GESA
GLOCAL ENVIRONMENT & SOCIAL ASSOCIATION

International Journal of Biological Innovations
http: //ijbi.org.in | http://www.gesa.org.in/journals.php
https://doi.org/10.46505/IJBI.2022.4105
IJBI 4(1): 51-63 **(2022)**
E-ISSN: 2582-1032

AN UPDATED CHECKLIST OF SPIDERS (ARACHNIDA: ARANEAE) OF GOA, INDIA

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Article Info:
Review Article
Received
01.01.2022
Reviewed
25.01.2022
Accepted
30.01.2022

Abstract: An updated checklist of spider diversity in Goa is presented herewith. A total of 173 species of spiders described under 128 genera belonging to 23 families are enlisted that have been recorded/described/located from all subdistricts of Goa. A total of 32 species recorded from Goa were identified only upto generic level. Most speciose family of spider recorded in Goa is Araneidae (37 species) followed by Salticidae (35 species), Thomisidae (20 species), Theriidae (14 species), Tetragnathidae (13 species) and other families with less than 10 species. The maximum number of spider species were recorded from Quepem subdistrict of South Goa (123 species), followed by Tiswadi (85 species), Ponda (36 species), Dharbandora (21 species), Salcete and Sanguem (19 species each), Canacona (17 species), Sattari (15 species), Bardez (12 species), Mormugao (7 species), Bicholim (5 species), and Pernem (3 species). Most of the national parks and wildlife sanctuaries, forest areas, agricultural fields, human dwellings etc. within the state still await intensive and extensive surveys to record the spider fauna.

Keywords: Checklist, Faunal distribution, Goa, India, Spiders.

Cite this article as: Singh R. and Singh B.B. (2022). An updated checklist of spiders (Arachnida: Araneae) of Goa, India. *International Journal of Biological Innovations*. 4(1): 51-63. https://doi.org/10.46505/IJBI.2022.4105.

INTRODUCTION

All the members of the order Araneae are commonly called as spiders (Arthropoda: Chelicerata: Arachnida). They are amongst the most common and abundant predators in terrestrial ecosystems throughout the world preying mostly on insects. The order Araneae ranks seventh (49,853 species in 4,238 genera belonging to 131 families, World Spider Catalog, 2022) after the five largest orders of insects (Coleoptera, Lepidoptera, Hymenoptera, Diptera, Hemiptera) and one order of Arachnids (Acari) in terms of species diversity. Despite recent research on the faunistic biodiversity of spiders in India, their recorded number is less as compared to other parts of the world. In spite of having a very

rich biodiversity and a tropical climate with biodiversity hotspots, the best account so far of only 2344 species described under 596 genera comprising 65 families (Singh and Singh, 2021a), however, Caleb and Sankaran (2022) listed only 1891 species belonging to 484 genera in 60 families.

Araneological studies in Goa date back to Tikader and Bal (1981) with the description of one species (Neoscona molemensis) from Molem from Dharbandora subsdistrict of South Goa. Later, Tikader (1982) described one species (*Herpyllus goaensis*) from Tiswadi and recorded two more species. Later on, Sethi and Tikader (1988) recorded two more species, *Heteropoda sexpunctata* Simon, 1885 and *Spariolenus tigris* Simon, 1880 from Mormugao and Tiswadi subdistricts of Goa, respectively; and Majumder and Tikader (1991) recorded *Cheiracanthium melanostomum* (Thorell, 1895) and *Cheiracanthium triviale* (Thorell, 1895) from Tiswadi (North Goa) and Salcete and Sanguem (South Goa), respectively. In the current century, Bastawade and Borkar (2008) enlisted 39 valid species of spiders from different localities of Goa. Later on, Kanesharatnam and Benjamin (2016) described the third species, *Bristowia gandhii* from Dharbandora and Salcete subdistricts of South Goa. In recent years, Pandit and Pai (2017) recorded 63 valid species from Tiswadi island of North Goa; Halarnkar and Pai (2018) listed 38 species from Tiswadi and Ponda subdistricts (South Goa); and Pandit and Dharwadkar (2020) recorded 123 valid species of spiders from Chandranath Hill located in Quepem subdistrict of South Goa.

Species inventory is one of the prime requirements for setting up biodiversity conservation action plan for any given area. The conservation status of 99.5% of the spider species has not yet been appraised by the IUCN globally (Seppälä *et al.,* 2018). The perusal of literature demonstrates that the available information on the species diversity of spiders of the Goa is scattered and several areas have either not yet been surveyed or little survey works have been conducted for understanding the faunal distribution of spiders. Recently, the checklist of spider fauna of northeast Indian states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura) (Singh and Singh, 2021b), north and northwest Indian states (Haryana, Himachal Pradesh, Punjab), and two union territories (Chandigarh, Delhi) (Singh and Singh, 2021c), Bihar and Jharkhand (Singh and Singh, 2021d), Uttar Pradesh and Uttarakhand (Singh and Singh, 2022a), Rajasthan (Singh and Singh, 2022b), Andaman and Nicobar Islands, Puducherry and Lakshdweep (Singh and Singh, 2022c), Madhya Pradesh (Singh and Sharma, 2022) and Chhattisgarh (Singh BB and Singh, 2021) of India have been compiled. The objective of this study is to bring together an authoritative list of all spiders in the state Goa located on the southwestern coast of Peninsular India.

MATERIAL AND METHODS

Site Description

Goa (latitude: 14°53'54" N and 15°40'00" N; longitude: 73°40'33" E and 74°20'13" E; area: 3,702 km^2) is smallest state of India located on the southwestern coast within the Konkan region and is geographically separated from the Deccan highlands by the Western Ghats. It is bordered by the Maharashtra state to the north and Karnataka to the east and south, with the Arabian Sea to its western coast of 160 km (Fig. 1). Altitude of Goa varies from the Sea level to 1,167 m (Sonsogor). There are seven major rivers in Goa: Chapora, Galgibag, Mandovi, Sal, Talpona, Terekhol and Zuari. Two rivers, Zuari and the Mandovi are the most important and are interspaced by the Kumbarjua canal, forming a major estuarine complex. These rivers are fed by the Southwest monsoon rain and their basin covers 69% of the state's geographical area (Hiremath, 2003). Goa has more than 40 estuarine, eight marine, and about 90 riverine islands. The soil of Goa is mostly alluvial and loamy and is made up of laterites rich in ferric-aluminum oxides and reddish in colour and humus, thus conducive to agriculture. Goa having a tropical monsoon climate, has a hot and humid climate for most of the year with three distinct seasons: southwest monsoon period (June–September), post-monsoon period (October–January), and pre-monsoon period (February–May) (Hiremath, 2003), May is usually the hottest, seeing daytime

temperatures of over 35 °C coupled with high humidity with average annual rainfall of 300 cm. Administratively, Goa is divided into two districts: North Goa and South Goa, further subdivided into talukas (subdistricts). North Goa is divided into five suvdistricts: Bardez, Bicholim, Tiswadi Pernem and Sattari; and South Goa is subdivided into seven subdistricts: Canacona, Dharbandora, Mormugao, Quepem, Ponda, Salcete and Sanguem (Fig. 1). The equatorial forest covers 34.5% of the total area (1,424 km^2) mostly located in the interior eastern regions of the state. The Western Ghats, which form most of eastern Goa, have been internationally recognised as one of the biodiversity hotspots of the world (Sebastian *et al.*, 2012). The main food crop is rice and pulses while cash crops are coconut, cashew nut, sugarcane and fruits. Goa has several National Parks and wildlife sanctuaries, major ones are Salim Ali Bird Sanctuary (on the island of Chorão), the Bondla Wildlife Sanctuary (in Ponda), Molem Wildlife Sanctuary (in Dharbandora), Cotigao Wildlife Sanctuary (in Canacona), Madei Wildlife Sanctuary (in Sattari), Netravali Wildlife Sanctuary (in Sanguem), and Bhagwan Mahaveer Wildlife Sanctuary (Dharbandora).

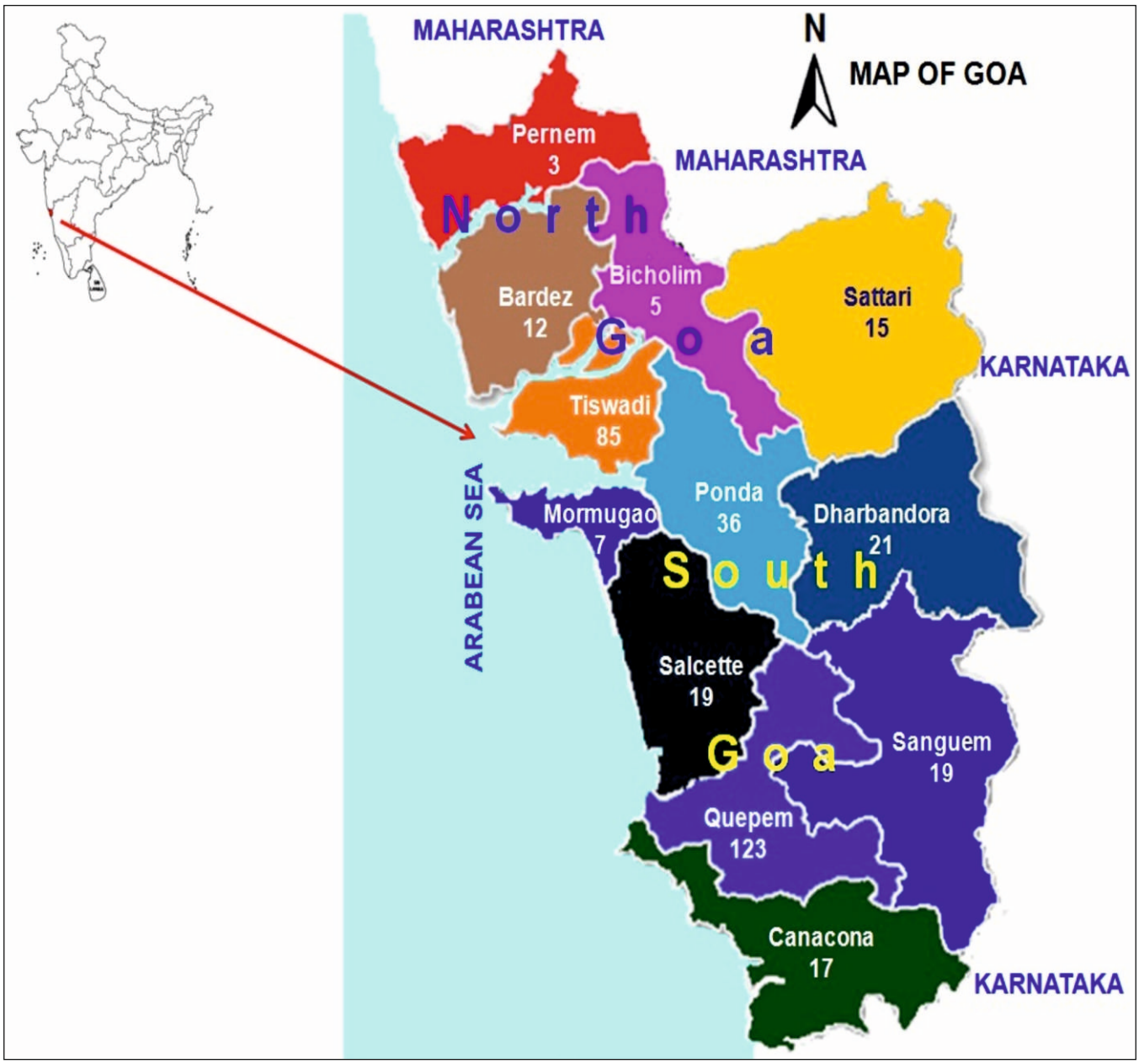

Figure 1. Map of Goa showing the number of species of spiders recorded in different subdisricts of North and South Goa districts.

The present checklist is based on the published literature on the spiders from India from books, book chapters, journals, proceedings of conferences, Records of the Zoological Survey of India, Kolkata, few authentic theses, websites, and World Spider Catalog (WSC, 2022) up to January 30, 2022. In most of the literature published earlier, there were several errors in the scientific names of the spiders even in the recent publications because the researches on spider taxonomy like other taxa are continued with the description of new taxa, their modified status, and the publication of other nomenclatural decisions and clarifications. In the present checklist, attempts have been made to correct the errors in the scientific names of the spiders following WSC (2022).

For synonymy and endemism of valid spider species, the following references may be referred to for 23 families of spiders recorded in Goa, e.g. Araneidae (Singh and Singh, 2021a), Cheiracanthiidae (Singh *et al.,* 2020a), Clubionidae (Singh BB *et al.,* 2020), Corinnidae (Singh *et al.,* 2021), Eresidae (Sharma *et al.,* 2021), Gnaphosidae (Singh and Singh, 2021e), Hersiliidae (Singh *et al.,* 2020b), Linyphidae (Sharma *et al.,* 2020), Lycosidae (Singh, 2021a), Oxyopidae (Singh, 2021b), Philodromidae (Singh and Singh, 2021f), Pholcidae (Tiwari *et al.,* 2021a), Pisauridae (Tiwari and Singh, 2021), Pscheridae (Tiwari *et al.,* 2021b), Salticidae (Singh *et al.,* 2020c, d, e, f), Scytodidae (Singh BB *et al.,* 2021), Sparassidae (Singh, 2021c), Tetragnathidae (Singh, 2021d), Theraphosidae (Singh and Singh, 2020), Theridiidae (Singh, 2021e), Thomisidae (Singh and Singh, 2021g), and Uloboridae (Singh and Singh, 2021h).

RESULTS AND DISCUSSION

Total number of species recorded in different subdistricts of two districts, North Goa and South Goa are displayed in Table 1.

Table 1: Number of species of spiders recorded in different subdisricts of North and South Goa districts.

	Families/Species	Distribution	References
1.	**Araneidae**		
	Anepsion maritatum (O.P.-Cambridge, 1877)	Quepem, Tiswadi	Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Arachnura angura Tikader, 1970	Quepem	Pandit and Dharwadkar, 2020
	Araneus viridisomus Gravely, 1921	Quepem	Pandit and Dharwadkar, 2020
	Araneus sp.	Ponda, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018
	Argiope aemula (Walckenaer, 1837)	Quepem, Tiswadi	Bastawade and Borkar, 2008; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Argiope anasuja Thorell, 1887	Bardez, Canacona, Dharbandora, Quepem, Sanguem, Sattari, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Argiope pulchella Thorell, 1881	Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Argiope sp.	Ponda, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018
	Bijoaraneus mitificus (Simon, 1886)	Quepem	Pandit and Dharwadkar, 2020
	Chorizopes sp.	Quepem	Pandit and Dharwadkar, 2020
	Cyclosa bifida (Doleschall, 1859)	Quepem	Pandit and Dharwadkar, 2020
	Cyclosa hexatuberculata Tikader, 1982	Tiswadi	Bastawade and Borkar, 2008
	Cyclosa insulana (Costa, 1834)	Ponda, Tiswadi	Halarnkar and Pai, 2018
	Cyclosa spirifera Simon, 1889	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Cyclosa sp.	Ponda, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018
	Cyrtophora cicatrosa (Stoliczka, 1869)	Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Cyrtophora citricola (Forskal, 1775)	Ponda, Tiswadi	Bastawade and Borkar, 2008; Halarnkar and Pai, 2018

	Families/Species	Distribution	References
	Cyrtophora feae Thorell, 1887	Sanguem	Bastawade and Borkar, 2008
	Cyrtophora unicolor (Doleschall, 1857)	Quepem	Pandit and Dharwadkar, 2020
	Eriovixia laglaizei (Simon, 1877)	Ponda	Bastawade and Borkar, 2008; Halarnkar and Pai, 2018
	Eriovixia sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Gasteracantha dalyi Pocock, 1900	Sanguem, Sattari	Anonymous, 2022
	Gasteracantha geminata (Fabricius, 1798)	Mormugao, Quepem, Sanguem	Bastawade and Borkar, 2008; Anonymous, 2022; Pandit and Dharwadkar, 2020
	Gasteracantha kuhli C.L. Koch, 1837	Canacona, Quepem	Pandit and Dharwadkar, 2020; Anonymous, 2022
	Gea anili (Sunil Jose, 2005)	Invalid	Halarnkar and Pai, 2018
	Gea spinipes C.L. Koch, 1843	Quepem	Pandit and Dharwadkar, 2020
	Herennia multipuncta (Doleschall, 1859)	Ponda, Quepem, Tiswadi	Tikader, 1982; Biswas and Majumder, 1995; Bastawade and Khandal, 2006; Pandit and Pai, 2017; Bastawade and Borkar, 2008; Pandit and Dharwadkar, 2020
	Larinia sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Macracantha hasselti (C. L. Koch, 1837)	Canacona, Quepem, Salcete	Bastawade and Borkar, 2008; Anonymous, 2022; Pandit and Dharwadkar, 2020
	Neoscona bengalensis Tikader and Bal, 1981	Dharbandora, Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Neoscona johni Sunil Jose, 2005	Ponda,	Halarnkar and Pai, 2018
	Neoscona molemensis Tikader and Bal, 1981	Dharbandora	Tikader and Bal, 1981; Tikader, 1982; Bastawade and Borkar, 2008
	Neoscona mukerjei Tikader, 1980	Ponda, Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Neoscona theisi (Walckenaer, 1837)	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Neoscona sp.	Ponda, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018
	Nephila pilipes (Fabricius, 1793)	Canacona, Bardez, Bicholim, Dharbandora, Mormugao, Ponda, Quepem, Sattari, Tiswadi	Bastawade and Khandal, 2006; Bastawade and Borkar, 2008; Pandit and Pai, 2017; Halarnkar and Pai, 2018; Sarmokadam, 2019; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Nephilengys malabarensis (Walckenaer, 1841)	Dharbandora	Bastawade and Borkar, 2008
	Parawixia dehaani (Doleschall, 1859)	Quepem, Salcete	Bastawade and Borkar, 2008; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Poltys sp.	Quepem	Pandit and Dharwadkar, 2020
	Thelacantha brevispina (Doleschall, 1857)	Quepem	Pandit and Dharwadkar, 2020
	Thelacantha sp.	Tiswadi	Pandit and Pai, 2017
2.	**Cheiracanthiidae**		
	Cheiracanthium melanostomum (Thorell, 1895)	Tiswadi	Majumder and Tikader, 1991
	Cheiracanthium triviale (Thorell, 1895)	Salcete, Sanguem	Majumder and Tikader, 1991
	Cheiracanthium sp.	Quepem	Pandit and Dharwadkar, 2020
3.	**Clubionidae**		
	Clubiona drassodes Pickard-Cambridge, 1874 (=Clubiona atwali Singh, 1970)	Tiswadi	Bastawade and Borkar, 2008

	Families/Species	Distribution	References
4.	**Corinnidae**		
	Castianeira zetes Simon, 1897	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Echinax panache Deeleman-Reinhold, 2001	Quepem	Pandit and Dharwadkar, 2020
5.	**Ctenidae**		
	Ctenus goaensis Bastawade and Borkar, 2008	Canacona	Bastawade and Borkar, 2008
	Ctenus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
6.	**Eresidae**		
	Stegodyphus sarasinorum Karsch, 1892	?	Bastawade and Khandal, 2006
7.	**Gnaphosidae**		
	Herpyllus goaensis Tikader, 1982	Tiswadi	Tikader, 1982; Bastawade and Borkar, 2008
	Zelotes sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
8.	**Hersiliidae**		
	Hersilia savignyi Lucas, 1836	Canacona, Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
9.	**Linyphiidae**		
	Orsinome vethi (Hasselt, 1882)	Ponda	Anonymous, 2022
10.	**Lycosidae**		
	Hippasa agelenoides (Simon, 1884)	Ponda, Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Hippasa greenalliae (Blackwall, 1867)	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Hippasa olivacea (Thorell, 1887)	Sanguem, Sattari	Bastawade and Borkar, 2008
	Hippasa pisaurina Pocock, 1900	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Lycosa carmichaeli Gravely, 1924	Sattari	Bastawade and Borkar, 2008
	Lycosa mahabaleshwarensis Tikader and Malhotra, 1980	Pernem	Bastawade and Borkar, 2008
	Lycosa phipsoni Pocock, 1899	Sattari	Bastawade and Borkar, 2008
	Lycosa tista Tikader, 1970	Ponda,	Halarnkar and Pai, 2018
	Pardosa sumatrana (Thorell, 1890)	Dharbandora, Ponda, Sattari	Bastawade and Borkar, 2008; Halarnkar and Pai, 2018
11.	**Oxyopidae**		
	Hamadruas superba (Thorell, 1887)	Tiswadi	Halarnkar and Pai, 2018
	Hamadruas sp.	Quepem	Pandit and Dharwadkar, 2020
	Hamataliwa sp.	Quepem	Pandit and Dharwadkar, 2020
	Oxyopes birmanicus Thorell, 1887	Ponda, Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Oxyopes javanus Thorell, 1887	Ponda, Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Oxyopes shweta Tikader 1970	Dharbandora, Ponda, Quepem, Salcete, Sanguem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Oxyopes sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Peucetia viridana (Stoliczka, 1869)	Quepem	Pandit and Dharwadkar, 2020

	Families/Species	Distribution	References
12.	**Philodromidae**		
	Tibellus elongatus Tikader, 1960	Quepem	Pandit and Dharwadkar, 2020
13.	**Pholcidae**		
	Artema atlanta Walckenaer, 1837	Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Crossopriza lyoni (Blackwall, 1867) (=Pholcus lyoni Blackwall, 1867)	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Leptopholcus sp.	Quepem	Pandit and Dharwadkar, 2020
	Pholcus phalangioides (Fuesslin, 1775)	Tiswadi	Bastawade and Borkar, 2008; Pandit and Pai, 2017
	Pholcus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Smeringopus pallidus (Blackwall, 1858)	Goa	Bastawade and Borkar, 2008
14.	**Pisauridae**		
	Dendrolycosa gitae (Tikader, 1970) (=Pisaura gitae Tikader, 1970)	Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Hygropoda sp.	Quepem	Pandit and Dharwadkar, 2020
	Nilus sp.	Quepem	Pandit and Dharwadkar, 2020
	Polyboea sp.	Quepem	Pandit and Dharwadkar, 2020
15.	**Psechridae**		
	Psechrus sp.	Tiswadi	Pandit and Pai, 2017
16.	**Salticidae**		
	Aelurillus sp.	Tiswadi	Halarnkar and Pai, 2018
	Asemonea tenuipes (O.P.-Cambridge, 1869)	Quepem, Salcete, Sanguem, Tiswadi	Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Bianor sp.	Quepem	Pandit and Dharwadkar, 2020
	Brettus cingulatus Thorell, 1895	Ponda, Quepem	Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Brettus sp.	Ponda, Tiswadi	Halarnkar and Pai, 2018
	Bristowia gandhii Kanesharatnam and *Benjamin,* 2016	Canacona, Salcete	Kanesharatnam and Benjamin, 2016
	Bristowia sp.	Quepem	Pandit and Dharwadkar, 2020
	Carrhotus viduus (C L Koch, 1846)	Bardez, Ponda, Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Carrhotus sp.		Halarnkar and Pai, 2018
	Chrysilla sp.	Tiswadi	Sarmokadam, 2019
	Chrysilla volupe (Karsch, 1879)	Quepem	Pandit and Dharwadkar, 2020
	Cyrba ocellata (Kroneberg, 1875)	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Cyrba sp.	Tiswadi	Pandit and Pai, 2017
	Epeus indicus Prószyński, 1992	Ponda, Quepem, Salcete	Pandit and Dharwadkar, 2020; Anonymous, 2022
	Harmochirus brachiatus (Thorell, 1877)	Quepem	Pandit and Dharwadkar, 2020
	Hasarius adansoni (Audouin, 1826)	Bardez, Bicholim, Pernem, Ponda, Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Hyllus semicupreus (Simon, 1885)	Bardez, Dharbandora, Quepem, Tiswadi	Prószyński, 1992; Pandit and Pai, 2017; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Icius vikrambatrai Prajapati *et al*., 2018	Quepem	Pandit and Dharwadkar, 2020
	Indopadilla insularis (Malamel *et al*., 2015)	Quepem	Pandit and Dharwadkar, 2020
	Langona goaensis Proszyński, 1992	Dharbandora	Proszyński, 1992b
	Langona sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020

	Families/Species	Distribution	References
	Marengo batheryensis Sudhin *et al*., 2019	Canacona	Anonymous, 2022
	Marengo sp.	Quepem	Pandit and Dharwadkar, 2020
	Menemerus bivittatus (Dufour, 1831)	Quepem, Sanguem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Menemerus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Myrmaplata plataleoides (O.P.-Cambridge, 1869)	Dharbandora, Quepem, Tiswadi	Bastawade and Borkar, 2008; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Myrmarachne melanocephala MacLeay, 1839	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Myrmarachne prava (Karsch, 1880)	Quepem	Pandit and Dharwadkar, 2020
	Phaeacius sp.	Quepem	Pandit and Dharwadkar, 2020
	Phanuelus sp.	Quepem	Pandit and Dharwadkar, 2020
	Phintella sp.	Tiswadi	Pandit and Pai, 2017
	Phintella vittata (C.L. Koch, 1846)	Bardez, Dharbandora, Mormugao, Quepem, Tiswadi	Proszyński, 1992b; Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Piranthus sp.	Quepem	Pandit and Dharwadkar, 2020
	Plexippus paykulli (Audouin, 1826)	Bardez, Bicholim, Canacona, Mormugao, Ponda, Quepem, Salcete, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Plexippus petersi (Karsch, 1878)	Bardez, Bicholim, Dharbandora, Ponda, Quepem, Tiswadi	Ahmed *et al*., 2015; Pandit and Pai, 2017; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Plexippus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Portia albimana (Simon, 1900)	Quepem	Pandit and Dharwadkar, 2020
	Rhene flavicomans Simon, 1902	Quepem	Pandit and Dharwadkar, 2020
	Rhene flavigera (C.L. Koch, 1846)	Sanguem	Anonymous, 2022
	Rhene khandalaensis Tikader, 1977	Salcete	Bastawade and Borkar, 2008
	Stenaelurillus albus Sebastian *et al*., 2015	Ponda, Tiswadi	Halarnkar and Pai, 2018
	Stenaelurillus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Telamonia dimidiata (Simon, 1899)	Bardez, Canacona, Ponda, Quepem, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Sarmokadam, 2019; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Thiania bhamoensis Thorell, 1887	Bardez, Mormugao, Quepem, Sanguem	Pandit and Dharwadkar, 2020; Anonymous, 2022
	Vailimia sp.	Quepem	Pandit and Dharwadkar, 2020
17.	**Scytodidae**		
	Scytodes sp.	Quepem	Pandit and Dharwadkar, 2020
18.	**Sparassidae**		
	Heteropoda nilgirina Pocock, 1901	Ponda, Tiswadi	Halarnkar and Pai, 2018
	Heteropoda sexpunctata Simon, 1885	Mormugao	Sethi and Tikader, 1988
	Heteropoda venatoria (Linnaeus, 1767)	Bardez, Canacona, Mormugao, Pernem, Tiswadi	Halarnkar and Pai, 2018; Anonymous, 2022
	Heteropoda sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Olios milleti (Pocock, 1901)	Quepem	Pandit and Dharwadkar, 2020
	Olios sp.	Tiswadi	Pandit and Pai, 2017
	Palystes sp.	Quepem	Pandit and Dharwadkar, 2020
	Pandercetes sp.	Quepem	Pandit and Dharwadkar, 2020
	Spariolenus tigris Simon, 1880	Tiswadi	Sethi and Tikader, 1988

	Families/Species	Distribution	References
19.	**Tetragnathidae**		
	Dolichognatha longiceps (Thorell, 1895)	Quepem	Pandit and Dharwadkar, 2020
	Guizygiella sp.	Quepem	Pandit and Dharwadkar, 2020
	Leucauge decorata (Blackwall, 1864)	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Leucauge tessellata (Thorell, 1887)	Bicholim, Sanguem	Bastawade and Borkar, 2008; Anonymous, 2022
	Leucauge sp.	Tiswadi	Pandit and Pai, 2017
	Mesida culta (O.P.-Cambridge, 1869)	Canacona, Salcete	Bastawade and Borkar, 2008; Anonymous, 2022
	Mesida sp.	Quepem	Pandit and Dharwadkar, 2020
	Opadometa fastigata (Simon, 1877)	Canacona, Dharbandora, Quepem, Sanguem	Pandit and Dharwadkar, 2020; Anonymous, 2022
	Tetragnatha javana (Thorell, 1890)	Ponda	Halarnkar and Pai, 2018
	Tetragnatha mandibulata Walckenaer, 1842	Ponda, Quepem, Sattari, Tiswadi	Bastawade and Borkar, 2008; Halarnkar and Pai, 2018; Pandit and Dharwadkar, 2020
	Tetragnatha sp.	Tiswadi	Pandit and Pai, 2017
	Tetragnatha viridorufa Gravely, 1921	Quepem	Pandit and Dharwadkar, 2020
	Tylorida flava Sankaran *et al*., 2017	Dharbandora	Anonymous, 2022
	Tylorida marmorea (Pocock, 1901)	Sanguem	Anonymous, 2022
	Tylorida striata (Thorell, 1877)	Dharbandora, Quepem, Salcete, Sanguem	Halali, 2016; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Tylorida ventralis (Thorell, 1877) = *Leucauge pondae* Tikader, 1970	Ponda, Salcete, Tiswadi	Pandit and Pai, 2017; Halarnkar and Pai, 2018; Anonymous, 2022
	Tylorida sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
20.	**Theraphosidae**		
	Chilobrachys fimbriatus Pocock, 1899	Bardez, Canacona, Dharbandora, Quepem, Salcete, Sanguem	Bastawade and Borkar, 2008; Siliwal *et al*., 2011; Borkar and Seth, 2020; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Poecilotheria regalis Pocock, 1899	Salcete, Tiswadi	Pandit and Pai, 2017; Anonymous, 2022
	Thrigmopoeus insignis Pocock, 1899	Canacona	Bastawade and Borkar, 2008
	Thrigmopoeus truculentus Pocock, 1899	Dharbandora, Sanguem	Borkar and Seth, 2020; Anonymous, 2022
	Thrigmopoeus sp.	Quepem	Pandit and Dharwadkar, 2020
21.	**Theridiidae**		
	Achaearanea durgae Tikader, 1970	Tiswadi	Pandit and Pai, 2017
	Argyrodes flavescens O.P.-Cambridge, 1869	Quepem	Pandit and Dharwadkar, 2020
	Ariamnes sp.	Quepem	Pandit and Dharwadkar, 2020
	Chikunia nigra (O. Pickard-Cambridge, 1880)	Dharbandora, Quepem, Ponda	Anonymous, 2022; Pandit and Dharwadkar, 2020
	Chrysso angula (Tikader, 1970)	Quepem	Pandit and Dharwadkar, 2020
	Chrysso urbasae (Tikader, 1970)	Quepem	Pandit and Dharwadkar, 2020
	Coleosoma blandum O.P.-Cambridge, 1882	Quepem	Pandit and Dharwadkar, 2020
	Episinus sp.	Quepem	Pandit and Dharwadkar, 2020
	Meotipa picturata Simon, 1895	Dharbandora	Kulkarni *et al*., 2017
	Meotipa sahyadri Kulkarni *et al*., 2017	Quepem, Sanguem	Kulkarni *et al*., 2017; Pandit and Dharwadkar, 2020
	Phoroncidia septemaculeata O.P.-Cambridge, 1873	Canacona, Salcete	Anonymous, 2022
	Propostira quadrangulata Simon, 1894	Salcete	Anonymous, 2022
	Propostira ranii Bhattacharya, 1935	Quepem	Pandit and Dharwadkar, 2020
	Thwaitesia sp.	Quepem	Pandit and Dharwadkar, 2020

	Families/Species	Distribution	References
22.	**Thomisidae**		
	Alcimochthes meridionalis Tang and Li, 2009	Sattari	Anonymous, 2022
	Amyciaea forticeps (O.P. Cambridge, 1873)	Canacona, Ponda, Quepem, Salcete, Sattari	Pandit and Dharwadkar, 2020; Anonymous, 2022
	Angaeus sp.	Quepem	Pandit and Dharwadkar, 2020
	Boliscus decipiens O.P.-Cambridge, 1899	Sattari	Anonymous, 2022
	Camaricus formosus Thorell, 1887	Quepem, Sanguem	Bastawade and Borkar, 2008; Pandit and Dharwadkar, 2020
	Camaricus maugi (Walckenaer, 1837)	Dharbandora, Tiswadi	Anonymous, 2022
	Epidius parvati Benjamin, 2000	Ponda, Sattari	Anonymous, 2022
	Massuria sp.	Quepem	Pandit and Dharwadkar, 2020
	Mastira bipunctata Thorell, 1891	Sattari	Anonymous, 2022
	Misumena vatia (Clerck, 1757)	Tiswadi	Halarnkar and Pai, 2018
	Oxytate sp.	Quepem	Pandit and Dharwadkar, 2020
	Pharta indica Sen *et al*., 2012	Dharbandora	Anonymous, 2022
	Platythomisus sudeepi Biswas, 1977	Ponda	Bastawade and Borkar, 2008; Anonymous, 2022
	Stiphropus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020
	Strigoplus netravati Tikader, 1963	Ponda, Quepem, Salcete	Bastawade and Borkar, 2008; Pandit and Dharwadkar, 2020; Anonymous, 2022
	Synema decoratum Tikader, 1960	Salcete, Sattari	Anonymous, 2022
	Synema revolutum Tang and Li, 2010	Quepem	Pandit and Dharwadkar, 2020
	Synema sp.	Tiswadi	Pandit and Pai, 2017
	Thomisus sikkimensis Tikader, 1962	Sattari	Anonymous, 2022
	Thomisus spectabilis (Doleschall, 1859)	Tiswadi	Pandit and Pai, 2017
	Thomisus sp.	Quepem	Pandit and Dharwadkar, 2020
	Xysticus sp.	Quepem	Pandit and Dharwadkar, 2020
23.	**Uloboridae**		
	Miagrammopes sp.	Quepem	Pandit and Dharwadkar, 2020
	Uloborus sp.	Quepem, Tiswadi	Pandit and Pai, 2017; Pandit and Dharwadkar, 2020

In the present compilation, a total of 173 species of spiders described under 128 genera belonging to 23 families were enlisted that have been recorded/described/located from all subdistricts of the two districts (North Goa and South Goa) of Goa giving up-to-date information. A total of 32 species recorded from Goa were identified only upto generic level. Most speciose family of spiders recorded in Goa is Araneidae (37 species) followed by Salticidae (35 species), Thomisidae (20 species), Theriidae (14 species), Tetragnathidae (13 species) and other families with less than 10 species. The maximum number of spider species were recorded from Quepem subdistrict of South Goa (123 species), followed by Tiswadi (85 species), Ponda (36 species), Dharbandora (21 species), Salcete and Sanguem (19 species each), Canacona (17 species), Sattari (15 species), Bardez (12 species), Mormugao (7 species), Bicholim (5 species), and Pernem (3 species). Also, the number of spider species (including those identified up to generic level) recorded from North Goa is much less (only 103 species) than South Goa (174 species). Twenty two species of spiders are distributed only in North Goa while 84 species are recorded in South Goa. Total 90 species are recorded in both the districts of Goa. Most of the national parks and wildlife sanctuaries, forest areas, agricultural fields, human dwellings etc. within the state still await intensive and extensive surveys to record the spider fauna.

Earlier, the faunal survey of spiders in Goa was conducted by few workers. Bastawade and Borkar (2008) enlisted 39 valid species of spiders from

different localities of Goa. Thereafter, Pandit and Pai (2017) recorded 63 valid species from Tiswadi island of North Goa; Halarnkar and Pai (2018) listed 38 species from Tiswadi and Ponda subdistricts (South Goa); and Pandit and Dharwadkar (2020) recorded 123 valid species of spiders from Chandranath Hill located in Quepem subdistrict of South Goa. The website https://www.inaturalist.org/check_lists/13552-Goa-Check-List? mentioned and provided photographs of 47 species of spiders observed in different localities of Goa (Anonymous, 2022).

REFERENCES

1. **Ahmed J., Mohan K., Khalap R. and Hill D.E.** (2015). Araneophagic behavior in *Plexippus petersi* (Karsch 1878) (Araneae: Salticidae: Plexippoida: Plexippinae). *Peckhamia*. 132.1: 1-4.
2. **Anonymous** (2022). https://www.inaturalist.org/check_lists/13552-Goa-Check List?page=18,19.
3. **Bastawade D.B. and Borkar M.** (2008). Arachnida (orders Scorpiones, Uropygi, Amblypygi, Araneae and Phalangida). In: *Fauna of Goa, State Fauna Series*. Zoological Survey of India, Kolkata. 16: 211-242.
4. **Bastawade D.B. and Khandal D.** (2006). Arachnida: Araneae (Spiders). In: *Fauna of Sanjay Gandhi National Park (Invertebrates) Borivali, Mumbai (Maharashtra), Conservation Area Series*. Zoological Survey of India, Kolkata. 26, 139-184.
5. **Borkar M.R. and Seth M.** (2020). Observations on ecology and behavior of two species of theraphosid spiders from the Western Ghats of Goa, India; with notes on their conservation concerns. *Applied Ecology and Environmental Sciences*. 8(6): 544-555.
6. **Caleb J.T.D. and Sankaran P. M.** (2022). Araneae of India, version 2022, https://indianspiders.in, accessed January 30, 2022.
7. **Halali D.** (2016). The Spiders of Western Ghats. https://www.sahapedia.org/the-spiders-of-western-ghats, accessed on January 30, 2022.
8. **Halarnkar M.M. and Pai I.K.** (2018). Distribution, diversity and ecology of spider species at two different habitats. *International Journal of Environmental Sciences and Natural Resources.* 8(5): 162-167.
9. **Hiremath K.G.** (2003). Recent advances in environmental science. Discovery Pub. House. p. 401. https://doi: 10.26479/2020.0606.02.
10. **Kanesharatnam N. and Benjamin S.P.** (2016). Three new generic records and descriptions of four new species of jumping spiders (Araneae, Salticidae) from Sri Lanka. *European Journal of Taxonomy*. 228: 1-23.
11. **Kulkarni S., Vartak A., Deshpande V. and Halali D.** (2017). The spiny theridiid genus *Meotipa* Simon, 1895 in India, with description of a strange new species with translucent abdomen and a phylogenetic analysis about the genus placement (Araneae, Theridiidae). *Zootaxa*. 4291(3): 504-520.
12. **Majumder S.C. & 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.
13. **Pandit R. and Dharwadkar M.** (2020). Preliminary checklist of spider fauna (Araneae: Arachnida) of Chandranath Hill, Goa, India. *Journal of Threatened Taxa*. 12(11): 16597–16606.
14. **Pandit R. and Pai I.** (2017). Spiders of Taleigao Plateau, Goa, India. *Journal of Environmental Science and Public Health*. 1(4): 240–252.
15. **Prószynski J.** (1992). Salticidae (Araneae) of India in the collection of the Hungarian National Natural History Museum in Budapest. *Annales Zoologici, Warszawa*. 44: 165-277.
16. **Sarmokadam P.** (2019). Glimpses of Biodiversity in Panaji. Goa State Biodiversity Board, Panaji, Goa. 52 p.
17. **Sebastian P.A., Sudhikumar A.V., Mathew M.J. and Sunish E.** (2012). Diversity of spiders (Araneae) in the Western Ghats – an overview. In: In*vertebrate Diversity and Conservation in the Western Ghats* (Eds. Rajan P.D., Devy S., Madhyastha A., Subramanian K.A. and Narayanan S.), ATREE, Bangalore. 235-247p.

18. **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. http://doi: 10.3897/BDJ.6.e23555.

19. **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, Miscellaneous Publications, Occasional Paper.* 93: 1-94.

20. **Sharma A., Singh G. and Singh R.** (2020). Faunal Diversity of Linyphiidae (Araneomorphae: Araneae: Arachnida) in India. *Asian Journal of Conservation Biology*. 9(2): 304-314.

21. **Sharma A., Singh G. and Singh R.** (2021). Faunal diversity of spider families Dictynidae, Dysderidae, Eresidae and Filistatidae (Araneomorphae: Araneae: Arachnida) in India. *International Journal of Zoology and Applied Biosciences*. 6 (1): 1-9.

22. **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.

23. **Singh B.B. and Singh R.** (2021). Checklist of spider diversity of Chhattisgarh (Araneomorphae: Araneae: Arachnida). *Journal of Applied Biosciences*. 47(1, 2): in press.

24. **Singh B.B., Singh R. and Singh G.** (2020). Faunal diversity of Clubionidae, Ctenidae, Cybaeidae, Deinopidae and Desidae (Araneomorphae: Araneae: Arachnida) in India. *Journal of Applied Bioscience*. 46 (1, 2): 1-12.

25. **Singh B.B., Singh R. and Singh G.** (2021). Faunal diversity of spitting spiders (Scytodidae: Araneomorphae: Araneae: Arachnida) in India. *World Journal of Pharmaceutical and Life Sciences*. 7 (3): 82-89.

26. **Singh R.** (2021a). Faunal biodiversity of Lycosidae (Araneomorphae: Araneae: Arachnida) in India: an updated checklist. *International Journal of Zoological Investigations*. 7 (1): 110–158.

27. **Singh R.** (2021b). Faunal diversity of Oxyopidae (Araneomorphae: Araneae: Arachnida) in India: an updated checklist. *Journal of Global Biosciences*. 10(4): 8539–8573.

28. **Singh R.** (2021c). Distribution of Sparassidae (Araneomorphae: Araneae: Arachnida) in India. *World Journal of Pharmaceutical and Life Sciences*. 7 (3): 134-148.

29. **Singh R.** (2021d). Faunal biodiversity of Tetragnathidae (Araneomorphae: Araneae: Arachnida) in India. *International Journal of Biological Innovations*. 3(1): 92–119.

30. **Singh R.** (2021e). Faunal diversity of Theridiidae (Araneomorphae: Araneae: Arachnida) in India: An updated checklist. *International Journal of Biological and Environmental Investigations*. 1(1): 12-39.

31. **Singh R. and Sharma, A.** (2022). Updated checklist of spider diversity of Madhya Pradesh, India (Araneomorphae: Araneae: Arachnida). *International Journal of Zoological Investigations.* 8(1): 191-218.

32. **Singh R. and Singh G.** (2020). Diversity of mygalomorph spiders (Aranae: Opisthothelae) in India. *International Journal of Biological Innovations.* 2(2): 178-201.

33. **Singh R. and Singh G.** (2021a). Faunistic diversity of orb–weaver spiders (Araneidae: Araneomorphae: Araneae: Arachnida) in India. *International Journal of Biological and Environmental Investigations.* 1 (2): 62–133.

34. **Singh R. and Singh G.** (2021b). An updated checklist of spiders (Arachnida: Araneae) in Northeast India. *Serket*. 18 (1): 91–144.

35. **Singh R. and Singh G.** (2021c). Updated checklist of spider (Arachnida: Araneae) diversity in Haryana, Himachal Pradesh, Punjab, Chandigarh and Delhi (India). *Serket*. 18(2): 199-228.

36. **Singh R. and Singh G.** (2021d). Faunal diversity of spiders (Chelicerata: Araneae) in Bihar and Jharkhand, India. *International Journal of Biological Innovations*. 3(2): 382–391.

37. **Singh R. and Singh G.** (2021e). Faunal Diversity of Gnaphosidae (Arachnida:

Araneae: Araneomorphae) in India: An updated Checklist. *Serket*. 17 (4): 438–473.

38. **Singh R. and Singh G.** (2021f). Updated checklist of Philodromidae (Araneae: Arachnida) from India. *World Journal of Pharmaceuticals and Life Sciences*. 7 (2): 129–139.

39. **Singh R. and Singh G.** (2021g). Diversity and distribution of crab spiders (Thomisidae: Araneomorphae: Araneae: Arachnida) in India. *International Journal of Zoology and Applied Biosciences*. 6 (3): 132–161.

40. **Singh R. and Singh G.** (2021h). Faunal distribution of spiders of the families Titanoecidae, Trachelidae, Trochanteriidae, Uloboridae and Zodariidae (Arachnida: Araneae) in India. *Serket*. 17 (4): 370–393.

41. **Singh R. and Singh G.** (2022a). Faunal diversity of spiders (Chelicerata: Araneae) in Uttar Pradesh and Uttarakhand, India. *Arthropods*, 11 (1): in press.

42. **Singh R. and Singh G.** (2022b). An updated checklist of spiders (Arachnida: Araneae) of Rajasthan, India. *Journal of Animal Diversity,* 4: in press.

43. **Singh R. and Singh G.** (2022c). Updated checklist of spider diversity (Arachnida: Araneae) in three union territories of India: Andaman and Nicobar Islands, Puducherry and Lakshadweep Islands. *Munis Entomology Zoology,* 17(2) : in press.

44. **Singh R., Singh G. and Sharma A.** (2020a). Diversity of yellow sac spiders (Cheiracanthiidae: Araneae: Arachnida) in India. *Journal of Entomology and Zoology Studies.* 8 (6): 118–126.

45. **Singh R., Singh G. and Sharma A.** (2020b). Faunal diversity of Hahniidae, Hersiliidae and Homalonychidae (Arachnida: Araneae: Araneomorphae) in India. *Serket*. 17 (3): 240–251.

46. **Singh R., Singh G. and Singh B.B.** (2020c). Diversity of Marpissoida, Chrysillini and Hasariini (Arachnida: Araneae: Salticidae: Salticinae) in India. *Research Journal of Life Sciences, Bioinformatics, Pharmaceuticals and Chemical Science*. 6 (6): 15–42.

47. **Singh R., Singh G. and Singh B.B.** (2020d). Diversity of simonid spiders (Araneae: Salticidae: Salticinae) in India. *International Journal of Biological Innovations*, 2(2): 247–276.

48. **Singh R., Singh G. and Singh B.B.** (2020e). Diversity of Asemoneinae, Eupoinae, Hisponinae, Lyssomaninae, Onomastinae and Spartaeinae (Arachnida: Araneae: Salticidae) in India: A checklist and bibliography. *Research Journal of Life Sciences, Bioinformatics, Pharmaceuticals and Chemical Science*. 6 (5): 29–46.

49. **Singh R., Singh G. and Singh B.B.** (2020f). Diversity of Amycoida and Astioida (Arachnida: Araneae: Salticidae: Salticinae) in India. *Journal of Entomology and Zoology Studies*, 8 (5): 1478–1488.

50. **Singh R., Singh G. and Singh B.B.** (2021). Faunal diversity of Agelenidae, Amaurobiidae, Anyphaenidae, Arkyidae, Cithaeronidae and Corinnidae (Araneae, Arachnida) in India. *Munis Entomology & Zoology*. 16(2): 772-786.

51. **Tikader B.K. and Bal A.** (1981). Studies on some orb-weaving spiders of the genera *Neoscona* Simon and *Araneus* Clerck of the family Araneidae (=Argiopidae) from India. *Records of the Zoological Survey of India, Occasional Paper No.* 24: 1-60.

52. **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. 536.

53. **Tiwari A.K. and Singh R.** (2021). Diversity and distribution of Pisauridae (Araneae: Araneomorphae: Arachnida) in India. *International Journal of Entomology Research*. 6(1): 119–125.

54. **Tiwari A.K., Singh R. and Singh G.** (2021a). Diversity and distribution of Pholcidae (Araneae: Araneomorphae: Arachnida) in India. *International Journal of Life Sciences*. 9(2): 151–157.

55. **Tiwari A.K., Singh G. and Singh R.** (2021b). Biodiversity of some poorly known families of spiders (Areneomorphae: Araneae: Arachnida) in India. *Journal of Global Biosciences*. 10(1): 8352–8371.

56. **WSC.** (2022). World Spider Catalog. Version 23.0. Natural History Museum Bern, http://wsc.nmbe.ch (accessed January 30, 2022).