

References:

1. **Sebastian, P. A. and Peter, K. V.** (2009). Spiders of India, Universities Press/Orient Blackswan.
2. **Sebastian, P. A. and Peter, K. V.** (2010). Spiders of India, Universities Press (India) Pvt. Ltd.
3. **Sebastian, P. A., Sudhikumar, A. V., Mathew, m. J. and Sunish, E.** Diversity of spiders (Aranae) in the Western Ghats-an overview. 2012.
4. **Tikader, B. K.** (1987). Handbook of Indian Spiders: A Manual for the study of the Spiders and Their Relatives: the Scorpions, Pseudoscorpions, Whip Scorpions, Harvestmen and all members of class Arachnida Found in India, with Analytical keys for their classification and Biology. Zoological Survey of India, Calcutta, India
5. **Kumari, Shraddha K and Chaturved Shet R** (2019). A Study on Diversity of Spiders at Malavagoppa Village, in Shimoga District, Karnataka. *International Journal of Environment, Agriculture and Biotechnology (IJEAB)* Vol-4, Issue-2, Mar-Apr- 2019, 544 555(P) - ISSN: 2456-1878.
6. **Kumari, Shraddha K and Chaturved Shet R** (2020). A Preliminary Study on Diversity of Spiders at Amanikere Park in Tumakuru District, Karnataka. *International Journal of Science and Research (IJSR)* Vol-9, Issue-5, May 2020, 570- 581(P) - ISSN: 2319-7064.
7. World Spider Catalog (2020). World Spider Catalog. Version 21.0. *Natural History Museum Bern, Online at <http://wsc.nmbe.ch>, accessed on 13.05.2020. doi: 10.24436/2*

Editorial Team:

Concept & Supervision: Shri. Raj Kishore Singh IFS, Director General, EMPRI, Dr.KH Vinayakumar IFS.,Director (Research), and ENVIS Coordinator, EMPRI

Research and Content Development: Mr. Chaturved Shet R, Researcher & Co-founder HRBSF, Bengaluru., Shraddha Kumari K, Department of Zoology, GFGC Tumakuru., Chinmay C Maliye, Spider Enthusiast, Wildlife Photographer, Bengaluru.

Review & Editing: Dr.KH Vinayakumar IFS.,Director, EMPRI, Shraddha Kumari K, Department of Zoology, GFGC Tumakuru., Chinmay C Maliye, Spider Enthusiast, Wildlife Photographer, Bengaluru., Mr. Chaturved Shet R, Researcher & Co-founder HRBSF, Bengaluru. Siri HP, Programme Officer, EMPRI ENVIS, Bengaluru

Layout Designing: Siri HP, Programme Officer, EMPRI ENVIS, Bengaluru

Photo Credits: Chinmay C Maliye, Spider Enthusiast, Wildlife Photographer, Bengaluru. Mr. Chaturved Shet R, Researcher & Co-founder HRBSF, Bengaluru. Shraddha Kumari K, Department of Zoology, GFGC Tumakuru.



Collaboration Work By :

Karnataka State ENVIS Hub

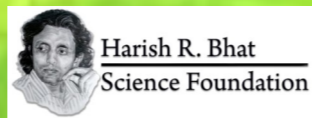
Environmental Management and Policy Research Institute (EMPRI)

“Hasiru Bhavana” JP Nagar 5th Phase Bangalore: 560078,Website : www.karenvis.nic.in

&

Harish R. Bhat Science Foundation (HRBSF)

BEML layout, 3rd Stage, Rajarajeshwari Nagar, Bangalore—560098, Website : www.hrbsf.org



Environmental Information System (ENVIS)

Environmental Management and Policy

Research Institute (EMPRI)

Bangalore-5600078, www.karenvis.nic.in



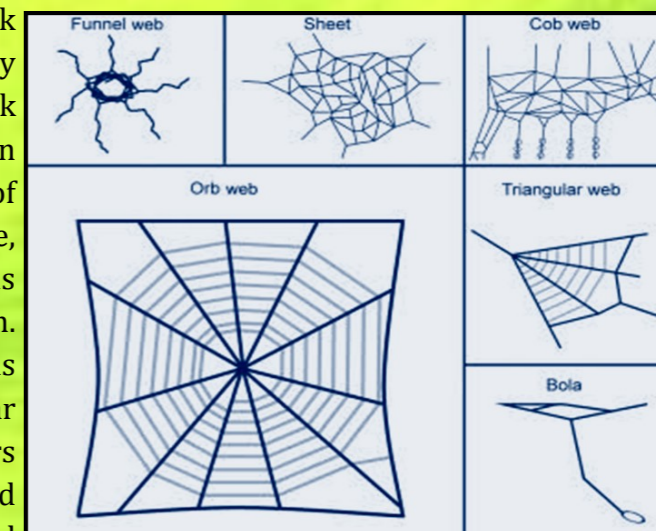
Spiders of Karnataka - 1

Introduction:

Spiders are air-breathing arthropods (where the word Arthro means Jointed and Poda means legs.) that have eight legs, chelicerae (jaws) with fangs with the ability to inject venom, and spinnerets to spin silk. They are the largest order of arachnids and rank seventh in total species diversity among all orders of organisms. Spiders are found worldwide on every continent except for Antarctica and have established themselves in nearly every habitat with the exceptions of air and sea colonization. The class arachnid includes organisms like spiders, mites, ticks, scorpions, harvestman and others.

Spider Web:

All spiders have the ability to produce silk. Silk produced by them serve multiple purpose and they have the ability to produce different kinds of silk for particular function, the most commonly seen use of silk is the web, which serve a purpose of catching their prey and other functions include, protection of eggs, wrapping of prey etc. Silk is produced from the silk glands in their abdomen. Spider silk is one of the strongest organic materials and has number of uses. Not all webs are circular (orb) in shape, which is seen most often. Spiders build their webs in a variety of structures and shapes like tent webs, cob webs, funnel webs and others. All webs are made by its silk only. Few other shapes of spider webs are:



Differences between a Spider and an Insect:

Insect	Spider

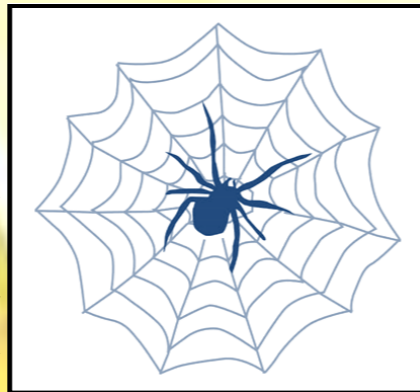
The main difference between insects and the spiders is that, spider's body is divided into 2 parts- Cephalothorax and Abdomen and whereas insect's body is divided into 3 parts- Head, Thorax and Abdomen.

Apart from their body division and structure, there are few more ways to differentiate between spiders and insects.

- ◆ Many insects are capable of flight and have wings, whereas spiders do not have wings at all and hence they are flightless.
- ◆ Spiders have 8 legs whereas all insects have 6 legs.
- ◆ Spiders don't have antennae at all whereas most insects possess a pair of antennae.

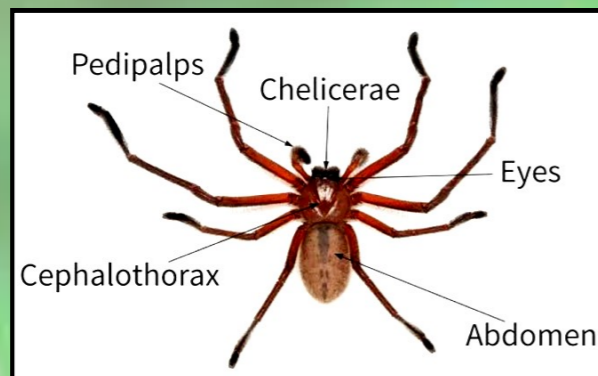
Feeding Behavior:

All known spiders are insectivorous or carnivorous except one species, the Bagheera kiplingi (Name is from the character of Jungle Book and its author name) which is predominantly herbivorous. Spiders feed on live or freshly caught prey, they can't chew or eat solid food and they can feed only on liquid food as they don't have true jaws or teeth. All web-building spiders mainly feed on flying insects such as butterflies, mosquitoes, moths, dragonflies etc. Few spiders can also feed on bigger organisms like birds and lizards.



Those spiders which do not construct webs have different strategies to feed on. Few spiders forage in search of prey and then pounce on their prey and kill it by injecting venom, few other spiders will wait near some parts of plants camouflaged in wait for unsuspecting preys. Few other species wander on the ground or on the wall in search of its food.

Identification of Spiders:



Many can be identified up to generic level and some can be identified only till family level, as the study of genitalia is required for correct and proper identification of species. Only those spiders which can be identified by referring external features and behavior are produced here. This colourful catalogue of spiders gives you a count of nearly 100 species depicted with 110 colourful spider photographs with common names in bold, scientific name in italics with scientist's name within the brackets with discovered year.

This work is an attempt to describe diversity of spider fauna documented and photographed within Karnataka state of few selected green patches. Entire Karnataka State is not covered. There were many spiders photographed but could not be identified, hence those are not shown in this catalogue. Apart from the photographing, identification and evaluating species richness, there is a need to carryout extensive investigation about the species of spiders in the region. This catalogue is a preliminary step to exhibit the spider diversity from Karnataka state to create awareness. Hence there is always a scope for further studies and any suggestions from the readers are always welcome to improve and strengthen this catalogue.

Catalogue on Spiders of Karnataka



Wandering Spider Variety
Ctenus spp.
(Walckenaer, 1805)



Orange Jumping Spider Variety
Epocilla spp.
(Thorell, 1887)



Ovia Wolf Spider Variety
Ovia spp. (Sankaran, Malamel & Sebastian, 2017)



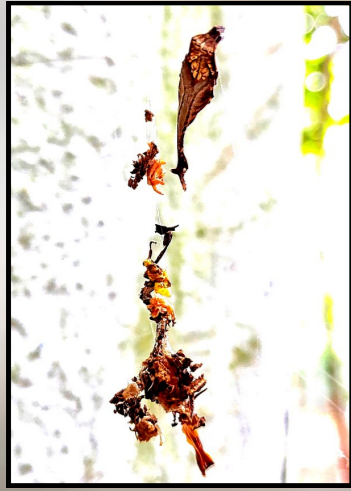
Red House Spider
Nesticodes rufipes
(Lucas, 1846)



Ant-mimicking Jumping Spider Variety
Myrmarachne spp.
(MacLeay, 1839)



Cobweb Weaver Variety
Ariamnes spp.
(Thorell, 1869)



Scorpion-tailed Spider Variety

Arachnura spp. (Vinson, 1863)



Oval St Andrew's Cross Spider

Argiope aemula (Walckenaer, 1841)



Kidney Orb Weaver

Araneus mitificus
(Simon, 1886)



Double Striped Carrhotus

(Male) *Carrhotus viduus*
(C. L. Koch, 1847)



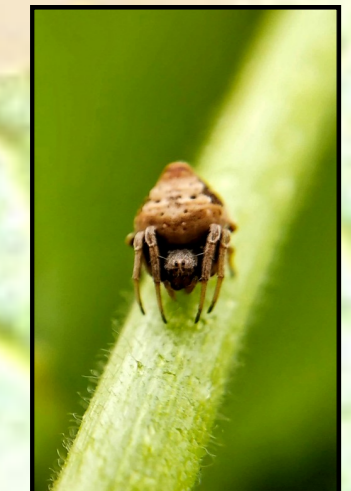
Double Striped Carrhotus

(Female) *Carrhotus viduus*
(C. L. Koch, 1847)



Tailed Cellar Spider

Crossopriza lyoni
(Blackwall, 1867)



Forest Orb Weaver Variety

Eriovixia spp.
(Archer, 1951)



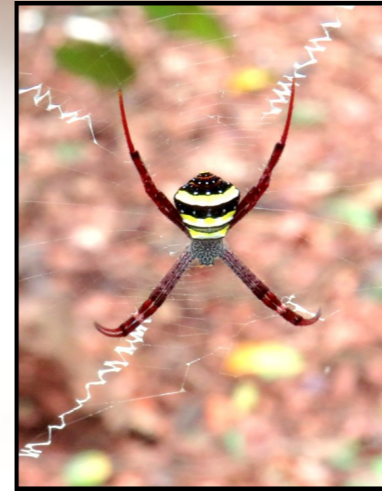
Forest Orb Weaver Variety

Eriovixia spp. (Archer, 1951)



Forest Orb Weaver

Eriovixia spp.
(Archer, 1951)



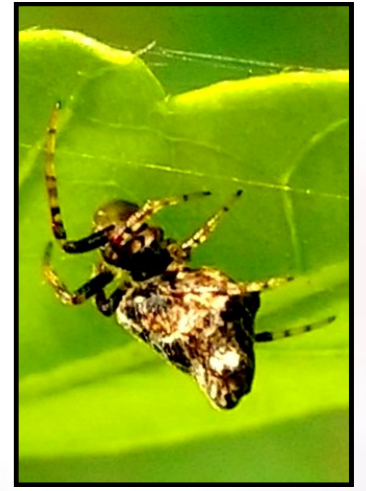
Giant Cross Spider

Argiope anasuja (Thorell, 1887)



Signature Spider

Argiope pulchella (Thorell, 1881)



Thrashline Orb Weaver Variety

Cyclosa spp. (Menge, 1866)



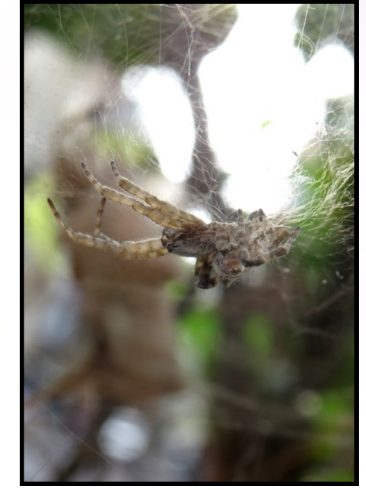
Common Tent-web Spider

Cyrtophora cicatrosa
(Stoliczka, 1869)



Tent-web Spider Variety

Cyrtophora spp.
(Simon, 1864)



Tent-web Spider Variety

Cyrtophora spp.
(Simon, 1864)



Tropical Tent-web Spider

Cyrtophora citricola
(Forsskal, 1775)



Oriental Spiny Orb-weaver

Gasteracantha geminata
(Fabricius, 1798)



Adanson's House Jumper

Hasarius adansoni
(Audouin, 1826)



Common Garden Spider
Neoscona mukherjei
(Tikader, 1980)



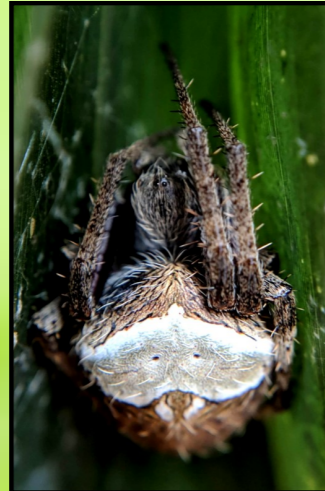
Monkey Orb Weaver
Neoscona puntigera
(Doleschall, 1857)



Wolf Spider Variety
Pardosa spp.
(C.L Koch, 1847)



Garden Orb Weaver Variety
Neoscona spp. (Simon 1864)



Garden Orb Weaver Variety
Neoscona spp. (Simon 1864)



Garden Orb Weaver Variety
Neoscona spp. (Simon 1864)



Golden Orb Weaver/ Giant Wood Spider Variety
Nephila spp. (Leach, 1815)



Huntsman Spider Variety
Olios spp. (Walckneer, 1837)



Huntsman Spider Variety
Olios spp. (Walckneer, 1837)



Lamarck's Huntsman Spider
Olios lamarcki
(Latreille, 1806)



Striped Lynx Spider
Oxyopes javanus (Thorell, 1887)



Green Crab Spider
Olios milleti
(Pocock, 1901)



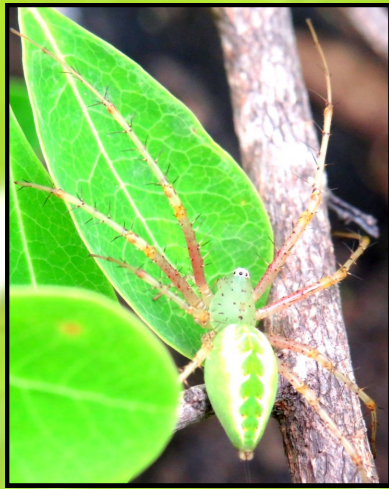
White Lynx Spider
Oxyopes shweta
(Tikader, 1970)



Lynx Spider Variety
Oxyopes spp.
(Latreille, 1804)



Lynx Spider Variety
Oxyopes spp.
(Latreille, 1804)



Green Lynx Spider Variety
Peucetia spp.
(Thorell, 1869)



Green Lynx Spider Variety
Peucetia spp.
(Thorell, 1869)



Green Lynx Spider Variety
Peucetia spp.
(Thorell, 1869)



Banded Phintella
Phintella vittata
(C. L. Koch, 1846)



Daddy Long Leg Spider Variety
Pholcus spp.
(Walckenaer, 1805)



Daddy Long Leg Spider Variety
Pholcus spp.
(Walckenaer, 1805)



Pantropical Jumping Spider
Plexippus paykulli
(Audouin, 1826)



Wall Jumping Spider
Plexippus petersi
(Karsch, 1878)



Spotted Jumping Spider
Proszynskia diatreta
(Simon, 1902)



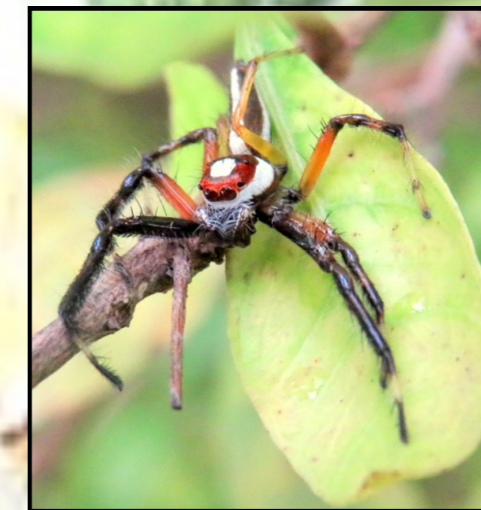
Wasp-mimic Jumping Spider Variety
Rhene flavicomans
(Simon, 1902)



Fringed Jumping Spider Variety
Portia albimana
(Simon, 1900)



Narrow-bodied Jumping Spider Variety
Stenaelurillus spp.
(Simon, 1886)



Two-striped Jumping Spider (Male) *Telamonia dimidiata*
(Simon, 1899)



Two-striped Jumping Spider (Female) *Telamonia dimidiata*
(Simon, 1899)



Indian Social Spider
Stegodyphus sarasinorum
(Karsch, 1892)



False Black Widow Variety
Steatoda Spp.
(Sundevall, 1833)



False Spiny Orb-weaver
Thelacantha brevispina
(Doleschall, 1857)



Bird Dropping Spider Variety
Phrynarachne spp.
(Thorell, 1869)



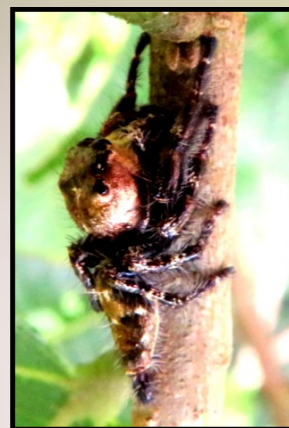
Giant Crab Spider Variety
Heteropoda spp. (Latreille, 1804)



Giant Crab Spider Variety
Heteropoda spp.
(Latreille, 1804)



Heavy-bodied Jumping Spider
(Female) *Hyllus semicupreus*
(Simon, 1885)



Heavy-bodied Jumping Spider
(Male) *Hyllus semicupreus*
(Simon, 1885)



Kerengga Ant-like Jumper
Myrmaplata plataleoides (O. Pickard-Cambridge, 1869)



Decorative Silver Orb Weaver
Leucauge decorata
(Blackwall, 1864)



Black Wood Spider
Nephila kuhli
(Doleschall, 1859)



Lichen Huntsman Spider Variety
Pandercetes spp.
(L. Koch)



Funnel Web Spider Variety
Hippasa spp. (Simon, 1885)



Funnel Web Spider Variety
(*Hippasa spp.* (Simon, 1885))



Funnel Web Spider Variety
Hippasa spp. (Simon, 1885)



Long-jawed Orb Weaver Variety
Leucauge tessellata
(Thorell, 1887)



Common Wolf Spider Variety
Lycosid
(Sundevall, 1833)



Grey Wall Jumper
(Female) *Menemerus bivittatus*
(Dufour, 1831)



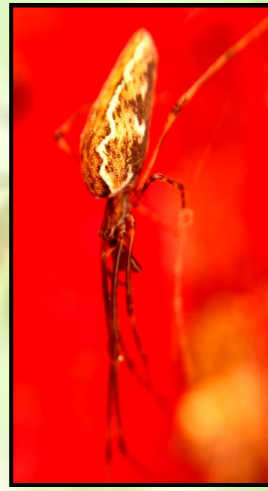
Grey Wall Jumper
(Male) *Menemerus bivittatus*
(Dufour, 1831)



Wall Jumper Variety
Menemerus spp.
(Simon, 1868)



Long-jawed Spider Variety
Tetragnatha spp.
(Latreille, 1804)



Long-jawed Spider Variety
Tetragnatha spp.
(Latreille, 1804)



Long-jawed Spider Variety
Tetragnatha spp.
(Latreille, 1804)



Flower Crab Spider / White Crab Spider Variety
Thomisus spp.
(Walckenaer, 1805)



Ground Runner Spider Variety
Gnaphosid
(Pocock, 1898)



Green Huntsman Spider Variety
Gnathopalystes spp.
(Rainbow, 1899)



Flower Crab Spider / White Crab Spider Variety
Thomisus spp.
(Walckenaer, 1805)



Ground Runner Spider Variety
Gnaphosid
(Pocock, 1898)



Fat Lynx Spider Variety
Hamataliwa spp.
(Keyserling, 1887)



Small Crab Spider Variety
Indoxysticus spp.
(Benjamin & Jaleel, 2010)



Tangle Web Spider Variety
Rhomphaea spp.
(L. Koch, 1872)



Tangle Web Spider Variety
Meotipa spp.
(Simon, 1894)



Small Orb-weaver Variety
Ordgarius sexspinosus
(Thorell, 1894)



Grass Crab Spider Variety
Oxytate spp.
(L. Koch, 1878)



Common Garden Spider Variety
Parawixia dehaani
(Doleschall, 1859)



Tree Stump Spider Variety
Poltys Spp.
(C.L. Koch, 1843)



Ornamental Tree Trunk Spider
Herennia multipuncta
(Doleschall, 1859)



Spitting Spider Variety
Scytodid
(Blackwall, 1864)



Two Tailed Spider
Hersilia savignyi
(Lucas, 1836)



Feather-footed Lace Weaver Variety
Uloborus spp.
(Latreille, 1806)



Long-jawed Orb Weaver Variety
Tylorida spp.
(Simon, 1894)



Green Crab Spider Variety
Misumenops spp.
(F.O.P Cambridge, 1900)



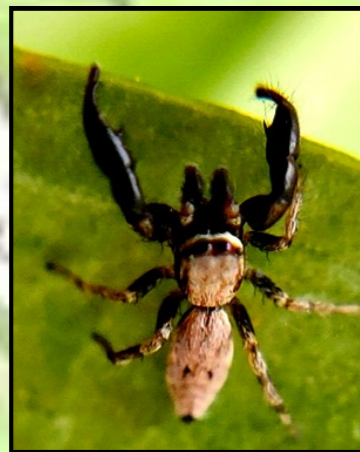
**Humped Spider/
Grey House Spider**
Zosis geniculata
(Olivier, 1789)



Evippa Wolf Spider Variety
Evippa Spp.
(Simon, 1882)



Coloured Jumping Spider
Chrysilla spp.
(Thorell, 1887)



Stridulating Jumping Spider Variety
Afraflacilla spp.
(Berland & Millot)



Ozyptila Crab Spider Variety
Ozyptila spp.
(Simon, 1864)



White Spotted Green Jumper
Epeus indicus
(Proszynski, 1992)



Tmarus Crab Spider Variety
Tmarus spp.
(Simon, 1875)



Cellar Spider Variety
Artema spp.
(Walckenaer, 1837)



Net Casting Spider Variety
Asianopsis spp.
(Lin & Li, 2020)



Ground Runner Spider Variety
Berlandina spp.
(Berlandina Dalmas, 1992)



Bomis Crab Spider Variety
Bomis spp.
(L.Koch, 1874)



Yellow Sac Spider Variety
Cheiracanthium spp.
(C.L Koch, 1839)



Cocalus Jumping Spider Variety
Cocalus spp.
(C.L. Koch, 1846)



Corinnid Sac Spider Variety
Corinnid
(Karsch, 1880)