

## **CHECKLIST DISTRIBUTION HOST RANGE AND ECOLOGY OF APHIDOIDEA (HOMOPTERA) FROM THE RAINFED REGION OF PUNJAB PROVINCE OF PAKISTAN**

IMRAN BODLAH, MUHAMMAD NAEEM and ATA -UL- MOHSIN

*PMAS Arid Agricultural University, Rawalpindi - Pakistan*

### **ABSTRACT**

*The aphids, an important group of insect pests, have been neglected since long in rainfed region (Barani areas) of the Punjab. In this regard, an extensive survey of this region was carried out to explore the aphid fauna, its distribution, and some of its ecological aspects. The survey was conducted during 2003 and 2004; yielding 24 aphid species in 17 genera, which represented four families viz., Aphididae, Callaphididae, Chaitophoridae and Pemphigidae. Of these, Rhodobium porosum, Coloradoa rufomaculata, and Myzus varians have been recorded for the first time in Pakistan. Whereas, Aphis nerii, A. craccivora, A. fabae, A. citricola, and Coloradoa rufomaculata are found to be ant attended.*

**Key Words:** Checklist, aphidoidea, distribution, Punjab, Pakistan

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### **INTRODUCTION**

Aphids are serious pests of crops, vegetables, fruits and ornamental plants and cause severe damage by sucking the cell sap. The infested plants remain stunted and do not bear fruits. Aphids are also reported as important pests of cereals worldwide (Vickerman and Wratten 1979; Carter *et al.*, 1980). They also inject toxic saliva into the plant during feeding, which result in blighting of buds, dimpling of fruits, curling of leaves and appearance of discolored spots on the foliage (Hashmi, 1994). Aphids further damage the plants by excreting honey-dew on their leaves, which causes the development of sooty mould that ultimately hinders the photosynthesis (Blackman and Eastop, 1984).

The Aphidoidea is predominantly a northern hemisphere temperate group, richest in species in North America, Europe, Central and East Asia (Blackman and Eastop, 1984). Some studies of preliminary nature were made in Pakistan (Das, 1918; Munir, 1953; Awan, 1973; Shah, 1988; Nasir, 1992 and 1994) but a comprehensive work on aphid distribution, ecology and host range was still needed to be done in rainfed areas of the Punjab Province of Pakistan. This study reports aphid species collected from the rainfed areas of Punjab Province of Pakistan and provides information regarding their distribution, host plants and some related ecological aspects.

### **MATERIALS AND METHODS**

Aphids were collected either by removing them with an ordinary camel-hair brush or by jarring the plants on white paper sheets from a wide range of habitats including crop fields, gardens, grasses, weeds and trees etc. Aphid colonies' concentrations on various plant parts were observed visually and related observations were recorded at the spot. Specimens were collected from Murree, Islamabad, Rawalpindi, Chakwal, Jhelum, Mianwali, Muzaffargarh, Khushab, Layyah, D.G.Khan, Attock, Bakhra and Bahawalpur districts in the Punjab Province during 2003-2004 (Fig. 1).

A few aphid colony along with the attacked plant parts were also brought to the laboratory and then reared for 2-3 days by keeping them in small plastic jars (about 7 cm diameter) covered with muslin cloth, with a small piece of cotton soaked in water in order to obtain well-developed adults. The full sized adults were then killed, preserved in 70 percent alcohol in vials and were properly labeled. The collected specimens were identified up to species level by using the identification keys of Eastop (1961), Martin (1983), Stroyan (1977) Raychaudhuri *et al.* (1980 and 1981), Anonymous (1982) and Blackman and Eastop (1984 and 1994). Voucher specimen have been deposited in the Insect Museum at Biosystematics Laboratory, Department of Entomology, Arid Agriculture University, Rawalpindi.

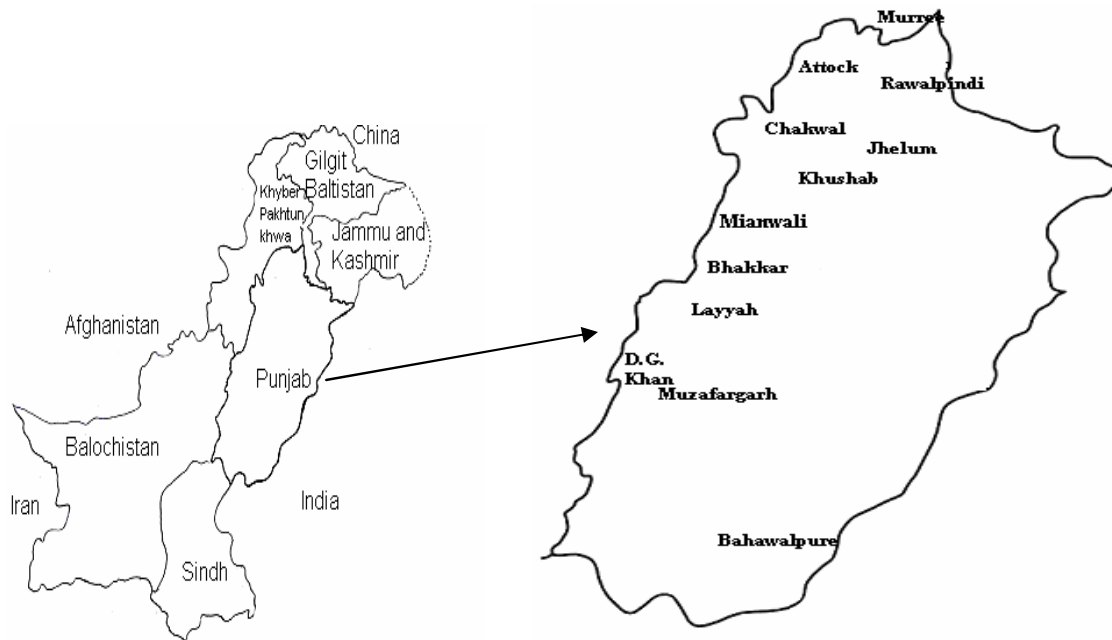


Fig.1. Surveyed area of Punjab province of Pakistan (Districts surveyed during this study are shown in the map)

## RESULTS AND DISCUSSION

### *Checklist of Aphidoidea (Homoptera) Family Aphididae Subfamily Aphidinae Tribe Aphidini Sub tribe Aphidina*

#### **Genus Aphis L.**

1. *A. citricola* van der Goot
2. *A. craccivora* Koch
3. *A. fabae* Scopoli
4. *A. gossypii* Glover
5. *A. nerii* Boyer de Fonseca
6. *A. punicae* Passerini

#### **Genus Rhopalosiphum Koch.**

1. *R. padi* (L.)

#### **Genus Schizaphis Börner**

1. *S. graminum*

#### **Tribe Macrosiphini Genus Acyrthosiphon Mordvilko**

1. *A. pisum*

#### **Genus Brevicoryne van der Goot**

1. *B. brassicae*

#### **Genus Coloradoa wilson**

1. *C. rafomaculata* (Wilson)

#### **Genus Hyadaphis Kirkaldy**

1. *H. Coriandri* (Das)

#### **Genus Lipaphis Mordvilko**

1. *L. erysimi* (Kaltenbach)

#### **Genus Macrosiphoniella del Guercio**

1. *M. sanborni* (Gillette)

**Genus *Macrosiphum* Oestlund**

1. *M. euphorbiae* (Thomas)
2. *M. pachysiphon* Hille Ris Lambers

**Genus *Myzus* Passerini**

1. *M. persicae* (Sulzer)
2. *M. varians* Davidson

**Genus *Phorodon* Passerini**

1. *P. cannabis* Passerini

**Genus *Rhodobium* Hille Ris Lambers**

1. *R. porosum* (Sanderson)

**Genus *Sitobion* Mordvilko**

1. *S. miscanthi*

**Family Calliaphididae Subfamily Therioaphidinae Genus *Therioaphis* Walker**

1. *T. torifolii*

**Family Chaitophoridae Subfamily Chaitophorinae Genus *Chaitophorus* Koch**

1. *C. murrensis* sp.nov.

**Family Pemphigidae Subfamily Pemphiginae Genus *Eriosoma* Leach**

1. *E. lenigerum* (Hausmann)

**Distribution, host range, and ecology of Aphidoidea (Homoptera)****Family Aphididae****Genus *Aphis* L.**

*Aphis punicae* (Passerini, 1863)

**Host plant:** Pomegranate (*Punica granatum*)

Ecological comments: Small yellowish-green aphids were collected from the upper side of mature leaves along the mid-ribs, around the leaf margins and lower surfaces of the upper most freshly emerged leaves of the pomegranate plants. There was an ant attraction towards the leaves and some of the leaves were slightly folded from the margins. There were various weeds and grasses under the canopies of the pomegranate plants.

**Material examined:** Layyah 4 apterae, 3-III-04; Bakhar 3 apterae, 2-III-04; D.G. Khan 2 apterae, 25-XII-04.

**Remarks:** This species has already been reported as pest of the same host plant by Irshad (2001). New locality records have been added in this study.

***Aphis nerii* (Boyer de Fonscolombe, 1841)**

**Host Plants:** Ak (*Calotropis* sp.) and Kaneer (*Nerium odorum*)

Ecological comments: Bright yellow aphids were collected from lower surfaces of the top most leaves, younger stems of the *Calotropis* sp. and inflorescence of the *Nerium* sp. Aphids were concentrated along the mid-ribs of the leaves in case of the *Calotropis* sp. and leaves of the host plants were slightly folded from the margins. There was an ant attraction towards the leaves in case of the *Calotropis* sp. Host plants were surrounded by trees, grasses, bushes and various weeds.

**Material Examined:**

Layyah 8 apterae 12 alate, 2-III-04; Bakhar 10 apterae 7 alate, 28-II-04; D. G. Khan 7 apterae 5 alate, 22-II-04; Jhelum 9 apterae 6 alate, 10-III-04; Attock 7 apterae 5 alate, 15-III-04.

**Remarks:** This was reported as a pest of *Calotropis procera* by Irshad (2001). In present studies, *Nerium odorum* has been added as a new host of this species from arid tract of Punjab, Pakistan.

***Aphis craccivora* (Koch, 1854)**

**Host plants:** Sheshum (*Dalbergia sisso*), Apple (*Pyrus malus*), Shoe-flower (*Hibiscus* sp.) and Amaltas (*Casia fistula*)

Ecological comments: Shiny black aphids were collected from the growing points of the host plants. There was an ant attraction towards undersides of the leaves of the host plants. Host plants were surrounded by trees, grasses, bushes, various ornamental plants and weeds.

**Material Examined:**

Rawalpindi 16 apterae, 4-VIII-04; Layyah 6 apterae, 5-X-04; Bahawalpure 5 apterae, 4-V-03; Murree 6 apterae, 2-

VIII-03; Attock 6 apterae, 4-III-04.

**Remarks:** Irshad (2001) reported this species from 13 different host plants. In present studies, new locality records have been added.

***Aphis gossypii* (Glover, 1877)**

**Host plants:** Rose (*Rosa* sp.), Cotton (*Gossypium* sp.), Loquat (*Eriobotrya japonica*) and Amaltas (*Casia fistula*)  
 Ecological comments: Aphids of various colors ranging from pale yellow, dark green to almost black in crowded colonies concentrated near the mid-ribs of the leaves were collected from the lower sides of the middle and upper most lush green leaves of the host plants. There was no ant attraction towards the leaves and leaves of the host plants were folded from the margins towards the middle sections.

**Material Examined:** Rawalpindi 10 apterae 5 alate, 5-XI-03; D. G. Khan 4 apterae 6 alate, 12-XIII-03; Muzaffar Garh 6 apterae 5 alate, 8-XII-03; Bahawalpur 4 apterae 5 alate, 12-XI-03; Layyah 5 apterae, 12-XIII-03; Attock 6 apterae, 6-XII-03.

**Remarks:** This species has already been reported from 36 host plants from Pakistan by various workers (Ahmed et al. 1985; Shah, 1988; Nasir, 1992; Irshad, 2001; Ihsan-ul-Haq et al. 1991; Ghafar et al. 1996).

***Aphis fabae* (Scopoli, 1763)**

**Host plants:** Wild spinach (*Rumex acetosella*) and Deela grass (*Cyperus rotundus*)

Ecological comments: Aphids were collected from the lower sides of the upper most leaves and inflorescence parts of the host plants. Aphids were concentrated near the mid-ribs of the leaves of the host plants. There was slight folding from leaf margins in case of wild spinach, ant attraction was observed towards undersides of the leaves of the host plants. Host plants were surrounded by trees, grasses, bushes, various ornamental plants and weeds.

**Material Examined:**

Rawalpindi 10 apterae 5 alate, 3-XI-03; Islamabad 4 apterae 6 alate, 7-XI-03; Murree 6 apterae 5 alate, 8-XI-03; Attock 4 apterae 5 alate, 12-XI-03.

**Remarks:** Irshad (2001) reported this species from eight different host plants. In present studies, new locality records have been added.

***Aphis citricola* (van der Goot, 1912)**

**Host plant:** Citrus (*Citrus* sp.)

Ecological comments: Small bright greenish yellow or yellowish green aphids were collected from the lower side of the upper most leaves and inflorescence parts of the host plant. Leaves of the host plant were curled and distorted near stem apices. There was ant attraction towards underside of the leaves of the host plant.

**Material Examined:**

Rawalpindi 6 apterae, 25-XI-03; Layyah 5 apterae, 10-XI-03.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab. In current studies, Layyah as a new locality record has been added.

Genus *Schizaphis* Börner

***Schizaphis graminum* (Rondani, 1847)**

**Host plants:** Wheat (*Triticum* sp.) and Dumbi grass (*Phalaris minor*)

Ecological comments: Yellowish green to bluish green aphids were collected from upper sides of the leaves of the host plants. Leaves of the host plants were yellow from the middle sections. There was no ant attraction towards the leaves.

**Material Examined:**

Bahawalpure 5 alate 8 apterae, 7-III-04; Layyah 4 alate 6 apterae, 3-III-04; Rawalpindi 6 apterae, 7-III-04; Khushab 3 apterae 2 alate, 6-IV-04; Chakwal 4 apterae 5 alate, 11-VI-04; D.G. Khan 5 apterae, 6-VI-03; Muzaffar Garh 4 apterae, 4-VI-04; Attock 4 apterae, 20-VI-04.

**Remarks:** Inayatullah et al. (1993) reported the incidence of this species in Pakistan. In present studies, new locality records have been added.

Genus *Rhopalosiphum* Koch

***Rhopalosiphum padi* (L. 1758)**

**Host plants:** Wheat (*Triticum* sp.), Dumbi grass (*Phalaris minor*), Barley (*Hordeum vulgare*) and Oat (*Avena sativa*)

Ecological comments: Dull green to greenish-black aphids were collected from the upper sides of the upper most leaves and inflorescence parts of the host plants. There was no ant attraction towards the leaves.

**Material Examined:**

Layyah 9 apterae, 5-II-04; Bakhar 7 apterae, 14-II-04;  
 Jhelum 8 apterae, 4-III-04; Khushab 9 apterae, 15-II-04; D. G.  
 Khan 7 apterae, 25-X-03.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab. In current studies, new locality records have been added.

**Genus *Sitobion* Mordvilko*****Sitobion miscanthi* (Takahashi, 1921)**

**Host plant:** Wheat (*Triticum* sp.)

Ecological comments: Medium-sized aphids of reddish brown to dark brown color were collected from inflorescence parts of the host plant. There was no ant attraction towards leaves.

**Material Examined:**

Layyah 6 apterae 7 alate, 29-II-04; Rawalpindi 8 apterae 9 alate, 3-III-04; Khushab 6 apterae 7 alate, 15-III-04;  
 Jhelum 9 apterae 5 alate, 10-III-04; Mianwali 6 apterae 8 alate, 12-III-04.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab. In current studies, new locality records have been added.

**Genus *Phorodon* Passerini*****Phorodon cannabis* (Passerini, 1860)**

**Host plant:** Bhung (*Cannabis sativa*)

Ecological comments: Shiny yellowish-green aphids were collected from the undersides of middle, upper most leaves and flower stems of the host plant. There was found no ant attraction. Host plants were surrounded by various weeds and grasses.

**Material Examined:**

Rawalpindi 4 apterae, 10-IV-03; Islamabad 8 apterae, 14-IV-03.

**Remarks:** Irshad (2001) reported this species from the same host plant. In present studies, new locality records have been added.

**Genus *Acyrtosiphon* Mordvilko*****Acyrtosiphon pisum* (Harris, 1776)**

**Host plant:** Pea (*Pisum sativum*)

Ecological comments: Large-sized green aphids were collected from young growth and pods of the host plant. Slight yellowing of the leaves of the host plants was observed. There was no ant attraction. Host plants were surrounded by the plants of their own species, flowers and ornamental plants.

**Material Examined:**

Layyah 12 apterae, 24-II-04; Rawalpindi 10 apterae 4 alate,  
 25-XII-03; Islamabad 5 apterae, 26-II-04; Jhelum 7 apterae, 28-III-03; Chakwal 8 apterae, 25-IX-04.

**Remarks:** Hamid *et al.* (1974) investigated this species with reference to its parasite in Pakistan. New localities records have been added for this species.

**Genus *Hyadaphis* Kirkaldy*****Hyadaphis coriandri* (Das, 1918)**

**Host plant:** Coriander (*Coriandrum sativum*)

Ecological comments: Dirty greenish aphids were collected from lower surface of the upper most leaves and stem of the host plant. Leaves of the host plants were weakened and slight yellowing of the leaves of the host plants was observed. There was no ant attraction

**Material Examined:**

Layyah 10 apterae, 25-I-04; Khushab 7 apterae, 3-I-04;  
 Muzaffar Garh 5 apterae, 25-XIII-03; Mianwali 3 apterae,  
 23-II-03; Jhelum 4 apterae, 29-I-04.

**Remarks:** Irshad (2001) reported this species from two different host plants. In present studies, *Coriandrum sativum* is new host for this species. New locality records have also been added.

**Genus *Brevicoryne* van der Goot*****Brevicoryne brassicae* (L. 1758)**

**Host plants:** Cabbage (*Brassica oleracea*), Chinese cabbage (*Brassica chinesis*), Cauliflower (*Brassica oleracea* var. *botrytis*), Sarson (*Brassica campestris*) and Mustard (*Brassica nigra*)

Ecological comments: Grayish green to dull green medium sized aphids were collected from lower surface of the upper most leaves and flower heads of the oil seed crops. Whole colony of the aphids was covered with grayish white mealy wax. There was found no ant attraction. Host plants were surrounded by the plants of their own species, various weeds, vegetables and grasses.

**Material Examined:**

Layyah 9 apterae 5 alate, 14-IV-04; Rawalpindi 10 apterae 6 alate, 23-III-04; Chakwal 5 apterae 3 alate, 12-IV-03; D. G. Khan 4 apterae 6 alate, 10-XI-03; Mianwali 10 apterae, 16-I-04; Attock 7 apterae, 25-III-04.

**Remarks:** Various studies related to this species include, effect of various insecticides, varietal resistance, and effect of various fertilizers on the population etc. have been done in Pakistan (Hussain, 1983; Mawat, 1985 and Halimi et al. 1992). In present studies, its distribution on different host plants in various localities of Punjab has been given.

Genus *Lipaphis* Mordvilko

***Lipaphis erysimi* (Kaltenbach, 1883)**

**Host plants:** Mustard (*Brassica nigra*), Radish (*Raphanus sativus*), Cabbage (*Brassica oleracea*) and Sarson (*Brassica campestris*)

Ecological comments: Small to medium sized, yellowish green aphids were collected from undersides of the curled and yellowish leaves and inflorescence parts of the host plants. There was found no ant attraction. Host plants were surrounded by the plants of their own species, various weeds, vegetables and grasses.

**Material Examined:**

Rawalpindi 6 apterae, 24-III-04; Layyah 7 apterae 4 alate, 22-II-04; Bahawalpure 10 apterae, 20-II-04; Khushab 6 apterae, 14-I-04; D. G. Khan 4 apterae 6 alate, 26-III-04; Muzaffar Garh 5 apterae, 19-III-03.

**Remarks:** Talpure and khuhro (2004) described its occurrence, abundance and its predators on two varieties of canola. In these studies, new locality records have been given.

Genus *Rhodobium* Hille Ris Lambers

***Rhodobium porosum* (Sanderson, 1900)**

**Host plant:** Rose (*Rosa* sp.)

Ecological comments: Bright yellow to yellowish-green small sized aphids were collected from partly folded leaves of the host plant. There was no ant attraction. Host plants were surrounded by the plants of their own species, various weeds, trees, bushes and grasses.

**Material Examined:**

Rawalpindi 3 apterae, 14-VI-04; Islamabad 4 apterae, 4-VI-04; Chakwal 7 apterae, 6-VI-04.

**Remarks:** This species is a new record for Pakistan. Blackman and Eastop (1984) reported this species as a pest of same host from various parts of the world including neighboring country India.

Genus *Macrosiphoniella* del Guercio

***Macrosiphoniella sanborni* (Gillette, 1908)**

**Host plant:** Chrysanthemum (*Chrysanthemum* sp.)

Ecological comments: Medium sized dark red brown aphids were collected from undersides of the middle, top most leaves and stem of the host plant. Aphids were concentrated along the mid-ribs of the leaves. Leaves of the host plant were weakened and some were folded from margins. No ant attraction was found towards the leaves. Host plants were surrounded by the plants of their own species, various flowers, weeds and ornamental plants.

**Material Examined:**

Rawalpindi 5 apterae, 5-V-04; Attock 3 apterae, 10-V-03; Jhelum 7 apterae, 28-VI-04; Attock 8 apterae, 10-V-04.

**Remarks:** Irshad (2001) reported this species from the same host plant. In present studies, new locality records have been added.

Genus *Coloradoa* Wilson

***Coloradoa rufomaculata* (Wilson, 1908)**

**Host plant:** Chrysanthemum (*Chrysanthemum* sp.)

Ecological comments: Small sized green aphids were collected from undersides of the middle & top leaves and stems of the host plant. Aphids were concentrated along the mid-ribs of the leaves. Leaves of the host plants were weakened and some were folded from margins. There was ant attraction towards the leaves. Host plants were surrounded by the plants of their own species, various flowers, weeds and ornamental plants.

**Material Examined:**

Rawalpindi 5 apterae, 5-V-04; Attock 3 apterae, 10-V-04;

Jhelum 7 apterae, 28-IV-04; Attock 8 apterae, 10-V-04.

**Remarks:** This species is a new record for Pakistan. Blackman and Eastop (1984) reported this species as a pest of the same host all over the world.

Genus *Myzus* Passerini

***Myzus varians* (Davidson, 1912)**

**Host plant:** Peach (*Prunus mume*)

Ecological comments: Green aphids of medium size were collected from tightly curled young leaves of the host plant. Aphids were concentrated along the mid-ribs of the leaves. There was observed no ant attraction towards leaves.

**Material Examined:**

Rawalpindi 5 apterae, 3-III-04.

**Remarks:** This species is a new record for Pakistan. Blackman and Eastop (1984) reported this species as a pest of *Prunus persica* from various localities of the world.

***Myzus persicae* (Sulzer, 1776)**

**Host plants:** Sarson (*Brassica campestris*), Radish (*Raphanus sativus*), Tobacco (*Nicotiana tabacum*), Potato (*Solanum tuberosum*), Turnip (*Brassica rapa*), Chili (*Capsicum annum*), Carrot (*Daucus carota*) and Mustard (*Brassica nigra*)

Ecological comments: Small to medium sized, pale yellow green, dark green, pink aphids were collected from underside of the young leaves of the host plants. Aphids were concentrated along the mid-ribs of the leaves. There was found no ant attraction.

**Material Examined:**

Rawalpindi 15 apterae, 26-XI-04; Layyah 6 apterae, 4-II-04; Chakwal 6 apterae, 12-XII-03; Bakhar 7 apterae, 3-III-04; D. G. Khan 10 apterae, 22-XII-03; Muzaffar Garh 10 apterae, 6-III-04.

**Remarks:** Irshad (2001) reported this species from 21 different host plants. In present studies, new locality records have been added.

Genus *Macrosiphum* Oestlund

***Macrosiphum pachysiphon* (Hille-Ris-Lambers, 1966)**

**Host plant:** Rose (*Rosa* sp.)

Ecological comments: Medium to large sized, pale pink aphids were collected from undersides of the middle, upper most leaves and stems of the host plant. There was no ant attraction. Host plants were surrounded by the plants of their own species, various weeds and grasses.

**Material Examined:**

Murree 5 apterae, 17-XI-03; Rawalpindi 7 apterae, 2-X-03;

Chakwal 6 apterae, 10-IV-03; Attock 11 apterae, 12-XI-03.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab. In current studies, new locality records have been added.

***Macrosiphum euphorbiae* (Thomas, 1878)**

**Host plant:** Rose (*Rosa* sp.)

Ecological comments: Medium to large sized, yellowish green aphids were collected from undersides of the middle, upper most leaves and stems of the host plant. There was no ant attraction.

**Material Examined:**

Murree 5 apterae, 17-XI-03; Rawalpindi 7 apterae, 2-X-03;

Chakwal 6 apterae, 10-IV-03; Attock 11 apterae, 12-XI-03.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab. New locality records have been added in this study.

**Family Chaitophoridae**

Genus *Chaitophorus* Koch

***Chaitophorus murrensis* (Nasir, 1994)**

**Host plant:** Chanar (*Platinum orientalis*)

Ecological comments: Dark green aphids of medium size were collected from slightly folded leaves of the host plant. There was no ant attraction.

**Material Examined:**

Murree 9 apterae, 10-III-04.

**Remarks:** Nasir (1992) reported this species from same host plant in Punjab.

**Family Pemphigidae**Genus *Eriosoma* Leach***Eriosoma lanigerum* (Hausmann, 1802)****Host plant:** Apple (*Pyrus malus*)

Ecological comments: Small to medium sized, purple to reddish brown aphids were collected from trunk or branches of the host plant. Swellings were observed on the bark of the host plant. There was no ant attraction.

**Material Examined:**

Murree 16 apterae 5 alate, 19-XI-03; Rawalpindi 8 apterae, 3-III-04; Islamabad 8 apterae, 4-IV-04; Jhelum 6 apterae 5-V-03.

**Remarks:** Irshad (2001) and Nasir (1992) reported this species from the same host plant. In present studies, new locality records have been added.**Family Calliaphididae**Genus *Therioaphis* Walker***Therioaphis trifolii* (Monell, 1882)****Host plants:** Clover (*Trifolium* sp.) and Lucerne (*Medicago sativa*)

Ecological comments: Pale yellow to greenish white aphids of small size were collected from undersides of the younger leaves. There was no ant attraction. Host plants were surrounded by the plants of their own species, various trees, weeds and grasses.

**Material Examined:**

Layyah 4 apterae 7 alate, 28-V-03; Muzaffar Garh 2 apterae 3 alate, 25-XII-03; D.G. Khan 3 apterae, 3-III-04; Bakhar 5 apterae, 15-III-03.

**Remarks:** Irshad (2001) reported this species from 6 different host plants. New locality records have been added in this study.**CONCLUSION AND RECOMMENDATIONS**

During this study 24 aphid species belonging to 17 genera representing four aphid families viz., Aphididae, Callaphididae, Chaitophoridae, and Pemphigidae were recorded from rainfed region of the Punjab. Three aphid species viz., *Rhodobium porosum*, *Coloradoa rufomaculata*, and *Myzus varians* were recorded as new to Pakistan. Host range of these aphid species was also recorded in Murree, Islamabad, Rawalpindi, Chakwal, Jhelum, Mianwali, Muzaffargarh, Khushab, Layyah, D.G. Khan, Attock, Bakhar and Bahawalpur districts of Punjab Province. As *Schizaphis graminum* and *Rhopalosiphum padi* were recorded from wheat and dumbi grass (*Phalaris minor*), this gave a hint of possible management of the insect pest by the destruction of Dumbi grass (*Phalaris minor*) from wheat growing areas. In the limited scope of the present study, only 24 species of aphids were recorded whereas there would have been a number of other aphid species which needs that an extensive study be carried out to determine those species not yet reported from Punjab.

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