

FIRST RECORD OF THE VARIOUS FAMILIES OF COLLECTED SPIDERS FROM THE DISTRICT KECH, BALOCHISTAN, PAKISTAN

Insaf Ali¹, Tahira Jabeen², Jawaid Ahmed Khokhar³

^{1,2,3}Department of Zoology, University of Sindh Jamshoro Pakistan

¹naazbaloch110@gmail.com

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Corresponding Author: *

Insaf Ali

Abstract

Spider's fauna is broad and extended in all over the world it is very imperative to explore such parts of world where researchers could not get opportunities to go for research.

Pakistan is also having very important at climatic zones for spider surviving nature Pakistan includes four provinces Balochistan, KPK, Sindh and Punjab. Balochistan province provide best climatic zones for spiders

In Balochistan especially southern parts of Balochistan which are connected to border of Iran have good climatic habitat for spiders, southern parts of Balochistan includes Makran division, there is no any research have been done yet on spiders.

Their fore current research is focused on district Kech and its surroundings including four tehsils Turbat, Buleda, Tump and Dasht areas. Survey was based on checklist of spiders in district Kech Balochistan during the year 2020-21, Survey showed that specimens guilds and nine species from obtained.

INTRODUCTION

Spiders are most abundant species of invertebrates on land. Near about forty thousand species have been identified still in different countries of world. Spiders eat other insects by making their beautiful nest or directly attack them. Spiders are most widely hunter species of animal kingdom (Riechert and Lockley 1984).

Spiders are almost present in all ecosystems and organise utmost essential constituents of universal biological factors

Spider's play vital role in balancing ecosystem because of their predatory deeds and maintaining ecological symmetry.

Spiders are primordial and prosperous invertebrate and comprise few poisonous species of arthropods (Singh, *et al.*, 2014). Spiders wandering day and night, mainly at moderate temperature in night, in any habitat.

This survey provides awareness about the fauna of spiders in Balochistan but also enhance the researchers to discover hidden areas of Balochistan in Pakistan

Spiders (Phylum Arthropoda; Sub-Phylum Chelicerate; Class Arachnida; Order Araneae) special group of arthropods which balance the nature every, especially orb-web spiders present in crops, control dangerous pest in the field. Spiders control more than fifty percent of pest in filed (kajak, 1978). For further information, it is need to take awareness about to control pest through spiders in the different crops but unfortunately no serious steps have been taken by any governmental or non-governmental authorities. Being very closely association of cropland spiders playing vital role in economy of our countries

Present study is based on eco-morphometric collections of spiders from Turbat district Kech

Balochistan. We also integrated different species from district Kech Balochistan. It will be supportive for variant species in selected areas. Possibly will accompaniment to different species in various climatic zones. Spiders as predators help farmers for their economically support and help financially for their source of income

Geography of district Kech

Location and Boundary

Kech was confirmed a distinct district in 1977, though Makran was stated as division, consist of

three districts, namely Kech, Punjgur and Gwadar. The district name was changed from Turbat to Kech in 1995. Turbat is core city and it is headquarter of district Kech. It is the leading city of the district Kech as well as the executive center of Makran division. Kech district is located in the south and west of Balochistan Province, sharing its boundaries in the East with District Awaran and in the South district Gawadar. In the north-east district Panjgur is present District Kech also share its border with Iran in west.

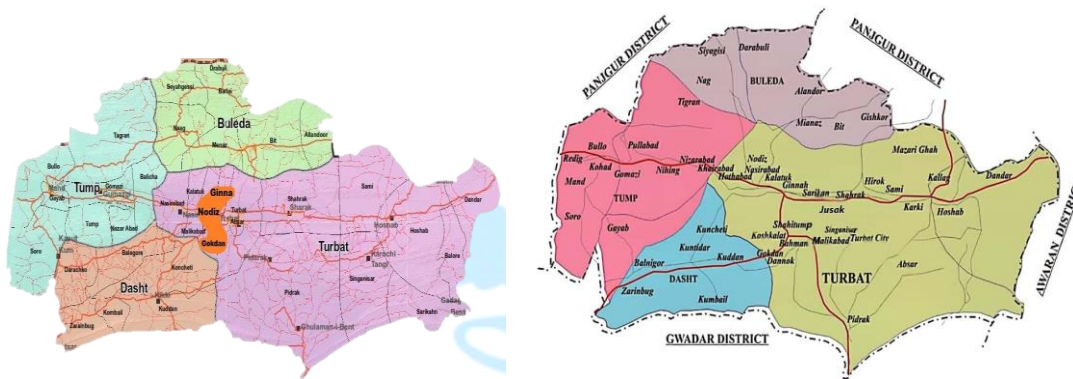


Figure no 01 Map map of district Kech

This research work is carried out for the first time on fauna of spiders from district Kech Baluchistan.

This study will provide reference line of data from different crops such as wheat, cotton, jawar, brassica. This data also provides good information from deserts, mountains, rivers, valleys, which will be helpful to establish and evaluate future management practices for different field in this area

2. MATERIALS AND METHODS

2.1 Collection of spiders:

Spiders were collected from area of Turbat, Dashat, and Kech Balochistan. Their about 735 spiders were collected from four tehsils of district Kech. The total specimen was collected nineteen hundred and fourteen. The collection of spiders was done from January 2021 to December 2022. The procedure of collection was manual hand picking, jarring and spray use to reduce ground spiders



Figure 2): collection of spiders from different area of district Kech Balochistan

Following procedure of collection of spiders were applied

2.2 Ground spider's assemblage: ground collection of spiders were sampled in different areas. In this method we collect spiders from ground, moist places, and mountainous regions sandy soil of great desert called Dashat of Kech. In hand picking method gloves were wear to collect spiders.

2.3 Arial hand assemblages: spider of tree and crops specially made their webs between branches of tree. This type of sampling used for orb web spiders

2.4 Sweep nest skill: spiders live in ceiling of house, on trees even for jumping spiders were also collected sweep nest were used with care, this method was very useful to collect spiders in different area

3) Identification of spiders

From different habitats and areas, Species were

collected by hand picking methods wear by gloves and net made by cloths. Identification were made by using microscopic, spiders were collected in different times and areas, spiders collections were collected in sandy area of Dsaht , mountainous area of Turbat. Spiders species wee compared with same areas, found differences with different habitat. Spiders were also evaluated in different regions of Kech Balochistan. Observations made on different patterns to identify the species. It is particularly noted which species are dominant in the Turbat Kech Balochistan, dominancy of species level was also made on basis of their habitat

04) Maintenance methods: Sampling of spiders were called and kept in vials, these vial were filled with 70% alcohol. Size of vials were small as easy to handling and bringing in the laboratory. each vials were labeled with name and collected areas. Species were brought in the laboratory of Sindh University Jamshoro for further investigation



Figure 05: using microscope for identification of the spiders in laboratory of Sindh university Jamshoro

spiders were also identified with available research papers from internet. After identification each spider were kept separately in vials. Identification were made on basis of morphometric character of different parts of body by reviewing literature from different articles Platnick (2006), Barrion and Litsinger (1995)

3) Results

Study of different species with their identifications provide lot of knowledge for researchers. Present survey is focused on District Kech, tehsil Turbat and Dasht are of Balochistan. Survey was done in January 2020 to December 2020 during survey about fifteen hundred specimens were collected randomly

Table. 1) Collection of spiders during the year of collection

S/NO	District Kech	Survey year	TESIL./ TALUKA	Male and female	No: of specimen	%age of male and females
1	District Kech	2022-23	TURBAT	♀) Female	201	74.%
				♂) Male	69	26 %
2			DASHT	♀) Female	190	73%
				♂) Male	70	27%
3			Buleda	♀) Female	130	76%
				♂) Male	40	24%
4			Tump	♀) Female	120	65%
				♂) Male	65	35%

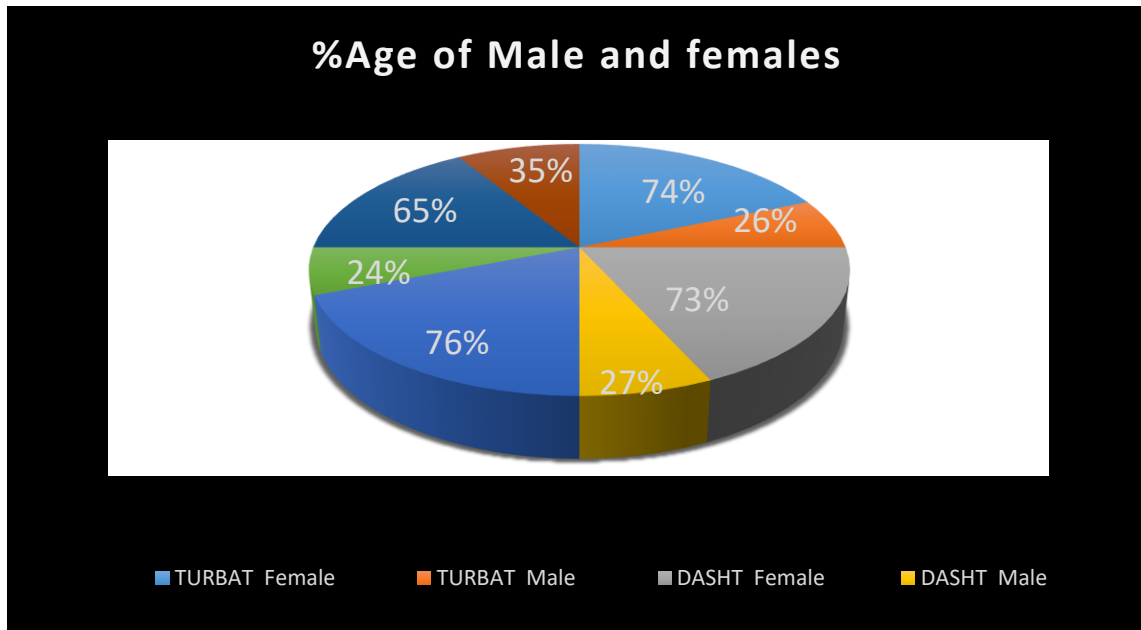


Figure 06: showing the percentage of the collected spiders of the Kech, Balochistan

Table No: 1 showing family wise spiders captured from district Kech Balochistan Pakistan

S/No	Name of species family	Habitat	Habits
1	Salticidae	Peripatetic and jumping spiders	Jumping spiders
2	Aglendae	Peripatetic spiders	Runners
3	Aranidae	Web builder	Orb web builders
4	Lycopsidae	Peripatetic spiders	Running/diurnal spiders
5	Tetragnathidae	Peripatetic spiders	diurnal spiders/nocturnal
6	Sparassidae	Web building spiders	Crab spiders
7	Thomicidae	Gross and leaves	Crab spiders
8	Theriddidae	Green leaves and grosses	Diurnal ruining spiders

Table 2: Collection of spiders from different fields, crop, deserted, mountain region of Kech Balochistan

S/No	Family	No of species	No specimen
1	Salticidae	1	180
2	Aglenidae	1	89
3	Lycosidae	2	98
4	Tetragnathidae	2	67
5	Sparassidae	2	70
6	Thomisidae	1	51
7	Aranedae	2	148
8	Oxyopidae	1	32
	TOTAL	12	735

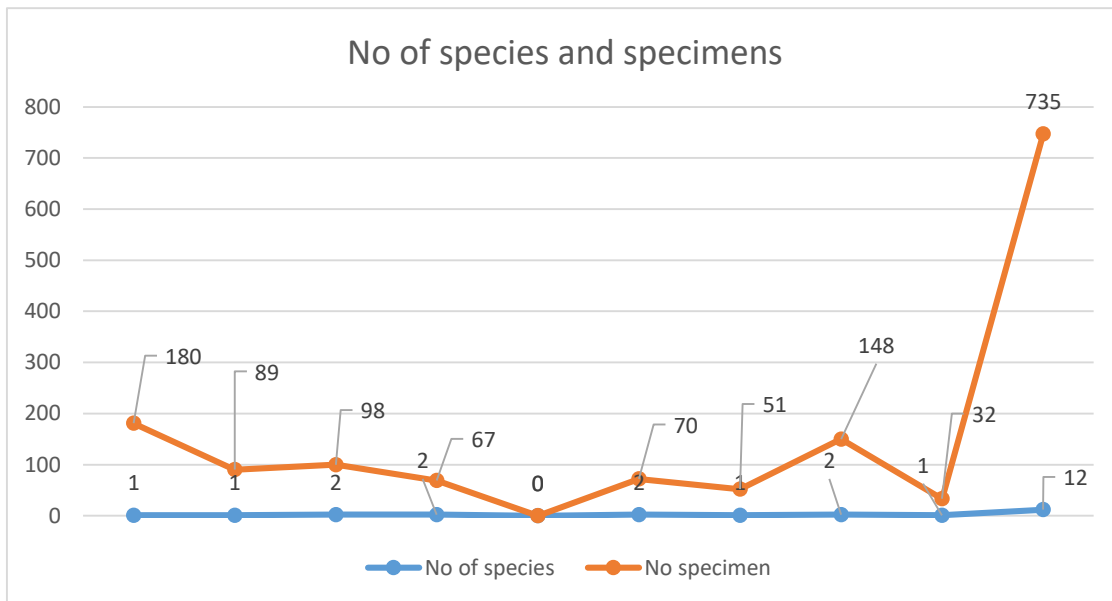


Figure 07) showing the charts of number of specimen and species from Kech, Balochistan



Figure: *Trochosa terricola* (Lycosidae).



Lycosa latreillei (Lycosidae).



Figure: *L. hesselti*, eridiidae



Figure: *Steatoda nobilis* (Theridiidae).

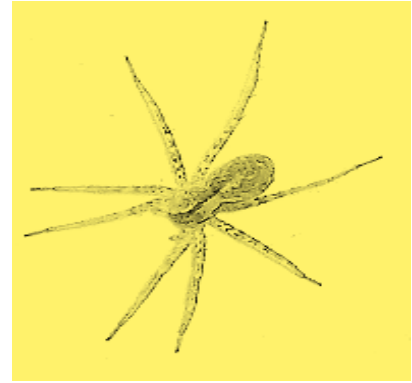


Figure: *Olios sericeus* ([Sparassidae](#)) Figure: *Olios argelasius* ([Sparassidae](#)). Figure: *Tegenaria parietina* ([Aglenidae](#))



Figure *Neoscona nautica* ([Araneidae](#))



Figure: *Oxyopus salticus* ([Oxyopida](#))



Figure: *Misumena vatia* ([Flower Crab Spider](#))



Figure: *P. paykolli saltcidae*([jumping spider](#))

4. Conclusion

This research work was newly and first time reported from the District Kech, Balochistan, Pakistan, during this research the author face several interruptions of the law in orders situation due to insurgences areas because research area also visited from where kul-bhoshan yadev Indian spy were arrested by army of Pakistan. Instead of that

dangers researcher collected 735 samples of specimens belongs to different families of the spiders. These total collections were sorted out into eight families Salticidae, Pholcidae, Lycopsidae, Tetragnathidae, Sparassidae, Thomcidae, Aranidae, Oxyopidae, and twelve species namely *Trochosa terricola* ([Lycosidae](#)), *Lycosa latreille*([Lycosidae](#), *L. hesselti*, ([Theridiidae](#)),

Steatoda noblis (Theridiidae), *Olios sericeus* (Sparassidae), *Olios argelasisus* (Sparassidae), *Tegenaria parietina* (Aglendidae), *Metapire spinipes* (Araneidae), *Neoscona nautica* (Araneidae), *Oxyopus salticus* (Oxyopidae), *Playxipus paykolli* (Salticidae), *Misumena vatia* (Flower Crab Spider). These species are first time reported from district Kech Balochistan, including poisonous spiders *Latrodectus hasselti* also recorded first time from Kech Balochistan Pakistan. It was also perceived that most of the areas of province Balochistan is virgin and must need to discover for different species of Spider's Fauna.

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