aegyptiaca* L. (Salicaceae) [98]
- *Salix babylonica* L. (Salicaceae) [19, 20, 132]
- *Salix cinerea* L. (=*Salix acuminata* Mill.) (Salicaceae) [14]
- *Salix denticulata* Andersson (Salicaceae) [148]
- *Salix hastata* L. (Salicaceae) [75]
- *Salix* sp. (Salicaceae) [67, 96, 98]
- *Salix tetrasperma* Roxb. (Salicaceae) [2, 149]
- *Sanicula europaea* L. (Apiaceae) [14, 19, 20]
- *Zingiber officinale* Rosc. (Zingiberaceae) [34]
- Undet.: Apiaceae) [14, 67]

77. *Cavariella (Cavariella) araliae* Takahashi, 1921

- *Aralia* sp. (Araliaceae) [150]
- *Aralia thomsoni* L. (Araliaceae) [19, 20]
- *Salix* sp. (Salicaceae) [19, 20, 78]

78. *Cavariella (Cavariella) biswasi* Ghosh, Basu & Raychaudhuri, 1969

- *Heracleum canadicans* Wall. ex DC. (Apiaceae) [87]
- *Salix babylonica* L. (Salicaceae) [19, 20]
- *Salix elaeagnos* Scop. (=*Salix elegans* auct. nonn.) (Salicaceae) [19, 20]
- *Salix* sp. (Salicaceae) [19, 20]

79. *Cavariella (Cavariella) himachali* Ghosh, 1986

- *Indigofera dregeana* F. Mey (=*Indigofera gerardiana* Wall. ex Baker) (Fabaceae) [37]
- *Spiraea canescens* D. Don (Rosaceae) [37]

80. *Cavariella (Cavariella) indica* Maity & Chakrabarti, 1982

- *Populus ciliata* Wall. ex Royle (Salicaceae) [2]
- *Salix babylonica* L. (Salicaceae) [76, 85]
- *Salix* sp. (Salicaceae) [76]

81. *Cavariella (Cavariella) konoi* Takahashi, 1939

- *Salix babylonica* L. (Salicaceae) [2]

82. *Cavariella (Cavariella) nigra* Basu, 1964

- *Salix denticulata* Andersson (Salicaceae) [148]
- *Salix elaeagnos* Scop. (=*Salix elegans* auct. nonn.) (Salicaceae) [19, 20]
- Undet.: Apiaceae) [17, 110]

83. *Cavariella (Cavariella) salicicola* (Matsumura, 1917)

- *Gnaphalium* sp. (Asteraceae) [20, 55, 150]
- *Salix babylonica* L. (Salicaceae) [19, 20, 132]
- *Salix drupifolia* ? (Salicaceae) [55, 148]
- *Salix* sp. (Salicaceae) [20, 55, 106, 151]
- *Sanicula europaea* L. (Apiaceae) [17, 130]

84. *Cavariella (Cavariella) salicis* (Monell, 1879)

- *Populus ciliata* Wall. ex Royle (Salicaceae) [2]
- *Salix denticulata* Andersson (Salicaceae) [2]
- *Salix elaeagnos* Scop. (=*Salix elegans* auct. nonn.) (Salicaceae) [76]
- *Salix* sp. (Salicaceae) [2]

85. *Cavariella (Cavariella) simlaensis* Chowdhuri, Basu & Raychaudhuri, 1969

- *Sanicula europaea* L. (Apiaceae) [17, 130]

86. *Cavariella Cavariella* sp.

- *Salix eriophylla* Andersson (Salicaceae) [152]
- *Salix* sp. (Salicaceae) [31]
- Undet.: Solanaceae) [19, 20, 70]

87. *Ceruraphis eastopi* Hille Ris Lambers, 1966

- *Viburnum cotinifolium* D. Don (Adoxaceae) [2, 153]
- *Viburnum* sp. (Adoxaceae) [154]

88. *Chaetomyzus rhododendri* Ghosh & Raychaudhuri, 1962

- *Rhododendron arboreum* Sm. (Ericaceae) [2, 155]
- *Rhododendron* sp. (Ericaceae) [90]

89. *Chaetosiphon (Chaetosiphon) chaetosiphon* (Nevsky, 1928)

- *Rosa* sp. (Rosaceae) [156]

90. *Chaetosiphon (Chaetosiphon) gracilicorne* David, Rajasingh & Narayanan, 1970 (1971)

= *Chaetosiphon chaetosiphon indicum* Chakrabarti & Ghosh, 1970 [14, 64, 157, 158]

- *Artemisia vulgaris* L. (Asteraceae) [14]
- *Rosa macrophylla* Lindl. (Rosaceae) [17, 156]
- *Rosa moschata* Herrm. (Rosaceae) [14, 17]
- *Rosa webbiana* Wall. ex Royle (Rosaceae) [125]
- *Rosa* sp. (Rosaceae) [14, 17, 39, 64, 67]

91. *Chaetosiphon (Chaitomyzus) heterotricum* Chakrabarti, Ghosh & Raychaudhuri, 1971

= *Chaetosiphon (Pentatrichopus) heterotrichum* Chakrabarti, Ghosh & Raychaudhuri, 1971 [14, 64]

- *Lamium* sp. (Lamiaceae) [137]
- *Salvia glutinosa* L. (Lamiaceae) [2, 73]
- *Salvia* sp. (Lamiaceae) [14, 42, 64]

92. *Chaetosiphon (Pentatrichopus) fragaefolii* (Cockerell, 1901)

- *Fragaria* sp. (Rosaceae) [17, 156]

93. *Chaetosiphon (Pentatrichopus) glabrum* David, Rajasingh & Narayanan, 1970 (1971)

- *Rosa brunonii* Lindl. (Rosaceae) [87]
- *Rosa macrophylla* Lindl. (Rosaceae) [17, 156]
- *Rosa* sp. (Rosaceae) [17]
- *Rubus fruticosus* Sm. (Rosaceae) [71]
- *Rubus plicatus* Weihe & Nees (=*Rubus fruticosus* L.) (Rosaceae) [87]

94. *Chaetosiphon (Pentatrichopus) tetrarhodum* (Walker, 1849)

- *Rosa brunonii* Lindl. (Rosaceae) [2]
- *Rosa macrophylla* Lindl. (Rosaceae) [72]
- *Rosa moschata* Herrm. (Rosaceae) [17]
- *Rosa* sp. (Rosaceae) [14, 17, 51, 64, 121]

95. *Chaetosiphon (Pentatrichopus)* sp.

- *Rosa* sp. (Rosaceae) [28]

96. *Chakrabartiaphis hydrangeae* (Chakrabarti & Bhattacharya, 1982)

= *Tubicauda hydrangeae* Chakrabarti & Bhattacharya 1982

- *Hydrangea* sp. (Hydrangeaceae) [159]

97. *Coloradoa artemisiae* (del Guercio, 1913)

- *Artemisia vulgaris* L. (Asteraceae) [56, 132, 150]
- *Justicia adhatoda* L. (=*Adhatoda vasica* Nees) (Acanthaceae) [55]

98. *Coloradoa indica* Verma, 1974

- *Artemisia* sp. (Asteraceae) [88, 160]

99. *Coloradoa kashmirica* Rishi & Lone, 1985

- *Artemisia sylvatica* Maxim. (Asteraceae) [161]

100. *Coloradoa rufomaculata* (Wilson, 1908)

- *Artemisia* sp. (Asteraceae) [19, 20]
- *Artemisia vulgaris* L. (Asteraceae) [19, 20, 34]
- *Chrysanthemum indicum* L. (Asteraceae) [70, 162]
- *Chrysanthemum morifolium* Ramat (=*Chrysanthemum sinense* Sabine ex Sweet) (Asteraceae) [28]
- *Chrysanthemum* sp. (Asteraceae) [51, 59, 67, 131]
- *Glebionis coronaria* (L.) Cass. ex Spach (=*Chrysanthemum coronarium* L.) (Asteraceae) [19, 20, 34]
- *Polygonum* sp. (Polygonaceae) [67]

101. *Cryptaphis garhwaleensis* Bhattacharya, Mondal & Chakrabarti, 1983

- *Lamium album* L. (Lamiaceae) [163]

102. *Cryptaphis rostrata* Chakrabarti & Raychaudhuri, 1974

- Undet.: Lamiaceae) [110]

103. *Cryptaphis salviae* Bhattacharya & Dey, 1996

- *Salvia leucantha* Cavanilles (Lamiaceae) [164]

104. *Cryptomyzus (Cryptomyzus) taoi* Hille Ris Lambers, 1963

= *Cryptomyzus taoi indicus* Ghosh & Raychaudhuri, 1972 [147]

- *Artemisia* sp. (Asteraceae) [106, 165]
- *Craniotome versicolor* Reichenbach (Lamiaceae) [2]
- *Leonurus sibiricus* L. (Lamiaceae) [19, 20, 147]
- *Leucas aspera* (Willd.) Link (Lamiaceae) [19, 20, 55, 147]
- *Youngia japonica* (L.) DC. (=*Crepis japonica* (L.) Benth.) (Asteraceae) [19]

105. *Cryptosiphum aertemisiae* Buckton, 1879

- *Artemisia* sp. (Asteraceae) [19, 20, 78, 152]
- *Artemisia vestita* Wall (Asteraceae) [166]
- *Artemisia vulgaris* L. (Asteraceae) [19, 55, 78, 106, 107, 165]
- *Sonchus* sp. (Asteraceae) [78]

106. *Dysaphis (Cotoneasteria) microsiphon* (Nevsky, 1929)

- = *Dysaphis (Dysaphis) montemartini* (del Guercio, 1913)
= *Dysaphis (Dysaphis) montemartini* *ghanii* Stroyan, 1963 [70]
= *Dysaphis ghanii* Stroyan, 1963 [17, 30, 33]
= *Dysaphis (Dysaphis) stroyani* Ghosh, 1986 [37]
- *Artemisia* sp. (Asteraceae) [167]
 - *Artemisia vestita* Wall (Asteraceae) [166]
 - *Artemisia vulgaris* L. (Asteraceae) [2, 167]
 - *Brassica oleracea* L. (Brassicaceae) [30, 33, 167]
 - *Chenopodium album* L. (Chenopodiaceae) [2]
 - *Cotoneaster bacillaris* Wall. ex Lindl. (Rosaceae) [17, 30, 70]
 - *Euonymus hamiltonianus* Wall. (Celastraceae) [167]
 - *Fragaria nilgerrensis* Schlldl. ex J. Gay (Rosaceae) [70]
 - *Fragaria* sp. (Rosaceae) [17, 30, 167]
 - *Geranium* sp. (Geraniaceae) [167]
 - *Girardinia diversifolia* (Link) Friis (= *Girardinia heterophylla* (Decne.)) (Urticaceae) [167]
 - *Gnaphalium* sp. (Asteraceae) [167]
 - *Lactuca dolichophylla* Kitam. (= *Lactuca longifolia* DC.) (Asteraceae) [167]
 - *Lyonia ovalifolia* (Wall.) Drude (= *Pieris ovalifolis* (Wall. D. Don)) (Ericaceae) [16]
 - *Mazus surculosus* D. Don (Phrymaceae) [167]
 - *Pedicularis gracilis* Wall. ex Benth. (Orobanchaceae) [37, 167]
 - *Pennisetum glaucum* (L.) R. Br. (= *Setaria glauca* (L.) P. Beauv.) (Poaceae) [14, 16]
 - *Persicaria wallichii* Grentor & Burdet (= *Polygonum polystachyum* Wall ex Meisn.) (Polygonaceae) [167]
 - *Populus ciliata* Wall. ex Royle (Salicaceae) [37]
 - *Rumex nepalensis* Spreng. (Polygonaceae) [167]
 - *Salix* sp. (Salicaceae) [37]
 - *Taraxacum officinale* aggr. (Dandelion) (Asteraceae) [167]
 - *Viburnum* sp. (Adoxaceae) [17, 37]

107. *Dysaphis (Dysaphis) atina* Ghosh, Basu & Raychaudhuri, 1969

- *Anaphalis busua* (Buch.-Ham.) DC. (Asteraceae) [2]
- *Carduus onopordioides* Fisch. ex Bieb. (Asteraceae) [87]
- *Cnicus wallichii* Hook.f. (Asteraceae) [15, 17]

108. *Dysaphis (Dysaphis) branchoi* (Börner, 1950)

- *Malus domestica* Borkh. (Rosaceae) [167]

109. *Dysaphis (Dysaphis) emicis* (Mimeur, 1935)

- *Aneilema* sp. (Commelinaceae) [2]
- *Melanoseris cyanea* Edgew. (= *Lactuca hastata* DC.) (Asteraceae) [168]
- *Rumex nepalensis* Spreng. (Polygonaceae) [17, 169, 170]
- *Rumex* sp. (Polygonaceae) [17]
- *Solanum torvum* Sw. (Solanaceae) [14]

110. *Dysaphis (Dysaphis) foeniculus* (Theobald, 1923)

- *Foeniculum vulgare* Mill. (Apiaceae) [14, 105]
- *Fragaria* sp. (Rosaceae) [17]

- *Polygonum* sp. (Polygonaceae) [167]
- *Rumex nepalensis* Spreng. (Polygonaceae) [17, 23]
- *Rumex* sp. (Polygonaceae) [167]

111. *Dysaphis (Dysaphis) hirsutissima* (Börner, 1940)

=*Macrosiphoniella hirsutissima* Börner, 1940 [50]

- *Artemisia vulgaris* L. (Asteraceae) [50]

112. *Dysaphis (Dysaphis) longipilosa* (Mordvilko, 1928)

- Undet.: unidentified plants [17]

113. *Dysaphis (Dysaphis) ramani* Das & Raychaudhuri, 1983

- *Crataegus* sp. (Rosaceae) [167]

114. *Dysaphis (Dysaphis) rumecicola* (Hori, 1927)

- *Rumex nepalensis* Spreng. (Polygonaceae) [87, 167]
- *Rumex* sp. (Polygonaceae) [167]

115. *Dysaphis (Dysaphis) selinumi* Chakrabarti & Medda, 1993

- *Selinum wallichianum* (DC.) Raizada & H.O. Saxena (=*Selinum tenuifolium* Salisb.) (Apiaceae) [167]

116. *Dysaphis (Dysaphis) tulipae* (Boyer de Fonscolombe, 1841)

- *Gladiolus* sp. (Iridaceae) [2, 167]

117. *Dysaphis (Pomaphis) multisetosa* Basu, 1969

=*Dysaphis (Dysaphis) multisetosa* Basu, 1969

- *Pyrus communis* L. (Rosaceae) [20, 171, 172]

118. *Dysaphis (Pomaphis) pavlovskyana indica* Chakrabarti & Medda, 1993

- *Sorbus cuspidata* (Spach) Hedl. (Rosaceae) [167]
- *Saussurea piptathera* Edgew. (Asteraceae) [167]

119. *Dysaphis (Pomaphis) plantaginea* (Passerini, 1860)

- *Plantago* sp. [167]

120. *Dysaphis (Pomaphis) pyri* (Boyer de Fonscolombe, 1841)

=*Sappaphis pyri* (Boyer de Fonscolombe, 1841) [1]

- *Malus domestica* Borkh. (=*Pyrus malus* L.) (Rosaceae) [106, 165]
- *Prunus persica* (L.) Batsch [167]
- *Sorbus khasiana* (Decne.) Rehder (= *Pyrus khasiana* Hooker.f.) (Rosaceae) [20]
- *Pyrus pashia* Buch.-Ham. ex D. Don (Rosaceae) [173]

121. *Dysaphis* sp.

- *Brassica oleracea* L. (Brassicaceae) [14]
- *Carduus* sp. (Asteraceae) [88]
- *Cnicus wallichii* Hook.f. (Asteraceae) [17, 129]
- *Cotoneaster bacillaris* Wall. ex Lindl. (Rosaceae) [14]
- *Crataegus* sp. (Rosaceae) [88]
- *Fragaria nilgerrensis* Schltld. ex J. Gay (Rosaceae) [14]
- *Fragaria* sp. (Rosaceae) [14]
- *Laggera pterodonita* (DC.) Benth. (Asteraceae) [14]
- *Lyonia ovalifolia* (Wall.) Drude (=*Pieris ovalifolis* (Wall. D. Don)) (Ericaceae) [14]
- *Nicotiana* sp. (Solanaceae) [14]
- *Peucedanum tenuifolium* Thunb. (Apiaceae) [14]
- *Torilis japonica* (Hoatt.) DC. (Apiaceae) [167]
- *Viburnum* sp. (Adoxaceae) [14]

3. CONCLUSION

Food plants of 25 genera and 107 species of aphids belonging to the tribe Macrosiphini (*Acutosiphon* to *Dysaphis*) are catalogued in this contribution. These aphids feeds on 397 plant species belonging to 79 families. Most suffered families are Asteraceae (81 species) followed by Rosaceae (35 species), Fabaceae (27 species), Brassicaceae (22 species), Lamiaceae (18 species) and Solanaceae (17 species). Among them, several species are crops of agricultural and horticultural importance.

REFERENCES

- [1] Raychaudhuri, D.N. (Ed.), *Food Plant Catalogue of Indian Aphididae*. Graphic Printall, Culcutta (India). pp. 204 (1983).
- [2] Chakrabarti, S. and Sarkar, A., A supplement to the food-plant catalogue of Indian Aphididae. *J. Aphidol.* 15, 9-62 (2001).
- [3] Singh, G. and Singh, R., Distribution and economic importance of *Aphis (Aphis) craccivora* Koch (Aphidini, Aphidinae, Aphididae, Hemiptera) and its food plants in India. *Internat. J. Recent Adv. Multidisc. Res.* 3(12), (2016)
- [4] Singh, G. and Singh, R., Distribution of *Aphis (Aphis) spiraecola* Patch 1914 (Aphidini, Aphidinae, Aphididae, Hemiptera) and its food plants recorded in India. *Internat. J. Recent Adv. Multidisc. Res.* 3(12), 2100-2111, (2016).
- [5] Singh, G. and Singh, R., Food plant records of aphids (Aphididae, Sternorrhyncha, Hemiptera) in India belonging to subfamilies Aiceoninae, Anoeciinae, Chaitophorinae and Drepanosiphinae. *Internat. J. Zool. Investig.* 2(2), 281-295, (2016).
- [6] Singh, G. and Singh, R., Food plant records of Aphidini (Aphidinae, Aphididae, Hemiptera) in India. *J. Ent. Zool. Stud.* 5(1), (2017).
- [7] Tiwari, A.K. and Singh, R., Effect of host plants on the morphology of green peach aphid, *Myzus persicae* (Sulzer) (Homoptera, Aphididae), *Internat. J. Zool. Investig.* 2(1), 133-146 (2016).
- [8] Heie, O.E. and Wegierek, P., Diagnoses of the higher taxa of Aphidomorpha (Hemiptera, Sternorrhyncha). *Redia* 92, 261–269 (2009).
- [9] Remaudiere, G. and Remaudiere, M., *Catalogue of the World's Aphididae*. Institut National de la Recherche Agronomique, Paris, pp. 473 (1997).
- [10] Nieto Nafría, J.M. and Favret, C. (Eds.), Registers of Family-Group and Genus-Group Taxa of Aphidoidea (Hemiptera Sternorrhyncha), Universidad de León. León (Spain), pp. 466 (2011).
- [11] Favret, C., *Aphid Species File*. Version 5.0/5.0. <<http://Aphid.SpeciesFile.org>> (accessed on January 2, 2017).
- [12] Chan, C.K., Forbes, A.R. and Raworth, D.A., *Aphid transmitted viruses and the vectors of the world*. Agriculture Canada, Ottawa, ON, Tech. Bull. 1991-3E, pp. 216 (1991).
- [13] Ghosh, L.K. and Basu, R.C., Insecta, Hemiptera, Aphididae. In *Fauna of West Bengal. State Fauna Series, Zool. Surv. India* 3, 125-318 (1997).
- [14] Chakrabarti, S., *Aphids of north western India with special reference to Kumaon range*, Uttar Pradesh, Ph. D. thesis. University of Calcutta, India, pp. 435 (1972).
- [15] Chakrabarti, S., Ghosh, A.K. and Raychaudhuri, D.N., On some undescribed morphs and new records of aphids (Homoptera, Aphididae) from Kumaon Himalaya, India. *Curr. Sci.* 41, 70-71 (1972).
- [16] Chakrabarti, S. and Raychaudhuri, D.N., *Aphids from Sundadhirga Valley Kumaon Himalaya*, India. *Orient. Ins.* 9, 195-211 (1975).
- [17] Ghosh, L.K., *A study on the aphids (Homoptera, Aphididae) of Himachal Pradesh in North-West Himalaya*, India, Ph. D. thesis, University of Calcutta, India, 360 pp. (1977).
- [18] Ghosh, M.R., Basu, R.C. and Raychaudhuri, D.N., Studies on aphids (Homoptera, Aphididae) from eastern India. XXVIII. *Acutosiphon, Akkaia* and *Vesiculaphis*. *Orient. Ins.* 10, 267-276 (1976).
- [19] Raychaudhuri, D.N., *Taxonomy of the aphids of the Eastern Himalayas*. US Pl 480 Project Tech. Rep., pp. 107 (1973).

- [20] Raychaudhuri, D.N. (Ed.), Aphids of North-East India and Bhutan. Zool. Soc., Calcutta, pp. 521 (1980).
- [21] Maity, S.P. and Chakrabarti, S., Aphids (Homoptera, Aphididae) of northwest India. III. Records of new aphids from Garhwal Himalaya. Sci. & Cult. 45, 160-162 (1979).
- [22] Basu, R.C., Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera: Aphididae) from eastern India. 4. A new genus and records of some sexual forms from Assam. Proc. zool. Soc. Calcutta 23, 83-91 (1970).
- [23] Ghosh, L.K., On a collection of aphids (Homoptera, Aphididae) from Himachal Pradesh, India. Orient. Ins. 6, 169-178 (1972).
- [24] Chakrabarti, S. and Raychaudhuri, D.N., Aphids (Homoptera: Aphididae) from Sundardhunga Valley, Kumaon Himalaya, India. Orient. Ins. 9, 195-211 (1975).
- [25] Ghosh, A.K., Banerjee, H. and Raychaudhuri, D.N., Aphids (Homoptera, Aphididae) collected from Kameng district, NEFA. Gaveshana 3, 10 (1971).
- [26] Raychaudhuri, D.N., Ghosh, M.R. and Basu, R.C., Studies on the aphids (Homoptera, Aphididae) from eastern India. 27. The genera *Acyrthosiphon* Mordvilko, *Metopolophium* Mordvilko and *Rhodobium* Hille Ris Lambers. Proc. zool. Soc., Calcutta 28, 115-131 (1975).
- [27] Verma, K.D. and Singh, H.V., *Sophora tementosa* - A new host for *Macrosiphum (Acyrthosiphon) gossypii* Mordv. (Homoptera: Aphididae). Curr. Sci. 44, 368 (1975).
- [28] Behura, B.K., Aphids of India. Survey of published information. Recent Adv. Zool. India 1961, 25-78 (1963).
- [29] David, S.K., Notes on South Indian Aphids. Indian J. Ent. 18, 1-9 (1956).
- [30] Ghosh, A.K., Chakrabarti, S., Chowdhuri, A.N. and Raychaudhuri, D.N., Aphids (Homoptera) of Himachal Pradesh, India. Orient. Ins. 3, 327-334 (1969).
- [31] Kar, I., Basu, G. and Khuda-Bukhsh, A.R., A Check-list of chromosomes in aphids (Homoptera: Aphididae) worked out in India along with the names and families of their host plants. Environ. and Ecol. 8(1), 414-428 (1990).
- [32] David, S.K. and Ghorpade, K.D., Two species of aphids (Homoptera, Aphididae) new to India and four others new to southern India. Orient. Ins. 8, 195-198 (1974).
- [33] Banerjee, H., Ghosh, A.K. and Raychaudhuri, D.N., On a collection of aphids (Homoptera, Aphididae) from Kullu valley, west Himalaya. Orient. Ins. 3, 255-264 (1969).
- [34] Basu, R.C., Ghosh, A.K. and Raychaudhuri, D.N., A new species of *Eutrichosiphum* and notes on other new records of aphids (Insecta, Homoptera) from NEFA (Arunachal), Sci. & Cult. 38, 494-495 (1972).
- [35] Basu, A.N., Some aphids new to India with description of a new subspecies. Curr. Sci. 30, 390-391 (1961a).
- [36] Behura, B.K., Suppliment to aphids of India - a survey of published information. Prakruti - J. Utkal Univ. Sci. 3, 40-65 (1965).
- [37] Ghosh, L.K., A Conspectus of Aphididae (Homoptera) of Himachal Pradesh in North-west Himalaya, India. Zool. Surv. India (Tech. Monog. No. 16, pp.1-282 (1986).
- [38] Ghosh, L.K., Aphids of NEFA, India (Homoptera: Aphididae), Sci. & Cult. 36, 562-563 (1970).
- [39] Bhalla, O.P. and Pawar, A.D., A survey of insect and non-insect pests of economic importance in Himachal Pradesh. Published by Department of Entomology and Zoology, College of Agriculture, Chambaghat, Solan (H.P.) (1980).
- [40] Bindra, O.S. and Sekhon, S.S., Additional new records of aphids from the Kangra, Kulu and Lahaul valleys (India). Bull. Ent. 10, 156-157 (1969).
- [41] David, S.K. and Hameed, S.F., One new species and two new records of aphids (Homoptera, Aphididae) from Lahaul in northwestern Himalaya. Orient. Ins. 9, 213-219 (1975).
- [42] Chakrabarti, S. Ghosh, A.K. and Raychaudhuri, D.N., Three new species of aphids (Homoptera: Aphididae) from northeast Himalayas, India. Kontyu 39, 368-372 (1971).
- [43] Krishnamurthi, B., Aphididae of Mysore. III. Indian J. Ent. 10, 51-53 (1948).
- [44] Despande, V.G., A preliminary account of the Aphididae of Poona. J. Bombay nat. Hist. Soc. 39, 740-744 (1938).

- [45] Ghulam-Ullah, Studies of Indian Aphididae - I, The Aphid fauna of Delhi. Indian J. Ent. 2, 13-25 (1940).
- [46] David, S.K., A new genus and three new species of aphids from India. Indian J. Ent. 20, 175-180 (1958).
- [47] David, S.K., Aphids capable of infesting potato in India and their relationship to the crop in South India. J. South Indian Hort. 6, 67-74 (1958).
- [48] Joshi, S. and Poorani, J., Aphids of Karnataka. <http://www.aphidweb.com> (accessed on 2 January, 2017).
- [49] Ghosh, L.K., On a collection of aphids (Homoptera, Aphididae) from Uttar Pradesh, India. Sci. & Cult. 35, 493-494 (1969).
- [50] Rao, V.P., Survey for natural enemies in India. CIBC. Indian Station, U.S. PL 480 Project, Final Tech. Rep. pp. 1-93 (1969).
- [51] Verma, K.D., Additional records of Jammu and Kashmir aphids. Sci. & Cult. 37, 248-249 (1971).
- [52] Ahmad, M.E. and Singh, R., Records of Macrosiphini of northeastern Uttar Pradesh and its relationship with food plants and natural enemies. J. Aphidol. 9, 80-86 (1995).
- [53] Singh, R. Upadhyay, B.S. Singh, D. Chaudhary, H.C., Aphids (Homoptera, Aphididae) and their parasitoids in north-eastern Uttar Pradesh. J. Aphidol. 13, 49-62 (1999).
- [54] Raychaudhuri, D.N. Poddar, S.C. and Raychaudhuri, D., Study of the genus *Aphidius* (Hymenoptera, Aphidiidae) of India. Entomon 7, 11-22 (1982).
- [55] Raychaudhuri, D., Taxonomy and biology of aphids (Homoptera, Aphididae) of Manipur. Ph. D. thesis, University of Calcutta, India, pp. 308+XVI (1978).
- [56] Agarwala, B.K. and Raychaudhuri, D.N., Parasites and predators of aphids in Sikkim and Manipur (northeast India). III. Entomon 5, 39-42 (1980).
- [57] Agarwala, B.K. Raychaudhuri, D. and Raychaudhuri, D.N., Parasites and predators of aphids in Sikkim and Manipur (Northeast India). III. Entomon 5, 39-42 (1980).
- [58] Agarwala, B.K. and Raychaudhuri, D.N., Parasites and predators of aphids (Homoptera, Aphididae) in northeast India. IV. Twelve coleopteran and two dipteran predators of aphids from Sikkim. Entomon 6, 207-209 (1981).
- [59] Basu, A.N. and Banerjee, S.N., Aphids of economic plants of West Bengal. Indian Agric. 2, 89-112 (1958).
- [60] Joshi, H.C. and Mathur, Y.K., Aphids of Rajasthan. Madras Agric. J. 54, 239-243 (1967).
- [61] Basu, A.N., New genera and species of aphids from the Darjeeling district, India (Homoptera, Aphididae). J. Linn. Soc. Zool. 45, 223-243 (1964).
- [62] Chakrabarti, S. and Raychaudhuri, D.N., Callipterine aphids (Homoptera: Aphididae) of northeast India and Bhutan. Proc. zool. Soc. Calcutta 28, 71-101 (1975).
- [63] Verma, K.D., A new genus, some species, a subspecies and some new records of aphids from N.W. India. Sci. & Cult. 35, 28-29 (1969).
- [64] Chakrabarti, S. Ghosh, A.K. and Raychaudhuri, D.N., New records of aphids (Insecta: Homoptera) from Uttar Pradesh, India. Sci. & Cult. 37, 247-248 (1971).
- [65] David, S.K. Narayanan, K. and Rajasingh, S.G., A new genus and four new species of aphids (Homoptera) from India. Oriental Ins. 5, 557-570 (1971).
- [66] Ghosh, A.K. Banerjee. H. and Raycnaudhuti, D.N., Aphid (Homoptera: Insecta) species collected from Manipur and Nagaland. Gaveshana 3, 60-61 (1971).
- [67] Raychaudhuri, D.N. Ghosh, L.K. and Das, S.K., Studies on the aphids (Homoptera, Aphididae) from north and northwest India-I. Ins. Matsum. n. s. 20, 1-42 (1980).
- [68] Ghosh, A.K., A list of aphids (Homoptera, Aphididae) from India and adjacent countries. J. Bombay nat. Hist. Soc. 71, 201-225 (1974).
- [69] Stroyan, H.L.G. and Nagaich, B.B.. A new subspecies of *Acrythosipon* Mordvilko 1904 (Homoptera : Aphididae) from *Rubus ellipticus* in north India. Proc. R. ent. Soc. Lond. (B), 33 : 59-62 (1964).
- [70] Basu, R.C. and Raychaudhuri, D.N., A study on the sexuales of aphids (Homoptera, Apididae) in India. Rec. Zool. Surv. India, Occ. Paper 18, 1-54 (1980).

- [71] Bhagat R.C., Aphids (Insecta) of agricultural importance in J&K state, India: a checklist and biodiversity. Internat. J. Food, Agric. & Vet. Sci. 2(3), 116-125 (2012).
- [72] Bhagat, R.C., New records and hosts of aphid parasitoids (Hymenoptera: Aphidiidae) from Kashmir, India. J. Bombay nat. Hist. Soc. 81, 93-98 (1984).
- [73] Chakrabarti, S. Ghosh, A.K. and Raychaudhuri, D.N., New Records of Aphids (Insecta: Homoptera) from Uttar Pradesh, India. Sci. & Cult. 37, 247-248 (1971).
- [74] Das, B.C. and Chakrabarti, S., Aphidiid parasitoids (Hymenoptera: Aphidiidae) of graminaceous aphids in Garhwal of Western Himalayas. Orient. Ins. 24, 265-372 (1989).
- [75] Chakrabarti, S. Sarkar, S. and Das, B.C., Aphid parasitoids (Hymenoptera: Braconidae: Aphidiinae) from western Himalaya. J. Aphidol. 16, 45-49 (2002).
- [76] Medda, P.K. Sarkar, A. and Chakrabarti, S., Willow infesting aphids (Homoptera: Aphididae) of India and adjacent countries. J. Aphidol. 11(1), 83-97 (1997).
- [77] Sathe, T.V. and Jadhav, B.V., *Indian Pest Aphids*. Daya Publishing House, New Delhi, pp. 211 (2008).
- [78] Agarwala, B.K., Some aspects of aphid (Homoptera, Insecta) studies in Sikkim and Bhutan Ph. D. thesis, University of Calcutta, India, pp. 383 (1979).
- [79] Ghosh, M.R., Ghosh, A.K., and Raychaudhuri, D.N., Studies on aphids (Homoptera, Aphididae) from eastern India. Proc. zool. Soc. Calcutta, 24, 163-168 (1971).
- [80] David, S.K., Some rare aphids in new regions in India. J. Bombay nat. Hist. Soc. 66, 323-326 (1969).
- [81] Raychaudhuri, D.N., Ghosh, D., Raychaudhuri, D. and Agarwala, B.K., Studies on the aphids (Homoptera: Aphididae) from south India. I. Ins. Matsum. n. s. 23, 1-20 (1981).
- [82] Ghosh, A.K., Banerjee, H. and Raychaudhuri, D.N., Studies on the aphids (Homoptera: Aphididae) from eastern India. V. New species, new records on sexuals of some species of aphids from NEFA and Assam. Orient. Ins. 5, 103-110 (1971).
- [83] Agarwala, B.K. and Raychaudhuri, D.N., Two new species of aphids (Homoptera, Aphididae) from Sikkim, northeast India. Entomon 2, 77-80 (1977).
- [84] Hille Ris Lambers, D. and Basu, A.N., Some new or little known genera, subgenera, species and subspecies of Aphididae from India (Homoptera, Aphididae), Ent. Bericht. 26, 12-20 (1966).
- [85] Maity, S.P., Bhattacharya, D.K. and Chakrabarti, S., Four new species of aphids (Homoptera: Aphididae) from Garhwal Himalaya, Uttar Pradesh, India. Ann. Zool. 36(26), 501-516 (1982).
- [86] David, S.K. Rajasingh, S.G. and Narayanan, K., New genus, new species and new morphs of aphids (Homoptera) from India. Orient. Ins. 6, 35-44 (1972).
- [87] Bhagat, R.C., New records of the aphids (Homoptera, Aphididae) from Kashmir (India). Sci. & Cult. 47, 134-136 (1981).
- [88] Rishi, N.D. (1975), Abst. Symp. 'Recent Trends in Aphidological Studies', Bhubaneswar, p. 52.
- [89] Ghosh, A.K., Fern infesting aphids (Homoptera: Aphididae) in India. Indian. J. Hort. 31, 104 - 109 (1974).
- [90] Ghosh, A.K., Floral assemblage and faunal diversity in Aphidoidea (Homoptera: Aphididae) in Eastern India. Bull. zool. Surv. India 2, 171-176 (1980).
- [91] Reddi, S.G.E. Kumai, A. and Lal, B., First report of the aphid, *Amphorophora ampullata* (Homoptera, Aphididae) on the fern, *Hypolepis polipodioides* (Hypolepidaceae) from western Himalayas (India). Amer. Fern J. 103(3), 185-187 (2013).
- [92] Dharmadhikari, P.R. and Ramaseshiah, G., Recent records of aphidiids (Hym. Aphidiidae) in India. CIBC Tech. Bull. No. 13, 83-89 (1970).
- [93] Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. XVI. A new subgenus, *Anaulacorthum*. XXXX. Seven new species and notes on little known species from northeast India and Sikkim. Proc. zool. Soc. Calcutta, 25, 93-107 (1972).
- [94] David, S.K. Sekhon, S.S. and Bindra, O.S., New aphids from northeast India (Homoptera, Aphididae). Bull. Ent. 11, 150-155 (1970).

- [95] Bindra, O.S. and Sekhon, S.S., New records of aphids from Punjab and Kulu valley. Bull. Ent. 10, 103-104 (1969).
- [96] Verma, K.D., Additions to the aphid fauna of north west India. Sci. & Cult. 31: 389 (1965).
- [97] Verma, K.D., a new aphid genus from northwest India (Homoptera, Aphididae), Indian J. Ent. 28, 507 -509 (1966).
- [98] Bhagat, R.C., On aphids (Homoptera, Aphididae) and their parasitoids (Aphidiidae, Hymenoptera) infesting forest trees in Kashmir valley, India. Indian Forester, 111, 467-474 (1985).
- [99] Chakrabarti, S. and Medda, P.K., Taxonomic studies on some aphids (Homoptera, Aphididae) from India. Orient. Ins. 23, 133-141 (1989).
- [100] Chakrabarti, S. and Maity, S.P., A new genus and four new species of aphids (Homoptera: Aphididae) from Northwest Himalaya, India. Orient. Ins. 18, 195-212 (1984).
- [101] Ghosh, A.K. Basu, R.C. and Raychaudhuri, D.N., Studies on the aphids (Homoptera,Aphididae) from eastern India. Orient. Ins. 4, 65-76 (1970).
- [102] Agarwala, B.K. Pramanik, D.R. and Raychaudhuri D., Some new and little known macrosiphine aphids (Homoptera: Aphididae) from India. Akitu, N.S. 47, 1-7 (1982).
- [103] Ghosh, M.R. Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. III. New genus, new species and new records from north Bengal and Sikkim. Orient. Ins. 4, 377-393 (1970).
- [104] Kumar, R. and Burkhardt, C.C., A new species of genus *Xenosiphonaphis* with four siphunculi and two new species of subgenus *Aulacorthum* (Homoptera, Aphididae). J. Kansas Ent. Soc. 44, 172-181 (1971).
- [105] Chakrabarti, S. Ghosh, A.K. and Raychaudhuri, D.N., A new genus, a new species and further records of aphids (Homoptera, Aphididae) from the Kumaon hills, northwest Himalaya, India. Orient. Ins. 6, 387-400 (1972b).
- [106] Raha, S.K., Studies on the aphids (Homoptera, Insecta) of Nagaland, Ph. D. thesis, University of Calcutta, India, pp. 212 (1979).
- [107] Basu, A.N., Further records of new and little known aphids (Homoptera) from West Bengal, India. Orient. Ins. 3, 355-371 (1969).
- [108] Raha, S.K. Singh, T.K., Raychaudhuri, D. and Raychaudhuri, D.N., New records of aphids (Homoptera, Aphididae) from Manipur and Nagaland. Sci. & Cult. 43, 452-453 (1977).
- [109] Ghosh, A.K. and Raychaudhuri, D.N., Further records of aphids (Homoptera, Insecta) from NEFA. Sci. & Cult. 37, 483-484 (1971).
- [110] Chakrabarti, S. Chowdhuri, A.N. and Raychaudhuri, D.N., Further records of aphids (Homoptera, Aphididae) from Himachal Pradesh, India. Sci. & Cult. 40, 461-462 (1974).
- [111] Stary, P. and Bhagat, R.C., Records and descriptions of aphid parasitoids from Kashmir, India (Hymenoptera, Aphidiidae). Acta Ent. Bohem. 75, 387-393 (1978).
- [112] Lefroy, H.M and Howlett, F.M., Indian Insect Life. A manual of the insects of the plains (Tropical India), W. Thacker and Co. London, pp. 743- 748 (1909).
- [113] George, C.J., South Indian Aphididae. J. Asiatic. Soc. Bengal, (N.S.) 23, 1-12 (1927).
- [114] Krishnamurthi, B., Aphididae of Mysore. II. J. Bombay nat. Hist. Soc. 34, 411-419 (1931).
- [115] Lal, K.B. and Siddiqui, Z.A., Biology of the peach leaf curling aphid on the Kumaun hills. Indian J. Ent. 14, 191-196 (1952).
- [116] Sharma, P.L. and Bhalla. O.P., A survey of insect pests of economic importance in Himachal Pradesh. Indian J. Ent. 26, 318-331 (1964).
- [117] Ghosh, D. Debnath, N. and Chakrabarti, S., Predators and parasites of aphids (Homoptera, Aphididae) from northwest Himalaya, ten species of syrphids (Diptera, Syrphidae) from Garhwal range. Entomon 10, 301-303 (1985).
- [118] Raychaudhuri, D.N. Dutta, S. Agarwala, B.K. Raha, S.K. and Raychaudhuri, D., Some parasites and predators of aphids from northeast India and Bhutan. II. Entomon 4, 163-166 (1979).
- [119] Ghosh, D. Debnath, N. and Chakrabarti, S., Predators and parasites of aphids from northwest and western Himalaya. IV. Twelve species of heteropterans (Heteroptera: Insecta) from Garhwal and Kumaon ranges. Proc. zool. Soc. Calcutta 39, 15-19 (1986).

- [120] Chakrabarti, S. and Banerjee, P.K., Host-alternation in Aphids from Western and Northwest Himalaya, India. Proceedings of Critical Issues in Aphid Biology, pp. 43-53 (1993).
- [121] David, S.K., Notes on South Indian Aphids. IV. Aphidinae (continued). Indian J. Ent. 19, 289-299 (1957).
- [122] Ghosh, A.K. and Agarwala, B.K., A catalogue of aphidiid (Hymenoptera: Aphidiidae) parasites of aphids (Homoptera) of India. J. Bombay nat. Hist. Soc. 79, 125-134 (1985).
- [123] Das, B.C. and Chakrabarti, S., Seasonal occurrence of *Aphidius matricariae* Haliday (Aphidiidae, Hymenoptera) in Garhwal range of northwest Himalaya. Indian J. Ent. 50, 388-389 (1988).
- [124] Chakrabarti, S., Diversity and biosystematics of gall-inducing aphids (Homoptera, Aphididae) and their galls in the Himalaya. Orient. Ins. 41, 35-54 (2007).
- [125] Takada, H. and Rishi, N.D., Records of fifteen species of Aphidiide (Hymenoptera) from Kashmir, India with descriptions of three new species. Kontyu 48, 234-240(1980).
- [126] Ghosh, L.K. and Verma, K.D., A new host record of *Brachycaudus helichrysi* (Kaltenbach) in India (Homoptera: Aphididae). J. Aphidol. 2, 66-68 (1988).
- [127] Nayak, M.R.C., Basu, M. and Raychaudhuri, D.N., Parasites and predators of aphids (Homoptera: Aphididae) from India. Pranikee 3, 7-14 (1982).
- [128] Chowdhuri, A.N. Basu, R.C. Chakrabarti, S. and Raychaudhuri, D.N., A list of aphids from Simla including some new and a few others hitherto not known from India. Sci. & Cult. 34, 133-134 (1968).
- [129] Chowdhuri, A.N. Basu, R.C. and Raychaudhuri, D.N., A new species of *Cavariella* del Guercio and other newly recorded aphids (Homoptera, Aphididae) from Simla, Himachal Pradesh. Sci. & Cult. 35, 334 (1969).
- [130] Chowdhuri, A.N. Ghosh, A.K. Banerjee, H. and Raychaudhuri, D.N., A few sexual forms and seven newly recorded species of aphids (Aphididae, Homoptera) from Simla. Sci. & Cult. 36, 550 (1970).
- [131] Agarwala, B.K. Ghosh, D. Das, S.K. Poddar, S.C. and Raychaudhuri, D.N., Parasites and predators of aphids (Homoptera, Aphididae) from India - V. New records of two aphidiid parasites, nine arachnid and one dipteran predators from India. Entomon 6, 233-238 (1981).
- [132] Basu, R.C. Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. 18. Five new species and thirty new records from Assam. Proc. zool. Soc. Calcutta, 26, 89-101 (1973).
- [133] Ghosh, L.K., A note on the preliminary survey of aphids (Homoptewra) from Bihar, India. Sci. & Cult. 36, 419-420 (1970).
- [134] Ghosh, L.K. Raychaudhuri, D. Raychaudhuri, D.N. and Raha, S.K., An account of the genus *Brevicoryne* Goot (Homoptera, Aphididae) in India with description of sexual morph of *Brevicoryne barbara* Neovsky. Bull. zool. Surv. India, 3, 63-68 (1980).
- [135] Chakrabarti, S., Chaitophorinae (Homoptera, Aphididae) of India with descriptions of three new species from northwest India. Orient. Ins. 11, 205-224 (1977).
- [136] Basu, R.C. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. XXXI. The genus *Capitophorus*. Orient. Ins. 10, 567-572 (1976).
- [137] Banerjee, P.K., Chakrabarti, S. and Chakrabarti, S. (1991), Host association and undescribed alate viviparous female of *Matsumuraja capitophoroides* Hille Ris Lambers (Homoptera: Aphididae). J. Bombay Nat. Hist. Soc. 88, 293-296.
- [138] Saha, Santanu and Chakrabarti, S., New records of aphids (Homoptera: Aphididae) from Garhwal range of Western Himalaya, India. J. Bom. nat. Hist. Soc. 85, 633-635 (1988).
- [139] David, S.K., Addition to the aphid fauna of India. J. Bombay nat. Hist. Soc. 53, 479-482 (1956).
- [140] Chakrabarti, S. and Maity, S.P., Aphids (Homoptera, Aphididae) of northwest India. II. Two new species and an undescribed morph. Ann. Zool. 35, 93-104 (1980).
- [141] Bhattacharya, D.K. and Chakrabarti, S., Stratigraphic distribution and host association of Aphidinae aphids (Homoptera, Aphididae) of Garhwal range of Western Himalaya. J. Aphidol. 1, 64-69 (1987).

- [142] Raychaudhuri, D. Singh, T.K. and Raychaudhuri, D.N., Some new and unknown aphids (Homoptera, Aphididae) from Manipur, northeast India. Entomon 9(1), 53-56 (1984).
- [143] Ghosh, A.K. and Raychaudhuri, D.N., New aphids from northeast India (Homoptera, Aphididae). Ann. Ent. Soc. Amer. 61, 752-755 (1968).
- [144] Ghosh, L.K., Description of alate viviparous female of *Capitophorus hippophaes indica* Ghosh and Raychaudhuri (Homoptera, Aphididae). Bull. Ent. 11 (1), 55-56 (1970).
- [145] Ghosh, L.K., Additions to the aphid fauna of Bihar with the first record of an aphid sexuale (Homoptera, Aphididae). J. Bomb. nat. Hist. Soc. 73, 416-418 (1977).
- [146] Chakrabarti, S., Two new species of aphids (Homoptera: Aphididae) from northwest India. Zool. J. Linn. Soc. 58, 263-271 (1976).
- [147] Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. XIII. New species and further new records from Assam. Orient. Ins. 6, 371-386 (1972).
- [148] Maity, S.P. Bhattacharya, D.K. and Chakrabarti, S., Aphids (Homoptera: Aphididae) of northwest India. V. New records of aphids from Garhwal Himalaya. Sci. & Cult. 46, 311-312 (1980).
- [149] Ghosh, D., Medda, P.K. and Chakrabarti, S., Holocycl, seasonal activity, morphometry and natural enemies of willow aphid, *Cavariella (Cavariella) aegopodii* (Scopoli) (Homoptera: Aphididae) in the Indian region. Proc. Indian Acad. Sci. 95(2), 181-186 (1986).
- [150] Basu, R.C., Ghosh, A.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) from eastern India. VIII. A new genus and records of aphids from Assam. Sci. & Cult. 40, 41-43 (1974).
- [151] Ghosh, A.K. Ghosh, M.R. and Raychaudhuri, D.N., Studies on the aphids (Homoptera: Aphididae) from eastern India. VII. New species and new records from West Bengal. Orient. Ins. 5, 209-222 (1971).
- [152] David, S.K. and Rajasingh, S.G., New records of aphids (Insecta, Homoptera) from Assam, India. Proc. zool. Soc. Calcutta, 22, 151-157 (1969).
- [153] Chakrabarti, S. and Medda, P.K., A review of the genus *Ceruraphis* (Homoptera: Aphididae). Orient. Ins. 19, 125-132 (1985).
- [154] Bhattacharya, D.K., Maity, S.P. and Chakrabarti, S., Aphids (Homoptera, Aphididae) of northwest India. VII. Hitherto unknown morphs of three species described from India and Pakistan. Entomon 5, 335-339 (1980).
- [155] Chakrabarti, S. Mandal, A.K. and Raha, S., *Rhododendron* infesting aphids (Homoptera: Aphididae) of the Himalayas. Zool. J. Linn. Soc. 78, 349-362 (1983).
- [156] David, S.K. Rajasingh, S.G. and Narayanan, K., The myzaphidines (Homoptera) of India with description of three new species. Orient. Ins. 4, 395-406 (1970).
- [157] Chakrabarti, S. Ghosh, A.K. and Chowdhuri, A.N., Aphids (Homoptera, Aphididae) of Himachal Pradesh, India. Orient. Ins. 4, 447-452 (1970).
- [158] Chakrabarti, S., A new synonymy and hitherto unknown morphs of *Chaetosiphon* Mordvilko (Insecta, Homoptera, Aphididae) described from India. Sci. & Cult. 42, 335-336 (1976).
- [159] Chakrabarti, S. and Bhattacharya, D.K., New genus and species of aphids (Homoptera, Aphididae) from north-western Himalaya. Ann. Zool. 36(28), 539-547 (1982).
- [160] Verma, K.D., A new species and two undescribed morphs of aphids (Homoptera, Aphididae) from north-west India. Indian J. Ent. 36, 200-202 (1974).
- [161] Blackman R.L. and Eastop V.F., *Aphids on the World's Herbaceous Plants and Shrubs*, 2 Volume Set, John Wiley and Sons, pp. 1460 (2008).
- [162] Rao, S.N. and Kulkarni, P.P., Studies on the aphid fauna (Homoptera, Aphididae) of Marathwada (Maharastra), II. Marathwada Univ. J. Nat. Sci. 16, 141-150 (1977).
- [163] Bhattacharya, D.K. Mandal, A.K. and Chakrabarti, S., New and hitherto not known species of aphids (Homoptera: Aphididae) producing leaf galls in the north west Himalayas, India. Entomon, 8, 13-17 (1983).

- [164] Bhattacharya, D.K. and Dey, S.R., A new species and a new record of Aphids (Homoptera: Aphididae) from Garhwal range of Western Himalaya, India. Entomon, 21, 285-289(1996).
- [165] Raha, S.K. and Raychaudhuri, D.N., Studies on the aphids (Homoptera, Aphididae) of Nagaland. Entomon, 6, 317-323 (1981).
- [166] Bhattacharya, D.K., Aphids (Homoptera: Aphididae) infesting *Artemisia* spp. plants of western and northwest Himalaya. J. Aphidol. 5, 68-74 (1991).
- [167] Chakrabarti, S. and Medda, P.K., Taxonomic studies on *Dysaphis* Börner (Homoptera : Aphididae) from the Indian subcontinent. Orient. Ins. 27, 93-130 (1993).
- [168] Ghosh, A.K., Basu, R.C. and Raychaudhuri, D.N., A new genus and seven new species of aphids (Homoptera) from India. Orient. Ins. 3, 245-254 (1969).
- [169] Ghosh, A.K., Notes on two new records of aphids (Homoptera : Aphididae) from India. Bull. Ent. 10, 107-109 (1969).
- [170] Ghosh, L.K., Notes on two new records of aphids (Homoptera : Aphididae) from India. Bull. Ent. 10, 107-109 (1969).
- [171] Ghosh, M.R. and Raychaudhuri, D.N., Aphids (Homoptera: Aphididae) infesting rosaceous fruit plants in Darjeeling district of West Bengal and Sikkim. Entomon 6, 61-68 (1981).
- [172] Basu, A.N., Four new genera and nine species of aphids (Homoptera : Aphididae) from West Bengal, India. Orient. Ins. 3, 169-186 (1969).
- [173] Ghosh, A.K., New species and new records of aphids (Homoptera : Aphididae) from Northeast India. Orient. Ins. 8, 161-175 (1974).

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