

CHAPTER-4

RESULTS

A total of 189 species belonging to 106 genera and 32 families were collected during this study (Table 3). The most dominant families reported were Salticidae 13% (24 species) followed by Araneidae 10% (19 species) Lycosidae and Theridiidae 7% (13 species) Oxyopidae and Thomisidae 6% (11 species) Gnaphosidae 5% (10 species) Sparassidae 4.8% (9 species) Oonopidae, Tertragnathidae and Zodariidae 4.3% (8 species). General description, identification keys of different families, genera and species of spiders sampled from Champaner- Pavagadh Archaeological Park has been followed by the description and details (Sebastian and Peter, 2009; World spider catalog, 2019; Siliwal, *et. al.*, 2005; Hore and Uniyal (2009).

Moreover, critical observations taken under the microscope are also penned down.

4.1 Taxonomic characters of spider species documented from study area

Spider belongs to the order Araneae of the class Arachnida. Order Araneae comprises of three suborders namely Mesothelae, Mygalomorphae and Araneomorphae. In the present study we have found one Mygalomorphae and rest all the species belong to the suborder Araneomorphae. External morphological characteristics of spiders unique to each suborder are given below.

A. Sub-order: Mygalomorphae

Chelicerae fangs paraxial i.e. parallel to each other; book lungs 2 pairs; spinnerets usually 2 pairs, anteromedian eyes are absent, sternum often with sigilla; cribellum or colulus absent.

Family- Theraphosidae Thorell, 1870 (Tarantulas)

They are large and hairy spiders. They are nocturnal known to inhabit deep burrows which are lined by silk threads. Chelicerae fangs paraxial i.e. parallel to each other. Legs are

strong and provided with two claws, well developed 2 pairs of book lungs. Spinnerets usually 2 pairs, antereomedians absent, sternum often with sigilla, cribellum or colulus absent

Genus- *Plesiophrictus* Pocock, 1899

Cephalothorax long and wide with short fovea. Stridulating organ absent, Chelicerae with promargin teeth. Anterior lateral eyes are larger than posterior lateral eyes. Sternum is oval in shape. Three pairs of spinnerets are present with brown hairs.

***Plesiophrictus* sp. (Figure 26)**

Cephalothorax is longer than wide, brown in colour, covered with hairs. Abdomen whitish in colour with brown patterns, covered with long hairs. Chelicerae with promargin teeth. Anterior lateral eyes are larger than posterior lateral eyes. Sternum dark brown, oval in shape. Three pairs of spinnerets are present with brown hairs.

B. Sub-order Araneomorphae

Chelicerae fangs are diaxial i.e. opposing to each other, one pair book lungs present, spinnerets usually 3 pairs, cribellum or colulus present, sternum without any sigilla

Family- Agelenidae C. L. Koch, 1837 (Funnel Web Spiders)

Cephalothorax is oval in shape and narrow in eye region with longitudinal fovea. Sternum heart shaped. Eight eyes are equal in size arranged in two rows. Chelicerae with three teeth. Abdomen is oval, narrow in shape. Dorsal side with reddish brown folium. Posterior spinnerets are long and slender.

Genus- *Agelena* Walckenaer 1805

Cephalothorax long and wide, narrowing in eye region with longitudinal fovea. Chelicerae with three teeth. Eight medium sized eyes present in two rows. Legs long with three claws. Abdomen is reddish tinge with clearly marked chevrons. Dorsum with reddish brown folium. Posterior spinnerets long.

***Agelena gautami* Tikader, 1962 (Figure 27)**

Cephalothorax is light brown in colour, narrow at the front. Thoracic region is flat. Eyes are equal in size but anterior medians slightly larger than other eyes. Abdomen is dark brown in colour, covered with hairs. Ventral side is lighter than dorsal side. Anterior spinnerets separated, posterior much longer and two segmented. Apical segment is larger than the basal segment.

Family- Araneidae Simon, 1895 (Orb web spiders)

Araneidae represent the largest family of spiders commonly known as Orb-web weavers. Almost all the species of Arachnids make Orb-web except the genus *Cyrtophora*. Species of this family are small to large in size. Abdomen is different in size and colour with variable markings and with or without projections. Legs are long, three claws with numerous spines. Eight eyes are arranged in two rows. Males are smaller than female spiders.

Genus - *Araneus* Clerck, 1757

Spiders are with hairy carapace and abdomen. Median eyes unequal in size. Legs are very hairy and spiny. Thoracic groove transverse in female but longitudinal in male spiders. Abdomen oval in shape with white pattern on dorsal side.

***Araneus* sp. (Figure 28)**

Cephalothorax is longer than wide, narrow in front side, covered with pubescence and hairs. Thoracic region is lighter in colour with longitudinal grooves. Eyes are pearly white except anterior medians. Posterior median eyes are larger than anterior medians. Chelicerae strong, yellowish brown in colour, legs are long and strong covered with hairs and spines. Abdomen longer than wide, round in shape covered with pubescence and hairs. Dorsal side yellowish brown in colour. Ventral side deep brown in colour with a pair of chalk white patches between epigastric furrows.

Genus - *Argiope* Audouin, 1826

Cephalothorax is flat longer than wide covered with thick layer of white pubescence. Anterior row of eyes are smaller than posterior row of eyes. Legs are long and strong with

hairs and spines. Abdomen is flat and variable in shape. The web consists of closely spaced radial threads with white coloured lines with X shape structure is stabilimentum in the center of orb-web in which the spider take rests. At the time of danger, the spider moves to the other side of the stabilimentum.

***Argiope anasuja* Thorell, 1887 (Figure 29)**

Cephalothorax is slightly longer than wide greyish in colour and covered with thick layer of white pubescence with irregular yellowish patches. Posterior median eyes encircled with black ring. Chelicerae are small and reddish-brown in colour. Abdomen is pentagonal and slightly broad. Dorsal side is chalk white in colour with brown transverse bands with three pairs of segilla, ventral side is dark brown in colour.

Genus- *Cyclosa* Menge, 1866

Cephalothorax is anteriorly narrow and distinctly separated from thoracic region by an oblique groove forming a U-shape. Ocular area is quadrangle in shape. Anterior median eyes are larger than posterior median eyes. Abdomen is marked with presence of humps. The spider generally rests at the hub of the web. A few species make white coloured zigzag stabilimentum with white silk bands, which makes spider identical with the stabilimentum and can be easily overlooked.

***Cyclosa bifida* Doleschall, 1859 (Figure 30)**

Cephalothorax is blackish brown in colour, longer than wide, narrow in front and covered with hairs. Cephalic region is distinctly separated from thoracic region by cephalic groove. Thoracic fovea looks like circular pit. Legs are long and covered with spines and hairs. Abdomen is elongated with a blunt long caudal process. Dorsal side of abdomen has one pair of longitudinal silvery patches extending from anterior end to the base of the caudal process. Ventral side is blackish, with greyish patches.

***Cyclosa confragra* Thorell, 1892 (Figure 31)**

Cephalothorax is black in colour with grey patches, longer than wide, narrow in front, covered with hairs. Eight eyes are present, anterior median eyes larger than posterior eyes encirculated with black rings. Chelicerae are small and yellowish brown. Legs are long greyish-yellow with some indistinct blackish brown patches, covered with hairs and spines.

Abdomen, provided with a distinct pointed caudal hump and two lateral humps posteriorly. Dorsal side of abdomen with four pairs of sigilla with black and chalk white patches. Ventral side is marked by a median broad blackish patch guarded by one pair of chalk white patches extending from epigastric furrow to spinnerets.

***Cyclosa moonduensis* Tikader, 1963 (Figure 32)**

Cephalothorax is slightly longer than wide. Eyes white in colour, posterior median eyes are larger than anterior median eyes. Legs are with white band. Sternum is heart shaped. Abdomen is longer than wide, covered with grey fine pubescence.

***Cyclosa spirifera* Simon, 1889 (Figure 33)**

Cephalothorax is longer than wide, yellow brownish with dark brown patches. Legs are long, yellowish with brownish patches. Abdomen is longer than wide with two median humps one of which anteriorly placed and bent upward and one at caudal end bent downward.

Genus- *Cyrtophora* Simon, 1864

Cephalothorax flat with distinct thoracic furrow. Lateral eyes are equal in size and slightly separated from each other. Abdomen is very high and with one pair of shoulder humps. Legs are long and stout. The spider makes tent shaped web. Ventral side with a pair of longitudinal chalk white spots and three pairs of small white spots upto spinnerets are present.

***Cyrtophora cicatrosa* Stoliczka, 1869 (Figure 34)**

Cephalothorax is wide and long and yellowish in colour with black patches and stripes. Legs are longer than wide with two lateral black patches, covered with hairs, thoracic region provided with fovea. Abdomen is long and wide, dorsal side is black with conical tubercle. Ventral side with a pair of longitudinal chalk white spots and three pairs of small white spots upto spinnerets are present.

***Cyrtophora citricola* Forskal, 1775 (Figure 35)**

Cephalothorax long and wide, narrowing anteriorly, brownish in colour. Anterior median eyes are larger than posterior median eyes, both row of eyes strongly recurved. Sternum

triangular pointed behind. Legs long brownish with yellowish patches covered with hairs. Chelicerae strong, distinctly swollen before the base. Abdomen high up anteriorly and strongly overlapping on the cephalothorax covered with pubescence and hairs. Dorsal side with one pairs of shoulder humps, one pair of lateral humps at the middle.

Genus- *Eriovixia* Archer 1951

Cephalothorax is long and wide, blackish or brownish in colour. Anterior median eyes are slightly smaller than posterior median eyes. Abdomen is wider than long, light coloured sometimes almost white, covered with hairs.

***Eriovixia excelsa* (Simon, 1889) (Figure 36)**

Cephalothorax is longer than wide, narrow in front, covered with white pubescence. Legs are long, brown in colour. Chelicerae are strong and yellowish brown in colour. Abdomen is wider than long with a tail like hump with black tip at the posterior end.

***Eriovixia laglaizei* (Simon, 1877) (Figure 37)**

Cephalothorax is long, greyish white in colour. Chelicerae are strong, yellowish brown in colour. Legs are long greyish white, covered with hairs. Abdomen is posteriorly cone shaped, yellowish grey with chalk white patches covered with pubescence

Genus- *Gasteracantha* Sundevall, 1833

Cephalothorax is elevated at the middle and sloping anteriorly and posteriorly. Eight eyes are present, median eyes are equal in size. Abdomen is long, provided with an anterior, a median and posterior spines. Webs are made in the open space between the branches of shrubs or trees often decorated with some small silk balls along with viscid spiral.

***Gasteracantha hasselti*, C. L. Koch, 1837 (Figure 38)**

Cephalothorax is longer than wide, anteriorly blunt, brown colour covered with fine hairs. Cephalic area with median grooves and thoracic area is tapered posteriorly. Legs long with dark brown patches, short and strong with hairs. Abdomen is long and wide and strongly overlapped towards cephalothorax. Dorsal side of abdomen is yellowish in colour with few pairs of sigilla. Ventral side with chalk white spots.

Genus - *Larinia* Simon 1874

Cephalothorax is longer than wide, brownish in colour. Cephalic region is with two distinct cervical furrows and with longitudinal brown line. Chelicerae are brown with three similar teeth. Legs are long and slender, Covered with spines and hairs. Abdomen is longer than wide, yellowish in colour with brown spots and narrows anteriorly.

***Larinia chloris* (Audouin, 1826) (Figure 39)**

Cephalothorax is longer than wide, brownish yellow in colour. Cephalic area with two distinct cervical furrows. Abdomen is longer than wide, narrowing anteriorly, brown in colour.

Genus - *Neoscona* Simon, 1864

Longitudinal thoracic gooves are present in the female which separate *Neoscona* from the members of the genus *Araneus*. Anterior median eyes are larger than posterior medians, lateral eyes are closer to each other. Posterior eyes are smaller in size. Abdomen is oval or triangular in shape with patterns. They makes orb web in mixed vegetation and rest on centre of the web.

***Neoscona inustus* C. L. Koch, 1871 (Figure 40)**

Cephalothorax is longer than wide with median dark bands and provided with transverse groove. Anterior median eyes are larger than posterior median lateral eyes are closer to each other. Abdomen oval in shape, white coloured with greyish line and black spots on dorsal side, ventral side greyish with white longitudinal bars in between the epigastric furrows and the spinnerets.

***Neoscona mukerjei* Tikader, 1980 (Figure 41)**

Cephalothorax is longer yellowish or dark brown in colour with V- shaped pattern. Thoracic region with deep longitudinal groove. Legs are long and strong, yellowish in colour covered with spines. Abdomen is triangular in shape with long greyish white patches on dorsal side. Ventral side is brownish grey colour with middle dark brown patch in between the epigastric furrow and the spinnerets.

***Neoscona theisi* (Walckenaer, 1841) (Figure 42)**

Cephalothorax is narrower in front and covered with pubescence. Thoracic region with longitudinal groove. Anterior median eyes are larger than posterior median eyes. Sternum heart shaped, covered with pubescence and hairs. Abdomen oval, longer than wide, covered with chalk white bars with four pairs of lateral projections.

Genus- *Nephila* Leach, 1815

Cephalothorax is long, convex and more elevated. Ocular area is quadrangular and wider towards posterior. Sternum heart shaped. Dorsal side with mid-longitudinal greyish-yellow in colour. Legs are very long and strong covered with pubescence, hairs and spines. They build large orb webs in between the branches, bushes, large trees and gardens.

***Nephila pilipes* Fabricius, 1793 (Figure 43)**

Cephalothorax longer than wide, greyish black in colour, narrowing in front than behind, covered with yellowish small pubescence. Dorsal side a pair of long mid-longitudinal yellowish lines, decorated with yellow patches. Abdomen is longer than wide with black yellow strips on dorsal. Legs are very long and provided with spines and hairs.

Genus- *Poltys* C. L. Koch, 1843

Cephalic area is prominent and having elevated projection, ocular area wider in front than behind. Eyes are located on distant projection from the cephalic region and separated from each other. Abdomen is larger than wide with irregular tubercles.

***Poltys bhabanii* (Tikader, 1970) (Figure 44)**

Cephalothorax is longer than wide, yellowish in colour, covered with greyish pubescence. Sternum is heart shaped and dark brown in colour. Chelicerae are strong. Abdomen is whitish in colour, spherical in shape with large and small irregular tubercles.

Genus- *Singa* C. L. Koch, 1836

Cephalothorax is longer than wide, dark brown in colour. Eyes are pearly white posterior row straight anterior row recurved. Legs are short and slender covered with fine hairs. Abdomen is oval in shape with prominent white spots.

***Singa* sp. (Figure 45)**

Cephalothorax is longer than wide, dark brown in colour. Abdomen is oval in shape with chalk white spots. Legs are short with reddish brown in colour. Eyes are pearly white, posterior row straight and anterior row recurved

Genus- *Thelacantha* Hasselti, 1882

Cephalothorax long and wide, elevated at the middle with conical humps, sloping anteriorly and posteriorly. Median eyes are equal in size. Abdomen flattened dorsally with lateral spines.

***Thelacantha brevispina* Doleschall, 1857 (Figure 46)**

Cephalothorax longer than wide, reddish- brown in colour, covered with grey hairs. Cephalic area is with median bulging. Median eyes are subequal in size, posterior median eyes are encircled with black rings. Chelicerae are strong and reddish brown. Legs are strong and short, reddish brown in colour and covered with fine hairs. Abdomen wider than long, greenish or brown colour, covered with pubescence and hairs. Dorsal side bears a pair of large yellowish or white patches.

Family- Cheiracanthiidae Wagner 1887

Small to very large sized spiders. Cephalothorax is longer than wide, reddish brown in colour. Sternum is oval in shape. Eight eyes are arranged in two rows. Chelicerae are strong with teeth on fang furrows. Legs are long with two claws. Abdomen is oval in shape with markings.

Genus- *Cheiracanthium* C. L. Koch 1839

Cephalothorax is longer than wide, reddish brown to dark brown in colour. Eyes are arranged in two rows. Chelicerae are strong with teeth on fang furrows. Abdomen is oval in shape with marking bands or chevrons.

***Cheiracanthium danieli* Tikader, 1975 (Figure 47)**

Cephalothorax is longer than wide, brownish in colour. Eyes are equal in size. Pale marking is present in the middle of cephalic region between eyes. Posterior row of eyes are longer

than anterior row. Chelicerae are dark brown colour with fang. Abdomen is longer than wide covered with pubescence.

***Cheiracanthium melanostomum* (Thorell, 1895) (Figure 48)**

Cephalothorax is yellowish, anteriorly narrow and broader in posterior side. Eyes pearly white, posterior median eyes are slightly larger than anterior median eyes. Chelicerae are reddish brown in colour with two teeth. Abdomen is longer than wide, yellowish in colour and slightly darker in posterior side.

***Cheiracanthium triviali* (Thorell, 1895) (Figure 49)**

Cephalothorax longer than wide, covered with fine hairs. Fovea present on posterior of the carapace. Eyes are silvery white in colour. Median eyes pearly white. Anterior row recurved, posterior row longer than anterior row. Chelicerae are longer than wide. Sternum is light yellowish in colour. Legs are long and slender covered with fine hairs and spines. Abdomen is longer than wide, oval in shape tapering posteriorly, white in color.

Family- Clubionidae Wagner, 1887

They are medium size hunting spiders with eight eyes and are nocturnal. They have black face appearance. Cephalothorax is longer than wide, oval in shape. Eight eyes are present in two rows, small and equal in size. Posterior eyes are longer than anterior eyes. Legs are long covered with spines with tarsi and metatarsi scopulate.

Genus- *Clubiona* Latreille, 1804

Cephalothorax is longer than wide, narrow in front, covered with fine hairs. Chelicerae with two rows of teeth with fang furrow. Eight eyes are present in two rows, small and equal in size. Posterior eyes are longer than anterior eyes. Abdomen is longer than wide, oval in shape but posteriorly half narrowed.

***Clubiona drassodes* O. Pickard-Cambridge, 1874 (Figure 50)**

Cephalothorax is long and wide with yellowish in colour, median area more yellowish. Anterior eyes row are shorter than posterior row eyes. Abdomen is longer than wide, oval in shape but posteriorly half narrowed. Legs long and covered with fine hairs, pale yellowish in colour.

***Clubiona filicata* O. Pickard-Cambridge, 1874 (Figure 51)**

Cephalothorax is slightly longer than wide, yellowish white in colour. Eyes are present in two rows, anterior eyes and posterior eyes are almost same in size white in colour except anterior medians. Abdomen is longer than wide, yellowish white in colour. Dorsal side with brown dots and pointed posteriorly.

***Clubiona pashabhaiti* Patel & Patel, 1973 (Figure 52)**

Cephalothorax is longer than wide, yellowish brown in colour, narrowing in front. Eyes are arranged in two rows. Median eyes are larger than lateral eyes. Posterior row of eyes are longer than anterior row. Chelicerae are brown in colour with curved fangs. Sternum is oval in shape and yellowish in colour. Abdomen is long and wide, tapering towards posteriorly.

Family- Corinnidae Karsch 1880

They are small to medium sized spiders. Eight eyes are present. Cephalothorax long and wide, and sclerotized. Abdomen is long with strong tendency to the sclerotization. Legs are long with two tarsal claws. Mostly they are mimic like ant.

Genus- *Cambalida* Simon, 1910

Cephalothorax is longer than wide with dark margins. Eyes arranged in two rows, posterior row larger than anterior row. Chelicerae are dark brown with setae. Legs are long covered with short spines. Abdomen is oval in shape, black in colour, scutum is present on dorsal side, covered with white as well as black hairs.

***Cambalida dhupgadensis* Bodkhe, Uniyal & Kamble, 2016 (Figure 53)**

Cephalothorax is longer than wide, carapace granulated, dark-brown in colour. Eyes are arranged in two rows, posterior row larger than anterior row. Chelicerae are dark brown with setae. Legs are long covered with short spines. Abdomen is oval, dark grey black in colour, scutum is present on dorsum, covered with white as well as blackish hairs.

***Cambalida flavipes* (Gravely, 1931) (Figure 54)**

Cephalothorax longer than wide, convex, covered with fine hair. Eyes are pearly white, anterior row recurved, posterior row longer than anterior row. Chelicerae are strong, outer margin with three teeth. Abdomen is longer than wide, covered with hairs. Scutum present on anterior end of dorsum.

Genus-*Castianeira* Keyserling, 1879

Cephalothorax is oval in shape, with well marked median furrows. Eight eyes are arranged in two rows, anterior eyes slightly recurved and posterior row procurved. Medium sized spider with black or white bands on abdomen or some other bright colors. Abdomen is long and narrow and rounder in shape.

***Castianeira albopicta* Gravely, 1931 (Figure 55)**

Cephalothorax is longer than wide, convex, covered with fine hairs. Eyes are pearly white, equal in size. Anterior row recurved, posterior row is straight. Chelicerae are strong, inner and outer margin with two and three teeth. Abdomen is long and cylindrical in shape, covered with hairs and spines.

***Castianeira bengalensis* Biswas, 1984 (Figure 56)**

Cephalothorax is longer than wide, covered with fine hairs and spines, Fovea present at the middle of cephalothorax. Eyes are large, pearly white in colour. Anterior row is straight and posterior row longer than anterior row. Chelicerae are strong, vertical and dark brown in colour. Abdomen is longer than wide, oval in shape covered with pubescence. Two pairs of sigilla present on dorsal side of abdomen.

***Casteineira Zetes* Simon, 1897(Figure 57)**

Cephalothorax is longer than wide, dark brown in colour. Eyes are arranged in two rows, anterior median larger than anterior lateral eyes. Posterior eyes row is longer than anterior eyes row. Chelicerae are dark brown in colour. Legs are reddish brown but lighter than cephalothorax. Abdomen longer than wide dark brown in colour with scutum on dorsal.

Family- Eresidae C. L. Koch, 1851

Small to large sized cribellate spider. Cephalothorax long and wide covered with setae. Carapace rectangular in shape with eight eyes. Legs are short and stout. Abdomen oval in shape covered with setae with patterns. Median eyes are close to each other, lateral eyes are widely separated. Mostly they are social spiders found in different habitats between the branches of herbs, shrubs and bushes.

Genus- *Stegodyphus* Simon, 1873

Cephalothorax usually high, rectangular covered with setae, dark brown or grey in colour covered with hairs. Eyes are arranged in three rows. Median eyes are close together. Chelicerae are strong, flat anteriorly. Legs are short and stout, with three claws. Abdomen is oval with few patterns. Cribellum well developed. It makes vertical web on the bushes, between the branches of trees.

***Stegodyphus mirandus* Pocock, 1899 (Figure 58)**

Cephalothorax long and wide covered with setae. Carapace rectangular in shape with eight eyes. Median eyes are close to each other, lateral eyes are widely separated. Legs are short and stout with three claws. Abdomen oval in shape covered with setae.

***Stegodyphus Pacificus* Pocock, 1900 (Figure 59)**

Cephalothorax is large and wide, grey in colour with black marks on cephalic area. Median eyes are close together, anterior laterals eyes are located at the edge of clypeus. Chelicerae are flat, Legs short, stout and dark brown in colour. Abdomen long and wide with black, yellow pattern.

***Stegodyphus sarasinorum* Karsch, 1892 (Figure 60)**

Cephalic region is large, rounded and black in colour. Chelicerae flat in front side with fang groove. Abdomen is flat oval in shape, covered with plumose setae. Abdomen long and wide, yellowish in colour, covered with fine hairs.

Family- Filistatidae Ausserer, 1867 (Crevice wearver)

They are small to medium in size, cribellate spiders. Eight eyes are located on a small tubercle as a compact group. Labium fused with sternum. Legs are long with three clawed and spines. Abdomen is oval in shape, pale yellowish in colour.

Genus- *Prith* Lehtinen, 1967

Cephalothorax and abdomen elongated and covered with dense short hairs without thoracic fovea. Eyes are located in bunch, occupy one third width of the carapace. Carapace forward and narrows to a broad, rounded tip in front of eyes. Calamistrum is segmented, cribellum triangular shape and divided.

***Pritha dharmakumarsinhjii* Patel, 1978 (Figure 61)**

Cephalothorax dark brown to light colour with white patches, covered with fine hairs and yellow coloured margins. Eyes are in compact group, anterior median eyes dark in colour, rest eyes pearly white, anterior row of eyes procurved. Sternum is dark brown with black spots. Abdomen is brownish with light yellow in colour with symmetrical patches on the dorsal side. Abdomen projects a little behind the spinnerets.

***Pritha poonaensis* (Tikader 1963) (Figure 62)**

Cephalothorax is light coloured and well defined clusters of white hairs. Thoracic fovea is absent. Cribellum is triangular in shape and divided. Eight eyes are located on a small tubercle as a compact group. Labium is fused with sternum. Abdomen oval in shape with white patches, covered with hairs.

Genus - *Sahastata* Benoit, 1968

Eyes in compact group, raised on the tubercle like proturbance, ocular area wider behind and clypeus urged more strongly. Abdomen is longer than wide, deep fovea present. Legs are long covered with thick hairs.

***Sahastata ashapuriae* Patel, 1978 (Figure 63)**

Cephalothorax is oval in shape with black-brown in colour and light colour margins. Eyes are in small size in compact group. Anterior row of eyes are slightly procurved. Abdomen

oval, longer than wide, covered with thick hairs, the dorsal side with median, elongated patch of light yellowish colour.

Family - Gnaphosidae Pocock, 1898 (Mouse spiders)

Small to large sized ecribellate spiders. Cephalothorax is oval in shape narrows towards front with distinct fovea. Eight small eyes are present in two rows, posterior median eyes are flattened, anterior eyes round, oval in shape. Chelicerae short, tapered from base to tip and hairy in front. Abdomen oval to elongate covered with setae present on anterior edge. Mostly they are ground dwellers.

Genus-*Callilepis* Westring, 1874

Cephalothorax is longer than wide, narrowing anteriorly, brownish in colour. Anterior row of eyes is procurved whereas posterior row of eyes are recurved and longer than anterior row of eyes. Abdomen covered with hairs with some round whitish pattern on dorsum.

***Callilepis* sp. (Figure 64)**

Cephalothorax is oval in shape narrows towards front with distinct fovea. Eight small eyes are present in two rows, posterior median eyes are flattened, anterior median eyes round, oval in shape. Abdomen oval to elongate covered with setae present on anterior edge.

Genus- *Drassyllus* Chamberlin, 1922

Cephalothorax is longer than wide, broad in front side, covered with pubescence. Eyes are pearly white colour, anterior row slightly procurved. Anterior and lateral eyes same size. Legs are long and brownish green in colour. Abdomen longer than wide, brown in colour, narrowing behind, covered with thick hairs. Ventral side covered with pubescence.

***Drassyllus mahabalei* Tikader, 1982 (Figure 65)**

Cephalothorax is longer than wide, reddish green in colour. Eyes are silvery white in colour, median eyes are larger than lateral eyes. Abdomen longer than wide, brown in colour. Sternum oval in shape, pointed behind and covered with fine hairs.

Genus – *Gnaphosa* latreille, 1804

Cephalothorax is oval in shape and broader anteriorly. Anterior row of eyes are procurved, posterior row longer than anterior row of eyes. Sternum is oval in shape. Chelicerae are very strong with long bristles. Abdomen is black or deep brown in colour with six faint marks.

***Gnaphosa poonaensis* Tikader, 1973 (Figure 66)**

Cephalothorax is long and wide, brownish green in colour, convex with a fine fovea, covered with fine hairs. Anterior row of eyes are procurved and equal in size. Posterior row of eyes recurved larger than anterior row of eyes. Abdomen is brown in colour and posterior half of abdomen with blackish, white colour pattern on dorsum.

Genus- *Prodidomus* Hentz, 1847

Cephalothorax is longer than wide, reddish brown in colour. Eyes arranged in two rows, eyes are arranged in circular, posterior row recurved, less pinkish or reddish brown in colour, less elongated, oval blackish-brown in colour.

***Prodidomus* sp. (Figure 67)**

Cephalothorax is long, oval in shape, reddish-brown in colour. Eyes are arranged in circular pattern, posterior row of eyes recurved. Abdomen is oval in shape, yellowish or dark brown in colour. Legs are long and thick, brown in colour.

Genus- *Scopoides* Platnick, 1989

Cephalothorax is oval in shape, narrow in front. The anterior row of eyes are close together, anterior median eyes are larger than anterior lateral eyes. Legs are long and stout covered with fine hairs. Abdomen long and wide brownish in colour with pattern.

***Scopoides kuljitae* (Tikader, 1982) (Figure 68)**

Cephalothorax is longer than wide, narrowing in front, covered with pubescence and some spine like hairs. Anterior row of eye slightly procurved, posterior row of eye is larger than anterior row. Legs long and strong covered with fine hairs. Sternum oval in shape. Abdomen is long and wide, narrow in posterior side, covered with fine hairs.

Genus- *Sosticus* Chamberlin, 1922

Cephalothorax is longer than wide, narrowing in front, covered with pubescence. Eye rows separated; posterior row of eye is straight. Anterior median eyes are slightly smaller than anterior lateral eyes. Two spines are present on dorsal surface of 4th tibia. Abdomen long tapering posteriorly dark brown in colour with fine hairs.

***Sosticus nainitalensis* Gajbe, 1979 (Figure 69)**

Cephalothorax is longer than wide, oval in shape with pubescence. Eyes are arranged in separate rows, pearly white in colour. Posterior rows of eyes are longer than anterior row. Chelicerae are strong, vertical, inner margin with two small teeth and outer margin with three teeth. Abdomen longer than wide, covered with thick pubescence and pattern on dorsum.

Genus-*Trachyzelotes* Lohmander, 1944

Cephalothorax is long and wide, with fovea, covered with pubescence. Anterior row is procurved, median eyes longer than lateral eyes. Chelicerae are strong, inner margin with two teeth. Sternum is oval in shape and pointed behind. Abdomen is longer than wide, narrowing behind covered with pubescence.

***Trachyzelotes jaxartensis* (Kroneberg, 1875) (Figure 70)**

Cephalothorax is longer than wide, broad in front side, covered with pubescence. Eyes are pearly white in colour, anterior row procurved and posterior row longer than anterior row. Chelicerae are strong with two very small teeth. Legs are long and strong covered with hairs and spines. Abdomen is longer than wide, narrowing behind, covered with thick hairs.

Genus- *Zelotes* Gistel, 1848

Cephalothorax oval in shape, narrow in front side covered with fine hairs. Eyes are arranged in groups. Posterior row of eyes is slightly longer than anterior row. Sternum oval in shape. Legs are long with spines. Abdomen is dark or black in colour with fine hairs.

***Zelotes mandae* Tikader & Gajbe, 1979 (Figure 71)**

Cephalothorax is longer than wide, oval in shape, deep brown in colour, slightly narrow in front side, covered with spine like hairs. Eyes are closely grouped. Chelicerae are strong,

vertical with one small teeth and outer margin with three teeth. Legs are long and strong covered with fine hairs and spines. Abdomen longer than wide, black in colour with fine hairs.

***Zelotes nainitalensis* Tikader & Gajbe, 1976 (Figure 72)**

Cephalothorax longer than wide, narrow in front side, convex and flat covered with pubescence, with short fovea. Eyes are silvery white in colour, grouped together. Anterior row of eyes are procurved, posterior row of eyes are straight. Sternum is oval shape. Abdomen is longer than wide, oval on shape, covered with fine hairs. Spinnerets are prominent.

***Zelotes sajali* Tikader & Gajbe, 1979 (Figure 73)**

Cephalothorax longer than wide, narrow in front, covered with pubescence, with a deep brown narrow line. Eyes are arranged in groups, silvery white in colour. Posterior row of eyes is longer than anterior rows. Sternum is oval in shape pointed behind, covered with fine hairs. Chelicerae are strong, inner margin with two teeth and outer margin with three teeth. Legs are long and strong covered with spines and hairs. Andomen oval in shape with white patten on dorsam.

Family- Hersiliidae Thorell, 1870 (Two tailed spiders)

Smaller in size with large abdomen, ecribellate spider. Carapace wider than long with cephalic region elevated. Legs are long and slender have three claws. Body is brown in colour, camouflage with the bark of tree. Amdomen wide black, grayish in colour. Large spinnerets are present.

Genus-*Hersilia* Audouin, 1826

Cephalothorax is flat, ecribellate spider. Clypeus is very high and prominent. Anterior median eyes are much larger than other eyes. First pair leg longer than posterior legs, with three claws. Spinnerets are long. Abdomen wide and gray in color.

***Hersilia savignyi* Lucas, 1836 (Figure 74)**

Cephalothorax is flat, dark brown in colour. Abdomen is circular and broad yellowish-brown in colour. Legs I, II and IV are long and slender with three claws. Tarsi of legs I, II and III are two segmented. Legs and spinnerets are annulated with dark rings.

Family- Linyphiidae Blackwall, 1859 (Sheet web spiders)

Small spiders with large abdomen, ecribellate spider. Eight eyes are present. Legs are long with three claws. Spider makes sheet web which are flat dome-shaped. The spiders hang upside down under the sheet. Mostly they are ground dwelling spiders living in the litter.

Genus- *Lepthyphantes* Menge, 1866

Cephalothorax is narrow anteriorly. Eyes are large with black spot. Anterior median eyes are longer than posterior median eyes. Legs are long covered with spines and hairs. Abdomen is with or without dorsal pattern.

***Lepthyphantes* sp. (Figure 75)**

Cephalothorax is narrow anteriorly. Eight eyes are arranged in two rows. Legs are long with spines and hairs. Abdomen is longer than wide, with patterns. Spider makes sheet web which are flat dome shaped. The spiders hang on web upside down under the sheet. The spider quickly disappears into the vegetation when get disturbed.

Genus- *Linyphia* Latreille, 1804

Small sized spider with eight small eyes widely spaced on large black spots. Abdomen is round or oval in shape with dorsal pattern. Legs are long with fine hairs, metatarsi almost twice as long as tarsi. Abdomen round in shape reddish in colour with pattern covered with fine hairs.

***Linyphia* sp. (Figure 76)**

Cephalothorax is long and wide, brownish in colour, narrow anteriorly. Eyes are pearly white in colour. Sternum is brownish and heart shaped. Legs are long and stout with hairs. Abdomen is brownish in colour with transverse bands.

***Genus-Nerienne* Blackwall, 1833**

Cephalothorax is longer than wide, blackish in colour. Abdomen is longer than wide, with distinct waist and protruding rear, black in colour with white patches behind the waist.

***Nerienne sundaica* (Simon, 1905) (Figure 77)**

Cephalothorax is longer than wide, black in colour. Cephalic region is darker and narrow in front. Sternum is longer than wide, dark brown in colour. Chelicerae are reddish brown in colour. Abdomen is longer than wide, black with dirty white patches. Dorsal side is with dark patches.

Family- Liocranidae Simon, 1897(Spiny-legged sc spider)

Small to medium in size, cribellate spider. Cephalothorax is long and wide in front. Eight eyes are arranged in two rows. Anterior eyes and posterior eyes are almost equal in size. Abdomen is longer than wide, with sclerotized scutum. Legs are long reddish-brown in colour. They are free living ground dwelling spiders.

***Genus- Oedignatha* Thorell, 1881**

Cephalothorax is long and wide in front with short cephalic grooves. Eight eyes are arranged in two rows. Anterior eyes and posterior eyes are almost equal in size. Anterior row are slightly recurved, posterior row of eyes are slightly procurved. Abdomen are longer than wide, dorsal side sclerotized or with dorsal scutum. Legs are long with two claws.

***Oedignatha scrobiculata* Thorell, 1881 (Figure 78)**

Cephalothorax longer than wide, black in colour. Eyes are in two rows, anterior row recurved, posterior row longer than anterior row. Chelicerae blackish in colour. Abdomen is longer than wide, sclerotised, decorated by six pairs of white patches.

***Oedignatha* sp.1 (Figure 79)**

Cephalothorax is long and wide, narrow in posterior side, colour varied pale yellow to brownish. Eight eyes are present covering almost two third area. Abdomen long and wide covered with sclerotized scutum. Epigastric furrows are present ventrally. Abdomen reddish brown in colour and sclerotised.

***Oedignatha* sp. 2 (Figure 80)**

Cephalothorax longer than wide, covered with fine hairs. Eyes are white in colour arranged in two rows, anterior row slightly curved and posterior row of eyes longer than anterior. Abdomen longer than wide, sclerotised scutum yellowish brown in colour, covered with spine-like hairs.

Family-Lycosidae Sundevall, 1833 (Wolf spiders)

They are ground living spiders but some lives in the burrow or make sheet webs. Small to large in size with grey and brown colour pattern markings on their surface. Eyes are arranged in three rows, anterior rows with small eyes forming horizontal line whereas second row with pair of median eyes and posterior row with two large eyes. Legs are long and stout.

Genus - *Evippa* Simon, 1882

Cephalothorax is longer than wide, narrow anteriorly, covered with pubescence. Anterior row of eyes are procurved and shorter than posterior row. Chelicerae are strong with two teeth and outer margins with three teeth. Legs are long and slender with brown patches, Abdomen is longer than wide, covered with pubescence and few spines.

***Evippa* sp. (Figure 81) (Figure 81)**

Cephalothorax is longer than wide, narrow anteriorly, covered with pubescence. Chelicerae are strong with two teeth and outer margins with three teeth. Legs are long and slender with brown patches, anterior median eyes are smaller than the anterior laterals. Abdomen is oval in shape, brown in colour.

Genus- *Hippasa* Simon, 1885

Cephalothorax is longer than wide, covered with pubescence. Anterior row of eyes are smaller than posterior rows. Eyes are arranged in two rows. Anterior row of eyes are slightly procurved. Anterior median eyes are smaller than the anterior laterals. Abdomen is oval in shape, brown in colour. They make sheet like webs with a funnel retreat.

***Hippasa partita* (O. Pickard-Cambridge, 1876) (Figure 82)**

Cephalothorax longer than wide, covered with pubescence, tapering in front. Anterior row of eyes procurved and wider than posterior row. Sternum is oval in shape, covered with hair. Chelicerae strong and with three teeth. Legs are long and slender, covered with hairs and spines.

***Hippasa* sp. (Figure 83)**

Cephalothorax is longer than wide, covered with pubescence narrowing in front. Anterior row of eye are straight, slightly wider than second row. Chelicerae are strong, dark brown in colour and covered with spines and hairs. Abdomen is longer than wide, oval in shape, pointed behind, dorsally dark brown or black in colour.

***Hippasa* sp. 2 (Figure 84)**

Cephalothorax is longer than wide, covered with pubescence. Anterior row of eyes are procurved. Legs are long with fine hairs. Abdomen is longer than wide, covered with hairs, anterior middle eyes are provided with lens shaped marking.

Genus- *Lycosa* Latreille, 1804

Cephalothorax is long dark brown in colour. Posterior eyes are larger and arrange in quadrangle. Abdomen is oval in shape, grayish in colour with dark median strips. Sternum is heart shaped, pale in colour covered with hairs. Legs are long with fine hairs.

***Lycosa lambai* Tikader & Malhotra, 1980 (Figure 85)**

Cephalothorax is longer, narrow in front side, covered with pubescence. Thoracic region, covered with fovea. Anterior row of eye is procurved than posterior row. Chelicerae are dark brown in colour, hairy with three teeth. Legs are long and strong covered with hairs and spines. Abdomen oval in shape, covered with hairs and pubescence.

***Lycosa madani* Pocock, 1901 (Figure 86)**

Cephalothorax is convex, covered with pubescence with prominent brown bands. Anterior row of eyes is straight and wide than posterior row. Chelicerae strong and hairy, Legs are brown in colour with spines and hairs. Abdomen yellowish in colour with greenish brown patches, covered with pubescence and few spine like hairs.

***Lycosa phipsoni* Pocock, 1899 (Figure 87)**

Cephalothorax is longer than wide, convex, covered with pubescence, with prominent brown bands. Anterior row of eyes is smaller than posterior row and anterior median and laterals are of the same size. Chelicerae very strong and deep brown in colour. Legs are strong and covered with hairs and spines. Abdomen is oval in shape, yellowish in colour with prominent hairs. Few brown spots are present on dorsum.

***Lycosa poonaensis* Tikader & Malhotra, 1980 (Figure 88)**

Cephalothorax is longer narrowing in front side, covered with pubescence and hairs. Anterior row of eyes small than posterior row and anterior median and laterals are of the same size. Chelicerae strong and dark brown in colour, covered with fine hairs. Legs long and strong covered with hairs and spines. Abdomen is longer than wide, oval, pointed behind, blackish in colour with white strips.

***Lycosa* sp. (Figure 89)**

Cephalothorax is longer than wide, narrowing in front side, covered with pubescence and hairs. Anterior row of eyes less wider than posterior row and anterior median and laterals are of the same size. Chelicerae are strong and dark brown in colour, covered with hairs. Legs are long and strong covered with hairs and spines. Abdomen is longer than wide, oval, pointed behind, brownish colour covered with pubescence and fine hairs.

Genus- *Pardosa* C. L. Koch, 1847

Cephalothorax not much elevated. Clypeus vertical, chelicerae smaller. Eyes are arranged in two rows. Legs are long and thin with spines. Abdomen is longer than wide, grey brown in colour.

***Pardosa birmanica* Simon, 1884 (Figure 90)**

Cephalothorax blackish brown in colour, oval in shape, tapering towards anteriorly. Cephalic region narrow in front, thoracic region light brown in colour with sharp fovea. Ocular area is black in colour. Legs are long and slender with spines and hairs. All segments of legs with brown patches. Abdomen is longer than wide, oval in shape covered with pubescence and hairs.

***Pardosa heterophthalma* (Simon, 1898) (Figure 91)**

Cephalothorax is longer than wide, convex, covered with pubescence and few spines. Anterior row of eyes with two eyes i.e anterior lateral, while anterior median is absent. Anterior row of eyes are less wide than posterior rows. Chelicerae are strong and inner margins of fang furrows with three teeth. Legs greenish brown in colour with transverse patches, covered with hairs and spines

***Pardosa mukundi* Tikader and Malhotra, 1980 (Figure 92)**

Cephalothorax is longer than wide, covered with pubescence and few spines. Anterior row of eyes are procurved, less wide than posterior rows. Chelicerae are dark brown in colour, inner margins with three teeth. Legs are thin and long with dark brown irregular patches. Abdomen pale, longer than wide, oval in shape, covered with pubescence and spines.

***Pardosa sumatrana* Thorell, 1890 (Figure 93)**

Cephalothorax is longer than wide, covered with two longitudinal black bands narrowing in front. Fovea is present in the centre of thoracic region. A median broad longitudinal band extends from base of the posterior eye to the cephalothorax. Legs are long and thin provided with spines and hairs. All legs with irregular greenish dark brown patches. Abdomen is longer than wide, oval, covered with pubescence and hair with dark brown and pale patches and black spots.

Family- Mimetidae Simon, 1881 (Pirate spiders)

Small to medium sized spiders. Eight eyes are present, anterior median eyes are larger than posterior median eyes, lateral eyes are equal in size. Sternum is longer than wide, oval in shape. Chelicerae are long vertically elongated. Legs are long and slender with three claws covered with strong spines.

Genuu–*Mimetus* Hentz, 1832

Cephalothorax convex and narrowing anteriorly, pale yellow in colour. Surface smooth and shiny. Abdomen is long, oval shape, yellowish in colour with four longitudinal rows of setae. Legs are long and very spiny with curved tibia and metatarsi.

***Mimetus* sp. (Figure 94)**

Cephalothorax is long than wide, narrow toward front, pale yellow in colour, Surface smooth and shiny. Abdomen oval, yellowish in colour with longitudinal rows of setae. Dorsal surface is provided with dark brown protuberance. Legs are spiny, pale yellow in colour with brown spots.

Family- Oecobiidae Blackwall, 1862 (Star- legged spiders)

Small to medium size, cribellate or ecribellate spider. Six to eight eyes are arranged in the middle of carapace in two rows. Posterior median eyes are variable in shape and size. Legs are long lighter with dark patches. Abdomen is oval to round in shape, yellowish in colour.

Genus- *Oecobius* Lucas, 1846

Cephalothorax is wider than long, heart in shape, front slightly pointed. Eight eyes are arranged in the centre of carapace. Chalcerae are small in size. Abdomen is oval in shape with pale yellow in colour. Legs are long lighter with dark patches.

***Oecobius putus* O. Pickard-Cambridge, 1876 (Figure 95)**

Cephalothorax is wider than long, slightly pointed. Abdomen oval in shape depressed at the center, pale yellowish in colour. Eyes arranged in group, unequal in size. Abdomen long pointed behind, covered with long hairs, dorsal side decorated with dark and chalk white patches. Legs are long covered with fine hairs and with dark brown bands.

Family- Oonopidae Simon, 1890 (Dwarf hunting spiders)

Very small free living ground dwelling spiders found in leaf litters. Oonopidae are ecribellate spiders with two lateral claws. Eyes are present either in six, four or no eyes in compact form. Abdomen of some species with dorsal or ventral scuta. Cephalothorax flat, narrowed without fovea, surface often smooth and shiny. Legs short with two dentate claws.

Genus- *Brignolia* Dumitrescu & Georgescu, 1983

Cephalothorax longer than wide, narrow anterior side, covered with eyes. Cephalothorax may or may not be pitted. Abdomen is sclerotised dorsal side, longer than wide, legs short and robust.

***Brignolia carlmulleri* Ranasinghe & Benjamin, 2016 (Figure 96)**

Cephalothorax oval in shape, pale orange in colour, six well developed eyes are present. Anterior lateral eyes are larger, posterior median eye and posterior lateral eyes equal in size. Sternum decorated with round pits. Abdomen is oval in shape, dorsal scutum heavily sclerotised.

***Brignolia meemure* Ranasinghe & Benjamin, 2016 (Figure 97)**

Cephalothorax long and wide, orange brown in colour. Six well developed eyes are present, anterior lateral eye larger, posterior median eye and posterior lateral eyes equal in size. Sternum longer than wide, decorated with pits. Abdomen is oval in shape, highly sclerotized, epigastic scutum strongly sclerotized.

***Brignolia* sp. 1 (Figure 98)**

Cephalothorax is orange brown in colour without any pattern, anterior portion narrow. Six eyes with darker medians. Abdomen is reddish brown in colour, longer than wide, heavily sclerotized, epigastic scutum strongly sclerotized. Sternum covered with small round pits.

***Brignolia* sp. 2 (Figure 99)**

Cephalothorax is yellowish brown in colour, anteriorly narrowing. Six well developed eyes present, anterior lateral eye larger, posterior median eye and posterior lateral eyes equal in size. Abdomen is yellowish-orange in colour with fine hairs. Dorsal side is highly sclerotized.

***Brignolia* sp. 3 (Figure 100)**

Cephalothorax oval in shape, pale yellow to orange brown in colour, narrow anteriorly. Sternum and mouth parts orange brown in colour. Abdominal scutum is orange brown colour, soft portion of abdomen without colour pattern. Legs pale orange in colour.

***Brignolia* sp. 4 (Figure 101)**

Cephalothorax is yellowish brown in colour, anterior portion narrow, dorsal surface plain. Six well developed eyes present, anterior eyes longer than posterior. Abdomen is reddish brown, oval in shape. Dorsum is highly sclerotized.

Genus- *Ischnothyreus* Simon, 1893 (Figure 102)

Cephalothorax yellowish with dark brown patches, oval in shape, anteriorly narrow. Six well developed eyes present, posterior eye row procurved. Sternum is longer than wide, yellowish in colour. Abdomen is oval in shape highly sclerotised. Epigastric scutum is less sclerotized. Legs yellow without colour pattern.

Genus- *Opopaea* Simon 1891

Cephalothorax is longer than wide, pear in shape, narrowing in front, Colour yellow to brown with margins darker and some times granular. Eyes arranged in two rows of two and four, posterior row straight or recurved. Legs are short and robust. Abdomen is wide with crescent shape area near spinnerets, covered by a sclerotized scutum.

***Opopea* sp. (Figure 103)**

Cephalothorax is oval in shape, narrowing in front, brownish in colour. Eyes arranged in two rows, two in anterior and four in posterior rows, posterior row straight or recurved. Legs are short and robust. Abdomen is broad with crescent shape area near spinnerets. Abdomen covered by a sclerotized scutum.

Family- *Oxyopidae* Thorell, 1870 (Lynx spider)

Cephalothorax is longer than wide, brownish in colour. Eight eyes are arranged in hexagonal pattern with wide clypeus in two rows. Chelicerae are long and tapering in front with short fangs. Legs are long with three claws and prominent spines. Abdomen is longer than wide, pointed behind with patches or bands. They are long legged hunting spiders, capable of running and jumping very rapidly on low vegetation.

Genus- *Oxyopes* Latreille, 1804

Cephalothorax is high and rounded with anterior part vertical. Eyes of the posterior row are highly procurved. Cephalothorax is longer than wide, brownish in colour. Legs are long and strong covered with spines. Abdomen long and wide, narrowing behind covered with hairs, yellowish in colour. Dorsal side with peculiar pattern.

***Oxyopes ashae* Gajbe, 1999 (Figure 104)**

Cephalothorax is longer than wide, reddish brown in colour, with prominent fovea. Eyes are present in two rows, posterior row of eyes strongly procurved. Legs are long with three claws and prominent spines. Abdomen is longer than wide, narrowing behind, dorsum with reddish brown bands.

***Oxyopes bharatae* Gajbe, 1999 (Figure 105)**

Cephalothorax is longer than wide, yellowish brown in colour, cephalic region high with prominent fovea. Eyes are present in two rows, posterior row of eyes strongly procurved. Abdomen is longer than wide, narrowing behind, dorsum with reddish orange in colour.

***Oxyopes birmanicus* Thorell, 1887 (Figure 106)**

Cephalothorax is longer than wide, brownish in colour. Fovea long and located a little behind the middle. Anterior row of eyes are recurved. Sternum heart shaped. Dorsum with peculiar pattern. Ventral side yellowish-brown in colour covered with dark prominent hairs. Chelicerae are yellowish-brown in colour, with dark brown line. Legs are long and strong covered with spines. Abdomen longer than wide, narrowing behind, covered with hairs, brownish in colour.

***Oxyopes javanas* Thorell, 1887 (Figure 107)**

Cephalothorax longer than wide, with broad V- shaped pale mark on dorsal side. Fovea is long and located behind the middle. Abdomen long and broad with white in colour in the middle area, dark brown in lateral sides, median dark patch at posterior end. Ventral side is yellowish in colour with a median broad dark brown patch.

***Oxyopes kamalae* Gajbe, 1999 (Figure 108)**

Cephalothorax longer than wide, broad in front, covered with pubescence. Thoracic region with short fovea and black marking, anterior light reddish green V- shaped patches. Anterior row of eyes are recurved. Chelicerae are strong, reddish green in colour with hair and spines. Legs long and strong covered with hairs and spines. Abdomen longer than wide, covered with pubescence.

***Oxyopes pankaji* Gajbe & Gajbe, 2000 (Figure 109)**

Cephalothorax is longer than wide, blackish brown in colour. Anterior row of eyes strongly recurved, forming two separate rows, posterior row is procurved. Abdomen is longer than wide narrowing behind dorsal side with patterns of chalk white and yellowish lines.

***Oxyopes shweta* Tikader, 1970 (Figure 110)**

Cephalothorax is long and wide and covered with white pubescence. Lateral side of with a narrow black line. Ocular are whitish in colour. Anterior row strongly recurved, posterior eye row procurved. Legs are greenish brown in colour with spines. Abdomen is longer than wide, tapering to posterior end. Lateral sides with narrow white line.

***Oxyopes* sp.1 (Figure 111)**

Cephalothorax is longer than wide, brown in colour. Ocular region is whitish in colour. Anterior row strongly recurved, posterior row procurved. Legs are long and covered with spines. Abdomen is longer than wide tapering to posterior end, reddish-orange bordered by yellowish bands on dorsal side.

***Oxyopes* sp.2 (Figure 112)**

Cephalothorax is longer than wide, brown in colour. Cephalic region is high with prominent fovea. Legs are long and strong covered with spines. Abdomen is longer than wide narrowing posteriorly, with chalk white patterns.

Genus- *Peucetia* Thorell, 1869

Cephalothorax is not as high as that of *Oxyopes* species. Eyes are arranged in two rows occupy a smaller area of cephalothorax. Anterior median eyes are smaller, posterior median and posterior lateral equal in size. Chelicerae are without tooth. Legs are long with black spines. Abdomen is very long, cylindrical, tapering behind the spinnerets.

***Peucetia ackwadensis* Patel, 1978 (Figure 113)**

Cephalothorax is longer than wide with prominent fovea, greenish in colour. Eyes are arranged in two rows. Anterior row recurved, posterior row procurved and are in equal

distance. Middle eyes are smaller and lateral eyes largest. Sternum heart shape, pointed behind covered with spines and hairs. Legs are long and strong with black spines.

***Peucetia* sp. (Figure 114)**

Cephalothorax is longer than wide, yellowish brown in colour. Occular area darker, eyes are present in two rows, posterior groove of eyes slightly procurved. Abdomen is longer than wide tapering towards spinnerets, metallic green in colour, with white spots.

Family- Palpimanidae Thorella 1870 (Palp-footed spiders)

Small to large sized spiders. Cephalothorax oval in shape, narrow anteriorly. Cephalic region rounded and sloping towards thoracic region with fovea. Six to eight eyes are arranged in two rows. Posterior median eyes are large. Sternum is wide as long. Chelicerae are short and stout. Abdomen is oval in shape with short setae. Legs are long with two or three claws. First pairs of legs are enlarged and much stronger than othe three pairs.

Genus- *Otiothops* MacLeay, 1839

Cephalothorax is longer than wide, covered with pubescence. Anterior row of eyes recurved, posterior row of eyes procurverd. Chelicerae short flattened with three marginal teeth. First leg is enlarged and orange in colour. Abdomen is brownish purple in colour with ring like scutum.

***Otiothops namratae* Pillai, 2006 (Figure 115)**

Cephalothorax is longer than wide, hairy and covered with pubescence. Anterior row of eyes are straight or recurved, posterior row of eyes procurverd. Chelicerae short, flattenend with three marginal teeth. First leg is long with fine hairs. Abdomen brownish in colour covered with dorsum highly sclerotised.

Genus - *Palpimanus* Dufour, 1820

Cephalothorax is more or less dark, oval in shape, red in colour. Six eyes are arranged in two rows in front. Anterior row procurved and the posterior row slightly recurved. Abdomen is oval in shape, light brown in colour, scutum covering the epigastric area.

***Palpimanus* sp. (Figure 116)**

Cephalothorax is oval in shape, reddish brown in colour. Eyes are six arranged in two rows. First row of eyes procurved, second row slightly recurved. Abdomen is oval in shape, light brown in colour, scutum covering the epigastric area.

Family- Philodromidae Thorell, 1870 (Elongated crab spider)

Small to medium in size, crab like spiders. Body dorso ventrally flattened, covered with soft hairs, ecribellate spiders with eight eyes. Legs are long with two tarsal claws and scapulae. Chelicerae with fang furrow, lack of teeth.

Genus- *Philodromus* Walckenaer, 1826

Cephalothorax wider than long, narrow in front. Eyes are small and equal in size. Posterior row of eyes recurved. Legs are long with hairs and spines. Abdomen is oval in shape, moderately flat and dorsally marking chevrons.

***Philodromus decoratus* Tikader, 1962 (Figure 117)**

Cephalothorax is longer than wide, narrow in front. Eyes are round and black in colour, posterior median eyes close to each other than the lateral eyes. Abdomen longer than wide, narrow in front, irregular chalk white patches on dorsal side. Two longitudinal rows of black or dark brown spots, ventral side also with irregular chalk white patches.

Genus- *Thanatus* C.L. Koch, 1837

Cephalothorax is longer than wide. Anterior eye row close together and both rows recurve. Abdomen rounded in shape, dorsum with prominent dark, heart-shaped marking with yellow or red background.

***Thanatus dhakuricus* Tikader, 1960 (Figure 118)**

Cephalothorax longer than wide, narrow in front, covered with small hairs decorated by irregular, dark, pigmented patches. Eyes are black, small in size. Eight eyes are arranged in two rows, both rows recurved. Abdomen oval in shape, covered with pubescence with white granular patches. Legs are short and covered with spines and dark brown pigmented dots.

Genus- *Tibellus* Simon, 1875

Cephalothorax is long and wide, broader anteriorly. Eyes are arranged in hexagonal shape, both the rows recurve. Abdomen slightly blunt, long or cigar shaped, tapering towards spinnerets.

***Tibellus elongatus* Tikader, 1960 (Figure 119)**

Cephalothorax is longer than wide, yellowish in colour with mid dorsal band and lateral band on side. Anterior eyes recurved and posterior eyes procurved. Posterior median eyes and anterior eye are rows arranged in hexagonal shape. Chellicerae are yellowish in colour with dark brown spots. Abdomen is slender, yellowish in colour. Two black spots in the posterior half and a median black spot on the median on dorsal side is present. Legs are long yellowish in colour.

Family- Pholcidae C. L. Koch, 1851 (Daddy long leg spiders)

Small to median sized, ecribellate spiders. Six to eight eyes are arranged, anterior median small in size while the rest are arranged in two rows. Legs are long fragile with three claws.

Genus- *Artema* Walckenaer, 1837

Cephalothorax is longer than wide, circular anteriorly. Eight eyes are arranged in two rows, anterior median eyes are equal to each other. Anterior and posterior row of eye recurve. Abdomen longer than wide, rounded at the top, tapering towards the spinnerets. Greyish yellow in colour with three rows of grey patches.

***Artema Atlanta* Walckenaer, 1837(Figure 120)**

Cephalothorax widest at posterior half, anterior half part is narrow and conical in shape. Longitudinal brown patch is present at the region of fovea. Abdomen is globular, greyish yellow in colour and decorated with three rows of dusky grey spots. They spins dome shaped web and irregular threads that extend in all directions.

Genus- *Crossopriza* Simon, 1893

Cephalothorax is longer than wide, circular in shape with brown strips. Six pair of eyes are present. Abdomen is short, oval in shape, prominent posteriorly towards the spinnerets. Abdomen is yellowish-brown in colour with dark patches. Legs are long with black spots.

***Crossopriza lyoni* Blackwall, 1867 (Figure 121)**

Cephalothorax is long than wide, greyish white in colour with a dark band in mid longitudinal line. Three pairs of eyes are arranged at the tip of carapace. Legs long, thin, covered with fine hairs. Abdomen is greyish off white in colour with black white patches on dorsal side. A small conical ridge present on the posterior end of the abdomen.

Family- Salticidae Blackwall, 1841 (Jumping spider)

Small to medium size with a short body and stout. Legs are with two tarsal claws. They are easily distinguished by the peculiar arrangement of their eyes, which are arranged in three or four rows and are capable of jumping.

Genus- *Bianor* Peckham & Peckham, 1886

Cephalothorax is high long and wide. Eyes are arranged in three rows, anterior row smaller than posterior row. Chelicerae are strong with two medium teeth. Sternum is oval in shape. Abdomen is longer than wide, brown black or with colour markings, with paired white spots. Legs are long and strong with fine hair.

***Bianor punjabicus* Logunov, 2001 (Figure 122)**

Cephalothorax is high and reticulate. Eyes in three rows, anterior row smaller than posterior row. Chelicerae are strong with two medium teeth. Abdomen elongated, longer than wide, brown black or with colour markings, consisting of paired white spots. Legs are strong and long.

***Bianor* sp. (Figure 123)**

Small to medium sized spiders. Cephalothorax is high and reticulate. Eyes are arranged in three rows; anterior row smaller than posterior row. Chelicerae are strong with two medium teeth. Sternum oval, Abdomen is elongated, longer than wide, blackish in colour.

Genus- *Carrhotus*

Cephalothorax longer than wide, sloping posteriorly. Abdomen oval backish, brown in colour with chevron pattern in some. Chelicerae with two teeth on promargin and one on retromargin.

***Carrhotus* sp. (Figure 124)**

Cephalothorax longer than broad, posterior end sloping slightly. Legs yellowish brown in colour, long and slender. Eyes in three rows, anterior row larger than posterior row. Abdomen longer than wide, blackish in colour.

Genus- *Cosmophasis* Simon, 1901

Cephalothorax is high and reticulate. Eyes in three rows, anterior row larger than posterior row. Chelicerae are strong with two medium teeth. Sternum is oval, in shape. Abdomen is longer than wide, reddish-brown or black colour markings, consisting of colour pattern varies from transverse to longitudinal strips on dorsum. Legs are strong and long.

***Cosmophasis* sp. (Figure 125)**

Cephalothorax is longer than wide, narrowing anteriorly. Anterior eyes longer than posterior eyes. Chelicerae are strong with two medium teeth. Sternum is oval in shape elongated and concave anterior margin. Abdomen elongated, longer than wide, reddish-orange colour pattern. Legs are strong and long, shiny purple in colour with spines.

Genus- *Harmochirus* Simon, 1885

Cephalothorax laterally pulled outwards, cephalic part very high. Abdomen is small, circular oval in size. Scutum sclerotized, hairs present on patella and tibia.

***Harmochirus brachiatus* (Thorell, 1877) (Figure 126)**

Cephalothorax is longer than wide, abdomen with a notch, dark brown in colour. Abdomen small in size, dorsal side black colour, lateral margin white. Spinnerets are greyish-black, anterior large as posterior. First pair of leg is thick in compare to other legs, dark brownish in colour.

***Harmochirus* sp. (Figure 127)**

Cephalothorax are longer than wide, abdomen with a notch posterior-medially, oval in shape, dark brown in colour. Abdomen is small oval in shape, dorsum black and sclerotised. Spinnerets are greyish-black, anterior large as posterior.

Genus- *Hyllus* C. L. Koch, 1846

Large spiders with swollen spherical head having conspicuous ocular quadrangle and large round eyes. Abdomen wide at base, blunt towards tip. Legs are strong and stout with spines and hairs. Legs covered with thick covering hairs.

***Hyllus semicupreus* Simon, 1885(Figure 128)**

Cephalothorax is long, black in colour with dull yellow colour hairs. Abdomen is brownish black in colour. Abdomen oval, covered with chevrons in white and brown hairs.

Genus- *Marpissa* C.L. Koch 1846

Cephalothorax is longer and wide. Chelicerae are with one tooth on inner margin and two on outer margin. Legs are long and slender, metatarsi one and two provided with three and two ventral spines.

***Marpissa* sp.1 (Figure 129)**

Cephalothorax is longer than wide, reddish in colour, cephalic region slightly elevated. Abdomen is oval in shape, brownish in colour, dorsum is black with white patches.

***Marpissa* sp.2 (Figure 130)**

Cephalothorax is longer than wide, dull brown-black in colour. Abdomen is broad at base, tapering towards spinnerets. Dorsum with two dots and pattern of black and brown in colour is present. Legs long stout covered with spines.

Genus- *Menemerus* Simon, 1868

Cephalothorax is longer and wide. Legs are with light brown patches on a dark brown background. Abdomen long and is brown in colour, with mid dorsal dark brown band with a pointed tip.

***Menemerus bivittatus* Dufour, 1831(Figure 131)**

Cephalothorax is U-shaped, dull black having a white hairy band along the margins and a broad light brown patch behind cephalothorax. Abdomen is long, black in colour, wide, oval, with a blunt anterior end and pointed posterior end.

Genus- *Myrmarachne* Mac leay 1839

These are ant-mimicing spiders. Cephalothorax elongated, roughly rectangular. Abdomen is elongated, oval in shape, reddish-orange to brown and black in colour.

***Myrmarachne melanocephala* Mac Leay, 1839 (Figure 132)**

Cephalothorax is longer than wide. Abdomen is longer than wide, brown in colour, with prominent spinnerets. Chelicerae long as cephalothorax having long slender fang. Legs are brown in colour. Abdomen is brown in colour with prominent spinnerets.

Genus- *Myrmatheca* Proszynski, 2016

Cephalothorax is longer than wide. Chelicerae are having long slender fang. Legs are brown in colour with few spines. Abdomen is yellowish to brown in colour, dorsally constricted, brown in colour with prominent spinnerets.

***Myrmatheca alticephalon* (Yamasaki & Ahmad, 2013) (Figure 133)**

Cephalothorax is longer than wide. Abdomen is brown in colour. Chelicerae long brownish in colour with marginal teeth. Legs are long brown in colour with spines and hairs. Abdomen is long, dark brown in colour with prominent spinnerets.

Genus- *Myrmapeni* Proszynski, 2016

Cephalothorax is longer than wide. Chelicerae are having long slender fang. Legs are brown in colour. Abdomen is broad, dorsal side sclerotized, dark brown in colour with prominent spinnerets. Chelicerae long with fangs. Legs are long with spines and hairs.

***Myrmapeni* sp. (Figure 134)**

Cephalothorax is longer than wide. Abdomen long and wide with yellowish to brown in colour. Legs are brown in colour with hairs and spines. Abdomen is long and broad, dorsal constriction, brown in colour with prominent spinnerets. Legs are long brown in colour.

Genus- *Phidippus* C. L. Koch, 1846

Spiders are medium to large sized. Eyes are small in proportion to the spiders. Legs are long, strong with hairs and few spines. Abdomen is longer than wide, pointed behind covered with spine like hairs, white and brownish black decorated patches.

***Phidippus calcuttaensis* Biswas, 1984 (Figure 135)**

Cephalothorax is longer than wide, with small deep fovea. Eyes are encircled by blackish rim. Legs are covered with hairs and spines. Abdomen is longer than wide, pointed behind covered with spine like hairs. White and brownish black decorated patches.

Genus- *Phintella* Strand in Bosenberg & Strand, 1906

Cephalothorax is longer than wide, with small deep fovea. Spiders are small sized with colour patterns. Chelicerae long with fang. First pair of leg is longer than others legs.

***Phintella vittata* (C. L. Koch, 1846) (Figure 136)**

Cephalothorax is longer than wide, small. Cephalic area is darker. Abdomen round, having alternate cross bands with black flat setae. Legs small and slender, front leg longer than others.

Genus- *Plexippus* C. L. Koch, 1846

Cephalothorax is longer than wide. Ocular quadrangle wider than long, dark brown in colour. Anterior row of eyes are recurved. Abdomen long and oval in shape, broad at middle. Legs are small and slender.

***Plexippus calcuttaensis* Biswas, 1984 (Figure 137)**

Cephalothorax longer than wide, flat and deep brown in colour. Chelicerae with one large teeth with inner margin and two similar teeth on outer margin. Sternum is oval, narrow in shape covered with few spines and hairs. Abdomen longer than wide covered with black and white hairs.

***Plexippus paykulli* Audouin, 1826 (Figure 138)**

Cephalothorax is long and wide, light brown in colour. Abdomen is longer than wide, oval with a narrowing posterior end, light brown in colour, abdomen flanked with a conspicuous white spot about the middle.

Genus- *Portia* Karsch, 1878

Cephalothorax is longer than wide, compact with sharp slope. Posterior median eyes are small in compare to anterior median eyes. Abdomen is long and wide, broad in the middle. Legs are long and slender in shape with fine hairs.

***Portia* sp. (Figure 139)**

Cephalothorax is slender with combed hair in the ocular area. Posterior median eyes are small in compare to anterior median eyes. Legs are slender with spines, metatarsus of leg is with prominent hairs. Abdomen is elongated, small and oval in shape. Irregular hairy projection on dorsal side.

Genus- *Rhene* Thorell, 1869

Small, broad body covered with pubescence, resemble like beetles. Abdomen is small with broad base with blunt tip. First pair of leg is small, broad and flat.

***Rhene* sp. (Figure 140)**

Cephalothorax is long and wide. Eyes are small, black and dark brown in colour. First pair of leg is small, broad and flat. Abdomen is wide, flat and oval with band and well defined band towards posterior end.

Genus- *Stenaelurillus* Simon, 1886

Cephalothorax longer than wide with two lateral white strips. Abdomen is oval in shape, dorsum with black patches. Legs are long and slender.

***Stenaelurillus* sp. (Figure 141)**

Cephalothorax is longer than wide, blackish-brown in colour with two lateral white strips. Abdomen is oval in shape, dorsum with black patches. Legs are long and slender.

Genus- *Telamonia* Thorell, 1887

Cephalothorax large, swollen, slender and elongated. Abdomen pointed behind. Abdomen is white in colour with a pair of longitudinal lines with white longitudinal stripe on the abdomen. Legs are long, stout and hairy with spines.

***Telamonia dimidiata* Simon, 1899 (Figure 142)**

Cephalothorax is long and wide, having a white band along the lateral sides of the head and a white patch in the middle of the ocular quadrangle. Legs are long, stout and hairy with spines. Abdomen is longer than wide and pointed behind.

Genus- *Thyene* Simon, 1885

Cephalothorax is longer than wide, broader at cephalic region pointed towards spinnerets. Posterior median eyes are small in compare to anterior median eyes. Abdomen is long covered with fine hairs. Legs long, stout and hairy with spines.

***Thyene imperialis* (Rossi, 1846) (Figure 143)**

Cephalothorax is longer than wide, broader anteriorly, silvery white in colour with orange marking near eyes. Abdomen is longer than wide, tapering towards posteriorly, grey in colour with pattern on dorsal side.

***Thyene* sp. (Figure 144)**

Cephalothorax longer than wide, broader anteriorly. Abdomen is reddish orange in colour with white marking, longer than wide, tapering posteriorly. First pair of leg is long and thick in compare to other legs.

Famaily- *Scytodidae* Blackwall, 1864 (Spitting spider)

Cephalothorax is high, subglobose and slopes forward. Six eyes are arranged in three rows. Anterior eye recurved. Labium is long and wide fused with sternum. Chelicerae with short fangs. Legs are long and slender with three claws. Abdomen is broad and oval in shape covered with dark setae.

Genus- *Scytodes* Latreille, 1804

Cephalothorax is high, narrow anteriorly. Six small eyes are arranged in three rows. Anterior eye recurved. Legs are long and slender with three claws. Abdomen is broad and oval in shape covered with dark setae.

***Scytodes pallida* Doleschall, 1859 (Figure 145)**

Cephalothorax long, yellowish in colour with brown patches. Sternum is longer than wide. Legs are long, brown in colour with dark brown joints. Abdomen is yellowish, oval in shape with brown transverse patches, covered with small hairs. Ventral side yellowish in colour.

***Scytodes propinqua* Stoliczka, 1869 (Figure 146)**

Cephalothorax is oval in shape, highly convex. Cephalic grooves are absent. Chelicerae are short. Legs are long and slender. Abdomen is oval in shape, yellowish white in colour with hairs, four pairs of dark spots lines of the same colour.

***Scytodes* sp. (Figure 147)**

Cephalothorax is long and wide, yellowish in colour with dark pattern. Six eyes are arranged in three rows. Chelicerae short with thick fang and with chitinous lamina on outer margin. Abdomen creamish white with black pattern and brown patches. Legs are long slender with small spines.

***Scytodes thoracica* (Latreille, 1802) (Figure 148)**

Cephalothorax is longer than wide, reddish brown in colour with dark patches. Six eyes are arranged in three rows. Sternum is oval in shape, reddish brown in colour. Chelicerae short with thick fang and with chitinous lamina on outer margin. Abdomen is creamish white in colour, with brown patches. Legs are long and slender with small spines.

Family- *Segestriidae* Simon, 1893 (Tube web Spiders)

Cephalothorax is longer than wide with depression like fovea. Six eyes are arranged in two rows. Sternum is oval in shape. Labium much longer than wide. Chelicerae long and slender with small fang. Abdomen is longer than wide, yellowish brown to reddish brown

in colour. Third pair of leg is directed forward along with first and second. They are nocturnal spiders, make silk lined tube web in crevices, bark of trees and tree trunks.

Genus- *Ariadna* Audouin, 1826

Cephalothorax longer than wide, thicker near in front. Six eyes are arranged in three compact pairs. Legs are short and stout. Abdomen elongated oval in shape much longer than carapace.

***Ariadna* sp.1 (Figure 149)**

Cephalothorax longer than wide, narrower anteriorly, brownish black in colour covered with long brown hairs. Cephalic area higher than thoracic area. Chelicerae black with three promarginal teeth. Legs and palps orange brownish in colour. Abdomen greyish brown in colour.

***Ariadna* sp.2 (Figure 150)**

Cephalothorax longer than wide, narrower anteriorly, yellowish in colour covered with long brown hairs, cephalic area higher than thoracic area. Chelicerae black with three promarginal teeth. Legs are long, brown in colour. Abdomen is greyish brown in colour with black pattern, covered with fine hairs.

Family- *Selenopidae* Simon, 1897 (Flat Spiders)

Cephalothorax is fattened with creamish brown or grey in colour. Eight eyes are arranged in two rows. Legs with two claws and scopulae. Abdomen is round to oval in shape covered with dense setae, black in colour. Spinnerets short arranged in group.

Genus- *Selenops* Latreille, 1819

Cephalothorax circular, wider in posterior side. Six eyes are arranged in two rows. Abdomen is flat, wider than long. Legs are long and strong with spines on ventral surface.

***Selenops radiatus* Latreille, 1819 (Figure 151)**

Cephalothorax is circular, wide in posterior side, brownish in colour covered with black hairs. Six eyes are arranged in two rows, posterior eyes recurved. Legs are brown in colour covered with hairs and spines. Abdomen is longer than wide with hairs and spines.

Family-Sparassidae Bertkau, 1872 (Giant crab spider)

Cephalothorax is longer than wide, oval in shape, fovea present, grey with dark stripes and patterns. Posterior rows of eyes is slightly procurved, anterior row straight and sub equal in size, lateral eyes are not larger than median eyes. Abdomen is round to oval in shape often with dark, median, heart shaped mark. Legs are long, black, brown and grey in colour with spines.

Genus- *Heteropoda* Latreille, 1804

Cephalothorax as long as wide, upper surface flat or high towards posterior end. Posterior row of eyes recurved. Median eyes are larger than lateral eyes, anterior row of eyes are usually straight and sub equal in size. Abdomen oval in shape with two pairs of sigilla. Legs are long and strong brown in colour with spines

***Heteropoda bhaikakai* Patel & Patel, 1973 (Figure 152)**

Cephalothorax longer than wide, covered with brown hairs. Anterior row of eyes procurved, posterior row of eyes recurved. Posterior lateral eyes longer than anterior lateral. Chelicerae long with three and four teeth on outer and inner margin. Legs long and strong covered with hairs. Abdomen oval in shape with two pairs of sigilla.

***Heteropoda venatoria* (Linnaeus, 1767) (Figure 153)**

Cephalothorax is longer than wide, covered with hairs, yellowish brown in colour. Eight eyes are arranged in two rows, posterior row recurved and anterior row procurved. Legs are long with spines. Abdomen is elongated, oval in shape with pattern.

Genus- *Olios* Walckenaer, 1837

Cephalothorax is high and convex, thoracic groove indistinct. Anterior row of eyes straight, anterior median eyes larger than lateral eyes, posterior row of eyes slightly procurved. Legs are long with spines, second leg is longer than first legs.

***Olios bhavnagarensis* Sethi & Tikader, 1988 (Figure 154)**

Cephalothorax is longer than wide, high and convex, yellowish brown in colour. Anterior row of eyes are straight, posterior row of eyes procurved. Chelicerae with three teeth on

inner margin. Abdomen is with midlongitudinal brown marking. Legs are long with spines, second leg is longer than first legs.

***Olios gravelyi* Sethi & Tikader, 1988 (Figure 155)**

Cephalothorax long as wide, yellowish brown in colour. Abdomen is elongated, oval in shape, yellowish brown in colour. Eight eyes are in two rows, posterior row recurved and anterior row procurved.

***Olios milleti* (Pocock, 1901) (Figure 156)**

Cephalothorax longer than wide, narrowing anteriorly. Eyes are reddish in colour. Legs are long, spiny and with two claws. Abdomen is oval, longer than wide, greenish yellow in colour. Dorsal side pale greenish in colour. Ventral side pale yellowish with a broad reddish band in the middle.

***Olios* sp.1 (Figure 157)**

Cephalothorax longer than wide, light brown in colour. Abdomen is oval in shape with white marking. Legs are dark black in colour. Eight eyes are arranged in two rows, posterior row recurved and anterior row procurved. Legs are long, spiny with two claws.

***Olios* sp. 2 (Figure 158)**

Cephalothorax longer than wide, light brown in colour. Abdomen is oval in shape without patterns. Chelicerae with six teeth on inner margin. Eight eyes in two rows, posterior row recurved and anterior row procurved. Legs are long, spiny and two clawed.

***Olios tener* (Thorell, 1891) (Figure 159)**

Cephalothorax is wider than long, elevated. Anterior row of eyes are procurved and posterior row of eyes recurved. Chelicerae yellowish in colour with two and five teeth. Legs are long and thick. Abdomen is oval shaped with two pairs of sigilla.

***Olios wroughtoni* (Simon, 1897) (Figure 160)**

Cephalothorax long as wide, broader in middle. Eyes are arranged in two rows, posterior row of eyes procurved, anterior median eyes are longer than anterior median eyes.

Abdomen is oval in shape, yellowish brown in colour. Legs are pale brown in colour, long and strong with spines.

Family- Stenochilidae Thorell, 1873 (Diamond spiders)

Cephalothorax is diamond shaped and deep red in colour, surface of carapace is granulated. Two thoracic grooves are present. Sternum long with anterolateral elevation. Abdomen pale yellowish with two brown dorsal muscle impressions, covered with dark spine like seate. They live in silk tubes about two inches long, under stones and in soil or in bushy areas.

Genus- *Stenochillus* O. P. Cambridge, 1873

Cephalothorax longer than wide, diamond shaped with laterally undulating margins. Abdomen longer than wide and oval in shape, pale yellowish with two brown dorsal muscle impressions, covered with dark spine like seate. Legs are long and reddish in colour with hairs and spines.

***Stenochilus hobsoni* O. Pickard-Cambridge, 1871 (Figure 161)**

Cephalothorax is longer than wide reddish brown in colour, with prominent cephalic grooves. Eyes are arranged in two rows. Anterior row of eye are recurved, posterior row of eyes longer, oval in shape. Abdomen is reddish brown in colour. Legs are long and reddish in colour with hairs and spines.

Family-TetragnathidaeMenge, 1866 (Long jawed orb weavers)

Cephalothorax is long and cylindrical in shape. Maxillae and labium are very long. Chelicerae very long and armed with teeth. Legs are very long and slender. Abdomen is long and cylindrical in shape.

Genus- *Gyizygiella* Zhu Kim & Song, 1997

Cephalothorax is longer than wide, brownish black in colour. Eyes are arranged in two rows, anterior row recurved. Abdomen with distinct folium. Chelicerae very long armed with teeth. Legs are very long and slender.

***Guizygiella indica* (Tikader & Bal, 1980) (Figure 162)**

Cephalothorax longer than wide, reddish brown in colour, with prominent folium. Eyes in two rows, anterior row of eyes are recurved. First pair of leg longer than other pairs. Abdomen is long and cylindrical in shape.

***Guizygiell melanocrania* (Thorell, 1887) (Figure 163)**

Cephalothorax long and wide, reddish brown in colour. Eyes are arranged in two rows. Anterior row of eyes recurved. First and second pair of legs are longer than other pairs. Abdomen oval in shape with lighter folium.

***Guizygiella shivui* (Patel & Reddy, 1990) (Figure 164)**

Cephalothorax reddish brown in colour, longer than wide. Eyes are arranged in two rows. Anterior row of eyes recurved. Abdomen oval in shape with dark folium. First pair of leg is longer than other pairs.

***Guizygiella* sp. (Figure 165)**

Cephalothorax long and wide, reddish brown in colour. Abdomen oval in shape with dark folium. First pair of legs longer than other pairs. Abdomen rounded in shape with brownish colour, sigilla present on dorsum.

Genus- *Leucauge* White, 1841

Cephalothorax truncate anteriorly, thoracic furrow directed posteriorly. First two pair of legs are long and slender in shape. Abdomen is as long as wide, having silvery patterns. Legs are long, black in colour, covered with hairs and spines.

***Leucauge decorata* (Blackwall, 1864) (Figure 166)**

Cephalothorax longer than wide, covered with fine hairs. Abdomen long, elongated with two humps at anterior end, dorsal side decorated with silvery white and blackish patches. Ventral side elongated with silvery white patches in between epigastric furrow and spinnerets, four silver white spots are present around the spinnerets. Legs are long and slender covered with fine hairs and spines.

Genus- *Opadometa* Archer, 1951

Cephalothorax longer than wide, covered with fine hairs. All eyes are equal in size and surrounded by black rings. Sternum is heart shaped, brownish in colour, covered with hairs. Legs are very long and slender covered with hairs and spines. Abdomen is wide towards posteriorly, silvery white with black patches on dorsal.

***Opadometa fastigata* (Simon, 1877) (Figure 167)**

Cephalothorax is longer than wide, covered with hairs. All eyes are equal in size and surrounded by black rings. Sternum is heart shaped, brownish in colour, covered with hairs. Legs are very long and slender covered with hairs and spines. Abdomen is wide towards posterior end, dorsalside with silver white and black patches.

Genus- *Tetragnatha* Latreille, 1804

Cephalothorax is long and narrow anteriorly. Eight eyes in two rows, anterior row of eyes are shorter than posterior row of eyes, both rows straight. Abdomen is long and slender in shape. Legs are long and slender with hair. It makes orb webs usually in lower vegetation near or above wet area.

***Tetragnatha mandibulata* Walckenaer, 1841 (Figure 168)**

Cephalothorax long and wide, yellowish to brown in colour. Eight eyes are in two rows, anterior row of eyes are shorter than posterior row of eyes, both rows straight. Legs are long and slender yellowish brown in colour. Abdomen is wider anteriorly and narrowed posteriorly, yellowish brown in colour

***Tetragnatha maxillosa* (Figure 169)**

Cephalothorax long and wide, reddish brown in colour. Chelicerae long with dentation. Abdomen long twig like greenish- brown in colour. Legs long, slender, blackish- brown in colour.

Family- Theridiidae Sundevall, 1833 (Comb-footed spiders)

Cephalothorax is long and wide. Legs are long covered with hairs and no spines with three claws. Eight eyes are present. A distinct comb is present on the legs with tarsus of the 4th pair of legs, consisting of a row of strong curved and toothed setae.

Genus- *Argyroides* Simon, 1864

Cephalothorax long and wide, greyish in colour. Abdomen uneven in shape usually silvery or with silvery patches. Legs are long and stout, tarsus bears no tarsus comb, ocular region or clypeus or both modified to snout like projection or horn.

***Argyroides flavescens* O. Pickard-Cambridge, 1880 (Figure 170)**

Cephalothorax is long and wide, reddish brown in colour with brown patches. Legs are black in colour. Abdomen is triangle in shaped with silver patches in the lateral sides and a black spot in the posterior tip.

***Argyroides projeles* Tikader, 1970 (Figure 171)**

Cephalothorax is longer than wide, deep brown in colour. Eyes are white in colour. Anterior median eyes longer than posterior median eyes. Abdomen longer than wide, covered with fine hairs. Abdomen with irregular conspicuous black patches on lateral side. Legs are light brownish in colour covered with hair.

Genus-*Cephalobares* O. Pickard-Cambridge, 1870

Cephalothorax is long and wide, swollen anteriorly. Abdomen longer than wide, with two posterior tubercle. Legs are yellowish brown in colour. Extend beyond spinnerets, with two posterior tubercle.

***Cephalobares globiceps* O. Pickard-Cambridge, 1871 (Figure 172)**

Cephalothorax is long and wide, elevated, reddish brown in colour. Abdomen is longer than wide, with two posterior tubercle. Legs are yellowish brown in colour.

Genus- *Faiditus* keyserlig, 1884

Cephalothorax longer than wide, narrow anteriorly. Eight eyes are present in two rows. Posterior eyes are larger than anterior eyes. Abdomen is small to large size. Legs are large with three claws.

***Faiditus* sp. (Figure 173)**

Cephalothorax is longer than wide, narrow anteriorly. Eight eyes are arranged in two rows, posterior eyes larger than anterior eyes. Abdomen is longer than wide, tapering towards posterior ends with silver colour patterns on dorsal side.

Genus - *Latrodectus* Walckenaer, 1805

Cephalothorax is longer than wide black in colour, chelicerae without teeth. Abdomen globular, leg long and strong, fourth tarsi bear tarsal comb. Abdomen tapering towards spinnerets.

***Latrodectus geometricus* C. L. Koch, 1841 (Figure 174)**

Cephalothorax is longer than wide with black band from the median fovea. Eight eyes in two rows both rows recurved. Abdomen is sub globular in shape, symmetrical markings present on dorsal side look like brown spots with white borders.

Genus- *Nihonhimea* Yoshida, 2016

Cephalothorax is longer than wide, Brown in colour. Abdomen is longer than wide, Reddish brown in colour with black and chalk white patterns. Legs are long and covered with hairs and spines.

***Nihonhimea mundula* (C. L. Koch, 1872) (Figure 175)**

Cephalothorax longer than wide, grey in colour. Eight eyes are present. Abdomen is longer than wide with or without patterns, reddish brown in colour, with black and chalk white patterns. Legs are long and stout without hairs and spines, with three claws.

Genus- *Steatoda* Sundevall, 1833

Cephalothorax longer than wide, with prominent grooves. Eight eyes are present. Ocular area darker in colour. Abdomen globular, blackish in colour with white stripes. Legs are long and slender with no spines on legs.

***Steatoda* sp.1 (Figure 176)**

Cephalothorax longer than wide, with prominent grooves. Ocular area darker. Abdomen is globos, shiny black stripes, eight eyes are present. Legs are long and slender with no spines on legs.

***Steatoda* sp.2 (Figure 177)**

Cephalothorax is longer than wide, with prominent grooves. Eyes are silvery white in colour. Legs are long, slender without spines. Abdomen is globos with black striped pattern.

Genus-*Theridion* Walckenaer, 1805

Cephalothorax is longer than wide, fovea indistinct. Eight eyes are present in two rows, pearly white in colour, anterior row more curved than posterior row. Abdomen spherical in shape, creamish in colour with black or brownish pattern. Chelicerae are small brown in colour. Legs are yellowish brown in colour, slender in shape, with short spines.

***Theridion manjithar* Tikader, 1970 (Figure 178)**

Cephalothorax long and wide, reddish brown colour. Chelicerae long, reddish brown in colour. Legs are long whitish with dark brown patches. Leg IV with a comb like structure. Abdomen globular, whitish with dark brown patches. Ventral side with two large whitish patches.

***Theridion* sp. (Figure 179)**

Carapace longer than wide. Eight eyes are located arranged in two rows, pearly white in colour, anterior row more curved than posterior row. Abdomen spherical in shape, creamish in colour with brownish pattern. Legs are yellowish brown, slender, with short spines.

Genus - *Thwaitesia* O. P. Cambridge, 1881

Cephalothorax is longer than wide, narrowing anteriorly, yellowish brown patches. Ocular area longer than wide. Anterior and posterior row of eyes are recurved. Chelicerae small without tooth. Legs are long yellowish in colour covered with fine hairs. Abdomen

triangular shape with a blunt posterior end, pale yellow with silvery patches, covered with few hairs.

***Thwaitesia dangensis* Patel & Patel, 1972 (Figure 180)**

Cephalothorax longer than wide, narrowing in front, yellowish brown patches on cephalic area. Ocular longer than wide, narrow anteriorly. Anterior and posterior row of eyes are recurved. Abdomen is triangular in shape with a blunt posterior end, yellowish with silvery patches, covered with few hairs. Legs are long, yellowish colour covered with fine hairs.

Family- Thomisidae Sundevall, 1833 (Crab spiders)

Cephalothorax long and wide, oval in shape. Eight eyes are arranged in two rows. Chelicerae free, boss present. First two pair of legs long and strong and curved forward. Abdomen long and wide, oval or round in shape. They are found generally on leaves or flowers or bark of trees.

Genus- *Amyciaea* Simon, 1885

Cephalothorax is long and wide, cephalic region sloping in front. Eyes are round ringed with prominent tubercles. Lateral eyes larger than median eyes. Legs are long and slender, tarsus with two claws with fine hairs. They have ant-like appearance.

***Amyciaea forticeps* (O. Pickard-Cambridge, 1873) (Figure 181)**

Cephalothorax is longer than wide, elevated in front, reddish brown in colour covered with hairs. Eyes are present in three rows, median eyes smaller than lateral eyes. Abdomen is longer than wide covered with fine hairs, two black eye-like spots on dorsal side. V-shaped dark brown marking on anterior half of abdomen. Ventral side is reddish brown in colour. Legs are long and slender, tarsus with two claws with fine hairs.

Genus- *Camaricus* Thorell, 1887

Cephalothorax high, slightly convex, wider in front and covered with hairs. Eyes are arranged in two rows, both are recurved. Abdomen longer than wide, with uniform thickness. Legs long with spines and hairs. Crab-like in appearance.

***Camaricus* sp. (Figure 182)**

Cephalothorax long and wide, deep brown or black patches. Eyes are arranged in two rows; both are recurved, posterior row longer than anterior row. Abdomen is dark brown in colour, wider in front, covered with black hairs. Legs are strong and covered with spines and hairs.

Genus – *Indoxysticus* Benjamin & Jaleel, 2010

Cephalothorax is long and wide, convex, covered with conspicuous spine and hairs. Anterior median eyes are closer to lateral eyes. Legs are strong and covered with spines and hairs. Abdomen dark brown in colour, wider in front, covered with black hairs.

***Indoxysticus lumbricus* Tang & Li, 2010 (Figure 183)**

Cephalothorax wider than long, yellowish or brown colour in with long setae. Chelicerae are blackish brown colour. Legs are yellowish in colour with greyish black spots. Abdomen is yellow colour with greyish black markings with black spots.

***Indoxysticus minutus* (Tikader, 1960) (Figure 184)**

Cephalothorax is long and wide, darker in colour. Eyes are whitish in colour. Chelicerae dark brownish in colour. Sternum is longer than wide. First pair leg is longer than others. Abdomen yellowish in colour, covered with long dark crystal like hairs. Two pairs of sigilla are present.

Genus- *Misumena* Latreille, 1804

Cephalothorax armed with few spines. Eyes row are equidistant, anterior median and anterior lateral eyes subequal in size. First two pair of legs are much longer than others.

***Misumena* sp. (Figure 185)**

Cephalothorax is white, slightly elevated, narrowing anteriorly. Eight eyes are arranged in two rows and both are recurved. Legs are longer slender covered with spines and hairs. Abdomen is white, broader than long. Five small sigilla present.

Genus- *Misumenoides* F.O. Pickard-Cambridge, 1900

Cephalothorax is brownish-yellow in colour, is long and wide covered with fine spines,. Legs are long, greenish-yellow in colour. Lateral eyes larger than others and ringed with greenish tubercles. Both the eyes are recurved, and black. Abdomen is as long as wide, high and pointed behind, provided with two conspicuous dark brown patches

***Misumenoides* sp. (Figure 183)**

Cephalothorax is long and wide covered with fine spines, brownish-yellow colour. Legs are long, greenish-yellow in colour. Eyes are round, black, both eye rows recurved, lateral eyes are larger than the others and ringed with greenish tubercles. Abdomen is long as wide, high and pointed behind provided with patterns.

Genus- *Strigoplus* Simon, 1885

Cephalothorax is wider than long, covered with hairs and spines. Clypeus wide and conspicuously projecting. Eyes are round black arranged in two rows, both rows are recurved. Sternum is oval in shape covered with hairs and spine.

***Strigoplus* sp. (Figure 184)**

Cephalothorax slightly wider than long, covered with hairs and spines. Eyes are round black, arranged in two rows and both rows are recurved. Anterior lateral eyes are larger than posterior lateral medians. Abdomen is oval shaped, covered with spines on dorsal.

Genus- *Synema* Simon, 1864

Cephalothorax is longer than wide, eyes are four pairs, lateral eyes longer posterior median smaller, all eyes ringed with with chalk white tubercles. Clypeus is narrow with spines. Abdomen is more or less oval in shape, dorso-ventrally flattened, four pairs of circular black spots on the dorsal.

***Synema decoratum* Tikader, 1960 (Figure 185)**

Cephalothorax is longer than wide. Eyes are four pairs, lateral eyes longer posterior median smaller, all eyes ringed with with chalk white tubercles. Abdomen is more or less oval in shape, dorso-ventrally flattened, circular spots on the dorsal.

Genus- *Thomisus* Walckenaer, 1805

Cephalothorax as long as widest, truncated in front. Abdomen is pentagonal shaped, narrow and truncated anteriorly. Legs are long typically crab like in appearance.

***Thomisus dhakuriensis* (Figure 189)**

Cephalothorax longer than wide, projecting forward into two lateral conical processes, yellowish brown in colour. Anterior lateral eyes are larger. Sternum oval in shape. Abdomen subquadrate with conical shoulder tubercles, whitish in colour with transverse grooves.

***Thomisus krishnae* Reddy & Patel, 1992 (Figure 190)**

Cephalothorax long as wide, pentagonal in shape, narrowed in front with yellow band on ocular area. Eyes are black in colour. Both rows of eyes are recurved. Chelicerae are strong, yellowish in colour. Legs are long and stout. Abdomen rectangular in shape with chalk white colour patterns.

***Thomisus* sp.1 (Figure 191)**

Cephalothorax is oval, as long as wide, anterior median eyes are smaller than anterior lateral eyes. Sternum is yellowish in colour covered with hairs. Abdomen is chalk white in colour. Dorsum is with a small dark brown pattern.

Family- Uloboridae Thorell, 1869 (Hackled web weavers)

Cephalothorax is long and wide, cribellate, different size spiders. Eight eyes are arranged on ocular area. First pairs of legs are long as compare to other legs with three claws. When the spiders have rest, they forwardly it.

***Miagrammopes* O. Pickard-Cambridge, 1870**

Cephalothorax longer than wide, flat thin. Four eyes are arranged in transverse rows. Anterior row of eyes are absent. Abdomen long and thin almost tubular in shape longer than wide. The spider looks like dry twig.

***Miagrammopes* sp. (Figure 192)**

Cephalothorax longer than wide, light brown in colour. Doral side flat, smooth with prominent fovea. Posterior row of eyes black, place in equal distance. Abdomen longer than wide brown or gray in colour. Posterior end truncated, upper part projecting forwards.

Genus- *Philoponella* Mello-Leitão, 1917

Cephalothorax longer as wide, pale in colour with hairs. Chelicerae, maxillae and labium light yellow. Sternum pyriform, pale red. Eight eyes are arranged on ocular area. Legs are long and gray yellow in colour with spines and hairs. Abdomen blackish yellow, with dusky modified spot at lateral side.

***Philoponella* sp.1 (Figure 193)**

Cephalothorax long and wide, blackish in colour. Eight eyes are present, anterior median eyes are larger than other eyes. Sternum brownish in colour, longer than wide. First pair of leg is much longer than other legs, blackish in colour with fine hairs. Abdomen longer and wide, off white in colour with black pattern.

***Philoponella* sp. 2 (Figure 194)**

Cephalothorax appears flat and thin, brownish in colour. Sternum black brown in colour. Eight eyes are present, anterior median eyes are larger than anterior lateral eyes. Anterior median eyes closer to each anterior lateral eyes. Abdomen long and oval in shape with cervical and radial gooves, light brown in colour. First pair of leg is much longer than other legs

Genus- *Uloborus* Latreille, 1806

Cephalothorax wide and long, well separated humps present on the abdomen, giving the appearance of the shoulders. First pair of leg is long and strong than others legs.

***Uloborus danolius* Tikader, 1969 (Figure 195)**

Cephalothorax is longer than wide, greyish in colour with brownish borders. Eight eyes are arranged on ocular area. First pair of leg is longer than others. Abdomen is yellowish-brown in colour. Legs are long with spines and hairs.

***Uloborus plumipes* Lucas, 1846 (Figure 196)**

Cephalothorax is oval in shape, pale white to light brown in colour. Eyes are arranged in two rows. Chelicerae very long with two large teeth. Legs are long with spines and hairs. Abdomen is long oval in shape white in colour. Anal tubercle is long smaller than posterior spinnerets. Posterior spinnerets are bisegmented.

***Uloborus* sp. (Figure 197)**

Cephalothorax is oval in shape, pale white to light brown in colour. Eyes are arranged in two rows. Chelicerae very long with two large teeth. Legs are long with spines and hairs. Abdomen is long oval in shape white in colour.

Genus- *Zosis* Walckenaer, 1841

Small spiders commonly called as feathery legs. Eight eyes are arranged in two rows. Posterior eyes recurved. Crebellum and Calamistrum are present. Legs are long with strikingly dark brown and white coloured annulations. This banding patterns on the legs help in identification.

***Zosis geniculata* (Olivier, 1789) (Figure 198)**

Cephalothorax is long and wide, flat, brownish in colour. Abdomen is brownish colour with single flattened hump, light in colour. Legs long with strikingly dark brown and white coloured annulations. This banding patterns on the legs help in identification.

Family- *Zodariidae* Thorell, 1881 (Burrowing spiders)

Small to large sized spider with two to three claws. Six to eight eyes are arranged in two or three rows, chelicerae very short. Cephalothorax is oval in shape, narrow anteriorly. Abdomen is long and wide, oval in shape.

Genus- *Asceua* Thorell, 1887

Cephalothorax is longer than wide, oval in shape, orange brown in colour. Abdomen is broad, oval. Legs are long slender without spines, yellowish orange in colour.

***Asceua* sp. 1 (Figure 199)**

Cephalothorax is longer than wide, oval in shape, orange brown in colour. Abdomen is broad oval. Legs long slender without spines, yellowish orange in colour. Sternum oval, six eyes in two rows, anterior row of eyes procurved. Chelicerae brown with two anterior and one posterior teeth. Dorsal side of abdomen is sclerotized

***Asceua* sp. 2 (Figure 200)**

Cephalothorax is longer than wide, oval in shape, high and convex, highest near the centre orange brown in colour. Chelicerae brownish colour. Abdomen is broad oval covered with grey short hairs. Dorsal side with white patches.

***Asceua* sp. 3 (Figure 201)**

Cephalothorax is longer than wide, oval in shape, brown, tegument smooth and shiny. Anterior eye row straight and posterior row procurved. Legs are brown, coxae yellow, femur dark in colour. Abdomen is broad oval highly sclerotised with patterns. Legs are long slender without spines, yellowish orange in colour.

***Asceua* sp. 4 (Figure 202)**

Cephalothorax is convex, oval in shape cervical grooves poorly indicated, pale in colour. Eyes are arranged in two rows, anterior median larger than posterior median eyes. Legs are orange brown in colour with abdomen oval, dorsal surface dark brown in colour with scutum. Legs are dark brown in colour with hairs and spines.

***Asceua* sp. 5 (Figure 203)**

Cephalothorax is longer than wide, reddish brown in colour. Legs are yellowish brown in colour. Abdomen is brownish in colour with scutum with whitish patterns.

Genus- *Suffasia* Jocque, 1991

Medium sized spider with oval cephalothorax, narrow in front side, yellow to dark brown patterns. Anterior eyes row procurved and posterior row procurved as seen from above. Legs are pale yellow in colour with brown rings and patches. Chelicerae slender, with poorly developed boss. Abdomen oval, dark pattern on pale background. Six spinnerets are present.

***Suffasia gujaratensis* (Tikader & Patel, 1975) (Figure 204)**

Cephalothorax is longer than wide, narrowing in front, four eyes are pearly white arranged in two rows. Anterior median eyes are longer than other eyes. Legs are long strong covered with hairs and spines. Abdomen is longer than wide covered with fine hairs.

Genus- *Tropizodium* Jocque & Churchill, 2005

Cephalothorax is small yellowish in colour. Small spiders with minute secondary eyes, posterior median eyes are closed to anterior median eyes. Abdomen oval in shape, dark blackish in colour covered with hairs. Sternum is longer than wide, legs are long and slender covered with hairs and spines.

***Tropizodium viridurbium* Prajapati, Murthappa, Sankaran & Sebastian, 2016 (Figure 205)**

Cephalic region is square shaped with dark brown reticulation. Thoracic region is broad and Chelicerae without teeth. Sternum is pale yellowish heart shaped. Legs are segmented with hairs.

***Tropizodium kalami* Prajapati, Murthappa, Sankaran & Sebastian, 2016 (Figure 206)**

Cephalothorax is yellowish in colour, clypeal margins with long, thick blisters. Chelicerae without teeth. Sternum is heart shaped. Cephalothorax is oval in shape with pale yellowish spots. Legs are segmented covered with hairs.

PHOTOGRAPHS OF SPIDERS IDENTIFIED TAXONOMICALLY

Family – Theraphosidae



Figure 26

Plesiophrictus sp.

Family – Agelenidae



Figure 27

Agelena gautami

Tikader, 1962

Family – Araenidae



Figure 28

Araneus sp.



Figure 29
Argiope anasuja
Thorell, 1887



Figure 30
Cyclosa bifida
(Doleschall, 1859)



Figure 31
Cyclosa confragra
(Thorell, 1892)



Figure 32
Cyclosa moonduensis
Tikader, 1963



Figure 33
Cyclosa spirifera
Simon, 1889



Figure 34
Cyrtophora cicatrosa
(Stoliczka, 1869)



Figure 35
Cyrtophora citricola
(Forsskål, 1775)



Figure 36
Eriovixia excels
(Simon, 1889)



Figure 37
Eriovixia laglaizei
(Simon, 1877)

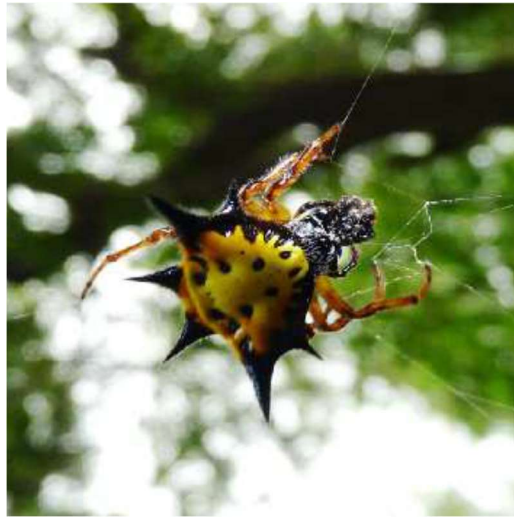


Figure 38
Gasteracantha hasselti
 C. L. Koch, 1837



Figure 39
Larinia chloris
 (Audouin, 1826)



Figure 40
Neoscona inusta
 (C. L.Koch,1871)



Figure 41
Neoscona mukerjei
Tikader, 1980



Figure 42
Neoscona theisi
(Simon, 1909)



Figure 43
Nephila pilipes
(Fabricius, 1793)



Figure 44
Poltys bhabanii
 (Tikader, 1970)



Figure 45
Singa sp.



Figure 46
Thelacantha brevispina
 (Doleschall, 1857)

Family – Cheiracanthiidae



Figure 47
Cheiracanthium danieli
Tikader, 1975



Figure 48
Cheiracanthium
Melanostomum
(Thorell, 1895)



Figure 49
Cheiracanthium triviale
(Thorell, 1895)

Family – Clubionidae



Figure 50

Clubiona drassodes

O. Pickard-Cambridge, 1874



Figure 51

Clubiona filicata

O. Pickard-Cambridge,
1874



Figure 52

Clubiona pashabhahi

Patel & Patel, 1973

Family – Corrinidae



Figure 53

Cambalida dhupgadensis
Bodkhe, Uniyal & Kamble,
2016



Figure 54

Cambalida flavipes
(Gravely, 1931)



Figure 55

Castianeira albopicta
Gravely, 1931



Figure 56
Castianeira bengalensis
Biswas ,1984



Figure 57
Castianeira zetes
Simon, 1897

Family –Eresidae



Figure 58
Stegodyphus mirandus
Pocock, 1899



Figure 59
Stegodyphus pacificus
 Pocock, 1900



Figure 60
Stegodyphus sarasinorum
 Karsch, 1892

Family – Filistatidae



Figure 61
Pritha dharmakumarsinhjii
 Patel, 1978



Figure 62
Pritha poonaensis
(Tikader, 1963)



Figure 63
Sahastata ashapuriae
Patel, 1978

Family – Gnaphosidae



Figure 64
Callilepis sp.



Figure 65
Drassyllus mahabalei
Tikader, 1982



Figure 66
Gnaphosa poonaensis
Tikader, 1973



Figure 67
Prodidomus sp.



Figure 68
Scopoides kuljitae
(Tikader, 1982)



Figure 69
Sosticus nainitalensis
Gajbe, 1979



Figure 70
Trachyzelotes Jaxartensis
(Kroneberg, 1875)



Figure 71
Zelotes mandae
Tikader & Gajbe, 1979



Figure 72
Zelotes nainitalensis
Tikader & Gajbe, 1976



Figure 73
Zelotes sajali
Tikader & Gajbe, 1979

Family – Hersiliidae



Figure 74

Hersilia savignyi

Lucas, 1836

Family –Linyphiidae



Figure 75

Lephyphantes sp.



Figure 76

Linyphia sp.



Figure 77
Neriene sundaica
(Simon, 1905)

Family –Liocranidae



Figure 78
Oedignatha scrobiculata
Thorell, 1881



Figure 79
Oedignatha sp.1



Figure 80
Oedignatha sp. 2

Family – Lycosidae



Figure 81
Evippa sp.



Figure 82
Hippasa partita
(O. Pickard-Cambridge,
1876)



Figure 83
Hippasa sp.1



Figure 84
Hippasa sp.2



Figure 85
Lycosa lambai
Tikader & Malhotra, 1980



Figure 86
Lycosa madani
Pocock, 1901



Figure 87
Lycosa phipsoni
Pocock, 1899



Figure 88
Lycosa poonaensis
Tikader & Malhotra, 1980



Figure 89

Lycosa sp.



Figure 90

Pardosa birmanica

Simon, 1884



Figure 91

Pardosa heterophthalma

(Simon, 1898)



Figure 92
Pardosa mukundi
Tikader & Malhotra, 1980



Figure 93
Pardosa sumatrana
(Thorell, 1890)

Family –Mimetidae



Figure 94
Mimetus sp.

Family – Oecobiidae



Figure 95

Oecobius putus

O. Pickard-Cambridge, 1876

Family – Oonopidae



Figure 96

Brignolia carlmulleri

Ranasinghe & Benjamin,
2016



Figure 97

Brignolia meemure

Ranasinghe & Benjamin,
2016



Figure 98
Brignolia sp.1



Figure 99
Brignolia sp.2



Figure 100
Brignolia sp.3



Figure 101
Brignolia sp.4



Figure 102
Ischnothyreas sp.



Figure 103
Opopea sp.

Family –Oxyopidae



Figure 104
Oxyopes ashae
Gajbe, 1999



Figure 105
Oxyopes bharatae
Gajbe, 1999



Figure 106
Oxyopes birmanicus
Thorell, 1887



Figure 107
Oxyopes javanus
Thorell, 1887



Figure 108
Oxyopes kamalae
Gajbe, 1999



Figure 109
Oxyopes pankaji
Gajbe & Gajbe 2000



Figure 110
Oxyopes shweta
Thorell, 1870



Figure 111
Oxyopes sp.1



Figure 112
Oxyopes sp.2



Figure 113
Peucetia akwadeaensis
 Patel, 1978



Figure 114
Peucetia sp.

Family – Palpimanidae



Figure 115
Otiothops namratae
 Pillai, 2006



Figure 116
Palpimanus sp.

Family –Philodromidae



Figure 117
Philodromus decoratus
Tikader, 1962



Figure 118
Thanatus dhakuricus
Tikader, 1960



Figure 119
Tibellus elongatus
Tikader, 1960

Family –Pholcidae



Figure 120
Artema atlanta
Walckenaer, 1837



Figure 121
Crossopriza lyoni
(Blackwall, 1867)



Figure 122
Binor punjabicus
Logunov, 2001



Figure 123
Binor sp.



Figure 124
Carrhotus sp.



Figure 125
Cosmophasis sp.



Figure 126
Harmochirus brachiatus
(Thorell, 1877)



Figure 127
Harmochirus sp.1



Figure 128
Hyllus semicupreus
(Simon, 1885)



Figure 129
Marpissa sp.1



Figure 130
Marpissa sp.2



Figure 131
Menemerus bivittatus
(Dufour, 1831)



Figure 132
Myrmarachne melanocephala
MacLeay, 1839

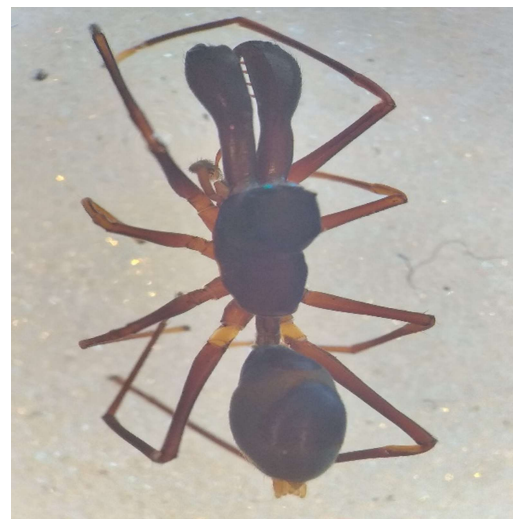


Figure 133
Myrmatheca alticephalom
(Yamasaki & ahmad ,2013)



Figure 134
Myrmapene sp.



Figure 135
Phidippus calcuttaensis
Biswas, 1984



Figure 136
Phintella vittata
(C.L. Koch 1846)



Figure 137
Plexippus calcutaensis
(Tikader, 1974)



Figure 138
Plexippus paykullii
(Audouin, 1826)



Figure 139
Portia sp.



Figure 140

Rhene sp.



Figure 141

Stenaelurillus sp.



Figure 142

Telamonia dimidiata

(Simon, 1899)



Figure 143
Thyene imperialis
(Rossi 1846)



Figure 144
Thyene sp.

Family –Scytodidae



Figure 145
Scytodes pallida
Doleschall, 1859



Figure 146
Scytodes propinqua
Stoliczka, 1869



Figure 147
Scytodes sp.



Figure 148
Scytodes thoracica
(Latreille, 1802)

Family – Segestriidae



Figure 149
Ariadna sp.1



Figure 150
Ariadna sp.2

Family – Selenopidae



Figure 151
Selenops radiatus
Latreille, 1819

Family – Sparassidae



Figure 152
Heteropoda bhaikakai
Patel & Patel, 1973



Figure 153
Heteropoda venatoria
Linnaeus, 1767



Figure 154
Olios bhavnagarensis
Sethi & Tikader, 1988



Figure 155
Olios gravelyi
Sethi & Tikader, 1988



Figure 156
Olios milleti
(Pocock, 1901)



Figure 157
Olios sp.1



Figure 158
Olios sp.2



Figure 159
Olios tener
(Thorell, 1891)



Figure 160
Olios wroughtoni
(simon,1897)

Family – Stenochilidae



Figure 161

Stenochilus hobsoni

O. Pickard-Cambridge, 1871

Family –Tetragnathidae



Figure 162

Guizygiella indica

(Tikader& Bal, 1980)



Figure 163

Guizygiella melanocrania

(Thorell, 1887)



Figure 164
Guizygiella shivui
 (Patel & Reddy, 1990)



Figure 165
Guizygiella sp.



Figure 166
Leucauge decorata
 (Blackwall, 1864)



Figure 167
Opadometa fastigata
(Simon, 1877)



Figure 168
Tetragnatha mandibulata
Walckenaer, 1841



Figure 169
Tetragnatha maxillosa
Thorell, 1895

Family –Theridiidae



Figure 170

Argyrodes flavescens

O. Pickard-Cambridge, 1880



Figure 171

Argyrodes projeles

Tikader, 1970



Figure 172

Cephalobares globiceps

O. Pickard-Cambridge,
1871



Figure 173

Faiditus sp.



Figure 174

Latrodectus geometricus

C. L. Koch, 1841



Figure 175

Nihonhimea mundula

(C. L. Koch, 1872)



Figure 176
Steatoda sp.1



Figure 177
Steatoda sp.2



Figure 178
Theridion manjithar
Tikader, 1970



Figure 179
Theridion sp.



Figure 180
Thwaitesia dangensis
Patel & Patel, 1972

Family –Thomisidae



Figure 181
Amyciaea forticeps
(O. Pickard-Cambridge,
1873)



Figure 182
Camaricus sp.



Figure 183
Indoxysticus lumbricus
Tang & Li, 2010



Figure 184
Indoxysticus minutus
(Tikader, 1960)



Figure 185
Misumena sp.



Figure 186
Misumenoides sp.



Figure 187
Strigoplus sp.



Figure 188
Synema decorata
Tikader, 1960



Figure 189
Thomisus dhakuriensis
Tikader, 1960



Figure 190
Thomisus krishnae
Reddy & Patel, 1992



Figure 191
Thomisus sp.1

Family –Uloboridae



Figure 192
Miagrammopes sp.



Figure 193
Philoponella sp.1



Figure 194
Philoponella sp.2



Figure 195
Uloborus danoliui
Tikader, 1969



Figure 196
Uloborus plumipes
Kulczyński, 1908



Figure 197
Uloborus sp.



Figure 198
Zosis geniculata
(Olivier, 1789)

Family –Zodariidae



Figure 199
Asceua sp.1



Figure 200
Asceua sp.2



Figure 201
Asceua sp.3



Figure 202
Asceua sp.4



Figure 203

Asceua sp.5



Figure 204

Suffasia gujaratensis
(Tikader & Patel, 1975)



Figure 205

Tropizodium viridurbium
Prajapati, Murthappa,
Sankaran & Sebastian, 2016



Figure 206

Tropizodium kalami

Prajapati, Murthappa,
Sankaran & Sebastian, 2016

4.2 Diversity and Composition of Spiders in Champaner-Pavagadh Archaeological Park

A comprehensive survey was carried out in and around Champaner-Pavagadh Archaeological Park to study the diversity and ecology of spiders. The study was carried out from December 2015 to December 2018. The study area can be divided into different types of habitats like forest, agriculture, garden, hill and monuments. This wide range of habitats help spiders to survive and flourish. Hence there was a need to study the spider diversity and conserve them. Study area was divided into three sub sites including Forest, Agricultural field and Garden area.

Champaner- Pavagadh Archaeological Park led to the documentation of 189 species of spiders belonging to 106 genera and 32 different families during the study period (Table 3). Among 32 families the most dominant families were Salticidae consisting of 19 genera & 24 species followed by Araneidae (11 genera & 19 species). Less common species included spiders belonging to families Theridiidae, (8 genera & 13 species), Lycosidae (4 genera & 13 species each), Thomisidae (8 genera & 11 species), Oxyopidae (11 species) Tetragnathidae (3sp. each), Sparacidae (3sp. each). Only two species were recorded from each family viz. Clubionidae, Gnaphosidae, Pholcidae, Thomisidae, Oonopidae and Scytodidae. Rest of the families like Corrinidae, Eresidae, Eutichuridae, Hersilidae, Palpimanidae, Philodromidae, Uloboridae and Zodariidae were represented by single species. Maximum diversity of spiders in this area can be attributed to the presence of large trees, herbs, shrubs and ornamental plants (Table 1). Such habitats sustain a high faunal diversity by providing diverse microhabitat especially for invertebrates. Forest floor and leaf litters are also responsible for rich biodiversity which provide retreat and hiding place for ground spiders. Such type of habitats moderated the temperature and humidity of the area which helps in the survival of spiders and for making different type of web which is a unique mode of protection from their predators.

4.3 Diversity Pattern of Spiders along Slope of Pavagadh Hill

Altitudinal diversity of spiders in the Pavagadh hill is discussed in detail for the first time. A total of 144 species belonging to 92 genera and 29 families were collected during the entire sampling period from three different elevation points of Pavagadh hill. Among the 29 families, maximum diversity was observed from the family Araneidae consisting of 9

genera & 15 species followed by family Salticidae (10 genera & 10 species), Gnaphosidae (7 genera & 9 species), Theridiidae (5 genera 5 species), Thomisidae (5 genera and 6 species), Lycosidae (4 genera & 8 species), Oonopidae (3 genera & 5 species), Oxyopidae (2 genera and 6 species), Pisauridae (2 genera & 2 species), Sparassidae (2 genera & 3 species), Corrinidae, Liocranidae, (1 genera & 3 species), Cheiracanthiidae, Clubionidae, Scytodidae, Segestriidae, (1genera and 2 species), Families Agelenidae, Eresidae, Hersiliidae, Mimetidae, Selenopidae, Theraphosidae were represented by (1 genera and 1 species) (Table 4).

Out of 29 families from three different slope of Pavagadh hill, the maximum diversity of spiders were observed at lower altitude (230 m to 430 m) followed by middle altitude (26 families each). Minimum diversity was observed in higher altitude (22 families) which is distributed from (630 m to 830 m). The maximum generic diversity was recorded from lower altitude (72 genera) followed by middle (60 genera) and higher altitude (47 genera). Also maximum species diversity of spiders was reported from lower altitude (105 species) followed by middle (87 species) and higher altitude.

The maximum diversity of spiders in lower altitude was reported due to presence of rich diversity of plants, forest floor, herbs and shrubs which provide more space for making webs. It was observed that lower and middle altitude of Pavagadh hill harbors great diversity of herbs and plants in compared to higher altitude. Vegetation pattern was found to decrease with increasing elevation whereas the pattern of shrub diversity was not very clear. In higher altitude of hill both the herb and shrub diversity showed a declining pattern with increasing altitude. Thus the result showed that the pattern of spider diversity decreased with increasing altitude in Pavagadh hill along elevation. This suggests that most of the spiders are sensitive to small changes in the environment especially changes in the vegetation, topography, temperature and humidity.

Hence, I have collected the data for the families in all the three sites and also tested the pattern of distribution along the altitude and it was observed that the overall number of spider decreased with the increase of altitude (Graph 3).

Table 3: Checklist of spider species from Champaner- Pavagadh Archaeological Park, Gujarat

Sr. No.	Family	Species	Sex
1	Agelenidae	<i>Agelena gautami</i> Tikader, 1962	M,F
2	Araneidae	<i>Araneus</i> sp.	F
3		<i>Argiope anasuja</i> Thorell, 1887	M,F
4		<i>Cyclosa bifida</i> (Doleschall, 1859)	M,F
5		<i>Cyclosa confraga</i> (Thorell, 1892)	M,F
6		<i>Cyclosa moondensis</i> Tikader, 1963	M,F
7		<i>Cyclosa spirifera</i> Simon, 1889	F
8		<i>Cyrtophora cicatrosa</i> (Stoliczka, 1869)	M,F
9		<i>Cyrtophora citricola</i> (Forsskal, 1775)	M,F
10		<i>Eriovixia excelsa</i> (Simon, 1889)	M,F
11		<i>Eriovixia laglaizei</i> (Simon, 1877)	M,F
12		<i>Gasteracantha hasselti</i> C. L. Koch, 1837	F
13		<i>Larinia chloris</i> (Audouin, 1826)	F
14		<i>Neoscona inusta</i> (L. Koch, 1871)	F
15		<i>Neoscona mukerjei</i> Tikader, 1980	M
16		<i>Neoscona theisi</i> (Walckenaer, 1841)	M,F
17		<i>Nephila pilipes</i> (Fabricius, 1793)	F
18		<i>Poltys bhabanii</i> (Tikader, 1970)	F
19		<i>Singa</i> sp.	F
20		<i>Thelacantha brevispina</i> (Doleschall, 1857)	M,F
21	Cheiracanthiidae	<i>Cheiracanthium danieli</i> Tikader, 1975	M,F
21		<i>Cheiracanthium melanostomum</i> (Thorell, 1895)	M,F
23		<i>Cheiracanthium triviali</i> (Thorell, 1895)	F
24	Clubionidae	<i>Clubiona drassodes</i> O. Pickard-Cambridge, 1874	M,F
25		<i>Clubiona filicata</i> O. Pickard-Cambridge, 1874	F
26		<i>Clubiona pashabhahi</i> Patel & Patel, 1973	M,F
27	Corinnidae	<i>Cambalida dhupgadensis</i> Bodkhe, Uniyal & Kamble, 2016	F
28		<i>Cambalida flavipes</i> (Gravely, 1931)	F
29		<i>Castianeira albopicta</i> Gravely, 1931	F
30		<i>Castianeira bengalensis</i> Biswas 1984	M,F

Sr. No.	Family	Species	Sex
31		<i>Castianeira zetes</i> Simon, 1897	F
32	Eresidae	<i>Stegodyphus mirandus</i> Pocock, 1899	F
33		<i>Stegodyphus pacificus</i> Pocock, 1900	F
34		<i>Stegodyphus sarasinorum</i> Karsch, 1892	F
35	Filistatidae	<i>Pritha dharmakumarsinhjii</i> Patel, 1978	F
36		<i>Pritha poonaensis</i> (Tikader 1963)	F
37		<i>Sahastata ashapuriae</i> Patel, 1978	F
38	Gnaphosidae	<i>Callilepis</i> sp.	F
39		<i>Drassyllus mahabalei</i> Tikader, 1982	M,F
40		<i>Gnaphosa poonaensis</i> Tikader, 1973	F
41		<i>Prodidomus</i> sp.	F
42		<i>Scopoides kuljitae</i> (Tikader, 1982)	M,F
43		<i>Sosticus nainitalensis</i> Gajbe, 1979	M,F
44		<i>Trachyzelotes jaxartensis</i> (Kroneberg, 1875)	F
45		<i>Zelotes mandae</i> Tikader&Gajbe, 1979	M,F
46		<i>Zelotes nainitalensis</i> Tikader&Gajbe, 1976	M,F
47		<i>Zelotes sajali</i> Tikader & Gajbe, 1979	M,F
48.	Hersiliidae	<i>Hersilia savignyi</i> Lucas, 1836	F
49.	Linyphiidae	<i>Lepthyphantes</i> sp.	F
50.		<i>Linyphia</i> sp.	F
51.		<i>Nerienne sundaica</i> (Simon, 1905)	F
52.	Liocranidae	<i>Oedignatha scrobiculata</i> Thorell, 1881	F
53.		<i>Oedignatha</i> sp. 1	F
54.		<i>Oedignatha</i> sp.2	F
55.	Lycosidae	<i>Evippa</i> sp.	M,F
56.		<i>Hippasa partita</i> (O. Pickard-Cambridge, 1876)	M,F
57.		<i>Hippasa</i> sp.1	M,F
58.		<i>Hippasa</i> sp.2	M
59.		<i>Lycosa lambai</i> Tikader & Malhotra, 1980	M,F
60.		<i>Lycosa madani</i> Pocock, 1901	M,F
61.		<i>Lycosa phipsoni</i> Pocock, 1899	M,F

Sr. No.	Family	Species	Sex
62.		<i>Lycosa poonaensis</i> Tikader & Malhotra, 1980	F
63.		<i>Lycosa</i> sp.	F
64.		<i>Pardosa birmanica</i> Simon, 1884	M,F
65.		<i>Pardosa heterophthalma</i> (Simon, 1898)	M,F
66.		<i>Pardosa mukundi</i> Tikader and Malhotra, 1980	M,F
67.		<i>Pardosa sumatrana</i> (Thorell, 1890)	F
68.	Mimetidae	<i>Mimetus</i> sp.	F
69.	Oecobiidae	<i>Oecobius putus</i> O. Pickard-Cambridge, 1876	M,F
70.	Oonopidae	<i>Brignolia carlmulleri</i> Ranasinghe & Benjamin, 2016	M,F
71.		<i>Brignolia meemure</i> Ranasinghe & Benjamin, 2016	F
72.		<i>Brignolia</i> sp.1	M,F
73.		<i>Brignolia</i> sp.2	F
74.		<i>Brignolia</i> sp.3	F
75.		<i>Brignolia</i> sp.4	F
76.		<i>Ischnothyreus</i> sp.	F
77.		<i>Opopea</i> sp.	F
78.	Oxyopidae	<i>Oxyopes ashae</i> Gajbe, 1999	F
79.		<i>Oxyopes bharatae</i> Gajbe, 1999	M,F
80.		<i>Oxyopes birmanicus</i> Thorell, 1887	F
81.		<i>Oxyopes javanus</i> Thorell, 1887	F
82.		<i>Oxyopes kamalae</i> Gajbe, 1999	M,F
83.		<i>Oxyopes pankaji</i> Gajbe & Gajbe, 2000	M
84.		<i>Oxyopes shweta</i> Tikader, 1970	M,F
85.		<i>Oxyopes</i> sp.1	F
86.		<i>Oxyopes</i> sp.2	M,F
87.		<i>Peucetia akwadaensis</i> Patel, 1978	F
88.		<i>Peucetia</i> sp.	F
89.	Palpimanidae	<i>Otiothops namratae</i> Pillai, 2006	F
90.		<i>Palpimanus</i> sp.	F
91.		<i>Philodromus decoratus</i> Tikader, 1962	M,F

Sr. No.	Family	Species	Sex
92.	Philodromidae	<i>Thanatus dhakuricus</i> Tikader, 1960	M,F
93.		<i>Tibellus elongates</i> Tikader, 1960	M,F
94.	Pholcidae	<i>Artema atlanta</i> Walckenaer, 1837	M,F
95.		<i>Crossopriza lyoni</i> (Blackwall, 1867)	M,F
96.		<i>Pholcus fragillimus</i> Strand, 1907	M,F
97.		<i>Pholcus phalangioides</i> (Fuesslin, 1775)	F
98.	Pisauridae	<i>Dendrolycosa gitae</i> (Tikader, 1970)	F
99.		<i>Dendrolycosa</i> sp.	F
100.		<i>Pisaura</i> sp.	F
101.	Salticidae	<i>Asemonea tenuipes</i> (O. Pickard-Cambridge, 1869)	M,F
102.		<i>Bianor punjabicus</i> Logunov, 2001	F
103.		<i>Bianor</i> sp.	F
104.		<i>Carrhotus</i> sp.	F
105.		<i>Cosmophasis</i> sp.	F
106.		<i>Harmochirus brachiatus</i> (Thorell, 1877)	M
107.		<i>Harmochirus</i> sp.	M
108.		<i>Hyllus semicupreus</i> (Simon, 1885)	M,F
109.		<i>Marpissa</i> sp.1	F
110.		<i>Marpissa</i> sp.2	F
111.		<i>Menemerus bivittatus</i> (Dufour, 1831)	M,F
112.		<i>Myrmarachne melanocephala</i> MacLeay, 1839	F
113.		<i>Myrmatheca alticephalon</i> (Yamasaki & Ahmad, 2013)	F
114.		<i>Myrmapeni</i> sp.	F
115.		<i>Phidippus calcuttaensis</i> Biswas, 1984	F
116.		<i>Phintella vittata</i> (C. L. Koch, 1846)	M,F
117.		<i>Plexippus calcuttaensis</i> (Tikader, 1974)	M,F
118.		<i>Plexippus paykullii</i> (Audouin, 1826)	M, F
119.		<i>Portia</i> sp.	M, F
120.		<i>Rhene</i> sp.	F
121.		<i>Stenaelurillus</i> sp.	M, F
122.		<i>Telamonia dimidiata</i> (Simon, 1899)	F

Sr. No.	Family	Species	Sex
123.		<i>Thyene imperialis</i> (Rossi 1846)	F
124.		<i>Thyene</i> sp.	F
125.	Scytodidae	<i>Scytodes pallida</i> Doleschall, 1859	F
126.		<i>Scytodes thoracica</i> (Latreille, 1802)	M, F
127.		<i>Scytodes propinqua</i> Stoliczka, 1869	M, F
128.		<i>Scytodes</i> sp.	F
129.	Segestriidae	<i>Ariadna</i> sp.1	J
130.		<i>Ariadna</i> sp. 2	F
131.	Selenopidae	<i>Selenops radiatus</i> Latreille, 1819	F
132.	Sparassidae	<i>Heteropoda bhaikakai</i> Patel & Patel, 1973	M, F
133.		<i>Heteropoda venatoria</i> (Linnaeus, 1767)	M, F
134.		<i>Olios bhavnagarensis</i> Sethi & Tikader, 1988	F
135.		<i>Olios graveleyi</i> Sethi & Tikader, 1988	M, F
136.		<i>Olios milleti</i> (Pocock, 1901)	F
137.		<i>Olios</i> sp. 1	F
138.		<i>Olios</i> sp. 2	F
139.		<i>Olios tener</i> (Thorell, 1891)	M, F
140.		<i>Olios wroughtoni</i> (Simon, 1897)	M, F
141.	Stenochilidae	<i>Stenochilus hobsoni</i> O. Pickard-Cambridge, 1871	M, F
142.	Tetragnathidae	<i>Guizygiella indica</i> (Tikader & Bal, 1980)	F
143.		<i>Guizygiella melanocrania</i> (Thorell, 1887)	F
144.		<i>Guizygiella shivui</i> (Patel & Reddy, 1990)	M, F
145.		<i>Guizygiella</i> sp.	F
146.		<i>Leucauge decorata</i> (Blackwall, 1864)	M, F
147.		<i>Opadometa fastigata</i> (Simon, 1877)	F
148.		<i>Tetragnatha mandibulata</i> Walckenaer, 1841	M, F
149.		<i>Tetragnatha maxillosa</i> (Thorell, 1895)	F
150.	Theraphosidae	<i>Plesiophrictus</i> sp.	F
151.	Theridiidae	<i>Argyrodes flavescens</i> O. Pickard-Cambridge, 1880	M, F
152.		<i>Argyrodes projeles</i> Tikader, 1970	F
153.		<i>Cephalobares globiceps</i> O. Pickard-Cambridge, 1871	M, F
154.		<i>Faiditus</i> sp.	F

Sr. No.	Family	Species	Sex
155.		<i>Latrodectus geometricus</i> C. L. Koch, 1841	M, F
156.		<i>Nihonhimea mundula</i> (L. Koch, 1872)	M, F
157.		<i>Steatoda</i> sp.1	F
158.		<i>Steatoda</i> sp.2	F
159.		<i>Theridion manjithar</i> Tikader, 1970	M, F
160.		<i>Theridion</i> sp.1	F
163.		<i>Thwaitesia</i> sp.	F
164.	Thomisidae	<i>Amyciaea forticeps</i> (O. Pickard-Cambridge, 1873)	M, F
165.		<i>Camarius</i> sp.	F
166.		<i>Indoxysticus lumbricus</i> Tang & Li, 2010	M, F
167.		<i>Indoxysticus minutus</i> (Tikader, 1960)	M, F
168.		<i>Misumena</i> sp.	F
169.		<i>Misumenoides</i> sp.	F
170.		<i>Strigoplus</i> sp.	F
171.		<i>Synema decoratum</i> Tikader, 1960	F
172.		<i>Thomisus dhakureinsis</i> Tikader, 1960	M, F
173.		<i>Thomisus krishnae</i> Reddy & Patel, 1992	M, F
174.		<i>Thomisus</i> sp.	F
175.	Uloboridae	<i>Miagrammopes</i> sp.	F
176.		<i>Philoponella</i> sp. 1	J
177.		<i>Philoponella</i> sp.2	F
178.		<i>Uloborus danolius</i> Tikader, 1969	M, F
179.		<i>Uloborus plumipes</i> Lucas, 1846	M, F
180.		<i>Uloborus</i> sp.	F
181.		<i>Zosis geniculata</i> (Olivier, 1789)	M, F
182.	Zodariidae	<i>Asceua</i> sp. 1	M, F
183.		<i>Asceua</i> sp.2	M, F
184.		<i>Asceua</i> sp.3	M, F
185.		<i>Asceua</i> sp.4	F
186.		<i>Asceua</i> sp.5	F
187.		<i>Suffasia gujaratensis</i> (Tikader & Patel, 1975)	F
188.		<i>Tropizodium viridurbium</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	M, F
189.		<i>Tropizodium kalami</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	M, F

Table 4: List of Spiders species with their observed Guild structure and Microhabitats

Sr. No.	Family	Species	Guild structure	Microhabitats
1.	Agelenidae	<i>Agelena gautami</i> Tikader, 1962	Foliage dwellers	Collected from leaf litter and bark of trees
2.	Araneidae	<i>Araneus sp.</i>	Orb-web Weavers	Fond its orb web attached to the branches of bushes
3.		<i>Argiope anasuja</i> Thorell, 1887	Orb-web Weavers	Orb webs are seen attached to the branches of bushes and the spider rests in nearby shaded areas.
4.		<i>Cyclosa bifida</i> (Doleschall, 1859)	Orb-web Weavers	It makes vertical orb web and rest in centre of web on mixed vegetation
5.		<i>Cyclosa confraga</i> (Thorell, 1892)	Orb-web Weavers	Collected from its orb web, sits in the center of the web camouflaged with the stabilimentum.
6.		<i>Cyclosa moonduensis</i> Tikader, 1963	Orb-web Weavers	Constructs orb web in bushy vegetation and garden plants
7.		<i>Cyclosa spirifera</i> Simon, 1889	Orb-web Weavers	Constructs orb web in bushy vegetation and garden plants
8.		<i>Cyrtophora cicatrosa</i> (Stoliczka, 1869)	Orb-web Weavers	Collected from tent web, sitting in the middle of web in inverted position.
9.		<i>Cyrtophora citricola</i> (Forsskal, 1775)	Orb-web Weavers	Constructs orb web between branches and on shrubs
10.		<i>Eriovixia excelsa</i> (Simon, 1889)	Orb-web Weavers	Makes orb web in garden and bushy vegetation. The spider rests in the middle of the web in an inverted position.
11.		<i>Eriovixia laglaizei</i> (Simon, 1877)	Orb-web Weavers	Collected from vertical orb webs in bushy vegetation

Sr. No.	Family	Species	Guild structure	Microhabitats
12.		<i>Gasteracantha hasselti</i> C. L. Koch, 1837	Orb-web Weavers	Collected from orb web, rest below its retreats.
13.		<i>Larinia chloris</i> (Audouin, 1826)	Orb-web Weavers	Collected from bushy vegetation in forest habitat.
14.		<i>Neoscona inusta</i> (L. Koch, 1871)	Orb-web Weavers	Collected from bushy vegetation in forest habitat.
15.		<i>Neoscona muketjei</i> Tikader, 1980	Orb-web Weavers	Collected from orb web in between branches of trees and shrubs, resting at the center of web.
16.		<i>Neoscona theisi</i> (Walckenaer, 1841)	Orb-web Weavers	Found in Bushes and garden plants, resting at the center of web.
17.		<i>Nephila pilipes</i> (Fabricius, 1793)	Orb-web Weavers	Collected from its orb web on large bushes and between branch of trees.
18.		<i>Poltys bhabanii</i> (Tikader, 1970)	Orb-web Weavers	Found from its web, resting in upside down position
19.		<i>Singa</i> sp.	Orb-web Weavers	Found from its single strand silk web between the shrubs.
20.		<i>Thelacantha brevispina</i> (Doleschall, 1857)	Orb-web Weavers	It makes orb web on low vegetation or low foliage
21.	Cheiracanthiidae	<i>Cheiracanthium danieli</i> Tikader, 1975	Foliage dwellers	Found on the leaf litter under bark of trees, make tubular retreat by rolled up leaves.
22.		<i>Cheiracanthium melanostomum</i> (Thorell, 1895)	Foliage dwellers	Found foraging on the leaf, under the bark of trees
23.		<i>Cheiracanthium triviali</i> (Thorell, 1895)	Foliage dwellers	Found on the leaf litter under bark of trees, make tubular retreat by rolled up leaves.
24.	Clubionidae	<i>Clubiona drassodes</i> O. Pickard-Cambridge, 1874	Foliage dwellers	Found wandering on the leaves, make tubular retreat by rolled up leaves.

Sr. No.	Family	Species	Guild structure	Microhabitats
25.		<i>Clubiona filicata</i> O. Pickard-Cambridge, 1874	Foliage dwellers	Found wandering on the leaves, make tubular retreat by rolled up leaves.
26.		<i>Clubiona pashabhaiti</i> Patel & Patel, 1973	Foliage dwellers	Collected from forest litters, foraging on the leaves
27.	Corinnidae	<i>Cambalida dhupgadensis</i> Bodkhe, Uniyal & Kamble, 2016	Foliage dwellers	Found wandering on the leaves, make tubular retreat by rolled up leaves.
28.		<i>Cambalida flavipes</i> (Gravely, 1931)	Foliage dwellers	Collected from forest litters, foraging on the leaves
29.		<i>Castianeira albopicta</i> Gravely, 1931	Foliage dwellers	Seen in dry forest and heavy vegetation.
30.		<i>Castianeira bengalensis</i> Biswas 1984	Foliage dwellers	Collected from forest litters, foraging on dry leaves
31.		<i>Castianeira zetes</i> Simon, 1897	Foliage dwellers	Found foraging on the dry leaves in forest floor and garden
32.	Eresidae	<i>Stegodyphus mirandus</i> Pocock, 1899	Sheet-web builders	Seen in dry leaves in forest and mixed vegetation
33.		<i>Stegodyphus pacificus</i> Pocock, 1900	Sheet-web builders	Collected from its tube webs in mixed vegetation
34.		<i>Stegodyphus sarasinorum</i> Karsch, 1892	Sheet-web builders	Found its web in bushy vegetation in forest. Social spiders lives in colony
35.	Filistatidae	<i>Pritha dharmakumarsinhji</i> Patel, 1978	Foliage dwellers	Found on the bark of trees and twigs
36.		<i>Pritha poonaensis</i> (Tikader 1963)	Foliage dwellers	Found on the bark of trees and twigs
37.		<i>Sahastata ashapuriae</i> Patel, 1978	Foliage dwellers	Collected by leaf litters, on the leaves of trees
38.	Gnaphosidae	<i>Callilepis</i> sp.	Ground dwellers	Collected by leaf litters, on the leaves of trees
39.		<i>Drassyllus mahabalei</i> Tikader, 1982	Ground dwellers	Found under the bark of trees, leaf litter and forest floor

Sr. No.	Family	Species	Guild structure	Microhabitats
40.		<i>Gnaphosa poonaensis</i> Tikader, 1973	Ground dwellers	Collected by leaf litters, on the leaves of shrubs and trees
41.		<i>Prodidomus</i> sp.	Ground dwellers	Collected by pitfall method, on the bark of trees.
42.		<i>Scopoides kuljitae</i> (Tikader, 1982)	Ground dwellers	Collected by leaf litters, pitfall method.
43.		<i>Sosticus nainitalensis</i> Gajbe, 1979	Ground dwellers	Collected by pitfall method, on the bark of trees, found under stones.
44.		<i>Trachyzelotes jaxartensis</i> (Kroneberg, 1875)	Ground dwellers	Collected by leaf litters, pitfall method.
45.		<i>Zelotes mandae</i> Tikader & Gajbe, 1979	Ground dwellers	Collected by pitfall method, on the bark of trees, found under stones.
46.		<i>Zelotes nainitalensis</i> Tikader & Gajbe, 1976	Ground dwellers	Collected by leaf litters, on the leaves of shrubs, stones and trees
47.		<i>Zelotes sajali</i> Tikader & Gajbe, 1979	Ground dwellers	Found under the bark of trees, leaf litter, pitfall method.
48.	Hersiliidae	<i>Hersilia savignyi</i> Lucas, 1836	Folioage dwellers	It was found on tree trunks, camouflaged on the bark of trees and branches.
49.	Linyphiidae	<i>Lepthyphantes</i> sp.	Sheet-web builders	Collected from its sheet web in low vegetation.
50.		<i>Nerine sundaica</i> (Simon, 1905)	Sheet-web builders	Collected from lower vegetation, underside the leaf.
51.		<i>Linyphia</i> sp.	Sheet-web builders	Found on the shrubs and bushes.
52.	Liocranidae	<i>Oedignatha</i> sp.1	Ground dwelles	Found from bushy vegetation.
53.		<i>Oedignatha</i> sp.2	Ground dwelles	Found from bushy vegetation.
54.		<i>Oedignatha scrobiculata</i> Thorell, 1881	Ground dwelles	Collected from leaf litter.
55.	Lycosidae	<i>Evippa</i> sp.	Ground dwelles	Collected from leaf litter.

Sr. No.	Family	Species	Guild structure	Microhabitats
56.		<i>Hippasa partita</i> (O. Pickard-Cambridge, 1876)	Ground dwelles	Collected by pitfall method.
57.		<i>Hippasa</i> sp.1	Ground dwelles	Found wandering on leaf litter.
58.		<i>Hippasa</i> sp.	Ground dwelles	Found wandering on leaf litter.
59.		<i>Lycosa lambai</i> Tikader & Malhotra, 1980	Ground dwelles	Collected from leaflitters and pitfall method.
60.		<i>Lycosa madani</i> Pocock, 1901	Ground dwelles	Active hunting spider found in loose sand of agricultural field.
61.		<i>Lycosa phipsoni</i> Pocock, 1899	Ground dwelles	Found wandering on leaf litter.
62.		<i>Lycosa poonaensis</i> Tikader & Malhotra, 1980	Ground dwelles	Collected from the bark of trees and leaf litters
63.		<i>Lycosa</i> sp.	Ground dwelles	Active hunting spider found in loose sand of agricultural field.
64.		<i>Pardosa birmanica</i> Simon, 1884	Ground dwelles	Active hunter, found in leaf litter.
65.		<i>Pardosa heterophthalma</i> (Simon, 1898)	Ground dwelles	Active hunting spider found in loose sand of agricultural field.
66.		<i>Pardosa mukundi</i> Tikader and Malhotra, 1980	Ground dwelles	Found wandering on leaf litter.
67.		<i>Pardosa sumatrana</i> (Thorell, 1890)	Ground dwelles	Active hunting spider found in loose sand of agricultural field.
68.	Mimetidae	<i>Mimetus</i> sp.	Ground dwelles	Collected from bushy vegetation inside shrubs.
68.	Oecobiidae	<i>Oecobius putus</i> O. Pickard-Cambridge, 1876	Ground dwelles	Found mesh web in crevices on rocks
69.		<i>Brignolia carlmulleri</i> Ranasinghe & Benjamin, 2016	Ground dwelles	Ground dwelling spiders, collected from leaflitters
70.		<i>Brignolia meemure</i> Ranasinghe & Benjamin, 2016	Ground dwelles	Collected from leaf litter, pitfall method.

Sr. No.	Family	Species	Guild structure	Microhabitats
71.	Oonopidae	<i>Brignolia</i> sp.1	Ground dwellers	Ground dwelling spiders, collected from leaf litters
72.		<i>Brignolia</i> sp.2	Ground dwellers	Ground dwelling spiders, collected from leaf litters
73.		<i>Brignolia</i> sp.3	Ground dwellers	Ground dwelling spiders, collected from leaf litters.
74.		<i>Brignolia</i> sp.4	Ground dwellers	Ground dwelling spiders, collected from leaf litters
75.		<i>Ischnothyreus</i> sp.	Ground dwellers	Ground dwelling spiders, collected from leaf litters
76.		<i>Opopea</i> sp.	Ground dwellers	Ground spiders, Collected from leaf litter, pitfall method.
77.	Oxyopidae	<i>Oxyopes ashae</i> Gajbe, 1999	Branch dwellers	Collected from upper surface of leaves and bushes
78.		<i>Oxyopes bharatae</i> Gajbe, 1999	Branch dwellers	Collected from upper surface of leaves and bushes.
79.		<i>Oxyopes birmanicus</i> Thorell, 1887	Branch dwellers	It is active foliage hunter and seen in grasses, lower shrub.
80.		<i>Oxyopes javanus</i> Thorell, 1887	Branch dwellers	Found foraging on shrubs
81.		<i>Oxyopes kamalae</i> Gajbe, 1999	Branch dwellers	Found foraging on shrubs
82.		<i>Oxyopes pankaji</i> Gajbe&Gajbe, 2000	Branch dwellers	Found foraging on shrubs
83.		<i>Oxyopes shweta</i> Tikader, 1970	Branch dwellers	Found foraging on shrubs
84.		<i>Oxyopes</i> sp.1	Branch dwellers	Found foraging on the upper surface of green leaves
85.		<i>Oxyopes</i> sp.2	Branch dwellers	It is active foliage hunter and seen in grasses, lower shrub
86.		<i>Peucetia akwadaensis</i> Patel, 1978	Branch dwellers	Collected from green leaves and bushy vegetation.

Sr. No.	Family	Species	Guild structure	Microhabitats
87.		<i>Peucetia</i> sp.	Branch dwellers	Found foraging on leaves.
88.	Palpimanidae	<i>Otiothops namratae</i> Pillai, 2006	Ground dwellers	Collected from leaf litter.
89.		<i>Palpimanus</i> sp.	Ground dwellers	Collected from leaf litter.
90.	Philodromidae	<i>Philodromus decoratus</i> Tikader, 1962	Ground dwellers	Collected from the brak of trees.
91.		<i>Thanatus dhakuricus</i> Tikader, 1960	Ambushers	Found on its tangled web on shrub.
92.		<i>Tibellus elongates</i> Tikader, 1960	Ambushers	Found underside of leaves.
93.	Pholcidae	<i>Artema atlanta</i> Walckenaer, 1837	Space-web builders	Collected from its dome shaped web constructed in the lower vegetation.
94.		<i>Crossopriza lyoni</i> (Blackwall, 1867)	Space-web builders	Found in its tangled web in the forest.
95.		<i>Pholcus fragillimus</i> Strand, 1907	Space-web builders	Found on grasses and bushy vegetation.
96.		<i>Pholcus phalangioides</i> (Fuesslin, 1775)	Space-web builders	Found on grasses and bushy vegetation.
97.	Pisauridae	<i>Dendrolycosa gitae</i> (Tikader, 1970)	Ambushers	Found in bushy vegetation.
98.		<i>Dendrolycosa</i> sp.	Ambushers	Collected from bushy vegetation near its nursery web.
99.		<i>Pisaura</i> sp.	Ambushers	Collected foraging on forest floor.
100.	Salticidae	<i>Asemonea tenuipes</i> (O. Pickard-Cambridge, 1869)	Branch dwellers	Collected from underside of leaves of small trees.
101.		<i>Bianor punjabicus</i> Logunov, 2001	Branch dwellers	Collected foraging on bark of trees, under the rock ,in leaf litter
102.		<i>Bianor</i> sp.	Branch dwellers	Collected foraging on bark of trees, under the rock ,in leaf litter
103.		<i>Carrhotus</i> sp.	Branch dwellers	Collected foraging on the leaves and branches
104.		<i>Cosmophasis</i> sp.	Branch dwellers	Collected foraging on the leaves and branches

Sr. No.	Family	Species	Guild structure	Microhabitats
105.		<i>Harmochirus brachiatus</i> (Thorell, 1877)	Branch dwellers	Found on bushes and tall grasses.
106.		<i>Harmochirus</i> sp.	Branch dwellers	Found foraging near rocks and leaf litters
107.		<i>Hyllus semicupreus</i> (Simon, 1885)	Branch dwellers	Seen foraging on branches and bark of trees.
108.		<i>Marpissa</i> sp.1	Branch dwellers	Found foraging on leaf litter.
109.		<i>Marpissa</i> sp.2	Branch dwellers	Found foraging on leaf litter.
110.		<i>Menemerus bivittatus</i> (Dufour, 1831)	Branch dwellers	Found on the herbs, shrubs bark of trees.
111.		<i>Myrmarachne melanocephala</i> MacLeay, 1839	Branch dwellers	Found foraging on leaf litter.
112.		<i>Myrmatheca alticephalon</i> (Yamasaki & Ahmad, 2013)	Branch dwellers	Collected underside of leaf.
113.		<i>Myrmapeni</i> sp.	Branch dwellers	Found wandering on leaf litter.
114.		<i>Phidippus calcuttaensis</i> Biswas, 1984	Branch dwellers	Found foraging on bushes.
115.		<i>Phintella vittata</i> (C. L. Koch, 1846)	Branch dwellers	Found foraging on herbs, shrubs and leaves.
116.		<i>Plexippus calcutaensis</i> (Tikader, 1974)	Branch dwellers	Found foraging on herbs, shrubs and leaves.
117.		<i>Plexippus paykullii</i> (Audouin, 1826)	Branch dwellers	Found foraging on, tree trunk.
118.		<i>Portia</i> sp.	Branch dwellers	Found wandering in leaf litter.
119.		<i>Rhene</i> sp.	Branch dwellers	Found wandering in leaf litter.
120.		<i>Stenaelurillus</i> sp.	Branch dwellers	Found foraging on herbs, shrubs and Leaves.
121.		<i>Telamonia dimidiata</i> (Simon, 1899)	Branch dwellers	Collected from the leaves, bushes and small plants.
122.		<i>Thyene imperialis</i> (Rossi 1846)	Branch dwellers	It was found on the bushes and small plant.

Sr. No.	Family	Species	Guild structure	Microhabitats
123.		Thyene sp.	Branch dwellers	It was found wandering on the leaves, bushes and small plants.
124.	Scytodidae	<i>Scytodes pallida</i> Doleschall, 1859	Ground dwellers	Collected from the folded leaf
125.		<i>Scytodes thoracica</i> (Latreille, 1802)	Ground dwellers	It hides itself in the dark places i.e. cracks of the grounds and plant
126.		<i>Scytodes propinqua</i> Stoliczka, 1869	Ground dwellers	It hides itself in the dark places i.e. cracks of the grounds and plant
127.		<i>Scytodes</i> sp.	Ground dwellers	It hides itself in the dark places i.e. cracks of the grounds and plant
128.	Segestriidae	<i>Ariadna</i> sp.1	Ground dwellers	Collected from their silken tube web at the base of tree's root and rocks.
129.		<i>Ariadna</i> sp. 2	Ground dwellers	Collected from their tube at site's mid-high altitude rocks.
130.	Selenopidae	<i>Selenops radiatus</i> Latreille, 1819	Ground dwellers	Collected from the cracks and crevices of rocks.
131.	Sparassidae	<i>Heteropoda bhaikakai</i> Patel & Patel, 1973	Foliage dwellers	Found on the bark of trees, under the rocks and dry leaves.
132.		<i>Heteropoda venatoria</i> (Linnaeus, 1767)	Foliage dwellers	It wandering in the tree trunk, garden and bushes
133.		<i>Olios bhavnagarensis</i> Sethi & Tikader, 1988	Foliage dwellers	Collected from underside of leaves
134.		<i>Olios gravelly</i> Sethi & Tikader, 1988	Foliage dwellers	Collected from forest floor.
135.		<i>Olios milleti</i> (Pocock, 1901)	Foliage dwellers	It was seen in the gardens and hides under green leaves.
136.		<i>Olios</i> sp. 1	Foliage dwellers	Found under green leaves of shrubs.
137.		<i>Olios</i> sp. 2	Foliage dwellers	Seen in the leaf litter.
138.		<i>Olios tener</i> (Thorell, 1891)	Foliage dwellers	Collected from rocks on high altitude of hill.

Sr. No.	Family	Species	Guild structure	Microhabitats
139.		<i>Olios wroughtoni</i> (Simon, 1897)	Foliage dwellers	Found on dry leaves of forest.
140.	Stenochilidae	<i>Stenochilus hobsoni</i> O. Pickard-Cambridge, 1871	Ground dwellers	Collected from leaf litter.
141.	Tetragnathidae	<i>Guizygiella indica</i> (Tikader & Bal, 1980)	Orb- web Weavers	Found on bushy vegetation and lower tree branches.
142.		<i>Guizygiella melanocrania</i> (Thorell, 1887)	Orb- web Weavers	Found on the foliage of garden plants and bushes.
143.		<i>Guizygiella shivui</i> (Patel & Reddy, 1990)	Orb- web Weavers	It was found on the foliage of garden plants and bushes
144.		<i>Guizygiella</i> sp.	Orb- web Weavers	Collected from its web in shaded area of garden.
145.		<i>Leucauge decorata</i> (Blackwall, 1864)	Orb- web Weavers	Found in forest area and rest in the shade of leaves and trees.
146.		<i>Opadometa fastigata</i> (Simon, 1877)	Orb- web Weavers	Collected from its web in shaded vegetation in garden
147.		<i>Tetragnatha mandibulata</i> Walckenaer, 1841	Orb- web Weavers	Found on shrubs and agricultural fields where it was found hidden under the leaves.
148.		<i>Tetragnatha maxillosa</i> (Thorell, 1895)	Orb- web Weavers	Found on twigs and underside of leaves.
149	Theraphosidae	<i>Plesiophrictus</i> sp.	Orb- web Weavers	Found in rocky area at the mid-altitude of hill. Burrows were found underside of rocks.
150.	Theridiidae	<i>Argyrodes flavescens</i> O. Pickard-Cambridge, 1880	Space- web builders	Collected from its web from lower vegetation.
151.		<i>Argyrodes projeles</i> Tikader, 1970	Space- web builders	Found on shrub, under leaves and twigs.
152.		<i>Cephalobares globiceps</i> O. Pickard-Cambridge, 1871	Space- web builders	Collected from bark of trees and forest floor.
153.		<i>Faiditus</i> sp.	Space- web builders	Collected from underside of leaf.

Sr. No.	Family	Species	Guild structure	Microhabitats
154.		<i>Nihonhimea mundula</i> (L. Koch, 1872)	Space- web builders	Found foreaging on forest floor.
155.		<i>Latrodectus geometricus</i> C. L. Koch, 1841	Space- web builders	Found underside of rocks.
156.		<i>Steatoda</i> sp. 1	Space- web builders	Found in crevices of rocks.
157.		<i>Steatoda</i> sp. 2	Space- web builders	Collected from leaf litter.
158.		<i>Theridion manjithar</i> Tikader, 1970	Space- web builders	Found foraging on bushes and forest floor.
159.		<i>Theridion</i> sp.1	Space- web builders	Found foraging on dry leaves.
160.		<i>Thwaitesia</i> sp.	Space- web builders	Collected under side of leaves, on twigs
161.	Thomisidae	<i>Amyciaea forticeps</i> (O. Pickard-Cambridge, 1873)	Ambushers	Found foraging on green leaves
162.		<i>Camaricus</i> sp.	Ambushers	Collected from leaflitters
163.		<i>Indoxysticus lumbricus</i> Tang & Li, 2010	Ambushers	Found foraging on leaves, bark of trees
164.		<i>Indoxysticus minutus</i> (Tikader, 1960)	Ambushers	Collected from leaflitters in forest floor
165.		<i>Misumena</i> sp.	Ambushers	Found foraging on the ground surface of garden
167.		<i>Misumenoides</i> sp.	Ambushers	Found foraging on dry leaves
168.		<i>Strigoplus</i> sp.	Ambushers	Collected from forest floor and leaf litter
169.		<i>Synema decoratum</i> Tikader, 1960	Ambushers	Found on lower vegetation in garden
170.		<i>Thomisus dhakuriensis</i> Tikader, 1960	Ambushers	Collected from forest floor and leaf litter
171.		<i>Thomisus krishnae</i> Reddy & Patel, 1992	Ambushers	Found foraging on dry leaves
172.		<i>Thomisus</i> sp.	Ambushers	Found foraging on dry leaves
173.	Uloboridae	<i>Miagrammopes</i> sp.	Orb- web Weavers	Collected foraging on the leaves
174.		<i>Philoponella</i> sp.1	Orb- web Weavers	Collected foraging on the leaves

Sr. No.	Family	Species	Guild structure	Microhabitats
175.		<i>Philoponella</i> sp.2	Orb- web Weavers	Collecetd from forest floor and leaf litter
176.		<i>Uloborus danolius</i> Tikader, 1969	Orb- web Weavers	Collected from its web in lower vegetation
177.		<i>Uloborus plumipes</i> Lucas, 1846	Orb- web Weavers	Found underside of leaves
178.		<i>Uloborus</i> sp.	Orb- web Weavers	Found on bushy vegetation and tree trunk
179.		<i>Zosis geniculata</i> (Olivier, 1789)	Orb- web Weavers	Found on bushy vegetation and tree trunk
180.	Zodariidae	<i>Asceua</i> sp.1	Ground dwellers	Found foraging on ground, collected by pitfall methods
181.		<i>Asceua</i> sp.2	Ground dwellers	Ground dwelling spiders collected from leaf litters
182.		<i>Asceua</i> sp.3	Ground dwellers	Ground dwelling spiders collected from leaf litters
183.		<i>Asceua</i> sp.4	Ground dwellers	Ground dwelling spiders collected from leaf litters
184.		<i>Asceua</i> sp.5	Ground dwellers	Found foraging on ground, collected by pitfall methods
185.		<i>Suffasia gujaratensis</i> (Tikader & Patel, 1975)	Ground dwellers	Found foraging on ground, collected by pitfall methods
186.		<i>Tropizodium viridurbium</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	Ground dwellers	Found foraging on ground, collected by pitfall methods
187.		<i>Tropizodium kalami</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	Ground dwellers	Found foraging on ground, collected by pitfall methods

Table 5: Diversity pattern for spiders along slope of Pavagadh hill

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
1.	Agelenidae	<i>Agelena gautami</i> Tikader, 1962	+	—	—
2.	Araneidae	<i>Argiope anasuja</i> Thorell, 1887	+	+	+
3.		<i>Cyclosa bifida</i> (Doleschall, 1859)	+	—	+
4.		<i>Cyclosa confraga</i> (Thorell, 1892)	—	+	—
5		<i>Cyclosa hexatuberculata</i> Tikader, 1982	+	+	—
6		<i>Cyclosa moonduensis</i> Tikader, 1963	+	—	—
7		<i>Cyclosa spirifera</i> Simon, 1889	—	+	-
8		<i>Cyrtophora cicatrosa</i> (Stoliczka, 1869)	+	+	+
9		<i>Cyrtophora citricola</i> (Forsskål, 1775)	+	+	+
10		<i>Eriovixia excelsa</i> (Simon, 1889)	+	+	—
11		<i>Eriovixia laglaizei</i> (Simon, 1877)	+	+	
12		<i>Gasteracantha hasselti</i> C. L. Koch, 1837	—	+	+
13		<i>Larinia chloris</i> (Audouin, 1826)	+	—	—
14		<i>Neoscona inusta</i> (L. Koch, 1871)	+	—	—
15		<i>Neoscona mukerjei</i> Tikader, 1980	+	+	+
16		<i>Neoscona theisi</i> (Walckenaer, 1841)	+	+	+
17		<i>Nephila pilipes</i> (Fabricius, 1793)	+	—	—
18		<i>Polys bhabanii</i> (Tikader, 1970)	—	+	—

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
19		<i>Singa</i> sp.	+	+	—
20		<i>Thelacantha brevispina</i> (Doleschall, 1857)	+	+	+
21	Cheiracanthiidae	<i>Cheiracanthium danieli</i> Tikader, 1975	—	+	+
22		<i>Cheiracanthium melanostomum</i> (Thorell, 1895)	+	+	—
23		<i>Cheiracanthium trivial</i> (Thorell, 1895)	+	+	—
24	Clubionidae	<i>Clubiona drassodes</i> O. Pickard-Cambridge, 1874	+	+	+
25		<i>Clubiona filicata</i> O. Pickard-Cambridge, 1874	—	+	—
26		<i>Clubiona pashabhail</i> Patel & Patel, 1973	+	—	—
27	Corinnidae	<i>Cambalida dhupgadensis</i> Bodkhe, Uniyal & Kamble, 2016	+	—	—
28		<i>Cambalida flavipes</i> (Gravely, 1931)	+	—	
29		<i>Castianeira albopicta</i> Gravely, 1931	—	+	—
30		<i>Castianeira bengalensis</i> Biswas 1984	+		
31		<i>Castianeira zetes</i> Simon, 1897		+	+
32	Eresidae	<i>Stegodyphus mirandus</i> Pocock, 1899	—	+	—
33		<i>Stegodyphus sarasinorum</i> Karsch, 1892	+	+	+
34		<i>Stegodyphus pacificus</i> Pocock, 1900	—	+	—
35	Filistatidae	<i>Pritha dharmakumarsinhji</i> Patel, 1978	+	—	—

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
36		<i>Pritha poonaensis</i> (Tikader 1963)	+	—	+
37		<i>Sahastataash apuriae</i> Patel, 1978	+	—	—
38	Gnaphosidae	<i>Callilepis</i> sp.	+	—	+
39		<i>Drassyllus mahabalei</i> Tikader, 1982	—	—	—
40		<i>Gnaphosa poonaensis</i> Tikader, 1973	+	+	+
41		<i>Prodidomus</i> sp.	+	—	—
42		<i>Scopoides kuljitae</i> (Tikader, 1982)	+	+	—
43		<i>Sosticus nainitalensis</i> Gajbe, 1979	+	—	—
44		<i>Trachyzelotes jaxartensis</i> (Kroneberg, 1875)	+	+	—
45		<i>Zelotes mandae</i> Tikader & Gajbe, 1979	+	+	+
46		<i>Zelotes sajali</i> Tikader&Gajbe, 1979	+	—	+
47		<i>Zelotes nainitalensis</i> Tikader &Gajbe, 1976	+	—	—
48	Hersiliidae	<i>Hersilia savignyi</i> Lucas, 1836	+	+	+
49	Linyphiidae	<i>Lepthyphantes</i> sp.	—	+	—
50		<i>Neriene sundaica</i> (Simon, 1905)	—	—	+
51		<i>Linyphia</i> sp.	+	—	—
52	Liocranidae	<i>Oedignatha</i> sp. 1	+	+	—
53		<i>Oedignatha</i> sp.2	+	—	+
54		<i>Oedignatha scrobiculata</i> Thorell, 1881	+	+	+

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
55	Lycosidae	<i>Evippa</i> sp.	+	+	+
56		<i>Hippasa</i> sp.	+	+	+
57		<i>Lycosa lambai</i> Tikader & Malhotra, 1980	+	+	+
58		<i>Lycosa madani</i> Pocock, 1901	+	+	+
59		<i>Lycosa poonaensis</i> Tikader & Malhotra, 1980	+	+	+
60		<i>Pardosa birmanica</i> Simon, 1884	+	+	+
61		<i>Pardosa mukundi</i> Tikader and Malhotra, 1980	+	+	+
62		<i>Pardosa sumatrana</i> (Thorell, 1890)	+	+	+
63	Mimetidae	<i>Mimetus</i> sp.	—	+	—
64	Oonopidae	<i>Brignolia</i> sp. 1	+	—	—
65		<i>Brignolia</i> sp. 2	+	—	—
66		<i>Brignolia carlmulleri</i> Ranasinghe & Benjamin, 2016	+	+	—
67		<i>Brignolia meemure</i> Ranasinghe & Benjamin, 2016	—	+	—
68		<i>Ischnothyreus</i> sp.	+	—	—
69		<i>Opopea</i> sp.	+	—	—
70	Oxyopidae	<i>Oxyopes ashae</i> Gajbe, 1999	—	+	—
71.		<i>Oxyopes bharatae</i> Gajbe, 1999	+	—	+
72.		<i>Oxyopes birmanicus</i> Thorell, 1887	+	+	+

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
73.		<i>Oxyopes kamalae</i> Gajbe, 1999	+	—	—
74.		<i>Oxyopes shweta</i> Tikader, 1970	+	+	+
75.		<i>Oxyopes</i> sp.1	+	+	+
76.		<i>Oxyopes</i> sp.2	—	+	+
77.		<i>Peucetia akwadaensis</i> Patel, 1978	+	+	+
78.	Philodromidae	<i>Philodromus decoratus</i> Tikader, 1962	+	—	—
79.		<i>Tibellus elongatus</i> Tikader, 1960	+	+	+
80.	Pholcidae	<i>Artema atlanta</i> Walckenaer, 1837	+	+	+
81.		<i>Crossopriza lyoni</i> (Blackwall, 1867)	+	+	+
82.		<i>Pholcus fragillimus</i> Strand, 1907	—	—	+
83.		<i>Pholcus phalangioides</i> (Fuesslin, 1775)	—	—	+
84.	Pisauridae	<i>Dendrolycosa gitae</i> (Tikader, 1970)	+	+	—
85.		<i>Pisaura</i> sp.	—	+	—
86.	Salticidae	<i>Asemonea tenuipes</i> (O. Pickard-Cambridge, 1869)	+	+	+
87.		<i>Cosmophasis</i> sp.	+	—	—
88.		<i>Harmochirus brachiatus</i> (Thorell, 1877)	+	+	—
89.		<i>Hyllus semicupreus</i> (Simon, 1885)	+	+	+
90.		<i>Marpissa</i> sp.	—	+	—
91.		<i>Menemerus bivittatus</i> (Dufour, 1831)	+	+	+

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
92.		<i>Myrmatheca alticephalon</i> (Yamasaki & Ahmad, 2013)	+	—	—
93.		<i>Myrmapeni</i> sp.	+	—	+
94.		<i>Phidippus calcuttaensis</i> Biswas, 1984	+	+	—
95.		<i>Phintella vittata</i> (C. L. Koch, 1846)	—	+	+
96.		<i>Plexippus paykullii</i> (Audouin, 1826)	—	+	—
97.		<i>Stenaelurillus</i> sp.	+	+	—
98.		<i>Telamonia dimidiata</i> (Simon, 1899)	+	+	+
99.		<i>Thyene</i> sp.	—	—	+
100.	Scytodidae	<i>Scytodes pallida</i> Doleschall, 1859	—	+	—
101.		<i>Scytodes thoracica</i> (Latreille, 1802)	+	—	+
102.		<i>Scytodes propinqua</i> Stoliczka, 1869	+	—	+
103.	Segestriidae	<i>Ariadna</i> sp. 1	—	+	—
104.		<i>Ariadna</i> sp. 2	—	+	+
105.	Selenopidae	<i>Selenops radiatus</i> Latreille, 1819	+	—	—
106.	Sparassidae	<i>Heteropoda bhaikakai</i> Patel & Patel, 1973	—	—	+
107.		<i>Heteropoda venatoria</i> (Linnaeus, 1767)	—	—	+
108.		<i>Olios bhavnagarensis</i> Sethi & Tikader, 1988	+	+	—
109.		<i>Olios gravellyi</i> Sethi & Tikader, 1988	+	—	—
110.		<i>Olios milleti</i> (Pocock, 1901)	+	+	+

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
111.		<i>Olios wroughtoni</i> (Simon, 1897)	—	+	—
112.	Tetragnathidae	<i>Guizygiella indica</i> (Tikader& Bal, 1980)	+	+	—
113.		<i>Guizygiella melanocrania</i> (Thorell, 1887)	+	+	—
114.		<i>Leucauge decorata</i> (Blackwall, 1864)	+	—	—
115.		<i>Tetragnatha mandibulata</i> Walckenaer, 1841	—	+	—
116.	Theraphosidae	<i>Plesiophrictus</i> sp.	—	+	—
117.	Theridiidae	<i>Argyroides flavescens</i> O. Pickard-Cambridge, 1880	+	—	+
118.		<i>Cephalobares globiceps</i> O. Pickard-Cambridge, 1871	+	+	—
119.		<i>Faiditus</i> sp.	—	+	—
120.		<i>Nihonhimea mundula</i> (L. Koch, 1872)	+	+	—
121.		<i>Latrodectus geometricus</i> C. L. Koch, 1841	+	—	—
122.		<i>Steatoda</i> sp. 1	—	+	+
123.		<i>Theridion manjithar</i> Tikader, 1970	+	—	+
124.		<i>Theridion</i> sp.1	—	+	—
125.	Thomisidae	<i>Amyciaea forticeps</i> (O. Pickard-Cambridge, 1873)	+	+	+
126.		<i>Camarius</i> sp.	+	—	—
127.		<i>Indoxysticus lumbricus</i> Tang & Li, 2010	+	+	+
128.		<i>Indoxysticus minutus</i> (Tikader, 1960)	+	+	+
129.		<i>Strigoplus</i> sp.	—	—	+

Sr. No.	Family	Species	Altitude		
			230-430 m/ lower	430-630 m/middle	630-830 m/ high
130.		<i>Synema decoratum</i> Tikader, 1960	+	—	—
131.		<i>Thomisus krishnae</i> Reddy & Patel, 1992	+	+	+
132.		<i>Thomisus</i> sp.1	—	+	—
133.	Uloboridae	<i>Miagrammopes</i> sp.	+		+
134.		<i>Philoponella</i> sp. 1	—	+	—
135.		<i>Uloborus danolius</i> Tikader, 1969	+	+	—
136.		<i>Uloborus plumipes</i> Lucas, 1846	+	—	—
137.		<i>Zosis geniculata</i> (Olivier, 1789)	+	+	+
138.	Zodariidae	<i>Asceua</i> sp. 1	+	—	—
139.		<i>Asceua</i> sp.2	+	—	—
140.		<i>Asceua</i> sp.3	+	—	—
141.		<i>Asceua</i> sp.4	+	—	—
142.		<i>Suffasia gujaratensis</i> (Tikader & Patel, 1975)	+	—	—
143.		<i>Tropizodium viridurbium</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	+	—	—
144.		<i>Tropizodium kalami</i> Prajapati, Murthappa, Sankaran & Sebastian, 2016	+	—	—
Total			105	87	62

4.4 New records of genus and species of spiders from Champaner-Pavagadh Archaeological Park

Gujarat spider fauna is diverse but poorly documented especially in Champaner- Pavagadh Archaeological Park. There were several new records of spiders possibly few new genera and species to science have been reported from this region. We have documented two genera and eight species that are new records to India. Moreover, three genera and nine species is also been recorded for the first time from Gujarat. Ten species which are new to science is also documented from Champaner-Pavagadh Archaeological Park.

First record of Genera from India reported from Champaner-Pavagadh Archaeological Park

- *Opopea* sp.
- *Myrmatheca alticephalon* (Yamasaki & Ahmad, 2013)

First record of Species from India reported from Champaner-Pavagadh Archaeological Park

- *Stenaelurillus* sp. nov
- *Asceua* sp.1 nov
- *Asceua* sp.2 nov
- *Asceua* sp.3 nov
- *Asceua* sp.4 nov
- *Asceua* sp.5 nov
- *Brignolia carlmulleri* Ranasinghe & Benjamin, 2016
- *Brignolia meemure* Ranasinghe & Benjamin, 2016

First record of genera from Gujarat

- *Callilepis* sp.
- *Lepthyphantes* sp.
- *Cosmophasis* sp.

First record of species from Gujarat

- *Neoscona inusta* (C. L. Koch, 1871)

- *Cambalida dhupgadensis* Bodkhe, Uniyal & Kamble, 2016
- *Cambalida flavipes* (Gravely, 1931)
- *Drassyllus mahabalei* Tikader, 1982
- *Sosticus nainitalensis* Gajbe, 1979
- *Zelotes nainitalensis* Tikader & Gajbe
- *Oedignatha scrobiculata* Thorell, 1881
- *Scytodes pallida* Doleschall, 1859
- *Selenops radiatus* Latreille, 1819

New species reported from Champaner-Pavagadh Archaeological Park

- *Plesiophrictus* sp.
- *Singa* sp.
- *Mimetes* sp.
- *Brignolia* sp.1
- *Brignolia* sp.2
- *Brignolia* sp.3
- *Brignolia* sp.4
- *Ischnothyreus* sp.
- *Palpimanus* sp.
- *Ariadna* sp.

4.5 Guild structure composition

Based on the foraging behavior of spiders in the field they are divided into seven functional groups (Uetz *et. al.*, 1999). In the result, the guild structure is represented in the form of percentage composition. Results of the present study have revealed that the most dominant group was of ground runners (Graph 4) which consisted of 34% of spider species. Representative families of ground runners included Corinnidae, Cheiracanthiidae, Gnaphocidae, Lycosidae, Mimetidae, Oecobiidae, Oonopidae, Palpimanidae, Salticidae, Theraphosidae, Scytodidae, Segestriidae, Selenopidae, and Zodariidae. Orb web weaver (25%) was the second largest dominant guild in the study site which consists of families Araneidae, Tetragnathidae and Uloboridae. Foliage runners which constitute 15% of guild

composition belong to the family Clubionidae, Hersilidae, Agelenidae, Sparassidae, Filistatidae. Branch dwellers representing 10% of guild composition were found to be from the families Salticidae and Oxyopidae. Space web weaver having 7% guild composition belongs to the family Pholcidae and Theriididae. Ambushers (5%) consist of family Pisauridae, Philodromidae and Thomisidae. sheet web weaver (4 %) of the family Linyphidae, Eresidae are seen.

Ground dwellers

Spiders of this guild mostly found on leaf litters, ground surface in the fields and foliage of the plants for capturing the prey. Family Corinnidae, Cheiracanthiidae, Gnaphocidae, Lycosidae, Mimetidae, Oecobiidae, Oonopidae, Palpimanidae, Salticidae, Theraphosidae, Scytodidae, Segestriidae, Selenopidae, and Zodariidae come under this guild. Most of spiders of this category were Salticidae comprising of 24 species belonging to 19 genera. Family Gnaphosidae contained only ten species which falls under eight genus. Family Theraphosidae were reported to contain only one species belonging to single genus (Table 4). Two species belonging to one genus were reported from the family Segestriidae. Ground runners build spin silk and they are proficient hunters of small insects. Prey is immobilized and brought to their respective webs by the insects where they feed.

Orb web weavers

This group of spiders make orb- web for capturing their prey between the branches of herbs and shrubs. Family Araneidae, Tetragnathidae and Uloboridae comes under the foraging guild. Family Araneidae include 19 species belonging to 11 genera. Family Tetragnathidae is characterized by the long jawed spiders containing 4 genera and 8 species. Family Uloboridae contained 4 genera and 7 species (Table 4).

Foliage dwellers

They are active hunters found foraging the trees, herbs and shrubs or on leaves and consume insect by jumping on their prey like Aphids, Wasp, Termites, Thrips etc. Spiders of the family Clubionidae, Cheiracanthiidae, Filistatidae, Hersilidiidae, Agelenidae and Sparassidae showed this type of feeding behavior. Family Clubionidae constituted one genus and three species (Table 4).

Stalkers

Jumping spiders, fall under this category and known for their active jumping abilities over their prey for capturing them. They are diurnal in habit and seen to jump up and down on the bark of trees, shrubs and leaves. They hunt small insects by stalking them slowly and finally jumping on them. Spiders of the families Salticidae and Oxyopidae show this type of foraging guild. 19 genera and 24 species are recorded from the family Salticidae. Family Oxyopidae is seen to contain two genera and 11 species (Table 4).

Space web builders

Space web builders spin irregular webs for capturing their prey but the space web has no adhesive properties like orb web. The irregular structure of web traps insects and makes it difficult for prey to escape. Thus spider quickly wraps its prey with silk and then kills them. The prey may be eaten immediately or stored for some time. Spiders of the family Pholcidae and Theridiidae were belonging to this type of guild. Three genera and four species are reported from the family Pholcidae. Family Theridiidae constituted eight genera and thirteen species (Table 4).

Ambushers

The spiders belonging to this guild shows “sit-and-wait” type of behaviour for prey capturing. They do not build webs to trap their prey, but they ambush insects that come in contact, grasp them with their strong, spiny, curved front legs. Spiders of the family Pisauridae, Philodromidae and Thomisidae belong to this category. The family Pisauridae has two genera and three species, family Philodromidae contained three genera and three species and family Thomisidae showed eight genera and eleven species (Table 4).

Sheet web builders

These spider spins sheet like web in between the branches or shrubs for capturing their prey. Two families were found in this category from the study site. Family Eresidae have one genus and three species and family Linyphiidae consisted three genera and three species (Table 4).

4.6 Web Structure

Spiders are well known for its different types of web making ability. They have six silk glands located at the posterior part of their abdomen. These silk glands are associated with spinnerets from where the silk is thrown out. Silk glands are present in all spider species which they use to make different type of webs. The different types of webs are constructed for making egg sac (cocoon), lining their nests, ballooning, silk used during mating, making draglines and also for building webs to capture their prey.

On the basis of foraging behavior of spiders, they have been divided into seven functional groups or guild structures namely Ground runners, Orb weavers, Space web-builders, Foliage runners, Ambushers, Sheet web-builders, Branch dwellers (Uetz *et al.*, 1999). These seven foraging guilds are classified under two categories namely weavers and non-weavers. Weavers include those spider families which make orb webs to capture their prey. Spiders make different type of orb webs depending on their shape and structure namely orb-webs, funnel webs, triangular websheet web, tangle web, tube web, irregular web and tent web. Spider sit-and-wait in web for their prey. Few other factors are there which influence the pattern and site selection for web construction which includes web support, wind direction, temperature and humidity (Vollrath *et al.*, 1999).

The purpose to study the spiders web and its prey capture efficiency is that the spiders do not eat all the insects which are captured in their web but rather destroys them and helps in keeping check on insect populations (Bilsing, 1920). From this economic point of view the study on species specific web structure and its prey capture efficiency becomes more important. The prey capturing efficiency not only depends on web structure but also on the biology of insect. In the present study six different type of webs were observed from study sites of Campamner-Pavagadh Archaeological Park.

Orb webs

Orb webs are spherical wheel shaped web. The main characteristics of this web is that spider sits in the centre of the web with threads radiating from the center, the frame is of spherical threads. The orb web is decorated with ribbon-like zigzag pattern of silk called stabilimentum which is constructed by few spider species (*Argiope* species) in the center of their webs. Stabilimentum is identified as a silk decoration and detritus structure found on spider web. The pattern of stabilimenta is species specific and the decorations are built,

primarily in the Araneidae and Uloboridae. Spiders use stabilimentum to hide themselves from predators (Figure 208). Members of Genus *Neoscona* build their webs in a spiral wheel-shape (Figure 207) whereas members of Genus *Parowixia* build the vertical web with an open hub.

Funnel web

Funnel webs are large, flat and horizontal in shape with opening from both ends. It looks like sheet web but differs from the true sheet web because they make a tube like structure which extends from one edge (Figure 209). At the surrounding of tube web there is a loose irregular net which makes the barrier for insects to fall in the tube web after that spiders capture their prey. This type of web is made by ground spiders like family Agelenidae, Lycosidae and Eresidae (Figure 210).

Sheet web

The sheet web spiders form small, horizontal and irregular web. This type of web is three-dimensional consisting of anchoring threads of sticky silk extending in a single plane and consisting of threads extending in all directions with irregular arrangement (Figure 211). The spider rests in upside down position under the sheet. The species of family Linyphidae, Filistatidae, Theridiidae and Pholcidae build this type of web. Spiders of family Theridiidae construct irregular-mesh webs and they sit in the central part of the web. Spiders of family Pholcidae rest upside down under a loose -mesh sheet web.

Single line web

This type of web comprises of a single horizontal line attached with the branches of herbs and shrubs which spreads into two to three feet in the open space (Figure 212). Few species of family Theridiidae, Uloboridae are seen to make such webs.

Tent web

This type of web is spun by garden spiders who make horizontal dome shaped web with many radial and spiral threads that rise into the centre for making dome. Members of Genus *Cyrtophora* technically come under orb web weavers but do not build orb webs. Rather, they build horizontal tent-like, highly complex non-sticky web with supporting threads above them (Figure 213). Under this, web spider, makes flat mesh for hiding

themselves. Family Araneidae and Linyphiidae also makes horizontal dome shaped webs. This type of web provides suitable places for hiding. (Figure 215). Spiders come out regularly from their web to catch the prey.

Irregular web or space web

Irregular webs are spread in all directions with the branches herbs and shrubs (Figure 214). These types of webs are built by family Pholcidae, Theridiidae. Such webs are commonly found in the crevices of rocks or between the shrubs.

Types of spider web



Figure 207
Orb web of *Neoscona theisi*



Figure 208
Orb web of *Argiope anasuja*



Figure 209
Funnel web of *Hippasa* sp.



Figure 210
Tube web of
Stegodhyphus
Sarasinorum



Figure 211
Sheet web of
Stegodyphus sp.

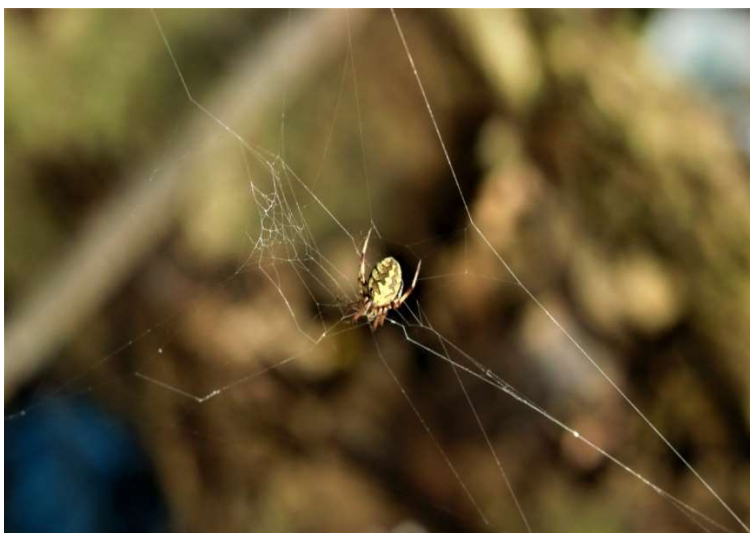


Figure 212
Single line web of
Neoscona sp.



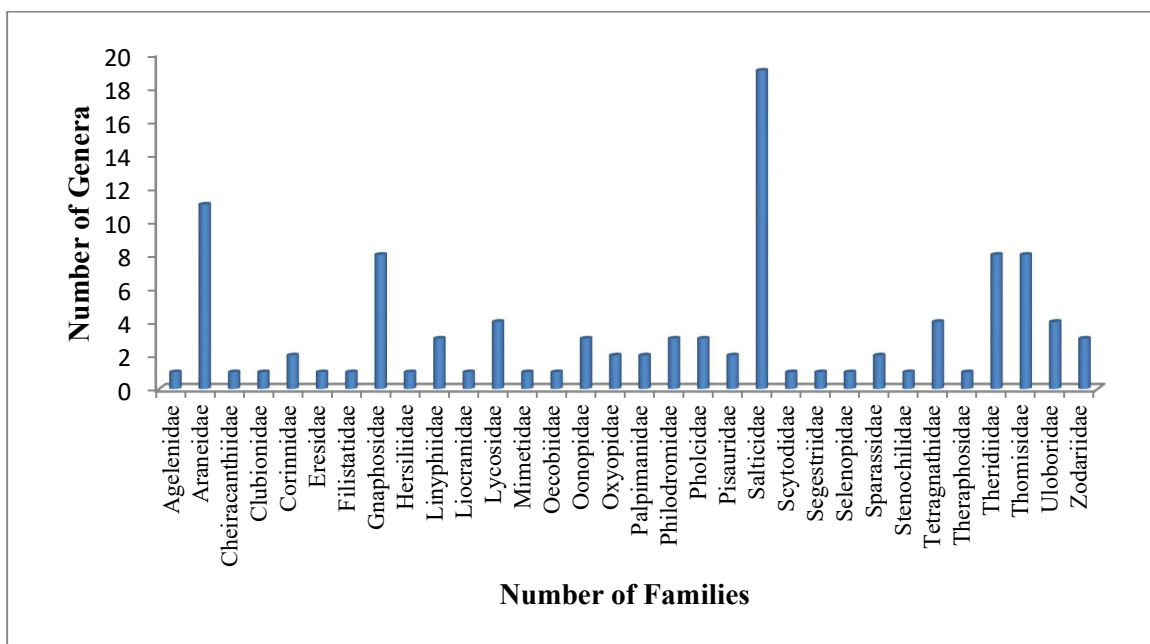
Figure 213
Tent web of *Cyrtophora*
citricola



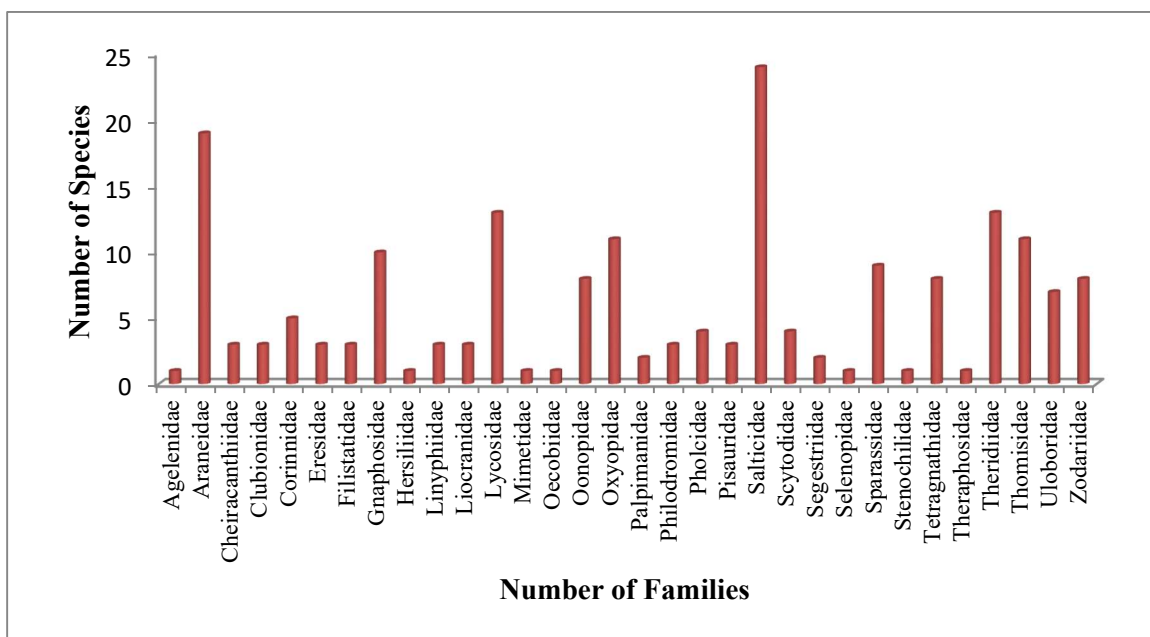
Figure 214
Irregular web of
Theridion sp.



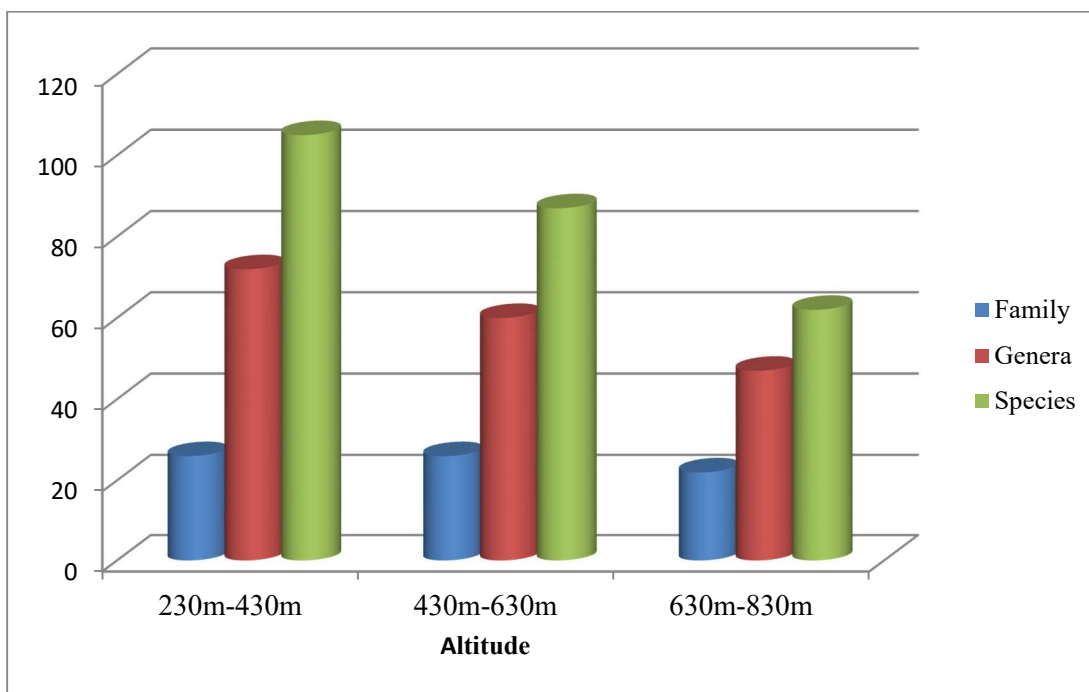
Figure 215
Tent web of
Cyrtophora citricola



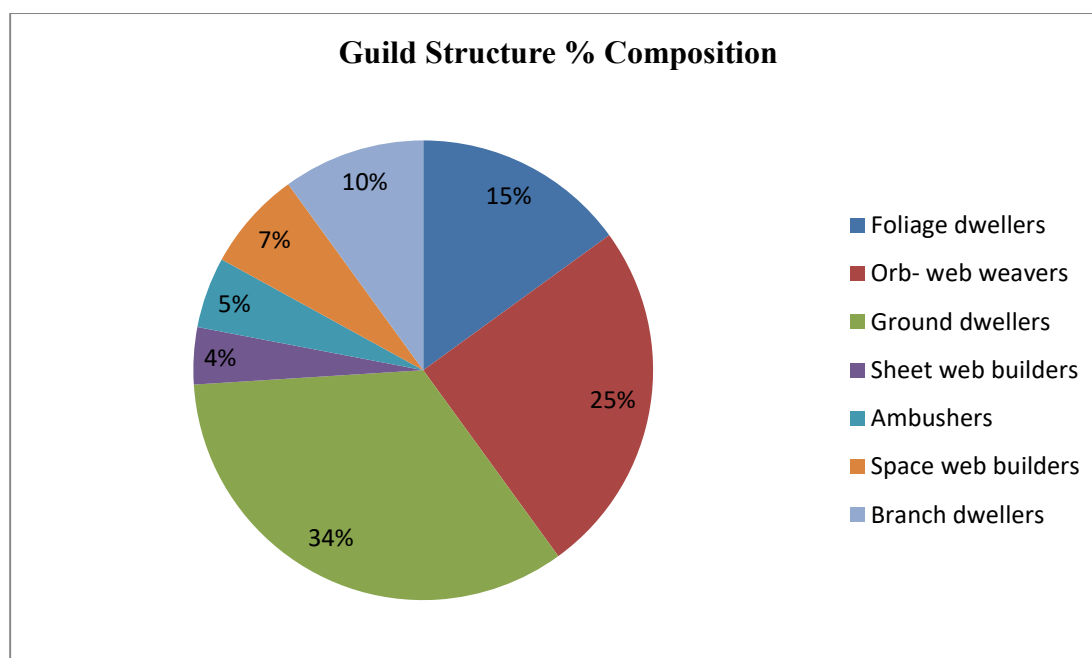
Graph 1: Species Diversity of Spiders from Champner Pavagadh Archaeological Park



Graph 2: Species Diversity of Spiders from Champner Pavagadh Archaeological Park



Graph 3: Diversity of spiders along Pavagdh hill



Graph 4: Guild structure composition of spiders from Champaner Pavagadh Archaeological Park