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 km² 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 km². 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 platoleoides* (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, 2018]
   - *Argiope pulchella* Thorell, 1881 [Priyadarshini et al., 2015, 2018]
   - *Cyclosa bifida* (Dolenschall, 1859) [Priyadarshini et al., 2015, 2018]
   - *Cyrtophora sp.* [Priyadarshini et al., 2015, 2018]
   - *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]

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 aquatic* (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 oakeleyi* (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 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]
• *Pardosa 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]
• *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]
• *Helpsi 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]

16. Family Sparassidae
• *Heteropoda sexpunctata* Simon, 1885 [Gravely, 1931; Sethi and Tikader, 1988]
• *Heteropoda venatoria* (Linnaeus 1767) [Sethi and Tikader, 1988]
• *Heteropoda* 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 wrougtoni* (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 kuluensis* 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 pouiriensis* 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 fragilimus* 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]

**REFERENCES**

1. Agrawal V.C. and Ghose R.K. (1995). *Fauna of Conservation Areas No. 8: Fauna of Palamau Tiger Reserve*. Zoological Survey of India, Kolkata. pp. 83-103.

2. Majumder S.C. (2005). Studies on some spiders from eastern coastal region of India. *Memoirs of the Zoological Survey of India*. 20(3): 1-57.

3. Anonymous (2021). Prabhat Khabar Digital, Updated Jun 29, 2021. https://www.prabhatkhabar.com/state/jharkhand/singhbhum-west/tarantula-spider-in-jharkhand-rare-species-of-spider-seen-in-saranda-of-west-singhbhum.

4. Biswas B. and Biswas K. (1992). *Araneae: Spiders*. In: *State Fauna Series 3: Fauna of West Bengal Part 3*. Zoological Survey of India, Kolkata, pp. 357-500.

5. Caleb J.T.D. and Sankaran P.M. (2021). Prabhat Khabar Digital, Araneae of India, version 2021. https://indianspiders.in, accessed on October 19, 2021.

6. Chandra K., Bharti D., Kumar S., Raghunathan C., Gupta D., Alfred J.R.B. and Chowdhury B.R. (2021). *Faunal Diversity in Ramsar Wetlands of India*. Zoological Survey of India, Kolkata. pp. 1-292.

7. Crews S.C. and Harvey M.S. (2011). The spider family Selenopidae (Arachnida, Araneae) in Australasia and the Oriental region. *ZooKeys*. 99: 1-103.
8. Gajbe P.U. (2004). Spiders of Jabalpur, Madhya Pradesh (Arachnida: Araneae). Records of the Zoological Survey of India, Occasional Paper No. 227: 1-154.

9. Gajbe U.A. (1983). On three new species of spiders of the genus Callilepis Westring (Family: Gnaphosidae) from India. Records of the Zoological Survey of India, 81: 127-133.

10. Gajbe U.A. (1987). A new Haplodrassus spider from India (Araneae: Gnaphosidae). Bulletin of the Zoological Survey of India. 8: 277-279.

11. Gajbe U.A. (1988). On a collection of spiders of the family Gnaphosidae from India (Araneae: Arachnida). Records of Zoological Survey of India. 85(1): 59–74.

12. Gajbe U.A. (1999). Studies on some spiders of the family Oxyopidae (Araneae: Arachnida) from India. Records of the Zoological Survey of India. 97(3): 31-79.

13. Gajbe U.A. (2007). Araneae: Arachnida. In: State Fauna Series 15. Fauna of Madhya Pradesh (including Chhattisgarh), Part 1 (Ed. Director), Zoological Survey of India, Kolkata, pp. 419-540.

14. Gravely F.H. (1915). Notes on Indian mygalomorph spiders. Records of the Indian Museum, Calcutta. 11: 257-287.

15. Gravely F.H. (1921). Some Indian spiders of the subfamily Tetragnathinae. Records of the Indian Museum, Calcutta. 22: 423-459.

16. Gravely F.H. (1924). Some Indian spiders of the family Lycosidae. Records of the Indian Museum, Calcutta. 26: 587-613.

17. Gravely F.H. (1931). Some Indian spiders of the families Ctenidae, Sparassidae, Selenopidae and Clubionidae. Records of the Indian Museum, Calcutta. 33: 211-282.

18. Huber B.A. (2011). Revision and cladistic analysis of Pholcus and closely related taxa (Araneae, Pholcidae). Bonner Zoologische Monographien. 58: 1-509.

19. Kumar, S. (2021). Jharkhand updates, July 9, 2021; https://jharkhandupdates.com/first-time-in-the-country-ladybird-mimic-spider-found-in-namkum-jungle-of-jharkhand/

20. Lehtinen P.T. (1981). Spiders of the Oriental-Australian region. III. Tetrablemmidae, with a world revision. Acta Zoologica Fennica. 162: 1-151.

21. Logunov D.V. (2000). A redefinition of the genera Bianor Peckham and Peckham, 1885 and Harmochirus Simon, 1885, with the establishment of a new genus Sibianor gen. n. (Aranei: Salticidae). Arthropoda Selecta. 9: 221-286.

22. Majumder S.C. and Tikader B.K. (1991). Studies on some spiders of the family Clubionidae from India. Records of the Zoological Survey of India, Occasional Paper No. 102: 1-175.

23. Narayan K. (1915). Notes on ant-like spiders of the family Attidae in the collection of the Indian Museum. Records of the Indian Museum, Calcutta. 11: 393-406.

24. Polák J., Sedláčková K., Landová E. and Frynta D. (2020). Faster detection of snake and spider phobia: revisited. Heliyon 6:e03968. doi: 10.1016/j.heliyon.2020.e03968

25. Priyadarshini N., Kumari R., Pathak R.N. and Pandey A.K. (2015). Biodiversity and Community structure of spiders in Saran, part of Indo-Gangetic Plain, India. Asian Journal of Conservation Biology. 4(2): 121-129.

26. Priyadarshini N., Kumari R., Kumar A. and Pandey A.K. (2018). Diversity and seasonal variation of spiders community in a tropical region: a case study in Saran, Bihar, India. Ecology, Environment and Conservation Paper. 24(1): 263-269.

27. Saha S. and Raychaudhuri D. (2006). Lynx spiders (Oxyopidae: Araneae) from Betla....
31. Saman A. and Nath G.T. (2019). Soil surface dwelling insects and spiders in katarni rice nursery at Sabour, Bihar. *Indian Journal of Entomology*. 81(4): 694-696.

32. Seppälä S., Henriques S., Draney M.L., Foord S., Gibbons A.T., Gomez L.A., Kariko S., Malumbres-Olarte J., Milne M., Vink C.J. and Cardoso P. (2018). Species conservation profiles of a random sample of world spiders I: Agelenidae to Filistatidae. *Biodiversity Data Journal*. 6:e23555. doi: 10.3897/BDJ.6.e23555.suppl10

33. Sethi V.D. and Tikader B.K. (1988). Studies on some giant crab spiders of the family Heteropodidae from India. *Records of the Zoological Survey of India, Kolkata, Miscellaneous Publication No*. 93: 1–94.

34. Siliwal M., Molur S. and Raven R. (2011). Mygalomorphs of India: An overview. *ENVIS Bulletin: Arthropods and their Conservation in India*. 14(1): 175-188.

35. Sinha T.B. (1951). On the collection of lycosid spiders in the Zoological Survey of India, (Indian Museum) with critical notes on the species. *Records of the Indian Museum, Calcutta*. 48: 9-52.

36. Tikader B.K. and Biswas B. (1981). Spider fauna of Calcutta and vicinity: Part-I. *Records of the Zoological Survey of India, Occasional Paper*. 30: 1-149.

37. Tikader B.K. and Malhotra M.S. (1980). *Fauna of India, Araneae, Vol. 1, Part 2 Lycosidae (Wolf-spiders)*, Zoological Survey of India, Kolkata, pp. 248-447.

38. Tikader B.K. (1964). Zoological results of the Indian Cho-Oyu Expedition (1958) in Nepal. Part 8 - Arachnida. *Records of the Indian Museum, Calcutta*. 59: 257-267.

39. Tikader B.K. (1973). Studies on some ant-like spiders from India (family: Salticidae). *Proceedings of the Indian Academy of Science*. 78(B): 59-67.

40. Tikader B.K. (1982). *The Fauna of India, Spiders: Araneae, Part 1 Family Araneidae (=Argiopidae) Typical Orb-Weavers; Part 2 Family Gnaphosidae*. Zoological Survey of India, Kolkata, pp. 1-536.

41. WSC (2021). World Spider Catalog. Version 22.0. Natural History Museum Bern, online at http://wsc.nmbe.ch, accessed on 19 October, 2021.

42. Wise D.H. (1995). *Spiders in Ecological Webs*. Cambridge: Cambridge University Press, pp. 328.

43. Yadav M., Goswami T.N., Anil and Ray S.N. (2015). Diversity of spider fauna in transplanted paddy ecosystem at Sabour, Bihar. The Recent Trends in Biotechnology and Biodiversity, conference paper, T. N. B. College, Bhagalpur, Bihar, pp. 82-83.

44. Yadav M., Goswami T.N., Anil and Ray S.N. (2016). Species composition of spider-fauna in paddy ecosystem throughout the cropping period at Sabour, Bihar, India. *Ecology, Environment and Conservation*. 22(2), 719-722.

45. Yadav R.S. (2018). First report of *Nephila clavata* L. Koch, 1878 (Araneae: Araneidae) from Bihar and Uttar Pradesh, India. *Journal of Entomology and Zoology Studies*. 6(1): 754-756.

46. Zvaríková M., Prokop P., Zvarík M., Ježová Z., Medina-Jerez W. and Fedor P. (2021). What makes spiders frightening and disgusting to people? *Frontiers in Ecology and Evolution*. 9: doi.org/10.3389/fevo.2021.694569.