

CHECK LIST OF HETEROPTERA OF PARACHINAR (KHYBER PAKHTUNKHWA), PAKISTAN

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ABSTRACT

An investigation was carried out on Heteroptera fauna of Parachinar, located in west of Peshawar (Khyber Pakhtunkhwa, Pakistan). Twenty one species belonging eighteen genera from five different families (Pentatomidae, Lygaeidae, Reduviidae, Pyrrhocoridae and Belostomatidae) were collected from 2007-2010. The specimens were identified through fauna of British India and pertinent literature. Pentatomidae is dominant family having greater number of specimens. The species listed below are new record from the studied area. All the specimens have been deposited in the Zoological Museum University of Karachi.

Key Words: Faunistic, Heteroptera, Parachinar, First Record.

INTRODUCTION

The first mention of the true bugs (Hemiptera : Heteroptera) of Pakistan came with the series of Distant fauna of British India including Ceylon and Burma (1902,1904,1908). Since that time the publication of Ahmad (1979, 1980,1981), Ahmad et al (1986), Ahmad and Kamaluddin (1985, 1989), Ahmad and Perveen (1983), Abbasi (1986), Ahmad and McPherson (1990), Ahmad and Zahid (2004) , Memon, Ahmad and Kamaluddin (2004) has added significant part of Heteroptera species of Pakistan. Parachinar is an agricultural region of Khyber Pakhtunkhwa. The climate of this region is cold and hard with annual rain fall of 245-250mm.

Wheat, Rice, Maize, Sun-flower and vegetables e.g. potato, tomato, Pea, turnip, ladyfinger, onion, garlic and fruits such as apple, pear, apricot, walnut are the important crops and fruits of this locality.

Heteroptera are very important insects from agriculture point of view, and some of which are serious agriculture pests. On the other hand predacious bugs reduce the number of agricultural pests and may be used in biological control. Because of these reasons, identification of Heteroptera is important (Linnavuori and Hosseini, 2000). The Heteroptera insects feed on plant juices or live as predators. Many insects that feed on the plants are known as serious plants pests (Safavi, 1973).

This work provides the first provisional list of the true bugs fauna of Parachinar region.

MATERIALS AND METHODS

True bugs were collected from different localities of the studied area using different methods e.g. sweeping net, hand picking and light trap. All the specimens were mounted according to the standard method of (Ahmad and Kamaluddin 1986).

All the specimens were identified by the author and confirmed by the author supervisor using pertinent literature.

RESULTS AND DISCUSSION

In this study twenty one species belonging to 5 families of the Heteroptera have been collected. Family Pentatomidae is the dominant with ten species followed by family Lygaeidae and family Reduviidae with four species each. Family Pyrrhocoridae was represented by two and family Belostomatidae by one species only.

Table 1. Check list of heteroptera of Parachinar (Khyber Pakhtunkhwa), Pakistan.

	Family and Species Name	Date	Male	Female	Host	Locality
1.	Family Pentatomidae Leach (1815)	March-November	50	80	Maple, Mulberry.	Kirman, Zeran, Shalozan, Pewar, Alizai, Saddaa.
2.	<i>Halys fabricii</i> (1803)	April-July	11	21	Wheat, Potato, Wild grass.	Boughaki, Malana, Shengak, Pewar.
3.	<i>Andrallus Spinidens</i> Schouteden (1907)	February-December	30	60	Mulberry, Maple, Apricot.	Cosmopolitan in Parachinar.
4.	<i>Erthesena Pakistanesis</i> Ahmad (2003)	May-September	16	20	Tomato, Potato, Beans, Rice.	Kirman, Mali Kali, Shublan, Sadda, Ali Zai.
5.	<i>Nazara viridula</i> Linnaeus	April-October	12	16	Wheat, Rice, Maize, Mulberry	Kirman, Zeran, Malana, Airport, sadda, bilyamin, Shalozan.
6.	<i>Ahmadiana salices</i> Ahmad (1977)	August	20	13	Maize, wild grass	Kirman, Zeran, Besato, mahora.
7.	<i>Eurydema pakistanica</i> Ahmad (2000)	June, July, October	9	13	Wheat, Potat, Rice, Maize, wild grass	Zeran, Sultan, Pewar, Alizai, Nasticot
8.	<i>Eysarcoris</i> Stal (1872)	June-August	8	19	Maize, Wild grass	College colony, Norki, Balishkhel, Topaki.
9.	<i>Bagrada hilaris</i> Burmeister (1835)	March-September	18	31	Wheat, wild plants, Maize, Beans.	Airport, Sangina, Badama, Kirman.
10.	<i>Dalpada</i> Amyot and Serville (1843)	June-September	3	5	Wheat, Ground-nut.	Pewar, Luqmankhel
	<i>Dolycoris indicus</i> Stal (1876)					

**Family
Pyrrhocoridae
Dohrn (1859)**

- | | | | | | | |
|----|--|----------|---|----|-----------------------------|---|
| 11 | <i>Dysdercus cingulatus</i> Fabr (1775) | Aug, Sep | 6 | 18 | Pees, Tomato, Grass | Samir, Ali zai, Sadda. |
| 12 | <i>Antilochus conquberti</i> Fabr (1830) | Jun-Aug | 2 | 3 | Lady Fingers, Tomato, Grass | Kirman, College Colony, Parkhow, Borki. |

**Family Lygaeidae
Schilling (1829)**

- | | | | | | | |
|----|--|---------|---|---|---------------------------------|---------------------------|
| 13 | <i>Paromius seychellesus</i> Walk (1872) | Apr-Sep | 6 | 9 | Wheat, Maize, Wild bushes | Zeran, Malana, Maikey. |
| 14 | <i>Oncopeltus nigriceps</i> Dall (1852) | Jun-Jul | 3 | 3 | Dead leaves of different plants | Sultan, Samir. |
| 15 | <i>Nysius ceylanicus</i> Motsch (1863) | May | 1 | 2 | Wild bushes | Sultan, Bilyamin |
| 16 | <i>Tapropeltus contractus</i> Herrich Schaeffer (1835) | Sep-Oct | 3 | 6 | Wild bushes | Malikhel, Sadda, Ali zai. |

**Fmaily Reduviidae
Latreille (1807)**

- | | | | | | | |
|----|---|-------|----|----|----------------|--|
| 17 | <i>Acanthespis quinquespinoza</i> Fabr (1781) | June | 1 | 3 | Wild grass | Borki region attached to Afghanistan border. |
| 18 | <i>Acanthespis tergimina</i> Burm (1835) | July | -- | 2 | Wild grass | Shengak. |
| 19 | <i>Sirthena flavipis</i> Stal (1855) | May | 1 | -- | Ground | Malana |
| 20 | <i>Thodelmus fallani</i> Stal (1859) | Sept. | 1 | 2 | Apricot, grass | Boughaki, Luqmankhel |

**Family
Belastomatidae
Leach (1815)**

- | | | | | | | |
|-----|---|-----------|---|---|-----------------------------|--------------------------|
| 21. | <i>Belastoma indicum</i> Lepeletier and Serville (1825) | July- Aug | 2 | 3 | Ponds, Springs, Rice field. | Shalozan, Kirman, Zeran. |
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REFERENCES

- Abbasi, Q. A. (1986). Morpho-taxonomic studies of the family Pentatomidae Leach, 1815 (Heteroptera: Pentatomomorpha) of South Asia (Pakistan, Azad Kashmir and Bangladesh) with reference to the phylogeny of the group. *Pakistan Journal of Entomology*, suppl. 5: 279pp.
- Ahmad, I. and M. Zahid (2004). A revision of Ethiopian genus *Myrochea* Amyot and Serville (Hemiptera: Pentatomidae: Pentatominae: Myrocheini) with a note on its taxonomic position and phylogenetic relationships.
- Ahmad, I. (1979). A checklist of rice insects in Pakistan with reference to integrated control measures in the light of recent trends. *Records of the Zoological Survey of Pakistan*, 7(1-2)[1975]:121-131.
- Ahmad, I. (1981). A revision of the superfamilies Coreoidea and Pentatomoidea (Heteroptera: Pentatomomorpha) from Pakistan, Azad Kashmir, and Bangladesh. Part I: Additions and corections of coreid and pentatomid fauna with phylogenetic considerations. *Entomological Society of Karachi*, Suppl. no. 4, part 1[1979]: 113 pp.
- Ahmad, I. (1986). A fool-proof technique for inflation of male genitalia in Hemiptera (Insecta). *J. ent. Soc. Kar.* 1 (2) 111-112.
- Ahmad, I. and J. McPherson (1990). Male genitalia of the type species of *Corimelaena* white, *Cydnoidea* Malloch and *Galgupha* Amyot and Serville (Hemiptera:coromadiniae) and their bearing on classification. *Ann. Entomol. Soc. Am.*, 83(2): 162-170.
- Ahmad, I. and R. Perveen (1983). Review of the genus *Aschistocoris* Bergroth with description of two new species from the oriental region (Hemiptera: Coreidae: Coreinae). *Ann. Entomol. Soc. Am.*, 76 (5): 860-865.
- Ahmad, I. and S. Kamaluddin (1985). A new genus for *Caystrus aethiopicus* (Distant) (Pentatomoidae: Pentatominae: Myrocheini) with redescription of *Myrochea aculeate* (Westwood) and their relationship. *Annotationes Zoologicae et Botanicae*, 170: 10 pp.
- Ahmad, I. and s. Kamaluddin (1989). A revision of the tribe Caystrini Stal (Hemiptera: Pentatominae) from Indo-Pakistan subcontinent with description of two newspecies from Pakistan and their cladistic analysis. *Proceedings of the Pakistan Congress of Zoology*, 9: 169-183.
- Ahmad, I., N. Memon. And S. Kamaluddin (2004). A revision of Hyline stink bug genus *Erthesina* Spinola (Hemiptera: Pentatomidae: Pentatominae) and their cladistics. *Pakistan J. Zool.*, 36(4): 285-293.
- Ahmad, I. (1980). Insect fauna of Pakistan and Azad Kashmir, some group with in the order Hemiptera. *Proc. 1st Pakistan Congr. Zool.* pp. 115-155.
- Distant, W.L. (1902). *The fauna of British India including Ceylon and Burma*, Rhynchota (Heteroptera), Vol. 2.pp. 94-121, London.
- Distant, W.L. (1904). *The fauna of British India including Ceylon and Burma*, Rhynchota (Heteroptera), Vol. 2. pp1-487.
- Distant, W.L. (1908). *The fauna of British India including Ceylon and Burma*, Rhynchota (Heteroptera) Vol. 4. pp. 1-210.
- Hassanzadeh Mohammad, Reza Farshbaf Pourabad and Nouraddin Shyesteh (2009). An investigation on some Heteroptera in Marand region (Iran). *Mun.Ent.Zool.*, 4: 19-24.
- Hassanzadeh Mohammad, Reza Farshbaf, Mohammad Ali Gharaat and Ali Reza (2009). A study on the Heteroptera fauna of Shend Abad region and Environ (Iran). *Mun. Ent. Zool.*, 4: 527-530.
- Linnavuori, R.E. and R. Hosseini (2000). *Heteroptera of Guilan* Part 1. Guilan University, 94 pp.
- Nikdel Mostafa, Ali Asgar Dordaei and Armand Matocq (2011). Faunistic study on Hemiptera in Arasbaran area (East Azarbaijan Province, Iran). *Mun. Ent. Zool.*, 6: 389-395.
- Proc. Pakistan Congr. Zool.*, 24:141-154.
- Safavi, M. (1973). Cle de determination des familles d Hemipteres Heteropteres de I Iran. *J. E.S.I.*, 1(1). 3-11.

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