

## CHECKLIST OF SPIDERS (ORDER ARANEAE: CLASS ARACHNIDA) FROM THE CAMPUS OF UNIVERSITY OF KARACHI, SINDH, PAKISTAN

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### ABSTRACT

Spiders were collected for this checklist from the campus of the University of Karachi, Karachi, Sindh, Pakistan. The specimens were collected by hand-picking, pitfall traps and jarring methods. Thirty two species belonging to 25 genera and 14 families are reported based on the survey conducted during 2007 -2013.

**Key words:** Spiders, Checklist, Araneae, University of Karachi.

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### INTRODUCTION

Spiders are the most abundant predators in the terrestrial ecosystem. They feed on insects and different type of arthropods. Some 35000 species of the spiders have been identified in the world (Sahra & Saied, 2008). The important characteristics of spiders are the presence of carapace found on dorsal side of cephalothorax. Their jaws are called chelicerae having fangs, which are piercing device for injecting venom. Spiders produce silk through spinnerets, located on the ventral side of the abdomen (Razia *et al.*, 2007). They inhabit on the ground, underground tunnels systems, under stones and near water but habitually, they like moist place (Karren, 2002). Spiders vary in size, color and female spiders are larger than males (Kingsley, 1999). Some of the quantitative data on the spiders in Pakistan has been provided by earlier workers Pocock (1900), Dyal, (1935), Arshad *et al.*, (1984), Qurashi (1982), Khatoon, (1985), Butt and Beg (2001), Mushtaq and Qadir, (1999), Ghafoor and Beg (2002), Razzaq (2002), Perveen (2003), Mukhtar (2004), Tahir and Butt (2009), Ursani and Soomro (2010), (Perveen and Jamal , 2012 a and b), Perveen *et al.* (2012b), Sial and Chaudhry (2012), Khuhro *et al.*, (2012). Perveen *et al.* (2012a) have presented a key for the identification of spiders of FR Peshawar (FATA).

The aim of the present study was to identify spiders fauna collected from the University of Karachi during 2007-2013.

### MATERIALS AND METHODS

During the present Survey Spiders were collected from different areas of Karachi University. The method of collection was manual hand-picking, pitfall traps and jarring. The specimens were preserved in 70 % Alcohol and 5 % The sample were identified on the basis of their identified taxonomic characters and conformed and compared with the catalogue, literature, keys of spiders such as Thorell (1870; 1895), Dyal (1935), Pocock (1900), Kaston (1978), Tikader (1970; 1982), Tikader and Biswas (1981), Tikader and Malhotra (1980).

### RESULTS AND DISCUSSION

Urasani and Somooroo (2010) presented a checklist of spiders of Sindh especially from rural areas. A total of 132 species belonging to 24 families were reported by them. In the present studies on spiders of Karachi (urban area) a total of 32 species belonging 25 genera and 14 families were recorded. Family Salticidae was dominant family comprising 10 species and 8 genera while the Family Lycosidae the second largest family contained 3 genera and 6 species. The families representing only single species were Oxyopidae, Saprassidae, Pholicidae, Clubionidae etc. Twenty three species and 15 genera belonging to 9 families were reported from FR Peshawar, (Federal Administered Tribal Areas) FATA, Pakistan by Perveen and Ahmad (2012) and Perveen *et al.* (2012), A Preliminary Report on the Diversity of Spiders (Arachnida: Araneae) described 10 families, 32 genera and 62 species from the Cholistan Desert, Pakistan (Sial and Chaudhry (2012). Seven species of predatory spiders reported on cotton in Tandojam, Pakistan by Khuhro *et al.* (2012).

The current study provides a preliminary checklist of the spiders of Karachi. It is expected that it will serve to provide a base for future research on the poorly- studied spider fauna of Karachi. Following spiders were found in the campus of University of Karachi.

**Family Argiopidae Simon 1890**

- Genus *Cyrtophora* Simon 1864
- Cyrtophora citricola* (Forsskal, 1775)
- Genus *Argiope* Audouin, 1826
- Argiope aemula* Walck, 1857
- Argiopee kalimpongensis* Sinha, 1951

**Family Araneidae Simon, 1895**

- Genus *Neoscona* Simon, 1864
- Neoscona mukerjei* Tikader, 1980
- Neoscona nautica* (L. Koch, 1875)

**Family Clubionidae Wagner, 1887**

- Genus *Clubiona* Latreille, 1804
- Clubiona drassodes* O.P. Cambridge, 1874

**Family Ganaphosidae Pocock, 1898**

- Genus *Scotophaeus* Simon, 1893

**Family Lycosidae Sundevall, 1833**

- Genus *perdosa* C.L Koch. 1847 ; Thorell, 1872
- Pardosa minuta* Thorell, 1872 ; Tikadar & Malhotra 1976
- Perdosa domisestica*, Clerck, 1758
- Perdosa altitudes* Tikader & Malhotra 1980
- Genus *Lycosa* Latreille, 1804
- Lycosa maculate* Latreille (1804).
- Lycosa chaperi* Simon, 1885
- Genus *Hippasa* O.P, Cambridge, 1876

**Family Nephilidae Simon, 1894**

- Genus *Nephila* Leach, 1815
- Nephila clavipes* (Linnaeus 1767)

**Family Oxyopidae Thorell, 1870**

- Genus *Oxyopes* Latreille, 1804
- Oxyopes gavanlis*

**Family Pholcidae Koch, 1851**

- Genus *Artema* Walckenaer, 1837
- Artema atlanta*, Walckenaer, 1837

**Family Pisauridae Simon 1890**

- Genus *Thalassius* Simon, 1885
- Thalassius spinosissimus* Karsch, 1879

**Family Salticidae Blackwall, 1841**

- Genus *Plexippus*. C.L. Koch, 1841, 1846
- Plexippus. Paykulli* Saving & Audouin, 1825; Audouin, 1826
- Plexippus. petersi* Karsch, 1878
- Genus *Thyene* Simon, 1885
- Thyene Imperials* Rossi 1846
- Genus *Hasarius* Simon 1871
- Hasarius adansoni* Audouin, 1826
- Genus *Myrmarachne* Macleay, 1839
- Myrmarachna. bakri* n. sp.
- Myrmarachna plataeucdaed* O.P Cambridge, 1869
- Genus *Marpissa* C.L. Koch, 1846
- Marpissa formosa* Banks. 1892
- Genus *Thiania* C.L. Koch, 1846
- Thiania bhnoensis* Thorell 1887
- Genus *Phidippus* C.L. Koch, 1846

- Phidippus johnsoni* Peckham & Peckham, 1883  
 Genus *Sondra* Wanless 1988  
*Sondra.nepenthicla* Wanless 1988  
**Family Saprassidae Bertkau.1872**  
 Genus *Olios* Walckenaer, 1837  
*Olios.sp* Simon, 1897  
**Family Theridiidae , Sundevall, 1833**  
 Genus *Latrodectus* Walckenaer, 1805  
*Latrodectus mactans* (Fabricius, 1775)  
**Family Thomisidae Sundevall, 1833**  
 Genus *Thomisus* Walckenaer, 1805  
*Thomisus pugilis* Stoliczka, 1869  
*Thomisus labosus* Tikadar 1965  
 Genus *Xysticus* Koch, 1835  
*Xysticus roonwali* Tikader 1964  
*Xysticus shyamirupus* Tikadar, 1966  
**Family Uloboridae, Thorell, 1869**  
 Genus *Uloborus* Latreille, 1806  
*Uloborus danolius*, Tikadar, 1969

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