Review Paper

FAUNAL DIVERSITY OF OXYPIDAE (ARANEOMORPHAE: ARANEAE: ARACHNIDA) IN INDIA: AN UPDATED CHECKLIST

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Abstract

Faunal biodiversity of the lynx spiders (Oxyopidae: Araneomorphae: Araneae: Arachnida) in different states of India and union territories is presented herewith. A total of 96 species placed under 4 genera of Oxyopidae were recorded in all states and union territories of India except for Nagaland, Daman and Diu and Dadra and Nagar Haveli, and Ladakh, out of which 65 species (67.7%) were strictly endemic. However, among them, 4 species seem to be erroneous report or misidentification. The maximum number of species (35 species) were recorded in Maharashtra followed by 34 species from West Bengal, 28 species each from Gujarat and Madhya Pradesh, 27 species from Kerala, 19 species from Tamil Nadu, 18 species each from Chhattisgarh and Uttar Pradesh, 15 species from Rajasthan, 14 species from Assam, 13 species from Karnataka and less than 15 species are recorded from other states. No species of lynx spider is recorded from Nagaland and Dadra and Nagar Haveli and Daman and Diu. Indeed, no survey was conducted in these regions and need extensive researches in these areas.

Key words: Oxyopidae, checklist, faunal distribution, lynx spiders, India.

INTRODUCTION

The spiders are the common name of the arachnids that belong to the order Araneae (Arthropoda: Chelicerata: Arachnida). They are among the most common and abundant entomophagous arthropods in the terrestrial ecosystems throughout the world. Their lifestyles and foraging behaviours highly varied among species. Ecologically their role is very significant as they devour approximately 400-800 million tons of preys, mostly insects, globally per year and also serve as a food source for several carnivore animals such as birds, amphibians, lizards, snakes, shrews, mice, bats, fish, insects etc. [1]. At present, 49,405 species of spiders are globally known which are placed in 4,216 genera grouped in 129 families [2]. Also, there are several species in the wild and museums that still await description and classification. It is estimated that
about 70-80% of the species have yet to be described [3-5]. Despite recent researches on the faunistic biodiversity surveys of spiders in India, their number is not enough as compared to the other parts of the world [5]. India has a very rich biodiversity, a tropical climate with biodiversity hotspots, and the manpower to conduct biodiversity surveys, but the best account so far lists only 1,864 species belonging to 475 genera [6]. Recently, the species distribution and checklist of 56 families of spiders have been updated in India [3-5, 7-24].

Oxyopidae Thorell, 1870 is one of the families of araneomorph and ecribellate spiders that commonly called lynx spiders. They are tropical in distribution with only a few European species. They vary in size (4-25 mm) and have very sharp vision, relatively long chelicerae in relation to their head, many conspicuous spines on their legs, and a long abdomen that tapers towards the back end of the body. Eight eyes are arranged in a distinctive manner; six similar sized eyes that create a hexagon at the top of the head region and another pair of smaller eyes lie under this hexagon on the front of the face [25]. They are 3 clawed spiders which dispose of the web-bound life-style for a more active cursorial one. Striped lynx spiders (e.g. *Oxyopes salticus* (Hentz, 1845)) possess two thin black lines extending from the small middle pair of eyes to the tips of the chelicerae and thin black lines on the undersides of their legs [25]. Sexual dimorphism is striking. Most of the *Oxyopes* Latreille, 1804, commonly called golden or grass lynx spiders have cryptic colour to blend in with the vegetation and actively search for prey, stalk and often leap from branch to leaf and finally jumping on its prey like cats or leaping a few centimeters into the air to catch flying insects [26]. The eggsac is fastened near the top of low vegetation and females tend to guard it until hatching of spiderlings [27]. The *Peucetia* Thorell, 1869, commonly called green lynx spiders lack distinctive black markings on the face and are often found on plants with viscid hairs, which trap insects, the spider lays down silken threads along which it walks, avoiding being caught, and robs it of the trapped insects. The legs with spines also form a capture basket to hold preys. *Peucetia viridans* (Hentz, 1832) females defend their eggsacs by spitting venom at intruders [28]. *Hamataliwa* Keyserling, 1887, commonly called dome-headed lynx spiders have a squat body resembling some genera of the crab spiders (Thomisidae) and wait on a branch or on bark, often mimicking a knot, bud or thorn, then ambush passing preys (insects). The lynx spiders are diurnal, arboreal usually found on shrubs, grasses and trees, using their excellent vision to pursue and catch prey [28]. A detail general account of external anatomy, characters of taxonomic importance, ecology, habits of the spiders in the family Oxyopidae are given earlier [29].

The lynx spiders are abundant enough to be important in agricultural systems as biological control agents; it is particularly common in cotton, soybean, grain sorghum, and alfalfa and feeds on a wide range of pest species [30, 31]. Despite their role as insect predators and being crucial to the health of terrestrial ecosystems, none of the species are listed in IUCN Red List of Threatened Species as critically endangered, endangered, vulnerable, or decreasing. Indeed, no attempt was made in this direction even though several species are known only from their type localities.

Information regarding the Indian Oxyopidae is insufficient and highly incoherent primarily due to the unexplored diversity of these spiders in several parts of the country like other families of spiders [3-5, 7-24]. There are several species of these spiders yet to be described and several species recorded from India have also been misidentified as they are said to be identified by using existing old literatures without a re-examination of the corresponding types and without consulting any spider
taxonomist [3-5]. Hence, these reports need re-examination. At present the faunal survey results of lynx spiders are all scattered in the literature and so far no updated consolidated account is available regarding their distribution pattern across the country. Therefore, this present work was undertaken to provide an up-to-date checklist of Indian Oxyopidae in different states and union territories of India.

MATERIALS AND METHODS

This checklist is based on the literature published in recent past books, journals and few authentic theses, websites, and World Species Catalog up to April 5, 2021. Some references to the faunistic surveys were omitted because of repetition. In most of the literature published earlier, several errors crept in the scientific names of the spiders even in the recent ones. It happened because such contents become outdated quickly and, due to their perceived comprehensiveness, readers sometimes overlook newer sources of data. Additionally, the researches on spider taxonomy are continued with the description of new taxa, their modified status, and the publication of other nomenclatural decisions [2, 3-5, 12-13]. 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 the 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 the World Spider Catalog [2] and other sources of literature.

RESULTS AND DISCUSSION

In India, Walckenaer [32] was probably the first who had described a lynx spider, *Oxyopes indicus* from West Bengal. After a long gap, Blackwall [33] described two more lynx spiders, *Oxyopes lepidus* and *Peucetia elegans* from east India, probably, West Bengal. Thereafter, in 1869, Stoliczka [34] described two species, *Oxyopes similaris* and *Peucetia viridana* again from West Bengal out of which *Oxyopes similaris* was synonymised with *Oxyopes lepidus* Blackwall, 1864. Later, Pickard-Cambridge [35] described three more species, *Oxyopes jubilans*, *Oxyopes praedictus* and *Oxyopes rejectus* from Jammu & Kashmir (near Sind Valley) and not in Yarkand (China) [2]; and Thorell [36] described one more species, *Hamadruas insulana* from Andaman & Nicobar Islands. Another species described by Thorell (1891) was *Oxyopes gemellus* and said to be recorded from Andaman & Nicobar Islands [2, 37-40] but Thorell [36] himself noted its type locality as Pinang (Penang island of Malaysia) and none of the literature exists demonstrating its distribution in India. Earlier checklists of Indian spiders [37-40] probably follow the distribution of the species as mentioned in the World Spider Catalog. I requested Dr. Theo Blick of the Editorial Board Member of World Spider Catalog on March 31, 2021 regarding its distribution in India who clarified that the distribution of *Oxyopes gemellus* Thorell, 1891 in India is incorrect and consequently, the World Spider Catalog removed India from its distribution list on March 31, 2021. Hence, I have not included this species in the present checklist of Oxyopidae in India.

At the beginning of the 20th century, Pocock [41, 42] described four species, *Oxyopes hindostanicus* from Tamil Nadu [41], *Oxyopes ryvesi* from Uttar Pradesh [41], *Oxyopes wroughtoni* from Gujarat [41] and *Peucetia graminea* from Gujarat [42]. After a
decade, Strand [43] described two species of lynx spiders from Kerala. Again, after four decades, Sherriffs [44] described one more species, *Oxyopes nilgiricus* from Tamil Nadu.

Among the Indian authors, Tikader [45] was the first to describe three species of Oxyopidae, *Oxyopes chittrae*, *Oxyopes sushilae* and *Peucetia choprai* from Maharashtra. Later, he [46, 47] described ten more species *Oxyopes assamensis* Tikader, 1969 from Meghalaya; *Oxyopes pandae* Tikader, 1969 from Uttar Pradesh; *Hamataliwa subhadrae* (Tikader, 1970), *Hamadruas sikkimensis* (Tikader, 1970), *Oxyopes shweta* Tikader 1970, *Oxyopes ratnae* Tikader, 1970, *Oxyopes sakuntalae* Tikader, 1970, *Oxyopes sitae* Tikader, 1970, *Oxyopes sunandae* Tikader, 1970 and *Peucetia latikae* Tikader, 1970, all from Sikkim. Later on, several workers [48-56] described many species of lynx spiders from different parts of India. In the present century, 18 species of Oxyopidae were described from India, one species each from Haryana [57], Jharkhand [58] and Tamil Nadu [59], 3 species from Kerala [60], 4 species from Maharashtra [61-63], and 8 species from West Bengal [64-70].

Vijayalakshmi & Ahimaz [71] wrongly identified/named one of the species of lynx spider as *Oxyopes rufisternum* without giving author name and its morphology provided by them also does not match with that of *Oxyopes rufisternis* Pocock, 1901, rather closely resembles *Oxyopes shweta* Tikader, 1970 [37]. Since then, surprisingly, the species was repeatedly recorded in faunistic surveys from 6 states of India by several authors, viz. Assam [72], Kerala [73], Meghalaya [74], Rajasthan [75], Tamil Nadu [30, 76-78] and Uttar Pradesh [79]. Since no such species exists in the taxonomic literature [2], all records in Indian states are the case of misidentification and hence are false and fake. The recorded species may belong to some other species of the spiders.

At present, 96 species belonging to 4 genera were described or recorded from India, out of which, 65 species (67.7%) were strictly endemic, i.e. recorded only in India while 9 more species were described from India but also recorded in neighbouring countries. However, the Indian record is 21.8% of the world Oxyopidae fauna (440 species placed in 9 genera [2]. All these spiders were distributed in all the Indian states except Nagaland and two union territories, Dadra and Nagar Haveli and Daman and Diu, and Ladakh (Figure 1). Five species marked with (†) seem to be an erroneous report or misidentification. Caleb and Sankaran [40] recently enlisted only 83 species of Oxyopidae described under 4 genera and the rest of the species recorded in India are either overlooked by them or are the cases of misidentification.

A maximum of 35 species of these lynx spiders were recorded from Maharashtra followed by 34 species from West Bengal, 28 species each from Gujarat and Madhya Pradesh, 27 species from Kerala, 19 species from Tamil Nadu, 18 species each from Chhattisgarh and Uttar Pradesh, 15 species from Rajasthan, 14 species from Assam, 13 species from Karnataka and less than 15 species are recorded from other states (Figure 1). No species of lynx spider is recorded from Nagaland and Dadra and Nagar Haveli and Daman and Diu. Indeed, no survey was conducted in these regions and need extensive researches in these areas. Out of 96 species of Oxyopidae recorded from India, 4 species are widely distributed (in half of the states and union territories), viz. *Oxyopes javanus* Thorell, 1887 and *Oxyopes shweta* Tikader, 1970 (20 states, 2 union territories), *Peucetia viridana* (Stoliczka, 1869) (14 states, 2 union territories), *Oxyopes ratnae* Tikader, 1970 (14 states) and *Oxyopes sunandae* Tikader, 1970 (13 states). About 50% of the species of Oxyopidae reported from India are recorded only from one state or from the type locality. Hence, extensive faunistic surveys for these spiders are required.
Figure 1: Number of species of lynx spiders (Oxyopidae) in Indian states and union territories.

Following is the detailed list of these spiders distributed in Indian states and union territories and Elsewhere:

I. Checklist of lynx spiders (Oxyopidae) in Indian States and Union Territories

1. **Hamadruas insulana** (Thorell, 1891)*
   
   Syn. *Tapponia insulana* Thorell, 1891
   
   - Andaman & Nicobar Islands [36, 39]
   - Kerala [80]

2. **Hamadruas sikkimensis** (Tikader, 1970)
   
   Syn. *Hamataliwa sikkimensis* (Tikader, 1970); *Oxyopes sikkimensis* Tikader, 1970
   
   - Assam [81]
   - Gujarat [82-84]
   - Kerala [85]
   - Meghalaya [29, 51]
   - Sikkim [29, 47, 51, 54, 66, 89]
3. **Hamadruas superba** (Thorell, 1887)
Syn. *Oxyopes superbus* Thorell, 1887
- Goa [92]
Elsewhere: Indonesia, Myanmar, Thailand

4. **Hamadruas sp.**
- Goa [93]
- Gujarat [83, 94]
- Karnataka [95]
- Kerala [96]
- Odisha [97]

5. **Hamataliwa hellia** Dhali et al., 2017*
- West Bengal [70]

6. **Hamataliwa incompta** (Thorell, 1895)
- West Bengal [39, 70]
Elsewhere: Indonesia, Malaysia, Myanmar, Philippines, Thailand

7. **Hamataliwa ovata** (Biswas et al., 1996)*
Syn. *Oxyopes ovatus* Biswas et al., 1996
- Maharashtra [98]
- West Bengal [29, 53, 68]

8. **Hamataliwa pentagona** Tang & Li, 2012
- Kerala [99]
Elsewhere: China

9. **Hamataliwa reticulata** (Biswas et al., 1996)*
Syn. *Oxyopes reticulatus* Biswas et al., 1996
- West Bengal [29, 53, 68]

10. **Hamataliwa subhadrae** (Tikader, 1970)
Syn. *Oxyopes subhadrae* Tikader, 1970
- Andaman & Nicobar Islands [29, 54]
- Rajasthan [100]
- Sikkim [29, 47, 54]
- West Bengal [47, 53]
Elsewhere: China

11. **Hamataliwa sp.**
- Goa [93]
- Gujarat [83]
- Karnataka [101, 102]
- Kerala [103]
- Maharashtra [104]
- Tamil Nadu [105, 106]
- Uttar Pradesh [107]
- Uttarakhand [108, 109]
12. *Oxyopes armatipalpis* Strand, 1912*
   • Kerala [43, 110, 111]

13. *Oxyopes ashae* Gajbe, 1999*
   • Chhattisgarh [29, 112, 113]
   • Gujarat [82, 83, 84]
   • Kerala [111, 114, 115]
   • Madhya Pradesh [54, 116]
   • Maharashtra [98, 104]

14. *Oxyopes assamensis* Tikader, 1969*
   • Arunachal Pradesh [29, 54]
   • Assam [39, 72]
   • Meghalaya [29, 46, 54]
   • Rajasthan [75]
   • Uttar Pradesh [79, 117]

15. *Oxyopes bharatae* Gajbe, 1999*
   • Bihar [29, 54]
   • Chhattisgarh [113, 118]
   • Delhi [119, 120]
   • Gujarat [82, 83, 84, 94, 121, 122]
   • Karnataka [102, 123]
   • Kerala [110, 114]
   • Madhya Pradesh [29, 54, 112]
   • Maharashtra [98, 104, 124, 125]
   • Odisha [97]
   • Tamil Nadu [126]

16. *Oxyopes biharensis* Gajbe, 1999*
   • Bihar [29, 54]

17. *Oxyopes birmanicus* Thorell, 1887
   • Arunachal Pradesh [127]
   • Assam [72, 81, 128, 129]
   • Goa [92, 93, 130]
   • Gujarat [82, 83, 84, 131]
   • Jammu & Kashmir [132]
   • Karnataka [101, 102, 123, 133, 134]
   • Kerala [80, 111, 135, 136]
   • Madhya Pradesh [137]
   • Maharashtra [98, 104, 124, 138]
   • Manipur [139]
   • Odisha [140-142]
   • Rajasthan [75, 143-147]
   • Tamil Nadu [126, 148-151]
   • Tripura [152]
   • Uttar Pradesh [79, 107, 117, 153-155]
   • West Bengal [87-89, 156]
   Elsewhere: China, Indonesia, Laos, Myanmar

18. *Oxyopes boriensis* Bodkhe & Vankhede, 2012*
   • Maharashtra [61, 98, 157]
19. *Oxyopes chitrae* Tikader, 1965*
- Gujarat [29, 49, 83, 158, 159]
- Madhya Pradesh [116]
- Maharashtra [29, 45, 54, 98, 104, 157]
- Rajasthan [144, 100]

20. *Oxyopes elegans L. Koch, 1878†*
- Jammu & Kashmir [132]
Elsewhere: Australia

21. *Oxyopes elongatus* Biswas et al., 1996*
- Uttar Pradesh [153, 154]
- West Bengal [29, 53]

22. *Oxyopes fabae* Dhali et al., 2015*
- West Bengal [69, 70]

23. *Oxyopes gorumaraensis* Sen et al., 2011*
- West Bengal [67, 68]

24. *Oxyopes gujaratensis* Gajbe, 1999*
- Gujarat [29, 54, 83, 122]
- Rajasthan [100]

25. *Oxyopes gurjanti* Sadana & Gupta, 1995*
- Gujarat [39, 160]
- Punjab [29, 161]

26. *Oxyopes haryanaensis* Goyal & Malik, 2020*
- Haryana [57]

27. *Oxyopes hindostanicus* Pocock, 1901
- Kerala [114, 162]
- Lakshadweep [163]
- Tamil Nadu [29, 41, 106, 148, 164-166]
- Uttar Pradesh [29, 167]
Elsewhere: Pakistan, Sri Lanka

28. *Oxyopes hotingchiehi* Schenkel, 1963
- Assam [70]
- West Bengal [68, 70]
Elsewhere: China

29. *Oxyopes indicus* (Walckenaer, 1805)*
Syn. *Sphasus indicus* Walckenaer, 1805
- Maharashtra [98, 157]
- Uttar Pradesh [155]
- West Bengal [32, 168]

30. *Oxyopes jabalpurensis* Gajbe & Gajbe, 1999*
- Chhattisgarh [118, 169]
- Madhya Pradesh [29, 55, 112, 170]
- Maharashtra [98]

31. *Oxyopes javanus* Thorell, 1887
Syn. *Oxyopes javanus nicobaricus* Strand, 1907
- Andaman & Nicobar Islands [29, 167]
- Arunachal Pradesh [171]
- Assam [72, 81, 128, 129]
- Bihar [172, 173]
- Goa [92, 93, 130]
- Gujarat [83, 94, 121, 174, 175]
- Jammu & Kashmir [176, 177]
- Karnataka [101, 102, 123, 134]
- Kerala [80, 103, 115, 178]
- Madhya Pradesh [70]
- Maharashtra [138, 157]
- Manipur [139]
- Meghalaya [179]
- Mizoram [180]
- Odisha [140]
- Rajasthan [75, 143]
- Tamil Nadu [76, 77, 78, 126, 181]
- Telangana [182]
- Tripura [152]
- Uttar Pradesh [79, 107, 117, 183-186]
- Uttarakhand [108, 187, 109]
- West Bengal [68, 70, 87, 88, 89, 156]
Elsewhere: Bangladesh, China, Indonesia, Philippines

32. *Oxyopes jubilans* O. Pickard-Cambridge, 1885
- Jammu & Kashmir [35, 188]
Elsewhere: Pakistan

33. *Oxyopes kamalae* Gajbe, 1999*
- Chhattisgarh [118, 169]
- Gujarat [83, 122]
- Madhya Pradesh [29, 54, 112]
- Maharashtra [157]
- Manipur [139]
- Meghalaya [179]
- West Bengal [179, 189-191]

34. *Oxyopes ketani* Gajbe & Gajbe, 1999*
- Chhattisgarh [148, 169]
- Madhya Pradesh [29, 55, 112, 170]
- Maharashtra [98, 157]
- Uttar Pradesh [50]

35. *Oxyopes kohaensis* Bodkhe & Vankhede, 2012*
- Haryana [192]
- Karnataka [193]
- Maharashtra [61, 98, 124]
- Rajasthan [146]

36. *Oxyopes kumarae* Biswas & Roy, 2005*
- Kerala [60]
37. **Oxyopes lepidus** (Blackwall, 1864)*
Syn. *Oxyopes similis* Stoliczka, 1869; *Sphasus lepidus* Blackwall, 1864
- East India [33]
- Tamil Nadu [164]
- West Bengal [29, 34, 167]

38. *Oxyopes linearis* Sen et al., 2015*
- West Bengal [68]

39. **Oxyopes lineatipes** (C.L.Koch, 1847)
- Arunachal Pradesh [171]
- Assam [72]
- Bihar [173]
- Gujarat [194]
- Karnataka [123, 134, 195]
- Kerala [80, 85, 114]
- Maharashtra [138]
- Mizoram [180]
- Tamil Nadu [30, 181]
- Uttar Pradesh [196]
- West Bengal [197]
Elsewhere: Bangladesh, China, Indonesia, Malaysia, Philippines, Thailand

40. **Oxyopes lineatus** Latreille, 1806
- Assam [128, 129]
- Jammu & Kashmir [132]
Elsewhere: Caucasus, Central Asia, Europe, Middle East, Russia, Turkey

41. **Oxyopes longinquus** Thorell, 1891
- Andaman & Nicobar Islands [44]
Elsewhere: Myanmar

42. **Oxyopes longispinus** Saha & Raychaudhuri, 2003*
- West Bengal [29, 64]

43. **Oxyopes ludhianaensis** Sadana & Goel, 1995*
- Punjab [29, 52]

44. **Oxyopes macilentus** L. Koch, 1878†
- Maharashtra [198]
Elsewhere: Australia, China, Japan, New Guinea, Philippines, Taiwan

45. **Oxyopes matiensis** Barrion & Litsinger, 1995
- Assam [179]
- Madhya Pradesh [179]
- Meghalaya [179]
Elsewhere: Philippines

46. **Oxyopes minutus** Biswas et al., 1996*
- Gujarat [94]
- West Bengal [29, 53]
47. *Oxyopes nalinae* Gajbe, 1999*
   - Assam [199]
   - Chhattisgarh [112, 113]
   - Madhya Pradesh [29, 54, 112]
   - Maharashtra [98]
   - West Bengal [189, 191]

48. *Oxyopes nilgiricus* Sherriffs, 1955*
   - Tamil Nadu [44, 200, 201]

49. *Oxyopes pandae* Tikader, 1969
   - Jammu & Kashmir [176]
   - Kerala [85]
   - Madhya Pradesh [39]
   - Manipur [139, 202]
   - Punjab [203]
   - Uttar Pradesh [29, 46, 54, 183, 202]
   - West Bengal [66, 68, 89, 204]
   Elsewhere: Bangladesh

50. *Oxyopes pankaji* Gajbe & Gajbe, 2000*
   - Assam [72, 199]
   - Chhattisgarh [113]
   - Gujarat [82-84]
   - Haryana [205]
   - Madhya Pradesh [29, 56, 170, 206, 207]
   - Maharashtra [98, 104, 125, 157]
   - Manipur [139]
   - Rajasthan [75, 100, 146, 147, 208]
   - Tamil Nadu [126]
   - Uttar Pradesh [79, 117]
   - Uttarakhand [31]
   - West Bengal [39, 70]

51. *Oxyopes pawani* Gajbe, 1992*
   - Andhra Pradesh [209]
   - Madhya Pradesh [70]
   - Maharashtra [98, 104, 157]
   - Telangana [210]
   - Uttar Pradesh [29, 50, 54]
   - West Bengal [39, 70]

52. *Oxyopes praedictus* O. Pickard-Cambridge, 1885*
   - Jammu & Kashmir [35, 188]

53. *Oxyopes quadridentatus* Thorell, 1895
   - Kerala [135]
   - Tamil Nadu [151]
   Elsewhere: Myanmar

54. *Oxyopes rajai* Saha & Raychaudhuri, 2003*
   - West Bengal [29, 64]

55. *Oxyopes ramosus* (Martini & Goeze, 1778)†
• Jammu & Kashmir [132]
Elsewhere: Caucasus, Europe, Kazakhstan, Korea, Russia, Turkey

56. *Oxyopes ratnae* Tikader, 1970*
• Chhattisgarh [211]
• Gujarat [83, 212, 213]
• Jammu & Kashmir [176, 177]
• Karnataka [214]
• Kerala [114]
• Madhya Pradesh [39]
• Manipur [139]
• Mizoram [215]
• Punjab [29, 161]
• Rajasthan [75]
• Sikkim [29, 47, 54, 66]
• Tamil Nadu [30]
• Uttar Pradesh [79, 117, 155, 183]
• West Bengal [29, 66, 87, 88, 89, 204]
Elsewhere: Bangladesh, Pakistan

57. *Oxyopes reddyi* Majumder, 2004*
• Andhra Pradesh [39]
• Gujarat [82]
• West Bengal [29, 66, 89]

58. *Oxyopes rejectus* O. Pickard-Cambridge, 1885*
• Jammu & Kashmir [35, 188]

59. *Oxyopes rufisternis* Pocock, 1901
• Bihar [29, 39]
• Gujarat [29, 83, 212]
• Maharashtra [216]
• Tamil Nadu [148]
Elsewhere: Pakistan, Sri Lanka

60. *Oxyopes rukminiae* Gajbe, 1999*
• Chhattisgarh [29, 112, 113]
• Gujarat [83]
• Karnataka [29, 54, 123]
• Kerala [29, 54]
• Madhya Pradesh [54]

61. *Oxyopes ryvesi* Pocock, 1901
• Gujarat [217]
• Uttar Pradesh [29, 41, 167]
Elsewhere: Pakistan

62. *Oxyopes sakuntalae* Tikader, 1970*
• Chhattisgarh [211]
• Kerala [110, 114]
• Madhya Pradesh [39]
• Sikkim [47]
• West Bengal [29, 47, 54, 66, 88, 89, 204]
63. *Oxyopes salticus* Hentz, 1845†
- Arunachal Pradesh [127]
- Assam [81]
- Bihar [173]
- Karnataka [218]
- Kerala [85]
- Uttar Pradesh [155]
Elsewhere: Argentina, Brazil, Canada, Chile, Mexico, USA

64. *Oxyopes saradae* Biswas & Roy, 2005*
- Kerala [60]

65. *Oxyopes sataricus* Kulkarni & Deshpande, 2012*
- Maharashtra [62]

66. *Oxyopes sertatus* L. Koch, 1878
- Odisha [219]
- Rajasthan [75]
- Uttar Pradesh [79, 155]
Elsewhere: China, Japan, Korea, Taiwan

67. *Oxyopes shweta* Tikader, 1970*
- Andaman & Nicobar Islands [54]
- Andhra Pradesh [89]
- Arunachal Pradesh [220]
- Assam [72, 81, 128, 129, 199, 221, 222]
- Goa [93, 130]
- Gujarat [83, 122, 160, 212, 213, 223]
- Jammu & Kashmir [176, 224]
- Karnataka [102, 123, 195, 218]
- Kerala [80, 86, 110, 111, 115, 136]
- Madhya Pradesh [207]
- Maharashtra [104, 225]
- Manipur [139, 157, 202]
- Meghalaya [29, 51, 66, 74, 89, 202]
- Mizoram [215]
- Odisha [127, 140]
- Rajasthan [75, 143, 145, 226]
- Sikkim [29, 47, 51, 54, 66]
- Tamil Nadu [105, 126, 227]
- Tripura [29, 90]
- Uttar Pradesh [79, 117, 153, 154, 155, 185, 186]
- Uttarakhand [108, 109, 187]
- West Bengal [29, 51, 53, 66, 68, 87, 88, 89, 190, 191, 204]
Elsewhere: China, Pakistan

68. *Oxyopes sitae* Tikader, 1970
- Andaman & Nicobar Islands [29, 54, 228]
- Assam [199]
- Gujarat [29, 49, 83, 229]
- Kerala [110]
- Maharashtra [157]
Meghalaya [29, 51, 66, 89] 
Rajasthan [144, 230, 231] 
Sikkim [29, 47, 51, 54, 66, 89, 228] 
West Bengal [51, 66, 68, 88, 89, 189, 191] 
Elsewhere: Bangladesh

69. Oxyopes subimali Biswas et al., 1996* 
West Bengal [29, 53]

70. Oxyopes sunandae Tikader, 1970 
Assam [128, 129] 
Chhattisgarh [211] 
Gujarat [83, 229] 
Karnataka [102, 218] 
Kerala [80, 103, 115, 135] 
Madhya Pradesh [39] 
Maharashtra [138] 
Meghalaya [29, 51, 66, 89] 
Odisha [140] 
Sikkim [29, 47, 51, 54, 66, 89] 
Tamil Nadu [126] 
Tripura [29, 90] 
West Bengal [66, 89, 232] 
Elsewhere: Bangladesh

71. Oxyopes sushilae Tikader, 1965* 
Maharashtra [29, 45, 54] 
Elsewhere: China, Taiwan

72. Oxyopes tiengianensis Barrion & Litsinger, 1995 
Madhya Pradesh [233] 
Elsewhere: Vietnam

73. Oxyopes tikaderi Biswas & Majumder, 1995* 
Maharashtra [157] 
Meghalaya [29, 51]

74. Oxyopes travancoricola Strand, 1912* 
Kerala [43]

75. Oxyopes wroughtoni Pocock, 1901 
Gujarat [29, 41, 49, 83, 148] 
Kerala [234, 235] 
Elsewhere: Pakistan

76. Oxyopes sp. 
Andhra Pradesh [236] 
Assam [72] 
Bihar [172] 
Chhattisgarh [113, 118] 
Goa [93] 
Gujarat [82, 83, 94, 158] 
Karnataka [102, 195, 214] 
Kerala [110, 111, 178, 234]
• Madhya Pradesh [207]
• Rajasthan [75, 143, 145, 146]
• Tamil Nadu [149]
• Uttar Pradesh [79, 117, 153, 154]
• Uttarakhand [31, 108, 109, 187]
• West Bengal [237]

77. Peucetia akwadaensis Patel, 1978
  • Delhi [119]
  • Gujarat [29, 49, 82, 83, 84, 217]
  Elsewhere: China

78. Peucetia ananthakrishnani Murugesan et al., 2006*
  • Kerala [85]
  • Tamil Nadu [59]

79. Peucetia ashae Gajbe & Gajbe, 1999*
  • Chhattisgarh [169, 118]
  • Madhya Pradesh [29, 170, 238]
  • Maharashtra [104]

80. Peucetia betlaensis Saha & Raychaudhuri, 2006*
  • Jharkhand [58]

81. Peucetia biharensis Gajbe, 1999*
  • Bihar [29, 54]

82. Peucetia choprai Tikader, 1965*
  • Madhya Pradesh [29, 54, 112]
  • Maharashtra [29, 45, 54]

83. Peucetia elegans (Blackwall, 1864)*
  Syn. Pasithea elegans Blackwall, 1864
  • East India [33]
  • Gujarat [121]
  • Maharashtra [98, 157]

84. Peucetia gauntleta Saha & Raychaudhuri, 2004*
  • West Bengal [29, 65]

85. Peucetia graminea Pocock, 1900*
  • Gujarat [29, 42]
  • Tamil Nadu [148, 165]

86. Peucetia harishankarensis Biswas, 1975*
  • Odisha [29, 48, 54]

87. Peucetia jabalpurensis Gajbe & Gajbe, 1999*
  • Chhattisgarh [118, 169]
  • Madhya Pradesh [29, 170, 238]
  • Maharashtra [98, 104]

88. Peucetia ketani Gajbe, 1992*
  • Uttar Pradesh [29, 50, 54]

89. Peucetia latikae Tikader, 1970*
• Andhra Pradesh [89]
• Gujarat [29, 49, 83, 223, 229]
• Madhya Pradesh [233]
• Maharashtra [104, 125]
• Meghalaya [29, 51]
• Rajasthan [100]
• Sikkim [29, 47, 51, 54]
• Tamil Nadu [150]
• Uttarakhand [239]
• West Bengal [51, 66, 88, 89]
Elsewhere: China

90. **Peucetia pawani** Gajbe, 1999*
• Chhattisgarh [29, 54, 112, 113]

91. **Peucetia phantasma** Ahmed et al., 2015*
• Maharashtra [63]

92. **Peucetia punjabensis** Gajbe, 1999*
• Punjab [29, 54]

93. **Peucetia rajani** Gajbe, 1999*
• Chhattisgarh [29, 54, 112]
• Madhya Pradesh [54, 112]
• Maharashtra [104]

94. **Peucetia ranganathani** Biswas & Roy, 2005*
• Kerala [60]

95. **Peucetia viridana** (Stoliczka, 1869)
_Syn. Peucetia nigropunctata_ Simon, 1884; _Sphasus viridana_ Stoliczka, 1869
• Andhra Pradesh [240]
• Goa [93]
• Gujarat [82, 83, 94, 175, 160, 212]
• Jammu & Kashmir [241]
• Karnataka [102, 123, 214, 218]
• Kerala [42, 73, 110, 111, 115, 178]
• Madhya Pradesh [242, 243]
• Maharashtra [98, 157, 240, 216]
• Manipur [139]
• Mizoram [215]
• Odisha [89, 140, 141, 142, 244]
• Puducherry [29, 42, 240]
• Rajasthan [143, 144, 145, 208]
• Tamil Nadu [29, 42, 76, 89, 106, 126, 148, 150, 151, 164, 165, 166, 240]
• Uttarakhand [187, 245]
• West Bengal [29, 34, 87, 88, 89, 197, 240]
Elsewhere: Bangladesh, Pakistan, Myanmar, Sri Lanka

96. **Peucetia viridans** (Hentz, 1832)
• Madhya Pradesh [137]

97. **Peucetia viveki** Gajbe, 1999*
• Chhattisgarh [118]
Madhya Pradesh [29, 54, 112]
Maharashtra [104]

**98. *Peucetia yogeshi* Gajbe, 1999**
- Andhra Pradesh [209]
- Chhattisgarh [29, 54, 112, 113]
- Gujarat [82, 83, 84]
- Maharashtra [104, 225]
- Rajasthan [100]
- Telangana [210]

**99. *Peucetia* sp.**
- Gujarat [83, 94, 158]
- Karnataka [102, 214]
- Kerala [110, 234]
- Madhya Pradesh [207]
- Maharashtra [138]
- Odisha [127]
- Rajasthan [144]
- Tamil Nadu [105]
- Uttar Pradesh [107, 153, 154]
- Uttarakhand [108]

**100. *Tapponia* sp.†**
Probably it belongs to either *Hamataliwa* sp. or *Hamadruas* sp. as *Tapponia micans* Simon, 1885 is a monotypic species found only in Malaysia and Indonesia.
- Kerala [135]
- Tamil Nadu [149]

**II. Checklist of Lynx Spiders (Oxyopidae) in Indian States**

1. **Andhra Pradesh**: *Oxyopes pawani*, *Oxyopes reddy*, *Oxyopes shweta*, *Peucetia latikae*, *Peucetia viridana*, *Peucetia yogeshi*

2. **Arunachal Pradesh**: *Oxyopes assamensis*, *Oxyopes birmanicus*, *Oxyopes salticus*, *Oxyopes shweta*, *Oxyopes javanus*, *Oxyopes lineatipes*

3. **Assam**: *Hamadruas sikkimensis*, *Oxyopes assamensis*, *Oxyopes birmanicus*, *Oxyopes hotingchiehi*, *Oxyopes javanus*, *Oxyopes lineatipes*, *Oxyopes lineatus*, *Oxyopes matiensis*, *Oxyopes naliniae*, *Oxyopes pankaji*, *Oxyopes salticus*, *Oxyopes shweta*, *Oxyopes sitae*, *Oxyopes sunandae*

4. **Bihar**: *Oxyopes bharatae*, *Oxyopes biharensis*, *Oxyopes javanus*, *Oxyopes lineatipes*, *Oxyopes rufisternis*, *Oxyopes salticus*, *Peucetia biharensis*

5. **Chhattisgarh**: *Oxyopes ashae*, *Oxyopes bharatae*, *Oxyopes jabalpurensis*, *Oxyopes kamalae*, *Oxyopes ketani*, *Oxyopes kumarae*, *Oxyopes naliniae*, *Oxyopes pankaji*, *Oxyopes ratnae*, *Oxyopes rukminiae*, *Oxyopes sakuntalae*, *Oxyopes sunandae*, *Peucetia ashae*, *Peucetia jabalpurensis*, *Peucetia pawani*, *Peucetia rajani*, *Peucetia viveki*, *Peucetia yogeshi*

6. **Goa**: *Hamadruas superba*, *Hamataliwa* sp., *Oxyopes birmanicus*, *Oxyopes javanus*, *Oxyopes shweta*, *Peucetia viridana*

7. **Gujarat**: *Hamadruas sikkimensis*, *Hamataliwa* sp., *Oxyopes ashae*, *Oxyopes bharatae*, *Oxyopes birmanicus*, *Oxyopes chittrae*, *Oxyopes gujaratensis*, *Oxyopes gurjanti*, *Oxyopes
javanus, Oxyopes kamalae, Oxyopes lineatipes, Oxyopes minutus, Oxyopes pankaji, Oxyopes ratnae, Oxyopes reddy, Oxyopes rufisternis, Oxyopes rukminiae, Oxyopes ryvesi, Oxyopes shweta, Oxyopes sitae, Oxyopes sunandae, Oxyopes sunandae, Oxyopes wroughtonii, Peucetia akwadaensis, Peucetia elegans, Peucetia graminea, Peucetia latikae, Peucetia viridana, Peucetia yogeshi

8. Haryana: Oxyopes kohaeensis, Oxyopes haryanaensis, Oxyopes pankaji

9. Jharkhand: Peucetia betlaensis

10. Karnataka: Hamadruas sp., Hamataliwa sp., Oxyopes bharatae, Oxyopes birmanicus, Oxyopes javanus, Oxyopes kohaeensis, Oxyopes lineatipes, Oxyopes ratnae, Oxyopes rukminiae, Oxyopes salticus, Oxyopes shweta, Oxyopes sunandae, Peucetia viridana

11. Kerala: Hamadruas insulana, Hamadruas sikkimensis, Hamataliwa pentagona, Oxyopes armatipalpis, Oxyopes ashae, Oxyopes bharatae, Oxyopes birmanicus, Oxyopes hindostanicus, Oxyopes javanus, Oxyopes kumarae, Oxyopes lineatipes, Oxyopes pandae, Oxyopes quadridentatus, Oxyopes ratnae, Oxyopes rukminiae, Oxyopes sakuntalae, Oxyopes salticus, Oxyopes saradae, Oxyopes shweta, Oxyopes sitae, Oxyopes sunandae, Oxyopes travancoricola, Oxyopes wroughtonii, Peucetia ananthakrishnani, Peucetia ranganathani, Peucetia viridana, Tapponia sp.

12. Madhya Pradesh: Oxyopes ashae, Oxyopes bharatae, Oxyopes birmanicus, Oxyopes chitrae, Oxyopes jabalpurensis, Oxyopes javanus, Oxyopes kamalae, Oxyopes ketani, Oxyopes kumarae, Oxyopes matiensis, Oxyopes naliniae, Oxyopes pandae, Oxyopes pankaji, Oxyopes pawani, Oxyopes ratnae, Oxyopes rukminiae, Oxyopes sakuntalae, Oxyopes shweta, Oxyopes sunandae, Oxyopes tiengianensis, Peucetia ashae, Peucetia choprai, Peucetia jabalpurensis, Peucetia latikae, Peucetia rajani, Peucetia viridana, Peucetia viridians, Peucetia viveki

13. Maharashtra: Hamataliwa ovata, Oxyopes ashae, Oxyopes bharatae, Oxyopes birmanicus, Oxyopes boriensis, Oxyopes chitrae, Oxyopes indicus, Oxyopes jabalpurensis, Oxyopes javanus, Oxyopes kamalae, Oxyopes ketani, Oxyopes kohaeensis, Oxyopes lineatipes, Oxyopes macilentus, Oxyopes naliniae, Oxyopes pankaji, Oxyopes pawani, Oxyopes rufisternis, Oxyopes sataricus, Oxyopes shweta, Oxyopes sitae, Oxyopes sunandae, Oxyopes sushilaee, Oxyopes tikaderi, Peucetia ashae, Peucetia choprai, Peucetia elegans, Peucetia jabalpurensis, Peucetia latikae, Peucetia phantasme, Peucetia rajani, Peucetia viridana, Peucetia viveki, Peucetia yogeshi

14. Manipur: Oxyopes birmanicus, Oxyopes javanus, Oxyopes kamalae, Oxyopes pandae, Oxyopes pankaji, Oxyopes ratnae, Oxyopes shweta, Peucetia viridana

15. Meghalaya: Hamadruas sikkimensis, Oxyopes assamensis, Oxyopes javanus, Oxyopes kamalae, Oxyopes matiensis, Oxyopes shweta, Oxyopes sitae Oxyopes sunandae, Oxyopes tikaderi, Peucetia latikae

16. Mizoram: Oxyopes javanus, Oxyopes lineatipes, Oxyopes ratnae, Oxyopes shweta, Peucetia viridana

17. Odisha: Hamadruas sp., Oxyopes bharatae, Oxyopes birmanicus, Oxyopes javanus, Oxyopes sertatus, Oxyopes shweta, Oxyopes sunandae, Peucetia harishankarensis, Peucetia viridana

18. Punjab: Oxyopes gurjanti, Oxyopes ludhianaensis, Oxyopes pandae, Oxyopes ratnae, Peucetia punjabensis
19. Rajasthan: Hamataliwa subhadrae, Oxyopes assamensis, Oxyopes birmanicus, Oxyopes chittrae, Oxyopes gujaratensis, Oxyopes javanus, Oxyopes koharenis, Oxyopes pankaji, Oxyopes ratnae, Oxyopes sertatus, Oxyopes shweta, Oxyopes sitae, Peucetia latikae, Peucetia viridana, Peucetia yogeshi

20. Sikkim: Hamadruas sikkimensis, Hamataliwa subhadrae, Oxyopes ratnae, Oxyopes sakuntalae, Oxyopes shweta, Oxyopes sunandae, Peucetia latikae

21. Tamil Nadu: Hamataliwa sp., Oxyopes bharatae, Oxyopes birmanicus, Oxyopes hindostanicus, Oxyopes javanus, Oxyopes lepidus, Oxyopes lineatipes, Oxyopes nilgiricus, Oxyopes pankaji, Oxyopes quadridentatus, Oxyopes ratnae, Oxyopes rufisternis, Oxyopes shweta, Oxyopes sunandae, Peucetia ananthakrishnani, Peucetia graminea, Peucetia latikae, Peucetia viridana, Tapponia sp.

22. Telangana: Oxyopes javanus, Oxyopes pawani, Peucetia yogeshi

23. Tripura: Hamadruas sikkimensis, Oxyopes birmanicus, Oxyopes javanus, Oxyopes shweta, Oxyopes sunandae

24. Uttar Pradesh: Hamataliwa sp., Oxyopes assamensis, Oxyopes birmanicus, Oxyopes elongatus, Oxyopes hindostanicus, Oxyopes indicus, Oxyopes javanus, Oxyopes ketani, Oxyopes lineatipes, Oxyopes pandae, Oxyopes pankaji, Oxyopes pawani, Oxyopes ratnae, Oxyopes ryvesi, Oxyopes salticus, Oxyopes sertatus, Oxyopes shweta, Peucetia ketani

25. Uttarakhand: Hamadruas sikkimensis, Hamataliwa sp., Oxyopes javanus, Oxyopes kumarae, Oxyopes pankaji, Oxyopes shweta, Peucetia latikae, Peucetia viridana

26. West Bengal: Hamadruas sikkimensis, Hamataliwa hellia, Hamataliwa incompta, Hamataliwa ovata, Hamataliwa reticulate, Hamataliwa subhadrae, Oxyopes birmanicus, Oxyopes fabae, Oxyopes gorumaraensis, Oxyopes hotingchiehi, Oxyopes indicus, Oxyopes javanus, Oxyopes kamalae, Oxyopes lepidus, Oxyopes linearis, Oxyopes lineatipes, Oxyopes longispinus, Oxyopes minitus, Oxyopes naliniae, Oxyopes pandae, Oxyopes pankaji, Oxyopes pawani, Oxyopes rajai, Oxyopes ratnae, Oxyopes reddyi, Oxyopes sakuntalae, Oxyopes shweta, Oxyopes sitae, Oxyopes subimali, Oxyopes sunandae, Peucetia gauntleta, Peucetia latikae, Peucetia viridana

III. Checklist of Lynx Spiders (Oxyopidae) in Union Territories of India

1. Andaman & Nicobar Islands: Hamadruas insulana, Hamataliwa subhadrae, Oxyopes gemellus, Oxyopes javanus, Oxyopes longinquus, Oxyopes shweta, Oxyopes sitae

2. Delhi: Oxyopes bharatae, Peucetia akwadaensis

3. Jammu & Kashmir: Oxyopes birmanicus, Oxyopes elegans, Oxyopes javanus, Oxyopes jubilans, Oxyopes lineatus, Oxyopes pandae, Oxyopes praedictus, Oxyopes ramosus, Oxyopes ratnae, Oxyopes rejectus, Oxyopes shweta, Peucetia viridana

4. Lakshadweep: Oxyopes hindostanicus

5. Puducherry: Peucetia viridana

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**REFERENCES**


30. Sahayaraj, K., and Parvathi, S.J. 2011. Distribution and diversity of spiders in agroecosystems of Tirunelveli and Thoothukudi districts of Tamil Nadu, India. *Bugs R All* 17: 10


139. Kananbala, A., Bhubaneshwari, M., and Siliwal, M. 2018. A checklist of spiders (Arachnidae: Araneae) of Manipur, India with some first records and a new...


