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FAUNAL DIVERSITY OF SPIDERS (CHELICERATA: ARANEAE) IN BIHAR AND JHARKHAND, INDIA

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Abstract: An updated checklist of faunal biodiversity of the spiders, in two eastern states of India, Bihar and Jharkhand is presented herewith. A total of 116 species of spiders described under 67 genera belonging to 23 families were recorded in both the states of east India. The species biodiversity of spiders is more in Bihar state (93 species, 55 genera, 21 families) than in Jharkhand (35 species, 27 genera, 13 families). Only 12 species overlap in distribution in both the states. However, most of the areas in both the states (26 districts out of 38 districts in Bihar and 15 districts out of 24 districts in Jharkhand) are still virgin regarding the faunal survey programmes and need intensive and extensive survey programmes in those areas by keen workers.

Keywords: Araneae, Bihar, Checklist, Faunal distribution, Jharkhand, Spiders.

INTRODUCTION

Spiders (Arachnida: Araneae) constitute that group of predatory arthropods that play a key role in food webs ecosystem by regulating population density of mostly insects in all ecosystems such as forest, grassland, agriculture, horticulture etc. (Wise, 1995). In addition, they are also almost harmless creatures for humans. In spite of these, the spiders are least popular because of pervasiveness of spider phobia (Zvaríková, 2021), particularly in women (Polák *et al.*, 2020). Globally, the order Araneae ranks seventh in (49,711 species in 4,232 genera belonging to 129 families, World Spider Catalog, 2021) after the five largest insect orders (Coleoptera, Lepidoptera, Hymenoptera, Diptera, Hemiptera) and one arachnid order (Acari) in terms of species diversity (Sharma *et al.*, 2020). In India, 2344 species described under 596 genera comprising 65 families are enlisted (Singh and Singh, 2021), however, Caleb and Sankaran (2021) listed only 1877 species belonging to 479 genera in 60 families. However, there exist many species in the wild and museums that still await description and classification. Most of the areas in India are still await intensive and extensive faunal survey programme. The conservation status of 99.5% of the species has not been appraised by the IUCN globally (Seppälä *et al.*, 2018). Despite recent research works on the diversity and distribution of spiders in India, their number is insufficient as compared to the other parts of the world. The perusal of literature shows that the available information on the spiders of these states is in the scattered form and more than 60% of the areas have not yet been surveyed for faunal distribution of spiders. The present article enlists the spider fauna of these two states recorded in different districts.

MATERIALS AND METHODS

The present checklist is based on the published literature on the spiders recorded from Bihar and Jharkhand in recent past books, book chapters, journals, proceedings, records of Zoological Survey of India, Kolkata, few authentic theses, websites, and World Species Catalog (WSC, 2021) up to October 19, 2021. In most of the literature published earlier, there were several errors in the scientific names of the spiders even in the recent publications. In the present checklist, attempts have been made to correct the errors in the scientific names of the spiders following WSC (2021). If a spider species is identified only up to a generic level, it was considered as species only if no other species of that genus is reported within that district/state. In few cases, the locations of spider species are corrected, particularly of those spiders that were described/recorded during the British period and even after the independence of India (1947) till the carving of Jharkhand from Bihar in the year 2000. Biswas and Biswas (1992) and Majumder (2005) mentioned only Bihar as locality for few spider species. For synonymy of spiders, WSC (2021) may be consulted.

RESULTS AND DISCUSSION

A total of 116 species of spiders were reported from these two northern states out of which only 12 species were common in both the states. A total of 93 species of spiders belonging to 55 genera and 21 families were reported from Bihar while 35 species of spiders described under 27 genera belonging to 13 families were recorded from Jharkhand. Ten families of spiders (Agelenidae, Cheiracanthiidae, Clubionidae, Corinnidae, Dictynidae, Liocranidae, Oecobiidae, Philodromidae, Tetrablemmidae, Theridiidae) recorded in Bihar were not reported from Jharkhand. Similarly, 2 families of spiders (Idiopidae, Selenopidae) recorded from Jharkhand were not reported from Bihar. However, more than 60% of the areas in both the states are still virgin regarding the faunal survey programmes and need an intensive and extensive survey in those areas by keen workers. Following is the family-wise list of spiders recorded in both the states.

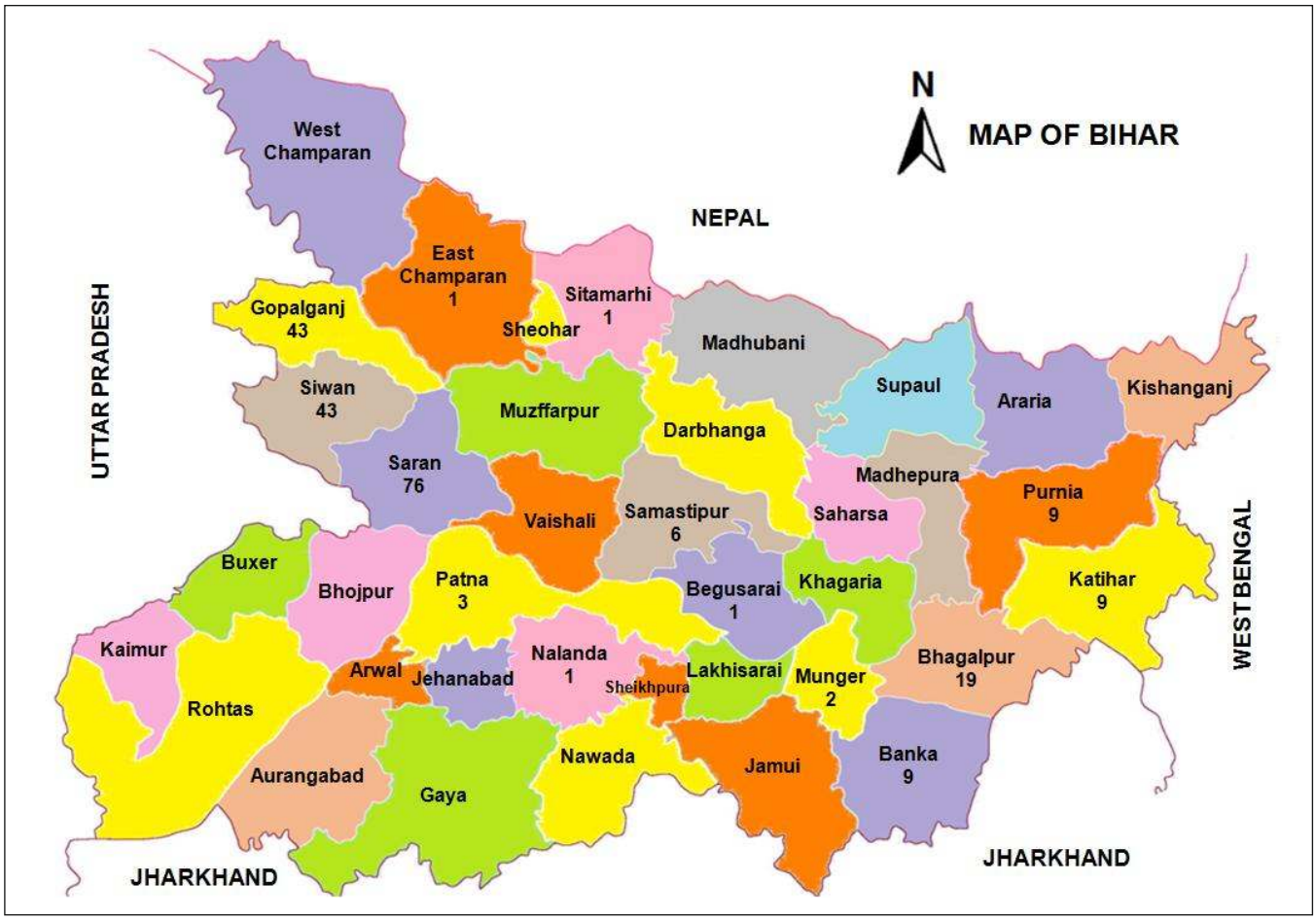

Fig. 1: Number of species of spiders described/recorded from different districts of Bihar.

A. BIHAR

Bihar is one of the eastern states of India with an area of 94,163 km^2 and an average elevation above sea level of 53 m. Bihar is located in between latitudes 24°20'10"N and 27°31'15"N and longitudes 83°19'50"E and 88°17'40"E. It is an entirely land–locked state, bordered with Nepal to the north, with West Bengal to the east, with Jharkhand to the south and Uttar Pradesh to its west. The Bihar has three geographical regions based on physical and structural conditions: the Southern Plateau, the Shivalik Region, and the Gangetic Plain which is itself divided into North and South Bihar by the river Ganges which flows west-east and along with its tributaries, regularly floods parts of the Bihar plain in rainy season. The reserve forest area of Bihar is 6,845 km^2. Bihar lies in the Subtropical region of the Temperate Zone with humid subtropical climate and has a yearly average of 26°C. In northern part, particularly in the Champaran district, there are moist deciduous forests, mixed with shrubs, grass and reeds. The Bihar has one National Park, Tiger reserve and few wildlife sanctuaries. About 60% of the total geographical area of Bihar is cultivated area. The principal agricultural crops are rice, paddy, potato, wheat, sugarcane, jute, vegetables, maize, oil seeds etc. The state is administratively divided into 38 districts (Fig. 1).

As far as, taxonomic study of spider in Bihar is concerned, Narayan (1915) was probably the first who had described two species of jumping spiders (Salticidae), *Myrmarachne incerta* and *Myrmarachne laeta flava* from Samastipur and Katihar districts, respectively and also recorded four more salticids, *Myrmaplata plataleoides* (O. Pickard-Cambridge, 1869), *Myrmarachne laeta* (Thorell, 1887), *Myrmarachne manducator* (Westwood, 1841), and *Myrmarachne prava* (Karsch, 1880) from Saran and Katihar districts. In the same year, Gravely (1915) recorded two species of spiders, *Chilobrachys hardwickei* (Pocock, 1895) and *Poecilotheria miranda* Pocock, 1900 from Munger district. Later on, Gravely (1921, 1924, 1931) described four species, *Draposa oakleyi* (Gravely, 1924), *Lycosa mackenziei* Gravely, 1924, *Tetragnatha sutherlandi* Gravely, 1921, *Trochosa punctipes* (Gravely, 1924) and recorded 22 species of spiders from different parts of Bihar. Among the Indian authors during post-independent period, Sinha (1951) was the first to recorded nine species from different localities of Bihar. Later on, many authors have described/recorded several species from different districts of Bihar. Regarding the faunal survey, Yadav *et al*. (2015, 2016) recorded 14 species of spiders from paddy fields of Sabour (Bhagalpur district). Goswami *et al*. (2015) recorded 10 species from Bhagalpur and Banka districts of Bihar. Later, Priyadarshini *et al*. (2015, 2018) studied the biodiversity, community structure and seasonal variations of 43 species of spiders from Saran districts. The perusal of literature reveals that maximum number of species of spiders is reported from Saran district (76 species) followed by Gopalganj and Siwan districts (43 species in each) (Fig. 1). Out of 38 districts of Bihar, no survey programme was conducted in 24 districts till now. Most of the wildlife sanctuaries, forest areas, national park, agricultural fields of the state still await intensive and extensive survey programmes to record these ecologically and economically important predatory chelicerates.

Following is the checklist of spider fauna recorded from different districts of Bihar.

1. Family Agelenidae

- *Tegenaria domestica* (Clerck, 1757) [Priyadarshini *et al*., 2015]

2. Family Araneidae

- *Araneus diadematus* Clerck, 1757 [Priyadarshini *et al*., 2015, 2018]
- *Araneus mitificus* (Simon, 1886) [Priyadarshini *et al*., 2015, 2018]
- *Araneus* sp. [Priyadarshini *et al*., 2015; Goswami *et al*., 2015]
- *Argiope aemula* (Walckenaer, 1837) [Priyadarshini *et al*., 2015]
- *Argiope anasuja* Thorell, 1887 [Priyadarshini *et al*., 2015]
- *Argiope pulchella* Thorell, 1881 [Priyadarshini *et al*., 2015]
- *Cyclosa bifida* (Doleschall, 1859) [Priyadarshini *et al*., 2015, 2018]
- *Cyrtophora* sp. [Priyadarshini *et al*., 2015]
- *Gasteracantha kuhli* C.L. Koch, 1837 [Tikader, 1982]

- *Neoscona crucifera* (Lucas, 1838) [Priyadarshini *et al*., 2015, 2018]
- *Neoscona mukerjei* Tikader, 1980 [Yadav *et al*., 2015, 2016; Priyadarshini *et al*., 2015, 2018]
- *Neoscona nautica* (L. Koch, 1875) [Priyadarshini *et al*., 2015, 2018]
- *Neoscona theisi* (Walckenaer, 1837) [Yadav *et al*., 2016]
- *Neoscona* sp. [Priyadarshini *et al*., 2015; Goswami *et al*., 2015]
- *Nephila kuhlii* (Doleschall, 1859) [Priyadarshini *et al*., 2015, 2018]
- *Nephila pilipes* (Fabricius, 1793) [Priyadarshini *et al*., 2015, 2018]
- *Thelacantha brevispina* (Doleschall, 1857) [Tikader and Biswas, 1981]
- *Trichonephila clavata* (L. Koch, 1878) [Yadav, 2018]

3. Family Cheiracanthiidae
- *Cheiracanthium insigne* O. Pickard-Cambridge, 1874 [Gravely, 1931; Majumder and Tikader, 1991]
- *Cheiracanthium melanostomum* (Thorell, 1895) [Gravely, 1931; Majumder and Tikader, 1991; Biswas and Majumder, 1995]

4. Family Clubionidae
- *Clubiona drassodes* O. Pickard-Cambridge, 1874 [Gravely, 1931; Majumder and Tikader, 1991]
- *Clubiona filicata* O. P.-Cambridge, 1874 [Priyadarshini *et al*., 2015, 2018]

5. Family Corinnidae
- *Castianeira zetes* Simon, 1897 [Saman and Nath, 2019]

6. Family Dictynidae
- *Argyroneta aquatica* (Clerck, 1757) [Chandra *et al*., 2021]

7. Family Gnaphosidae
- *Drassodes luridus* (O. Pickard-Cambridge, 1874) [Gajbe, 1988]
- *Gnaphosa* sp. [Priyadarshini *et al*., 2018]

8. Family Hersiliidae
- *Hersilia savignyi* Lucas, 1836 [Gajbe, 2004; Gajbe, 2007]
- *Hersilia* sp. [Priyadarshini *et al*., 2015]

9. Family Liocranidae
- *Oedignatha carli* Reimoser, 1934 [Majumder and Tikader, 1991]
- *Oedignatha scrobiculata* Thorell, 1881 [Biswas and Biswas, 1992; Majumder, 2005]

10. Family Lycosidae
- *Crocodilosa leucostigma* (Simon, 1885) [Gravely, 1924; Sinha, 1951]
- *Draposa burasantiensis* (Tikader and Malhotra, 1976) [Majumder, 2005]
- *Draposa oakleyi* (Gravely, 1924) [Gravely, 1924; Sinha, 1951; Tikader and Malhotra, 1980; Tikader and Biswas, 1981]
- *Hippasa pisaurina* Pocock, 1900 [Gravely, 1924; Sinha, 1951; Tikader and Malhotra, 1980]
- *Hogna stictopyga* (Thorell, 1895) [Gravely, 1924]
- *Lycosa mackenziei* Gravely, 1924 [Gravely, 1924; Sinha, 1951; Tikader and Malhotra, 1980; Tikader and Biswas, 1981]
- *Lycosa madani* Pocock, 1901 [Gravely, 1924; Sinha, 1951; Tikader and Malhotra, 1980]
- *Lycosa nigrotibialis* Simon, 1884 [Tikader and Malhotra, 1980; Gajbe, 2004]
- *Lycosa phipsoni* Pocock, 1899 [Sinha, 1951]
- *Ocyale pilosa* (Roewer, 1960) [Gravely, 1924; Tikader and Malhotra, 1980]
- *Pardosa pseudoannulata* (Bösenberg and Strand, 1906) [Gravely, 1924; Sinha, 1951; Tikader, 1964; Tikader and Malhotra, 1980; Tikader and Biswas, 1981; Gajbe, 2007; Goswami *et al*., 2015; Yadav *et al*., 2016]
- *Pardosa* sp. [Priyadarshini *et al*., 2015; Saman and Nath, 2019]
- *Pardosa sumatrana* (Thorell, 1890) [Gravely, 1924; Sinha, 1951; Tikader and Malhotra, 1980; Tikader and Biswas, 1981; Gajbe, 2007]
- *Pirata* sp. [Yadav *et al*., 2016; Goswami *et al*., 2015]
- *Trochosa punctipes* (Gravely, 1924) [Gravely, 1924; Tikader and Malhotra, 1980]
- *Wadicosa fidelis* (O. Pickard-Cambridge, 1872) [Sinha, 1951; Tikader and Malhotra, 1980; Tikader and Biswas, 1981; Gajbe, 2004, 2007; Saman and Nath, 2019]

11. Family Oecobiidae
- *Oecobius* sp. [Priyadarshini *et al*., 2015]

12. Family Oxyopidae
- *Oxyopes bharatae* Gajbe, 1999 [Gajbe, 1999]
- *Oxyopes biharensis* Gajbe, 1999 [Gajbe, 1999]
- *Oxyopes javanus* Thorell, 1887 [Priyadarshini *et al*., 2015, 2018; Goswami *et al*., 2015; Yadav *et al*., 2015, 2016]
- *Oxyopes lineatipes* (C.L.Koch, 1847) [Yadav *et al*., 2016; Priyadarshini *et al*., 2015, 2018]
- *Oxyopes rufisternis* Pocock, 1901 [Gajbe, 2008]
- *Oxyopes salticus* Hentz, 1845 [Yadav *et al*., 2015, 2016]
- *Oxyopes shweta* Tikader 1970 [Priyadarshini *et al*., 2018]
- *Oxyopes* sp. [Priyadarshini *et al*., 2015]
- *Peucetia biharensis* Gajbe, 1999 [Gajbe, 1999]

13. Family Philodromidae
- *Philodromus* sp. [Priyadarshini *et al*., 2015]

14. Family Pholcidae
- *Crossopriza lyoni* (Blackwall, 1867) [Priyadarshini *et al*., 2015]
- *Leptopholcus podophthalmus* (Simon, 1893) [Priyadarshini *et al*., 2015]
- *Pholcus phalangioides* (Fuesslin, 1775) [Priyadarshini *et al*., 2015, 2018]

15. Family Salticidae
- *Bianor* sp. [Goswami *et al*., 2015; Yadav *et al*., 2016; Saman and Nath, 2019]
- *Hasarius adansoni* (Audouin, 1826) [Priyadarshini *et al*., 2015, 2018]
- *Hasarius sp.* [Goswami *et al*., 2015; Yadav *et al*., 2016]
- *Helpis minitabunda* (L. Koch, 1880) [Priyadarshini *et al*., 2015, 2018]
- *Menemerus* sp. [Priyadarshini *et al*., 2015]
- *Myrmaplata plataleoides* (O. Pickard-Cambridge, 1869) [Narayan, 1915; Tikader, 1973; Priyadarshini *et al*., 2015]
- *Myrmarachne incerta* Narayan, 1915 [Narayan, 1915]
- *Myrmarachne laeta* (Thorell, 1887) [Narayan, 1915]
- *Myrmarachne laeta flava* Narayan, 1915 [Narayan, 1915]
- *Myrmarachne manducator* (Westwood, 1841 [Narayan, 1915]
- *Myrmarachne melanocephala* MacLeay, 1839 [Priyadarshini *et al*., 2015, 2018]
- *Myrmarachne prava* (Karsch, 1880) [Narayan, 1915]
- *Plexippus paykulli* (Audouin, 1826) [Priyadarshini *et al*., 2015, 2018]
- *Plexippus petersi* (Karsch, 1878) [Priyadarshini *et al*., 2015, 2018]

16. Family Sparassidae
- *Heteropoda sexpunctata* Simon, 1885 [Gravely, 1931; Sethi and Tikader, 1988]
- *Heteropoda venatoria* (Linnaeus 1767) [Sethi and Tikader, 1988]
- *Hetropoda* sp. [Priyadarshini *et al*., 2015]
- *Olios milleti* (Pocock, 1901) [Gravely, 1931; Sethi and Tikader, 1988]
- *Olios obesulus* (Pocock, 1901) [Gravely, 1931; Sethi and Tikader, 1988]
- *Olios punctipes* Simon, 1884 [Gravely, 1931; Sethi and Tikader, 1988]
- *Olios stimulator* (Simon, 1897) [Gravely, 1931; Sethi and Tikader, 1988]
- *Olios tener* (Thorell, 1891) [Gravely, 1931; Sethi and Tikader, 1988]
- *Olios wroughtoni* (Simon, 1897) [Sethi and Tikader, 1988]
- *Olios* sp. [Priyadarshini *et al*., 2015]
- *Palystes flavidus* Simon, 1897 [Tikader and Sethi, 1990]
- *Spariolenus tigris* Simon, 1880 [Gravely, 1931; Sethi and Tikader, 1988]

17. Family Tetrablemmidae
- *Tetrablemma medioculatum gangeticum* Lehtinen, 1981 [Lehtinen, 1981]

18. Family Tetragnathidae
- *Guizygiella indica* (Tikader and Bal, 1980) [Priyadarshini *et al*., 2015, 2018]
- *Leucauge celebesiana* (Walckenaer, 1841) [Yadav *et al*., 2016]
- *Leucauge decorata* (Blackwall, 1864) [Gravely, 1921; Tikader, 1982; Priyadarshini *et al*., 2015]
- *Leucauge* sp. [Goswami *et al*., 2015]
- *Tetragnatha ceylonica* O. Pickard-Cambridge 1869 [Gravely, 1921]

- *Tetragnatha javana* (Thorell, 1890) [Gravely, 1921; Tikader and Biswas, 1981; Yadav *et al*., 2015, 2016]
- *Tetragnatha keyserlingi* Simon, 1890 [Goswami *et al*., 2015; Yadav *et al*., 2015, 2016]
- *Tetragnatha mandibulata* Walckenaer, 1842 [Gravely, 1921; Yadav *et al*., 2015, 2016]
- *Tetragnatha sutherlandi* Gravely, 1921 [Gravely, 1921]
- *Tetragnatha vermiformis* Emerton, 1884 [Gravely, 1921]
- *Tetragnatha* sp. [Priyadarshini *et al*., 2015]

19. Family Theraphosidae
- *Chilobrachys hardwickei* (Pocock, 1895) [Gravely, 1915; Siliwal *et al*., 2011]
- *Poecilotheria miranda* Pocock, 1900 [Gravely, 1915]

20. Family Theridiidae
- *Latrodectus* sp. [Priyadarshini *et al*., 2015]
- *Theridion* sp. [Priyadarshini *et al*., 2015]

21. Family Thomisidae
- *Indoxysticus minutus* (Tikader, 1960) [Priyadarshini *et al*., 2015, 2018]
- *Thomisus* sp. [Goswami *et al*., 2015; Yadav *et al*., 2016]

B. JHARKHAND

The state Jharkhand was carved in 2000, from the Bihar state and is located in between latitudes 21°58'10''N and 25°18'N and longitudes 83°19'50''E and 87°57'E. It is an entirely land–locked state like Bihar. The state is bordered with the states of Bihar to the north, West Bengal to the east, Odisha to the south, Chhattisgarh to the west and Uttar Pradesh to the northwest. It has an area of 79,716 km^2. Much of Jharkhand lies on the Chota Nagpur Plateau with several hills through which many rivers pass. The important rivers of the State are Ganges, Son, South Koel, Baitarni and Damodar. Much of the Jharkhand state is still enclosed by forest (23,611 km^2) and has one National Park and 11 Wildlife Sanctuaries. Total agricultural land is about 13,845 km^2. Jharkhand has tropical climate with annual rainfall of about 100 cm. Temperature varies between 4°C to 47°C. The Jharkhand is administratively divided into 24 districts (Fig. 2). The state has a rich variety of flora and fauna. In spite of that, spider fauna is very poorly known. Out of 24 districts, spiders are known only from 9 districts which demonstrate that no attempt was made to discover spider fauna of this state.

Taxonomic study of spider in Jharkhand seems to begin with Pocock (1900) who described the first species of spider in Jharkhand, *Poecilotheria miranda* from Chota Nagpur area and recorded another species, *Chilobrachys hardwickei* (Pocock, 1895) from the same place. Thereafter, Gravely (1915) described a species of spider, *Heligmomerus biharicus* from Sahibganj district of Jharkhand and recorded two more species of spiders, *Chilobrachys hardwickei* (Pocock, 1895) from the same place and *Poecilotheria miranda* Pocock, 1900 from West Singhbhum district of Jharkhand. Later on, Gravely (1921, 1931) recorded 4 species, *Tetragnatha javana* (Thorell, 1890); *Tetragnatha mandibulata* Walckenaer, 1842; *Tetragnatha geniculata* Karsch, 1892; *Makdiops montigena* (Simon, 1889) from West Singhbhum; and *Heteropoda sexpunctata* Simon, 1885 from Sahibganj districts of Jharkhand. Among the Indian authors during post-independent period, Sinha (1951) was the first to describe a species of wolf spider, *Arctosa khudiensis* (Sinha, 1951) from Dhanbad district and also recorded *Pardosa pseudoannulata* (Bösenberg and Strand, 1906) from the same place and *Trochosa punctipes* (Gravely, 1924) from Ramgarh district of Jharkhand. Thereafter, several species of spiders were described/ recorded from few districts of Jharkhand by several workers as mentioned in the following checklist. First survey for spider fauna was conducted by Agrawal and Ghose (1995) was conducted in Palamau Tiger Reserve located in Latehar district of Jharkhand and reported 7 species of spiders. Since then, no serious attempt was made regarding the study of spider fauna in this state. Very recently, two species, *Selenocosmia kulluensis* Chamberlin, 1917 from West Singhbhum (Anonymous, 2021) and *Paraplectana* sp. (Kumar, 2021) from Horab Jungle of Namkum, Ranchi were seen and reported by newspapers.

The perusal of literature reveals that maximum number of species of spiders is reported from West Singhbhum district (12 species) followed by

Dhanbad and Ranchi districts (11 species in each) (Fig. 2), Latehar (6 species), Sahibganj (4 species), Hazaribagh (3 species), Ramgarh (2 species), and Koderma and Palamu (single species in each) districts. Out of 24 districts of Jharkhand, no survey programme was conducted in 15 districts till now. Most of the wildlife sanctuaries, forest areas, national park, agricultural fields etc. of the state like Bihar still await intensive and extensive survey programmes by keen research workers to record these ecologically and economically important predatory arthropods.

Fig. 2: Number of species of spiders described/recorded from different districts of Jharkhand.

Following is the checklist of spider fauna recorded from different districts of Jharkhand.

1. Family Araneidae

- *Argiope anasuja* Thorell, 1887 [Tikader, 1982]
- *Argiope lobata* (Pallas, 1772) [Tikader, 1982]
- *Eriovixia excelsa* (Simon, 1889) [Tikader and Biswas, 1981; Tikader, 1982]
- *Neoscona mukerjei* Tikader, 1980 [Agrawal and Ghose, 1995]
- *Nephilengys malabarensis* (Walckenaer, 1841) [Tikader, 1982]
- *Paraplectana* sp. [Kumar, 2021]

2. Family Gnaphosidae

- *Callilepis pawani* Gajbe, 1983 [Gajbe, 1983]
- *Gnaphosa pauriensis* Tikader and Gajbe, 1977 [Gajbe, 1988]
- *Haplodrassus chotanagpurensis* Gajbe, 1987 [Gajbe, 1987]

3. Family Hersiliidae

- *Hersilia savignyi* Lucas, 1836 [Agrawal and Ghose, 1995; Gajbe, 2007]

4. Family Idiopidae

- *Heligmomerus biharicus* (Gravely, 1915) [Gravely, 1915]

5. Family Lycosidae
- *Arctosa khudiensis* (Sinha, 1951) [Sinha, 1951; Tikader and Malhotra, 1980]
- *Draposa atropalpis* (Gravely, 1924) [Tikader and Malhotra, 1980]
- *Draposa oakleyi* (Gravely, 1924) [Tikader and Biswas, 1981]
- *Lycosa carmichaeli* Gravely, 1924 [Agrawal and Ghose, 1995]
- *Lycosa mackenziei* Gravely, 1924 [Tikader and Biswas, 1981]
- *Lycosa mahabaleshwarensis* Tikader and Malhotra, 1980 [Agrawal and Ghose, 1995]
- *Pardosa pseudoannulata* (Bösenberg and Strand, 1906) [Sinha, 1951; Tikader and Biswas, 1981]
- *Trochosa punctipes* (Gravely, 1924) [Sinha, 1951]
- *Wadicosa fidelis* (O. Pickard-Cambridge, 1872) [Tikader and Malhotra, 1980; Tikader and Biswas, 1981]

6. Family Oxyopidae
- *Peucetia betlaensis* Saha and Raychaudhuri, 2006 [Saha and Raychaudhuri, 2006]

7. Family Pholcidae
- *Pholcus fragillimus* Strand, 1907 [Huber, 2011]

8. Family Salticidae
- *Bianor angulosus* (Karsch, 1879) [Logunov, 2000]
- *Bianor balius* Thorell, 1890 [Logunov, 2000]
- *Phlegra dhakuriensis* (Tikader, 1974) [Agrawal and Ghose, 1995]

9. Family Selenopidae
- *Makdiops montigena* (Simon, 1889) [Gravely, 1931; Crews and Harvey, 2011]

10. Family Sparassidae
- *Heteropoda sexpunctata* Simon, 1885 [Gravely, 1931; Sethi and Tikader, 1988]

11. Family Tetragnathidae
- *Tetragnatha andamanensis* Tikader, 1977 [Agrawal and Ghose, 1995]
- *Tetragnatha geniculata* Karsch, 1892 [Gravely, 1921]
- *Tetragnatha javana* (Thorell, 1890) [Gravely, 1921; Tikader and Biswas, 1981]
- *Tetragnatha mandibulata* Walckenaer, 1842 [Gravely, 1921; Tikader and Biswas, 1981]

12. Family Theraphosidae
- *Chilobrachys hardwickei* (Pocock, 1895) [Pocock, 1900; Gravely, 1915; Siliwal *et al*., 2011]
- *Poecilotheria miranda* Pocock, 1900 [Pocock, 1900; Gravely, 1915; Siliwal *et al*., 2011]
- *Selenocosmia kulluensis* Chamberlin, 1917 [Anonymous, 2021]

13. Family Thomisidae
- *Tharpyna* sp. [Agrawal and Ghose, 1995]

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