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Updated Checklist of Food Plants of Species of *Sitobion* Mordvilko, 1914 (Macrosiphini: Aphididae: Hemiptera) in India

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Abstract: Present article deals with the food plants of the species of *Sitobion* genus (Aphididae: Hemiptera) in India. Total 26 species of the genus *Sitobion* are recorded, out of which almost half of them are monophagous feeding on one or two plant species belonging to one or two families. Six species are polyphagous feeding on 12 to 81 plant species. *Sitobion (Sitobion) miscanthi* (Takahashi, 1921) is highly polyphagous (feeding on 81 plant species) followed by *Sitobion (Sitobion) avenae avenae* (Fabricius, 1775) (feeding on 37 plant species), *Sitobion (Sitobion) indicum* Basu, 1964 (feeding on 32 plant species), *Sitobion (Sitobion) rosaeiformis* (Das, 1918) (feeding on 30 plant species), *Sitobion (Sitobion) aulacorthoides* (David, Narayanan and Rajasingh, 1970 (1971)) and *Sitobion (Sitobion) luteum* (Buckton, 1876) (each feeding on 12 plant species). A total of 152 species (24 species of plants identified upto generic level only) of food plants belonging to 33 families of plants serve as food plants of these aphid species. The family Poaceae is the largest family having 65 species of food plants for *Sitobion* spp. followed by Orchidaceae (20 plant species), Rosaceae (11 plant species), and Asteraceae (10 plant species), and less than 10 plant species each of other 28 plant families. Few species of the genus *Sitobion* are major pests of agricultural and horticultural crops. The wheat or grain aphid, *Sitobion avenae* and Indian cereal aphid, *Sitobion miscanthi* are major pest of wheat and millets in some parts of India.

Keywords: Food plant, *Sitobion*, Aphid, Checklist

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Introduction

The aphids are soft-bodied small, plant sap sucking insects and usually live mostly in colonies on the undersides of leaves or tender terminal shoots. Out of globally 5110 species of aphids described, about 250 species are major agricultural and horticultural pests. They damage the crops directly by sucking their nutrients, making galls and hampering photosynthesis and respiration by the growth of sooty moulds on the honeydew deposited thereon. Aphids also damage the crop indirectly by transmitting hundreds of plant viruses. Aphids are unique insect in the sense that they can survive in almost each and every kind of habitats. The ancestors of aphids were winged insects but aphids secondarily lost their wings and associated flight muscles to conserve the energy for reproduction, longevity and protection. Such wingless aphids are more fecund and live longer than winged morphs. The aphids are unique on the account of their peculiar mode of reproduction, development and the polymorphism/polyphenism. They may reproduce either by parthenogenesis, zygogenesis or paedogenesis. They may be

either oviparous or viviparous, alatae or apterae. The males are often absent and frequently rare in certain generations. Parthenogenetic reproduction allows rapid increase in numbers and results in populations consisting of clones. Some species reproduce both parthenogenetically and sexually (holocyclic species), whereas only a few reproduce parthenogenetically (anholocyclic species). The aphids having holocyclic life cycle, reproduce sexually on primary host which are usually tree, and reproduce asexually on the secondary hosts, which are usually herbs and shrubs. In parthenogenetic reproduction, life cycle completes within 10 days in temperate regions. The aphids are polymorphic and both winged (alate) and wingless (aptera) morphs may be found in the same colony. The same species may have different colour morphs. Several factors, both biotic and abiotic, have effects on the formation of different phenotypes. Each morph performs different ecological roles in the life history, which is characteristic of aphids. This trait coupled with the ability to breed by means of diploid parthenogenesis and viviparity for a major part of the life cycle in aphids has enabled them to produce a large number of clones on different kinds of plants even under adverse conditions. Aphids are frequently engaged in mutualistic associations with bacterial endosymbionts that not only provide essential amino acids to them but also provide them protection from natural enemies, protection from extreme temperatures, and development of resistance to a fungal pathogen and the ability to use a greater diversity of resources (Singh and Singh, 2020).

At present all true aphids belong to a single family Aphididae Latreille, 1802 which consists of 24 subfamilies. Globally, 5110 species of aphids are described under 527 genera. In India, 794 species of aphids under 208 genera are reported out of which about 385 are endemic (Singh and Singh, 2019). The subfamily Aphidinae Latreille, 1802 constitutes a monophyletic group within the family with about 3100 extant species worldwide with higher diversity in temperate regions. In India, 431 species under 105 genera of this subfamily are reported out of which 192 species are endemic. The Aphidinae consists of two tribes: Aphidini Latreille, 1802 and Macrosiphini Wilson, 1910. The Macrospiphini includes about 2300 species belonging to 247 genera worldwide (Faveret, 2021), however, in India, only 366 species are reported under 96 genera, out of which 178 species are endemic (Singh and Singh, 2019). *Sitobion* Mordvilko, 1914 is one of the genus in this tribe. There are two subgenera in this genus: *Metobion* Heikenheimo, 1990 and *Sitobion* Mordvilko, 1914. The subgenus *Metobion* consists of 5 species, none recorded in India. All the species recorded in India under the genus *Sitobion* belong to the subgenus *Sitobion.* This subgenus includes 76 species globally, and 26 species in India. In the present article, the food plants of all the aphid species belonging to *Sitobion* genus are listed.

Materials and Methods

This checklist is based on the literature published in recent past -- books, journals and few authentic theses and websites up to 31 October, 2020. Earlier, the Indian aphids and their host plants were catalogued in 1983 (Raychaudhuri, 1983) and additions were made in 2001 (Chakrabarti and Sarkar, 2001) and later on by several authors (Singh and Singh, 2016a, b, 2017a, b, c, d, e, f, 2018; Singh *et al.*, 2018) but most of the names of aphid species as well as plant species mentioned therein are either invalid or misnomer. Also, several errors in the scientific names of both aphids and their food plants crept even in the recent ones. It happened 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 plant taxonomy are continued with the description of new taxa, their modified status, and the publication of other nomenclatural decisions. In the present compilation, attempts have been made to provide the valid scientific name of the plants following updated taxonomic

informations provided by *http://aphid.speciesfile.org* for aphids and *http://www.ars-grin.gov* and *http://www.theplantlist.org* for plants. At several places, their synonymies mentioned in India are also mentioned. For other synonymy *http://aphid.speciesfile.org* should be consulted. If a food plant species is identified only up to a generic level, it was considered as species if no other species of that genus is reported as food plant.

Results and Discussion

In India, 26 species of the genus *Sitobion* are recorded, out of which almost half of them are monophagous feeding on one or two plant species belonging to one or two families. Six species are polyphagous feeding on 12 to 81 plant species. *Sitobion (Sitobion) miscanthi* (Takahashi, 1921) is highly polyphagous (feeding on 81 plant species) followed by *Sitobion (Sitobion) avenae avenae* (Fabricius, 1775) (feeding on 37 plant species), *Sitobion (Sitobion) indicum* Basu, 1964 (feeding on 32 plant species), *Sitobion (Sitobion) rosaeiformis* (Das, 1918) (feeding on 30 plant species), *Sitobion (Sitobion) aulacorthoides* (David, Narayanan and Rajasingh, 1970 (1971)) and *Sitobion (Sitobion) luteum* (Buckton, 1876) (feeding each on 12 plant species). Out of 26 species of *Sitobion*, 15 species (marked with *) are endemic to India.

As far as food plant diversity of *Sitobion* spp. is concerned, a total of 152 species (24 species of plants identified upto generic level only) of food plants belonging to 33 families of plants serve as their food plants. The family Poaceae is the largest family having 65 species of food plants of *Sitobion* spp. followed by Orchidaceae (20 plant species), Rosaceae (11 plant species), and Asteraceae (10 plant species), and less than 10 plant species each of other 28 plant families. Few species of the genus *Sitobion* are major pests of agricultural and horticultural crops. The wheat or grain aphid, *Sitobion avenae* is considered a notorious pest of wheat in European countries while the Indian grain aphid, *Sitobion miscanthi* is a major pest of wheat and millets in some parts of India, particularly, Punjab (Srivastava and Singh, 2014). Additionally, *Sitobion rosaeiformis* infests roses in several parts of India. Other species of *Sitobion* recorded in India feeds on wild plants.

I. Checklist of *Sitobion (Sitobion)* spp. -food plants in India

1. *Sitobion alopecuri* (Takahashi, 1921)

= *Macrosiphum alopeculi* Takahashi, 1921

= *Macrosiphum (Sitobion) alopecuri* Takahashi, 1921 (David, 1975)

- *Poa annua* L. (Poaceae) (David, 1975)
- *Poa* sp. (Poaceae) (David, 1975)

2. *Sitobion aulacorthoides* (David, Narayanan and Rajasingh, 1970 (1971))*

= *Macrosiphum aulacorthoides* David, Narayanan and Rajasingh, 1970 (1971) (David, 1975)

= *Macrosiphum (Macrosiphum) aulacorthoides* David, Narayanan and Rajasingh, 1970 (1971) (Raychaudhuri, 1983)

- *Ajuga macrosperma* Wall. Ex Benth. (Lamiaceae) (Raychaudhuri, 1973, 1980)
- *Caesalpinia decapetala* (Roth) Alston (=*Caesalpinia sepiaria* Roxb.) (Fabaceae) (Kar *et al.*, 1990)
- *Caesalpinia* sp. (Fabaceae) (Raychaudhuri, 1973)
- *Commelina* sp. (Commelinaceae) (Raychaudhuri, 1973)
- *Elsholtzia blanda* (Benth.) Benth. (Lamiaceae) (Raychaudhuri, 1973, 1980)
- *Elsholtzia* sp. (Lamiaceae) (Basu *et al.*, 1973)
- *Isodon coesta* (Buch.-Ham. ex D. Don) (=*Plectranthus coetsa* Buch.-Ham. ex D. Don) (Lamiaceae) (Das *et al.*, 1981)
- *Isodon* sp. (=*Plectranthus* sp.) (Lamiaceae) (Raychaudhuri, 1973, 1980)
- *Ocimum americanum* L. (=*Ocimum canum* Sims) (Lamiaceae) (Agarwala *et al.*, 1984)
- *Perilla* sp. (Lamiaceae) (Raychaudhuri, 1973, 1980)
- *Rubus* sp. (Rosaceae) (Raychaudhuri, 1973, 1980; Ghosh and Basu, 1999)
- *Valeriana wallichii* De Candolle (Valerianaceae) (Raychaudhuri, 1973)
- Undet.: Lamiaceae) (Basu *et al.*, 1973)

3. *Sitobion avenae avenae* (Fabricius, 1775)

= *Macrosiphum (Sitobion) akebiae* Shinji, 1935 (Raychaudhuri, 1983)

= *Macrosiphum (Sitobion) avenae akebiae* Shinji, 1935 (Ghosh *et al.*, 1971a)

= *Macrosiphum (Sitobion) avenae* (Fabricius, 1775) (Raychaudhuri, 1983)

= *Macrosiphum (Sitobion) avenae* (Fabricius, 1775) (Banerjee and Basu, 1955; Sharma and Bhalla, 1964; Ghosh *et al.*, 1971b)
= *Macrosiphum granarium* (Kirby, 1798) (Lefroy and Howlett, 1909)
= *Rhopalosiphum avenae* (Fabricius, 1775) (George, 1925, 1927)
= *Siphocoryne avenae (*Fabricius, 1775) (Despande, 1938)

- *Agrostis* sp. (Poaceae) (Behura, 1963)
- *Allium ascalonicum* L. (Amaryllidaceae) (Ghosh and Basu, 1999).
- *Andropogon vulgaris* Raspail (Poaceae) (Basu and Banerjee, 1958; Behura, 1963)
- *Andropogon vulgaris* Raspail (Poaceae) (Ghulam-Ullah, 1940)
- *Avena sativa* L. (Poaceae) (Ghulam-Ullah, 1940)
- *Avena sativa* L. (Poaceae) (Banerjee and Basu, 1955; Basu and Banerjee, 1958; Behura, 1963)
- *Bothriochloa insculpta* (Hochst. ex A. Rich) A. Camus (Poaceae) (Behura, 1963)
- *Bothriochloa pertusa* (L.) A. Camus (Poaceae) (Behura, 1963)
- *Brassica napus* L. (Brassicaceae) (Rishi, 1975)
- *Brassica oleracea* L. (Brassicaceae) (Ghosh and Basu, 1999)
- *Chloris barbata* Sw. (=*Chloris inflata* Link) (Poaceae) (Behura, 1963)
- *Chrysopogon nodulibarbis* (Steud.) Henr. (=*Chrysopogon zylanicus* (Nees ex Steud.) Thwaites) (Poaceae) (Behura, 1963)
- *Cymbopogon martini* (Roxb.) Watson (Poaceae) (Behura, 1963)
- *Dactyloctenium aegypticum* (L.) Willd. (Poaceae) (Behura, 1963)
- *Eleusine coracana* (L.) Gaertn. (Poaceae) (Behura, 1963)
- *Eleusine coracana* (L.) Gaertn. (Poaceae) (George, 1925, 1927)
- *Eleusine* sp. (Poaceae) (Banerjee and Basu, 1955)
- *Enteropogon* sp. (Poaceae) (Behura, 1963)
- *Eragrostis superba* Peyr. (Poaceae) (Behura, 1963)
- *Erigeron* sp. (Asteraceae) (Das *et al.*, 1981)
- *Hordeum vulgare* L. (Poaceae) (Lefroy and Howlett, 1909; Ghulam-Ullah, 1940; Banerjee and Basu, 1955; Chakrabarti *et al.*, 1972a)
- *Ischaemum rugosum* Salisb. (Poaceae) (Behura, 1963)
- *Ischaemum* sp. (Poaceae) (Behura, 1963)
- *Nicotiana tabacum* L. (Solanaceae) (Despande, 1938)
- *Oryza sativa* L. (Poaceae) (Behura, 1963)
- *Paspalum dilatatum* Poir. (Poaceae) (Ghosh and Basu, 1999)
- *Pennisetum flaccidum* Griseb. (Poaceae) (Basu and Ganguli, 1968)
- *Pennisetum glaucum* (L.) R. Br. (=*Setaria glauca* (L.) P. Beauv.) (Poaceae) (Behura, 1963)
- *Poa* sp. (Poaceae) (Ghosh and Basu, 1999)
- *Solanum tuberosum* L. (Solanaceae) (Ghosh and Basu, 1999)
- *Spinacia oleracea* L. (Amaranthaceae) (Ghosh and Basu, 1999)
- *Stellaria media* (L.) (Caryophyllaceae) (Ghosh and Basu, 1999)
- *Triticum aestivum* L. (Poaceae) (Kar *et al.*, 1990)
- *Triticum aestivum* ssp. *aestivum* L. (=*Triticum vulgare* Vill.; *Triticum sativum* Lam.) (Poaceae) (Basu and Banerjee, 1958; Behura, 1963)
- *Triticum* sp. (Poaceae) (Lefroy and Howlett, 1909; Banerjee and Basu, 1955)
- *Zea mays* L. (Poaceae) (Ghulam-Ullah, 1940)
- *Zea mays* L. (Poaceae) (Behura, 1963; Banerjee and Basu, 1955)
- Undet.: Poacea (Raychaudhuri, 1980)

4. *Sitobion bambusicola* Ghosh, 1986*

= Macrosiphum (Sitobion) bambusicola Ghosh L.K., 1986 (Ghosh, 1986)

- *Bambusa* sp. (Poaceae) (Ghosh, 1986)

5. *Sitobion graminis* Takahashi, 1950

= *Macrosiphum (Sitobion) graminis* Takahashi, 1950 (David, 1975)

- *Agapanthus africanus* (L.) Hoffmanns. (=*Agapanthus umbellatus* L.'Hér) (Agapanthaceae) (David, 1957; Behura, 1963)
- *Andropogon lividus* Thwaites (Poaceae) (David, 1957, 1975; Behura, 1963)
- *Bidens pilosa* L. (Asteraceae) (David, 1957; Behura, 1963)
- *Chloris barbata* Sw. (=*Chloris inflata* Link) (Poaceae) (David, 1956a; Behura,

1963; David, 1975)

- *Chrysopogon nodulibarbis* (Steud.) Henr. (=*Chrysopogon zylanicus* (Nees ex Steud.) Thwaites) (Poaceae) (David, 1957; Behura, 1963; David, 1975)
- *Eragrostis gangetica* (Roxb.) Steud. (Poaceae) (David, 1957; Behura, 1963)
- *Glyceria fluitans* (L.) R. Br. (Poaceae) (David, 1957, 1975; Behura, 1963)
- *Heteropogon contortus* (L.) P. Beauk ex Roem and Schult. (= *Andropogon contortus* L.) (Poaceae) (Kar *et al.*, 1990)

6. *Sitobion gravelii* (van der Goot, 1917)

= *Macrosiphum (Sitobion) gravelii* van der Goot, 1917 (Raychaudhuri, 1983)

= *Macrosiphum (Sitobion) spinotibium* Ghosh, Ghosh and Raychaudhuri, 1970 (Ghosh *et al.*, 1971a; Raychaudhuri, 1980)

= *Macrosiphum spinotibium* Ghosh, Ghosh and Raychaudhuri, 1970 (Ghosh *et al.*, 1971a, c; David, 1975; Basu and Raychaudhuri, 1980)

- *Artemisia vulgaris* L. (Asteraceae) (Kar *et al.*, 1990)
- *Artemisia* sp. (Asteraceae) (Behura and Bohider, 1970; Ghosh and Basu, 1997; Ghosh and Basu, 1999)

7. *Sitobion himalayensis* (Ghosh, 1986)*

= *Macrosiphum (Sitobion) himalayensis* Ghosh, 1986 (Ghosh, 1986)

- *Piptatherum laterale* (Munro ex Regel) Rosh. (=*Oryzopsis lateralis* (Munro ex Regel)) (Poaceae) (Ghosh, 1986)

8. *Sitobion ibarae* (Matsumura, 1917)

= *Macrosiphum (Sitobion) ibarae* Matsumura, 1917 (Raychaudhuri, 1983)

- *Rosa* sp. (Rosaceae) (Raychaudhuri, 1980)

9. *Sitobion indicum* Basu, 1964*

= *Macrosiphum (Sitobion) indicum* Basu, 1964 (Raychaudhuri, 1983)

= *Macrosiphum (Sitobion) luteum* (Buckton) (Ghosh and Raychaudhuri, 1968, 1970; Basu *et al.*, 1972)

= *Sitobion indicum* Basu, 1964 (Verma, 1965)

= *Sitobion luteum* (Buckton) (Basu, 1969a)

- *Anthoxanthum odoratum* L. (Poaceae) (Raychaudhuri *et al.*, 1981)
- *Calanthe* sp. (Orchidaceae) (David, 1975)
- *Calanthe sylvatica* (Thouars) Lindl. (=*Calanthe masuca* (D. Don) Lindl.) (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1973, 1980)
- *Coix lachryma-jobi* L. (Poaceae) (Raha *et al.*, 1977; Raha, 1979)
- *Cymbidium eburneum* Lindl. (Orchidaceae) (David, 1975; Ghosh, 1980)
- *Cymbidium elegans* Lindl. (Orchidaceae) (David, 1975; Ghosh, 1980)
- *Cymbidium ensifolium* (L.) Swartz (Orchidaceae) (Ghosh MR *et al.*, 1970; Raychaudhuri, 1980)
- *Cymbidium lowianum* Reichb.f. (Orchidaceae) (Ghosh *et al.*, 1970)
- *Cymbidium longifolium* D. Don (Orchidaceae) (Raychaudhuri, 1973, 1980; David, 1975)
- *Cymbidium luteum* Willd. (Orchidaceae) (Raychaudhuri, 1973, 1980)
- *Cymbidium montanum* Sw. (Orchidaceae) (Raychaudhuri, 1973, 1980)
- *Cymbidium mouronianum* King and Pantl. (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1980)
- *Cymbidium* sp. (Orchidaceae) (Basu, 1969b; David, 1975; Raychaudhuri, 1980)
- *Cymbidium tracyanum* Rolfe. (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1980)
- *Dendrobium densifolium* Schlechter (Orchidaceae) (Ghosh and Raychaudhuri, 1968; Behura and Bohider, 1970; Raychaudhuri, 1980)
- *Dendrobium longicornu* Lindl. (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1973, 1980; David, 1975)
- *Dendrobium* sp. (Orchidaceae) (Basu, 1969b; Behura and Bohider, 1970; David, 1975)
- *Eria bambusifolia* Lindl. (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1973, 1980)
- *Eria* sp. (Orchidaceae) (David, 1975)
- *Ficus* sp. (Moraceae) (Raychaudhuri *et al.*, 1981)
- *Ipomoea* sp. (Convolvulaceae) (Raychaudhuri *et al.*, 1980; Ghosh, 1986)
- *Ixora coccinea* L. (Rubiaceae) (Basu *et al.*, 1972)
- *Leucas* sp. (Lamiaceae) (Raychaudhuri *et al.*, 1981)
- *Ludwigia peruviana* (L.) H. Hara (Onagraceae) (Raychaudhuri *et al.*, 1981)

- *Ocimum* sp. (Lamiaceae) (Raychaudhuri *et al.*, 1981)
- *Otochilus porrectus* Lindl. (Orchidaceae) (Ghosh *et al.*, 1970; Raychaudhuri, 1973; David, 1975)
- *Paphiopedilum insigne* (Wall. ex Lindl.) Pfitzer (Orchidaceae) (Raychaudhuri, 1973, 1980; David, 1975)
- *Paspalum scrobiculatum* L. (=*Paspalum orbiculare* G. Frorst.) (Poaceae) (Kar *et al.*, 1990)
- *Pennisetum glaucum* (L.) R. Br. (=*Setaria glauca* (L.) P. Beauv.) (Poaceae) (Raychaudhuri, 1973)
- *Pennisetum polystachion* (L.) Schult. (Poaceae) (Raychaudhuri *et al.*, 1981)
- *Rosa indica* Linn. (Rosaceae) (Kar *et al.*, 1990)
- *Vanda coreulea* Griff. Ex Lindl. (Orchidaceae) (David, 1975)
- Undet.: Euphorbiaceae (Raychaudhuri *et al.*, 1981); Orchidaceae (Raychaudhuri, 1978); Poaceae (Raychaudhuri *et al.*, 1980)

10. *Sitobion lambersi* David, 1956*

= *Sitobion lambersi* David, 1956 (David, 1956a, b, c)

= *Macrosiphum (Sitobion) lambersi* David, 1956 (Raychaudhuri, 1983)

- *Chloris barbata* Sw. (=*Chloris inflata* Link) (Poaceae) (Behura, 1963; David, 1956b, 1975)
- *Cynodon dactylon* (L.) Pers. (Poaceae) (David, 1956a; Behura, 1963)
- *Digitaria marginata* Link (= *Digitaria marginalis* auct. nonn.) (Poaceae) (David, 1956a; Behura, 1963)
- *Eremopogon foveolatus* (Delile) Stapf. (Poaceae) (David, 1956a; Behura, 1963)
- *Ischaemum aristatum* L. (Poaceae) (David, 1956a; Behura, 1963)
- *Ischaemum rugosum* Salisb. (Poaceae) (David, 1975)
- *Paspalum conjugatum* Bergius (Poaceae) (David, 1956a; Behura, 1963)

11. *Sitobion leelamaniae* (David, 1958)*

= *Macrosiphum (Sitobion) leelamaniae* David, 1958

- *Andropogon vulgaris* Raspail (Poaceae) (Behura, 1965; Chakrabarti *et al.*, 1972b)
- *Eleusine coracana* (L.) Gaertn. (Poaceae) (David, 1958a, 1975; Behura, 1965; Joshi, 2008)
- *Pennisetum glaucum* (L.) R. Br. (=*Setaria glauca* (L.) P. Beauv.) (Poaceae) (David, 1958a, 1975; Behura, 1965)

12. *Sitobion luteum* (Buckton, 1876)

= *Macrosiphum (Sitobion) luteum* Buckton, 1876 (Raychaudhuri, 1983)

- *Callostylis bambusifolia* (Lindl.) S.C. Chen and J.J. Wood (=*Eria bambusifolia* Lindl.) (Orchidaceae) (Ghosh and Basu, 1999)
- *Calanthe sylvatica* (Thouars) Lindl. (=*Calanthe masuca* (D. Don) Lindl.) (Orchidaceae) (Ghosh, 1980)
- *Cymbidium elegans* Lindl. (=*Cyperorchus eleagnus* auct. non. for *Cyperorchis elegans* (Lindl.) Blume (Orchidaceae) (Ghosh, 1980)
- *Cymbidium lowianum* Reichb.f. (Orchidaceae) (Ghosh, 1980)
- *Cymbidium mouronianum* King and Pantl. (Orchidaceae) (Ghosh, 1980)
- *Cymbidium tracyanum* Rolfe. (Orchidaceae) (Ghosh, 1980)
- *Dendrobium densifolium* Schlechter (Orchidaceae) (Ghosh, 1980)
- *Dendrobium longicornu* Lindl. (Orchidaceae) (Ghosh, 1980)
- *Eria bambusifolia* Lindl. (Orchidaceae) (Ghosh, 1980)
- *Otochilus porrectus* Lindl. (Orchidaceae) (Ghosh, 1980)
- *Paphiopedilum insigne* (Wall. ex Lindl.) Pfitzer (Orchidaceae) (Ghosh, 1980)
- *Vanda coreulus* Griff. Ex Lindl. (Orchidaceae) (Ghosh, 1980)
- Unidentified plant (Orchidaceae) (Ghosh, 1980)

13. *Sitobion microspinolosum* (David, Rajasingh and Narayanan, 1972)*

= *Macrosiphum (Sitobion) microspinolosum* David, Rajasingh and Narayanan, 1972 (David, 1975)

= *Macrosiphum (Neomacrosiphum) microspinolosum* David, Rajasingh and Narayanan, 1972 (Raychaudhuri, 1983)

= *Macrosiphum microspinolosum* David, Rajasingh and Narayanan, 1972 (David, 1975)

- *Arthroxon lancifolius* (Trin.) Hoschst (Poaceae) (David, 1975; Raychaudhuri, 1980)

14. *Sitobion mimosae* (Ghosh, Basu and Raychaudhuri, 1977)*

= *Macrosiphum (Sitobion) mimosae* Ghosh, Basu and Raychaudhuri, 1977

- *Mimosa pudica* L. (Fabaceae) (Ghosh *et al.*, 1977; Raychaudhuri, 1980; Ghosh and Basu, 1999)
- *Phyllanthus emblica* L. (= *Emblica officinalis* Gaertn.)(Phyllanthaceae) (Ghosh *et al.*, 1977)
- *Phyllanthus* sp. (Phyllanthaceae) (Raychaudhuri, 1980)
- *Smilax* sp. (Smilacaceae) (Kar *et al.*, 1990)

15. *Sitobion miscanthi* (Takahashi, 1921)

= *Macrosiphum (Sitobion) miscanthi* (Takahashi, 1921) (Raychaudhuri, 1980, 1983)

= *Macrosiphum (Sitobion) eleusinae* Theobald, 1929 (Krishnamurthi, 1931; David, 1956d; Sharma and Bhalla, 1964)

= *Macrosiphum (Sitobion) avenae elusinae* Theobald (Behura, 1963, 1965; David, 1956a, 1958b)

= *Macrosiphum (Sitobion) africanum* (Hille Ris Lambers, 1954) (David, 1957; Behura, 1963)

= *Macrosiphum (Sitobion) fragariae* (Walker, 1848) (David, 1957, 1958b; Behura, 1963)

= *Macrosiphum (Sitobion)* ? *fragariae* (Walker, 1848) (David, 1958b; Behura, 1965)

= *Macrosiphum (Sitobion) avenae miscanthi* (Takahashi) (Behura, 1965; Ghosh, 1971)

- *Agropyron* sp. (Poaceae) (Raychaudhuri, 1973)
- *Andropogon* sp. (Poaceae) (Behura and Bohider, 1970; David, 1975; Raychaudhuri, 1980)
- *Anthoxanthum odoratum* L. (Poaceae) (Ghosh and Rauchaudhuri, 1963)
- *Apluda mutica* L. (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Aristida* sp. (Poaceae) (David, 1975)
- *Avena sativa* L. (Poaceae) (Raychaudhuri, 1973, 1980)
- *Bothriochloa bladhii* (Retz.) S.T. Blake (=*Bothriochloa intermedia* (R. Br.) A. Camus) (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Bothriochloa insculpta* (Hochst. ex A. Rich) A. Camus (Poaceae) (David, 1956a, 1975)
- *Bothriochloa* sp. (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Brachypodium sylvaticum* (Huds.) P. Beauv. (Poaceae) (David, 1975)
- *Brassica napus* L. (Brassicaceae) (Bhalla and Pawar, 1980; Hille Ris Lambers, 1973)
- *Brassica oleracea* L. (Brassicaceae) (Basu *et al.*, 1972)
- *Bridelia* sp. (Euphorbiaceae) (Raychaudhuri *et al.*, 1981)
- *Bromus catharticus* var. *catharticus* Vahl. (=*Bromus uniloides* Kunth) (Poaceae) (Chakrabarti, 1972)
- *Bromus hordeaceus* ssp. *hordeaceus* L. (=*Bromus mollis* L.) (Poaceae) (Raychaudhuri, 1983)
- *Canna* sp. (Cannaceae) (Chakrabarti and Sarkar, 2001)
- *Capillipedium parviflorum* (R. Br.) Stapf. (Poaceae) (David, 1975)
- *Chloris barbata* Sw. (=*Chloris inflata* Link) (Poaceae) (David, 1957, 1975)
- *Chrysopogon nodulibarbis* (Steud.) Henr. (=*Chrysopogon zylanicus* (Nees ex Steud.) Thwaites) (Poaceae) (David, 1957, 1975)
- *Cineraria* sp. (Asteraceae) (Ghosh and Raychaudhuri, 1968)
- *Cleisostoma racemiferum* (Lindl.) Garay (= *Sarcanthus pallidus* Lindl. (Ghosh and Basu, 1999)
- *Cymbopogon martini* (Roxb.) Watson (Poaceae) (David, 1957, 1975)
- *Cymbopogon nardus* (L.) Rendle (Poaceae) (David, 1975)
- *Cymbopogon* sp. (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Cynodon dactylon* (L.) Pers. (Poaceae) (David, 1975)
- *Cyperus rotundus* L. (Cyperaceae) (Raychaudhuri, 1973, 1980; Ghosh and Basu, 1999)
- *Cyperus* sp. (Cyperaceae) (Raychaudhuri, 1973, 1980)
- *Dactyloctenium aegypticum* (L.) Willd. (Poaceae) (David, 1956a)
- *Dichanthium* sp. (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Digitaria* sp. (Poaceae) (David, 1975)
- *Echinochloa colona* (L.) Link (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Echinochloa* sp. (Poaceae) (Raychaudhuri, 1978)
- *Eleusine coracana* (L.) Gaertn. (Poaceae) (David, 1956d; Basu and Banerjee, 1958)
- *Eleusine indica* (L.) Gaertn. (Poaceae) (Basu *et al.*, 1972; Raychaudhuri, 1980)
- *Elsholtzia blanda* (Benth.) Benth. (Lamiaceae) (David, 1975)
- *Enteropogon* sp. (Poaceae) (David, 1957)

- *Eragrostis gangetica* (Roxb.) Steud. (Poaceae) (Behura and Bohider, 1970)
- *Eragrostis* sp. (Poaceae) (David, 1975)
- *Eragrostis superba* Peyr. (Poaceae) (David, 1956a)
- *Erigeron* sp. (Asteraceae) (Das *et al.*, 1981)
- *Galium mollugo* L. (Rubiaceae) (Chakrabarti, 1972)
- *Granotia* sp. (Asteraceae) (Raychaudhuri, 1973, 1980)
- *Helianthus annuus* L. (Asteraceae) (Raychaudhuri, 1973, 1980)
- *Heteropogon contortus* (L.) P. Beauk ex Roem and Schult. (= *Andropogon contortus* L.) (Poaceae) (Kar *et al.*, 1990)
- *Hordeum vulgare* L. (Poaceae) (Basu and Banerjee, 1958; Chakrabarti, 1972; Bhalla and Pawar, 1980)
- *Ischaemum rugosum* Salisb. (Poaceae) (David, 1957, 1975; Behura, 1963)
- *Ischaemum* sp. (Poaceae) (David, 1957, 1975)
- *Koeleria macrantha* (Ledeb.) Schul. (=*Koeleria cristata* auct.) (Poaceae) (Chakrabarti, 1972)
- *Lactuca sativa* L. (Asteraceae) (Chakrabarti, 1972; Raychaudhuri, 1973)
- *Oplismenus compositus* (L.) P. Beauv. (Poaceae) (Chakrabarti and Sarkar, 2001)
- *Oplismenus* sp. (Poaceae) (David, 1975)
- *Oryza sativa* L. (Poaceae) (David, 1957; Raha *et al.*, 1977)
- *Panicum* sp. (Poaceae) (Raychaudhuri, 1978; Raychaudhuri *et al.*, 1980)
- *Paspalum conjugatum* Bergius (Poaceae) (Raychaudhuri, 1973, 1980)
- *Paspalum dialatum* Poir. (Poaceae) (Behura and Bohider, 1970; Raychaudhuri, 1973, 1980)
- *Paspalum* sp. (Poaceae) (David, 1975; Raychaudhuri, 1973)
- *Pennisetum flaccidum* Griseb. (Poaceae) (David, 1975)
- *Pennisetum glaucum* (L.) R. Br. (=*Setaria glauca* (L.) P. Beauv.) (Poaceae) (Basu and Banerjee, 1958; David, 1975; Raychaudhuri, 1980)
- *Persicaria capitata* (Buch.-Ham. ex D. Don) H. Gross (=*Polygonum capitatum* Buch.-Ham. ex D. Don) (Polygonaceae) (Chakrabarti and Raychaudhuri, 1975)
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) (Behura, 1965; Ghosh, 1971)
- *Phalaris minor* Retz. (Poaceae) (Theobald, 1929; Singh *et al.*, 1999)
- *Poa annua* L. (Poaceae) (Raychaudhuri, 1973; Chakrabarti, 1972; David, 1975)
- *Poa pratensis* L. (Poaceae) (David, 1975)
- *Poa* sp. (Poaceae) (Ghosh *et al.*, 1971c; Basu *et al.*, 1972; Raychaudhuri, 1980)
- *Polypogon littoralis* J.C. Sm. (Poaceae) (Chakrabarti, 1972)
- *Ranunculus arvensis* L. (Ranunculaceae) (Chakrabarti, 1972)
- *Ranunculus* sp. (Ranunculaceae) (Raychaudhuri *et al.*, 1980)
- *Rosa indica* Linn. (Rosaceae) (Raha, 1979)
- *Rosa* sp. (Rosaceae) (Raha, 1979; Raychaudhuri *et al.*, 1980)
- *Saccharum officinarum* L. (Poaceae) (David, 1975)
- *Secale cereale* L. (Poaceae) (Das *et al.*, 1981)
- *Setaria palmifolia* (J. Koeing) Stapf (Poaceae) (Basu *et al.*, 1972; Raychaudhuri, 1980)
- *Smilax parvifolia* Wall. ex Hook.f. (Smilacaceae) (Chakrabarti and Sarkar, 2001)
- *Smilax* sp. (Smilacaceae) (Raychaudhuri *et al.*, 1980)
- *Spinacia oleracea* L. (Chenopodiaceae) (Ghosh *et al.*, 1970)
- *Thysanolaena latifolia* (Roxb. ex Hornem.) Honda (=*Thysanolaena agrostris* Nees) (Poaceae) (Raychaudhuri, 1973, 1980)
- *Triticum aestivum* L. (Poaceae) (Raychaudhuri, 1978; Ahmad and Singh, 1995)
- *Triticum aestivum* ssp. *aestivum* L. (=*Triticum vulgare* Vill.; *Triticum sativum* Lam.) (Poaceae) (Basu and Banerjee, 1958; Behura, 1965; Raychaudhuri, 1980)
- *Triticum* sp. (Poaceae) (Sharma and Bhalla, 1964; David, 1975; Bhalla and Pawar, 1980; Ahmad and Singh, 1995)

- *Youngia japonica* (L.) DC. (=*Crepis japonica* (L.) Benth.) (Asteraceae) (Behura and Bohider, 1970; Raychaudhuri, 1973)
- *Zea mays* L. (Poaceae) (Basu and Banerjee, 1958; Raychaudhuri, 1978)
- Undet.: Poaceae) (Chakrabarti, 1972; Raychaudhuri *et al.*, 1980)

16. *Sitobion phyllanthi* (Takahashi, 1937)

= *Macrosiphum (Sitobion) phyllanthi* (Takahashi, 1937) (Verma *et al.*, 1975)

- *Mimosa pudica* L. (Fabaceae) (Verma *et al.*, 1975)

17. *Sitobion plectranthi* (Ghosh, Ghosh and Raychaudhuri 1970 (1971))*

= *Macrosiphum (Sitobion) plectranthi* Ghosh, Ghosh and Raychaudhuri 1970 (1971)

= *Macrosiphum plectranthi* Ghosh, Ghosh and Raychaudhuri 1970 (1971) (David, 1975)

- *Isodon coesta* (Buch.-Ham. ex D. Don) (=*Plectranthus coetsa* Buch.-Ham. ex D. Don) (Lamiaceae) (David, 1975; Raychaudhuri, 1980)
- *Perilla* sp. (Lamiaceae) (Raychaudhuri, 1973, 1980)

18. *Sitobion pseudoalupecuri* (Chakrabarti, 1976 (1977))*

= *Macrosiphum (Sitobion) pseudoalupecuri* Chakrabarti, 1976 (1977)

- *Secale cereale* L. (Poaceae) (Das *et al.*, 1981)
- *Poa* sp. (Poaceae) (Ghosh and Raychaudhuri, 1972)

19. *Sitobion pseudoluteum* Ghosh, 1969*

= *Sitobion pseudoluteum* Ghosh, 1969

= *Macrosiphum (Sitobion) pseudoluteum* (Ghosh, 1969) (David, 1975)

= *Macrosiphum (Neomacrosiphum) pseudoluteum* (Ghosh, 1969) (Basu *et al.*, 1976)

- *Coleogyne ocpaci* (auct. non.) (Rosaceae) (Ghosh, 1980)
- *Cymbidium eburneum* Lindl. (Orchidaceae) (Ghosh, 1980; Raychaudhuri, 1980)
- *Cymbidium elegans* Lindl. (Orchidaceae) (Raychaudhuri, 1973, 1980; Ghosh, 1980)
- *Cymbidium longifolium* D.Don (Orchidaceae) (Raychaudhuri, 1973, 1980)
- *Cymbidium sinense* (And.) Willd. (Orchidaceae) (Ghosh, 1980)
- *Mandevilla* sp. (Apocyanaceae) (Raychaudhuri, 1980, (David, 1975; Ghosh, 1980)
- *Ranunculus* sp. (Ranunculaceae) (Chakrabarti and Sarkar, 2001)

20. *Sitobion raoi* (Kulkarni, 1980 (1981))*

= *Macrosiphum raoi* Kulkarni, 1980 (1981)

- *Iseilema anthephoroides* Hack. (Poaceae) (Chakrabarti, 1976)

21. *Sitobion rosaeiformis* (Das, 1918)*

= *Macrosiphum (Sitobion) rosaeiformis* Das, 1918 (Raychaudhuri, 1983)

= *Macrosiphum (Sitobion) ibarae rosaeiformis* (Das) (Basu and Banerjee, 1958)

= *Sitobion rosaeiformis* Das, 1918 (39)

= *Macrosiphum (Sitobion) rosaeformis* Das, 1918 (misspelled) (Ghosh *et al.*, 1970; Chakrabarti and Raychaudhuri, 1975)

- *Allium sativum* L. (Alliaceae) (Raychaudhuri, 1973)
- *Apluda mutica* L. (Poaceae) (Raychaudhuri *et al.*, 1980)
- *Cestrum* sp. (Solanaceae) (Raychaudhuri *et al.*, 1980)
- *Coix lachryma-jobi* L. (Poaceae) (Raha, 1979)
- *Desmodium* sp. (Fabaceae) (Raychaudhuri, 1973)
- *Digitaria sanguinalis* (L.) (Scop. (Poaceae) (Raha *et al.*, 1977; Raha, 1979)
- *Elsholtzia blanda* (Benth.) Benth. (Lamiaceae) (David, 1975)
- *Hibiscus rosa-sinensis* L. (Malvaceae) (34, (Behura, 1965)
- *Hordeum vulgare* L. (Poaceae) (Das *et al.*, 1981)
- *Myriactis nepalensis* Less. (Asteraceae) (Chakrabarti and Sarkar, 2001)
- *Paspalum scandens* (Tutin) Burm. (=*Digitaria scandens* auct. nonn.) (Poaceae) (David, 1975)
- *Pisum sativum* L. (Fabaceae) (Raychaudhuri, 1973)
- *Rosa canina* L. (Rosaceae) (Behura and Bohider, 1970; Basu *et al.*, 1972; Raychaudhuri, 1973, 1980; Basu and Raychaudhuri, 1980)
- *Rosa centifolia* L. (Rosaceae) (Behura, 1963; Chakrabarti and Ghosh, 1970)
- *Rosa damascene* Mill. (Rosaceae) (Behura, 1963; Chakrabarti and Ghosh, 1970)

- *Rosa hibisens* ? (Rosaceae) (Chakrabarti and Sarkar, 2001)
- *Rosa indica* Linn. (Rosaceae) (Behura and Bohider, 1970; Raychaudhuri, 1978; Bhalla and Pawar, 1980)
- *Rosa macrophylla* Lindl. (Rosaceae) (Chakrabarti, 1972; Chakrabarti and Raychaudhuri, 1975; Raychaudhuri, 1980; Das *et al.*, 1981; Ghosh and Basu, 1999)
- *Rosa moschata* Herrm. (Rosaceae) (Behura, 1963; Raychaudhuri, 1980; Ghosh and Basu, 1999)
- *Rosa* sp. (Rosaceae) (Basu and Banerjee, 1958; Basu and Raychaudhuri, 1980; Raychaudhuri, 1980; Raychaudhuri *et al.*, 1980)
- *Rubus nivens* Rhunb. (=*Rubus lasiocarpus* Sm.) (Rosaceae) (Rao, 1969)
- *Rubus* sp. (Rosaceae) (Raychaudhuri, 1973)
- *Secale cereale* L. (Poaceae) (Das *et al.*, 1981)
- *Secale* sp. (Poaceae) (Das *et al.*, 1981)
- *Sisymbrium irio* L. (Brassicaceae) (Kar *et al.*, 1990)
- *Smilax* sp. (Smilacaceae) (Raychaudhuri *et al.*, 1980)
- *Sonchus* sp. (Asteraceae) (Chakrabarti, 1972)
- *Spiraea corymbosa* Raf. (Rosaceae) (Raychaudhuri, 1973, 1980; Ghosh and Basu, 1999)
- *Themeda quadrivalvis* (L.) Kuntze (=*Anthistiria ciliata* Linn.f.) (Poaceae) (Raha *et al.*, 1977; Raha, 1979)
- *Urtica parviflora* Roxb. (Urticaceae) (David, 1975)
- Undet.: Asteraceae (Raychaudhuri *et al.*, 1981); Rosaceae (David, 1975; Das *et al.*, 1981)

22. *Sitobion scabripes* Ghosh, 1972*

= *Sitobion scabripes* Ghosh L.K., 1972

= *Macrosiphum (Macrosiphum) scabripes* (Ghosh, 1972) (Raychaudhuri, 1983)

- *Triticum* sp. (Poaceae) (David, 1975; Kulkarni, 1980)

23. *Sitobion sikkimense* (Ghosh and Raychaudhuri, 1968)*

= *Macrosiphum (Sitobion) sikkimensis* Ghosh and Raychaudhuri, 1968 (Raychaudhuri, 1980)

= *Macrosiphum (Sitobion) smilicicola sikkimensis* Ghosh and Raychaudhuri, 1968 (Ghosh and Raychaudhuri, 1968)

- *Erigeron* sp. (Asteraceae) (Das *et al.*, 1981)
- *Photinia* sp. (Rosaceae) (Raychaudhuri, 1973)
- *Smilax ferox* Wall. (Smilacaceae) (Basu *et al.*, 1973; David, 1975)
- *Smilax* sp. (Smilacaceae) (Ghosh and Raychaudhuri, 1968; Raychaudhuri, 1980)

24. *Sitobion smilacicola* (Takahashi, 1924)

= *Macrosiphum smilacicola* (Takahashi, 1924) (Ghosh, 1972)

- *Erigeron* sp. (Asteraceae) (Ghosh, 1972)
- *Smilax* sp. (Smilacaceae) (Chakrabarti *et al.*, 1974)

25. *Sitobion smilacifoliae* (Takahashi, 1921)

= *Macrosiphum smilacifoliae* Takahashi, 1921

= *Macrosiphum (Sitobion) smilacifoliae* Takahashi, 1921 (Ghosh *et al.*, 1971a; Basu *et al.*, 1973)

= *Macrosiphum (Sitobion) smilacifoliae ferocis* David, Rajasingh and Narayanan, 1976

- *Smilax ferox* Wall. (Smilacaceae) (Ghosh and Basu, 1999)
- *Smilax* sp. (Smilacaceae) (Ghosh *et al.*, 1971c; Raychaudhuri, 1980)

26. *Sitobion takahashii* (Eastop, 1959)

= *Macrosiphum (Sitobion) takahashii* Eastop, 1959 ((Raychaudhuri, 1980)

- *Globba* sp. (Zingiberaceae) (Kar *et al.*, 1990)
- *Mimosa pudica* L. (Fabaceae) (David, 1975; Raychaudhuri, 1980)
- *Phyllanthus emblica* L. (Phyllanthaceae) (David, 1957, 1975; Raychaudhuri, 1980; Joshi, 2008)
- *Phyllanthus madeaspatensis* L. (Phyllanthaceae) (David, 1975)
- *Phyllanthus niruri* L. (Phyllanthaceae) (David, 1975)
- *Phyllanthus* sp. (Phyllanthaceae) (David, 1975; Raychaudhuri, 1980)

27. *Sitobion* sp.

= *Macrosiphum (Sitobion)* sp.

- *Allium sativum* L. (Alliaceae) (Ghosh *et al.*, 1970)
- *Bromus inermis* Leyss. (Poaceae) (Chakrabarti, *et al.*, 1971)
- *Lindera* sp. (Lauraceae) (Raychaudhuri, 1973; Ghosh *et al.*, 1971a)
- *Persicaria chinensis* (L.) H. Gross (=*Polygonum chinense* L.) (Polygonaceae) (Raychaudhuri, 1983)

- *Rosa* sp. (Rosaceae) (Chakrabarti *et al.*, 2002)
- *Vaccinium griffithianum* Wight (Ericaceae) (Raychaudhuri, 1983)
- *Vaccinium* sp. (Ericaceae) (Raychaudhuri, 1973; Basu and Raychaudhuri, 1980)

II. Checklist of food plants-*Sitobion (Sitobion)* spp. in India

1. ***Agapanthus africanus***: *Sitobion graminis*
2. ***Agropyron* sp.**: *Sitobion miscanthi*
3. ***Agrostis* sp.**: *Sitobion avenae avenae*
4. ***Ajuga macrosperma***: *Sitobion aulacorthoides*
5. ***Allium ascalonicum***: *Sitobion avenae avenae*
6. ***Allium sativum***: *Sitobion rosaeiformis, Sitobion* sp.
7. ***Andropogon lividus***: *Sitobion graminis*
8. ***Andropogon vulgaris***: *Sitobion leelamaniae, Sitobion avenae, avenae, Sitobion avenae avenae*
9. ***Andropogon* sp.**: *Sitobion miscanthi*
10. ***Anthoxanthum odoratum***: *Sitobion indicum, Sitobion miscanthi*
11. ***Apluda mutica***: *Sitobion miscanthi, Sitobion rosaeiformis*
12. ***Aristida* sp.**: *Sitobion miscanthi*
13. ***Artemisia* sp.:** *Sitobion gravelii*
14. ***Artemisia vulgaris*:** *Sitobion gravelii*
15. ***Arthroxon lancifolius***: *Sitobion microspinolosum*
16. ***Avena sativa***: *Sitobion avenae avenae, Sitobion avenae avenae,**:***
17. *Sitobion miscanthi,*
18. ***Bambusa* sp.**: *Sitobion bambusicola*
19. ***Bidens pilosa***: *Sitobion graminis*
20. ***Bothriochloa bladhii***: *Sitobion miscanthi*
21. ***Bothriochloa insculpta***: *Sitobion avenae avenae, Sitobion miscanthi*
22. ***Bothriochloa pertusa***: *Sitobion avenae avenae*
23. ***Bothriochloa* sp.**: *Sitobion miscanthi*
24. ***Brachypodium sylvaticum***: *Sitobion miscanthi*
25. ***Brassica napus***: *Sitobion avenae avenae, Sitobion miscanthi*
26. ***Brassica oleracea***: *Sitobion avenae avenae, Sitobion miscanthi*
27. ***Bridelia* sp.**: *Sitobion miscanthi*
28. ***Bromus catharticus* var. *catharticus***: *Sitobion miscanthi*
29. ***Bromus hordeaceus* ssp. *hordeaceus***: *Sitobion miscanthi*
30. ***Bromus inermis***: *Sitobion* sp.
31. ***Caesalpinia decapetala***: *Sitobion aulacorthoides*
32. ***Caesalpinia* sp.**: *Sitobion aulacorthoides*
33. ***Calanthe* sp.**: *Sitobion indicum*
34. ***Calanthe sylvatica***: *Sitobion indicum, Sitobion luteum*
35. ***Callostylis bambusifolia***: *Sitobion luteum*
36. ***Canna* sp.:** *Sitobion miscanthi*
37. ***Capillipedium parviflorum***: *Sitobion miscanthi*
38. ***Cestrum* sp.**: *Sitobion rosaeiformis*
39. ***Chloris barbata***: *Sitobion avenae avenae, Sitobion graminis, Sitobion lambersi, Sitobion miscanthi*
40. ***Chrysopogon nodulibarbis***: *Sitobion avenae avenae, Sitobion graminis, Sitobion miscanthi*
41. ***Cineraria* sp.**: *Sitobion miscanthi*
42. ***Cleisostoma racemiferum***: *Sitobion miscanthi*
43. ***Coix lachryma-jobi***: *Sitobion indicum, Sitobion rosaeiformis*
44. ***Coleogyne ocpaci***: *Sitobion pseudoluteum*
45. ***Commelina* sp.**: *Sitobion aulacorthoides*
46. ***Cymbidium eburneum***: *Sitobion indicum, Sitobion pseudoluteum*
47. ***Cymbidium elegans***: *Sitobion indicum, Sitobion pseudoluteum*
48. ***Cymbidium ensifolium***: *Sitobion indicum*
49. ***Cymbidium longifolium***: *Sitobion indicum, Sitobion pseudoluteum*
50. ***Cymbidium lowianum***: *Sitobion indicum, Sitobion luteum*
51. ***Cymbidium luteum***: *Sitobion indicum*
52. ***Cymbidium montanum***: *Sitobion indicum*
53. ***Cymbidium mouronianum***: *Sitobion indicum, Sitobion luteum*
54. ***Cymbidium sinense***: *Sitobion pseudoluteum*
55. ***Cymbidium* sp.**: *Sitobion indicum*
56. ***Cymbidium tracyanum***: *Sitobion indicum, Sitobion luteum*
57. ***Cymbidium elegans***: *Sitobion luteum*
58. ***Cymbopogon martini***: *Sitobion avenae avenae, Sitobion miscanthi*
59. ***Cymbopogon nardus***: *Sitobion miscanthi*
60. ***Cymbopogon* sp.**: *Sitobion miscanthi*

61. ***Cynodon dactylon***: *Sitobion lambersi, Sitobion miscanthi*
62. ***Cyperus rotundus***: *Sitobion miscanthi*
63. ***Cyperus* sp.**: *Sitobion miscanthi*
64. ***Dactyloctenium aegypticum***: *Sitobion avenae avenae, Sitobion miscanthi*
65. ***Dendrobium densifolium***: *Sitobion indicum, Sitobion luteum*
66. ***Dendrobium longicornu***: *Sitobion indicum, Sitobion luteum*
67. ***Dendrobium* sp.**: *Sitobion indicum*
68. ***Desmodium* sp.**: *Sitobion rosaeiformis*
69. ***Dichanthium* sp.**: *Sitobion miscanthi*
70. ***Digitaria marginata***: *Sitobion lambersi*
71. ***Digitaria sanguinalis***: *Sitobion rosaeiformis*
72. ***Digitaria* sp.**: *Sitobion miscanthi*
73. ***Echinochloa colona***: *Sitobion miscanthi*
74. ***Echinochloa* sp.**: *Sitobion miscanthi*
75. ***Eleusine coracana***: *Sitobion avenae avenae, Sitobion avenae avenae, Sitobion leelamaniae, Sitobion miscanthi*
76. ***Eleusine indica***: *Sitobion miscanthi*
77. ***Eleusine* sp.**: *Sitobion avenae avenae*
78. ***Elsholtzia blanda***: *Sitobion aulacorthoides, Sitobion miscanthi, Sitobion rosaeiformis*
79. ***Elsholtzia* sp.**: *Sitobion aulacorthoides*
80. ***Enteropogon* sp.**: *Sitobion avenae avenae*
81. ***Enteropogon* sp.**: *Sitobion miscanthi*
82. ***Eragrostis gangetica***: *Sitobion graminis, Sitobion miscanthi*
83. ***Eragrostis* sp.**: *Sitobion miscanthi*
84. ***Eragrostis superba***: *Sitobion avenae avenae, Sitobion miscanthi*
85. ***Eremopogon foveolatus***: *Sitobion lambersi*
86. ***Eria bambusifolia***: *Sitobion indicum, Sitobion luteum*
87. ***Eria* sp.**: *Sitobion indicum*
88. ***Erigeron* sp.**: *Sitobion avenae avenae, Sitobion miscanthi, Sitobion sikkimense, Sitobion smilacicola*
89. ***Ficus* sp.**: *Sitobion indicum*
90. ***Galium mollugo***: *Sitobion miscanthi*
91. ***Globba* sp.**: *Sitobion takahashii*
92. ***Glyceria fluitans***: *Sitobion graminis*
93. ***Granotia* sp.**: *Sitobion miscanthi*
94. ***Helianthus annuus***: *Sitobion miscanthi*
95. ***Heteropogon contortus*:** *Sitobion graminis, Sitobion miscanthi*
96. ***Hibiscus rosa-sinensis***: *Sitobion rosaeiformis*
97. ***Hordeum vulgare***: *Sitobion avenae avenae, Sitobion miscanthi, Sitobion rosaeiformis*
98. ***Ipomoea* sp.**: *Sitobion indicum*
99. ***Ischaemum aristatum***: *Sitobion lambersi*
100. ***Ischaemum rugosum***: *Sitobion avenae avenae, Sitobion lambersi, Sitobion miscanthi*
101. ***Ischaemum* sp.:** *Sitobion avenae avenae*
102. ***Ischaemum* sp.**: *Sitobion miscanthi*
103. ***Iseilema anthephoroides***: *Sitobion raoi*
104. ***Isodon coesta:*** *Sitobion aulacorthoides, Sitobion plectranthi*
105. ***Isodon* sp.**: *Sitobion aulacorthoides*
106. ***Ixora coccinea***: *Sitobion indicum*
107. ***Koeleria macrantha***: *Sitobion miscanthi*
108. ***Lactuca sativa***: *Sitobion miscanthi*
109. ***Leucas* sp.**: *Sitobion indicum*
110. ***Lindera* sp.**: *Sitobion* sp.
111. ***Ludwigia peruviana***: *Sitobion indicum*
112. ***Mandevilla* sp.**: *Sitobion pseudoluteum*
113. ***Mimosa pudica***: *Sitobion phyllanthi, Sitobion mimosa, Sitobion takahashii*
114. ***Myriactis nepalensis***: *Sitobion rosaeiformis*
115. ***Nicotiana tabacum***: *Sitobion avenae avenae*
116. ***Ocimum americanum***: *Sitobion aulacorthoides*
117. ***Ocimum* sp.**: *Sitobion indicum*
118. ***Oplismenus compositus:*** *Sitobion miscanthi*
119. ***Oplismenus* sp.:** *Sitobion miscanthi*
120. ***Oryza sativa:****Sitobion avenae avenae, Sitobion miscanthi*
121. ***Otochilus porrectus:*** *Sitobion luteum*
122. ***Otochilus porrectus:*** *Sitobion indicum*
123. ***Panicum* sp.:** *Sitobion miscanthi*
124. ***Paphiopedilum insigne:*** *Sitobion indicum, Sitobion luteum*
125. ***Paspalum conjugatum:*** *Sitobion lambersi, Sitobion miscanthi*
126. ***Paspalum dialatum:*** *Sitobion miscanthi, Sitobion avenae avenae*
127. ***Paspalum scandens*:** *Sitobion rosaeiformis*
128. ***Paspalum scrobiculatum:*** *Sitobion indicum*
129. ***Paspalum* sp.:** *Sitobion miscanthi*
130. ***Pennisetum flaccidum:*** *Sitobion avenae avenae, Sitobion miscanthi*

131. ***Pennisetum glaucum:*** *Sitobion avenae avenae, Sitobion indicum, Sitobion leelamaniae, Sitobion miscanthi*
132. ***Pennisetum polystachion:*** *Sitobion indicum*
133. ***Perilla* sp.:** *Sitobion aulacorthoides, Sitobion plectranthi*
134. ***Persicaria capitata:*** *Sitobion miscanthi*
135. ***Persicaria chinensis:*** *Sitobion miscanthi, Sitobion* sp.
136. ***Phalaris minor:*** *Sitobion miscanthi*
137. ***Photinia* sp.:** *Sitobion sikkimense*
138. ***Phyllanthus emblica:*** *Sitobion mimosa, Sitobion takahashii*
139. ***Phyllanthus madeaspatensis:*** *Sitobion takahashii*
140. ***Phyllanthus niruri:*** *Sitobion takahashii*
141. ***Phyllanthus* sp.:** *Sitobion mimosa, Sitobion takahashii*
142. ***Piptatherum laterale*:** *Sitobion himalayensis*
143. ***Pisum sativum:*** *Sitobion rosaeiformis*
144. ***Poa annua***: *Sitobion alopecuri, Sitobion miscanthi*
145. ***Poa pratensis:*** *Sitobion miscanthi*
146. ***Poa* sp.:***Sitobion alopecuri, Sitobion avenae avenae, Sitobion miscanthi, Sitobion pseudoalupecuri*
147. ***Polypogon littoralis:*** *Sitobion miscanthi*
148. ***Ranunculus arvensis***: *Sitobion miscanthi*
149. ***Ranunculus* sp.:** *Sitobion miscanthi, Sitobion pseudoluteum*
150. ***Rosa canina:*** *Sitobion rosaeiformis*
151. ***Rosa centifolia:*** *Sitobion rosaeiformis*
152. ***Rosa damascene:*** *Sitobion rosaeiformis*
153. ***Rosa hibisens:*** *Sitobion rosaeiformis*
154. ***Rosa indica:*** *Sitobion indicum, Sitobion miscanthi, Sitobion rosaeiformis*
155. ***Rosa macrophylla:*** *Sitobion rosaeiformis*
156. ***Rosa moschata:*** *Sitobion rosaeiformis*
157. ***Rosa* sp.:** *Sitobion ibarae, Sitobion miscanthi, Sitobion rosaeiformis, Sitobion* sp.
158. ***Rubus nivens:*** *Sitobion rosaeiformis*
159. ***Rubus* sp.:** *Sitobion aulacorthoides, Sitobion rosaeiformis*
160. ***Saccharum officinarum:*** *Sitobion miscanthi*
161. ***Secale cereale:*** *Sitobion pseudoalupecuri, Sitobion miscanthi, Sitobion rosaeiformis*
162. ***Secale* sp.:** *Sitobion rosaeiformis*
163. ***Setaria palmifolia:*** *Sitobion miscanthi*
164. ***Sisymbrium irio*:** *Sitobion rosaeiformis*
165. ***Smilax ferox***: *Sitobion smilacifoliae, Sitobion sikkimense*
166. ***Smilax parvifolia:*** *Sitobion miscanthi*
167. ***Smilax* sp.**: *Sitobion smilacifoliae, Sitobion mimosae, Sitobion miscanthi, Sitobion rosaeiformis*, *Sitobion sikkimense, Sitobion smilacicola*
168. ***Solanum tuberosum*:** *Sitobion avenae avenae*
169. ***Sonchus* sp.:** *Sitobion rosaeiformis*
170. ***Spinacia oleracea:*** *Sitobion avenae avenae, Sitobion miscanthi*
171. ***Spiraea corymbosa:*** *Sitobion rosaeiformis*
172. ***Stellaria media:*** *Sitobion avenae avenae*
173. ***Themeda quadrivalvis:*** *Sitobion rosaeiformis*
174. ***Thysanolaena latifolia:*** *Sitobion miscanthi*
175. ***Triticum aestivum:*** *Sitobion avenae avenae, Sitobion miscanthi*
176. ***Triticum aestivum* ssp. *aestivum:*** *Sitobion avenae avenae, Sitobion miscanthi*
177. ***Triticum* sp.:** *Sitobion avenae avenae, Sitobion miscanthi, Sitobion scabripes*
178. ***Urtica parviflora:*** *Sitobion rosaeiformis*
179. ***Vaccinium griffithianum:*** *Sitobion* sp.
180. ***Vaccinium* sp.:** *Sitobion* sp.
181. ***Valeriana wallichii:*** *Sitobion aulacorthoides*
182. ***Vanda coreulea:*** *Sitobion indicum, Sitobion luteum*
183. ***Youngia japonica:*** *Sitobion miscanthi*
184. ***Zea mays:*** *Sitobion avenae avenae, Sitobion avenae avenae, Sitobion miscanthi*

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