International Journal of Fauna and Biological Studies
Available online at www.faunajournal.com

IJFBS
International Journal of Fauna And Biological Studies

ISSN 2347-2677
IJFBS 2015; 2(4): 77-79
Received: 05-05-2015
Accepted: 09-06-2015

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# Biodiversity of spiders (Arachnida: Araneae) fauna of Gilgit Baltistan Pakistan

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## Abstract
Gilgit Baltistan is located in the northeastern part of Pakistan in the northerly regions that have an autonomous status in Pakistan. Nowadays this region is known as Gilgit-Baltistan, Gilgit–Baltistan formerly known as the Northern Areas is the northernmost administrative territory of Pakistan. It is an autonomous self-governing region that was established as a single administrative unit in 1970. It borders Azad Kashmir to the south, the province of Khyber Pakhtunkhwa to the west the Wakhan Corridor of Afghanistan. It covers an area of 72,971 km² (28,174 sq mi). The capital of this region is Gilgit. The spider fauna of Gilgit Baltistan is insufficiently known, few reports, however, are available. In the present study 29 species from 17 families under 25 genera are being reported during February 2014 to October 2014. Salticidae were most commonly occurred species.

**Keywords:** Spider, Pakistan, Biodiversity, Gilgit Baltistan.

## 1. Introduction
Spiders are the most abundant predator in the terrestrial ecosystem. They feed different types of insects, their larvae and arthropods eggs. It is belong to Class Arachnida, Order Araneae. They have 7th number of animal diversity in the world with count of 113 families 3873 genera under 43700 species are known worldwide (Normon I Panltanic Version 14.5 2014) [1]. From Pakistan, only few taxonomists, Dayl 1935 [2], Qurashi 1982 [3]Arshad *et al.* 1984, [4] Khatoon 1985-1986, [5] Mushtaq and Qadir 1999 [6], Butt A M A Baig 2001[7], Ghafoor A M A Baig 2002 [8], Razzaq 2002 [9], Razia 2003, [10], Khalid 2004. [11] O B kock 2004 [12, 13], Perveen e*t al.* 2007 [14], Tahir and Butt 2009 [15], Jabeen T *et al.* 2010 [16], Rajput S *et al.* 2012 [17], Perveen F *et al.* 2012, [18], Jabeen T *et al.* 2013 [19], M. Kazim *et al.* 2013 [20] worked on different species of spider.
Very scanty reports on the spider of Gilgit Baltistan are available, Caporiacco, 1935 [21], O B kock, *et al.*, 2004 [23], Yu. M. Marusik & F. Ballarin, 2011 [24], therefore, a survey was carried out. The present study will provided preliminary base data on biodiversity of spider of Gilgit Baltistan.it is expected that current data will enrich to existing knowledge of Pakistan spider and serve to provide a data base for future research.

## 2. Materials and Methods
Gilgit Baltistan is an important regional part of Pakistan. It is an autonomous self-governing region that was established as a single administrative unit in 1970. It is located in the north eastern part of Pakistan. Nowadays this region is known as Gilgit-Baltistan. Its location is 35.35 °N 75.9 °E total 72,971 km². The aims of present study are exploring biodiversity spiders of Gilgit Baltistan were carried out from February 2014-October 2014. Tree trunks forest net sweeping hand picking Visual searching Pitfall trap and using light traps total 1326 specimen belonging 29 species25 genera and 17families. The identification was done following Pocock. R I 1900 [25], T Thorell 1895 [26], Tikader 1982 [27] as well as authentic literature and expert of the family. After the complete study specimen are Preserved in 70% alcohol and few drops of glycerin and stored in department of Zoology and Entomology University of Karachi

## 3. Results and Discussion
In the present study 29 species belonging to 17 families under 25 genera were recorded out of 29 species Salticidae most commonly occurred while Lycosidae and Araneidae are shown

dominated in agriculture field. Salticidae are 12% and highest species diversity Araneidae are second largest in species and rest of the families has equal quantity.

Caporicco, 1935, describe 105 new arachnidae species from the Karakuram region (now belonging to Pakistan and India) but the current study deal biodiversity of spider Gilgit Baltistan which is under in Pakistan. O. Kok, *et al*. describe diversity and ecology of spider (Arachnidae–Arenrae) from Deossi pleatue North Pakistan A total 8757 specimen of spider representing 23 species 19 genera and 9 family But the current study deals Biodiversity of spider Gilgit Baltistan total 1326 specimens belonging to 17 families 25 genera and 29 species are reported.

**4. Acknowledgement**

The authors are thankful to Dr Dmitri Logunov UK, Dr Yuri M. Marusk Russia, Dr Charlis Haddad, South Africa Dr Gustavo Ruiz, Dr Matjaz Kuntner Philippine ,Henrard Arnaud, Dr Muhammad Tahir Sirgoda University for their help in conformation of some of species**.**

**Table 1:** Total Number of Family, Genera and Species of spider abundance Gilgit Baltistan Pakistan.

| S. No. | Families | No. of Genera | No. of species |
|---|---|---|---|
| 1 | Araneida | 02 | 04 |
| 2 | Clubionidae | 01 | 01 |
| 3 | Ganaphosidae | 01 | 01 |
| 4 | *Lycosidae* | 03 | 03 |
| 5 | Oxyopide | 01 | 01 |
| 6 | Pholcidae | 01 | 01 |
| 7 | Thomisidae | 02 | 02 |
| 8 | Theridiidae | 01 | 01 |
| 9 | Saparassida | 02 | 02 |
| 10 | Salticidae | 04 | 06 |
| 11 | Corinnidae | 01 | 01 |
| 12 | Filistatidae | 01 | 01 |
| 13 | Sicariidae | 01 | 01 |
| 14 | Scytodidae | 01 | 01 |
| 15 | Agelenidae | 01 | 01 |
| 16 | Miturgidae | 01 | 01 |
| 17 | Oecobiidae | 01 | 01 |
| | Total | 25 | 29 |

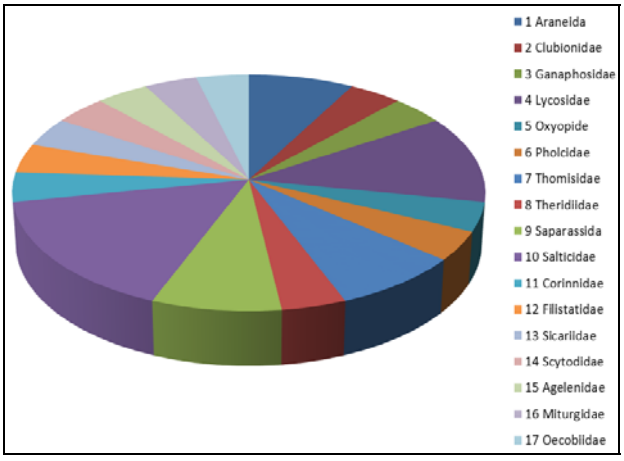


**Fig 2:** Families graphical representation / abundance in Gilgit Baltistan Pakistan

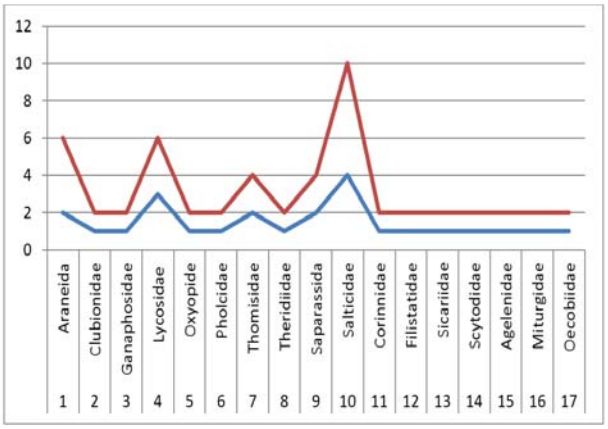


**Fig 3:** Graphical representation of Genera and Species of spider abundance Gilgit Baltistan Pakistan

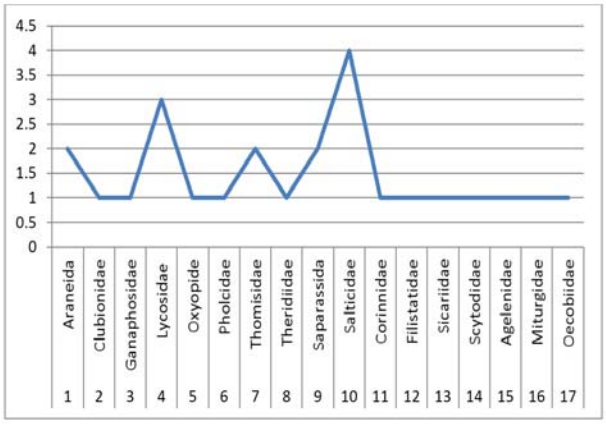


**Fig 4:** Graphical representation of Genera abundance Gilgit Baltistan Pakistan

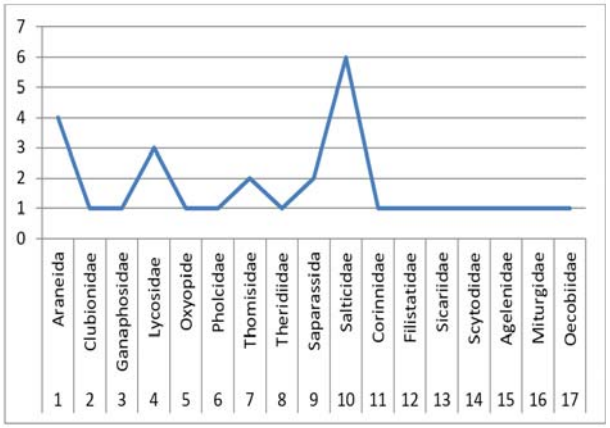


**Fig 5:** Representation of Species of spider abundance Gilgit Baltistan Pakistan

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