FAUNAL BIODIVERSITY OF TETRAGNATHIDAE (ARANEOMORPHAE: ARANEAE: ARACHNIDA) IN INDIA

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Abstract: Faunal biodiversity of the long-jawed spiders (Tetragnathidae: Araneomorphae: Araneae: Arachnida) in different states of India and union territories is presented herewith. A total of 77 species placed under 17 genera of Tetragnathidae were recorded in all states and union territories of India except Nagaland, Daman & Diu and Dadra & Nagar Haveli, Delhi and Ladakh, out of which, 30 species (39%) were endemic. However, among them 8 species seem to be erroneous report or misidentification. Maximum number of species were recorded from Kerala (35 species) followed by Maharashtra, Tamil Nadu and West Bengal (24 species in each), Karnataka (22 species), Gujarat (21 species), Odisha (15 species) and less number in other states. Eleven species of Tetragnathidae are widely distributed, viz. Tetragnatha mandibulata Walckenaer, 1842 (23 states, 3 union territories), Leucauge decorata (Blackwall, 1864) (22 states, 2 union territories), Tetragnatha javana (Thorell, 1890) (19 states, 1 union territory), Leucauge celebesiana (Walckenaer, 1841) (17 states, 1 union territory), Guizygiella indica (Tikader and Bal, 1980) (15 states), Leucauge tessellata (Thorell, 1887) (14 states), Opadometa fastigata (Simon, 1877) (14 states), Tylorida ventralis (Thorell, 1877) (13 states, 1 union territory), Tetragnatha ceylonica O. Pickard-Cambridge, 1869 (11 states, 2 union territories), Tetragnatha keyserlingi Simon, 1890 (12 states, 1 union territory), and Tetragnatha andamanensis Tikader, 1977 (10 states, 2 union territories). About half of the species of Tetragnathidae recorded in India are recorded only in one state or from the type localities. Hence, extensive faunistic surveys for these spiders are required particularly in north Indian states and union territories.

Keywords: India, Long-jawed orb weavers, Stilt spiders, Stretch spiders, Tetragnathidae.

INTRODUCTION
Spider is the common name of the members belonging to the order Araneae (Arthropoda: Chelicerata: Arachnida). They are among the most common and abundant predators mostly of insects in terrestrial ecosystems throughout the world. There is hardly any terrestrial habitat on this globe that escapes the presence of spiders. They also demonstrate a very diverse range of lifestyles and foraging behaviours (Coddington and Levi, 1991; Selden, 2016; Nyffeler and Birkhofer, 2017). In one estimate, the global spider community consumes 400-800 million tons of prey (mostly insects) per year. Another ecological significance of spiders is that they serve as a food source for an extremely diverse complex of predators-parasitoids-parasites, birds, amphibians, lizards, snakes, shrews, mice, bats, fish etc. (Nyffeler and Birkhofer, 2017). At present, spiders comprise 49,235 species placed
in 4,209 genera belonging to 128 families (WSC, 2021). However, there exist many species in the wild and museums that still await description and classification. It is estimated that only 20-30% of the existing species have been described. Despite recent researches on the faunistic biodiversity of spiders in India, their number is not enough as compared to other parts of the world. For example, Canada is known for its cold climate and relatively limited biodiversity, yet 1477 species of spiders belonging to 45 families are recorded (Bennett et al., 2019). India has a very rich biodiversity, has a tropical climate with biodiversity hotspots, has the manpower to conduct biodiversity surveys, but the best account so far lists only 1856 species belonging to 477 genera in 61 families (Caleb and Sankaran, 2021). Recently, the species distribution and checklist of 48 families of spiders has been updated in India (Sharma et al., 2020a, b, 2021; Singh, 2021; Singh and Singh, 2020, 2021; Singh et al., 2020a, b, c, d, e, f, g, 2021a, b; Tiwari and Singh, 2021; Tiwari et al., 2021a, b).

Tetragnathidae Menge, 1866 is an araneomorph and ecribellate, entelegyne or secondary haplogyne spiders commonly called longed-jawed orb weavers or long-jawed spiders or stretch spiders or stilt spiders. They have an elongated body (2-23 mm long) having long slender legs with 3 tarsal claws and elongated chelicerae. They have 8 subequal eyes arranged in two rows of 4 equally distant or with the medial eyes closer to each other than laterals which are either spaced apart or contiguous. These spiders hold their back pair of legs out to the back of their body and their two front pairs of legs to the front when they are at rest. Like most of the spiders, males of long-jawed spiders are usually smaller than females often having an inflated base of the abdomen with relatively longer chelicerae than females. These spiders spin more or less horizontal orb webs which are loosely woven with an open hub with few wide-set radii and spiral with no signal line or retreat. The spider usually sits in the centre of the web. These webs are temporary and may be rebuilt daily. These spiders are often found in vegetation near water. When disturbed, these spiders drop to the ground or rush into the vegetation and enfold their legs around a stalk or adopting a stretch posture with legs stretched out. Adults of one of the genus, *Pachygnatha* Sundevall, 1823 do not spin orb webs and are hunters seeking their prey in the vegetation or at ground level, however, their shorter-legged immatures do spin orb webs. The elongated chelicerae of males, often armoured with numerous teeth, of several species are used to lock the female chelicerae during copulation (Eberhard and Huber, 1998). These long-jawed spiders restrain their prey by grasping it with their legs and the leg-like palps/pedipalps and inject poison/digestive juices through fangs located at the tips of the chelicerae. The egg sacs are usually kept on the ground, behind the barks or fastened in the vegetation and often watched over by the females. The egg sacs of few species of *Tetragnatha* Latreille, 1804 look like bird droppings. Morphological, phylogenetic and behavioural relationships between the species of Tetragnathidae are well illustrated by Álvarez-Padilla and Hormiga (2011).

The Tetragnathidae includes about 989 described species in 50 genera (WSC, 2021). The family has a worldwide distribution particularly highly diverse in the tropical and subtropical regions and is associated with some of the most important and fragile ecosystems of the world, wetlands and river ecosystems, often building their orb webs very close to the water surface. Some of the tetragnathids provide a striking example of dispersion abilities and ecological plasticity. Several species of the genus *Meta* C.L. Koch, 1836 live in the caves.

Though spiders, being mostly entomophagous, are among the most abundant biocontrol agents in many agroecosystems, their role in biological control is still disputed because they not only consume pest populations but also the biocontrol agents (predators/parasitoids) and thus may hamper the biocontrol of the pests caused by those bioagents (Singh, 2021). However, in irrigated rice at the early crop stages, the natural control of insect population is mainly attributed to spiders and the most abundant spiders assessed across the cropping season were
Tetragnatha spp. in South East Asian countries. Four species, Tetragnatha javana (Thorell, 1890), Tetragnatha keyserlingi Simon, 1890, Tetragnatha mandibulata Walckenaer, 1842, and Tetragnatha virescens Okuma, 1979, together comprised 10 to 40% of the spiders (Barrion and Litsinger, 1984; Singh and Singh, 2014; Joshi and Venkateshwarlu, 2016).

Despite their role as insect predators and being crucial to the health of terrestrial ecosystems, only 5 species, Mesida thorelli (Blackwall, 1877) (in Seychelles, vulnerable) (Gerlach, 2014a), Meta barreti (Kulczyński, 1899) (in Madeira, crucial) (Cardoso et al., 2018a), Meta dolloff Levi, 1980 (in Mexico, vulnerable) (World Conservation Monitoring Centre, 1996), Meta stridulans Wunderlich, 1987 (in Madeira, least concern) (Cardoso et al., 2018b) and Tylorida mornensis (Benoit, 1978) (in Seychelles, endangered) (Gerlach, 2014b) were listed in IUCN Red List of Threatened Species. However, none of the species recorded in India is on this list. Indeed, no attempt was made in this direction even though several species are known only from their type localities.

Information regarding the Indian Tetragnathidae is inadequate and highly incoherent primarily due to the unexplored diversity of these spiders in several parts of the country. There are several species of these spiders yet to be described and several species recorded from India have also been misidentified as many species reported from India are said to be identified by using existing old literature without a re-examination of the corresponding types and without consulting any spider taxonomist (Singh, 2021; Singh and Singh, 2020, 2021; WSC, 2021). If a spider species is identified only up to a generic level, it was considered as species if no other species of that genus is reported within the state. In the present checklist, attempts have been made to correct the errors in the scientific names of the spiders following World Spider Catalog. Only those synonymies were mentioned that were reported in India. All the endemic species are marked with (*). Seemingly, misidentified and erroneous records are marked with (+). Only those species were considered endemic that were exclusively found only in India. If the spider species is not endemic, its elsewhere distribution is also provided following World Spider Catalog (WSC, 2021).

RESULTS AND DISCUSSION
In India, Walckenaer (1841) was the first to describe a long-jawed spider, Tetragnatha bengalensis collected from West Bengal. Thereafter, Stoliczka (1869) described a species, Tetragnatha irriscens from the same state. After one and half decade, O. Pickard-Cambridge (1885) reported Tetragnatha extensa (Linnaeus, 1758) from Jammu and Kashmir, a diversely distributed species at present. In 1891, four more species of long-jawed spiders were described and one species was recorded by Thorell (1891) from Andaman and Nicobar Islands, namely Leucauge nicobarica (Thorell, 1891), Leucauge tristicta (Thorell, 1891), Tetragnatha delumbis Thorell, 1891 and Tetragnatha parvula Thorell, 1891 and Tetragnatha mandibulata Walckenaer, 1842. After a year, Thorell (1892) recorded another
species, *Leucauge pusilla* (Thorell, 1878) again from Andaman and Nicobar Islands. Thereafter, Pocock (1900) recorded 2 species from Maharashtra (*Leucauge celebesiana* (Walckenaer, 1841) and *Tetragnatha geniculata* Karsch, 1892) and in 1901, he described four species from Meghalaya (*Leucauge beata* (Pocock, 1901); *Orsinome armata* Pocock, 1901; *Tetragnatha coelestis* Pocock, 1901; *Tetragnatha paradisea* Pocock, 1901) and one species from Kerala (*Tylorida marmorea* (Pocock, 1901)). Consequently, several species of long-jawed spider were described or recorded in 20th century before independence (Pocock, 1904; Simon, 1906; Sherriffs, 1919, 1928; Gravely, 1921a, b; Hingston, 1927). Among the Indian authors, Tikader (1977) was the first to describe a species of Tetragnathidae, *Tetragnatha andamanensis* from Andaman and Nicobar Islands. Later on, Tikader and Bal (1980), Tikader (1982), Patel and Reddy (1990, 1993) described four more species of long-jawed spider from Andhra Pradesh, Gujarat, Himachal Pradesh and Maharashtra. In the present century, Gajbe (2004), Bodkhe et al. (2014), Bodkhe and Manthen (2015), Kulkarni et al. (2017) and Sankaran et al. (2017, 2020), Malamel et al. (2018) and Basumatary and Brahma (2019) described eight species from Assam, Goa, Gujarat, Madhya Pradesh, Maharashtra and Kerala.

At present, 77 species placed in 17 genera were described or recorded from India, out of which, 30 species (39%) were endemic. However, the Indian record is only 7.8% of the world Tetragnathidae fauna. All these spiders were distributed in all the Indian states except Nagaland and three union territories, Dadra & Nagar Haveli and Daman & Diu, Delhi and Ladakh (Figure 1). Eight species marked with () seem to be erroneous report or misidentification. However, Caleb and Sankaran (2021) enlisted only 55 species of Tetragnathidae described under 12 genera and the rest of the species recorded in India are either overlooked by them or are cases of misidentification.

Maximum of 35 species of these spiders were recorded in Kerala followed by 24 species each in Maharashtra, Tamil Nadu and West Bengal, 22 species in Karnataka, 21 species in Gujarat, 15 species in Odisha, and less number of species is recorded in other states (Figure 1). No species is recorded in Nagaland, Dadra and Nagar Haveli and Daman and Diu, Delhi and Ladakh and need extensive research work in these regions.

Out of 77 species of Tetragnathidae recorded in India, eleven species are widely distributed, viz. *Tetragnatha mandibulata* Walckenaer, 1842 (23 states, 3 union territories), *Leucauge decorata* (Blackwall, 1864) (22 states, 2 union territories), *Tetragnatha javana* (Thorell, 1890) (19 states, 1 union territory), *Leucauge celebesiana* (Walckenaer, 1841) (17 states, 1 union territory), *Guizygiella indica* (Tikader and Bal, 1980) (15 states), *Leucauge tessellata* (Thorell, 1887) (14 states), *Opadometa fastigata* (Simon, 1877) (14 states), *Tylorida ventralis* (Thorell, 1877) (13 states, 1 union territory), *Tetragnatha ceylonica* O. Pickard-Cambridge, 1869 (11 states, 2 union territories), *Tetragnatha keyserlingi* Simon, 1890 (12 states, 1 union territory), and *Tetragnatha andamanensis* Tikader, 1977 (10 states, 2 union territories). About half of the species of Tetragnathidae recorded in India are recorded only in one state or from the type locality. Hence, extensive faunistic surveys for these spiders are required.

Regarding the distribution of two species, namely, *Tetragnatha tenera* Thorell, 1881 and *Tetragnatha chauliodus* (Thorell, 1890) which were earlier reported to be distributed in India (Siliwal et al., 2005; Keswani et al., 2012; Caleb and Sankaran, 2021; WSC, 2021); I could not trace any faunistic literature regarding their distribution in India. I requested Dr. Theo Blick of the Editorial Board Member of World Spider Catalog on February 22, 2021 regarding their distribution in India who clarified that the distribution of both of the species in India is probably wrong. Therefore, on this ground, I have not included these two species in the present checklist of Tetragnathidae in India.

Following is the detailed list of these spiders distributed in Indian states and union territories and elsewhere.
1. **Specieswise list of long-jawed spiders (Tetragnathidae) in Indian states and Union Territories**

1. *Atelidea nona* Sankaran et al., 2017*
   - Kerala (Sankaran et al., 2017)

2. *Dolichognatha lonarensis* Bodkhe and Manthen, 2015*
   - Goa (Pandit and Dharwadkar, 2020)
   - Maharashtra (Bodkhe and Manthen, 2015)

3. *Dolichognatha longiceps* (Thorell, 1895)
   - Kerala (Sunil Jose, 2014)
   - Elsewhere: Myanmar, Thailand

4. *Dyschiriognatha* sp.
   - Uttarakhand (Uniyal et al., 2011)

5. *Eucta* sp.
   - Madhya Pradesh (Gajbe, 2003a)
   - Tamil Nadu (Sherriffs, 1919)

6. *Glenognatha dentata* (Zhu and Wen, 1978)
   - Syn. *Dyschiriognatha dentata* Zhu and Wen 1978
   - Kerala (Sebastian et al., 2005, 2011; Sudhikumar et al., 2005a; Mathew et al., 2014)
   - Mizoram (Chowdhury et al., 2017)
   - Elsewhere: Bangladesh, China, Myanmar, Philippines, Vietnam

7. *Glenognatha ganeshi* (Bodkhe et al., 2014)*
   - Syn. *Dyschiriognatha ganeshi* Bodkhe et al., 2014
   - Maharashtra (Bodkhe et al., 2014)

8. *Glenognatha paullula* Sankaran et al., 2020*
   - Kerala (Sankaran et al., 2020)

9. *Guizygiella indica* (Tikader and Bal, 1980)*
   - Syn. *Zygia indica* Tikader and Bal, 1980
   - Andhra Pradesh (Rao et al., 2005)
   - Bihar (Priyadarshini et al., 2015)
   - Chhattisgarh (Ekka and Kujur, 2015)
   - Gujarat (Patel, 2003b; Siliwal et al., 2003a, b; Solanki and Kumar, 2015; Yadav et al., 2017)
   - Haryana (Malik and Goyal, 2017)
   - Karnataka (Nautiyal et al., 2017)
   - Kerala (Joseph et al., 2017; Sumesh and Sudhikumar, 2020)

10. *Guizygiella melanocrania* (Thorell, 1887)
    - Syn. *Araneus melanocrania* (Thorell, 1887); *Zygia melanocrania* (Thorell, 1887)
    - Gujarat (Siliwal et al., 2003a, b; Solanki and Kumar, 2015; Yadav et al., 2017)
    - Karnataka (Nautiyal et al., 2017)
    - Madhya Pradesh (Gajbe, 2003a)
    - Maharashtra (Bastawade, 2008a; Meshram, 2011)
    - Manipur (Biswas and Biswas, 2004; Kananbala et al., 2018)
    - Odisha (Gravely, 1922; Tikader and Bal, 1980; Tikader, 1982; Majumder, 2004, 2005; De and Palita, 2018)
    - Rajasthan (Chauhan et al., 2009; Lawania and Mathur, 2017; Kumari et al., 2017)
    - Tamil Nadu (Sherriffs, 1919; Caleb, 2020a)
    - West Bengal (Biswas and Biswas, 1992; Biswas and Biswas, 2004; Majumder, 2004, 2005; Majumder and Talukdar, 2013)
    - Elsewhere: China, Laos, Myanmar, Pakistan

11. *Guizygiella nadleri* (Heimer, 1984)*
    - Kerala (Sumesh and Sudhikumar, 2020)
    - Elsewhere: China, Laos, Vietnam

12. *Guizygiella shivui* (Patel and Reddy, 1990)*
    - Syn. *Zygia shivui* Patel and Reddy, 1990
    - Gujarat (Patel and Reddy, 1990; Patel, 2003b; Yadav et al., 2017)

13. *Guizygiella* sp.
    - Chhattisgarh (Ekka and Kujur, 2015)
    - Goa (Pandit and Dharwadkar, 2020)
    - Gujarat (Solanki and Kumar, 2014)
    - Odisha (Biswas, 1987)
    - Tamil Nadu (Caleb, 2020b)
    - Uttarakhand (Uniyal et al., 2011)
14. **Leucauge beata** (Pocock, 1901)*
   
   * Syn. *Argyropeira beata* Pocock, 1901
   
   * Meghalaya (Pocock, 1901)

15. **Leucauge bituberculata** Baert, 1987+
   
   * Kerala (Sebastian *et al*., 2005)
   
   * Elsewhere: Galapagos Islands

16. **Leucauge blanda** (L. Koch, 1878)
   
   * Maharashtra (Chapke, 2012)
   
   * Elsewhere: China, Korea, Japan, Russia (Far East), Taiwan

17. **Leucauge celebesiana** (Walckenaer, 1841)
   
   * Syn. *Tetragnatha celebesiana* Walckenaer, 1837
   
   * Arunachal Pradesh (Biswas and Biswas, 2006)
   
   * Assam (Tikader, 1970, 1982)
   
   * Bihar (Yadav *et al*., 2016)
   
   * Chhattisgarh (Gajbe and Sharma, 1994; Kujur and Ekka, 2016)
   
   * Gujarat (Patel, 2003b; Yadav *et al*., 2017)
   
   * Jammu and Kashmir (Khan, 2009, 2011a, b; Khan and Rather, 2012; Sharma, 2014; Punjoo and Bhat, 2015)
   
   * Karnataka (Nautiyal *et al*., 2017; Prashanthakumara and Venkateshwarlu, 2017)
   
   * Kerala (Subrahmaniam, 1955; Joseph *et al*., 1998; Patel, 2003a; Sebastian *et al*., 2005, 2011)
   
   * Madhya Pradesh (Gajbe, 2003a)
   
   * Maharashtra (Pocock, 1900; Tikader, 1970, 1982)
   
   * Meghalaya (Gravely, 1921b; Tikader, 1970, 1982; Biswas and Majumder, 1995)
   
   * Mizoram (Biswas and Biswas, 2007)
   
   * Odisha (Gravely, 1921a; Biswas, 1987)
   
   * Sikkim (Tikader, 1970, 1982)
   
   * Tamil Nadu (Pocock, 1900; Sherriffs, 1919; Tikader, 1970, 1982; Umarani and Umamaheswari, 2013)
   
   * Uttar Pradesh (Hore and Uniyal, 2008a, b; Kumar *et al*., 2017; Singh and Singh, 2014; Sharma and Singh, 2018a, b)
   
   * Uttarakhand (Biswas and Biswas, 2010; Quasin and Uniyal, 2011; Uniyal *et al*., 2011)
   
   * West Bengal (Pocock, 1900; Gravely, 1921b; Tikader, 1970, 1982; Biswas and Biswas, 1992; Majumder and Talukdar, 2013)

   * Elsewhere: China, Indonesia (Sulawesi), Japan, Korea, Laos, New Guinea, Russia (Far East), Vietnam

18. **Leucauge decorata** (Blackwall, 1864)
   
   * Syn. *Nephila angustata* Stoliczka, 1869; *Argyropeira angustata* (Stoliczka, 1869); *Tetragnatha decorata* Blackwall, 1864
   
   * Andhra Pradesh (Rao *et al*., 2005; Palem *et al*., 2016)
   
   * Assam (Tikader, 1982; Majumder, 2004, 2005; Chetia and Kalita, 2012; Singh *et al*., 2012, 2013; Basumary and Brahma, 2017)
   
   * Bihar (Gravely, 1921b; Tikader, 1970, 1982; Majumder, 2004)
   
   * Chhattisgarh (Tikader, 1970; Kujur and Ekka, 2016)
   
   * Goa (Pandit and Pai, 2017; Pandit and Dhawadkar, 2020)
   
   * Gujarat (Tikader, 1982; Patel and Vyas, 2001; Patel, 2003b; Siliwal *et al*., 2003b; Majumder, 2004, 2005; Solanki and Kumar, 2014; Solanki and Kumar, 2015; Suthar *et al*., 2017; Yadav *et al*., 2017)
   
   * Haryana (Malik and Goyal, 2017)
   
   * Jammu and Kashmir (Thakur *et al*., 1995; Sharma, 2014)
   
   * Karnataka (Gravely, 1921b; Sherriffs, 1928; Tikader, 1970, 1982; Majumder, 2004, 2005; Bhat *et al*., 2013; Joshi and Venkateshwarlu, 2016; Rao *et al*., 2018; Shraddha and Chaturved, 2019)
   
   * Kerala (Subrahmaniam, 1955; Tikader, 1982; Patel, 2003a; Sebastian *et al*., 2005, 2011; Sudhikumar *et al*., 2005b; Sunil Jose *et al*., 2008; Adarsh and Nameer, 2015; Adarsh and Nameer, 2016; Rajeevan *et al*., 2019)
   
   * Madhya Pradesh (Gajbe, 2003a, 2004a, b; Sharma *et al*., 2010; Patil, 2012; Keswani, 2014)
   
   * Maharashtra (Bastawade and Khandal, 2006; Meshram, 2011; Rithe, 2012; More and Sawant, 2013; Shukla *et al*., 2015; Sawane, 2016; Wankhade and Manwar, 2016)
   
   * Meghalaya (Gravely, 1921b; Tikader, 1982; Biswas and Majumder, 1995; Majumder, 2004, 2005; Bhattacharya *et al*., 2017)
   
   * Odisha (Tikader, 1970, 1982; Majumder, 2004, 2005; De and Palita, 2018; Choudhury *et al*., 2019)
   
   * Puducherry (Simon, 1906; Tikader, 1982; Majumder, 2004, 2005)
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- Punjab (Kumari, 1983)
- Rajasthan (Chauhan et al., 2009; Kaur et al., 2014; Lawania and Trigunayat, 2015; Kumari et al., 2017; Lawania and Mathur, 2017)
- Sikkim (Tikader, 1970, 1982; Majumder, 2004, 2005)
- Tamil Nadu (Gravely, 1921b; Tikader, 1970, 1982; Ganesh Kumar and Velusamy, 1996; Sugumaran, 2001; Sugumaran et al., 2007; Karthikeyani et al., 2017; Caleb, 2020a, b)
- Telangana (Sailu et al., 2017)
- Tripura (Dey et al., 2013)
- Uttar Pradesh (Hore and Uniyal, 2008a, b; Anjali and Prakash, 2012; Lawania and Mathur, 2014; Singh and Singh, 2014; Kumar et al., 2017; Sharma and Singh, 2018a, b)
- Uttar Pradesh (Uniyal and Hore, 2006; Gupta and Siliwal, 2012; Quasin and Uniyal, 2011; Uniyal et al., 2011; Pooja et al., 2019; Siddhu et al., 2020)
- West Bengal (Stoliczka, 1869; Gravely, 1921b; Tikader, 1970, 1982; Biswas and Biswas, 1992; Majumder, 2005; Talukdar and Majumder, 2008; Majumder and Talukdar, 2013; Sen et al., 2015; Raychaudhuri et al., 2016; Saha et al., 2016, 2017)
- Uttar Pradesh (Hore and Uniyal, 2008a, b; Anjali and Prakash, 2012; Lawania and Mathur, 2014; Singh and Singh, 2014; Kumar et al., 2017; Sharma and Singh, 2018a, b)
- West Bengal (Stoliczka, 1869; Gravely, 1921b; Tikader, 1970, 1982; Biswas and Biswas, 1992; Majumder, 2005; Talukdar and Majumder, 2008; Majumder and Talukdar, 2013; Sen et al., 2015; Raychaudhuri et al., 2016; Saha et al., 2016, 2017)
- Elsewhere: Australia, China, French Polynesia, Sri Lanka, Sunda Island

19. Leucauge ditissima (Thorell, 1887)
- Tamil Nadu (Sherriffs, 1919)
- Elsewhere: Myanmar, Sri Lanka

20. Leucauge dorsotuberculata Tikader, 1982*
- Kerala (Sudhikumar et al., 2005b; Sunil Jose et al., 2008; Adarsh and Nameer, 2015; John and Tom, 2018)
- Maharashtra (Tikader, 1982; Deshmukh and Tekade, 2019)

21. Leucauge granulata (Walckenaer, 1837)
  Syn. Leucauge bengalensis Gravely, 1921; Leucauge argentata (O. Pickard-Cambridge, 1869)
- Kerala (Subrahmaniam, 1955; Malamel and Sebastian, 2018)
- Tamil Nadu (Sherriffs, 1919)
- West Bengal (Gravely, 1921b; Tikader and Biswas, 1981; Tikader, 1982; Biswas and Biswas, 1992; Majumder, 2005)

22. Leucauge nicobarica (Thorell, 1891)*
  Syn. Callinethis nicobarica Thorell, 1891
  Andaman and Nicobar Islands (Thorell, 1891)

23. Leucauge parangscipinia Barrion and Litsinger, 1995*
- Uttarakhand (Gupta and Siliwal, 2012)
- Elsewhere: Philippines

24. Leucauge pusilla (Thorell, 1878)
  Syn. Meta pusilla Thorell, 1878; Argyroepeira pusilla (Thorell, 1878)
  Andaman and Nicobar Islands (Thorell, 1892; Sherriffs, 1928)
  Elsewhere: Indonesia

25. Leucauge rubrotrivittata Simon, 1906*  
  Himalayan plateaus (Simon, 1906)

26. Leucauge tessellata (Thorell, 1887)
- Andhra Pradesh (Rao et al., 2005; Palem et al., 2016)
- Arunachal Pradesh (Biswas and Biswas, 2006)
- Assam (Gravely, 1921b; Tikader, 1970, 1982; Majumder, 2004, 2005; Chetia and Kalita, 2012; Singh et al., 2012, 2013; Basumatary and Brahma, 2017)
- Gujarat (Tikader, 1982; Siliwal et al., 2003b; Patel, 2003b; Majumder, 2004, 2005; Bastawade and Borkar, 2008; Suthar et al., 2017; Yadav et al., 2017)
- Karnataka (Tikader, 1982; Majumder, 2004, 2005; Shraddha and Chaturved, 2019)
- Kerala (Tikader, 1982; Patel, 2003a; Majumder, 2004, 2005; Sudhikumar et al., 2005b; Bastawade and Borkar, 2008; Sunil Jose et al., 2008; Adarsh and Nameer, 2016; Rajeevan et al., 2019)
- Maharashtra (Majumder, 2004, 2005; Bastawade and Borkar, 2008; Suthar et al., 2017; Yadav et al., 2017)
- Manipur (Biswas and Biswas, 2004; Kanabala et al., 2018)
- Meghalaya (Biswas and Majumder, 1995; Biswas and Biswas, 2004, 2007)
- Mizoram (Biswas and Biswas, 2007)
- Odisha (Gravely, 1921a; Biswas, 1987)
27. *Leucauge tristicta* (Thorell, 1891)*
   Syn. *Callinethis tristicta* Thorell, 1891)
   • Andaman and Nicobar Islands (Thorell, 1891)

28. *Leucauge venusta* (Walckenaer, 1837)*
   • Arunachal Pradesh (Chetry and Moran, 2019)
   • Assam (Chetia and Kalita, 2012)
   • Karnataka (Tabasum et al., 2018)
   • Elsewhere: Canada, USA

29. *Leucauge* sp.
   • Bihar (Goswami et al., 2015)
   • Chhattisgarh (Ekka and Kujur, 2015)
   • Gujarat (Parasharya and Pathan, 2013)
   • Jammu and Kashmir (Khan, 2009, 2011a, b; Punjoo and Bhat, 2015)
   • Karnataka (Bhat et al., 2013)
   • Kerala (Sebastian et al., 2005)
   • Odisha (Choudhury et al., 2019)
   • Rajasthan (Lawania and Trigunayat, 2015)
   • Tamil Nadu (Kapoor, 2008; Dharmaraj et al., 2018)
   • Uttar Pradesh (Hore and Uniyal, 2008a, b; Lawania and Mathur, 2014)
   • Uttarakhand (Uniyal et al., 2011)
   • West Bengal (Talukdar and Majumder, 2008; Ghosh et al., 2018)

30. *Meotipa sahyadri* Kulkarni et al., 2017*
   • Goa (Kulkarni et al., 2017)
   • Gujarat (Kulkarni et al., 2017)
   • Maharashtra (Kulkarni et al., 2017)

31. *Meotipa ultapani* Basumatyary and Brahma, 2019*
   • Assam (Basumatyary and Brahma, 2019)

32. *Mesida culta* (O. Pickard-Cambridge, 1869)
   Syn. *Leucauge sexpustulata* Simon, 1906; *Leucauge culta* (O. Pickard-Cambridge, 1869); *Tetragnatha culta* O. Pickard-Cambridge, 1869
   • Goa (Bastawade and Borkar, 2008)
   • Himalayan plateaus (Simon, 1906)
   • Jammu and Kashmir (Punjoo and Bhat, 2015)
   • Karnataka (Tkiker, 1982; Bastawade and Borkar, 2008)
   • Kerala (Sebastian et al., 2005, 2011; Sudhikumar et al., 2005b; Sunil Jose et al., 2008)
   • Manipur (Kananbala et al., 2018)
   • Tamil Nadu (Reimoser, 1934; Kapoor, 2008)
   • West Bengal (Gravely, 1921b; Tikader, 1982; Biswas and Biswas, 1992; Bastawade and Borkar, 2008; Majumder and Talukdar, 2013)
   • Elsewhere: Sri Lanka

33. *Mesida sp.*
   • Goa (Pandit and Dharwadkar, 2020)

34. *Meta abdomenalis* Patel and Reddy, 1993*
   • Andhra Pradesh (Patel and Reddy, 1993)

35. *Meta menardi* (Latreille, 1804)
   • Jammu and Kashmir (Caporiacco, 1935)
   • Elsewhere: Europe, Iran, Turkey

36. *Meta mixta* O. Pickard-Cambridge, 1885
   Syn. *Argyrepeira mixta* (O. Pickard-Cambridge, 1885), mis named by Caporiacco, 1935
   • Jammu and Kashmir (Caporiacco, 1935)
   • Elsewhere: Pakistan

37. *Meta similansis* Tikader, 1982*
   • Himachal Pradesh (Tikader, 1982)

38. *Meta sp.*
   • Uttar Pradesh (Hore and Uniyal, 2008a, b)

39. *Metellina sp.*
   • Uttarakhand (Uniyal et al., 2011)

40. *Okileucauge* sp.
   • Kerala (Joseph et al., 2017)

41. *Opadometa fastigata* (Simon, 1877)
   Syn *Leucauge fastigata* Simon, 1877; *Argyropeira fastigiata* (Simon, 1877)
   • Arunachal Pradesh (Chetry and Moran, 2019)
   • Assam (Chetia and Kalita, 2012; Basumatyary and Brahma, 2017)
   • Goa (Pandit and Dharwadkar, 2020)
Faunal Diversity of Tetragnathidae:....

- Gujarat (Thumar, 2019)
- Himachal Pradesh (Bastawade, 2008b)
- Karnataka (Sherriffs, 1928; Bhat et al., 2013; Shraddha and Chaturved, 2019)
- Kerala (Joseph et al., 1998; Tikader, 1982; Patel, 2003a; Sudhikumar et al., 2005b; Sunil Jose et al., 2008; Adarsh and Nameer, 2015; Adarsh and Nameer, 2016; John and Tom, 2018)
- Maharashtra (Bastawade and Khandal, 2006; Rithe, 2012; More and Sawant, 2013)
- Odisha (Gravely, 1921a, b; Biswas, 1987; Tikader, 1982; De and Palita, 2018)
- Tamil Nadu (Gravely, 1921b; Sugumaran, 2001; Sugumaran et al., 2007; Kapoor, 2008; Umarani and Umamaheswari, 2013; Dharmaraj et al., 2018)
- Tripura (Dey et al., 2013)
- Uttar Pradesh (Gravely, 1921b)
- Uttarakhand (Gravely, 1921b; Tikader, 1982; Gupta and Siliwal, 2012)
- West Bengal (Sen et al., 2015; Raychaudhuri et al., 2016; Saha et al., 2016)
- Elsewhere: China, Malaysia, Myanmar, Philippines, Sulawesi, Taiwan

42. Opadometa sp.
- Kerala (Sebastian et al., 2005)
- Maharashtra (Lanka et al., 2017)

43. Orsinome armata Pocock, 1901*
- Kerala (Sebastian et al., 2011)
- Meghalaya (Pocock, 1901; Sherriffs, 1928)

44. Orsinome vethi (Hasselt, 1882)
Syn. Orsinome listeri Gravely, 1921; Labulla nepula Tikader, 1970
- Assam (Caleb et al., 2018)
- Gujarat (Siliwal et al., 2003a; Solanki and Kumar, 2014)
- Sikkim (Tikader, 1970)
- West Bengal (Gravely, 1921a, b; Sherriffs, 1928; Caleb et al., 2018)
- Elsewhere: China, Indonesia, Laos, Malaysia, Vietnam

45. Orsinome sp.
- Kerala (Mathew et al., 2014)

46. Tetragnatha andamanensis Tikader, 1977
- Andaman and Nicobar Islands (Tikader, 1977; Majumder, 2004)
- Assam (Singh et al., 2012, 2013)
- Gujarat (Siliwal et al., 2003a)
- Jammu and Kashmir (Thakur et al., 1995)
- Jharkhand (Agrawal and Ghose, 1995)
- Kerala (Sebastian et al., 2005; Sudhikumar et al., 2005a; Sunil Jose et al., 2008; Adarsh and Nameer, 2016)
- Manipur (Biswa and Biswas, 2004; Kanabala et al., 2018)
- Mizoram (Biswa and Biswas, 2007)
- Tamil Nadu (Majumder, 2005)
- Tripura (Biswa and Majumder, 2000)
- Uttarakhand (Biswa and Biswas, 2010)
- West Bengal (Biswa and Biswas, 1992, 2004, 2007; Majumder, 2004, 2005)
- Elsewhere: Bangladesh

47. Tetragnatha bengalensis Walckenaer, 1841*
- Kerala (Joseph et al., 2017)
- Maharashtra (Rithe, 2012)
- West Bengal (Walckenaer, 1841)

48. Tetragnatha bituberculata L. Koch, 1867
- Kerala (Sumesh and Sudhikumar, 2020)
- Elsewhere: Australia, Japan, New Guinea

49. Tetragnatha bogotensis Keyserling, 1865
Syn. Tetragnatha chauliodus (Thorell, 1890, m.i. by Basu and Raychaudhuri, 2016); Tetragnatha mandibulata bidentata Gravely, 1921
- Gujarat (Patel, 2003b)
- Madhya Pradesh (Gravely, 1921b)
- Maharashtra (Gravely, 1921b)
- West Bengal (Gravely, 1921b; Basu and Raychaudhuri, 2016)
- Elsewhere: Africa, Bangladesh, Brazil, Caribbean, China, Hispaniola, Italy, Mexico, Nepal, Paraguay, Peru, Seychelles, Spain, Yemen

50. Tetragnatha cambridgei Roewer, 1942*
- Gujarat (Yadav et al., 2017)
- Elsewhere: Central America, Mexico, Puerto Rico

51. Tetragnatha caudicula (Karsch, 1879)
- West Bengal (Raychaudhuri et al., 2016; Saha et al., 2016)
- Elsewhere: China, Japan, Korea, Russia, Taiwan
52. Tetragnatha ceylonica O. Pickard-Cambridge, 1869  
Syn. Meta gracilis Stoliczka, 1869; Tetragnatha gracilis (Stoliczka, 1869) 
- Andaman and Nicobar Islands (Pocock, 1900)  
- Odisha (Gravely, 1921a)  
- Assam (Roy et al., 2017)  
- Bihar (Gravely, 1921b)  
- Kerala (Gravely, 1921b; Subrahmaniam, 1955; Sebastian et al., 2005, 2011; Sunil Jose et al., 2008)  
- Karnataka (Gravely, 1921b)  
- Maharashtra (Pocock, 1900; Gravely, 1921b)  
- Meghalaya (Gravely, 1921b; Panda et al., 2011)  
- Puducherry (Leardi in Airaghi, 1901)  
- Tamil Nadu (Pocock, 1900; Simon, 1906; Sherriffs, 1919; Gravely, 1921b; Karthikeyani et al., 2017; Caleb, 2020b)  
- Uttar Pradesh (Sharma and Singh, 2018a, b)  
- West Bengal (Subrahmaniam, 1955; Sebastian et al., 2005; Sudhikumar et al., 2005a; Sunil Jose et al., 2008; Adarsh and Nameer, 2016)  
- Elsewhere: Japan, New Guinea, Philippines, Seychelles, South Africa, Thailand

53. Tetragnatha chamberlini (Gajbe, 2004)*  
- Chhattisgarh (Kujur and Ekka, 2012, 2016; Ekka and Kujur, 2015)  
- Madhya Pradesh (Gajbe, 2004a; Patil, 2012)  
- Rajasthan (Lawania and Trigunayat, 2015)  
- Uttar Pradesh (Hore and Uniyal, 2008a, b; Lawania and Mathur, 2014)

54. Tetragnatha cochinensis Gravely, 1921*  
- Karnataka (Gravely, 1921b; Joshi and Venkateshwarlu, 2016)  
- Kerala (Subrahmaniam, 1955; Sebastian et al., 2005; Sudhikumar et al., 2005a; Sunil Jose et al., 2008; Adarsh and Nameer, 2015)  
- Maharashtra (Lanka et al., 2017)  
- Odisha (Choudhury et al., 2019)  
- Tamil Nadu (Gravely, 1921b; Sherriffs, 1928; Karthikeyani et al., 2017)

55. Tetragnatha coelestis Pocock, 1901*  
- Meghalaya (Pocock, 1901; Sherriffs, 1928)

56. Tetragnatha delumbis Thorell, 1891*  
- Andaman and Nicobar Islands (Thorell, 1891; Gravely, 1921b; Sherriffs, 1928)

57. Tetragnatha demissa L. Koch, 1872  
Syn. Tetragnatha foliifera Simon, 1898  
- Puducherry (Sherriffs, 1928)  
- Elsewhere: Australia, Cyprus, South Africa, Seychelles, Tanzania, Tonga

58. Tetragnatha elongata Walckenaer, 1837*  
- Karnataka (Mubeen and Basavarajappa, 2018)  
- Kerala (Sumesh and Sudhikumar, 2020)  
- Elsewhere: Argentina, Canada, England, Jamaica, Mexico, Panama, USA

59. Tetragnatha extensa (Linnaeus, 1758)  
- Gujarat (Parmar and Patel, 2015; Yadav et al., 2017; Solanki et al., 2020)  
- Jammu and Kashmir (O. Pickard-Cambridge, 1885; Caporiacco, 1935)  
- Puducherry (Leardi in Airaghi, 1901)  
- Elsewhere: Caucasus, Central Asia, China, Europe, Greenland, Iran, Iraq, Japan, Kazakhstan, Korea, North America, Russia, Turkey

60. Tetragnatha fletcheri Gravely, 1921  
- Gujarat (Patel and Vyas, 2001; Patel, 2003b)  
- Karnataka (Bhat et al., 2013; Nautiyal et al., 2017)  
- Kerala (Sebastian et al., 2005; Adarsh and Nameer, 2016)  
- Meghalaya (Gravely, 1921b; Sherriffs, 1928)  
- Elsewhere: Bangladesh

61. Tetragnatha foliferens Hingston, 1927*  
- Andaman and Nicobar Islands (Hingston, 1927)

62. Tetragnatha foveata Karsch, 1892  
- Lakshadweep (Pocock, 1904)  
- Elsewhere: Maldive Island, Sri Lanka

63. Tetragnatha geniculata Karsch, 1892  
- Chhattisgarh (Kujur and Ekka, 2016)  
- Jharkhand (Gravely, 1921b)  
- Madhya Pradesh (Gajbe, 2004c)  
- Maharashtra (Pocock, 1900; Gravely, 1921b)  
- Tamil Nadu (Sherriffs, 1919; Gravely, 1921b; Karthikeyani et al., 2017)  
- Elsewhere: China, Sri Lanka, Vietnam

64. Tetragnatha hasselti Thorell, 1890  
- Odisha (Biswas, 1987)
65. *Tetragnatha irridescens* Stoliczka, 1869*
- West Bengal (Stoliczka, 1869; Gravely, 1921b; Sherriffs, 1928)
- Elsewhere: Bangladesh, China, Indonesia

66. *Tetragnatha isidis* (Simon, 1880)
- Syn. *Eucta isidis* Simon, 1880
- Tamil Nadu (Reinmoser, 1934)
- Elsewhere: Caucasus, Central Africa, Egypt, Europe, France, Georgia, Hungary, Iberian Peninsula, Iran, Italy, Kazakhstan, Russia

67. *Tetragnatha javana* (Thorell, 1890)
- Syn. *Eucta javana* Thorell, 1890
- Arunachal Pradesh (Pathak et al., 2020)
- Assam (Singh et al., 2012, 2013; Basumatory and Brahma, 2017)
- Bihar (Gravely, 1921b; Tikader, 1970; Yadav et al., 2016)
- Goa (Halarnkar and Pai, 2018)
- Gujarat (Patel, 2003b; Siliwal et al., 2003a; Yadav et al., 2017)
- Jammu and Kashmir (Khan, 2011b; Khan and Rather, 2012; Sharma, 2014)
- Jharkhand (Gravely, 1921b; Tikader and Biswas, 1981)
- Karnataka (Gravely, 1921b; Tikader, 1970; Tikader and Biswas, 1981; Joshi and Venkateshwarlu, 2016; Nautiyal et al., 2017)
- Kerala (Gravely, 1921b; Sebastian et al., 2005)
- Maharashtra (More and Sawant, 2013; Nerlekar et al., 2016)
- Manipur (Kananbala et al., 2018)
- Meghalaya (Tikader, 1970)
- Mizoram (Chowdhury et al., 2017)
- Odisha (Gravely, 1921b; Tikader, 1970; Tikader and Biswas, 1981; Biswas, 1987)
- Sikkim (Tikader, 1970; Tikader and Biswas, 1981)
- Tamil Nadu (Gravely, 1921b; Tikader, 1970; Ganesh Kumar and Velusamy, 1996; Sugumaran, 2001; Vinothkumar, 2012; Karthikeyani et al., 2017; Caleb, 2020b)
- Uttar Pradesh (Khan and Mishra, 2003; Singh and Singh, 2014; Sharma and Singh, 2018a, b)
- Uttarakhand (Siddhu et al., 2020)
- West Bengal (Gravely, 1921b; Tikader, 1970; Tikader and Biswas, 1981; Biswas and Biswas, 1992; Majumder and Talukdar, 2013; Sengupta et al., 2014; Sen et al., 2015; Basu and Raychaudhuri, 2016)
- Elsewhere: Africa, Bangladesh, China, Formosa, France, Japan, Malaysia, Myanmar, New Guinea, Philippines, Thailand

68. *Tetragnatha josephi* Okuma, 1988
- West Bengal (Basu and Raychaudhuri, 2016)
- Elsewhere: Malaysia, Singapore

69. *Tetragnatha keyserlingi* Simon, 1890
- Syn. *Tetragnatha maxillosa* Thorell, 1895; *Tetragnatha listeri* Gravely, 1921
- Andhra Pradesh (Palem et al., 2016)
- Arunachal Pradesh (Pathak et al., 2020)
- Bihar (Goswami et al., 2015; Yadav et al., 2016)
- Gujarat (Patel and Vyas, 2001; Patel, 2003b; Parmar and Patel, 2015; Yadav et al., 2017)
- Jammu and Kashmir (Khan, 2006, 2009, 2011b; Khan and Rather, 2012; Punjoo and Bhat, 2015)
- Karnataka (Nautiyal et al., 2017)
- Kerala (Patel, 2003a; Sudhikumar and Sebastian, 2005; Sebastian et al., 2005; Sunil Jose et al., 2008; Adarsh and Nameer, 2015, 2016)
- Mizoram (Chowdhury et al., 2017)
- Odisha (Chowdhury et al., 2019)
- Tamil Nadu (Gravely, 1921b; Sherriffs, 1928)
- Uttar Pradesh (Singh and Singh, 2014; Sharma and Singh, 2018a, b)
- Uttarakhand (Uniyal et al., 2011; Gupta and Siliwal, 2012)
- West Bengal (Gravely, 1921b; Majumder and Talukdar, 2013; Basu and Raychaudhuri, 2016; Chakraborty et al., 2016)
- Elsewhere: Africa, Brazil, Caribbean, Central America, Japan, Korea, New Hebrides, Philippines, Polynesia, Thailand

70. *Tetragnatha mandibulata* Walckenaer, 1842
- Syn. *Tetragnatha minatoria* Simon, 1877
- Andaman and Nicobar Islands (Thorell, 1891; Pocock, 1900; Tikader, 1966; Tikader, 1977; Singh et al., 2013)
- Andhra Pradesh (Palem et al., 2016; Pathak et al., 2020)
- Assam (Gravely, 1921b; Chetia and Kalita, 2012; Singh et al., 2012)
- Bihar (Gravely, 1921b; Tikader, 1977; Majumder, 2005)
• Goa (Bastawade and Borkar, 2008; Halarnkar and Pai, 2018; Pandit and Dhawadkar, 2020)
• Gujarat (Patel and Vyas, 2001; Patel, 2003b; Yadav et al., 2017)
• Haryana (Malik and Goyal, 2017)
• Jammu and Kashmir (Khan, 2006)
• Jharkhand (Gravely, 1921b; Tikader and Biswas, 1981)
• Karnataka (Gravely, 1921b; Majumder, 2005; Joshi and Venkateshwarlu, 2016; Nautiyal et al., 2017; Shraddha and Chaturved, 2019)
• Kerala (Subrahmaniam, 1955; Tikader, 1977; Patel, 2003a; Sebastian et al., 2005; John and Tom, 2018; Rajeevan et al., 2019)
• Madhya Pradesh (Sharma et al., 2010; Shukla et al., 2015)
• Maharashtra (Bastawade and Khandal, 2006; Bastawade, 2008a; Mesram, 2011; Sawane, 2016; Wankhade and Manwar, 2016)
• Manipur (Kananbala et al., 2018)
• Meghalaya (Bhattacharya et al., 2017)
• Odisha (Gravely, 2021a, b; Tikader, 1977; De and Palita, 2018; Choudhury et al., 2019)
• Puducherry (Leardi in Airaghi, 1901; Simon, 1906)
• Punjab (Kumari, 1983)
• Rajasthan (Tikader, 1961, 1966; Chauhan et al., 2009; Kumari et al., 2017)
• Sikkim (Tikader, 1977)
• Tamil Nadu (Sherriffs, 1919; Gravely, 1921b; Tikader, 1977; Ganesh Kumar and Velusamy, 1996; Majumder, 2005; Karthikeyani et al., 2017; Caleb, 2020a, b)
• Telangana (Rao et al., 2005; Sailu et al., 2017)
• Uttar Pradesh (Khan and Mishra, 2003; Singh and Singh, 2014; Kumar et al., 2017; Sharma and Singh, 2018a, b)
• Uttarakhand (Gupta and Siliwal, 2012)
• West Bengal (Gravely, 1921b; Tikader, 1966, 1977; Biswas and Biswas, 1992; Majumder, 2005; Talukdar and Majumder, 2008; Majumder and Talukdar, 2013)
• Elsewhere: Australia, Bangladesh, Brazil, British Guiana, Caribbean, Central America, China, France, Guiana, Hawaii, Japan, Malaysia, New Guinea, Philippines, Seychelles, Thailand, West Africa

71. *Tetragnatha montana* Simon, 1874*
• Jammu and Kashmir (Punjoo and Bhat, 2015)
• Elsewhere: Caucasus, Central Asia, Europe, Iran, Kazakhstan, Russia, Turkey

72. *Tetragnatha moulmeinensis* Gravely, 1921*
• Karnataka (Nautiyal et al., 2017)
• Elsewhere: Myanmar

73. *Tetragnatha nitens* (Audouin, 1826)
• Manipur (Kananbala et al., 2018)
• Tamil Nadu (Sugumaran, 2001)
• Elsewhere: Macaronesia, Madagascar, Mediterranean, New Zealand, North and South America, Pacific Is., Tropical and subtropical Asia

74. *Tetragnatha okumae* Barrion and Litsinger, 1995*
• Meghalaya (Pocock, 1901; Sherriffs, 1928)

75. *Tetragnatha paradisea* Pocock, 1901*
• Andaman and Nicobar Islands (Thorell, 1891; Sherriffs, 1928)

77. *Tetragnatha sutherlandi* Gravely, 1921*
• Bihar (Gravely, 1921b)
• Gujarat (Patel and Vyas, 2001; Yadav et al., 2017)
• Karnataka (Nautiyal et al., 2017)
• Kerala (Patel, 2003a; Sudhikumar et al., 2005b; Sunil Jose et al., 2008)
• Maharashatra (Rithe, 2012)
• Tamil Nadu (Gravely, 1921b; Sherriffs, 1928)
• West Bengal (Gravely, 1921b; Majumder and Talukdar, 2013)

78. *Tetragnatha vermiformis* Emerton, 1884
• Syn. *Tetragnatha mackenziei* Gravely, 1921
• Chhattisgarh (Kujur and Ekka, 2016)
• Bihar (Gravely, 1921b)
• Karnataka (Gravely, 1921b)
• Kerala (Gravely, 1921b; Subrahmaniam, 1955; Sebastian et al., 2005, 2011; Sunil Jose et al., 2008)
• Maharashatra (Gravely, 1921b)
• Odisha (Gravely, 1921b)
• Tamil Nadu (Caleb and Karthikeyani, 2020)
• West Bengal (Gravely, 1921b; Sudhikumar et al., 2008; Sebastian et al., 2012)
• Elsewhere: Brazil, North and Central America, Temperate and tropical Asia

79. *Tetragnatha virescens* Okuma, 1979
• Manipur (Kananbala et al., 2018)
80. _Tetragnatha viridorufa_ Gravely, 1921*
- Assam (Chetia and Kalita, 2012)
- Goa (Pandit and Dhawadkar, 2020)
- Gujarat (Parmar, 2013; Parmar et al., 2015)
- Karnataka (Bhat et al., 2013; Joshi and Venkateshwarlu, 2016; Mubeen and Basavarajappa, 2018)
- Kerala (Subrahmaniam, 1955; Sunil Jose et al., 2004; Adarsh and Nameer, 2015; John and Tom, 2018; Smitha and Sudhikumar, 2020)
- Maharashra (More and Sawant, 2013)
- Manipur (Kananbala et al., 2018)
- Odisha (Gravely, 2021a, b; Choudhury et al., 2019)
- Tamil Nadu (Gravely, 1921b; Sherriffs, 1928; Dharmaraj et al., 2018; Caleb and Karthikeyani, 2020)

81. _Tetragnatha sp._
- Assam (Das et al., 2015)
- Bihar (Priyadarshini et al., 2015)
- Chhattisgarh (Mishra and Shrivastava, 2002)
- Goa (Pandit and Pai, 2017)
- Gujarat (Siliwal et al., 2003b; Parmar et al., 2015; Yadav et al., 2017)
- Jammu and Kashmir (Khan, 2009, 2011a, b; Khan and Rather, 2012; Punjoo and Bhat, 2015)
- Karnataka (Nauntiyal et al., 2017; Mubeen and Basavarajappa, 2018)
- Kerala (Sebastian et al., 2005; Adarsh and Nameer, 2015)
- Madhya Pradesh (Gajbe, 2004a, c)
- Odisha (Gravely, 1921b; Biswas, 1987)
- Rajasthan (Lawania and Mathur, 2017)
- Tamil Nadu (Sherriffs, 1919; Sivaperuman and Thiyakesan, 1999; Sugumaran et al., 2007; Kapoor, 2008)
- Uttar Pradesh (Khan and Mishra, 2003)
- Uttarakhand (Uniyal et al., 2011; Gupta and Siliwal, 2012; Siddhu et al., 2020)
- West Bengal (Chakraborty et al., 2016)

82. _Tylorida flava_ Sankaran et al., 2017*
- Kerala (Sankaran et al., 2017)

83. _Tylorida marmorea_ (Pocock, 1901)
Syn. _Orsinome marmorea_ Pocock, 1901; _Pachygnatha silentvalliensis_ Biswas and Roy, 2004; _Tylorida sataraensis_ Kulkarni, 2014*
- Kerala (Pocock, 1901; Subrahmaniam, 1955; Biswas and Roy, 2004; Sunil Jose et al., 2008; Sankaran et al., 2017)
- Madhya Pradesh (Gravely, 1921b)
- Maharashtra (Kulkarni, 2014; Sankaran et al., 2017)
- Tamil Nadu (Sherriffs, 1919; Gravely, 1921b; Karthikeyani et al., 2017; Sankaran et al., 2017)
- Elsewhere: China

84. _Tylorida striata_ (Thorell, 1877)
Syn. _Linyphia nicobarensis_ Tikader, 1977
- Andaman and Nicobar Islands (Tikader, 1977)
- Assam (Chetia and Kalita, 2012; Basumatary and Brahma, 2017)
- Goa (Pandit and Dhawadkar, 2020)
- Gujarat (Kulkarni and Yadav, 2015; Yadav et al., 2017)
- Karnatka (Mubeen and Basavarajappa, 2018)
- Kerala (Kulkarni and Yadav, 2015; Sankaran et al., 2017; Sumesh and Sudhikumar, 2020)
- Meghalaya (Roy et al., 2017)
- Uttarakhand (Siddhu et al., 2020)
- West Bengal (Roy et al., 2017)
- Elsewhere: Australia, China, Comoros, SE Asia

85. _Tylorida ventralis_ (Thorell, 1877)
Syn. _Leucauge pondae_ Tikader, 1970; _Leucauge ventralis_ (Thorell, 1877)
- Assam (Chetia and Kalita, 2012)
- Goa (Halarnkar and Pai, 2018)
- Gujarat (Parasharya and Pathan, 2013; Parmar and Patel, 2015)
- Karnatka (Bhat et al., 2013; Joshi and Venkateshwarlu, 2016; Mubeen and Basavarajappa, 2018; Rao et al., 2018)
- Kerala (Gravely, 1921b; Tikader, 1982; Joseph et al., 1998; Patel, 2003a; Majumder, 2005; Sudhikumar et al., 2005b; Sebastian et al., 2005; Sunil Jose et al., 2008; Adarsh and Nameer, 2015, 2016; Sankaran et al., 2017; Rajeevan et al., 2019)
- Lakshadweep (Pocock, 1904)
- Maharashtra (Lanka et al., 2017)
- Meghalaya (Bhattacharya et al., 2017)
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II. Distribution of long-jawed spiders (Tetragnathidae) in different states of India

1. Andhra Pradesh: Guizygilla indica, Leucauge decorata, Leucauge tessellata, Meta abdominalis, Tetragnatha keyserlingi, Tetragnatha mandibulata

2. Arunachal Pradesh: Leucauge celebesiana, Leucauge tessellata, Leucauge venusta, Opadometa fastigata, Tetragnatha javana, Tetragnatha keyserlingi

3. Assam: Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Leucauge venusta, Meotipa ultapani, Opadometa fastigata, Orsinome vethi, Tetragnatha andamanensis, Tetragnatha ceylonica, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha viridorufa, Tylorida striata, Tylorida ventralis

4. Bihar: Guizygilla indica, Leucauge celebesiana, Leucauge decorata, Tetragnatha ceylonica, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha sutherlandi, Tetragnatha vermiformis

5. Chhattisgarh: Guizygilla indica, Leucauge celebesiana, Leucauge decorata, Tetragnatha chamberlini, Tetragnatha geniculata, Tetragnatha vermiformis

6. Goa: Dolichognatha ionaresnis, Guizygilla sp., Leucauge decorata, Meotipa sahyadri, Mesida culta, Opadometa fastigata, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha viridorufa, Tylorida striata, Tylorida ventralis

7. Gujarat: Guizygilla indica, Guizygilla melanocrania, Guizygilla shivui, Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Meotipa sahyadri, Opadometa fastigata, Orsinome vethi, Tetragnatha andamanensis, Tetragnatha bogotensis, Tetragnatha cambridgei, Tetragnatha extensa, Tetragnatha fletcheri, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha sutherlandi, Tetragnatha viridorufa, Tylorida striata, Tylorida ventralis

8. Haryana: Guizygilla indica, Leucauge decorata, Tetragnatha mandibulata

9. Himachal Pradesh: Meta simlaensis, Opadometa fastigata

10. Jharkhand: Tetragnatha andamanensis, Tetragnatha geniculata, Tetragnatha javana, Tetragnatha mandibulata

11. Karnataka: Guizygilla indica, Guizygilla melanocrania, Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Leucauge venusta, Mesida culta, Opadometa fastigata, Tetragnatha ceylonica, Tetragnatha cochinensis, Tetragnatha elongata, Tetragnatha fletcheri, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha moulemeinensis, Tetragnatha okumae, Tetragnatha sutherlandi, Tetragnatha vermiformis, Tetragnatha viridorufa, Tylorida striata, Tylorida ventralis
12. Kerala: Atelidea nona, Dolichognatha longiceps, Glenognatha dentata, Glenognatha paululla, Guizygiella indica, Guizygiella nadleri, Leucauge bituberculata, Leucauge celebesiana, Leucauge decorata, Leucauge dorsotuberculata, Leucauge granulata, Leucauge tessellata, Mesida culta, Okileucauge sp., Opadometa fastigata, Orsinome armata, Tetragnatha andamanensis, Tetragnatha bengalensis, Tetragnatha bituberculata, Tetragnatha ceylonica, Tetragnatha cochinensis, Tetragnatha elongata, Tetragnatha fletcheri, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha sutherlandi, Tetragnatha virescens, Tetragnatha viridorufa, Tylorida flavia, Tylorida marmorea, Tylorida striata, Tylorida ventralis, Wolongia papafancisi

13. Madhya Pradesh: Eucta sp., Guizygiella indica, Guizygiella melanocrania, Leucauge celebesiana, Leucauge decorata, Tetragnatha bogotensis, Tetragnatha chamberlini, Tetragnatha geniculata, Tetragnatha mandibulata, Tylorida marmorea

14. Maharashtra: Dolichognatha lonarensis, Glenognatha ganeshi, Guizygiella indica, Guizygiella melanocrania, Leucauge blanda, Leucauge celebesiana, Leucauge decorata, Leucauge dorsotuberculata, Meotipa sahyadri, Opadometa fastigata, Tetragnatha bengalensis, Tetragnatha bogotensis, Tetragnatha ceylonica, Tetragnatha cochinensis, Tetragnatha geniculata, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha sutherlandi, Tetragnatha veriformis, Tetragnatha viridorufa, Tylorida flavia, Tylorida marmorea, Tylorida striata, Tylorida ventralis, Leucauge tessellata

15. Manipur: Guizygiella indica, Guizygiella melanocrania, Leucauge tessellata, Mesida culta, Tetragnatha andamanensis, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha nitens, Tetragnatha virescens, Tetragnatha viridorufa

16. Meghalaya: Leucauge beata, Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Orsinome armata, Tetragnatha ceylonica, Tetragnatha coelostiis, Tetragnatha fletcheri, Tetragnatha javana, Tetragnatha mandibulata, Tetragnatha paradisea, Tylorida striata, Tylorida ventralis

17. Mizoram: Glenognatha dentata, Leucauge celebesiana, Leucauge decorata, Tetragnatha andamanensis, Tetragnatha javana, Tetragnatha keyserlingi

18. Odisha: Guizygiella melanocrania, Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Opadometa fastigata, Tetragnatha ceylonica, Tetragnatha cochinensis, Tetragnatha hasseltii, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha veriformis, Tetragnatha viridorufa, Tylorida sp.

19. Punjab: Leucauge decorata, Tetragnatha mandibulata

20. Rajasthan: Guizygiella indica, Guizygiella melanocrania, Leucauge decorata, Tetragnatha chamberlini, Tetragnatha mandibulata, Tylorida ventralis

21. Sikkim: Leucauge celebesiana, Leucauge decorata, Leucauge tessellata, Orsinome vethi, Tetragnatha javana, Tetragnatha mandibulata, Tylorida ventralis

22. Tamil Nadu: Eucta sp., Guizygiella indica, Guizygiella melanocrania, Leucauge celebesiana, Leucauge decorata, Leucauge ditissima, Leucauge granulata, Leucauge tessellata, Mesida culta, Opadometa fastigata, Tetragnatha andamanensis, Tetragnatha ceylonica, Tetragnatha cochinensis, Tetragnatha geniculata, Tetragnatha isidis, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha nitens, Tetragnatha sutherlandi, Tetragnatha veriformis, Tetragnatha viridorufa, Tylorida marmorea, Tylorida ventralis

23. Telangana: Leucauge decorata, Tetragnatha mandibulata, Tetragnatha virescens

24. Tripura: Leucauge decorata, Opadometa fastigata, Tetragnatha andamanensis, Tylorida sp.
25. Uttar Pradesh: Guizygiella indica, Leucauge celebesiana, Leucauge decorata, Meta sp., Opadometa fastigata, Tetragnatha ceylonica, Tetragnatha chamberlini, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tylorida ventralis

26. Uttarakhand: Dyschiriognatha sp., Guizygiella indica, Leucauge celebesiana, Leucauge decorata, Leucauge parangscipinia, Metellina sp., Opadometa fastigata, Tetragnatha andamanensis, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tylorida striata, Tylorida ventralis

27. West Bengal: Guizygiella indica, Guizygiella melanocrania, Leucauge celebesiana, Leucauge decorata, Leucauge granulata, Leucauge tessellata, Mesida culta, Opadometa fastigata, Orsinome vethi, Tetragnatha andamanensis, Tetragnatha bengalensis, Tetragnatha bogotensis, Tetragnatha caudicula, Tetragnatha ceylonica, Tetragnatha hasselti, Tetragnatha iridescens, Tetragnatha javana, Tetragnatha josephi, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha sutherlandi, Tetragnatha vermiformis, Tylorida striata, Tylorida ventralis

III. Distribution of long-jawed spiders (Tetragnathidae) in different union territories of India

1. Andaman and Nicobar Islands: Leucauge nicobarica, Leucauge pusilla, Leucauge tristicta, Tetragnatha andamanensis, Tetragnatha ceylonica, Tetragnatha delumbis, Tetragnatha foliferens, Tetragnatha mandibulata, Tetragnatha parvula, Tylorida striata

2. Jammu and Kashmir: Leucauge celebesiana, Leucauge decorata, Mesida culta, Meta menardi, Meta mixta, Tetragnatha andamanensis, Tetragnatha extensa, Tetragnatha javana, Tetragnatha keyserlingi, Tetragnatha mandibulata, Tetragnatha montana

3. Lakshadweep: Tetragnatha foveata, Tylorida ventralis

4. Puducherry: Leucauge decorata, Tetragnatha ceylonica, Tetragnatha demissa, Tetragnatha extensa, Tetragnatha mandibulata

IV. Unknown places in Himalayan plateaus:
Leucauge rubrotrivittata, Mesida culta

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