

Fauna of India



SPIDER

ACHNIDA : ARANEAE : OXYOPIDAE)

Volume-III

U. A. GAJBE

The family OXYOPIDAE comprises 428 described species under 9 genera distributed chiefly throughout the tropical and subtropical regions of the world. The name of this family comes from Greek words meaning "sharp sighted" and its members called Lynx-spiders, for some species jumping from twig to twig, hunt down their prey with great rapidity.

This volume deals with the family Oxyopidae comprising three genus with 59 species. The volume begin with a short but clear and well illustrated account of the taxonomic characters of spiders. The present volume will certainly help the taxonomic researchers on spider.

**FAUNA OF INDIA
AND
THE ADJACENT COUNTRIES**

**SPIDER
(ARACHNIDA : ARANEAE : OXYOPIDAE)
Volume-III**

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FOREWORD

As per the objectives of the Zoological Survey of India, several group of animals were included in the earlier volumes of Fauna of British India series (presently the Fauna of India series)

This is the third volume on spider after the publication of two volumes by Late Dr. B. K. Tikader. This volume deals with the family Oxyopidae comprising three genus with 59 species. The volume begin with a short but clear and well illustrated account of the taxonomic characters of spiders. The present volume will certainly help the taxonomic researchers on spider.

Kolkata
December, 2007

Dr. Ramakrishana
Director
Zoological Survey of India

AUTHOR'S PREFACE

The spider which comprise the family Oxyopidae are known as Lynx spiders because of the habits and their relatively keen eyesight. They are easily recognized in the field by the presence of numerous large erect spines on the legs and by their quick darting movements and sudden leaps. These spiders have world-wide distribution with their interesting diversified form and habits and they are abundantly available in the month of July, August and September. In our country the detailed taxonomic studies on this interesting group of spiders are very meage.

The main purpose of this volume of fauna is to clear the previous confusion as far as possible the taxonomic identifies of the oxyopid spiders in India. Scanty information are available on Indian forms of oxyopid spiders from the reports of Stoliczka (1869), Simon (1864, 1889, 1892-1895, 1906), Thorell (1887, 1891), Strand (1907, 1912), Pocock (1900, 1901), Dyal (1935), Walckenaer (1805) and Sherriffs (1950), who were the pioneer workers on this group of spiders. They described many species from India, Burma, Pakistan and Sri-Lanka, but their descriptions are very inadequate for identification up to species level and are practically without proper illustrations.

Pocock (1900) has recorded only their four species of the genus *Peucetia* of the family Oxyopidae in "*Fauna of British India, Arachnida*" volume.

While studying the spiders of family Oxyopidae, I felt that it is very essential to examine the type-specimens of the described species from India and to provide the redescrptions and detailed illustrations for clearing the uncertainty and confusion for other workers in the field. Fortunately I have received and studied the type-material and authenticated identified specimens from National Collection, Zoological Survey of India, Kolkata. Sherriffs (1950) in his paper 'Some oriental spider of the genus *Oxyopes* stated that, All the specimens examined are old and have for many years in spirit. Hence no attempt has been made to suggest natural colours since, in addition many have been considerably rubbed. Most of the species are described from India which are deposited in other museums outside India.

A detail general account of external anatomy, characters of taxonomic importance, ecology, habits of the spiders in the family Oxyopidae are given here. As for as possible key for identification of genera as well as diagrams for each species except some of the family for easy identification and a list of families and higher categories and key to families of Indian spiders have been provided.

Regarding the known species the measurements and descriptions are given related to the type material as well as authenticated identified specimens only. Other material studied are deposited in the collection of Central Regional Station, Zoological Survey of India, Jabalpur.

This faunal work could not be completed without the help of many individuals and Institutions. I take this opportunity to express my deepest gratitude for help with literature to : Dr. N. I. Platnick, American Museum of Natural History, Central Park West at 79th street NEW YORK (U.S.A.). Dr. A. R. Brady Biology Department, Hope College, HOLLAND (U.S.A.) Dr. C. D. Dondale, E.C.O.R.C. Research Branch, Agriculture Canada, OTTAWA Ontario, Canada Dr. H. W. Levi, Harvard University, MCZ 26, Oxford street, Cambridge M.A. (U.S.A.) Dr. H. Ono, Department of Zoology, National Science Museum 3-23-1 Hyakunin-cho, Shinjuku, Tokyo, Japan. Dr. R. R. Forster (deceased), Mc Master Rpad. R. D. I. SADDLE HILL, DUNE DIN, New Zealand. Dr. A. S. Dippenaar-Schoeman, Plant Protection Research Institute, Private Bag, Pretoria, South Africa. Dr. D. X. Song, Institute of Zoology, Academia Sinica, 19 Zhongguancun Lu, Haidian, Beijing, China, Dr. W. H. Whitcomb, 4013 NW 39th Way, Gainesville FL, U.S.A. Dr. V. Biswas Department of Zoology, Govt. P. C. College Bagerhat, Bangladesh. Dr. B. K. Biswas & Dr. S. C. Mazumder, Zoological Survey of India, M-Block, New Alipore, Kolkata. Dr. D. Raychaudhuri, Entomology Laboratory, Department of Zoology, University of Calcutta, 35 Ballygunge Circular Road, Kolkata. Dr. G. L. Sadana, Department of Zoology, College of Basic Sciences and Humanities, Punjab Agricultural University, Ludhiana, India.

I am grateful to Dr. G. N. Vankhede, Head, Department of Zoology, Sant Gadge Baba, Amravati University, Amravati, Maharashtra for supplying the photographs of oxyopid spiders from Melghat Tiger Reserve, Amravati District at my disposal.

I am indebted to Shri M. E. Limje, Photographer, Zoological Survey of India, C.R.S. Jabalpur, for preparation of photographs as well as assisting in various ways and to my son Shri Ketan Gajbe, for typing the manuscript.

I am indebted to my wife Mrs. Asha Gajbe for encouragement and carrying out the work at my home after office hours including holidays.

Lastly I would like to express my grateful thanks to the Director, Zoological Survey of India, for honouring me by assigning the writing up of fauna volume on spiders.

U. A. GAJBE
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Jabalpur

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GENERAL INTRODUCTION

Spiders are the dominant non-veretebrate predators in almost every terrestrial habitat, making key stone ecosystem components. As, at any given time there are spiders on almost every square feet constantly seeking out and destroying insects prey during the whole year, their effect on insect population is important. Without them outbreaks of insects pest would certainly be both more frequent and more severe. Most spiders are not specialized in their feeding to the degree that they must depend on one or a few kinds of insects, but on the contrary they take various kinds somewhat in proportion to their abundance and availability over a fairly wide size range on croplands, where spiders are abundant, they are usually praying to a large extent on agricultural pests.

SPIDERS ARE OUR FRIENDS IN THAT
THEY ARE AN ENEMY OF OUR ENEMIES

GENERAL ECOLOGY, HABITS OF SOME SPIDERS OF THE FAMILY OXYOPIDAE

The family *Oxyopidae* comprises 428 described species under 9 genera distributed chiefly throughout the tropical and subtropical regions of the world. The name of this family comes from Greek words meaning "sharp sighted" and its members called Lynx-spiders, for some species jumping from twig to twig, hunt down their prey with great rapidity.

Large collection from various parts of India were examined to determine the range of the oxyopids found in India.

The *Oxyopids* are grouped with the *Agelenidae*, *Lycosidae*, *Pisauridae* and *Senoculidae* in the super family *Lycosoidea* by most arachnologists. The *Oxyopidae* in common with most members of these families, possess, eight eyes, three tarsal claws without claw tufts, three pairs of spinnerets, two booklungs opening at the corners of the epigastric furrow, a single tracheal opening in front of the anterior spinnerets and a rather large colulus.

The *Oxyopidae* are most active during the day. Many species are found running swiftly or jumping with great agility among low shrubs and herbs. The *Oxyopidae* are easily recognized in the field by the presence of numerous large erect spines on the legs and by their darting movements and sudden leaps. The posterior legs are well developed concomitant with their jumping ability. The habits of these spiders and their relatively keen eyesight have earned for them the name lynx spiders.

The *Oxyopidae* are diurnal hunting spiders. Most of the lynx spiders more actively about in search of prey. However, they often pause and assume a characteristic prey catching posture to await their victim. The great majority of *Oxyopids* live in tall grass, low shrubs and herbaceous vegetation. A few are evidently arboreal in habits and some appear to run over the bare ground.

That relatively little is known concerning the biology of the *Oxyopidae* is due chiefly to the difficulty of observing these spiders in the field. Probably 95 percent of the *Oxyopids* collected are taken by sweeping; thus they are observed only when they appear in the sweep-net. Judging from their local abundance, the lynx spiders are among the major predators of insects occurring in low shrubs and herbaceous vegetation. Recent investigation by W. H. Whitcomb and associates (1963) have disclosed that the lynx spiders are important predators of crop damaging insects. Some *Oxyopids* are chief predator of the cotton ball worm, and also as a chief predator on insect pest of cotton fields.

Lynx spiders evidently have one generation per year and probably construct only one egg case. They appear first in late spring (May and early June) and are most abundant in July, August and September.

GENERAL TAXONOMIC CHARACTERS OF SPIDERS WITH SPECIAL
REFERENCE TO THE FAMILY OXYOPIDAE
(Figs. 2-11)

The body of the spider is divisible into distinctive parts. *Cephalothorax* and abdomen joined together by a narrow pedicel. The *Cephalothorax* is covered dorsally by a hard sclerotic shield, the carapace and ventrally by sternum as in fig. 1, 2 & 3. The anterior margin of sternum articulates movably with *labium*. With few exceptions there is a deep transverse groove, forming a kind of hinge, between the sternum and labium.

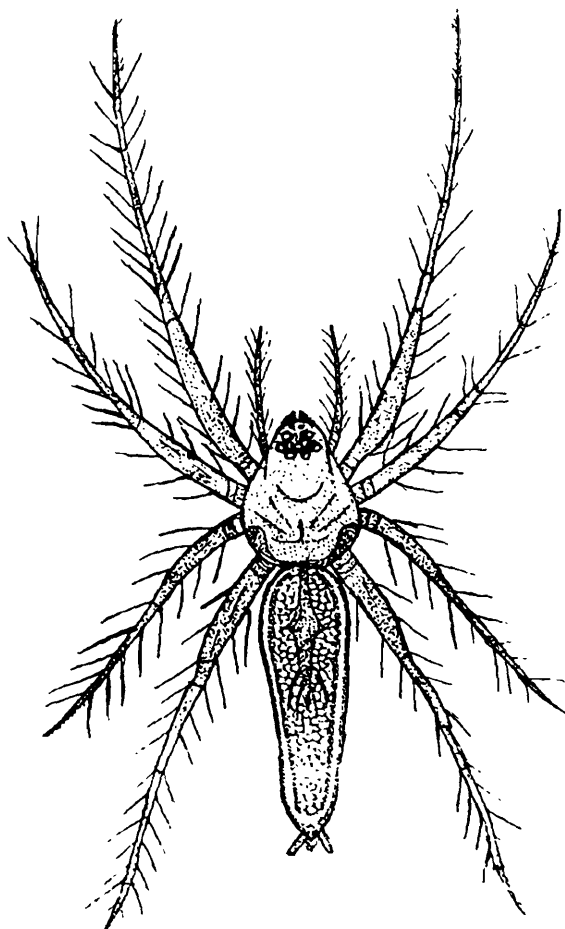
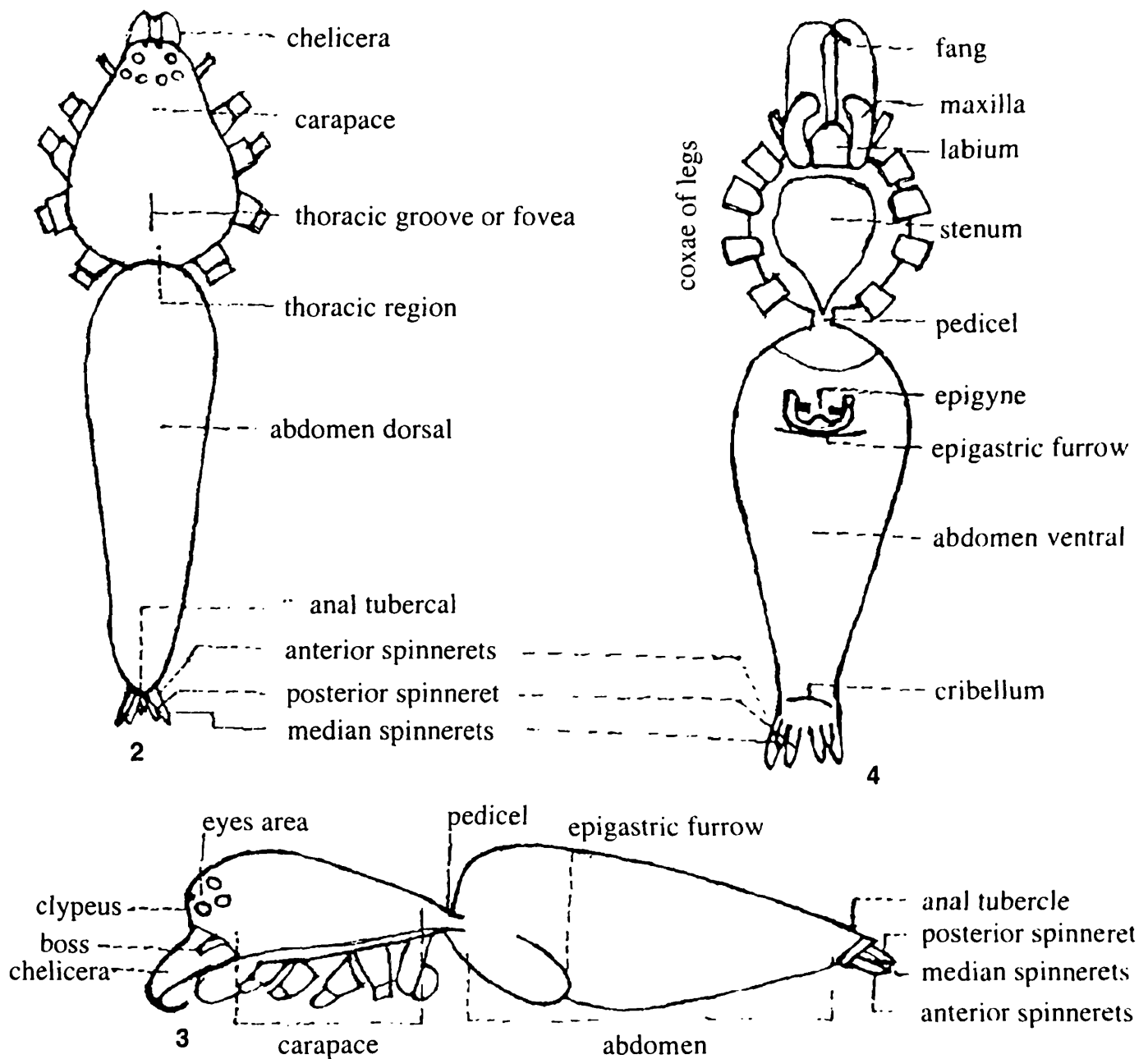
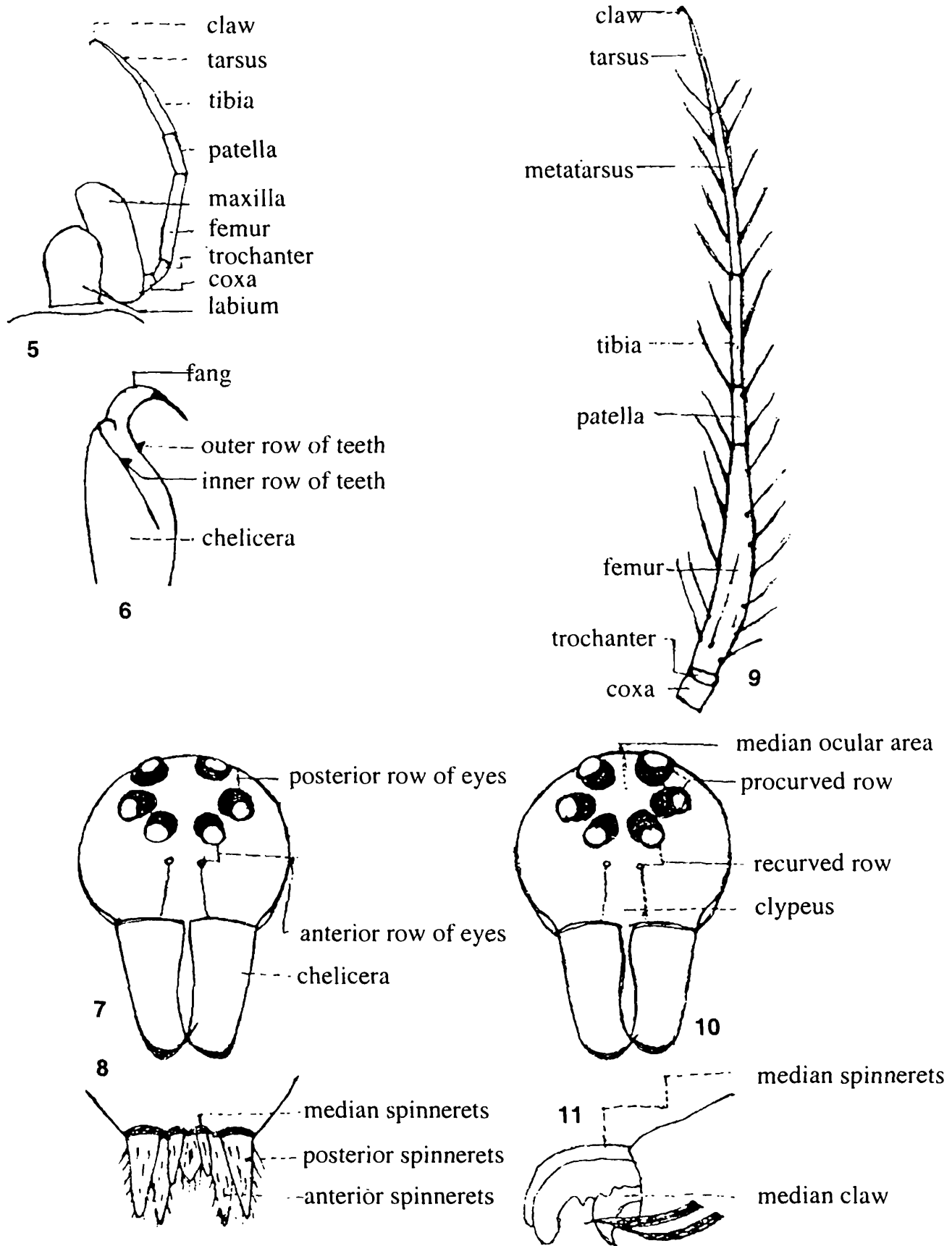


Fig. 1. Dorsal view of typical spider with legs.



Figs. 2-4 : 2. Dorsal view of typical spider, legs omitted; 3. Lateral view of typical spider, legs omitted; 4. Ventral view of typical spider, legs omitted.

The leg are articulated in the pleural membrane between the lateral edges of the *carapace* and *sternum*. On the cephalic region are present six to eight simple eyes. The eyes are generally of two kinds, viz Black or *diurnal* and white or *nocturnal* eyes. When only one type is present the condition is described as *homogenous* in contrast to the *heterogenous*, when both the types are present. The eyes are usually arranged in a double row, viz the *anterior row* and *posterior row*. Each row is described as *recurved*, when the concavity is turned forward as in fig. 10. According to their position the eyes are described as the *anterior medians*, the *posterior medians*, the *anterior laterals*, and the *posterior laterals*. The cephalic area, occupied by the eyes, is known as *ocular area*. The area margined by the four median eyes is termed as the *median ocular quadrangle*. The area between the anterior row of eyes and the base



Figs. 5-11 : 5. Labium, maxillae and pedipalp of female; 6. Inner view of chelicerae; 7. Face, front view of typical spider; 8. Spinnerets; 9. Ventral view of leg; 10. Face, front view of a typical spider showing arrangement of eyes; 11. Distal end of tarsus showing claws.

of chelicerae is the clypeus. The space between the anterior median eyes and the margin of clypeus represent the *width of clypeus*. There is often a depression in the middle of the thorax, called the *thoracic groove*.

The *chelicerae* are the first pair of appendages of the cephalothorax. Each chelicera bears a curved *fang* at its apex. The inner surface of chelicera may be finely denticulate and may have a groove, into which the fang can be closed when not in use. These groove may also be armed with tooth on each side; the outer row of these teeth is described a *promargin* and the inner row as *retromargin* as in fig. 6.

The pedipalps are the second pair of appendages. The palp proper is composed of six segments, viz. *coxa*, *trochanter*, *femur*, *patella*, *tibia* and *tarsus* as in fig. 5. The female tarsus is simple and may or may not have a single claw. In mature males the tarsus of palp is modified to carry a more or less complicated copulatory organ. Generally the tibia, sometimes also called the patella carry apophyses (which may be of different variety or shapes in different species) which is of important taxonomic value. In many spiders the tarsus has a bowl shaped cavity on its ventral surface and is called *cymbium*. In many groups mature males are provided with an appendage, the *paracymbium*. The structure of mature malepalp is very important for generic or specific identificatiion of spiders. The complicated palpal organ has many parts, but that is the matter beyond the scope. There are four pairs of legs designated, I, II, III, IV respectively. Each leg is composed of seven segments, viz *coxa*, *trochanter*, *femur*, *patella*, *tibia*, *metatarsus* and *tarsus*. The legs are variously clothed with spines, spinules, bristles and hair of various types. The tarsus ends are provided with two or three claws. A characteristic tuft of hairs called *claw-tuft* is sometimes found just above the claw as in fig. 9. Spines on the dorsal sides of legs are distinguished as *dorsal spines* and those on the ventral side as *ventral spines* as in fig. 9.

The abdomen is produced posteriorly into a conical anal *tubercle* and bears three pairs of spinnerets ventrally viz. the first of the *anterior pair*, the second or the *median* and third or the *posterior pair* of spinnerets as in fig. 8. In a number of families there is present in front of the anterior ventral spinnerets, a sieve-like plate, called the *cribellum*. The special type of silk emitted from this organ is combed by the *calamistrum* borne on metatarsus IV. In many families of spiders which do not possess the cribellum a conical appendage called the *colulus*, lies between the bases of the anterior spinnerets.

The ventral surface of abdomen is provided with one or two pairs of lung-books, followed by one or two paired spiracles. The females genital opening is the *vulva* or *epigyne*, with a transverse fold, known as *epigastric furrow* as in fig. 3. The female opening is niether *epigyne* nor the vulva. The opening is simply a pair of orifices. The epigyne is a sclerotised structure lying over or around the opening and structures (i.e. internal genitalia, receptacles and ducts.).

The tarsi of spider are often armed with hairs of type known as *tenent hairs*, i.e. hairs dilated at their tips, and as in insects, secrets an adhesive fluid. Araneidae and Gnaphosidae have fine hairs called pubescence. Some times the hairs are modified as *spiny hairs* or *mousy hairs*.

Key to the families of Indian Spiders

1. Chelicerae paraxial, i.e., projecting in a vertical plane and movable in a plane more or less parallel to the median plane of the body; fang closing backward. With two pairs of book lungs suborder ORTHOGNATHA-2
- 1b. Chelicerae diaxial i.e. projecting downward and fang articulated with chelicerae in a horizontal plane and movable in a more or less transverse plane. Commonly with one pair of book lungs suborder LABIDOGNATHA-7
2. Abdomen with one to nine sclerotized tergites furrow of cheliceral fang indistinct. Anal tubercle not immediately behind spinnerets but separated from the spinnerets by considerable distance The typical tarantula 3
- 2b. Abdomen without sclerotized tergites. Anal tubercle immediately behind four spinnerets situated in the lower middle of abdomen The typical tarantula-4
- 3a. Abdomen furnished with nine distinct tergites. Maxillae normal. Eight spinnerets situated in the lower middle of abdomen Family LIPHISTIDAE
- 3b. Abdomen not furnished with distinct tergites. Maxillae strongly developed and labium fused with sternum. Six spinnerets situated in the lower end of abdomen family ATYPIDAE
- 4a. Tarsi with a small median claw and two large lateral claws and without claw tufts 5
- 4b. Tarsi with only two claws tufts family THERAPHOSIDAE
- 5a. Chelicerae with a rastellum. Posterior spinnerets short or moderately long Anterior spinnerets close together at base 6
- 5b. Chelicerae without rastellum. Posterior spinnerets very long, anterior spinnerets separated by at least their length family DIPLURIDAE
- 6a. Head region much higher than the thoracic region. Tarsi without unequal tufts family CTENIZIDAE
- 6b. Head region much higher than thoracic region. Tarsi with distinct unequal tufts Family BARYCHELIDAE
- 7a. With a cribellum in front of spinnerets and a calamistrum on metatarsus IV, varying from just a few bristles to a row along the entire length of the metatarsus Section CRIBELLATAE-8
- 8b. With only one pair of lungs 9
- 9a. Anal tubercle large and prominent, two segmented with a fringe of long hairs. Posterior median eyes triangular or irregular in shape. Small spiders 2 to 2.50 mm. long with carapace sub circular family OECOBIDAE

- 9b. Anal tubercle of the usual type, without a conspicuous fringe of hairs. Posterior mediam eyes circular 10
- 10a. Head region large, rounded, high, posterior lateral eyes remote from the rest Family ERESIDAE
- 10b. Head low, narrowed, posterior lateral eyes-very rarely remote from the others 11
- 11a. Tarsi furnished with ungula tufts and an inferior claw family PSECHRIDAE
- 11b. Tarsi without ungula tufts and inferior claw 12
- 12a. Chelicerae fused together at the base. Labium fused to sternum. Tracheal spiracle considerably in advance of the spinnerets. Calanistrum short family FILISTATIDAE
- 12b. Chelicerae not fused at base. Labium free. Tracheal spiracle in the usual position close to the spinnerets. Calamistrum much longer 13
- 13a. Tarsi with a dorsal row of trichobothria. Eight eyes, all light in colour, homogenous family AMAUROBIIDAE
- 13b. Tarsi without trichobothria. Eight eyes, either all dark or heterogenous 14
- 14a. Eyes eight, homogenous, dark, both row recurved. Metatarsus IV compressed and concave above family ULOBORIDAE
- 14b. Eyes eight, hetrogenous, the anterior mediam alone dark. Metatarus IV of the usual shape family DICTYNIDAE
- 15a. Tibia and metatarsus I and II with a prolateral row of long spines, at the intervals between which is a row of much spines, curved near their ends and increasing in length distally family MIMETIDAE
- 15b. Tibia and metatarsus I and II without a prolateral row of spinners 16
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- 16b. Sternum not wider than long, posterior coxae not widely separated 17
- 17a. Posterior spinnerets absent or much shorter than anterior family ZODARIDAE
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- 18a. Posterior spinnerets enormously long, usually longer than the abdomen family HERSILIIDAE
- 18b. Posterior spinnerets shorter and thick 19

- 19a. Anal tubercle very large, fringed with long hairs, ocular group compact family UROCTEIDAE
- 19b. Anal tubercle small, not fringed, ocular group not compact 20
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- 20b. Tarsi of the usual type. Labium longer than wide, legs not very long 21
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- 23a. Carapace round and high behind. Sternum round behind family SCYTODIDAE
- 23b. Carapace flat and depressed. Sternum pointed behind family LOXOSCELIDAE
- 24a. Very small spiders, 1 to 3 mm. long. Eyes six, median eyes larger than the laterals. Labium not joined with sternum. Epigastric furrow at the normal region family OONOPIDAE
- 24b. Small but larger than oonopids. Eyes two, four, six or eight, almost equal in size. Labium jointed with sternum. Epigastric furrow far behind the normal region family CAPONIDAE
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- 28b. Eyes in the more common arrangement of two rows 32
- 29a. Eyes in four rows, the front eyes very large family LYSSOMANIDAE
- 29b. Eyes in three rows 30
- 30a. Front row of eyes more or less vertical face, median eyes enormously large, second row of eyes very small, often minute, third row of two eyes of medium size family SALTICIDAE

- 30b. Front row of eyes not vertical, and eyes of this row smaller than those of the second, eyes of third row as large as second row 31
- 31a. First row of two eyes, second row with four and third row with two. Anterior laterals much closer to the posterior laterals than to the anterior medians. Retromargin of cheliceral fang furrow with atleast three teeth family CTENIDAE
- 31b. First row with four eyes, second and third row each with two Anterior laterals much closer to anterior medians than to the posterior laterals. Retromargin of cheliceral fang furrow with two teeth family ZORIDAE
- 32a. Tracheal spiracle in advance of the spinnerets at least one third of the distance between the latter and epigastric furrow family ANYPHAENIDAE
- 32b. Tracheal spiracle in the usual place just in front of spinnerets..... 34
- 33a. Legs, at least, I and II laterigrade, crab-like 37
- 34a. Colulus absent. Retromargin of cheliceral fang furrow armed with teeth ... 36
- 34b. Colulus present. Retromargin of cheliceral fang furrow smooth 35
- 35a. Colulus present. Hair over body simple and erect. Legs I and II much longer and stouter than III and IV. Promargin of cheliceral fang furrow unarmed family THOMISIDAE
- 35b. Colulus absent. Hair over body featherly or scaly, and prone. All legs about the same length or leg II along much longer. Promargin with one or two teeth .. family PHILODROMIDAE
- 36a. Cephalothrax as long as wide. Posterior row of eyes recurved anterior row straight or procurved lateral eyes larger. Apex of metatarsus without a soft trilobite membrane..... family HETEROPODIDAE
- 36b. Cephalothrax as long as wide or slightly longer than wide. Posterior row eyes straight or slightly procurved, anterior row usually straight and subequal, lateral not larger than medians. Apex of metatarsus with a soft trilobite membrane family EUSPARASSIDAE
- 37a. Anterior spinnerets conical, contiguous. Maxillae without a transverse or oblique depression. Eyes homogenous or almost so (with few exceptions) family CLUBIONIDAE
- 37b. Anterior spinnerets cylindrical and separated by a distance about equal diameter of one. Maxillae with oblique depression. Eyes distinctly heterogenous, the anterior medians dark, the posterior medians often oblique oval or triangular 38
- 38a. Anterior lateral spinnerets without sub-distal sclerotized ring and unmodified piriform gland spigots family GNAPHOSIDAE

- 38b. Anterior lateral spinnerets with sub-distal sclerotized ring and unmodified piriform gland spigots family CITHAERONIDAE
- 39a. The six spinnerets in a more or less transverse row. Tracheal spiracle removed from the spinnerets at least one third of the distance to epigastric furrow
..... family HAHNIIDAE
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- 40a. Eyes group hexagonal, the posterior row procurved and anterior row recurved, with the clypeus high. Abdomen pointed behind and legs with very conspicuous spines family OXYOPIDAE
- 40b. Eyes group not forming a hexagon, and clypeus much lower. Abdomen not pointed and legs without conspicuous spines 41
- 41a. Tarsus IV. Usually provided with a ventral row of 6 to 10 serrated bristles
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- 44a. Posterior row of eyes so strongly recurved that it may be considered to form two rows. Median claw smooth or with a single tooth. Anterior piece of lorum rounded behind and fitting into a notch of the posterior piece. Egg sac attached to a spinneret and young carried on mother's back family LYCOSIDAE
- 44b. Posterior row of eyes not forming two distinct rows but only slightly recurved. Median claw with two teeth. Anterior piece of lorum with a notch into which the posterior piece fits. Egg sac held under cephalothorax. Young not carried by mother family PISAURIDAE
- 45a. Clypeus, in most, lower than the height of the median ocular area. Eyes homogenous (most are orb-weavers) 45
- 45b. Clypeus usually as high as or more commonly higher than height of the median ocular area. Eyes heterogenous (the majority are not orb-weavers) 47
- 46a. Epigastric furrow between lungslits procurved. No boss on chelicerae. In most cases the chelicerae are large and powerful family TETRAGNATHIDAE

- 46b. Epigastric furrow nearly straight. Boss present on chelicerae though rudimentary in some cases. Chelicerae not very large family ARGIOPIDAE or ARANEIDAE
47. Tibia of male pedipalp without apophyses (though the tibia may be dilated distally.) Palp of female in most species with a claw at the end of the tarsus. Tibia IV in most species with two dorsal spines, or if only one spine is present then there is one short spine or metatarsi I, II family LINYPHIDAE

Family OXYOPIDAE

1870. *Oxyopidae* Thorell, *Nova. Acta. Reg. Soc. Sci.*, 793 : 188.
1887. *Oxyopidae* : Thorell, *Ann. Mus. Genov.*, 5(25) : 321.
1898. *Oxyopidae* : Simon, *Hist. Nat. Araign.* 2 : 379.
1899. *Oxyopidae*: Pocock, *Fauna Brit. India, Arach*; 254.
1950. *Oxyopidae*: Sherriffs, *Proc. Zool. Soc. Land.*, 120(4) : 651.
1964. *Oxyopidae* : Brady, *Bull Mus. Comp. Zool.*, 131(13) : 444.
1970. *Oxyopidae* : Tikader, *Rec. zool. Surv. India*, 64(1-4) : 70.
1976. *Oxyopidae*: Brady, *Psyche*, 82(2) : 189.
1994. *Oxyopidae* : Niekerk, et. all.. *Entomology Mem. Dep. Agric. Rupub., S. Af.*, 89 : 1.
1996. *Oxyopidae*: Biswas, V.et all, *Acta arachnol.*, 45(1) : 53.
1999. *Oxyopidae*: Gajbe, *Rec. zool. Surv. India*, 97(3) : 31.
2003. *Oxyopidae* : Saha & Ray-chaudhuri, *Entomon*, 2894 : 321.
2004. *Oxyopidae* : Gajbe, P., *Rec. zool. Surv. India*, 20(2) : 2.
2005. *Oxyopidae*: Silwal, et. all. *Zoos'Print Journal*, 20(10) : 2028.

Type-genus *Oxyopes* Latreille

Distribution : Temperate and tropical countries.

Characters : The cephalothorax is variable in shape, has the carapace high and convex, sloping sharply at the thoracic declivity and the sides. Anterior row of eyes recurved, anterior median eyes smallest, much smaller than the anterior lateral eyes. Posterior row procurved, posterior median eyes equal in size to posterior eyes. The chelicerae are very long and tapering at the distal end and the fangs are short. The chelicer margins are short and armed with one tooth on each side of the anterior and posterior margins or without teeth. The labium is always longer than wide and the maxillae exceed greatly its length and coverage in front of it. The sternum is roughly heart-shaped and narrowing behind to a thin projection between the posterior coxae.

The abdomen is elongate and more or less sharply narrowing behind. The abdomen is connected to the cephalothorax by a short pedicle, often visible from above.

The six spinnerets are terminal. The cylindrical anterior spinnerets consist of a relatively large basal segment and an abbreviated, almost ring-like, apical segment. The posterior spinnerets also two-segmented, are about the same length as the anterior or more slender in diameter. The tiny middle spinnerets are well hidden in their position between and slightly forward of the posterior ones. A short obtuse colulus is present immediately in front of the anterior spinnerets. The anal tubercle is prominent, roughly triangular in shape, and subsegmented.

The long legs are of unequal length. The relative length of the legs is useful in separating genera and species groups. The males have more elongate tarsi and metatarsi than the females and longer legs in relation to their body length. The legs are armed with very long spines, one of the most conspicuous characteristic of the family.

There are three tarsal claws, the superior pair largest and provided with many fine teeth, the single inferior claw very small, with two or three fine teeth.

Key to the genera of the family OXYOPIDAE

- 1a. Posterior row of eyes slightly procurved. Posterior lateral eyes further from the anterior lateral than from the posterior medians. The row of anterior lateral eyes wider than the row of posterior medians. Retromargin of cheliceral fang furrow without teeth. (Body bright green in life) ***Peucetia*** Thorell
- 1b. Posterior row of eyes strongly procurved; posterior lateral eyes about as far from the anterior laterals as from the posterior medians. The row of anterior lateral eyes subequal in length to the row of posterior medians or else narrower. Retromargin of cheliceral fang furrow with one tooth. (Body in life not green) 2
- 2a. Legs IV longer than III. Eyes of posterior row subequidistant ***Oxyopes*** Latreille
- 2b. Legs III and IV subequal in length or III longer than IV. Eyes of the posterior row, in most, with the medians closer to the laterals than to each other ***Hamataliwa*** Keyserling

Genus 1. *Peucetia* Thorell

1869. *Peucetia* Thorell, On *European spiders*, Uppasala, 7 : 196.
1887. *Peucetia* : Thorell, *Ann. Mus. Genova.*, 5(25) : 321.
1901. *Peucetia* : Pocock, *Fauna Brit. India Arach.*, 255.
1964. *Peucetia*: Brady, *Bull. Mus. Comp. zool.*, 131(13) : 505.

1970. *Peucetia* : Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 79.

1994. *Peucetia* : Niekerk et. All. *Entomology mem. Dep. Agric. Repub. S. Afr.*, **89** : 7.

1999. *Peucetia* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 62.

2004. *Peucetia* : Saha & Raychaudhuri, *J. Bombay nat. Hist. Soc.*, **101**(2) : 289.

Type species : *Peucetia viridis* Blackwall.

Distribution : Europe, Africa, Asia and America.

Characters : Cephalothorax longer than wide, high and convex anteriorly, narrowing posteriorly, cephalic area narrow; thoracic area wider and rounded on sides. Cephalic area with a yellow V-shaped marking sometimes bearing numerous microsetae, fovea often with dark brown markings on both sides. Eyes black occupy a small area on edge of carapace; eyes arranged in two rows with posterior row wider than anterior row, anterior row of eyes strongly recurved, posterior row slightly procurved; anterior median eyes smallest, much smaller than anterior lateral eyes, which is by far the largest of all eyes. Posterior eyes of intermediate size, posterior median eyes equal in size to posterior lateral eyes. Clypeus and chelicerae in vertical plane to rest of carapace, length of clypeus longer, shorter or equal in length to the ocular area; clypeus either with no marking or two to four clypeal lines varying in thickness and colour between grey, brown, dark brown and black; clypeal lines may sometimes extend on to chelicerae. Chelicerae are devoid of teeth, long and conical, a constant number of setae present on anterior lateral margin of chelicerae. Sternum shield-like, tapering to a point between coxae IV; a number of strong setae with dark-brown basal spots present with irregularly spaced shorter setae and microsetae in between. Maxillae much longer than labium; labium longer than wide, triangular.

Abdomen : Elongate, gradually narrowing posteriorly spinnerets terminal, three pairs, middle pair smallest; small colulus anteriorly and segmented and tubercle present.

Legs : Long and slender, all the leg segments armed with numerous long spines, leg formula is I, II, IV III; irregular markings may occur on all legs segment except the tarsi, tarsi with three claws consisting of two toothed superior claws and a small inferior claw; palp armed with several spines, tarsi usually darker in colour and well clothed with microsetae.

Male resembles female in shape and colour. Male differs structurally from female as follows; smaller in size; abdomen more slender and flattened dorsoventrally; legs much longer in relation to the body length bearing longer spines.

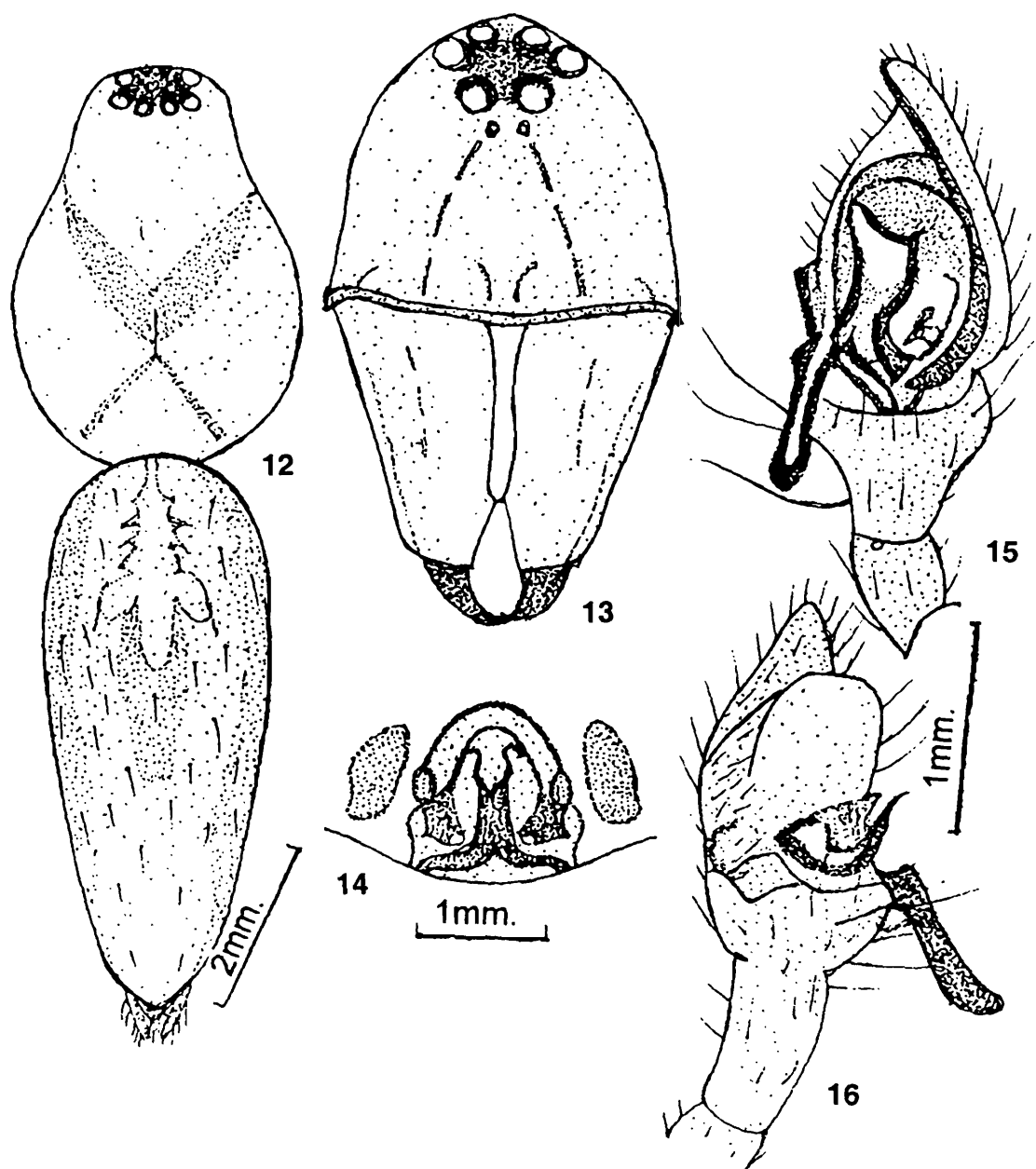
1. *Peucetia akwadaensis* Patel

(Figs. 12-16)

1977. *Peucetia akwadaensis* Patel, *J. Bom. nat. Hist. Soc.*, **74** : 327.

General : Cephalothorax and legs light green, abdomen brightly green. Total length 11.1 mm. Carapace 4.5mm. long, 3.5 mm. wide; abdomen 6.5 mm. long 2.7 mm. wide.

Cephalothorax : Longer than wide, moderately high, clothed with fine hairs and few spines, cephalic region high and broad, separated by a distinct cervical groove, clypeus high with brown discontinuous stripes in front and provided with two black hairs. Centre of thorax provided with a fovea. Eyes of anterior row strongly recurved so as to form two distinct rows of two eyes each as in fig. 12, anterior medians smallest. Posterior row slightly procurved, posterior laterals slightly smaller than posterior medians, base of all eyes encircled by black. Ocular quad longer than broad narrowing posteriorly. Sternum heart-shaped, pointed behind, projected in between the coxae IV, clothed with fine hairs and black spines. Maxillae elongate, scopulate at the anterior end. Chelicerae long, vertical with two long spines nearer to the base,



Figs. 12-16. *Peucetia akwadaensis* Patel : 12. Dorsal view of female, legs omitted; 13. Clypeus; 14. Epigyne; 15. Male palp, ventral view; 16. Male palp, lateral view.

fang groove unarmed with a short curved fang. Legs long, brownish green clothed with hairs and many long spines, bases of all spines with a dark spot, the legs provided with two pectinate and one small median tarsal claws. Legs 1,2,3,4, Tibia I and II with three pairs and III and IV with two pairs of ventral spines; metatarsi of all legs provided with three pairs and one median apical ventral spines. Femora of all legs with three, patella with two, tibia with one dorsal spines and metatarsi provided with three pairs dorsal spines.

Abdomen : Longer than wide, narrowing, bright green in colour with white patches, clothed with the hairs. Dorsum with a middorsal dark coloured broad band outside of which on both the sides a white stripe extends up to the posterior end of abdomen. In between these white stripes symmetrically arranged white patches are present as in fig 12. Ventral side is lighter in colour with dark white bands. Epigyne as seen in fig. 13. Male is similar in colour but little smaller than the female. (Total length 9.5 mm). Male palpal structure as in fig. 15 & 16.

Type specimen : Holotype female, Paratypes two females, Allotype one male.

Type locality : India, Gujarat, Bhavnagar district, 4 Km. south of Bhavnagar. Coll. B. H. Patel, 25.IX.1973. Also collected from Vallabh Vidyanagar. Dist., Kheda, Gujarat, Coll. B. H. Patel, 15. VIII. 1975.

Distribution : India : Gujarat.

Elsewhere : China.

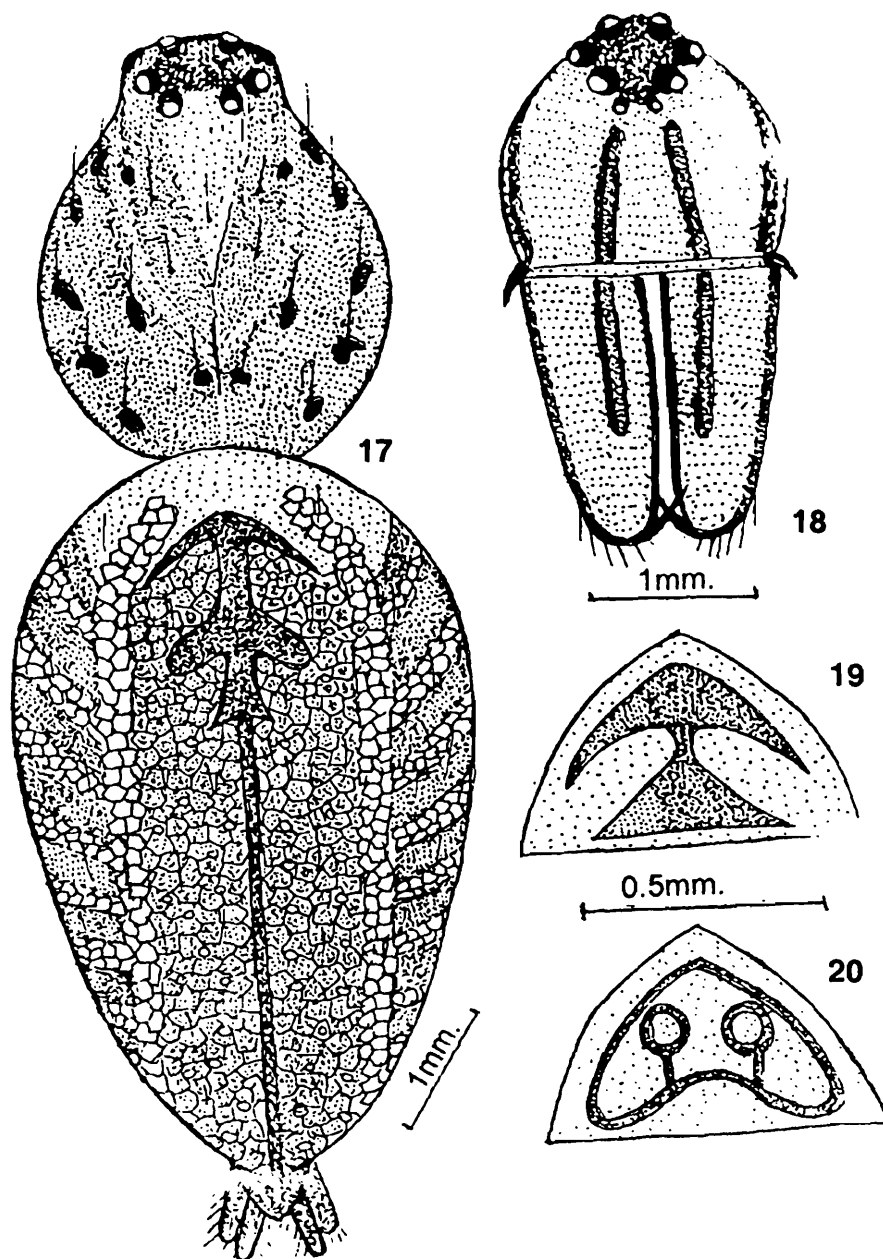
2. *Peucetia ashae* Gajbe & Gajbe (Figs. 17-20)

1999. *Peucetia ashae* Gajbe & Gajbe, *Geobios*, 18(1) : 11.

General : Cephalothorax and legs reddish-brown, abdomen yellowish green. Total length 8.8 mm. Carapace 3.2 mm. long, 2.6 mm. wide; abdomen 5.9 mm. long, 3.4 mm. wide.

Cephalothorax : Longer than wide, narrow in front, provided with five pairs of black spots on lateral sides and three pairs of black spots on the mid-dorsal side as in fig 17. Cephalic region slightly elevated. Anterior row strongly recurved (as seen from in front), posterior row slightly procurved; anterior medians smaller, anterior laterals largest among all eyes; posterior medians and posterior laterals equal in size and equidistant from each other. All eyes encircled by black patch. Clypeus provided with a pair of black bands extending from ocular area to the middle of chelicerae as in fig. 18. Sternum heart shaped, pointed behind, clothed with fine hairs, with a black band in the middle. Legs long and strong with black spots and conspicuous long spines.

Abdomen : Longer than wide, clothed with fine pubescence, mid-dorsally provided with a narrow longitudinal black band extending up to the posterior end of abdomen



Figs. 17-20. *Peucetia ashae* Gajbe & Gajbe : 17. Dorsal view of female, legs omitted; 18. Clypeus; 19. Epigyne; 20. Internal genitalia.

as in fig. 17; mid-dorsal region blackish, lateral sides provided with dark brown patches. Ventral side lighter in colour than dorsal, provided with a blackish band starting from the base of epigastric furrow extending up to the spinnerets. Epigyne as in fig. 19. Internal genitalia as in fig. 20.

Type-specimen : Holotype female, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 5522/18).

Type locality : India, Madhya Pradesh, Jabalpur, New Tilwaraghat bridge. Coll. Pawan Gajbe, 2.IX.1997.

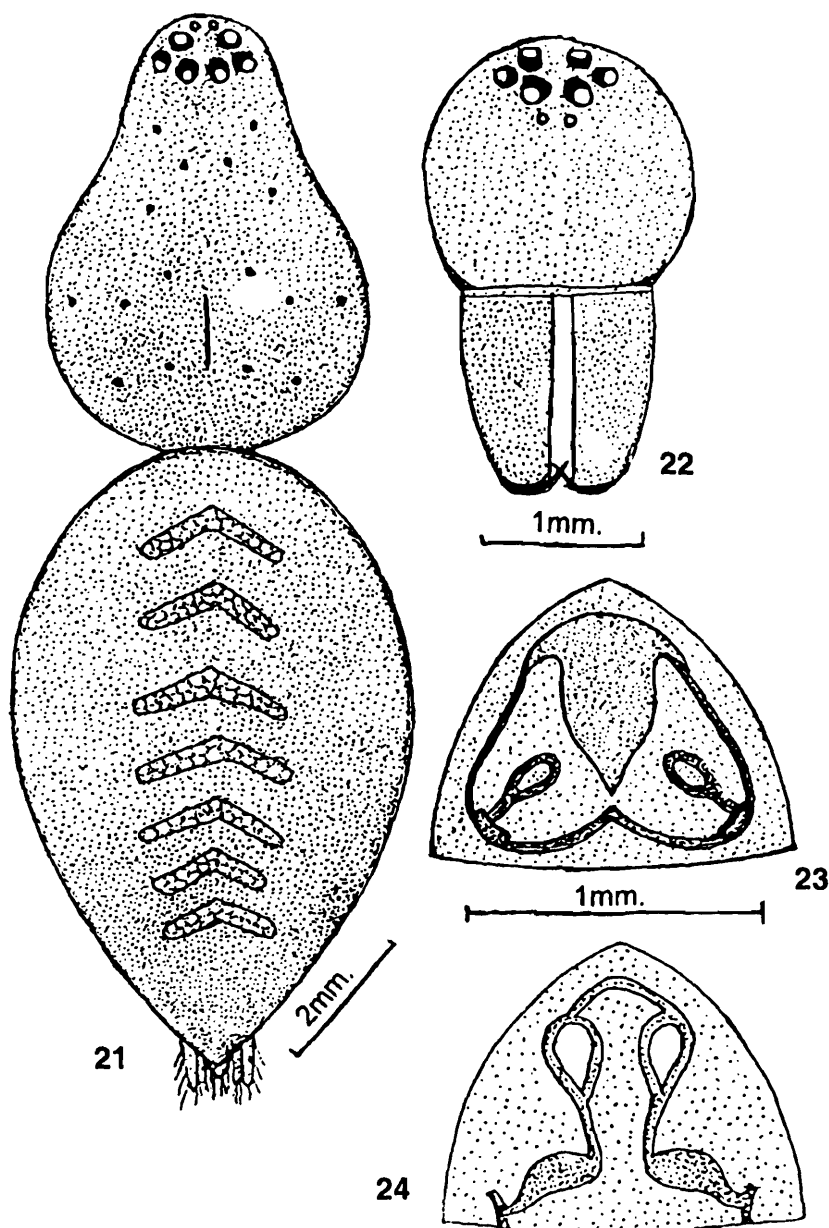
Distribution : India : Madhya Pradesh.

3. *Peucetia biharensis* Gajbe
(Figs. 21-24)

1999. *Peucetia biharensis* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 74.

General : Cephalothorax and legs reddish-green, abdomen yellowish-green. Total length 15.0 mm. Carapace 6.4 mm long, 4.2 mm wide; abdomen 9.0 mm long, 5.0 mm wide.

Cephalothorax : Longer than wide, narrowing in front, clothed with pubescence, thoracic region provided with a fine fovea. Cephalothorax with a high cephalic region. Anterior row of eyes strongly recurved (as seen from in front); medians smaller than



Figs. 21-24. *Peucetia biharensis* Gajbe : **21.** Dorsal view of female, legs omitted; **22.** Clypeus; **23.** Epigyne; **24.** Internal genitalia.

laterals and lateral eyes are largest. Posterior row of eyes slightly procurved, equal in size and equidistance from each other, all eyes encircled by black patch. Clypeus high, vertical, clothed with spines, provided with light brown band starting from anterior median eyes up to the anterior end of clypeus, as in fig 22. Sternum heart-shaped, pointed behind, clothed with hairs and spines. Chelicerae moderately strong, vertical, clothed with hairs, inner and outer margins without tooth. Labium longer than wide, clothed with hairs and spines, anterior margin provided with scopulae. Maxillae longer than wide, nearly double the length of labium, clothed with hairs and spines; anterior margin provided with distinct scopulae. Legs relatively long and strong, clothed with hairs and conspicuous long spines; coxae and femora of all legs provided with roundish deep brown spots.

Abdomen : Longer than wide, nearly elliptical, widest at the middle, narrowing posteriorly, clothed with pubescence, uniform provided with brownish reticulations as in fig. 21. Ventral side slightly lighter than the dorsal, mid-ventrally provided with silvery-white stripe starting from epigastric furrow to the base of spinnerets. Epigyne as in fig 23. Internal genitalia as in fig 24.

Type-specimens : Holotype female. *Paratypes* five females deposited in the National Zoological Collection, Zoological Survey of India Kolkata (Reg. No. 5-189/18 and 5490/18).

Type locality : India, Bihar, Siripur, Saran. Coll. *Mackenzie*. 1913.

Distribution : India : Bihar.

4. *Peucetia choprai* Tikader

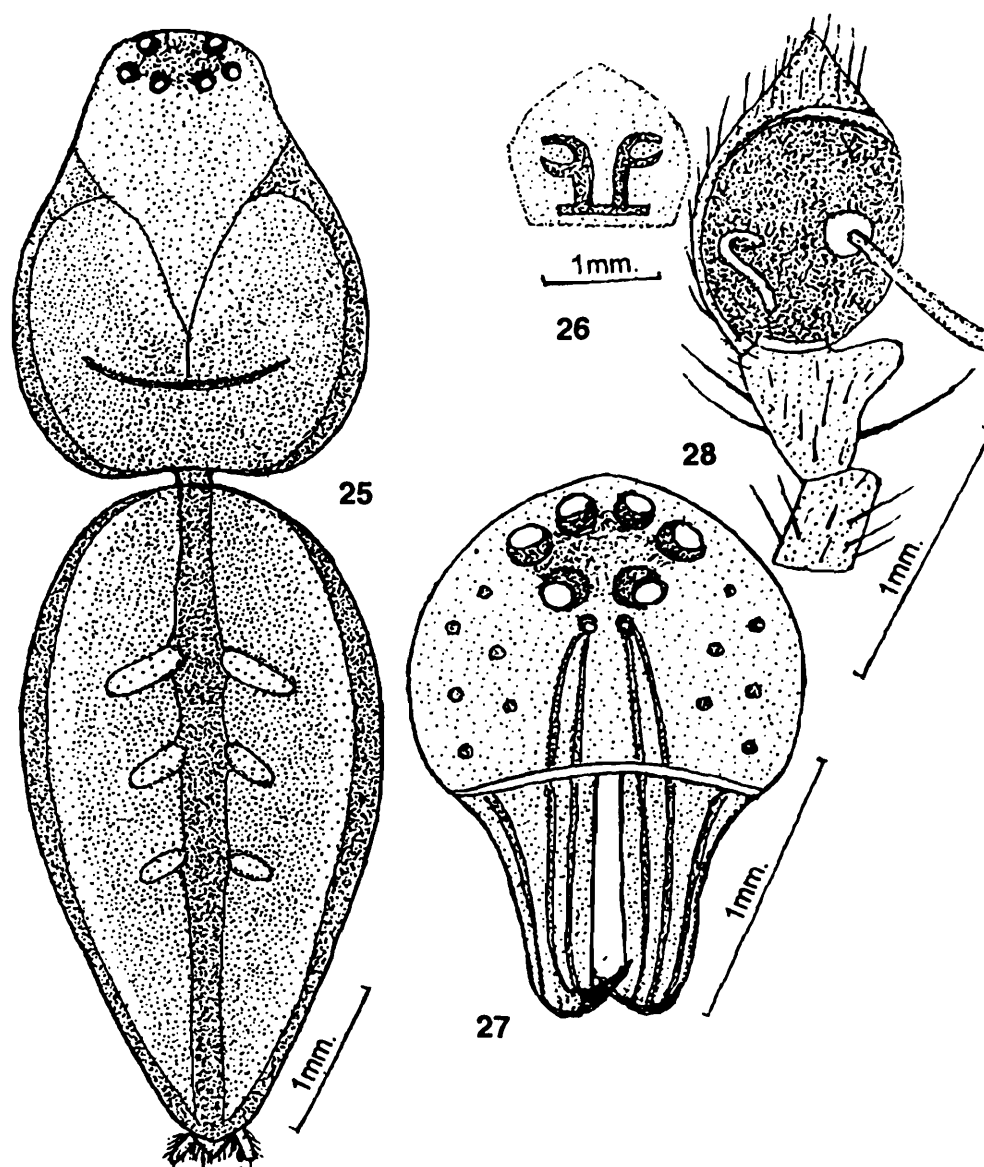
(Figs. 25-28)

1965. *Peucetia choprai* Tikader. *Proc. Indian Acad. Sci.*, **57**(3) : 143.

1999. *Peucetia choprai*: Gajbe, *Rec. zool. Surv. India*, **97**(3) : 68.

General : Cephalothorax brownish green, legs green, abdomen light blue. Total length 7.0 mm. Carapace 2.7 mm long, 2.2 mm wide; abdomen 4.3 mm long, 2.2 mm wide.

Cephalothorax : Longer than wide, moderately convex, slightly broader in front, cephalic region high and eyes situated on the top; centre of thorax provided with a fine fovea. Eyes pearly white, posterior row straight or slightly procurved and eyes equidistant to each other; anterior row short and strongly recurved, anterior median eyes smallest and lateral eyes largest. All eyes encircled by black patch. Clypeus long and broad, provided with two pairs of brown lines extending from anterior median eyes to near the base of fang of chelicerae as in fig 27. Sternum heart-shaped, pointed behind, clothed with hairs and spines.



Figs. 25-28. *Peucetia choprai* Tikader : 25. Dorsal view of female, legs omitted; 26. Epigyne; 27. Clypeus; 28. Male palp, ventral view.

Abdomen : Longer than wide, narrowing behind, clothed with fine hairs, lateral side provided with a longitudinal whitish line extending from base to end and mid-dorsally provided with three pairs of conspicuous whitish spots as in fig. 25. Epigyne as in fig. 26. Male similar in colour, but legs very long; male palp as in fig 28.

Type specimen : *Holotype* female, *Allotype* one male, deposited in the National Zoological Collection. Zoological Survey of India, Kolkata (Reg. No. 3168/18 and 3169/18).

Type locality : India, Maharashtra. Near Pashan Tank, Poona. Coll. *R. N. Chopra*, 22.IX.1961.

Distribution : India : Maharashtra, Madhya Pradesh.

5. *Peucetia elegans* (Blackwall)

1864. *Pasithea elegans* Blackwall, *Ann. Mag. Nat. Hist.*, **14** : 39.

1864. *Peucetia elegans*: Blackwall, *Ann. Mag. Nat. Hist.*, 3rd series **14** : 40.

Length of the female $\frac{1}{2}$ an inch; length of cephalothorax $\frac{1}{3}$, breadth $\frac{5}{20}$, breadth of the abdomen $\frac{1}{10}$; length of an anterior leg $\frac{5}{10}$, length of leg of the third pair $\frac{1}{10}$. The eyes are unequal in size, encircled with pale yellow hair and are disposed in three transverse on a slight black prominence situated at the anterior part of the cephalothorax, high above the frontal margin, two, constituting the anterior row, are much of the smaller of the eight, and near to each other, but not in contact, the two largest from the intermediate row; and the other four constitute the posterior row, which is curved and has its convexity directed backwards; the entire group describes a sector of a circle whose radii converge towards the frontal margin. The cephalothorax is convex, broadly truncated in front, compressed before and somewhat rounded on the sides which are marked with slight furrows converging towards a narrow longitudinal indentation in the medial line, it is of a red-brown colour, and is clothed with broad-red and yellowish hair intermixed and a dark brown spot occurs in each exterior angle of the frontal margin. The falces are long, powerful, subconical including to cuneiform and vertical; the maxillae are enlarged where the palpi are inserted, truncated at the extremity on the outside, and inclined towards the lip, beyond which they extend considerably; the lip is long, somewhat triangular and notched at the apex; the sternum is heart shaped; the legs are long, slender and provided with hair and long spines, the first pair is the longest, than the second and the third pair is the shortest, the tarsi are terminated by three claws; the superior ones are curved and pectinated and the inferior one is inflected near its base and the palpi which are short have a curved pectinated claw at their extremity. These parts are of a pale, red-brown colour, the falces are the darkest and the femur of each leg has two longitudinal brown lines on its interior surface. The abdomen is long, slender, somewhat cylindrical, tapering to the spinnerets and projects slightly over the base of the cephalothorax, it is densely clothed with short hairs and the upper part, which is of a yellow-brown colour, bordered laterally by a red-brown hue, the colour of the underpart is yellowish white streaks, the sexual organs are highly developed nearly circular and of a dark reddish-brown colour that of the branchial opercula being yellowish brown.

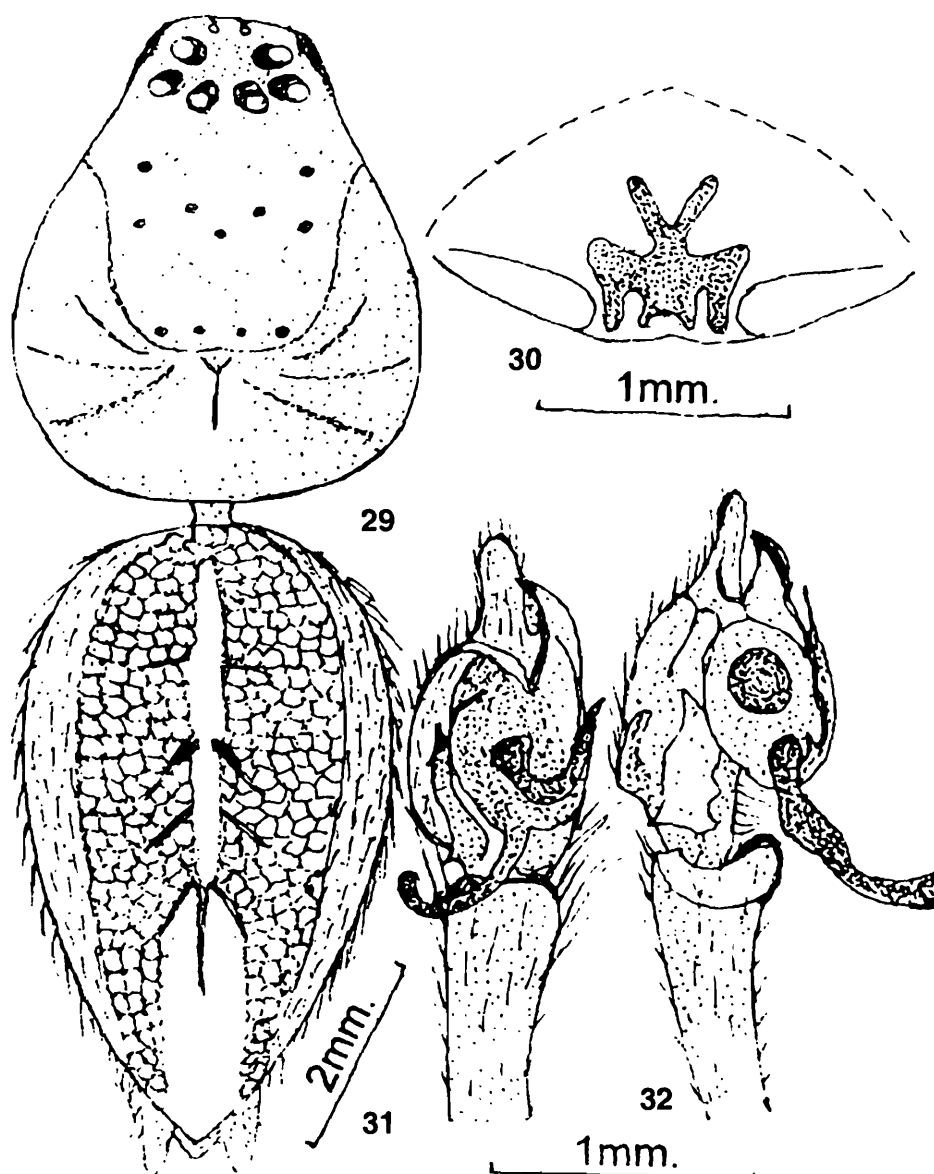
Distribution : India.

6. *Peucetia gaunticta* Saha & Raychaudhuri (Figs. 29-32)

2004. *Peucetia gaunticta* Saha & Raychaudhuri, *J. Bombay. nat. Hist. Soc.*, **101**(2) : 289.

General : Cephalothorax pale green, legs yellow, abdomen green. Total length 12.13 mm. Carapace 5.06 mm. long. 3.53 mm wide; abdomen 6.40 mm long 3.33 mm wide.

Cephalothorax : Longer than wide interiorly narrow with cephalic region tinted with grey, sparingly spotted with brown lines, posteriorly broad; cephalic region raised sloped anteriorly, cephalic furrow deeply impressed; thoracic region medially with longitudinal fovea, radii distinct. Eyes pearly white, each ringed with silky white pubescence, anterior most eyes smallest, anterior rows of eyes recurved, posterior row procurved; ocular area backish. Clypeus with a pair of black bands extending from anterior median eyes to the basal margin of chelicerae. Chelicerae yellow green, robust, elongate, basally broad, sparingly spotted with brown, each with erect, short to long spiny hairs; fangs reddish brown, curved, margins devoid of teeth. Maxillae and labium similar to chelicerae in colour, elongate, former anteriorly broad, later little narrower than base, both anteriorly scopulate. Sternum pale yellow green, heart-shaped with sparse brown spots that include short to long spiny hairs. Legs yellow



Figs. 29-32. *Peucetia gauntietia* Saha & Raychaudhuri : 29. Dorsal view of female, legs omitted; 30. Epigyne; 31. Male palp, ventral view; 32. Male palp, lateral view.

with coxae yellowish green, each femur with brown spots. Legs formula 1243. Male same in colour as female. Legs much longer than female; otherwise as in female, Male palp as in fig. 31 & 32.

Abdomen : Longer than wide, oval, posteriorly narrow decorated as in fig. 29, clothed with short to long silky white hairs and spines, some originating from the brown spots. Ventral side same in colour as dorsal, clothed with silky white hairs. Epigyne as in fig. 30.

Type specimen : Holotype female, allotype male deposited in Department of Zoology, Lady Brabourne College, Kolkata, Reg. No. LBC/DZ/1/01.

Type locality : Midnapore, Digha, West Bengal, India, Coll. S. Saha. 15.IX.2000.

Distribution : India, West Bengal.

7. *Peucetia graminea* Pocock

1900. *Peucetia graminea* Pocock, *Fauna Brit Ind. Arach.*, 25.

General : Cephalothorax green, legs yellow, abdomen grass green in colour. Total length 15 mm. carapace 4.5 mm. long, 4 mm. wide.

Cephalothorax : Longer than wide green, sparsely spotted; clypeus with a very distinct lateral band and the mandibles with distinct anterior dark band. Sternum longer than wide, narrowing behind, provided with a median black band. Male same in colour but smaller in size than female, palpi little shorter, the external appendix longer, mesially geniculate, and apically less abruptly clavate. Legs long and strong, clothed with hairs and spines, densely spotted with black; femora often banded with red below. 1 leg 24 mm. in female but 26 mm. in male.

Abdomen : Longer than wide, narrowing behind, clothed with hairs and spines, distinctly banded above and below. Epigynum with its sclerites posteriorly narrowed and separated by an angular space. Specimens are found on the tops of fruit of *Abutilon* (Malvaceae) and also on the withered leaf of *Jatropha* (Euphorceae) which had attached to it the empty cocoon measuring about 10 mm. in diameter.

Distribution : India : Chennai, Kotagiri, Nilgiri, Gujarat, Bulsar.

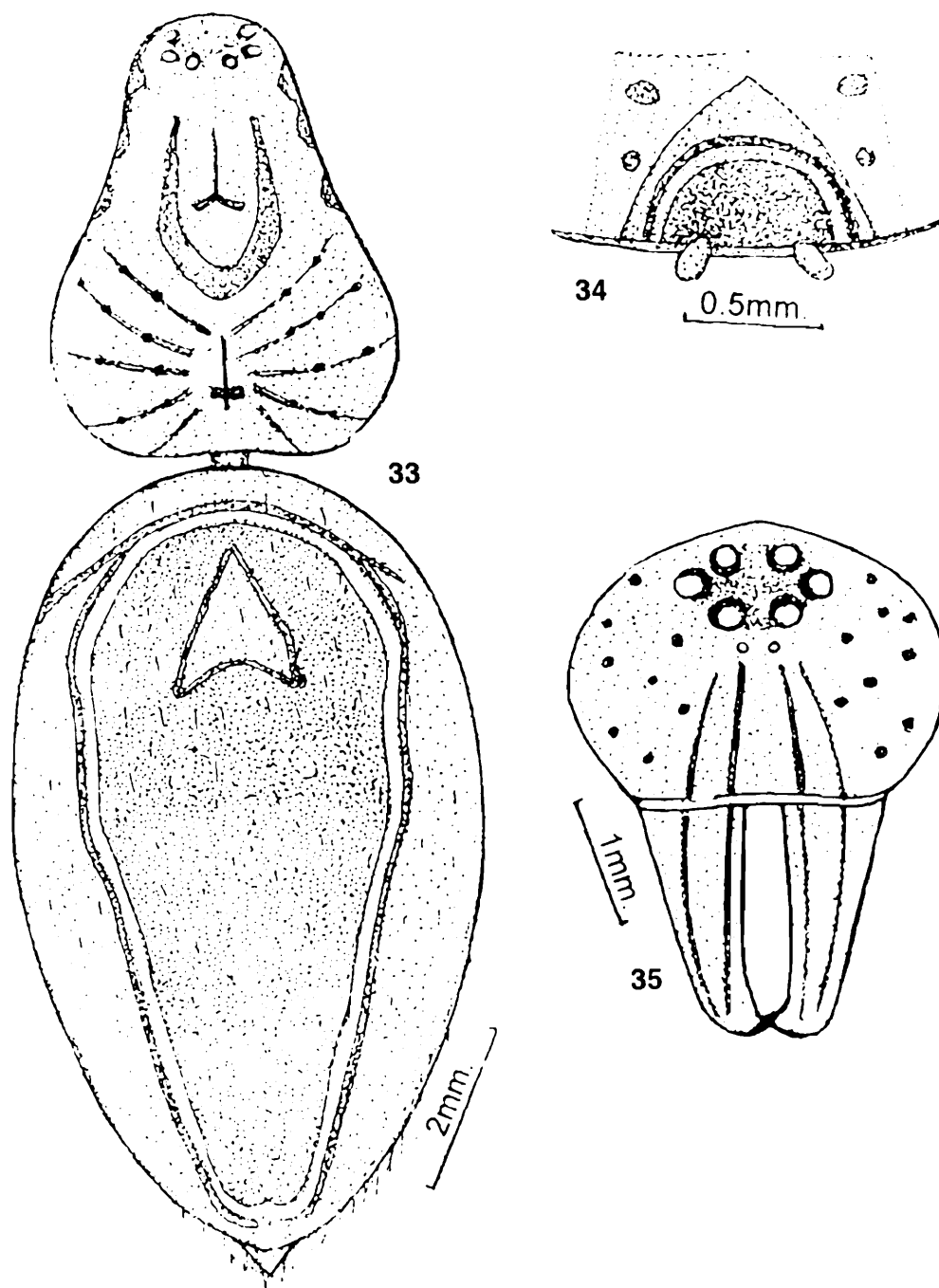
Elsewhere : Pakistan : Karachi.

8. *Peucetia harishankarensis* Biswas (Figs. 33-35)

1975. *Peucetia harishankarensis* Biswas, *Curr. Sci.*, 44(10) : 350.

1999. *Peucetia harishankarensis* : Gajbe, *Rec. zool. Surv. India*. 97(3) : 73.

General : Cephalothorax light green, legs reddish brown, abdomen magenta coloured. Total length 17.0 mm. Carapace 6.0 mm long, 4.5 mm wide; abdomen 11.0 mm long, 5.6 mm wide.



Figs. 33-35. *Peucetia harishankarensis* Biswas : 33. Dorsal view of female, legs omitted; 34. Epigyne; 35. Clypeus.

Cephalothorax : Longer than wide, narrow in front and provided with conspicuous black spots and U-shaped red marking, cephalic region slightly higher. Eyes eight situated on the elevated portion of the cephalic region; all eyes encircled by black patch. Posterior eye row slightly procurved and equidistant; anterior row strongly recurved and anterior medians very small. Clypeus long and broad, provided with a pair of black lines extending from ocular area to the base of the fang of chelicera as in fig 35. Sternum oval clothed with fine hairs. Legs long and strong with conspicuous long spines.

Abdomen : Longer than wide, narrowing behind, clothed with hairs, mid-dorsally provided with a longitudinally broad olive-green band extending from the base to the end of abdomen as in fig. 33. Ventral side lighter than dorsal, Epigyne as in fig. 34.

Type specimen : Holotype female, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 3669/18).

Type locality : India, Orissa, Harishankar, Bolandgir. Coll. J. K. Sen 3.xi.1973.

Distribution : India : Orissa.

9. *Peucetia jabalpurensis* Gajbe & Gajbe
(Figs. 36-39)

1999. *Peucetia jabalpurensis* Gajbe & Gajbe, *Geobios*, 18(1) : 9.

General : Cephalothorax and legs brownish-grey, abdomen whitish green. Total length 10.0 mm. Carapace 3.6 mm long, 3.1 mm wide; abdomen 6.3 mm long, 3.8 mm wide.

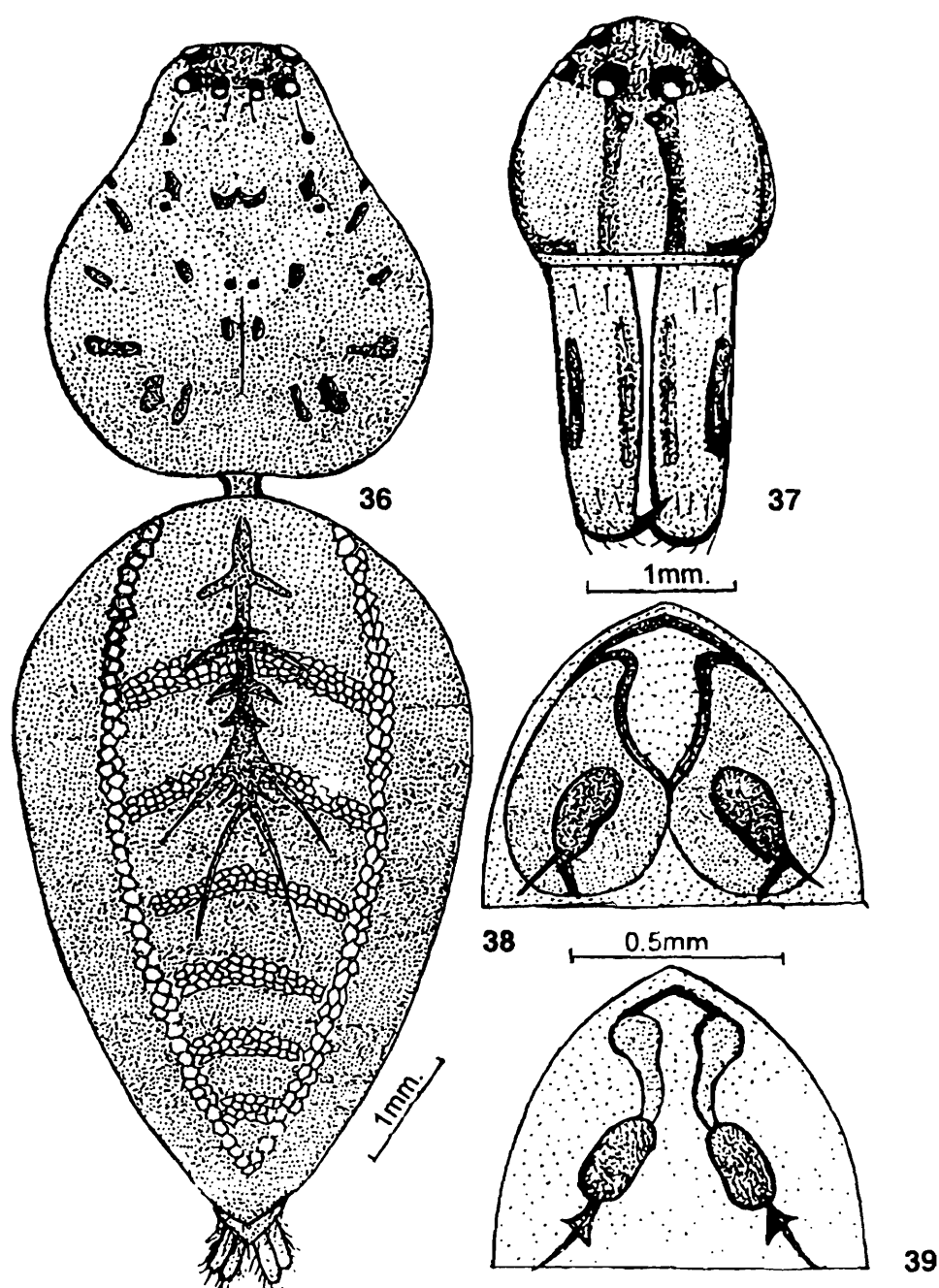
Cephalothorax : Longer than wide, broad in front, clothed with pubescence and spine like hairs, cephalic region high, lateral sides of thoracic region provided with six pairs of dark brown spots, a V-shaped whitish grey band present in mid thoracic region below which there is sharp fovea. Anterior row of eyes strongly recurved (as seen from in front), anterior medians very small, anterior laterals larger in size than all eyes. Posterior row of eyes slightly procurved, eyes equal in size and equidistant to each other. All eyes encircled by a black patch. Clypeus long, vertical and with one pair of light brown bands as in fig 37. Sternum heart shaped, pointed behind, clothed with hairs and spines. Chelicerae moderately strong, clothed with hairs and spines. Labium and maxillae longer than wide, clothed with spines, anterior margin of both provided with distinct scopulae. Legs long and strong, clothed with hairs and conspicuous spines; coxae and femora of all legs with many small dark brown spots. tibiae with few large dark brown spots.

Abdomen : Longer than wide, broadest in the anterior region, clothed with hairs and spines, provided mid-dorsally with a dark brown patch as in fig. 36. Ventral side slightly lighter than dorsal, without any patch. Epigyne as in fig. 38. Internal genitalia as in fig. 39.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata. (Reg. No. 5521/18).

Type locality : India, Madhya Pradesh, Jabalpur, MR-4 Road, near New Adarsh Colony. Coll. Pawan Gajbe, 15.VIII.1997.

Distribution : India, Madhya Pradesh.



Figs. 36-39. *Peucetia Jabalpurensis* Gajbe & Gajbe : 36. Dorsal view of female, legs omitted; 37. Clypeus; 38. Epigyne; 39. Internal genitalia.

10. *Peucetia ketani* Gajbe
(Figs. 40-42)

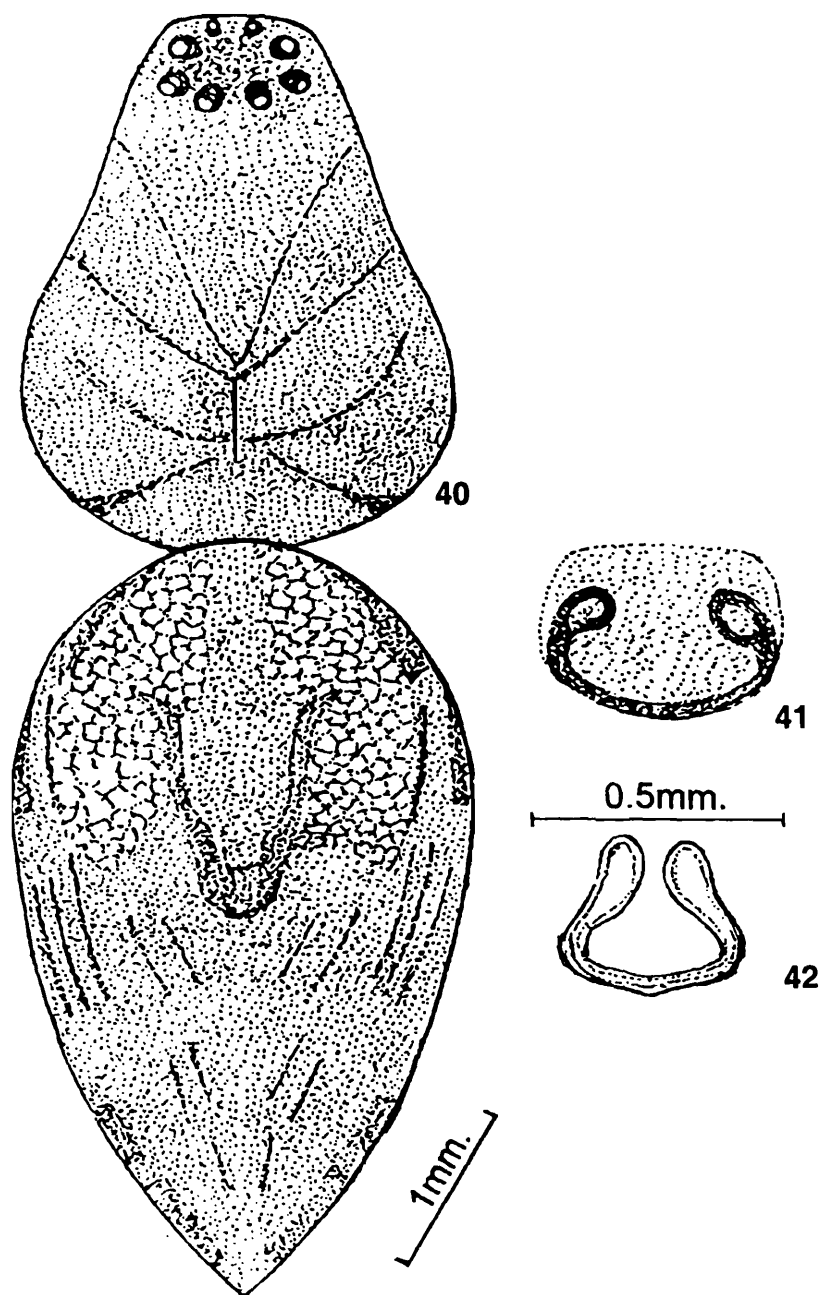
1992. *Peucetia ketani* Gajbe, *Rec. zool. Surv. India*, **91**(3-4) : 390.

1999. *Peucetia ketani* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 65.

General : Cephalothorax and legs brownish-green, abdomen dirty chalk white. Total length 7.3 mm. Carapace 3.2 mm long, 2.5 mm wide; abdomen 4.1 mm long, 2.6 mm wide.

Cephalothorax : Longer than wide, moderately high, clothed with pubescence and few short spines, provided with conspicuous short fovea on posterior half. Anterior row of eyes strongly recurved, with anterior medians smaller than laterals and with eyes equally spaced; posterior row of eyes slightly procurved with eyes equidistant from each other and equal in size. Clypeus long. Chelicerae moderately strong. Labium and maxillae longer than wide and provided with scopulae. Sternum oval, pointed behind clothed with white hairs.

Abdomen : Longer than wide, narrowing behind, clothed with hairs and some spines, provided with some black patches and mid-dorsally with silvery-white patches as in fig. 40. Ventral side same in colour as dorsal but provided with a deep brown



Figs. 40-42. *Peucetia ketani* Gajbe : 40. Dorsal view of female, legs omitted; 41. Epigyne; 42. Internal genitalia.

longitudinal stripe extending from epigastric furrow to base of spinnerets. Epigyne as in fig. 41. Internal genitalia as in fig. 42.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5433/18).

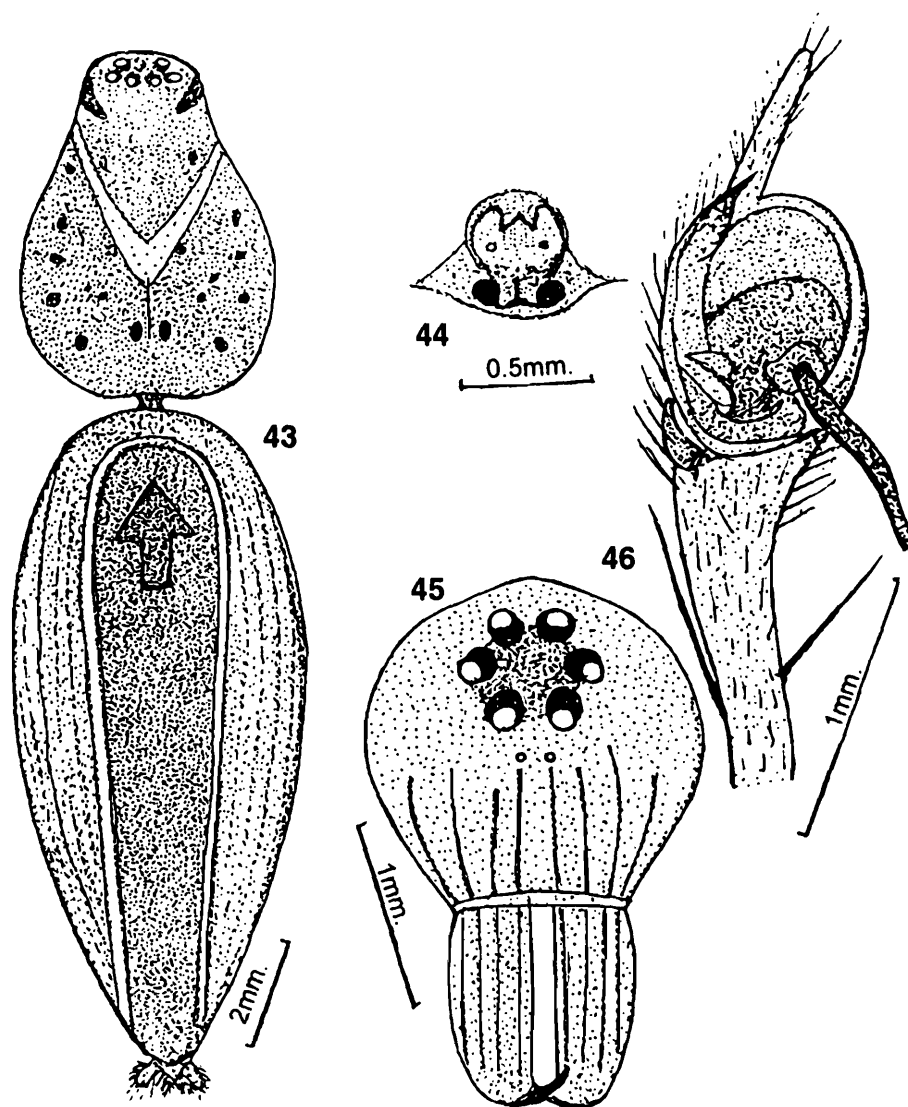
Type locality : India, Uttar Pradesh, Golakpur near Lucknow. Coll. P. L. Tandon, 14.xi.1976.

Distribution : India : Uttar Pradesh.

11. *Peucetia latikae* Tikader
(Figs. 43-46)

1970. *Peucetia latikae* Tikader, *Rec. zool. Surv. India*. 64(1-4) : 80.

1999. *Peucetia latikae* : Gajbe, *Rec. zool. Surv. India*, 97(3) : 71.



Figs. 43-46. *Peucetia latikae* Tikader : 43. Dorsal view of female, legs omitted; 44. Epigyne; 45. Clypeus; 46. Male palp, ventral view.

General : Cephalothorax, legs and abdomen green. Total length 20.9 mm. Carapace 7.0 mm long, 5.0 mm wide; abdomen 13.0 mm long, 6.0 mm wide.

Cephalothorax : Longer than wide, moderately high, provided with conspicuous black spots and cephalic region high and broad, clothed with a few spines, centre provided with a sharp fovea. Posterior row of eyes slightly procurved and equidistant; base of each eye encircled by black patch. Anterior row of eyes strongly recurved and anterior medians very small. Clypeus long and broad, provided with four black lines extending from ocular area to near the base of fangs of chelicerae as in fig. 45. Sternum oval, pointed behind, clothed with spiny hairs. Legs long and strong, clothed with conspicuous black spots and long black spines.

Abdomen : Long, narrowing behind, clothed with fine hairs, mid-dorsally with a longitudinal broad brown stripe and this band bordered by whitish line as in fig. 43. Ventral side lighter in colour than dorsal. Epigyne as in fig. 44. Male almost like female, male palp as in fig. 46.

Type specimen : Holotype female, Allotype one male, deposited in the National Zoological Collection, Zoological survey of India, Kolkata (Reg. No. 3171/18 and 3172/18).

Type locality : India, West Sikkim, Manjithar. Coll. B. K. Tikader, 22.IX.1959.

Distribution : India : Sikkim, Manjithar; Meghalaya, Shillong, Gujarat.

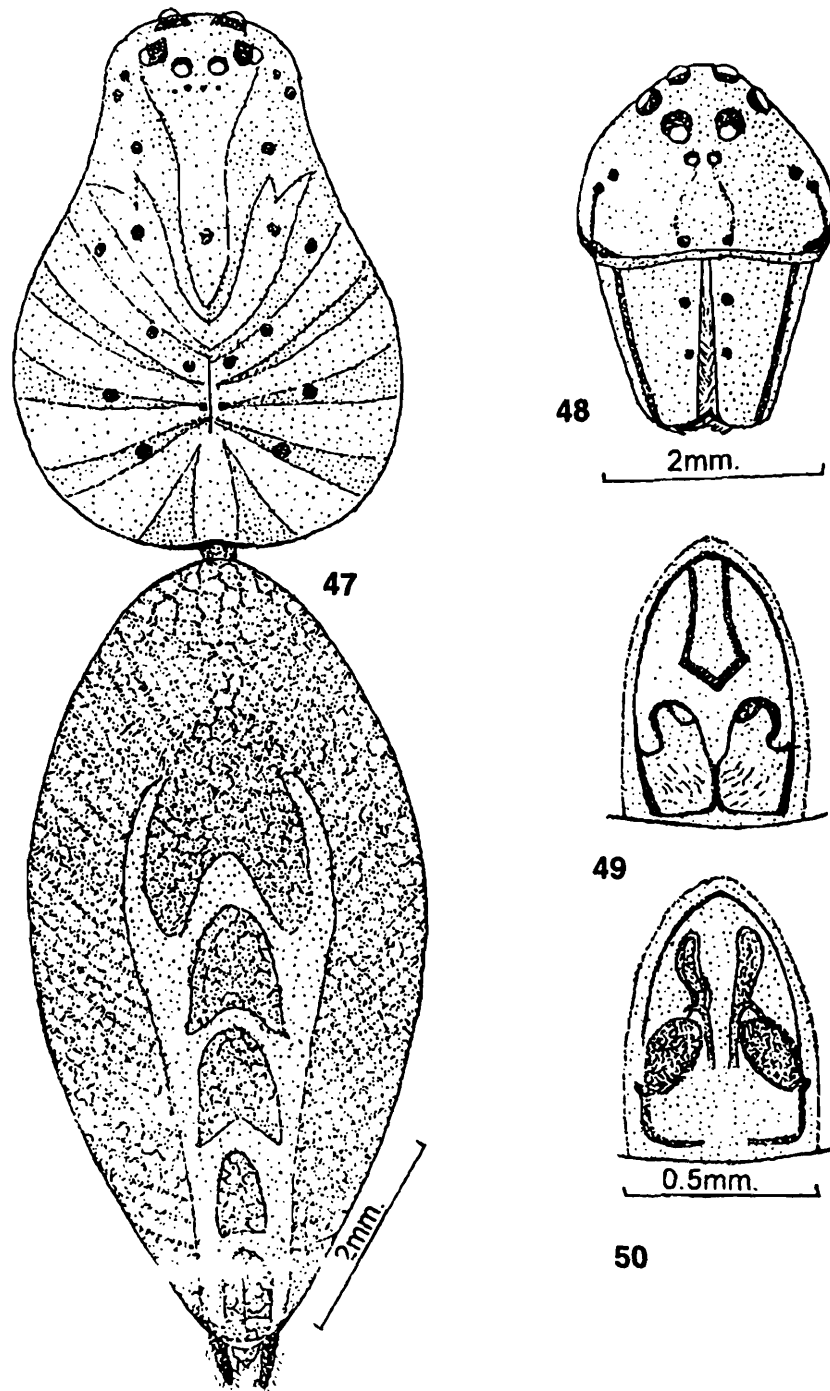
Elsewhere : China.

12. *Peucetia pawani* Gajbe (Figs. 47-50)

1999. *Peucetia pawani* Gajbe, *Rec. zool. Surv. India*, 97(3) : 75.

General : Cephalothorax yellowish green, legs light brownish green, abdomen light green. Total length 12.8 mm. Carapace 4.8 mm long, 3.6 mm wide; abdomen 7.8 mm long, 3.8 mm wide.

Cephalothorax : Longer than wide, broad in front, clothed with pubescence, cephalic region high, thoracic region provided with conspicuous fovea from which light reddish lines radiate to the lateral sides, cephalothorax provided with black spots, as in fig. 47. Anterior row of eyes strongly recurved (as seen from in front), medians very small, anterior medians larger in size than all the other eyes and equally spaced. Posterior row of eyes slightly procurved, equal in size and equidistant from each other. All eyes encircled by black patch. Clypeus long, vertical, provided with light stripe starting from anterior median eyes to the base of clypeus as in fig 48. Sternum heart shaped, pointed behind, clothed with hairs and spines and provided with black spots. Chelicerae moderately strong, vertical, clothed with hairs and spines, inner and outer margins without teeth. Labium and maxillae longer than wide, maxillae nearly double the length of labium, clothed with hairs and spines, labium provided



Figs. 47-50. *Peucetia pawani* Gajbe : 47. Dorsal view of female, legs omitted; 48. Clypeus; 49. Epigyne; 50. Internal genitalia.

with black spots, anterior margins of both provided with distinct scopulae. Legs long and strong, clothed with hairs and conspicuous spines, coxae and femora of all legs provided with black roundish spots.

Abdomen : Longer than wide; nearly elliptical; widest at the middle, clothed with small spine-like hairs and provided mid-dorsally with five brownish patches and laterally with brownish patch with reticulations as in fig. 47. Ventral side lighter than dorsal, midventrally provided with broad longitudinal reticulate black stripe

starting from the epigastric furrow to the base of spinnerets. Epigyne as in fig. 49. Internal genitalia as in fig. 50.

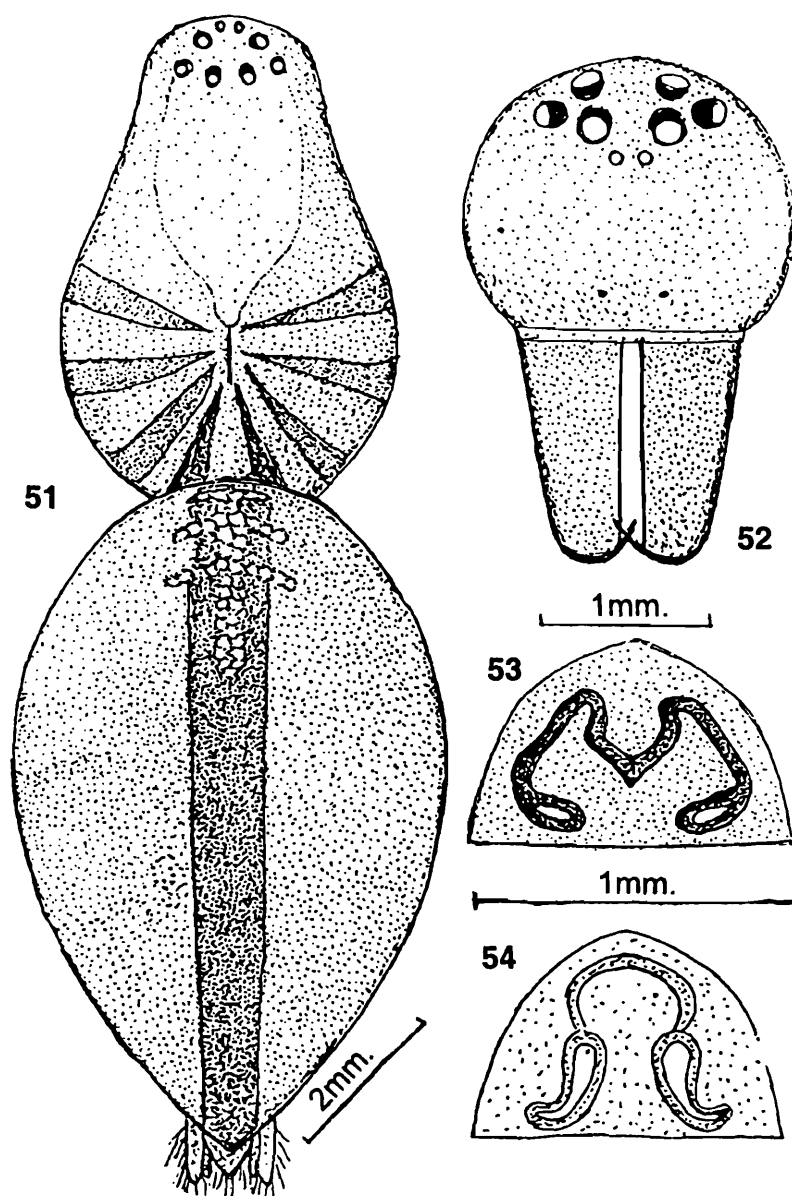
Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5492/18).

Type locality : India, Chhatisgarh, Porpa village near Jagdalpur, Bastar district. Coll. U. A. Gajbe, 31.xiii.1983.

Distribution : India : Chhatisgarh.

13. *Peucetia punjabensis* Gajbe
(Figs. 51-54)

1999. *Peucetia punjabensis* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 70.



Figs. 51-54. *Peucetia punjabensis* Gajbe : **51.** Dorsal view of female, legs omitted; **52.** Clypeus; **53.** Epigyne; **54.** Internal genitalia.

General : Cephalothorax and legs yellowish-green, abdomen green. Total length 14.8 mm. Carapace 6.2 mm long, 4.2 mm wide; abdomen 8.8 mm long, 6.2 mm wide.

Cephalothorax : Longer than wide, broad in front, clothed with pubescence and spine like hairs, cephalic region high, thoracic region provided with conspicuous long fovea with light reddish bands radiating to the lateral sides and whitish bands to the posterior lateral eyes. Anterior row of eyes strongly recurved (as seen from in front), anterior medians very small, anterior laterals largest. Posterior row of eyes slightly procurved, equal in size and equidistant to each other. All eyes encircled by black patch. Clypeus long, vertical and without any band as in fig. 52. Sternum heart shaped, pointed behind, clothed with hairs and spines. Chelicerae moderately strong, vertical clothed with hairs and spines, inner and outer margins without teeth. Labium and maxillae longer than wide, maxillae nearly double the length of labium, clothed with hairs and spines, anterior margin of both provided with distinct scopulae. Legs long and strong, clothed with hairs and conspicuous spines, coxae and femora of all legs without roundish spot.

Abdomen : Longer than wide, nearly widest at the middle, clothed with small spine-like hairs, provided mid-dorsally with greenish patch extending to the anal tubercle as in fig. 51. Ventral side slightly lighter than dorsal, mid ventrally provided with broad longitudinal green patch and laterally with silvery-white patches starting from epigastric furrow to the base of spinnerets. Epigyne as in fig. 53. Internal genitalia as in fig. 54.

Type specimen : Holotype female. Deposited in the National Zoological Collection Zoological Survey of India. Kolkata (Reg. No. 5491/18).

Type locality : India, Punjab, Khewra Salt Range. Coll. S. L. Hora 30.IX.1930.

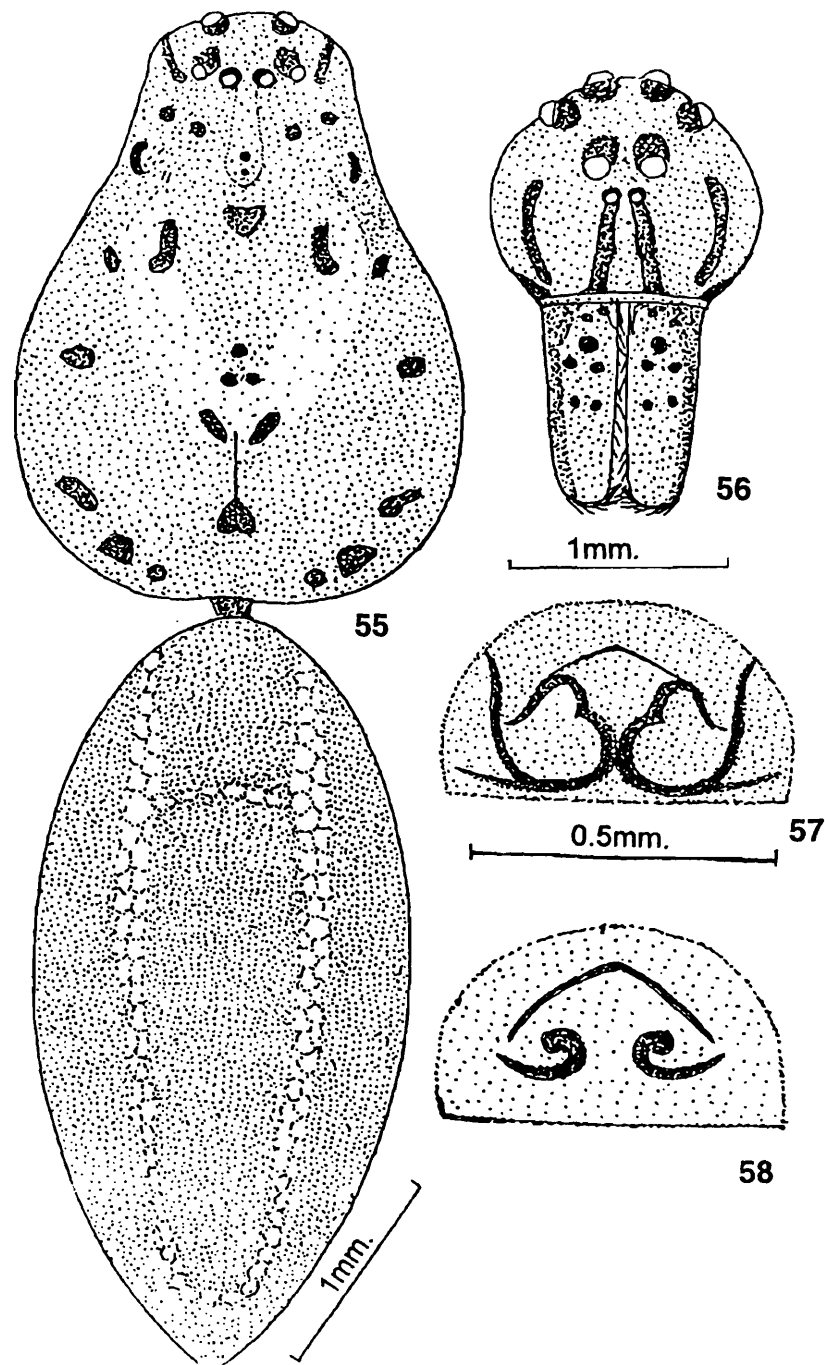
Distribution : India : Punjab.

14. *Peucetia rajani* Gajbe (Figs. 55-58)

1999. *Peucetia rajani* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 63.

General : Cephalothorax and legs light yellowish green, abdomen green. Total length 6.5 mm. Carapace 2.8 mm long, 2.2 mm wide; abdomen 3.6 mm long, 1.8 mm wide.

Cephalothorax : Longer than wide, narrow in front, clothed with pubescence, middle of thoracic region provided with sharp fovea, with black spots all around the cephalothorax as in fig 55. Eyes situated on the cephalic region in a compact group which is slightly high, anterior lateral eyes largest of all the eyes. Anterior row of eyes strongly recurved (as seen from in front), medians smaller than the laterals and nearly equidistant to each other, posterior row slightly procurved, eyes equal in size and equidistant to each other. All eyes encircled by a black patch. Clypeus long,



Figs. 55-58. *Peucetia rajani* Gajbe : 55. Dorsal view of female, legs omitted; 56. Clypeus; 57. Epigyne; 58. Internal genitalia.

vertical, provided with four lateral deep brown stripes, two starting from the anterior median eyes and two lateral stripes as in fig 56. Sternum hart shaped, pointed behind, clothed with hairs and spines, provided with black roundish spots. Chelicerae moderately strong, vertical, olive-green, clothed with hairs and spines, anterior margin provided with scopulae. Maxillae longer than wide, nearly double the length of labium, olive green, clothed with hairs and spines, anterior margin provided with scopulae. Legs relatively long and strong clothed with hairs and conspicuous spines, coxae and femora of all legs provided with black round spots.

Abdomen : Longer than wide, nearly elliptical, clothed with pubescence, provided with two lateral and one transverse silvery-white stripe extending from anterior end to the posterior end as in fig. 55. Ventral side lighter than the dorsal; laterally provided with two silvery-white stripes extending from the epigastric furrow to the base of spinnerets. Epigyne as in fig. 57. Internal genitalia as in fig. 58.

Type specimen : Holotype female, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 5494/18).

Type-locality : India, Chhatisgarh, Hatkachora village near Jagdalpur, Bastar district. Coll. U. A. Gajbe, 2.I.1984.

Distribution : India : Chattisgarh.

15. *Peucetia viridana* stoliczka

1869. *Peucetia viridana* Stoliczka, *J. Asia. Soc. Bengal*, **28** : 220.

1884. *Peucetia viridana* : Simon *Ann. Mus. Genova*, **20** : 365.

1900. *Peucetia viridana*: Pocock, *Fauna Brit. India, Arachnida*; 255.

General : Cephalothorax green, legs yellow, abdomen rich grass green in colour. Total length 15 mm. Carapace 5 mm long, 4.0 mm wide.

Cephalothorax : Longer than wide, green sparsely spotted; clypeus with a pair of dark lines running from the anterior eyes; maxillae with a few spots at the base of the setal pores towards the inner side in front and some times with one or two forming an imperfect line externally, legs yellow, densely spotted with black; femora often banded with red below, 1 leg 30 mm. Male same in colour, palpi very long; femur arched, tibia about twice as long as patella; external appendix of organ abruptly clavate at tip and armed near the middle with distinct conical tubercle. 1 leg 36 mm.

Abdomen : Longer than wide, narrowing behind, clothed with hairs and spines, distinctly banded above and below. Epigynum with its piriform sclerites transversely truncated behind.

Specimens are found on a green leaf eating a caterpillar on the large white flower of *Datura*, on *Jatropha*, and on the fruits of *Abutilon indicum*. The cocoon was covered by a compact tissue of silk, through which they are easily seen. Number of eggs present was fifty and the diameter of the egg mass 10 mm, for it is circular in outline. Cocoon also found attached to the leaf of *Cleome viscosa* and guarded by the mother.

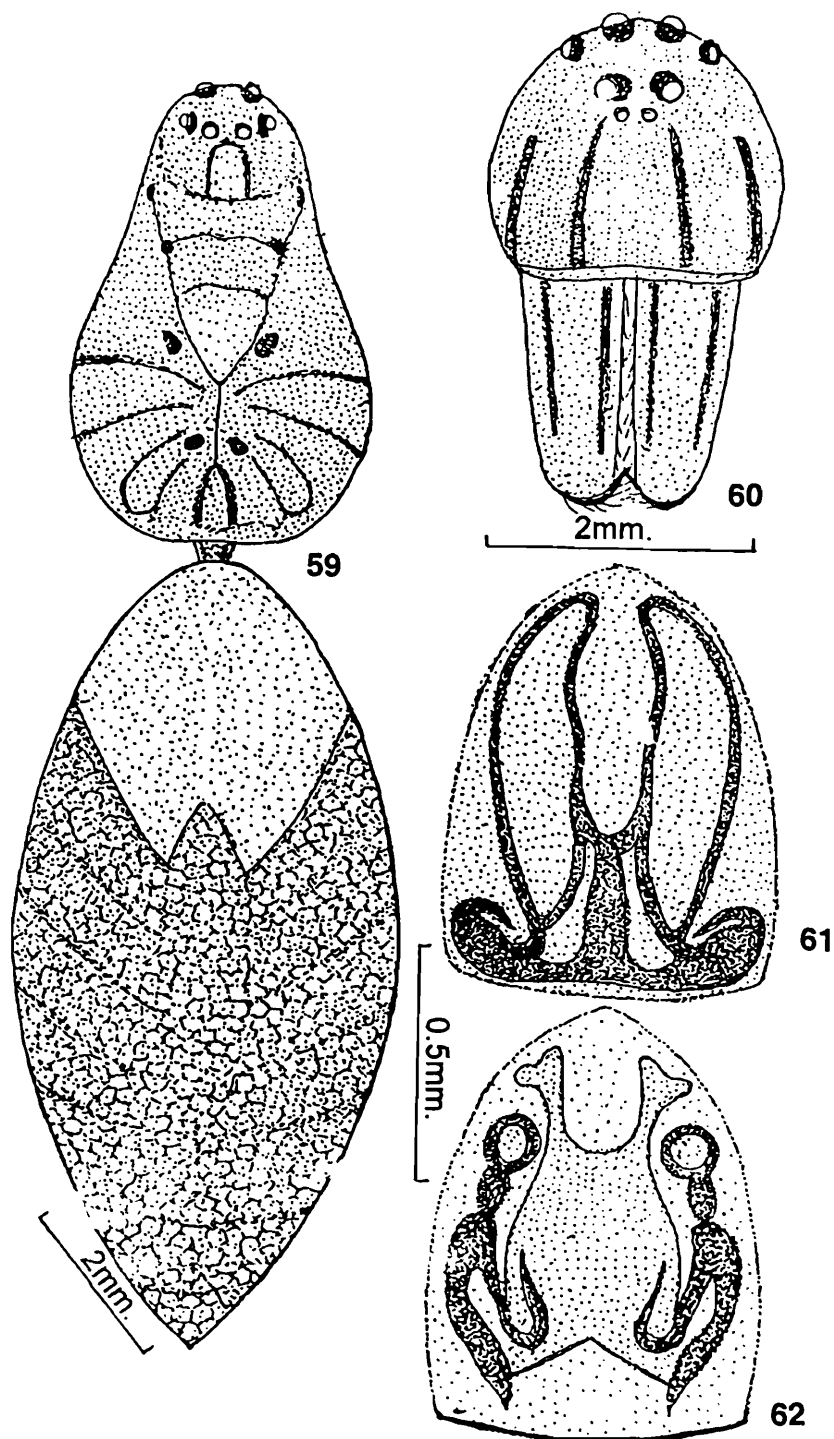
Distribution : India, Chennai, Pondichery, Chingleput, Travancore, Ootacamund, Kolkata.

Elsewhere : Sri Lanka.

16. *Peucetia viveki* Gajbe
(Figs. 59-62)

1999. *Peucetia viveki* Gajbe, *Rec. zool. Surv. India*. **97**(3) : 77.

General : Cephalothorax and legs light yellowish green, abdomen light brownish green. Total length 15.2 mm. Carapace 5.4 mm. long, 3.7 mm wide; abdomen 9.6 mm long, 2.4 mm wide.



Figs. 59-62. *Peucetia viveki* Gajbe : 59. Dorsal view of female, legs omitted; 60. Clypeus; 61. Epigyne; 62. Internal genitalia.

Cephalothorax : Longer than wide, narrowing in front, clothed with pubescence, thoracic region provided with a fine fovea from which radiate black bands towards the lateral sides. Cephalothorax provided with eight black roundish spots as in fig. 59. Eyes compact on the high cephalic region; anterior lateral eyes largest of all eyes. Anterior row of eyes strongly recurved (as seen from in front), anterior medians smaller than the laterals and equally spaced. Posterior row of eyes slightly procurved, equal in size and equidistant from each other. All eyes encircled by black patch. Clypeus high, vertical clothed with spines, provided with deep brown stripes up to the anterior end of clypeus as in fig. 61. Sternum heart-shaped, pointed behind, clothed with hairs and spines, middorsally provided with broad longitudinal deep brown stripe. Chelicerae moderately strong, vertical, clothed with hairs, reddish green in colour, provided with four longitudinal brown stripes, inner and outer margins without teeth. Labium longer than wide, deep brown, clothed with hairs and spine like short hairs, anterior margin provided with distinct scopulae. Maxillae longer than wide, nearly double the length of labium, light yellowish green and clothed with hairs and some spines, anterior margin provided with distinct scopulae. Legs relatively very long and strong, clothed with hairs and conspicuous long spines, coxae and femora of all legs provided with roundish black spots.

Abdomen : Nearly elliptical, widest at the middle, narrowing posteriorly clothed with pubescence, provided anteriorly with silvery white band and posteriorly with brownish reticulations as in fig. 59. Ventral side slightly lighter than dorsal. Epigyme as in fig. 61. Internal genitalia as in fig. 62.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5493/18).

Type locality : India : Madhya Pradesh, Omkareshwar, Ujjain district, Coll. V. V Rao, 22.XI.1969.

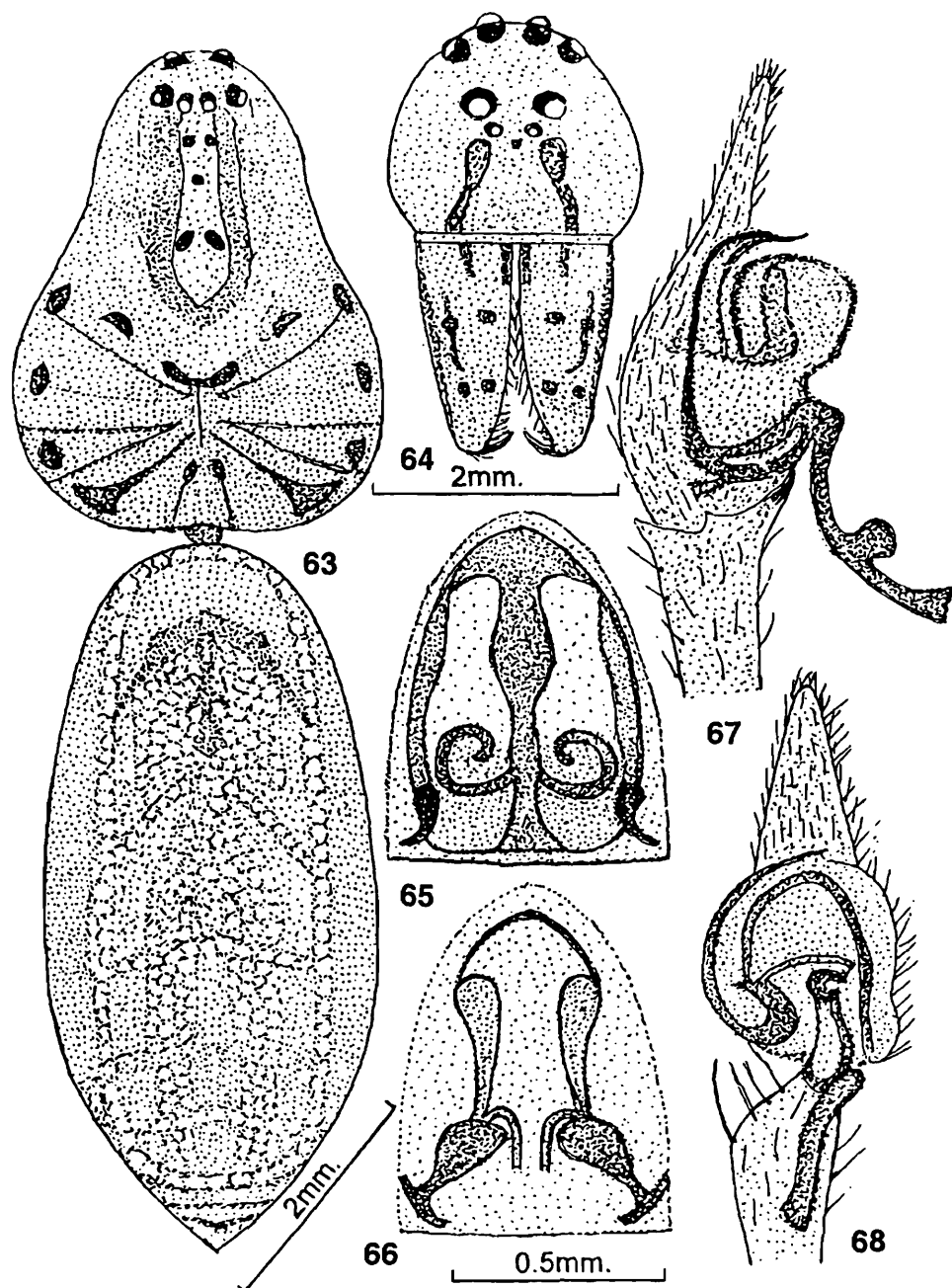
Distribution : India : Madhya Pradesh.

17. *Peucetia yogeshi* Gajbe (Figs. 63-68)

1999. *Peucetia yogeshi* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 66.

General : Cephalothorax and legs light yellowish-green, abdomen light green. Total length 10.2 mm. Carapace 4.0 mm long, 3.0 mm wide; abdomen 6.0 mm long, 2.4 mm wide.

Cephalothorax : Longer than wide, narrowing in front clothed with pubescence, middle of thoracic region provided with sharp fovea with radiating light brown lines towards the sides; cephalothorax provided with black spots as in fig. 63. Eyes encircled by black patch, anterior lateral eyes strongly recurved (as seen from in front), medians smaller than the laterals and nearly equidistant to each other. Clypeus long, vertical, clothed with some spines and provided with two deep brown lines (or stripes) extending



Figs. 63-68. *Peucetia yogeshi* Gajbe : **63.** Dorsal view of female, legs omitted; **64.** Clypeus; **65.** Epigyne; **66.** Internal genitalia; **67.** Male palp, lateral view; **68.** Male palp, ventral view.

just below the anterior median eyes to the anterior end of clypeus as in fig 64. Sternum heart-shaped, pointed behind, green in colour, clothed with hairs and spines. Maxillae longer than wide, nearly double the length of labium, light yellowish-green, clothed with spine like hairs, anterior margin provided with conspicuous scopulae. Legs relatively long and strong, clothed with hairs and conspicuous spines, coxae and femora of all legs provided with small black spots. Male same in colour as female but smaller than the female, male palp as in fig. 67 & 68.

Abdomen : Nearly elliptical, narrowing behind, mid-dorsally provided with light brown reticulatiions as in fig. 63. Ventral side lighter than the dorsal and mid-

ventrally provided with a broad stripe of black reticulations. Epigyne as in fig. 65. Internal genitalia as in fig. 66.

Type specimern : Holotype female, Paratype five females, allotype one male deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5495/18 to 5496/18).

Type localtiy : India, Chhattisgarh, Chhotedonger village, Narayanpur Tehsil, Bastar district. Coll. U. A. Gajbe, 26. XII. 1983.

Distribution : India : Chattisgarh.

Genus II. *Oxyopes* Latreille

1804. *Oxyopes* Latreille, *Nouv. Dict. Hist. Nat.*, **24** : 135.
1887. *Oxyopes* : Thorell, *Ann. Mus. Genova*, **5**(25) : 325.
1898. *Oxyopes* : Simon, *Hist. Nat. Araign.*, : 379.
1901. *Oxyopes* : Pocock, *J. Bombay, nat. Hist. Soc.*, **13** : 482.
1929. *Oxyopes* : Chamberlin, *Ent. News*, **40** : 17-20.
1950. *Oxyopes* : Sherriffs, *Proc. Zool. Soc. Lond.*, **120**(4) : 651.
1964. *Oxyopes* : Brady, *Bull. Mus. Comp. zool.*, **131**(13) : 447.
1970. *Oxyopes* : Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 69.
1996. *Oxyopes* : Biswas, V et. Al. *Act arachnol*, **45**(1) : 53.
1999. *Oxyopes* : Gajbe, *Rec. zool. Surv. India*, **9793** : 32.
2003. *Oxyopes* : Saha & Ray chaudhari, *Entomon*, **28**(4) : 321.

Type species : *Oxyopes heterophthalmus* Latreille

Distribution : Europe, Africa, Asia, Australia and America.

Characters : Cephalothorax is variable in shape, high and convex, the cephalic region sometimes slightly elevated narrowing sharply at the thoracic declivity and along the sides. The face is almost vertical. Eyes black, anterior median eyes and posterior lateral eyes subequal in size, larger than the anterior median eyes, anterior lateral eyes largest.

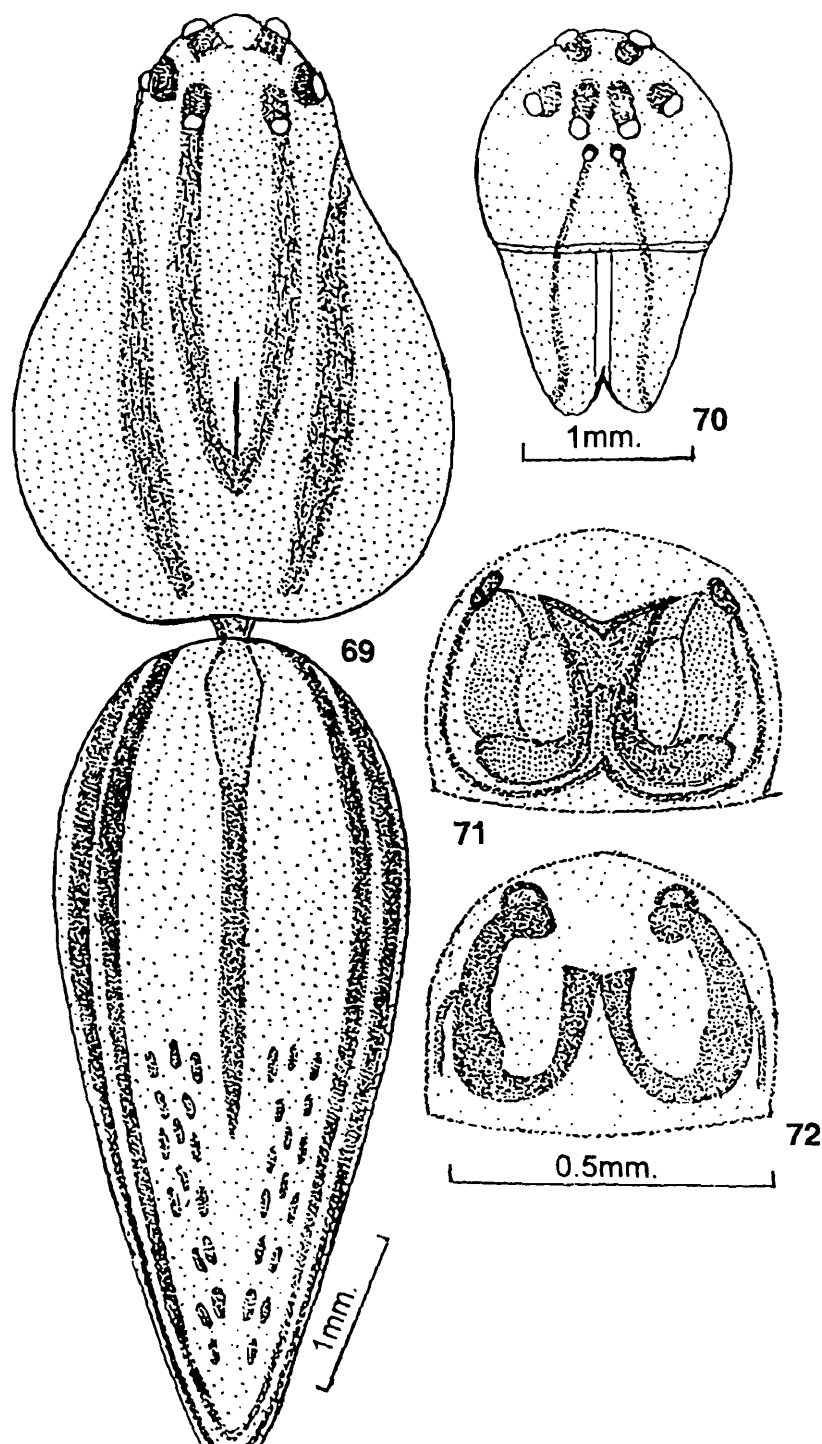
The chelicerae are very long and narrowing at the distal end, and the fangs are short. The chelicerai margins are short and armed with one tooth on each side of the anterior and posterior margins. Labium longer than wide. Maxillae exceeding the length of labium and converging in front of it.

Abdomen elongate, widest immediately behind base and narrowing to spinnerets. Legs very long in comparison to body length and unequal in relative length. Legs with numerous short spines. Patella-tibia longer than femora or metatarsi; except on leg IV in some cases.

18. *Oxyopes ashae* Gajbe
(Figs. 69-72)

1999. *Oxyopes ashae* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 33.

General : Cephalothorax and legs light yellowish green, abdomen silvery white. Total length 8.9 mm. Carapace 3.6 mm long, 2.7 mm wide; abdomen 4.2 mm long, 2.1 mm wide.



Figs. 69-72. *Oxyopes ashae* Gajbe : 69. Dorsal view of female, legs omitted; 70. Clypeus; 71. Epigyne; 72. Internal genitalia.

Cephalothorax : Longer than wide, convex, cephalic region slightly high, clothed with pubescence, centre of thorax provided with a conspicuous fovea. Carapace provided with longitudinal deep brown bands, as in fig 69. Anterior row of eyes strongly procurved (as seen from in front), medians smaller than the laterals and equally spaced; posterior row of eyes strongly procurved, equal in size and nearly equidistant from each other. All eyes encircled by a black patch. Clypeus, long, vertical provided with black bands extending from anterior median eyes to the base of fangs of chelicerae as in fig 70. Sternum heart-shaped, pointed behind, clothed with hairs and some spines, rebordered and near coxae provided with black patches. Chelicerae long, vertical, light yellow, inner margin provided with a minute tooth and outer margin with two dissimilar teeth. Labium and maxillae longer than wide, anterior margin brownish-green provided with distinct scopulae. Legs long and strong, clothed with hairs and conspicuous spines, uniform in colour without any patches.

Abdomen : Longer than wide, narrowing behind, clothed with pubescence, middorsally provided with longitudinal red stripe starting from anterior end and up to just middle of abdomen, laterally provided with two longitudinal black bands extending from anterior end to the posterior end just above the spinnerets, mid-dorsal half with small black patches as in fig. 69. Ventral side pale yellow but middle provided with conspicuous longitudinal broad stripe starting from epigastric furrow to the base of spinnerets. Epigyne as in fig. 71. Internal genitalia as in fig. 72.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5500/18).

Type locality : India, Chhattisgarh, Bastar district Gudari village near Orchha, Coll. U. A Gajbe, 27.xii.1983.

Distribution : India : Chhattisgarh.

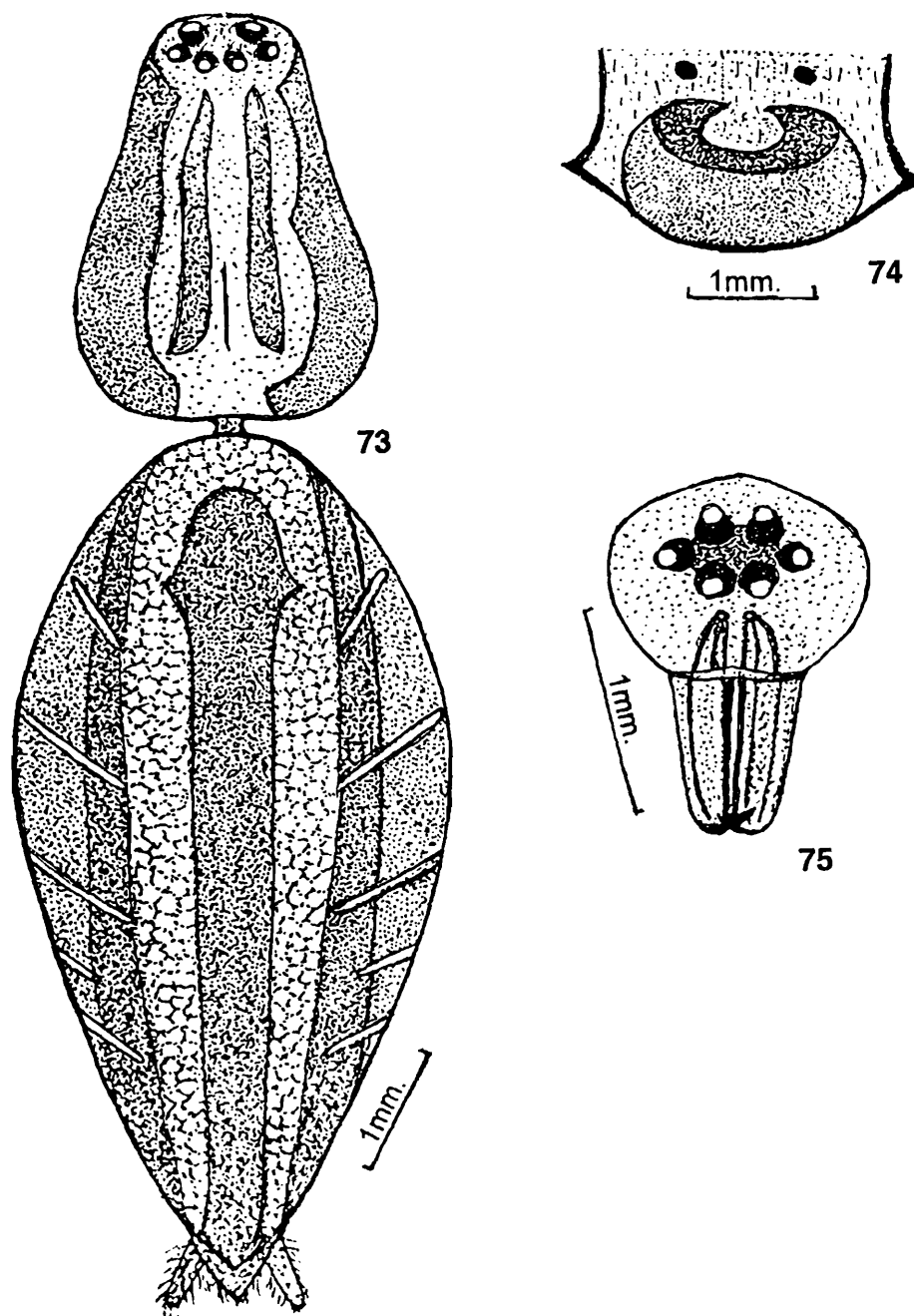
19. *Oxyopes assamensis* Tikader (Figs. 73-75)

1969. *Oxyopes assumensis* Tikader, *Oriental Ins.*, 3(1) : 34.

1999. *Oxyopes assamensis* : Gajbe, *Rec. zool. Surv. India*, 97(3) : 50.

General : Cephalothorax and abdomen brownish-green. Total length 10.0 mm. Carapace 3.2 mm long, 2.2 mm wide; abdomen 6.7 mm long 3.4 mm. wide.

Cephalothorax : Longer than wide, narrowing in front, cephalic region slightly high, clothed with black minute spatulae hairs and some spines; centre of thorax with fovea. Eyes in two rows, encircled with black patch; posterior row slightly procurved, posterior medians closer to each other than to adjacent laterals; anterior row strongly recurved and laterals closer to each other than to anterior medians; anterior median eyes smallest. Clypeus long and broad, with three conspicuous black lines extending from anterior median eyes to near the base of fang of chelicerae as in fig. 75. Sternum



Figs. 73-75. *Oxyopes assamensis* Tikader : 73. Dorsal view of female, legs omitted; 74. Epigyne; 75. Clypeus.

heart-shaped, pointed behind, clothed with fine hairs and spines. Legs long and strong, clothed with hairs and conspicuous long spines, ventral side of all femora with a conspicuous longitudinal black line; femora I and II with three pairs of robust ventral spines.

Abdomen : Longer than wide, narrowing behind, clothed with small black spatulate hairs. Mid-dorsally with a broad brown stripe extending from base to end of abdomen. Lateral sides decorated with black and white longitudinal patches as in fig. 73. Ventral side with a broad conspicuous black longitudinal stripe extending from epigastric fold near the base of spinnerets. Epigyne as in fig. 74.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 2325/18).

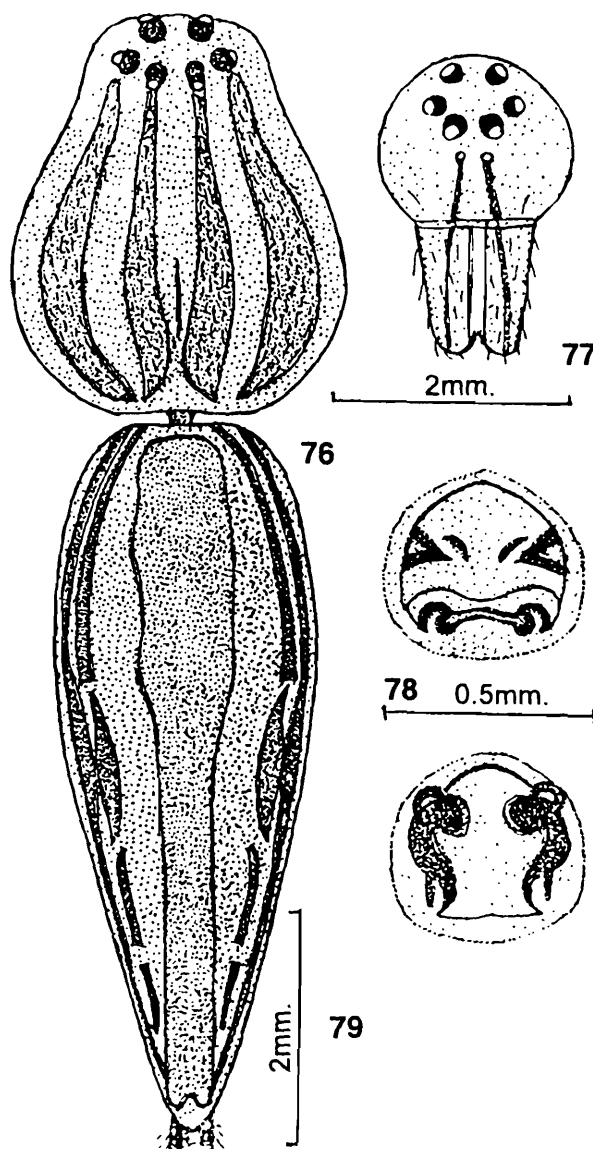
Type locality : India, Assam, Elephant falls. Coll. S. Biswas, 27.VI.1996.

Distribution : India ; Meghalaya, Arunachal Pradesh.

20. *Oxyopes bharatae* Gajbe
(Figs. 76-79)

1999. *Oxyopes bharatae* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 44.

General : Cephalothorax and legs light yellowish-green, abdomen dirty chalk white. Total 10.0 mm. Carapace 3.2 mm long, 2.8 mm wide; abdomen 6.7 mm long, 2.4 mm wide.



Figs. 76-79. *Oxyopes bharatae* Gajbe : **76.** Dorsal view of female, legs omitted; **77.** Clypeus; **78.** Epigyne, **79.** Internal genitalia.

Cephalothorax : Longer than wide, convex, cephalic region slightly higher and broader, middle of thoracic region provided with a conspicuous fovea, clothed with pubescence and provided with four longitudinal brown stripes extending from posterior median and lateral eyes to the posterior end of carapace, Anterior row of eyes strongly recurved (as seen from in front), medians much smaller than the laterals and nearly equidistant to each other. Posterior row of eyes procurved, equal in size, equidistant to each other. All eyes encircled by a black patch. Clypeus long, vertical, clothed with fine spine-like hairs, provided with a black stripe extending from anterior median eyes to the base of fangs of chelicerae as in fig 77. Sternum heart shaped, pointed behind, light yellowish-green, clothed with hairs and some spines. Chelicerae vertical, long, light yellowish-green, clothed with hairs and spine like hairs, inner margin provided with one tooth and outer margin with two teeth each. Labium and maxillae longer than wide, dark yellowish-green, clothed with hairs and spines, anterior margin provided with conspicuous scopulae. Legs long and strong clothed with hairs and conspicuous long spines. Femora of all legs laterally provided with black line; yellowish green, clothed with hairs and spines, anterior margin provided with conspicuous scopulae. Legs long and strong, clothed with hairs and conspicuous long spines.

Abdomen : Longer than wide, narrowing posteriorly, clothed with pubescence, middorsally provided with broad light brownish green stripe extending from anterior end to posterior end and laterally with black patches, as in fig. 76. Ventral side lighter than the dorsal, mid ventrally provided with longitudinal broad brown stripe having the margins black in colour starting from the epigastric furrow to the base of spinnerets. Epigyne as in fig. 78. Internal genitalia as in fig. 79.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5502/18).

Type locality : India, Madhya Pradesh, Madan Mahal, Jabalpur. Coll. U. A. Gajbe, 13.xii.1983.

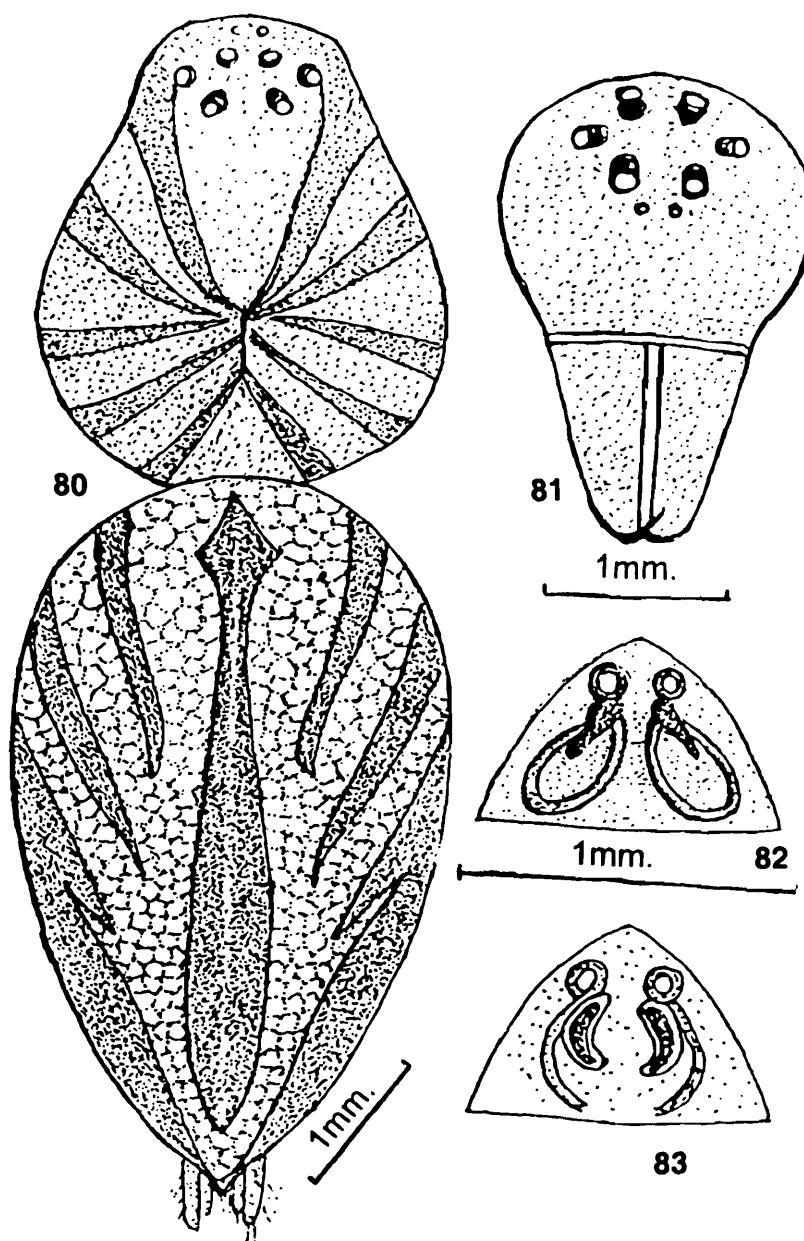
Distribution : India : Madhya Pradesh, Bihar.

21. *Oxyopes biharensis* Gajbe (Figs. 80-83)

1999. *Oxyopes biharensis* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 41.

General : Cephalothorax and legs light reddish-green, abdomen brownish-green. Total length 8.4 mm. Carapace 3.4 mm long, 2.9 mm wide; abdomen 5.0 mm long, 3.0 mm wide.

Cephalothorax : Longer than wide, convex, cephalic region slightly high and broad, middle of thoracic region provided with a conspicuous fovea, clothed with pubescence from which light reddish bands radiates to lateral sides. Anterior row of eyes strongly recurved (as seen from in front), medians much smaller than the laterals and nearly equidistant to each other. Posterior row of eyes procurved, equal in size and equidistant



Figs. 80-83. *Oxyopes biharensis* Gajbe : 80. Dorsal view of female, legs omitted; 81. Clypeus; 82. Epigyne; 83. Internal genitalia.

to each other. All eyes encircled by a black patch. Clypeus long, vertical, clothed with fine hairs, without any band, as in fig. 81. Sternum heart shaped, pointed behind, light yellowish-green, clothed with hairs and some spines. Chelicerae vertical, long, reddish green, clothed with hairs and some spine-like hairs, inner and outer margins provided with one tooth each. Labium and maxillae longer than wide, reddish-green, clothed with hairs and spines, anterior margin provided with conspicuous scopulae. Legs long and strong, clothed with hairs and long spines, femora of all legs laterally without black line.

Abdomen : Longer than wide, narrowing posteriorly, widest at the middle, clothed with pubescence, provided with deep brown stripe starting from anterior end to

posterior end; laterally with deep brown patches, interspersed with patches of silvery white as in fig. 80. Ventral side lighter than the dorsal, mid-ventrally provided with longitudinally broad brown stripe starting from epigastric furrow to the base of spinnerets. Epigyne as in fig. 82. Internal genitalia as in fig. 83.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5497/18).

Type-locality : India, Bihar, Kierpur, Purneah district. Coll. C. Paiva, 8.IX.1915.

Distribution : India : Bihar.

22. *Oxyopes birmanicus* Thorell

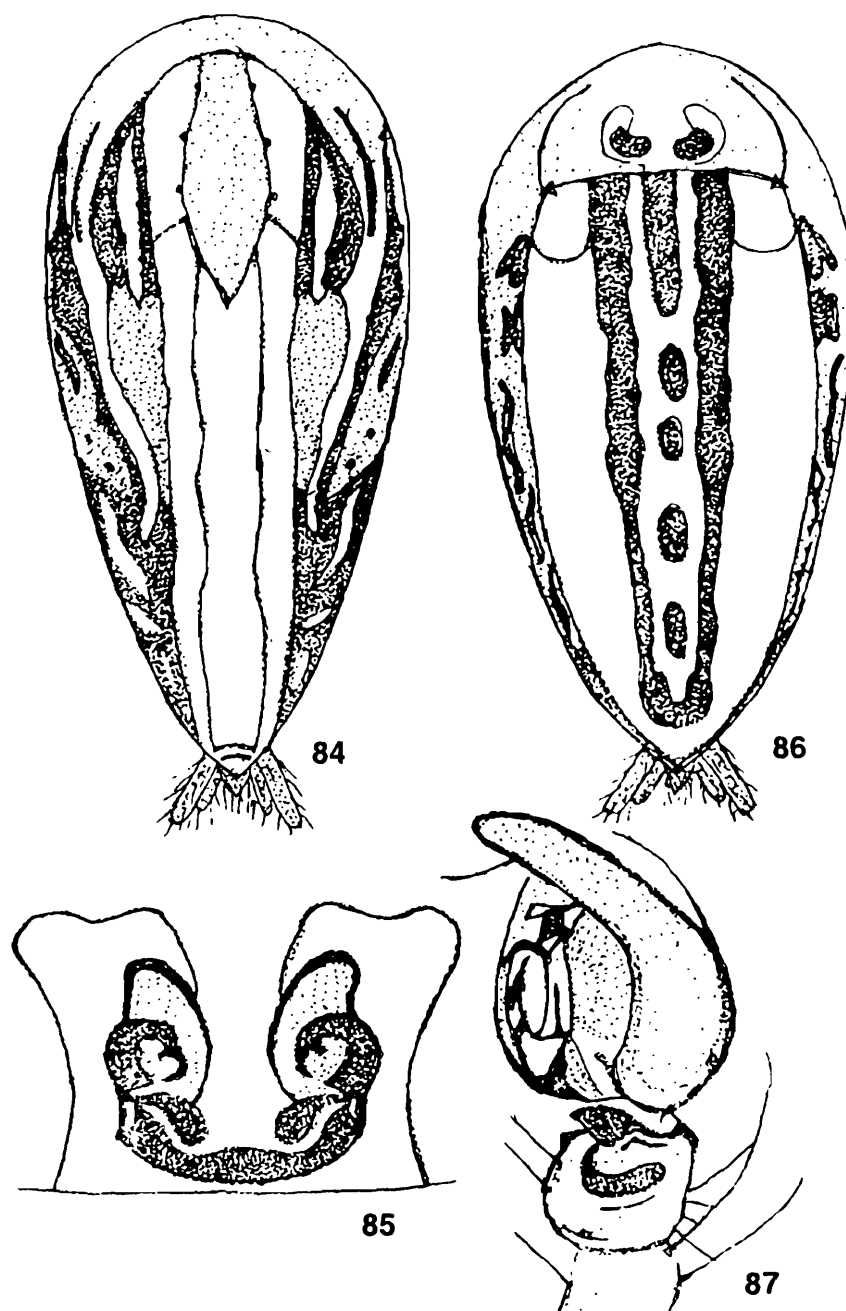
(Figs. 84-87)

1887. *Oxyopes birmanicus* Thorell, *Primo Sag. Sui. Rag. Birm.*, : 325.

1951. *O. birmanicus*: Sherriffs, *Proc. Zool. Soc. Lond.*, 120(4) : 654.

Male+Female, *Cephalothorax* : Front almost half thoracic part in width, fawn, marked in to darker and lighter striae, as in *O. Javanus*, radiating outwards from the brownish fovea even to the outer border of the mandibles; ocular area fawn; eyes two fine black lines from anterior median down clypeus into mandibles; clypeus deep fawn at the outer angles a dark brown spot on each side; chelicerae (mandibles) deep fawn, fangs and ends white and hairy; little longer than patella of legs I and at base same width as femora I; labium fawn with darker upper edge; maxillary lobes fawn with distinct pad of hairs at tip of each; sternum fawn darker at sides, few scattered long blackish hairs; abdomen male long, narrow, sublanceolate, basally fawn with lighter and darker patches, anteriorly four distinctly lighter crescentic areas, last pair with two black dots along the middle line to the tip of the body, lower half with three or four sloping narrow black lines on each sides of the mid line; fawn above the epigastric fold, the rest light to fawn except for two silvery white areas below it down the central line; spinnerets fawn with outer edges dark; abdomen female dorsal as in fig. 84. top end olive, down middle line a darker pointed long oval areas with six black dots, followed by a light olive band to the tip, on each side of these bands a goldenish pearly stripe along its whole length, on outside of these a fawn region showing three distinctly whitish longitudinal sloping curved lines-the central one biggest and longest-laterally continued to the sides in smaller black lines as in fig. 86; light-olive above epigastric fold below which a central broad dark olive-fawn V, with broken median black line almost to the spinnerets, outside this V band on each side a brown goldenish pearly area with irregular black marks on dark ground laterally; epigyne as in fig. 85. Legs long, fawn with double deep black lines on undersides of in order of length of cephalothorax; male palp as in fig. 87.

Type-measurements : Male body, long 10 mm; cephalothorax long 4.25 mm, wide little over 3 mm, front wide almost 1.5 mm; abdomen long 5.5 mm, wide almost 2 mm.



Figs. 84-87. *Oxyopes birmanicus* Thorell : 84. Dorsal view of abdomen of female; 85. Epigyne; 86. Ventral view of abdomen of female; 87. Male palp, lateral view.

Legs I over 20 mm, II 17.5 mm, III 14.5 mm, IV. 16.5 mm, patella + tibia IV. 5.25 mm. Female body long 14.5; cephalothorax long almost 5, wide, 3.5, front little over 1.5; abdomen long 9.5 wide 4 mm. Legs I 22.25, II 20.75, III 16.75, IV 20, patella + tibia IV 6.25 mm.

Type locality : Burma, Tharrawaddy (E. W Oates, 1896).

Distribution : India.

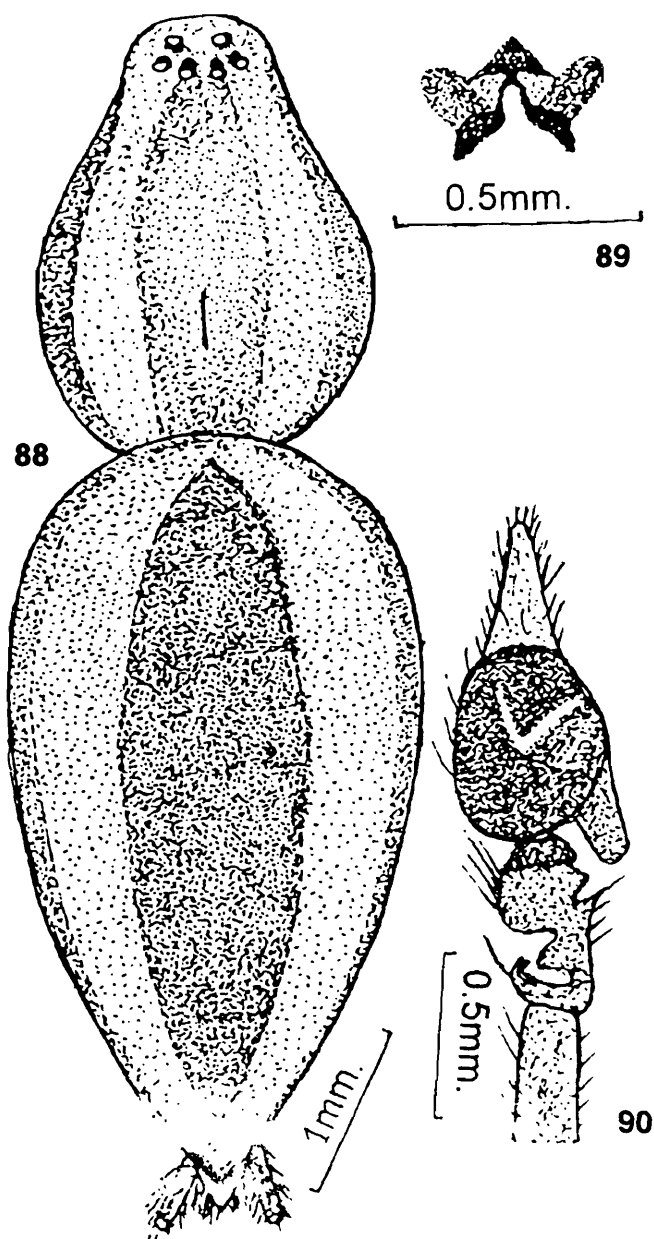
Elsewhere : China to Sumatra.

23. *Oxyopes chittrae* Tikader
(Figs. 88-90)

1966. *Oxyopes chittrae* Tikader, *Proc. Indian Acad. Sci.*, **62**(3) : 140.

General : Cephalothorax and legs brownish-green, abdomen brown. Total length 6.9 mm. Carapace 2.5 mm. long, 2.0 mm. wide; abdomen 4.5 mm. long, 2.4 mm. wide.

Cephalothorax : Longer than wide, high, narrowing in front, cephalic region slightly high, clothed with fine hairs; centre of thorax provided with fine fovea. Eyes eight in two rows, encircled with black patch. Posterior row slightly procurved and situated in equal distance, anterior row strongly recurved and anterior median eyes smaller than others. Clypeus long. Sternum heart-shaped, pointed behind and clothed with



Figs. 88-90. *Oxyopes chittrae* Tikader : 88. Dorsal view of female, legs omitted; 89. Epigyne; 90. Male palp, ventral view.

hairs. Legs long and strong, clothed with hairs and conspicuous spines. Male same in colour as female, male palp as in fig. 90.

Abdomen : Longer than wide, maximum width in front, and narrowing behind, clothed with fine hairs, mid-dorsally with a conspicuous longitudinal deep-brown broad stripe extending from base to end of abdomen and this deep brown stripe surrounded by chalk-white patches as in fig. 88. Epigyne as in fig. 89.

Type-specimen : *Holotype* female, *Allotypes* four males, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3192/18 and 3193/18).

Type locality : India, Maharashtra, NCL compound, Poona. Coll. *B K Tikader*, 21.IX.1962.

Distribution : India, Poona, Maharashtra; Gujarat.

24. *Oxyopes elongatus* Biswas *et al.*
(Figs. 91-94)

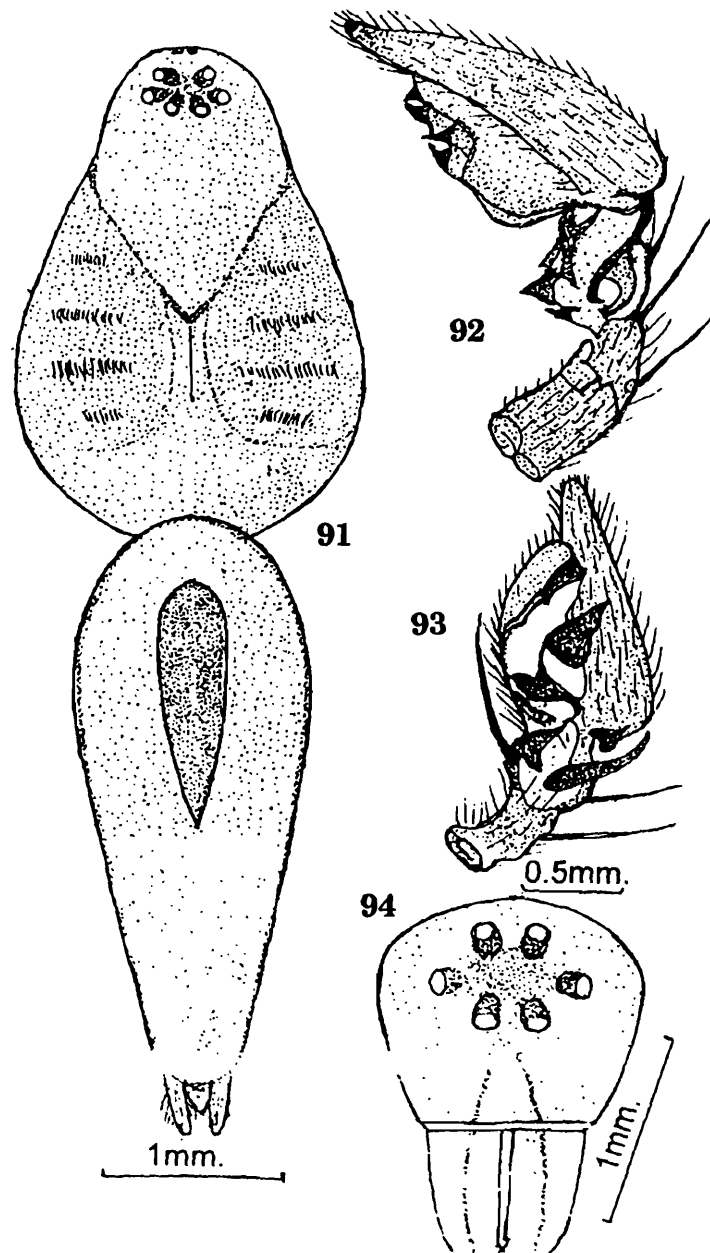
1995. *Oxyopes elongatus* Biswas, V. *et al.*, *Acta. arachnol.*, **45**(1) : 53.

General : Cephalothorax and legs yellow, abdomen grey. Total length 7.0 mm. Carapace 3.0 mm. long, 2.0 mm. wide; abdomen 4.0 mm. long, 1.0 mm. wide.

Cephalothorax : Longer than wide, anteriorly narrow, posteriorly broad; cephalic region raised, cervical furrows weakly impressed; thoracic region medially with longitudinal fovea. Anterior most eyes smallest; the other eyes white, each eye basally with a black patch; anterior row of eyes recurved, posterior row procurved; ocular area with short spiny hairs rather scarcely distributed, decorated as in fig. 91. Clypeus and anterior surface of chelicerae with a pair of black bands extending from anterior most eyes to fangs as in fig. 94. Chelicerae yellow, inner margin with a tooth and outer margin with 2 teeth close to each other; fangs brown, strongly curved. Maxillae and labium yellow, apically somewhat brownish, elongate, anteriorly broad and scopulate. Sternum yellow, heart-shaped, medially somewhat wide, with a few long, spiny, brown hairs and with white pubescence all over the surface, anteriorly densely so, Legs yellow, each femur inwardly with 2 longitudinal brown stripes; leg formula 4231. Male palp as in fig. 92 & 93.

Abdomen : Long, cylindrical, anteriorly wide, scaly, posteriorly narrow; anteriorly whitish, antero-medially with an ovoid longitudinal brownish-yellow marking; posteriorly and laterally with spiny hairs; ventrally with broad longitudinal black band, densely hairy. Female unknown.

Type-specimens : *Holotype* male, deposited in the collection of the Entomology Laboratory, Department of Zoology, University of Kolkata, India.



Figs. 91-94. *Oxyopes elongates* Biswas *et. al.* : **91.** Dorsal view of male, legs omitted; **92.** Male palp, lateral view; **93.** Male palp, ventral view; **94.** Clypeus.

Type locality : Jayanti, Buxa Tiger Reserve, Jalpaiguri, West Bengal. Coll. *B. Kundu*, 9.V.1994.

Distribution : India : West Bengal.

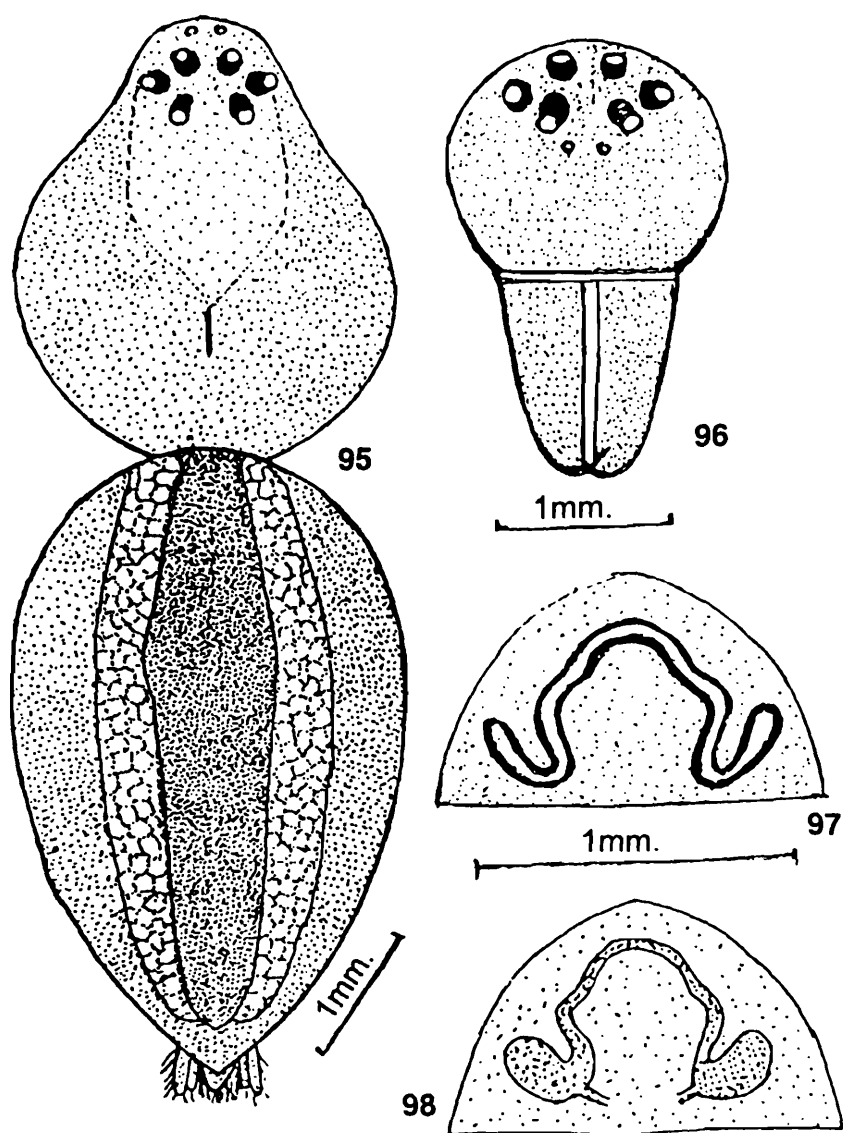
25. *Oxyopes gujaratensis* Gajbe
(Figs. 95-98)

1999. *Oxyopes gujaratensis* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 43.

General : Cephalothorax and legs reddish-brown, abdomen deep brown. Total length 8.0 mm. Carapace 3.5 mm. long, 2.8 mm. wide; abdomen 4.8 mm. long, 2.9 mm. wide.

Cephalothorax : Longer than wide, convex, broad in front, cephalic region slightly higher, clothed with pubescence, middle of thoracic region provided with conspicuous fovea and V-shaped yellowish patch starting from fovea to the posterior lateral eyes. Anterior row of eyes strongly recurved (as seen from in front), medians much smaller than the laterals and nearly equidistant to each other. All eyes encircled by black patch. Clypeus high, vertical, clothed with hairs and some spines, without band, as in fig. 96. Sternum heart-shaped, pointed behind, clothed with hairs and some spines, inner and outer margins provided with one small tooth each. Labium and maxillae longer than wide, light reddish-green in color, clothed with some hairs and some spines, anterior margin provided with distinct scopulae. Legs relatively long and strong, clothed with hairs and spines.

Abdomen : Longer than wide, narrowing posteriorly, widest at the middle, clothed with pubescence; mid-dorsally provided with deep brown stripe starting from anterior



Figs. 95-98. *Oxyopes gujratensis* Gajbe : 95. Dorsal view of female, legs omitted; 96. Clypeus; 97. Epigyne; 98. Internal genitalia.

end to the posterior end of abdomen and laterally with longitudinal silvery-white and light brown band starting from anterior end to the posterior end of abdomen, as in fig. 95. Ventral side slightly lighter than the dorsal, mid-ventrally provided with longitudinal broad light brown stripe extending from epigastric furrow to the base of spinnerets. Epigyne as in fig. 97. Internal genitalia as in fig. 98.

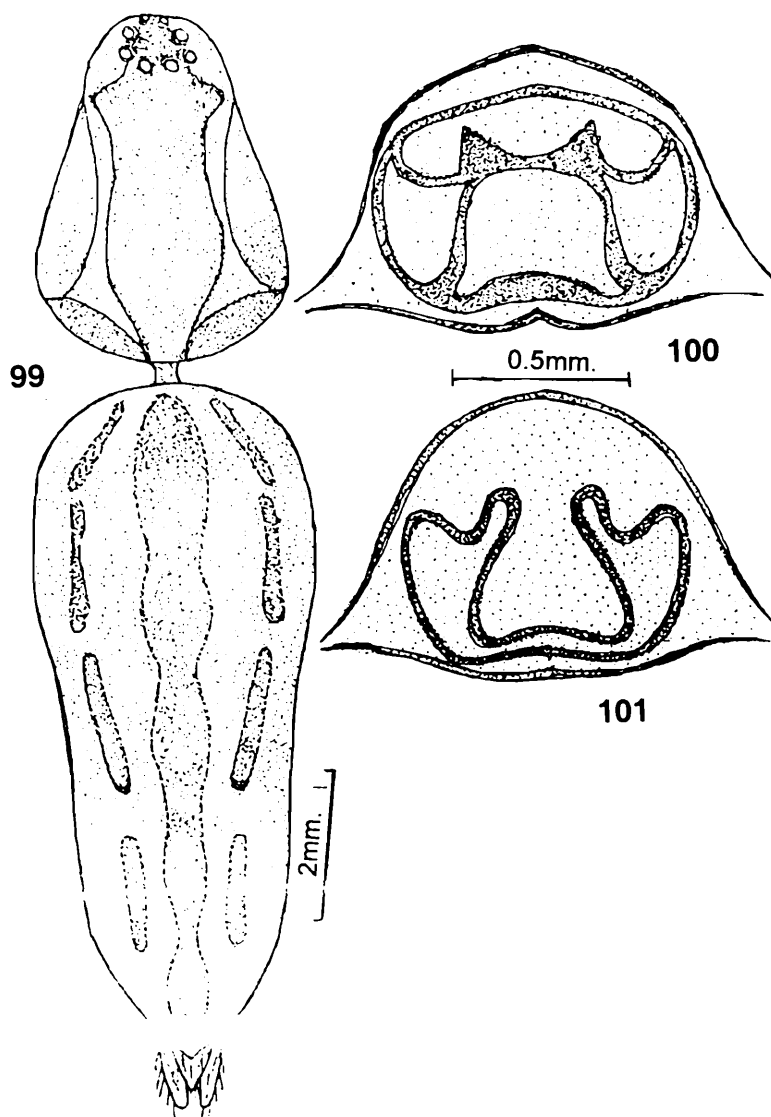
Type specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5498/18)

Type locality : India, Gujarat, Sasangir. Coll. T. G. Vazirani, 11.IV.1979.

Distribution : India : Gujarat.

26. *Oxyopes gurjanti* Sadana & Gupta
(Figs. 99-101.)

1995. *Oxyopes gurjanti* Sadana & Gupta, *J. Bom. nat. Hist. Soc.*, **92**(2) : 242.



Figs. 99-101. *Oxyopes gurjanti* Sadana : **99.** Dorsal view of female, legs omitted; **100.** Epigyne; **101.** Internal genitalia.

General : Cephalothorax ground colour grayish-yellow, legs yellow, abdomen grayish-yellow, abdomen grayish-yellow. Total length 12.7 mm. Carapace 4.0 mm. long, 3.8 mm. wide; abdomen 8.6 mm. long 3.2 mm. wide.

Cephalothorax : Carapace with a dark median band extending up to the eye group flanked on either side by a similarly coloured band; cephalic region narrower and higher than thoracic region, which, surrounded by black rims, arranged in hexagonal manner because of strongly recurved anterior row and strongly procurved posterior row, as in fig. 99. Clypeus yellow, marked with two dark streaks extending up to the anterior median eyes and chelicerae, Chelicera yellow, anterior face marked with a dark streak that merges with the clypeal streak, promargin of cheliceral furrow with two teeth, the first tooth being the largest, retromargin with the single tooth, lateral condyle distinct. Labium yellowish brown, longer than broad, extending upto more than half the length of maxillary lobes anterior end slightly notched and beset with a few hairs. Maxillary lobes yellow with a brown patch anteriorly, almost cylindrical, beset with a few hairs antero-laterals. Sternum yellow, broader anteriorly and pointed posteriorly, significantly longer than wide. Sternal cones distinct. Legs yellow, strong and spinose, spines standing out a considerable angle, tarsal claws three.

Abdomen : Longer than wide, broader and rounded anteriorly, narrow and tapering posteriorly; dorsum grayish-yellow with a median, reddish brown bands flanked with similarly coloured oblique patches. Venter pale yellow with a dark median band interrupted by yellowish spots and white mottling. Posterior spinnerets longer than anterior ones. anal tubercle long and conical. Epigyne and internal genitalia as in fig. 100 & 101. Male unknown.

Type-specimen : *Holotype* female, *Paratype* three females.

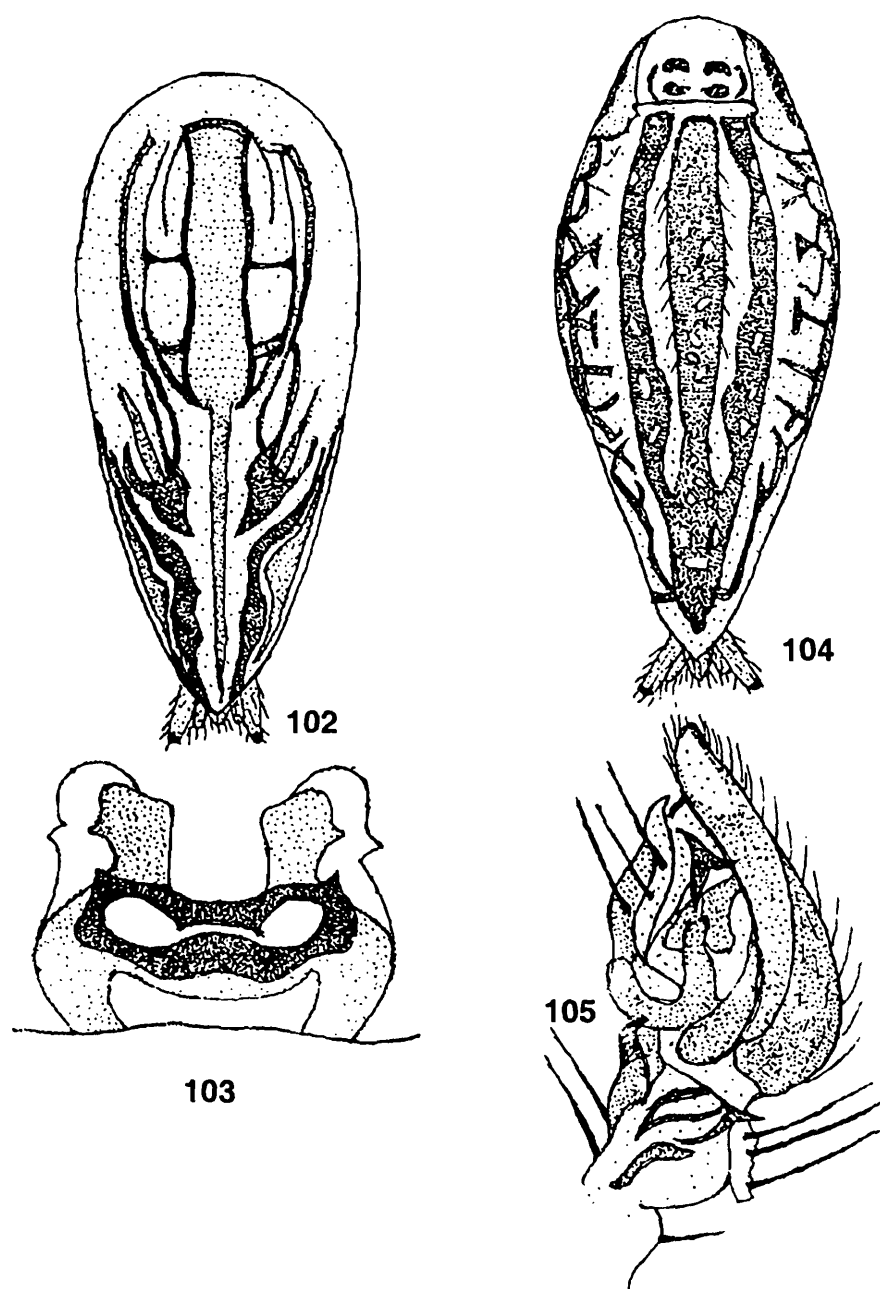
Type-locality : India : Punjab, Ludhiana, Punjab Agricultural University. Coll. Aarti, 19.XI.1992 and Gurant, 29.IX.1993.

Distribution : India : Punjab.

27. *Oxyopes hindostanicus* Pocock (Figs. 102-105)

1901. *Oxyopes hindostanicus* Pocock, *J. Bombay. nat. Hist. Soc.*, 13 : 482.

Male + Female : Cephalothorax olive with darker streaks on a fawn ground, not blackedged, fovea distinct; ocular area eyes white, hairs between them; clypeus fawn with black lines from AM eyes down mandibles, outer angles dark brown; chelicerae (mandibles) amber, fangs red-brown; labium fawn, top darker; maxillary lobes fawn with dark bases; sternum fawn or amber; abdomen male. Central area light live turning goldnish down the lower half, at sides three pairs whitish curved marks bordered in black, two light pearly areas at shoulders; above epigastric fold olive, middle area thin V-shaped light with blackish marks, distal tip black, outside central band a light yellow pearly area beyond which laterally is an olive-white speckled



Figs. 102-105. *Oxyopes hindostanicus* Pocock : 102. Dorsal view of abdomen of female; 103. Epigyne; 104. Ventral view of abdomen of female; 105. Male palp, lateral view.

region with three pairs of short black curved longitudinal lines; abdomen dorsal fig. 102. upper end light olive, central band olive and branching into two pairs of broad white lines at the middle and again below it black-edged from the second pair of white side branches to end of olive band, outside median band general area is dark olive, in upper half four light olive areas, ventral fig. 104 median black V band in three lines outside which a golden pearly region extends laterally to a network of small black branching lines; spinnerets fawn, tips black-lined; epigyne fig. 103. pale fawn with vulva dark brown (and according to Pocock somewhat like that of *O. javanus*), hollow divided into two by a distinct partition; legs fawn spines reddish-brown femora narrowly black lines below, tibiae black lines above, in order of length

I, II, IV, III, II and IV being equal, palps male fig. 105 fawn except brownish tarsi, tarsus bears two distinct processes, the outer light and blunt-pointed, the inner dark and armed with a sharp curved black, tarsus bears two dark brown curved ridges distally with below them two processes, the upper larger ending in a black curved spine and the lower smaller and slightly arched, palps fawn.

Type-measurements : Male body 8; carapace 3; legs I 13.5, II, III, IV 12.5, patella + tibia IV 4 mm.

Specimen examined : 2 male and 15 female, 5.0 and 7.0 mm.; female ranging from 7.0 to 10 mm. long.

Locality : India, Madras (Jambunathan), Mandatory 9Ferguson), Allahabad (Ryves), Nilgiris (Oates and Hampson), Lahore (Dyal); Ceylon (F.O.P. Cambridge and Barnes).

Distribution : India, Tamil Nadu, Uttar Pradesh.

Elsewhere : Sri Lanka, Pakistan.

28. *Oxyopes jabalpurensis* Gajbe & Gajbe (Figs. 106-109)

1999. *Oxyopes jabalpurensis* Gajbe & Gajbe, *Geobios*, 18(1) : 13.

General : Cephalothorax and legs greyish-brown, abdomen brownish green. Total length 8.9 mm. Cephalothorax 3.3 mm. long, 2.8 mm. wide; abdomen 5.5 mm. long, 3.2 mm. wide.

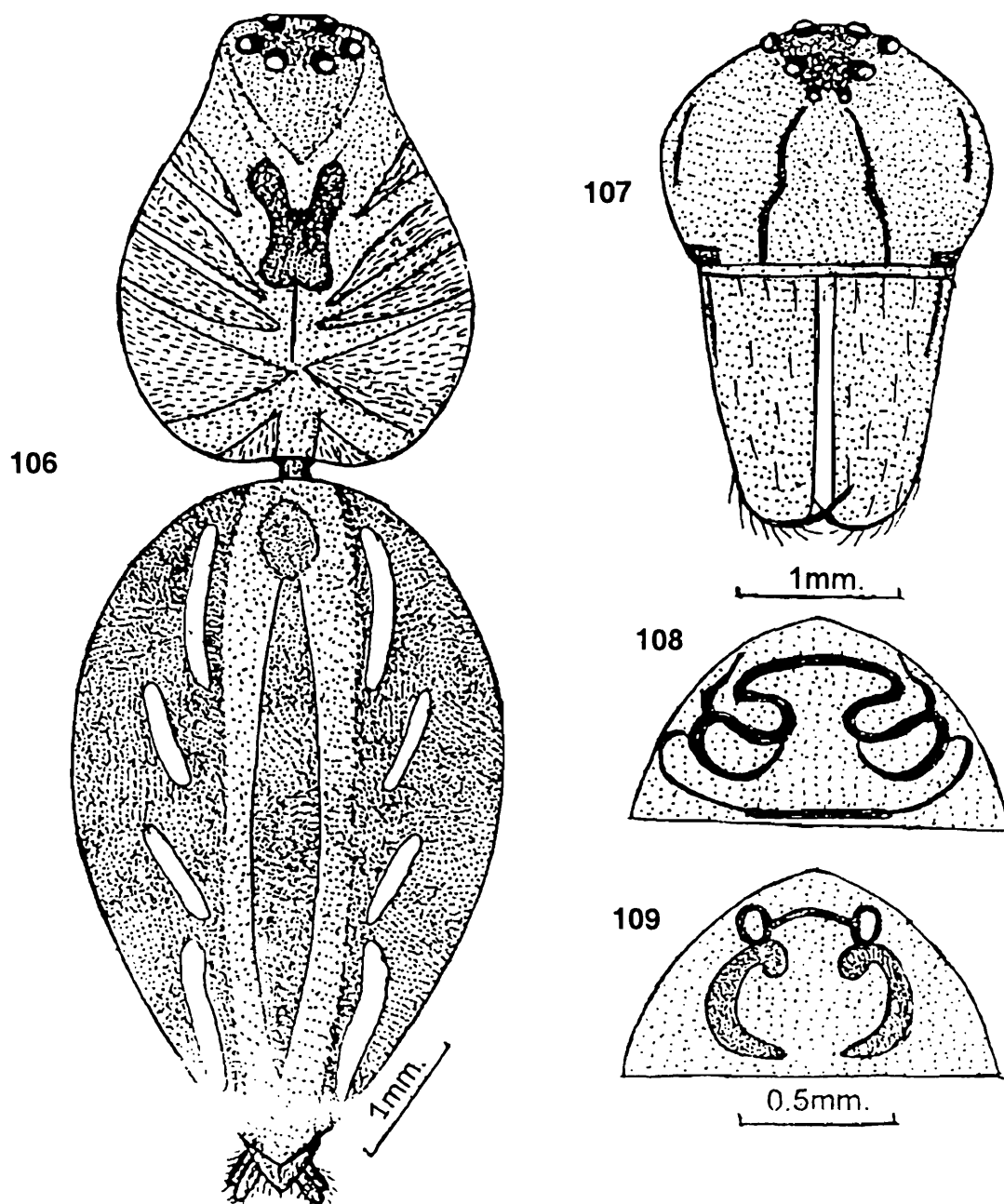
Cephalothorax : Longer than wide, cephalic region slightly high and broad, mid thoracic region provided with a conspicuous fovea, clothed with fine pubescence, a thick brown patch present just above the fovea and dark spatulate hairs present on the lateral sides as in fig. 106. Anterior row of eyes strongly recurved (as seen from in front), anterior medians smallest; posterior row of eyes procurved, postero-medians and postero laterals equal in size and equidistant to each other. Each eye encircled by black patch. Clypeus long, clothed with hairs and some spine-like hairs. Sternum oval, clothed with fine hairs and spines. Legs long and strong, clothed with hairs and long spines.

Abdomen : Longer than wide, widest in the middle, narrowing posteriorly, mid-dorsally provided with a dark green band as in fig. 106. Lateral sides provided with silvery white patches. Ventral side lighter than dorsal, mid-ventrally provided with a broad black band starting from the base of the epigastric furrow extending up to the spinnerets. Epigyne as in fig. 108. Internal genitalia as in fig. 109.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 5519/18).

Type-locality : India : Madhya Pradesh, Jabalpur, Sanjivani Nagar. Coll Pawan Gajbe, 28.VIII.1997.

Distribution : India: Madhya Pradesh.



Figs. 106-109. *Oxyopes jabalpurensis* Gajbe & Gajbe : **106.** Dorsal view of female, legs omitted; **107.** Clypeus; **108.** Epigyne; **109.** Internal genitalia.

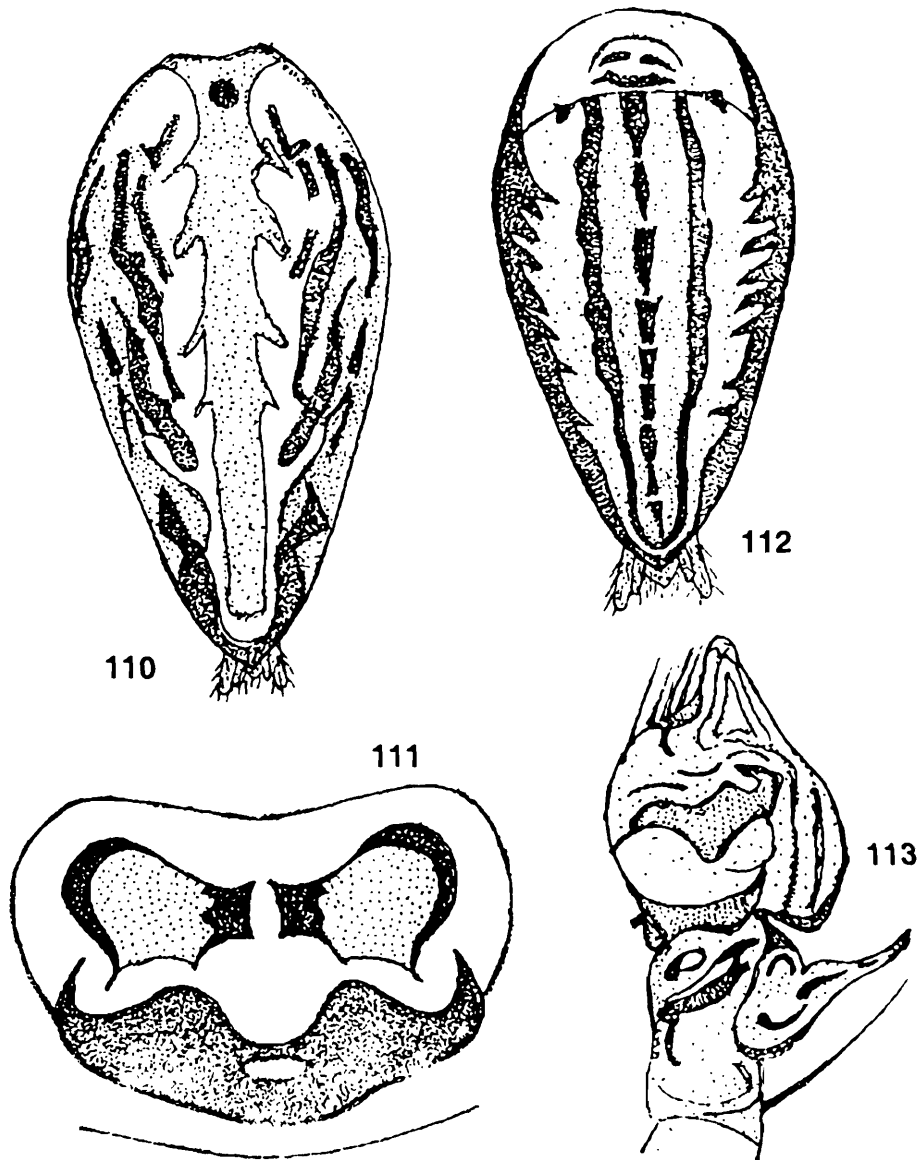
29. *Oxyopes javanus* Thorell
(Figs. 110-113)

1981. *Oxyopes javanus* Thorell, *Rag. Indo-Malesi*, : 195-198.

1952. *Oxyopes javanus*, Sherriffs, *Proc. Zool. Soc. London*, **120** : 659-661.

Male + Female : Cephalothorax vaguely blotched with alternate light and dark olive patches rayed out from the fovea; ocular area with white hairs between the eyes; clypeus fawn, dark lines from AM down into mandibles, outer angular corners dark brown; chelicerae (mandibles) fawn, dark bordered at tip, fangs short and dark; labium

fawn; maxillary lobes fawn, edged with darkish hairs; sternum light fawn with scattered, longer, darkish hairs; abdomen pale fawn centrally down whole length with sides dark grey and fawn enclosing on each side four white irregular marks outlined in black, one median and two laterals longitudinal black lines separated by a grayish goldenish fawn band from epigastric fold and uniting above spinnerets, sides with finer longitudinal brown and light fawn lines, clear white area above each side of epigastric fold, abdomen female dorsal fig. 110, pearly fawn at proximal end, central band lighter posteriorly, on each side of it a pearly-fawn region outside which laterally is a series of black lines thicker in front half and including three distinct curved pearly-fawn stripes on each side, ventral fig. 112 a V-striped middle area of two bands from epigastric fold to spinnerets enclosing a central broken black line, outside each black band the usual goldenish pearly area which ends laterally in dark lines breaking up into a series of small branches pointing inwards; spinnerets fawn sometimes with



Figs. 110-113. *Oxyopes javanus* Thorell : 110. Dorsal view of abdomen of female; 111. Epigyne; 112. Ventral view of abdomen of female; 113. Male palp, ventral view.

blackish marks; epigyne fig. 111., fawn vulva has transverse piece like buffalo horns in miniature; legs fawn, tarsi amber, spines long and brown, femora all spotted below with at most faint dark lines, coxae light fawn, dark ringed at tips, in order of length I, IV, II, III, distal end of tibiae IV not ringed in black, pair I about four times as long as cephalothorax; palp in fig. 113, tibiae fawn with distinct dark processes, one of which projects as a characteristic black spur, tarsi brownish with distinct abber tips; palp supper joints fawn, tips amber.

Type-measurements : Male body, long 7; cephalothorax, long almost 3, wide little over 2, front about 1.2; abdomen long 4, wide 1.7 mm. Legs I 12.5 II 11.0, III 9.5. IV 11.5, patella + tibia IV 3.25 mm.

Female body, long 10; cephalothorax, long 3.75, wide almost 3, front about 1.5; abdomen, long 6.25, wide 2.7. Legs I 14.5, II 14, III 14.5, patella + tibia IV 4 mm.

Specimen examined : 2 male and 2 female; male each 6.5 mm, 9.0 and 11.0 mm long.

Locality : Java (Kingberg); Sumatra (Beccari); Penang (Beccari and D'Albertis); Myanmar (Fea); Singapore (Simon), Malay Peninsula (Simon); Nicobars.

Distribution : India, Nicobar.

Elsewhere : Java, Sumatra, Myanmar, Singapore.

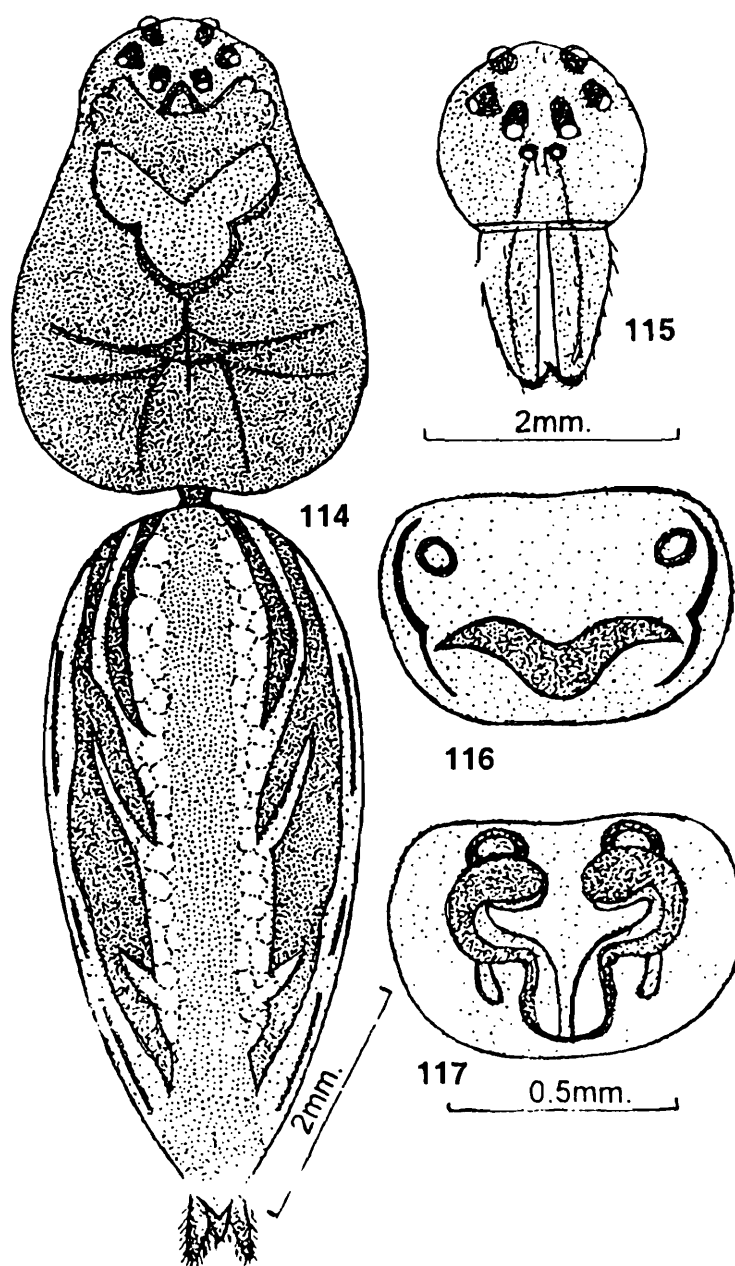
30. *Oxyopes kamalae* Gajbe (Figs. 114-117)

1999. *Oxyopes kamalae* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 56.

General : Cephalothorax and legs brownish-black; abdomen silvery-white. Total length 9.8 mm. Carapace 3.9 mm. long, 2.5 mm wide; abdomen 5.9 mm long., 2.9 mm wide.

Cephalothorax : Longer than wide, convex, broad in front, cephalic region slightly high, clothed with pubescence; middle of thoracic region provided with conspicuous short fovea and black markings radiating laterally with anterior light reddish-green V-shaped patch as in fig. 114. Anterior row of eyes strongly recurved (as seen from in front), medians smaller than the laterals and nearly equidistant to each other. All eyes encircled by black patch, Clypeus high, vertical, clothed with some spines, provided with light brown band extending from the anterior median eyes to the base of fangs of chelicerae as in fig. 115. Sternum heart shaped, pointed behind, clothed with hairs and some spines. Chelicerae moderately strong, vertical, reddish-green, clothed with hairs and some spines, inner margin provided with one tooth and outer margin also provided with one larger tooth. Labium and maxillae longer than wide, light brown in colour, clothed with hairs and some spines, anterior margin provided with distinct scopulae. Legs relatively long and strong, clothed with hairs and conspicuous spines.

Abdomen : Longer than wide, narrowing posteriorly clothed with pubescence, middorsally provided with light brown band and laterally black and silvery white



Figs. 114-117. *Oxyopes kamalae* Gajbe : 114. Dorsal view of female, legs omitted; 115. Clypeus; 116. Epigyne; 117. Internal genitalia.

patches, as in fig. 114. Ventral side same in colour as dorsal, mid-ventrally provided with longitudinal broad black band extending from epigastric furrow to the base of spinnerets. Epigyne as in fig. 116. Internal genitalia as in fig. 117.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata. (Reg. No. 5503/18).

Type locality : India, Madhya Pradesh, on the bank of Gour river, Jabalpur. Coll. U. A Gajbe, 16.IX.1979.

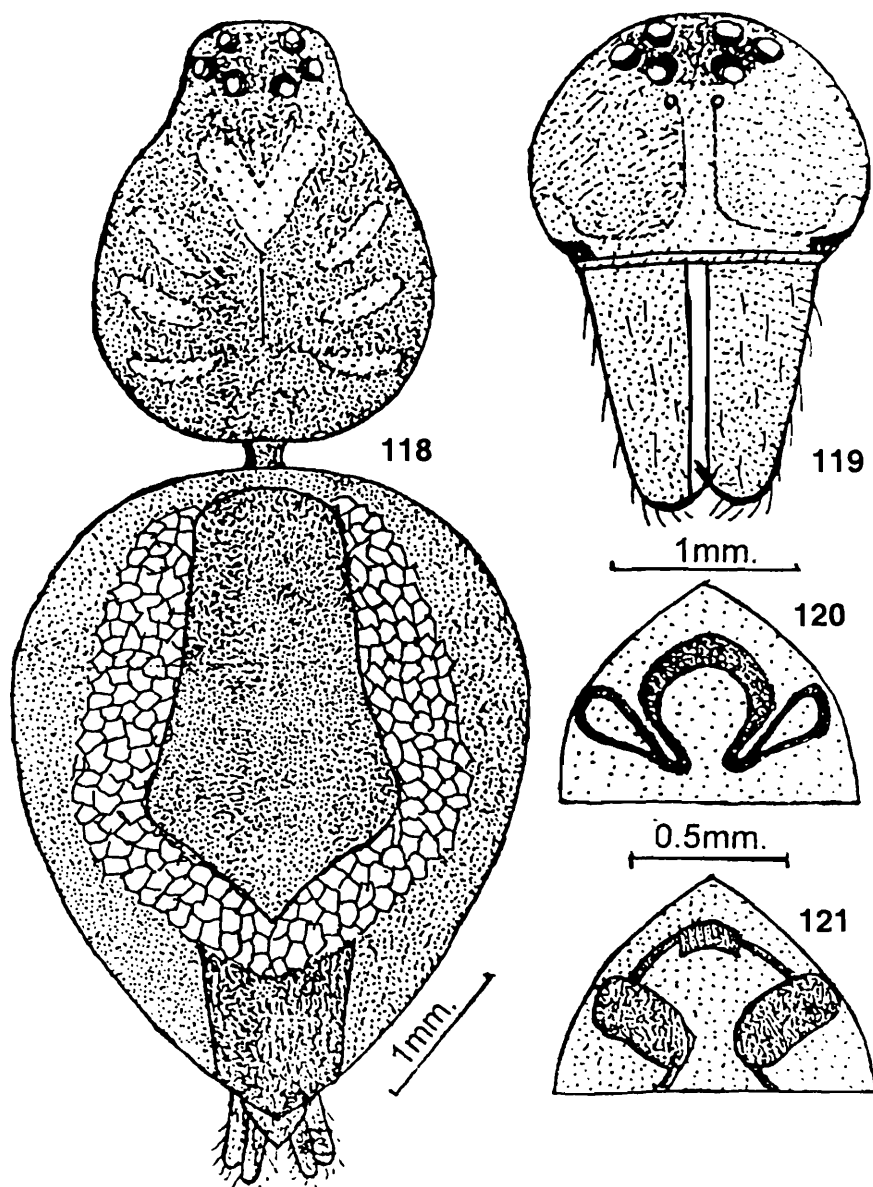
Distribution : India, Madhya Pradesh.

31. *Oxyopes ketani* Gajbe & Gajbe
(Figs. 118-121)

1999. *Oxyopes ketani* Gajbe & Gajbe, *Geobios*, 18(1) : 15.

General : Cephalothorax and legs reddish-brown, abdomen whitish brown. Total length 7.7 mm. Carapace 2.8 mm. long, 2.3 mm. wide; abdomen 4.8 mm. long, 3.5 mm. wide.

Cephalothorax : Longer than wide, clothed with fine pubescence, cephalic region slightly elevated, centre provided with sharp fovea, a V-shaped light brown patch present in the mid-thoracic region and dirty chalk white patches present on the lateral sides, as in fig. 118. Anterior row of eyes strongly recurved, posterior row procurved, base of each eye encircled by a black patch; anterior medians smallest,



Figs. 118-121. *Oxyopes ketani* Gajbe & Gajbe : 118. Dorsal view of female, legs omitted; 119. Clypeus; 120. Epigyne; 121. Internal genitalia.

postero-medians and posterior laterals equal in size and nearly equidistant from each other, Clypeus as in fig. 119. Sternum heart-shaped, pointed behind, clothed with fine hairs. Legs long and strong without any spots, clothed with fine hairs and conspicuous long spines, tarsi I and II with pairs of spines.

Abdomen : Longer than wide, widest in the middle, mid-dorsally provided with a broad deep brown band surrounded by silvery-white reticulations as in fig. 118. A short and broad dark brown band present at posterior end. Ventral side lighter than dorsal without any band. Epigyne as in fig. 120. Internal genitalia as in fig. 121.

Type specimen : *Holotype* female, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 5420/18).

Type locality : India : Madhya Pradesh, Jabalpur, Pachpedi. Coll. Pawan Gajbe, 25.VII.1997.

Distribution : India : Madhya Pradesh.

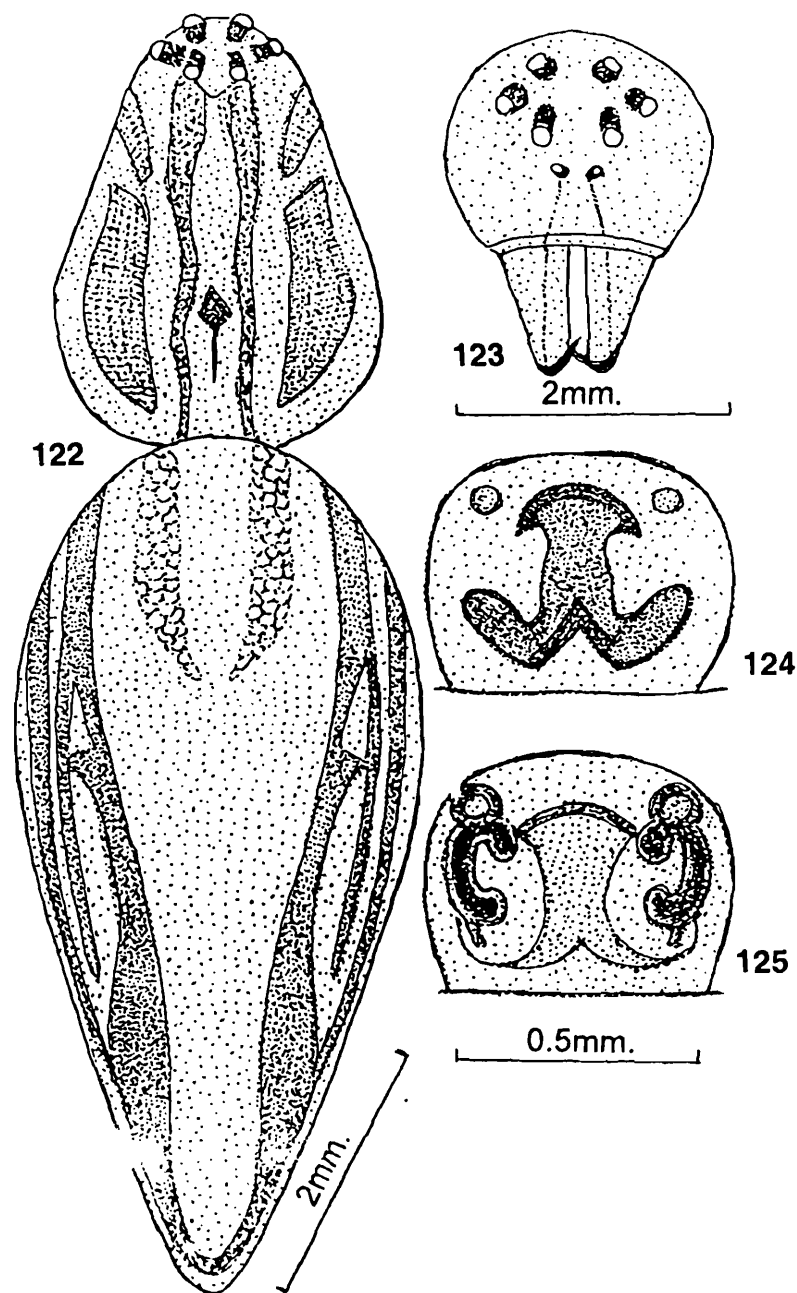
32. *Oxyopes kusumae* Gajbe (Figs. 122-125)

1999. *Oxyopes kusumae* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 58.

General : Cephalothorax and legs light reddish-green, abdomen dirty chalk white. Total length 9.8 mm. Carapace 3.3 mm. long, 2.4 mm. wide; abdomen 6.6 mm. long, 3.2 mm. wide.

Cephalothorax : Longer than wide, convex, clothed with fine hairs and some deep brown special type of blunt or spatulate hairs on the thoracic region, centre of thoracic region provided with a fine fovea. Anterior row of eyes strongly recurved (as seen from in front), medians smaller than the laterals and nearly equidistant from each other. All eyes encircled by a conspicuous black patch. Clypeus long, vertical, clothed with long spines, provided with light red stripe extending from anterior median eyes to the base of fang of chelicerae as in fig. 123. Sternum heart shaped, pointed behind, light yellow in colour, clothed with hairs and some spines. Chelicerae moderately strong, vertical, reddish-green; inner margin of each provided with one tooth and outer margin with two teeth. Labium and maxillae longer than wide, yellowish-green, clothed with hairs and some spines, anterior margin provided with conspicuous scopulae. Legs long and strong, clothed with hairs and conspicuous long spines, uniform in colour without any patch.

Abdomen : Longer than wide, narrowing behind, clothed with pubescence; middorsally provided with two silvery-white stripes and laterally with black stripes, as in fig. 122. Ventral side lighter than the dorsal provided with mid-ventral broad light brown stripe extending from epigastric furrow to the base of spinnerets. Epigyne as in fig. 124. Internal genitalia as in fig. 125.



Figs. 122-125. *Oxyopes kusumae* Gajbe : **122.** Dorsal view of female, legs omitted; **123.** Clypeus; **124.** Epigyne; **125.** Internal genitalia.

Type specimens : *Holotype* female, *Paratypes* two females, deposited in the National Zoological Collection Zoological Survey of India, Kolkata (Reg. No. 5501/18).

Type locality : India : Madhya Pradesh, Mandla town, Coll. B. N. Chopra, 23.V.1927.

Distribution : India : Madhya Pradesh.

33. *Oxyopes lepidus* (Blackwall)

1864. *Sphasus lepidus* Blackwall, *Ann. Mag. Nat. Hist.*, **14** : 36.

1864. *Oxyopes lepidus* : Blackwall, *Ann. Mag. Nat. Hist.*, 3rd series, **14** : 37.

General : Length of female 1/3rd of an inch; length of cephalothorax 1/8; breadth 1/12; breadth of abdomen 1/10; length of the anterior leg 23/48, length of leg of the third pair 1/3. The cephalothorax is somewhat compressed before, rounded on the sides, glossy, convex, particularly in the posterior region, with a slight indentation in the medial line and some short, strong black hair on each side of its base; it is of a yellowish red colour, a fine black line extending from each eye of the anterior pair to the frontal margin which has a dark brown spot on each exterior angle. The faces are powerful subconical and vertical; the maxillae are long, obliquely truncated at the extremity on the outer side and slightly inclined towards the lip, which is broader towards the extremity on the outer side and slightly inclined towards the lip, which is broader towards the extremity than at the base and truncated at the apex; the sternum is heart-shaped and thinly clothed with short, light coloured and long, erect, brownish hair; the legs are slender and provided with hair and long spines; the first pair is the longest, than the fourth and the third pair is the shortest, each tarsus is terminated by three claws; the two superior ones are curved and pectinated and the inferior one is inflected near its base, the palpi are short and have a curved pectinate claw at their extremity. These parts have a dull yellowish line, a black line extends along the inferior surface of the femoral joints of the legs, these on the femora of the posterior pair being the least conspicuous and the fine longitudinal line of the same hue occurs on their palpi in front which line appear like a prolongation of those on the frontal margin. The eyes are seated on black spots on the anterior margin. The eyes are seated on black spots on the anterior part of the cephalothorax; the four posterior ones form a strongly curved transverse row, whose convexity is directed backwards, each lateral eye being placed on a minute tubercle, the other four described trapezoid whose shortest side in before; the posterior eyes of the trapezoid are the largest and the anterior ones much the smallest of the eight. The abdomen is oviform somewhat pointed at the spinners, convex above the projects a little over the base of the cephalothorax. It is of a yellowish-grey colour, finely articulated with pale brown; a brown band extends along the middle of the upper part of the anus, having a minute point on each side; near its anterior extremity which is the darkest, the sides are marked with oblique dark brown lines more or less confluent which are most conspicuous at the posterior half and the broad band of the same hue, having whitish scale-like hair on each side of it, extends along the middle of the underpart and tapers to the spinners; the posterior margin of the sexual organ, which are well developed is prominent but obtuse and their colour is brownish black that of the branchial opercula being dull yellow.

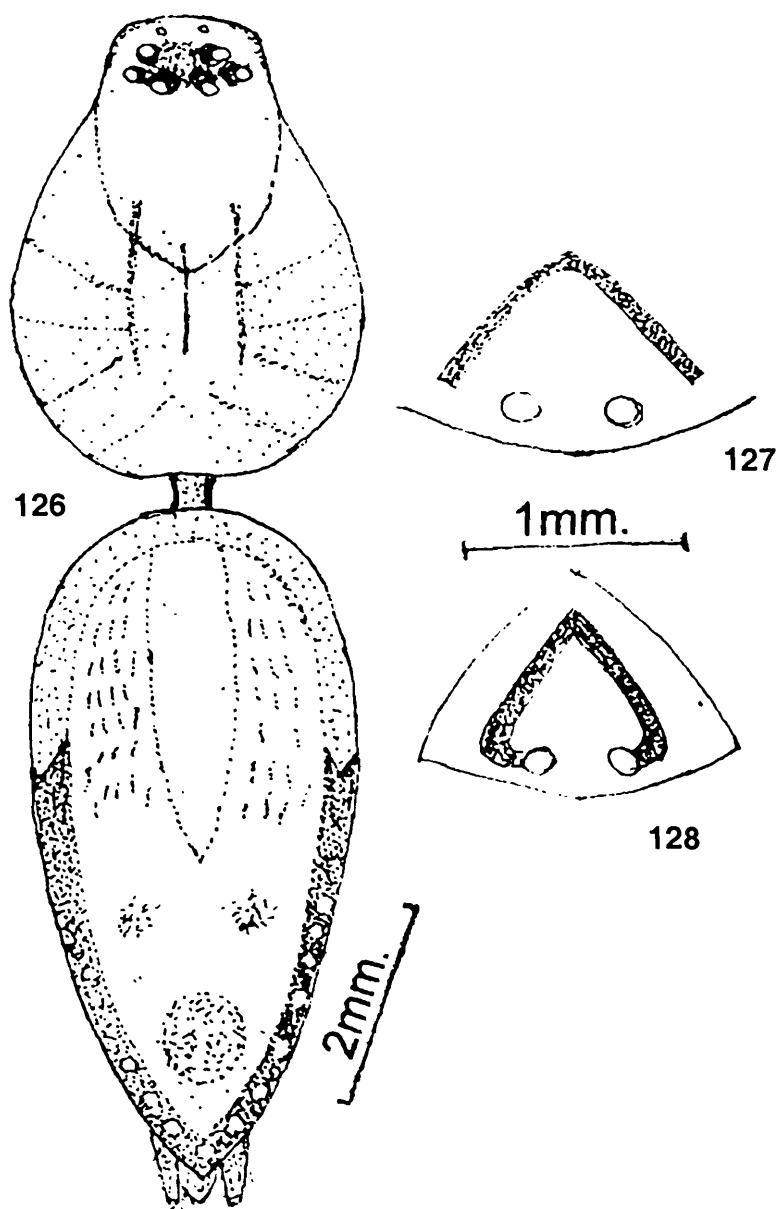
Distribution : India.

34. *Oxyopes longispinus* Saha & Raychaudhuri
(Figs. 126-128)

2003. *Oxyopes longispinus* Saha & Raychaudhuri, *Entomon*, **28**(4) : 322.

General : Cephalothorax brown, legs pale yellow, abdomen pale yellow. Total length 11.15 mm. Carapace 4.45 long, 2.55 mm. wide; abdomen 6.2 mm. long, 2.6 mm. wide.

Cephalothorax : Longer than wide, oval, slightly narrowing in front with a longitudinal fovea, cephalic region little raised with two faint longitudinal parallel brown lines. Eyes pearly white, basally marked by black, equidistantly placed, anterior row strongly recurved, posterior row procurved, laterals close, ocular quad squarish, medially with a pair of long brown spiny hairs projecting forward, posterior medians largest, ringed with eye lashes. Clypeus broad, elongate, anterolateral angles black, medially with a pair of black lines, extending from each of the antero median eye near to base of cheliceral fang. Chelicerae pale yellow, labium little darker anteriorly with scopulae. Sternum rather globose pale yellow, provided with long and short hairs. Legs pale yellow, long, stout with hairs and spines, femora with a ventral longitudinal black line, leg formula 4231.



Figs. 126-128. *Oxyopes longispinus* Saha & Raychaudhuri : 126. Dorsal view of female, legs omitted; 127. Epigyne; 128. Internal genitalia.

Abdomen : Longer than wide, basally with lanceolate patch, laterally with black bands converging towards apex, clothed with reddish hairs and white pubescence, long, cylindrical narrowing towards apex as in fig. 126. Ventral side same in colour, medially with a black broad longitudinal band extending from epigastric furrow to the base of spinnerets, on their side with reticulations. Epigyne and internal genitalia is in fig. 127 & 128.

Type specimen : *Holotype* female in spirit, other details as above.

Type locality : Raja Bhatkhawa, Buxa Tiger Reserve Jalpaiguri, West Bengal, India. Coll. S. Saha, 8.III. 2001.

Distribution : India, West Bengal.

35. *Oxyopes ludhianaensis* Sadana & Goel (Figs. 129-131)

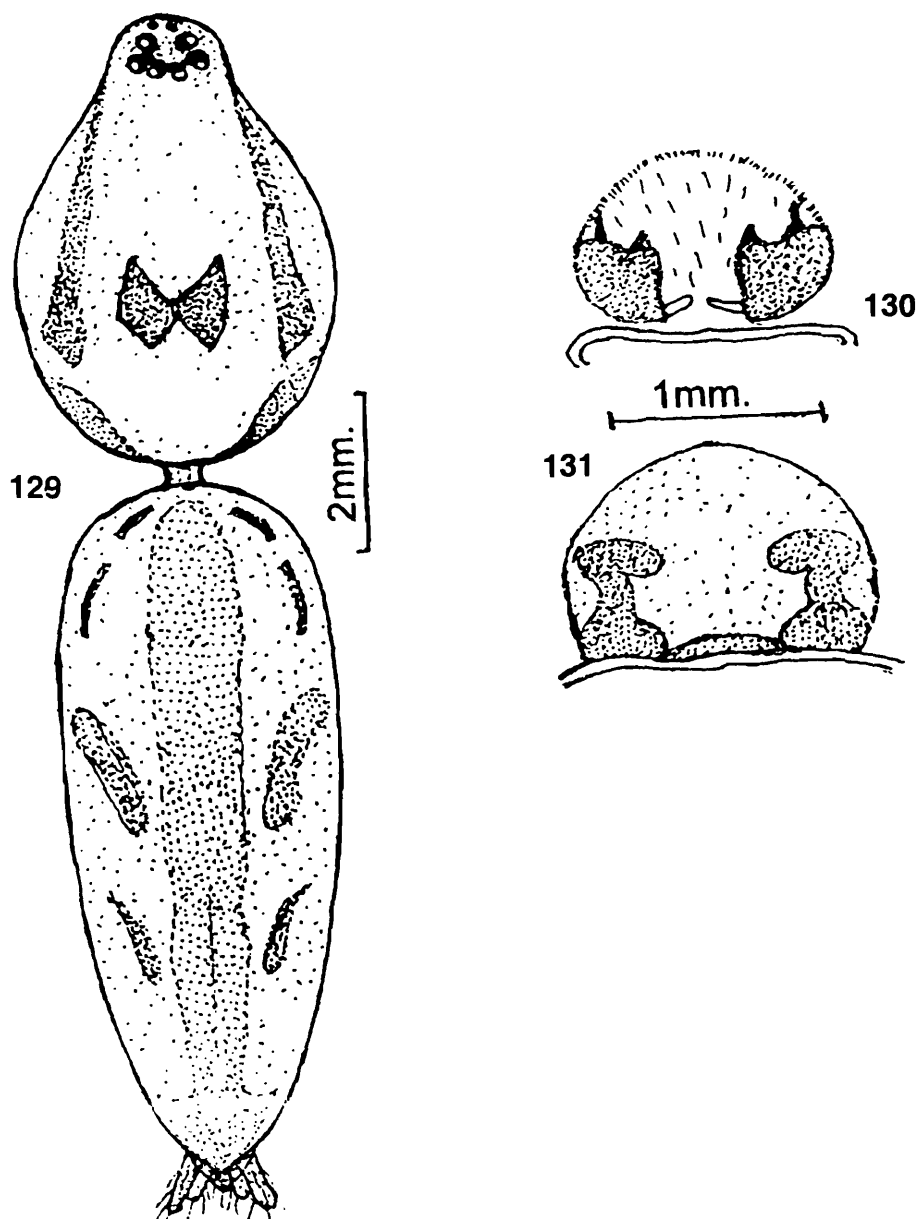
1995. *Oxyopes ludhianaensis* Sadana & Goel, *Entomol*, 20(1) : 71.

General : Cephalothorax with alternate irregular light and dark olive patches, legs pale-yellow, abdomen pale yellow. Total length 9.00 mm. Carapace 3.3 mm. long, 2.60 mm. wide; abdomen 5.40 mm. long, 1.80 mm. wide.

Cephalothorax : Longer than wide, broadest behind the middle, provided with alternate irregular light and dark olive patches, thoracic region almost circular, provided with a conspicuous fovea. Eyes pearly white, encircled by black rims; anterior rows strongly recurved, apparently forming four rows of eyes of two each, anterior laterals and eyes of posterior row arranged in a manner to form a hexagon. Clypeus yellow marked with two dark streaks that extend up to anterior median eyes and chelicerae. Chelicerae pale yellow, anterior surface of each chelicera with a dark streak merging with a streak of clypeus; promargin of chelicera with two teeth, the second one being smaller than the first, retromargin with a single tooth, lateral condyl distinct. Labium yellowish brown, longer than broad, extending up to more than half the length of maxillary lobes, anterior margin beset with a few setae. Maxillary lobes cylindrical, yellow but with a brown patch and a few black setae anteriorly. Sternum pale-yellow, broader anteriorly and pointed posteriorly, sternal cones distinct and facing each other. Legs pale yellow, conspicuously spines standing out at considerable angle, tarsal claws three, claw tufts absent. Legs formula 1423.

Abdomen : Longer than wide, dorsum with a medium reddish-brown band with similarly coloured oblique patches, broad and rounded anteriorly and tapering posteriorly as in fig. 129. Ventral side pale yellow with a dark medium band interrupted with yellowish spots and flanked by white mottling; anterior spinnerets slightly smaller than posterior ones; tubercle conical and long. Epigyne as in fig. 130 Internal genitalia as in fig. 131.

Type-specimen : *Holotype* female, *paratype* five females in spirit deposited in the Arachnological collections of the Department of Zoology, P. A. U. Ludhiana.



Figs. 129-131. *Oxyopes ludhianaensis* Sadana & Goel : **129.** Dorsal view of female, legs omitted. **130.** Epigyne; **131.** Internal genitalia.

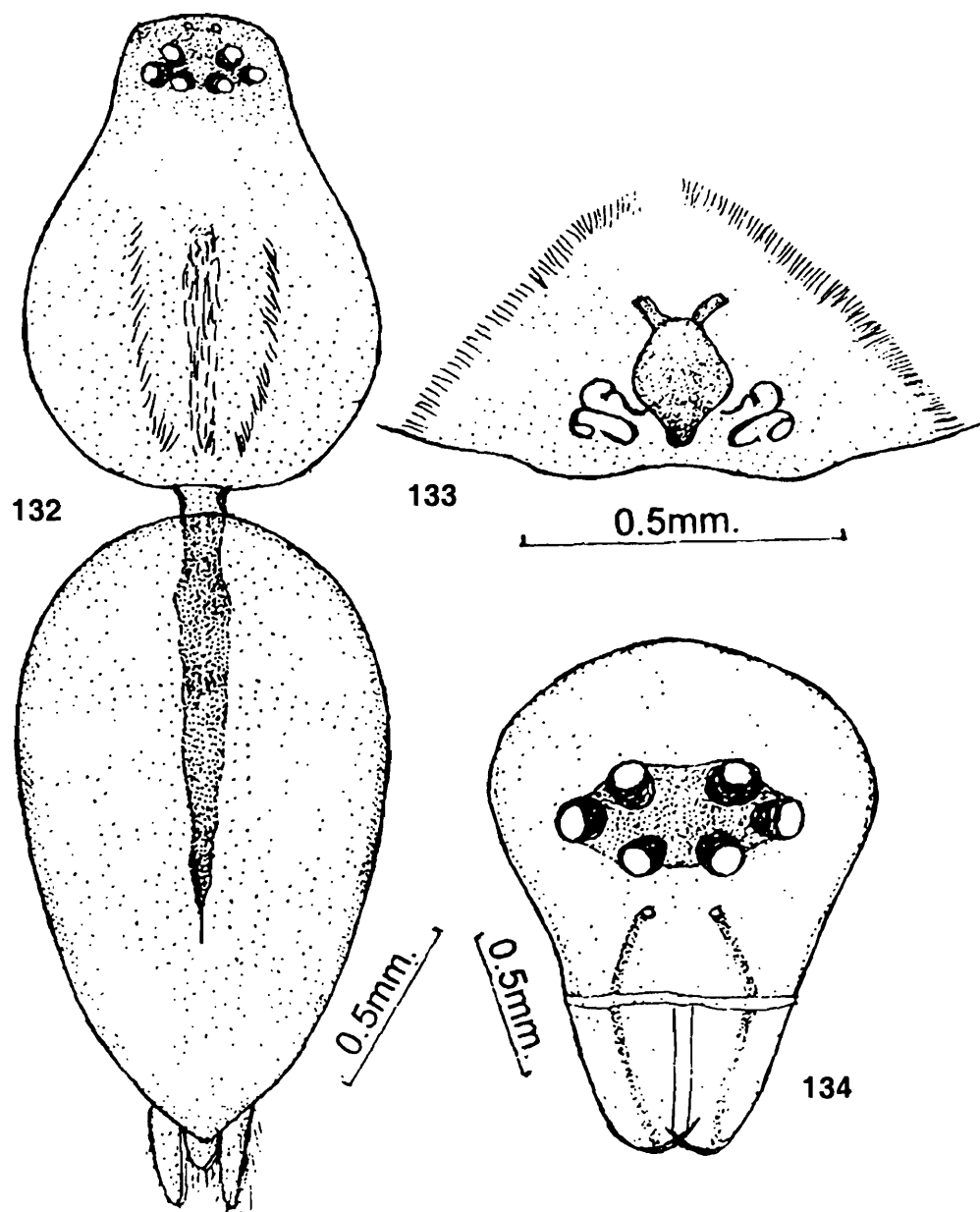
Type-locality : India : Punjab Agricultural University campus. Ludhiana, Coll. N K Goel, 3.V.1991.

Distribution : India : Punjab, Ludhiana.

36. *Oxyopes minutus* Biswas *et al.*
(Figs. 132-134)

1995. *Oxyopes minutus* Biswas, V. *et al.*, *Acta arachnol.*, **45**(1) : 55.

General : Cephalothorax brown, legs yellowish and abdomen brownish. Total length 3.0 mm. Carapace 1.0 mm long, 0.5 mm; abdomen 2.0 mm long, 1.0 mm wide.



Figs. 132-134. *Oxyopes minutes* Biswas, et. al. : 132. Dorsal view of female, legs omitted; 133. Epigyne; 134. Clypeus.

Cephalothorax : Longer than wide, posteriorly broad; cephalic region slightly raised; thoracic region postero-medially with three longitudinally hairy bands, medially with a longitudinal fovea. Ocular area black, anterior most eyes smallest; the other eye white. Each eye basally ringed with a black band; anterior row of eyes recurved, posterior row procurved; clypeus and anterior surfaces of chelicerae with a pair of black bands extending from anterior most eyes to fangs as in fig. 134. Chelicerae yellow, inner and outer margins with a tooth respectively; fangs yellowish-brown. Maxillae and labium yellowish-brown, elongate; maxillae anteriorly narrow and scopulate. Sternum dark brown, heart shaped, posteriorly pointed, covered with a few white hairs. Legs yellowish, leg formula 2134.

Abdomen : Elongate, oval, anteriorly wide, posteriorly narrow; antero-medially with longitudinal reddish-yellow band; venter yellowish brown, with brownish-black ridge covered with white hairs as in fig. 132. Epigyne as in fig. 133.

Type-specimen : *Holotype* 1 ♀, deposited in the collection of Entomology Laboratory, Department of Zoology, University of Kolkata, Kolkata, India.

Type-locality : Jayanti, Buxa Tiger Reserve, Jalpaiguri, West Bengal, India, Coll. B. Kundu. 9.V.1994.

Distribution : India : West Bengal.

37. *Oxyopes naliniae* Gajbe (Figs. 135-140)

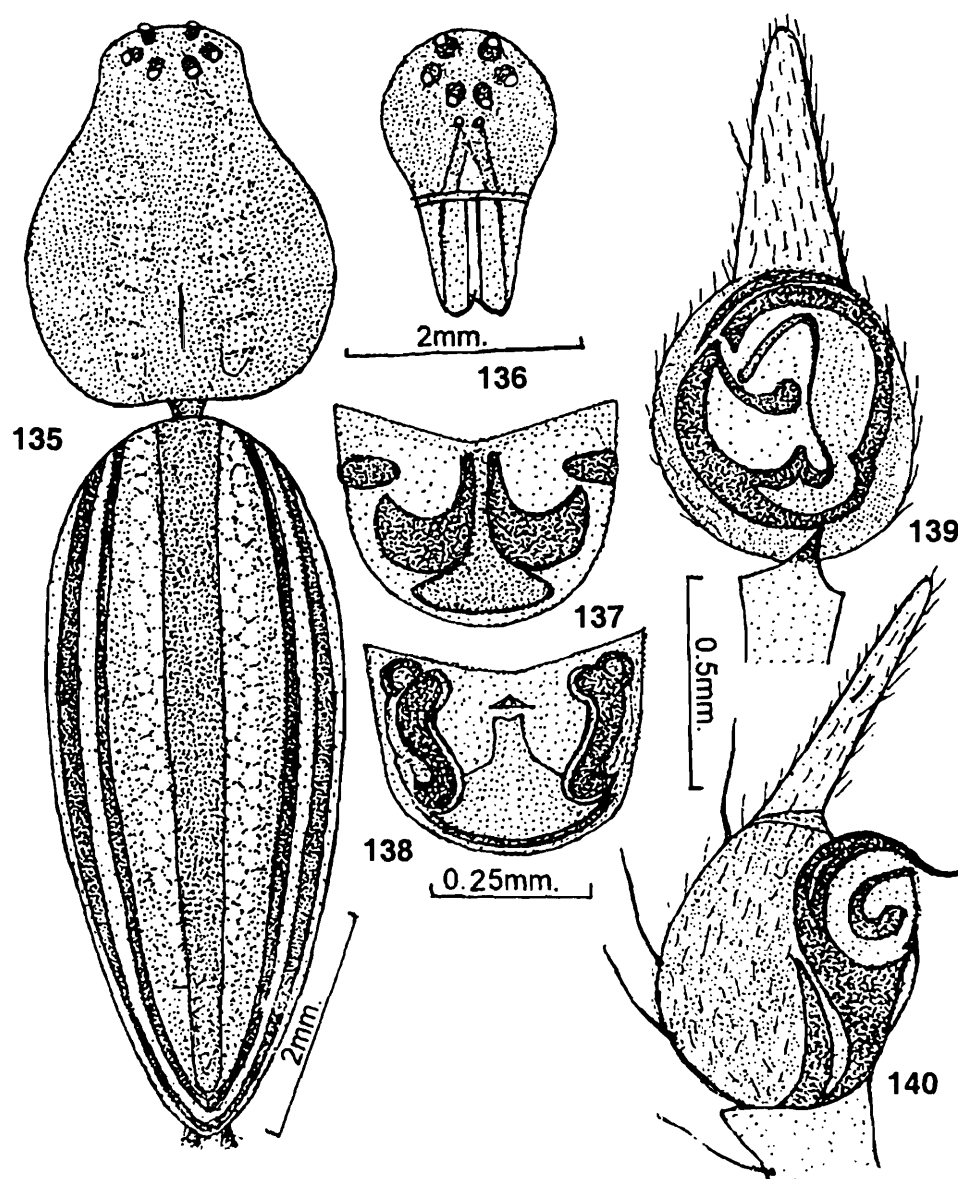
1999. *Oxyopes naliniae* Gajbe, *Rec. zool. Surv. India*. 97(3) : 60.

General : Cephalothorax deep red, legs yellowish-green, abdomen silvery white. Total length 9.5 mm. Carapace 3.6 mm long 2.8 mm wide abdomen 6.4 mm long 2.5 mm wide.

Cephalothorax : Longer than wide, convex, cephalic region provided with a conspicuous fovea, clothed with pubescence, provided with two light red stripes starting from posterior lateral eyes to just above the posterior end of carapace, as in fig. 135. Anterior row of eyes strongly recurved (as seen from in front), medians smaller than the lateral and nearly equidistant to each other. Posterior row of eyes procurved, equal in size and equidistant to each other. All eyes encircled by a black patch. Clypeus long, vertical, provided with a stripe extending from anterior median eyes to the base of fangs of chelicerae as in fig. 136. Sternum oval, pointed behind, clothed with hairs and some spines. Chelicerae long, vertical, light red in colour, inner margin of each provided with one tooth and outer margin with two teeth. Labium and maxillae longer than wide, deep red, clothed with hairs and spines, anterior margin provided with scopulae. Legs long and strong, clothed with hairs and conspicuous spines, uniform in colour, without any patches. Male same in colour as female but smaller than the female. Male palp as in figs. 139 & 140.

Abdomen : Longer than wide, narrowing posteriorly, clothed with pubescence, provided with mid-dorsal red stripe and laterally two black stripes extending from anterior end to the posterior end as in fig. 135. Ventral side lighter than the dorsal, provided with broad mid-ventral longitudinal black stripe starting from epigastric furrow to the base of spinnerets. Epigyne as in fig. 137. Internal genitalia as in fig. 138.

Type-specimens : *Holotype* female, *Paratype* one female, *Allotypes* two males deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5504/18 to 5506/18).



Figs. 135-140. *Oxyopes naliniae* Gajbe : 135. Dorsal view of female, legs omitted; 136. Clypeus; 137. Epigyne; 138. Internal genitalia; 139. Male palp, ventral view; 140. Male palp, lateral view.

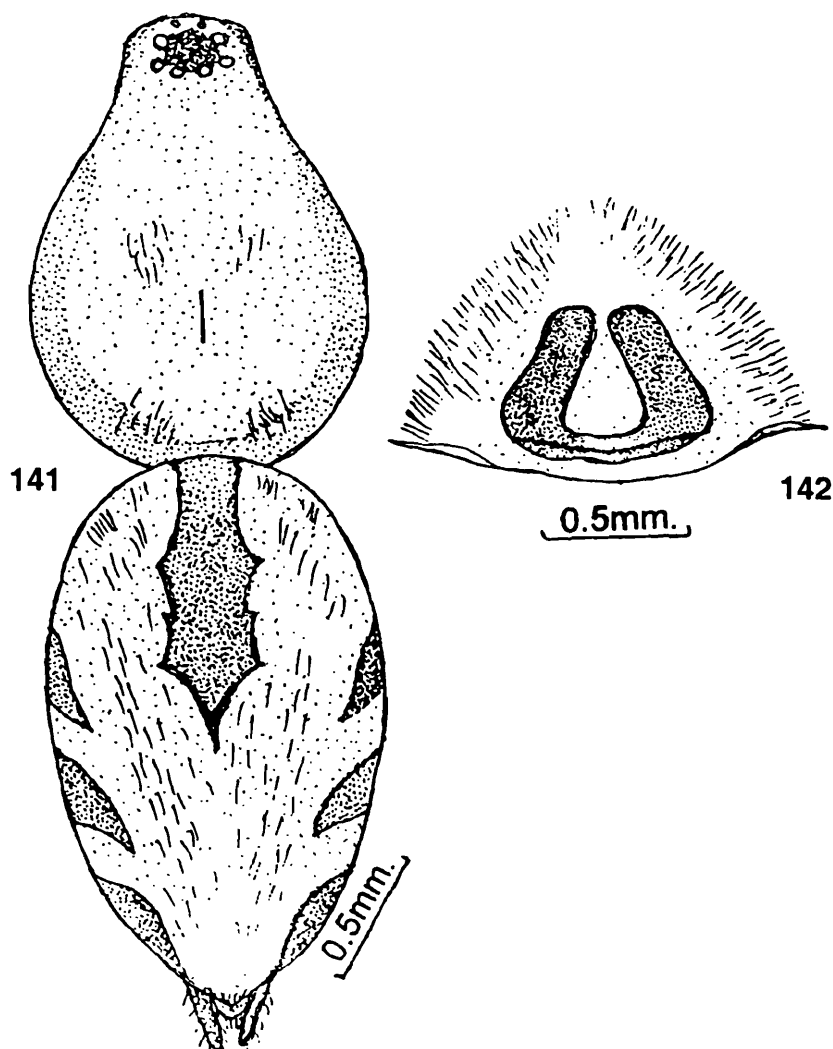
Type-locality : India : Madhya Pradesh, Hulki village, Jabalpur District. Coll. U. A. Gajbe, 30.X.1985. *Paratype* and *Allotype*, Kaladehi village, Jabalpur District. Coll. U.A. Gajbe, 20.IV.1982.

Distribution : India : Madhya Pradesh.

Cephalothorax : Longer than wide, medially broad; cephalic region raised; thoracic region postero-medially with longitudinal fovea. Anterior most eyes smallest; the other eyes pearly-white, each eye basally with a black band; ocular area brownish-black, covered with white pubescence; anterior row of eyes recurved; posterior row procurved. Chelicerae yellow, inner margin with a tooth and outer margin with two teeth, fangs reddish-brown, strongly curved. Maxillae and labium reddish-brown, elongate; maxillae anteriorly wide and scopulae; labium postero-medially constricted, anteriorly narrow, scopulae. Sternum typically heart-shaped, covered with white fine hairs throughout. Legs yellow, leg formula 3214.

Abdomen : Oval, anteriorly wide, posteriorly narrow, covered with white pubescence, anteriorly more densely; dorsum with a longitudinal brown marking anteriorly; each lateral side with three brown markings as in fig 141, ventrally yellowish covered with hairs. Epigyne as in fig. 142.

Type-specimern : *Holotype* female, deposited in the collection of Entomology Laboratory, Department of Zoology, University of Kolkata, Kolkata, India.



Figs. 141-142. *Oxyopes ovatus* Biswas *et al.* : 141. Dorsal view of female, legs omitted; 142. Epigyne.

Type-locality : Hatipota, Buxa Tiger Reserve, Jalpaiguri, West Bengal, India. Coll. B. Kundu, 10.V.1994.

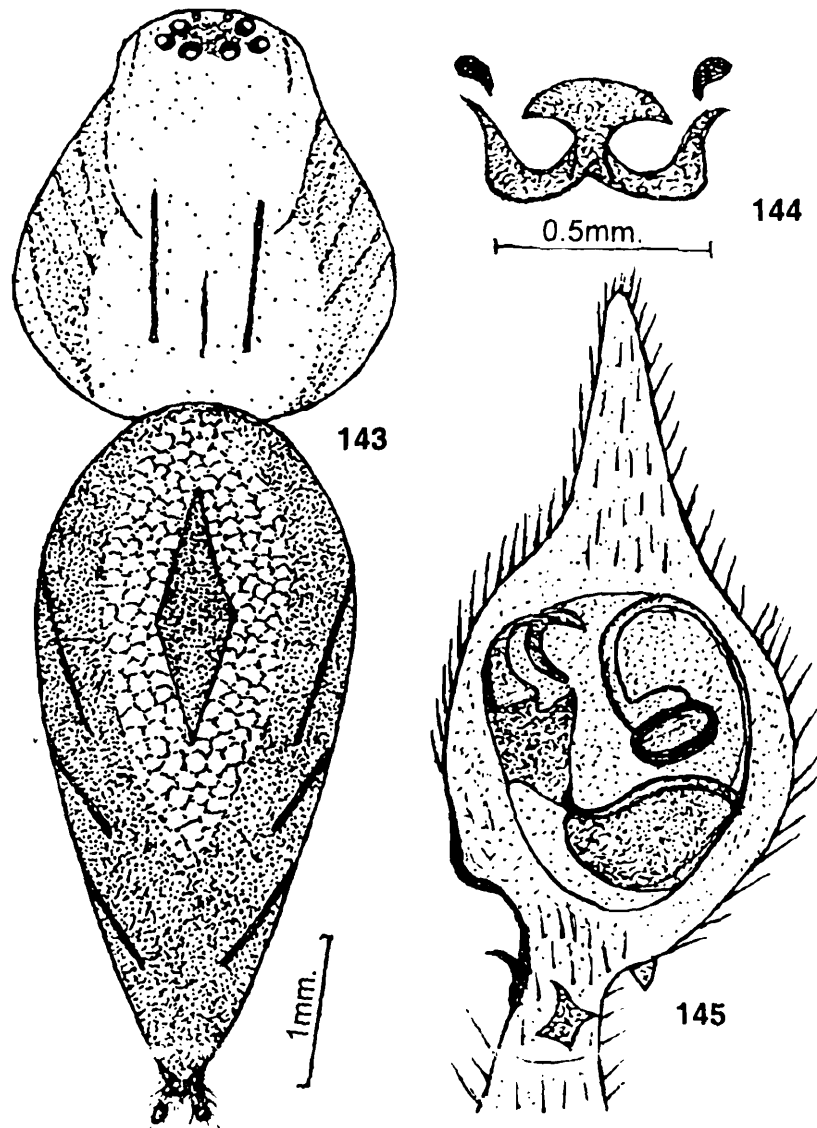
Distribution : India : West Bengal.

39. ***Oxyopes pandae*** Tikader
(Figs. 143-145)

1969. *Oxyopes pandae* Tikader, *Oriental Ins.*, 3(1) : 33.

1999. *Oxyopes pandae* : Gajbe, *Rec. zool. Surv. India*, 97(3) : 36.

General : Cephalothorax and legs greenish white, abdomen brownish-green. Total length 7.5 mm. Carapace 2.8 mm long, 2.5 mm wide; abdomen 4.8 mm long, 2.2 mm wide.



Figs. 143-145. *Oxyopes pandae* Tikader : 143. Dorsal view of female, legs omitted; 144. Epigyne; 145. Male palp, ventral view.

Cephalothorax : Longer than wide, narrowing in front, cephalic region slightly high, clothed with short spatulate hairs; centre of thorax provided with short fovea. Eyes eight in two rows, base of eyes encircled with black patch; posterior row slightly procurved, equidistant from each other, anterior row strongly recurved, anterior median eyes smallest. Middle of ocular quadrangle with a pair of long spines directed forward. Clypeus long, with two conspicuous brown stripes extending from anterior median eyes to near the base of fangs of chelicerae. Sternum heart-shaped, pointed behind, clothed with fine hairs and spines; Legs long and strongly clothed with hairs and conspicuous longitudinal brown or black stripes. Femora of I and II legs provided with two pairs of robust ventral spines. Male palp as in fig. 145.

Abdomen : Long, narrowing behind, clothed with fine hairs, mid-dorsally with a brown longitudinal patch and the sides with some blackish lines as in fig. 143. Ventral side with broad longitudinal deep brown stripe, extending from epigastric fold to near the base of spinnerets. Epigyne as in fig. 144.

Type-specimen : *Holotype* female, *Allotype* male, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3822/18 and 3824/18).

Type-locality : India, Uttar Pradesh, Engineering College Compound, Allahabad. Coll. M. S. Pande, 1. IV 1968.

Distribution : India : Allahabad, Uttar Pradesh.

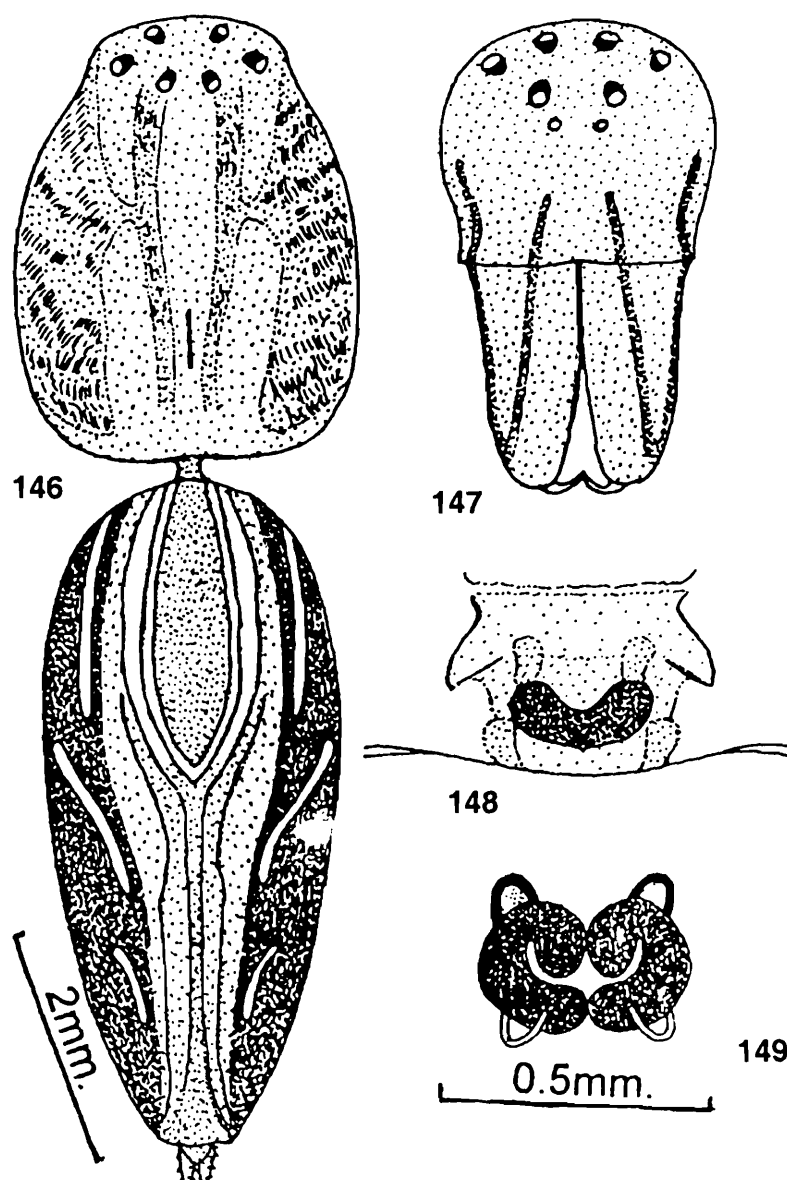
40. *Oxyopes pankaji* Gajbe & Gajbe (Figs. 146-149)

2000. *Oxyopes pankaji* Gajbe & Gajbe, *Rec. zool. Surv. India*, **98**(2) : 123.

General : Cephalothorax, legs and abdomen reddish-green. Total length 10.0 mm. Carapace 3.7 mm long, 2.9 mm wide; abdomen 6.1 mm long, 2.5 mm wide.

Cephalothorax : Longer than wide, cephalic region high and broad, clothed with fine hairs and some deep brown special type of blunt hairs, mainly on the lateral sides and mid-thoracic region as in fig. 146. Centre of thoracic region with a sharp fovea. Eyes pearly white; anterior row strongly recurved, posterior row procurved; posterior medians and laterals equidistant to each other; base of each eye encircled with a black patch, anterior medians smallest of all eyes. Clypeus long, provided with two black lines, as in fig. 147. Sternum heart-shaped, pointed behind, clothed with fine hairs and conspicuous long spines. Legs long and strong, clothed with fine hairs and long spines, femora of all legs provided with longitudinal black lines.

Abdomen : Long, narrowing behind, clothed with fine hairs, anterior mid-dorsally with a lens-shaped light greenish patch which is bordered by brownish, whitish and light greenish stripes. Lateral sides blackish with three pairs of silvery white stripes as in fig. 146. Ventral side dirty white but mid-ventrally provided with a broad deep brown band extending from epigastric fold to spinnerets. Epigyne as in fig. 148. Internal genitalia as in fig. 149.



Figs. 146-149. *Oxyopes pankaji* Gajbe & Gajbe : 146. Dorsal view of female, legs omitted; 147. Clypeus; 148. Epigyne; 149. Internal genitalia.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5518/18).

Type-locality : India, Madhya Pradesh, Jabalpur. MR-4 road. Coll. Pawan Gajbe, 16.VIII.1998.

Distribution : India : Madhya Pradesh.

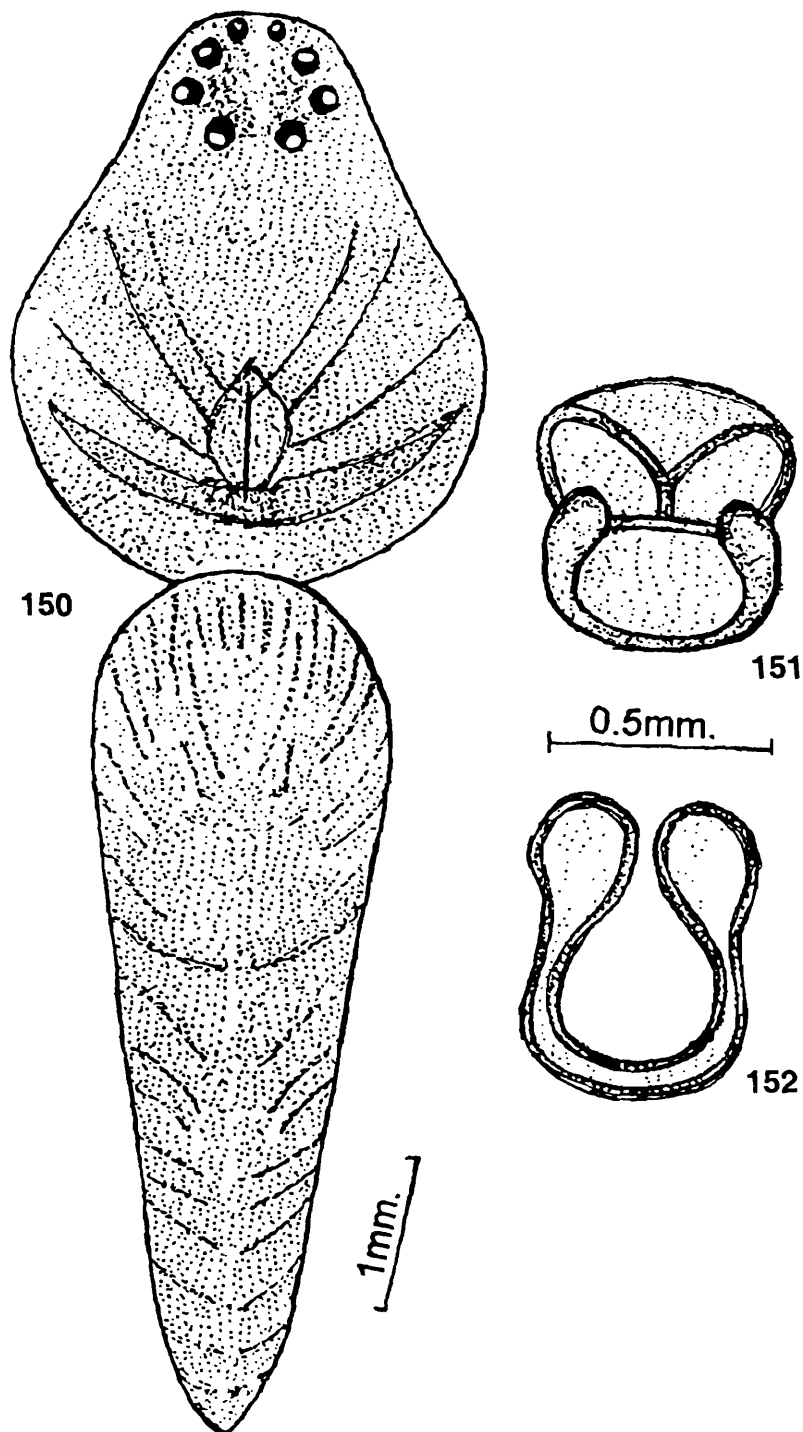
41. *Oxyopes pawani* Gajbe (Figs. 150-152)

1992. *Oxyopes pawani* Gajbe, *Rec. zool. Surv. India*, **91**(3-4) : 389.

1999. *Oxyopes pawani* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 57.

General : Cephalothorax and legs brownish-green, abdomen dark brown. Total length 9.7 mm. Carapace 3.9 mm long, 3.2 mm wide; abdomen 5.8 mm long, 2.0 mm wide.

Cephalothorax : Longer than wide, convex, with cephalic region high and broad, clothed with white pubescence; posterior half provided with conspicuous fovea. Anterior row of eyes strongly recurved (as seen from in front), with medians smaller than laterals and with eyes equally spaced; posterior row of eyes procurved with eyes equal



Figs. 150-152. *Oxyopes pawani* Gajbe : 150. Dorsal view of female, legs omitted; 151. Epigyne; 152. Internal genitalia.

in size and equidistant from each other; all encircled with black patch. Clypeus long, provided with chalk white patch, extending from anterior median eyes to near base of fang of chelicerae. Chelicerae moderately strong; inner margin of each provided with one small tooth and outer margin with two dissimilar teeth. Labium and maxillae longer than wide, brownish-green; maxillae provided with scopulae. Sternum heart-shaped, pointed behind, provided with hairs and some short spines. Legs relatively long and strong, clothed with hairs and conspicuous long spines.

Abdomen : Longer than wide, narrowing behind, clothed with pubescence and muscular corrugations as in fig. 150. Ventral side provided with mid-ventral black patch and two longitudinal white stripes extending from epigastric furrow to base of spinnerets. Epigyne as in fig. 151. Internal genitalia as in fig. 152.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5432/18).

Type-locality : India, Uttar Pradesh, Golakpur near Lucknow. Coll. *P L Tandon*, 14.XI.1976.

Distribution : India, Uttar Pradesh, Lucknow.

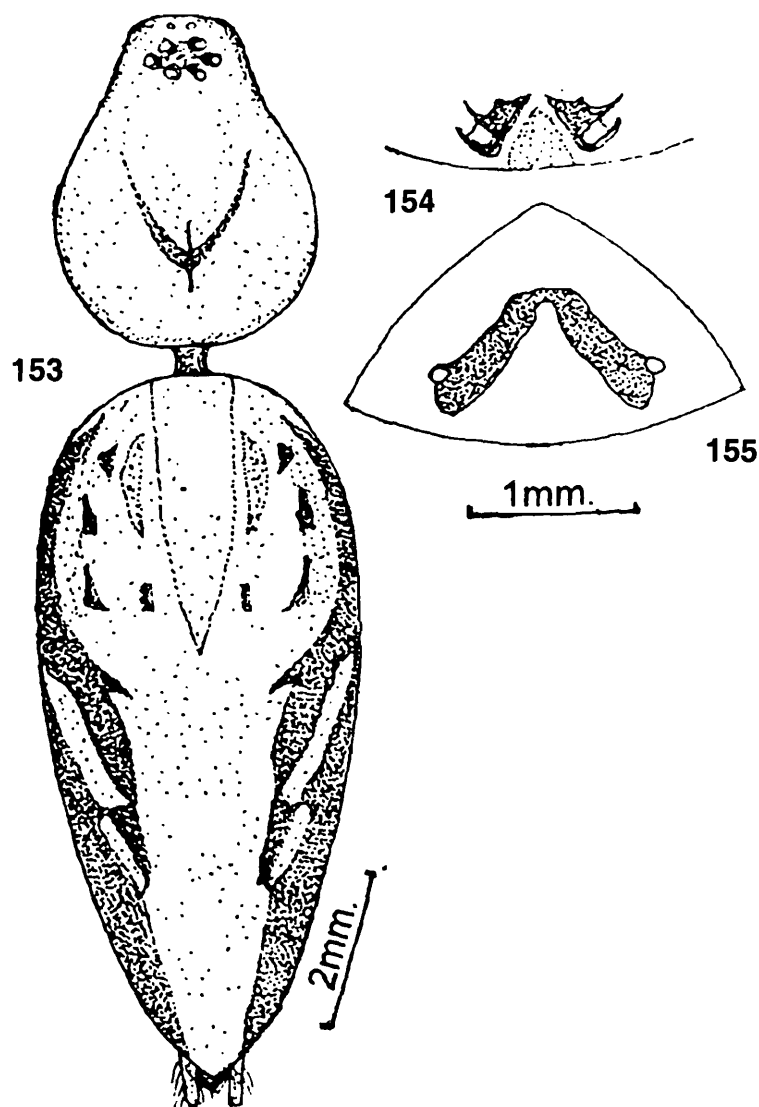
42. *Oxyopes rajai* Saha & Raychaudhuri (Figs. 153-155)

2003. *Oxyopes rajai* Saha & Raychaudhuri, *Entomon*, 28(4) : 324.

General : Cephalothorax brown, legs yellow, abdomen pale yellow. Total length 14.00 mm. Carapace 4.25 mm long, 3.35 mm wide; abdomen 8.85 mm long, 4.0 mm wide.

Cephalothorax : Longer than wide, brown, medially paler, cephalic region little raised, median longitudinal fovea distinct, clothed with fine hairs. Eyes pearly-white, encircled by black patch, equidistantly placed, anterior row strongly recurved, posterior row procurved, anterior medians smallest, ocular quad elongately rectangular blackish. Clypeus long, broad, anterolateral angles black, medially with two black lines extending from each of the anteromedian eye to near the base of cheliceral fang. Chelicerae pale yellow, robust, inner margin with one tooth and outer margin with two teeth, the later with long brown hairs, fang pale brown, short, stout, acute. Maxillae pale brown, labium apically darker, little elongate, both apically provided with scopulae. Sternum pale yellow, broadly triangular, posteriorly produced with few long brown hairs. Legs long, stout with brown hairs and spines, femora ventrally with a conspicuous longitudinal black line. Leg formula 4321.

Abdomen : Longer than wide, narrowing behind, clothed with fine hairs, pale yellow with a lanceolate patch, laterally with black stripes, rest with few patches of white reticulations as in fig. 153. Ventral side brown with median longitudinal broad black band extending from epigastric furrow to near the base of spinnerets, on either side with white reticulations. Epigyne and internal genitalia as in figs. 154 & 155.



Figs. 153-155. *Oxyopes rajai* Saha & Raychaudhuri : 153. Dorsal view of female, legs omitted; 154. Epigyne; 155. Internal genitalia.

Type-speciment : Holotype female, in spirit, other details as above.

Type-locality : Raja bhatkhawa, Buxa Tiger Reserve, Jalpaiguri, West Bengal, India. Coll. D. Raychaudhuri, 8.III.2001.

Distribution : India, West Bengal.

43. *Oxyopes ratnae* Tikader
(Figs. 156-158)

1970. *Oxyopes ratnae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 325.

1999. *Oxyopes ratnae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 53.

General : Cephalothorax and legs brownish-green, abdomen dirty white. Total length 10.0 mm. Carapace 3.5 mm long, 2.6 mm wide; abdomen 6.7 mm long, 3.8. wide.

Cephalothorax : Longer than wide, convex, cephalic region slightly higher, clothed with short spatulae deep brown hairs; centre of thorax provided with fine fovea. Eyes in two row, encircled by black patch; posterior row slightly procurved and equally spaced; anterior row strongly recurved, anterior medians very small. Clypeus long and provided with two black lines extending from anterior median eyes to near the base of fangs of chelicerae. Sternum heart-shaped, pointed behind, clothed with hairs and spines. Legs long and strong, clothed with hairs and conspicuous long spines, upper side of femora of all legs provided with a longitudinal deep brown line.

Abdomen : Longer than wide, narrowing behind, clothed with fine and some spatulate hairs. Lateral sides with deep brown patch, posterior half with dirty white chevrons as in fig. 156. Ventral side uniform dirty white but middle provided with conspicuous longitudinal broad black lines, extending from epigastric furrow to base of spinnerets. Epigyne as in fig. 157. Male smaller than female; male palp as in fig. 158.

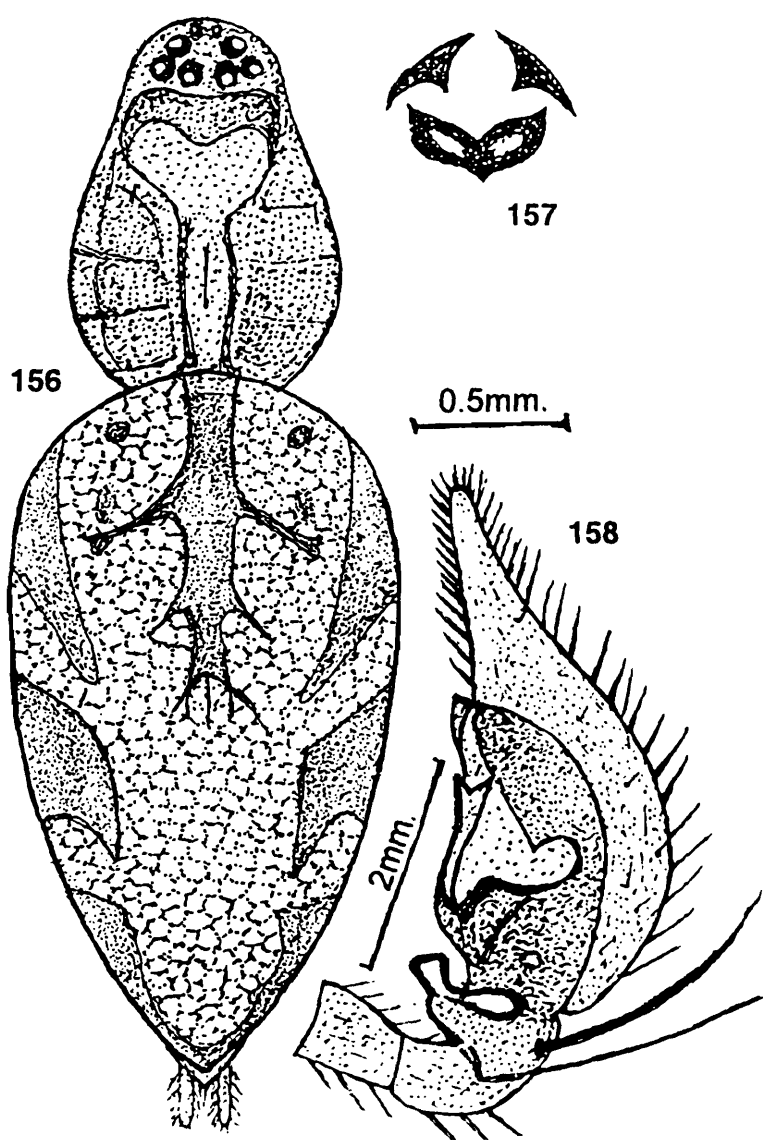


Fig. 156-158. *Oxyopes ratnae* Tikader : 156. Dorsal view of female, legs omitted; 157. Epigyne.; 158. Male palp, lateral view.

Type-specimens : *Holotype* female, *Allotype* one male, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3175/18).

Type-locality : India, West Sikkim, Legship. Coll. B. K. Tikader, 1.X.1959.

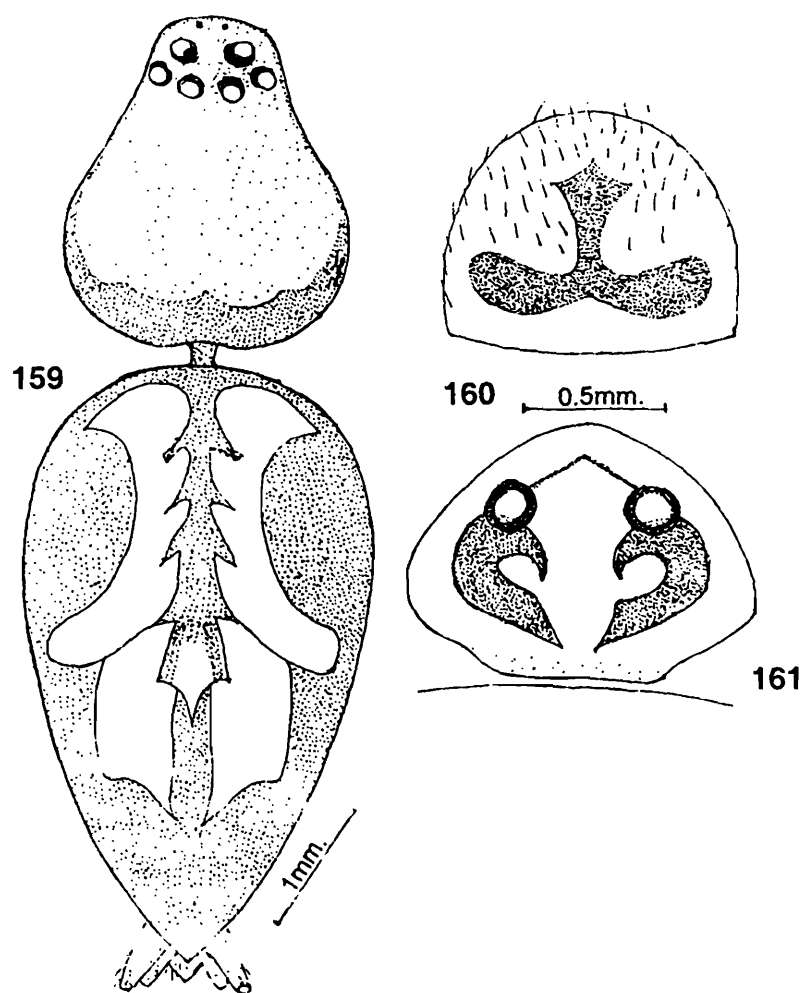
Distribution : India : Sikkim; Punjab; West Bengal.

44. *Oxyopes reddyi* Majumder
(Figs. 159-161)

2004. *Oxyopes reddyi* Majumder, *Mem. zool. Surv. India*, **20**(2) : 26.

General : Cephalothorax and legs reddish brown, abdomen brownish grey in colour. Total length 6.80 mm. Carapace 2.50 mm long, 2.30 mm wide; abdomen 4.50 mm long, 2.30 mm wide.

Cephalothorax : Longer than wide, globoid in shape, carapace more or less convex, slightly broader at the anterior end, covered with brownish hair, central fovea totally absent. Eyes pearly white encircled by black patches, ocular area without black patches. Anterior row of eyes strongly recurved and equally spaced. The posterior eyes



Figs. 159-161. *Oxyopes reddyi* Mazumder : **159.** Dorsal view of female, legs omitted; **160.** Epigyne; **161.** Internal genitalia

procurved, posterior medians slightly closer to posterior laterals than to each other. Two small ocelli present in front of two anterior median eyes. Sternum heart-shaped, pointed behind. Maxillae longer than wide, slightly curved forward, a shallow depression present anteriorly pointed and blackish, provided with scopulae. Chelicerae not very strong, inner and outer margin provided with two teeth each. Legs not very strong, slender, covered with hairs and spines, leg formula 4312.

Abdomen : Longer than wide, covered with fine grey and brownish hair. Dorsum ornamented middorsally with grayish brown patches and laterally with whitish patches as in fig. 159. Ventral side uniformly coloured. Epigyne as triangular plate with copulatory opening as in fig. 160. Internal genitalia with large spermatheca divisible into two parts as in fig. 161.

Type-specimen : *Holotype* female in spirit, other details as above, deposited in National Zoological Collection, Zoological Survey of India, Kolkata, (Reg. No. 5469/18.)

Type-locality : Dakshin Kankan, P. S. Pathar pratima, Dist. South 24 paraganas, West Bengal, India. Coll. K. N. Reddy, 18.IV.1993.

Distribution : India, West Bengal.

45. *Oxyopes reticulatus* Biswas et al.
(Figs. 162-163)

1996. *Oxyopes reticulatus* Biswas, V. et al., *Acta arachnol.*, **45**(1) : 57.

General : Cephalothorax and legs yellowish-brown, abdomen grey. Total length 10.0 mm. Carapace 4.0 mm long, 3.0 mm wide; abdomen 6.0 mm long, 3.0 mm wide.

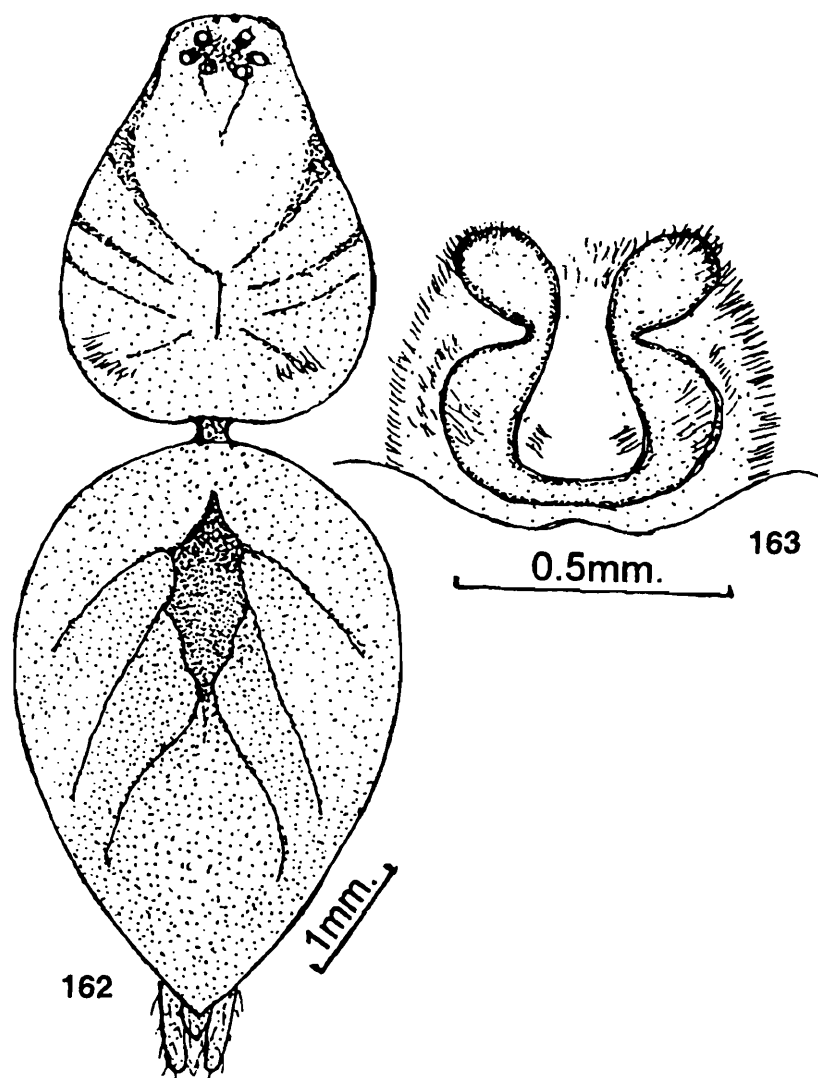
Cephalothorax : Longer than wide, posteriorly broad; cephalic region slightly raised, cervical furrows weakly impressed; thoracic region marginally with white pubescence anteriorly densely so, posteromedially with longitudinal fovea, radii distinct. Anterior most eyes smallest; the other eyes white, each eye basally with a black patch; anterior row of eyes recurved, posterior row procurved. Chelicerae yellow, inner margin with a tooth and outer margin with two teeth, fangs brown. Maxillae and labium brownish, elongate, anteriorly wide and scopulate. Sternum yellow, typically heart-shaped with white pubescence. Legs yellowish-brown, leg formula 1243.

Abdomen : Oval, anteromedially wide; dorsum with white reticulations, medially with an ovoid free area, each side of which with two pairs of sigilla as in fig. 162 venter covered with white pubescence. Epigyne as in fig. 163.

Type-specimen : *Holotype* female, deposited in the collection of Entomology Laboratory, Department of Zoology, University of Kolkata, Kolkata, India.

Type-locality : Jayanti, Buxa Tiger Reserve, Jalpaiguri, West Bengal, India, Coll. B. Kundu, 9.V.1994.

Distribution : India : West Bengal.



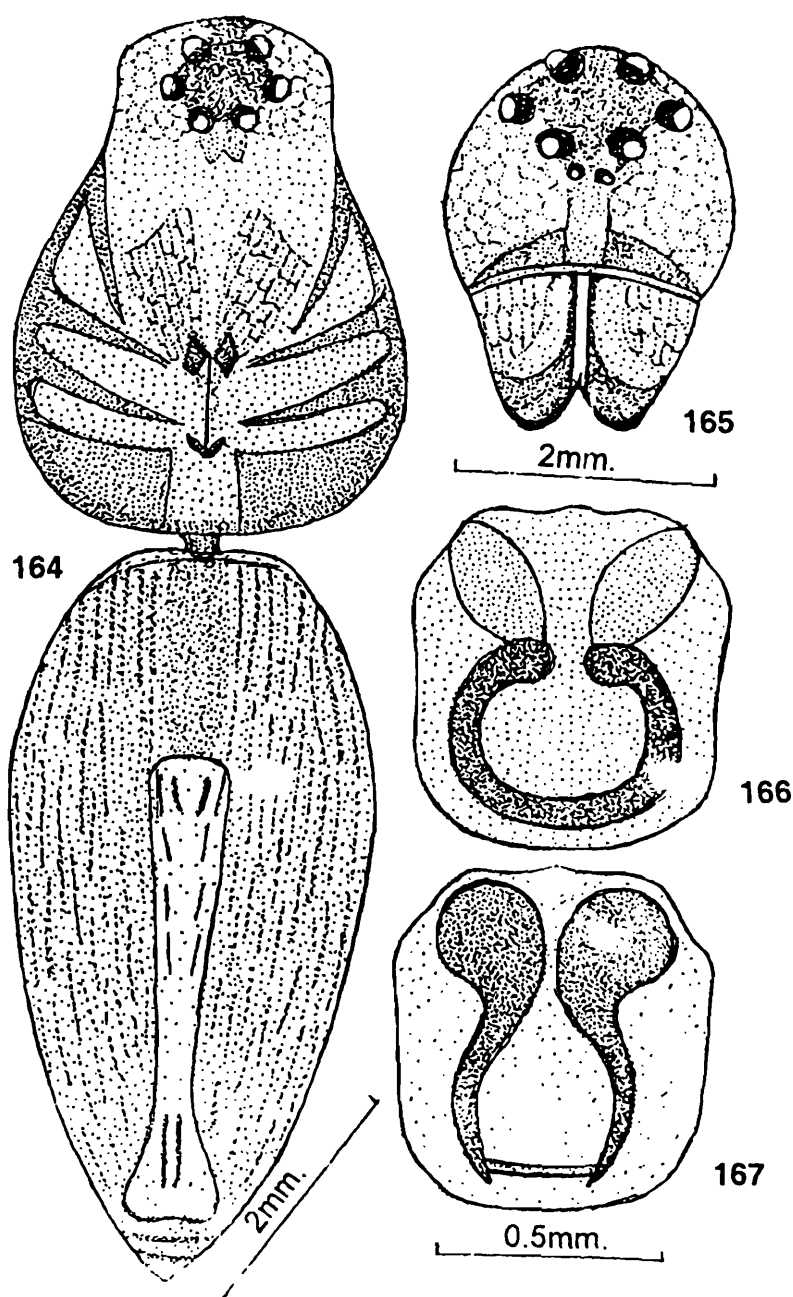
Figs. 162-163. *Oxyopes reticulatus* Biswas *et al.* : **162.** Dorsal view of female, legs omitted; **163.** Epigyne.

46. *Oxyopes rukminiae* Gajbe
(Figs. 164-167)

1999. *Oxyopes rukminiae* Gajbe, *Rec. zool. Surv. India*, **97**(3) : 54.

General : Cephalothorax and legs brownish-green, abdomen dark brown. Total length 9.8 mm. Carapace 4.0 mm long, 3.0 mm wide; abdomen 5.6 mm long, 2.4 mm wide.

Cephalothorax : Longer than wide, cephalic region high and broad, clothed with pubescence, posterior half provided with a conspicuous fovea. Anterior row of eyes strongly recurved (as seen from in front), medians smaller than the laterals and equally spaced. Posterior row of eyes strongly procurved, equal in size and equidistant from each other as in fig. 164. All eyes encircled by black patch. Clypeus long, vertical, provided with black reticulations and black patch near the base of chelicera as in fig. 165. Sternum heart shaped, pointed behind, provided with hairs and some short spines.



Figs. 16 167. *Oxyopes rukminiae* Gajbe : 164. Dorsal view of female, legs omitted; 165. Clypeus; 166. Epigyne; 167. Internal genitalia.

Chelicera long, vertical, inner margin provided with hairs and some short spines. Chelicera long, vertical, inner margin provided with one minute tooth and outer margin with two dissimilar teeth. Labium and maxillae longer than wide, light yellowish-green, anterior end provided with distinct scopulae. Legs long and strong, clothed with hairs and conspicuous long spines and dorsally provided with black patches.

Abdomen : Longer than wide, narrowing posteriorly, clothed with pubescence and muscular corrugations as in fig. 164. Ventral side provided with mid-ventrally longitudinal broad black stripe and laterally with white stripe extending from epigastric furrow to base of spinnerets. Epigyne as in fig. 166. Internal genitalia as in fig. 167.

Type specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 5499/18).

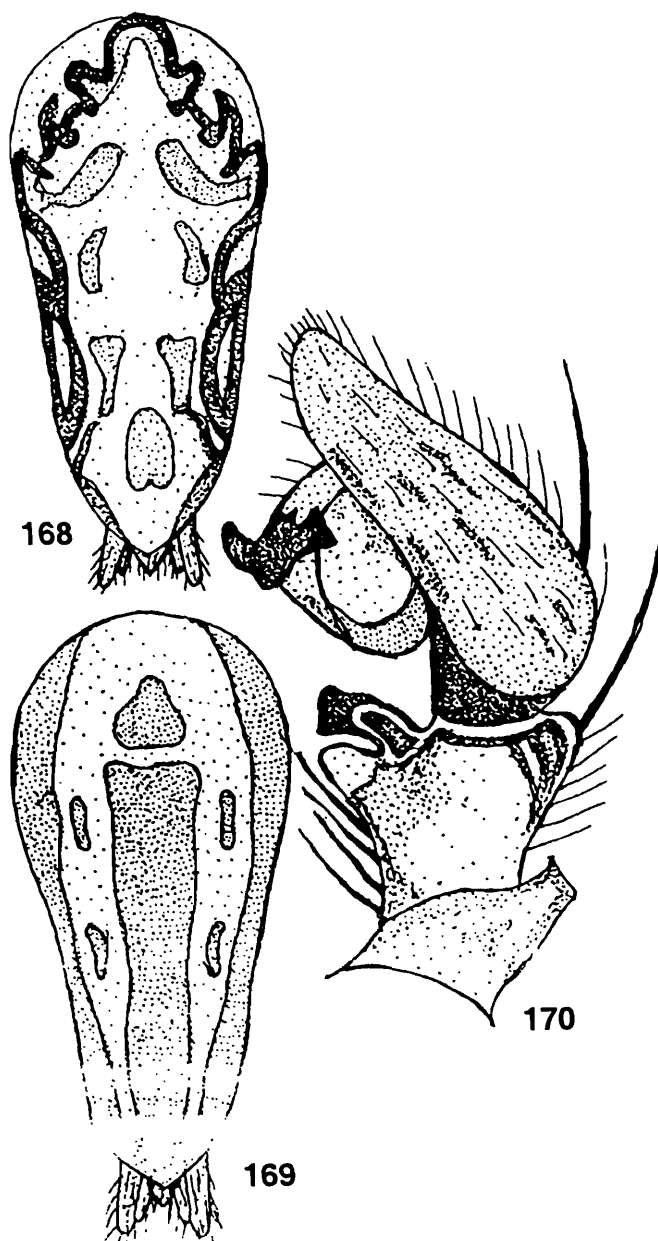
Type locality : India, Chhattisgarh, Tondabeda village, near Orchha, Bastar district. Coll. U. A. Gajbe, 20. XII.1983.

Distribution : India, Chattisgarh, Kerala, Karnataka.

47. *Oxyopes rufisternis* Pocock
(Figs. 168-170)

1901. *Oxyopes rufisternis* Pocock, *J. Bombay. nat. Hist. Soc.*, **13** : 483.

1951. *Oxyopes rufisternis*: Sheriffs, *Proc. Zool Soc. London*, **120** : 666-667.



Figs. 168-170. *Oxyopes rufisternis* Pocock : **168.** Dorsal view of abdomen of male; **169.** Ventral view of abdomen of male; **170.** Male palp, lateral view.

Male only : Cephalothorax dark red-brown with scattered patches of white hairs laterally, almost as long as patella + tibia IV; ocular area dark red-brown, broader than long, patches of white hairs between the eyes; eyes AM about one diameter apart; clypeus about twice height of front part of ocular quadrangle, more than half length of chelicerae; chelicerae (mandibles) dark fawn, fangs red-brown; labium dark brown; maxillary lobes dark red-brown at base, tips light fawn; sternum brownish fawn with deep brick-red down on it; abdomen dorsal fig. 168, light fawn, centre without any marked pattern, dark red-brown at sides and at top edge next cephalothorax where dark parts alternate with whitish blotches, ventral fig. 169; darker and lighter fawn (almost white) median and lateral darker bands spinnerets red brown; legs dark red brown with scattered patches of white hairs, coxae brownish fawn, all femora double striped underneath, tips of tibiae IV dark distally, in order of length I,II,IV, III with IV and III subequal and much shorter than I which is just over four times length of cephalothorax; palps fig. 170 dark red-brown with scattered patches of white hairs except on tarsus which ends in a yellow point longer than the dark bulb and laterally bears a characteristically shaped short black spine; tibia armed below distally with two subequal parallel processes projecting downwards and forwards, the posterior of these hairy and pale brown coloured, the anterior smooth, black and clavate at tip.

Measurements : Body, long 9; cephalothorax, long 3.5; legs I 15, II 14, III 11, IV 11.5 mm Dyal in "Spiders of Lahore" gives 7.5 as average body length.

Specimen examined : 1 male only, 9.5 mm long.

Distribution : India : Bihar, Gujarat.

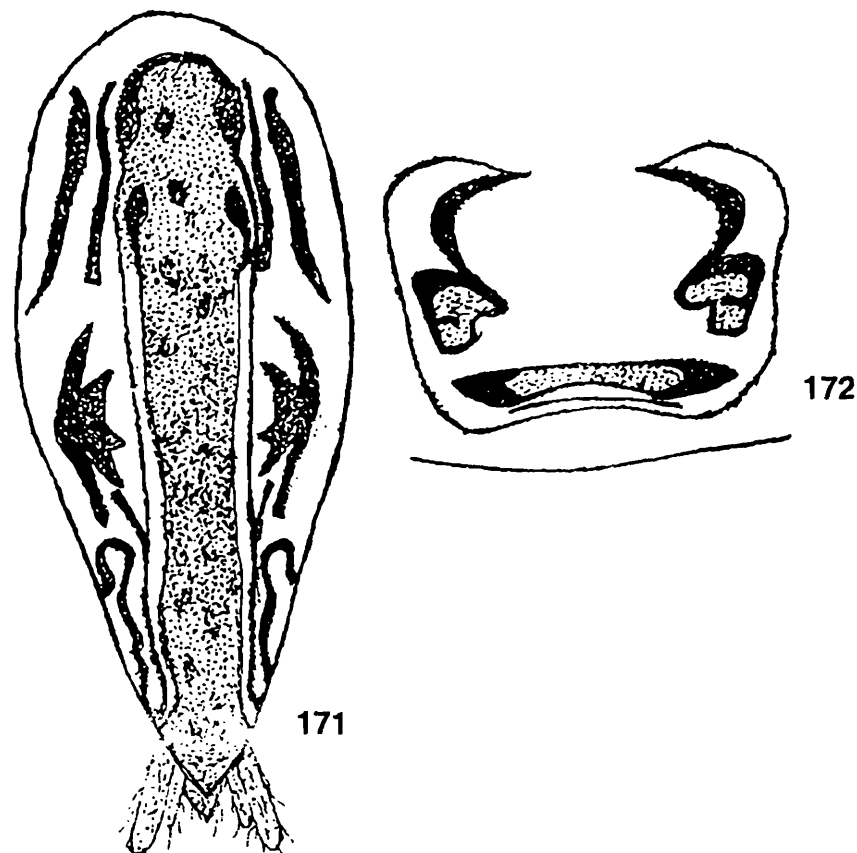
Elsewhere : Sri Lanka, Pakistan.

48. *Oxyopes ryvesii* Pocock (Figs. 171-172)

1901. *Oxyopes ryvesii* Pocock, *J. Bombay nat. Hist. Soc.* **13** : 482-483.

1951. *Oxyopes ryvesii* : Sherriffs, *Proc. Zool. Soc. London*, **120** : 667-668.

Female only : Cephalothorax basally brownish, black lines from AM eyes down clypeus, five fainter lines radiating from fovea to each side, no black-lines edge; ocular area patches of white hairs round or between AL eyes; clypeus brownish; chelicerae (mandibles) brownish, fangs darker brown; labium dark brown; maxillary lobes light brown; sternum brown-olive with scattered long brown hairs; abdomen front half broader and parallel-sided, posterior half abruptly narrowed and cylindrical, dorsal fig. 171; central longitudinal olive brown stripe with at top end four dark eye-shaped marks and on either side a yellowish-pearly area with outwards again laterally a fawn region containing within it three irregularly curved paired lines (1st pair red other two pairs black); ventral this torn specimen shows only traces of a median black line extending whole length from epigyne to spinnerets, on each side of these middle



Figs. 171-172. *Oxyopes ryvesii* Pocock : 171. Dorsal view of female, legs omitted; 172. Epigyne.

line a fawn area with remains of golden scales towards distal tip; spinnerets black, epigyne fig. 172; legs almost uniformly brownish with few black dots, tarsi darker brown, tibiae darker tipped distally, spines long and brown, front femora not well-lined in black below, very long I over five times length of cephalothorax, patella IV slightly longer than cephalothorax, in order of length I,II,IV,III patella + tibia IV 5.8 mm; palps light brown, terminal joints darker brown as in the legs.

Type-measurements : Body 11, cephalothorax 3.5, legs I 19, II 18, III 15, IV 18, patella + tibia IV 5.8 mm

Specimens examined : 1 female only, 11 mm long.

Locality : India, Uttar Pradesh, Allahabad.

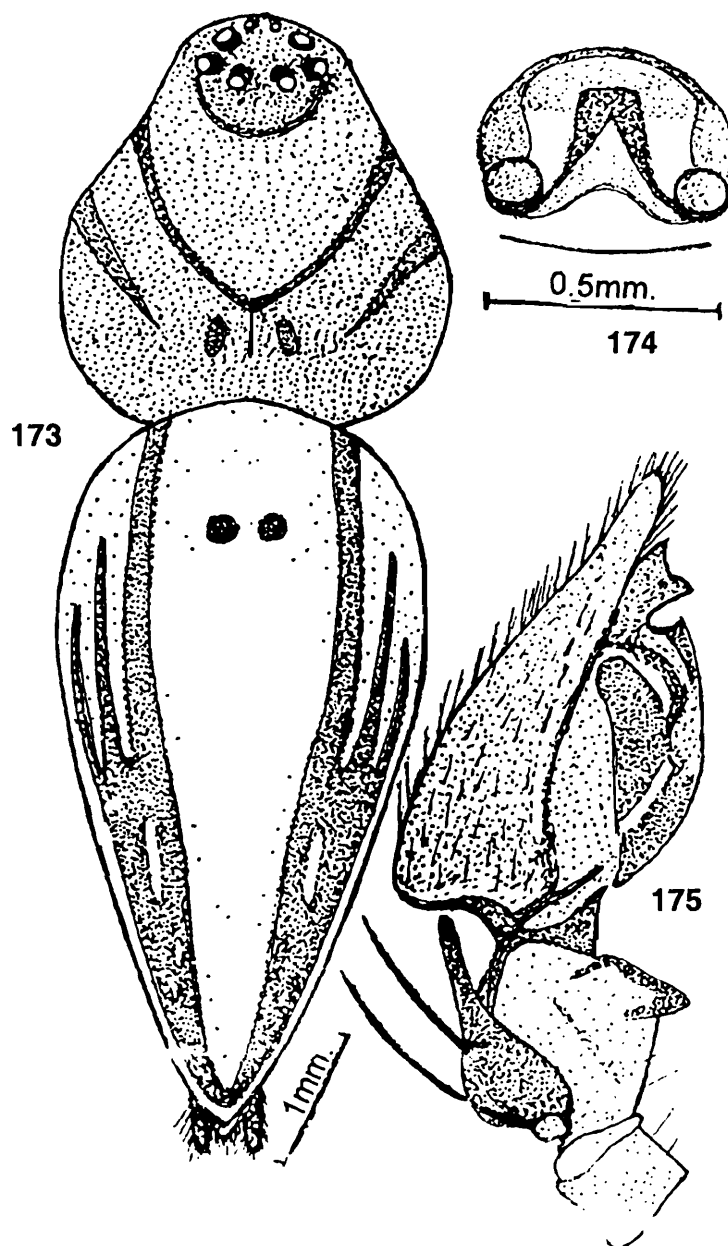
Elsewhere : Pakistan.

49. *Oxyopes sakuntalae* Tikader (Figs. 173-175)

1970. *Oxyopes sakuntalae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 73.

1999. *Oxyopes sakuntalae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 39.

General : Cephalothorax, legs and abdomen brownish-green. Total length 8.5 mm. Carapace 3.2 mm long, 2.9 mm wide; abdomen 5.5 mm long, 2.8 mm wide.



Figs. 173-175. *Oxyopes sakuntalae* Tikader : 173. Dorsal view of female, legs omitted; 174. Epigyne; 175. Male palp, lateral view.

Cephalothorax : Slightly longer than wide, convex, cephalic region slightly high and broad, clothed with fine hairs, centre provided with sharp fovea. Eyes pearly white, posterior row procurved and equally distant, base of each eye encircled with a black patch. Anterior row strongly recurved and anterior medians small. Clypeus long and provided with two black lines extending from anterior median eyes to near the base of fangs of chelicerae. Sternum oval, pointed behind, clothed with fine hairs and conspicuous long spines, all legs provided with longitudinal deep brown discontinuous lines, one situated dorsally and one ventrally.

Abdomen : Longer than wide, narrowing behind with an irregular longitudinal broad line extending from base to end of abdomen as in fig. 173. Ventral side uniform

pale in colour but middle provided with a conspicuous longitudinal broad black line extending from epigastric fold to base of spinnerets. Epigyne as in fig. 174. Male almost like female, male palp as in fig. 175.

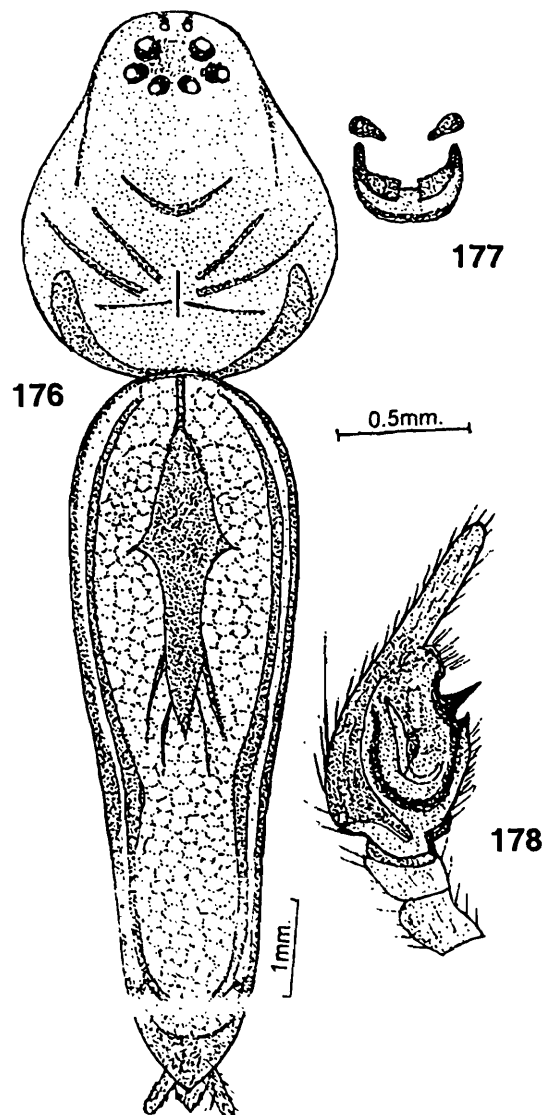
Type-specimens : *Holotype* female, *Allotype* male, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3187/18 and 3188/18).

Type-locality : India. West Bengal, Bhudbari District, Darjeeling. Coll. *B. K Tikader*, 15.IX.1959.

Distribution : India : Darjeeling, West Bengal.

50. *Oxyopes shwetae* Tikader
(Figs. 176-178)

1970. *Oxyopes shwetae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 78.



Figs. 176-178. *Oxyopes shwetae* Tikader : 176. Dorsal view of female, legs omitted; 177. Epigyne; 178. Male palp, lateral view.

General : Cephalothorax and legs light brownish-green, abdomen chalk white. Total length 12.0 mm. Carapace 4.0 mm long, 3.5 mm wide; abdomen 8.0 mm long, 2.5 mm wide.

Cephalothorax : Longer than wide; convex, cephalic region high, clothed with fine hairs, posterior lateral side of thorax provided with deep brown patches, short blunt hairs, two longitudinal black lines on either side of cephalic region, centre of thorax with a short fovea. Eyes in two rows, all eyes encircled by black patch. Posterior row of eyes slightly procurved and equally spaced. Anterior row of eyes strongly recurved, anterior medians very small. Clypeus long and provided with two black lines extending from anterior median eyes to near the base of fang of chelicerae. Sternum heart-shaped, pointed behind, clothed with fine hairs and conspicuous long spines, ventral side of femora of all legs provided with a longitudinal black line.

Abdomen : Longer than wide, narrowing behind, anterior mid-dorsally with a lance-shaped brown patch; lateral side with longitudinal blackish line extending from base to end of abdomen; dorsum with minute net-like chalk white patches as in fig. 176. Ventral side with similar chalk white nets but middle provided with a longitudinal broad brown stripe extending from epigastric furrow to spinnerets. Epigyne as in fig. 177. Male similar to female, but smaller in size; male palp as in fig. 178.

Type-specimen : *Holotype* female. *Allotypes* one male, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3177/18 and 3178/18).

Type-locality : India : West Sikkim, Manjithar. Coll. *B. K. Tikader*, 22.IX.1959.

Distribution : India : Manjithar, Sikkim; Shillong, Meghalaya; Tripura; West Bengal.

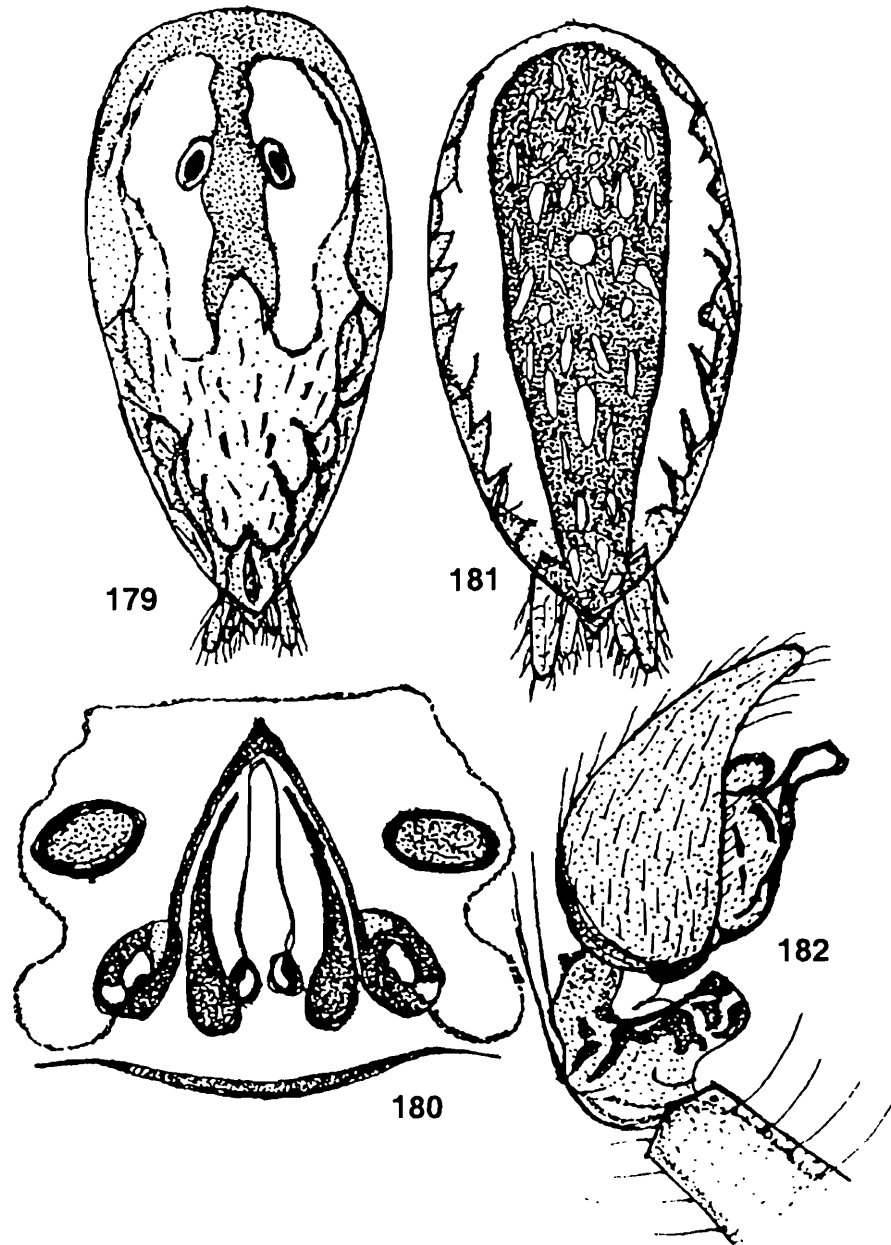
Elsewhere : China.

51. *Oxyopes similaris* Stoliczka (Figs. 179-182)

1869. *Oxyopes similaris* Stoliczka, *J. Asiatic Soc. Bengal*, 38, pt. 2, No. 4 : 222-224.

1951. *Oxyopes similaris*, Sherriffs, *Proc. Zool. Soc. London*, 120 : 668-671.

Male+Female : Cephalothorax fawn, black-edged, small lines of brownish hairs behind posterior eyes and down lower half of middle line; ocular area fawn and covered with silvery hairs; eyes on roundish black spots, each lateral on a minute tubercle; clypeus light fawn, black lines from AM down it into mandibles, small dark spot on each external angle above mandibles; chelicerae (mandibles) reddish fawn, pyramidal in shape, vertical, tapering to their ends, distinct tooth on underside near tip; labium red-fawn like mandibles, shorter than maxillae; maxillary lobes yellow with darkish tips, slightly shorter than chelicerae; sternum pale yellow or fawn with few long light erect hairs, roundish, markedly indented at coxial joints; abdomen in front a long yellowish roughly diamond-shaped mark with two pairs dark-brown spots



Figs. 179-182. *Oxyopes similaris* Stoliczka : 179. Dorsal view of abdomen of female; 180. Epigyne; 181. Ventral view of abdomen of female; 182. Male palp, lateral view.

on its borders; light-brown markings, with darker fawn on each side of them, sides dark with three indistinct main light curved lines; broad black median band containing whitish dots, on each side of these a clear goldenish belt, sides with close-set black wavy lines; abdomen female oviform, elongated. Dorsal fig. 179. fawn upper half of mid-dorsal line olive with two black eye-shaped spots on each side of it, an irregular long, oval whitish area extending half-way down body and on both sides of this area again a goldenish pearly area, sides black-lined with longitudinal wavy stripes on fawn ground; ventral fig. 181 very broad median black stripe enclosing small scattered light marks of varying size and shape, on either side of this band a goldenish pearly area, laterally oblique dark-brown wavy lines uniting posteriorly; spinnerets dark brown above, olive fawn with darker spots below or with blackish edges; epigyne fig.

180; very characteristic shape as in fig. 180; legs fawn, brown-spotted, two fine dark lines on undersides of femora, distal end of tibiae IV dark-ringed, coxae fawn, in order of length I, II, IV, III, covered with fine whitish or larger stiff black spines; palps fig. terminal joints black in adult, tarsus with two processes projecting, the inner dark with a black edge, the outer is the larger with its tip dark and base clear; tibiae has two prominent dark ridges; palps fawn, last joint reddish brown-edged. Male palp as in fig. 182.

Type-measurements : Male body, long 9.0; cephalothorax long 3, wide 2.5; abdomen, long 6, wide 2.5 mm; legs I 13, II 12.5, III 10.5, IV 11.0 mm, patella + tibia 5.0 mm long.

Female body, long 11.0; cephalothorax, long 4, wide 2.5; abdomen long 7, wide 3; legs I 15, II 14.5, III 12.5 mm, patella + tibia 6.0 mm

Distribution : India, Kolkata, West Bengal.

52. *Oxyopes sitae* Tikader (Figs. 183-184)

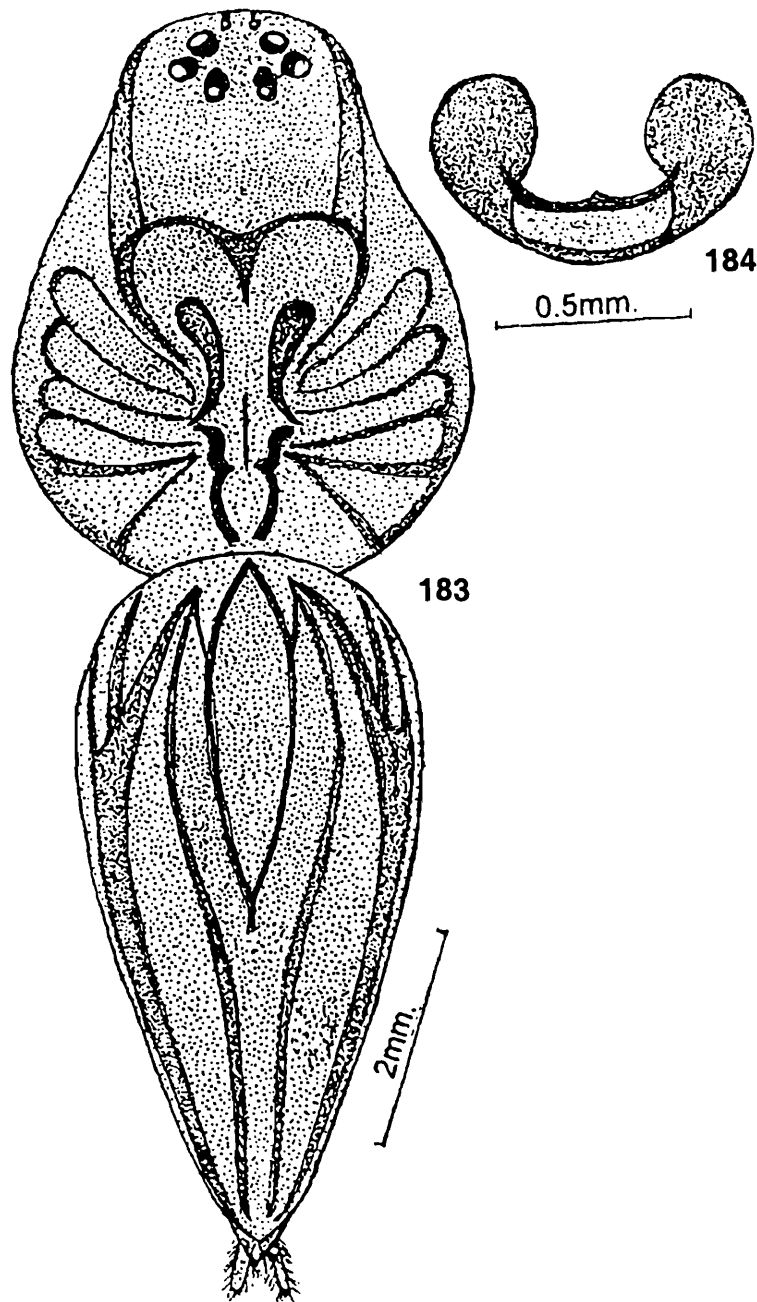
1970. *Oxyopes sitae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 75.

1999. *Oxyopes sitae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 48.

General : Cephalothorax and legs brownish-green, abdomen pale brown. Total length 11.6 mm. Carapace 5.4 mm long, 4.0 mm wide; abdomen 6.4 mm long, 3.2 mm wide.

Cephalothorax : Longer than wide, convex, cephalic region high and broad, clothed with fine hairs; centre of thorax with a fine fovea. Eyes in two rows, eyes encircled by black patch. Posterior row of eyes procurved and situated at equal distance. Anterior row of eyes strongly recurved and anterior medians small. Clypeus long and provided with black lines extending from anterior median eyes to near base of fangs of chelicerae. Sternum heart shaped, pointed behind, clothed with fine hairs and spines. Legs long and strong, clothed with fine hairs and conspicuous long spines; lower side of femora of all legs provided with two, and dorsal side of patella and tibia with one conspicuous longitudinal black line.

Abdomen : Longer than wide, narrowing behind, clothed with fine grey and dark hairs. Anterior mid-dorsally with a lance-shaped black patch and lateral sides provided with longitudinal black line extending from base to end of abdomen as in fig. 183. Ventral side uniform pale in colour, but middle provided with a conspicuous longitudinal broad black stripe extending from epigastric furrow to the base of spinnerets. Epigyne as in fig. 184.



Figs. 183-184. *Oxyopes sitae* Tikader : 183. Dorsal view of female, legs omitted; 184. Epigyne.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3080/18)

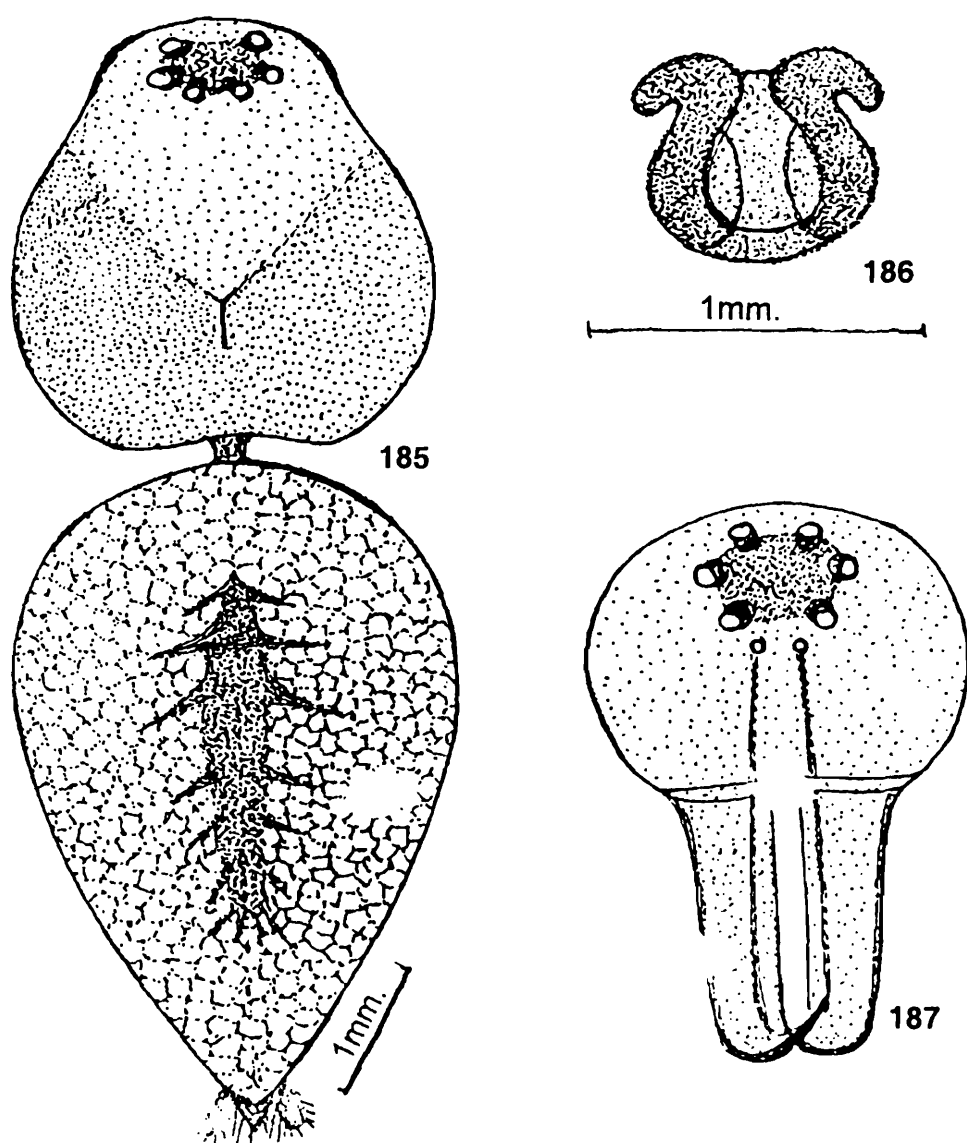
Type-locality : India, West Sikkim, Rohtak. Coll. *B. K. Tikader*, 24.IX.1959.

Distribution : India : Sikkim, Andaman, Shillong, Meghalaya, Gujarat.

53. *Oxyopes subhadrae* Tikader
(Figs. 185-187)

1970. *Oxyopes subhadrae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 71.

1999. *Oxyopes subhadrae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 40.



Figs. 185-187. *Oxyopes subhadrae* Tikader : **185.** Dorsal view of female, legs omitted; **186.** Epigyne; **187.** Clypeus.

General : Cephalothorax and legs brownish green, abdomen dirty white. Total length 8.2 mm Carapace 3.2 mm long, 3.0 mm wide; abdomen 5.0 mm long, 3.4 mm wide.

Cephalothorax : Longer than wide, convex, clothed with fine hairs, cephalic region slightly high and broad, centre provided with fovea. Eyes in two rows, encircled by black patch. Anterior row of eyes strongly recurved, medians very small, posterior row slightly procurved, posterior medians closer to adjacent than to each other. Clypeus long, clothed with grey hairs, provided with black lines starting from anterior median eye to the base of fangs of chelicerae as in fig. 187. Sternum heart-shaped, pointed behind, clothed with fine hairs. Legs long and strong, clothed with fine hairs and conspicuous long spines.

Abdomen : Longer than wide, narrowing behind, clothed with fine hairs, mid-dorsally with lance shaped brown patch and all over the abdomen provided with irregular net like white patch as in fig. 185. Ventral side uniform light brown in colour and clothed with short and stout deep brown hairs. Epigyne as in fig. 186.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3186/18).

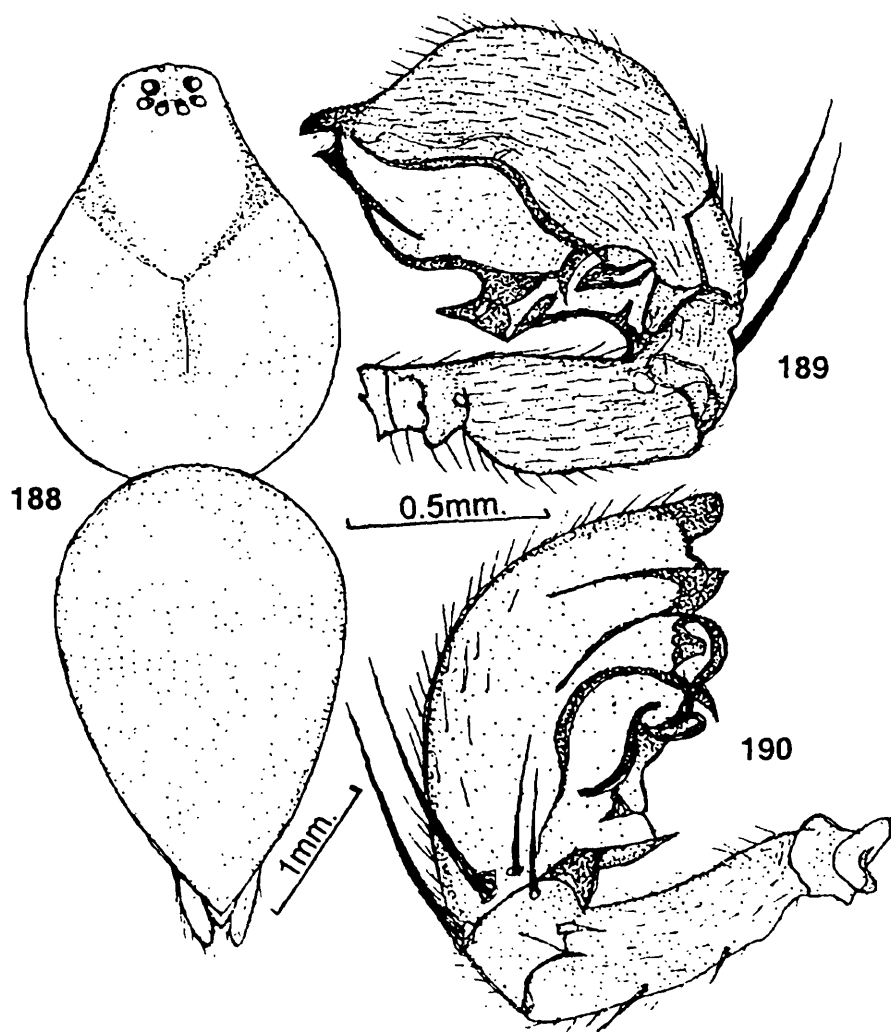
Type-locality : India, West Sikkim, Legship. Coll. B. K. Tikader, 1.X.1959.

Distribution : India : Sikkim; Andamans.

54. *Oxyopes subimali* Biswas *et al.*
(Figs. 188-190)

1995. *Oxyopes subimali* Biswas, V. *et al.* *Acta arachnol.*, **45**(1) : 59.

General : Cephalothorax yellowish, legs and abdomen yellowish brown. Total length 6.0 mm. Carapace 3.0 mm long, 2.0 mm wide; abdomen 3.0 mm long, 1.5 mm wide.



Figs. 188-190. *Oxyopes subimali* Biswas *et al.* : 188. Dorsal view of female, legs omitted; 189. Male palp, prolateral view; 190. Male palp, retrolateral view.

Cephalothorax : Longer than wide, ovoid, medially broad, with a few white pubescence anteriorly; cephalic region raised, cervical furrows weakly impressed; thoracic region centrally with a longitudinal fovea. Eyes black, anterior most eyes smallest, each with a black band, the other eyes each with a black patch. Chelicerae brown, inner and outer margins with two teeth respectively. Maxillae and labium brown, elongate, maxillae anteriorly broad and scopulate, labium medially broad. Sternum yellow, heart-shaped, covered with white pubescence. Legs yellowish-brown; legs formula 1234. Male palp with tibial apophysis as in fig. 189 and 190.

Abdomen : Oval, anteriorly broad, posteriorly narrow, with whitish markings, covered with pubescence and hairs as in fig. 188. Venter medially grey, marginally organish, strongly hairy.

Type-specimen : *Holotype* male, deposited in the collection of Entomology Laboratory, Department of Zoology, University of Kolkata, Kolkata, India.

Type-locality : Jayanti, Buxa Tiger Reserve, Jalpaiguri, West Bengal, India. Coll. B. Kundu, 9.V.1994.

Distribution : India : West Bengal.

55. *Oxyopes sunandae* Tikader (Figs. 191-192)

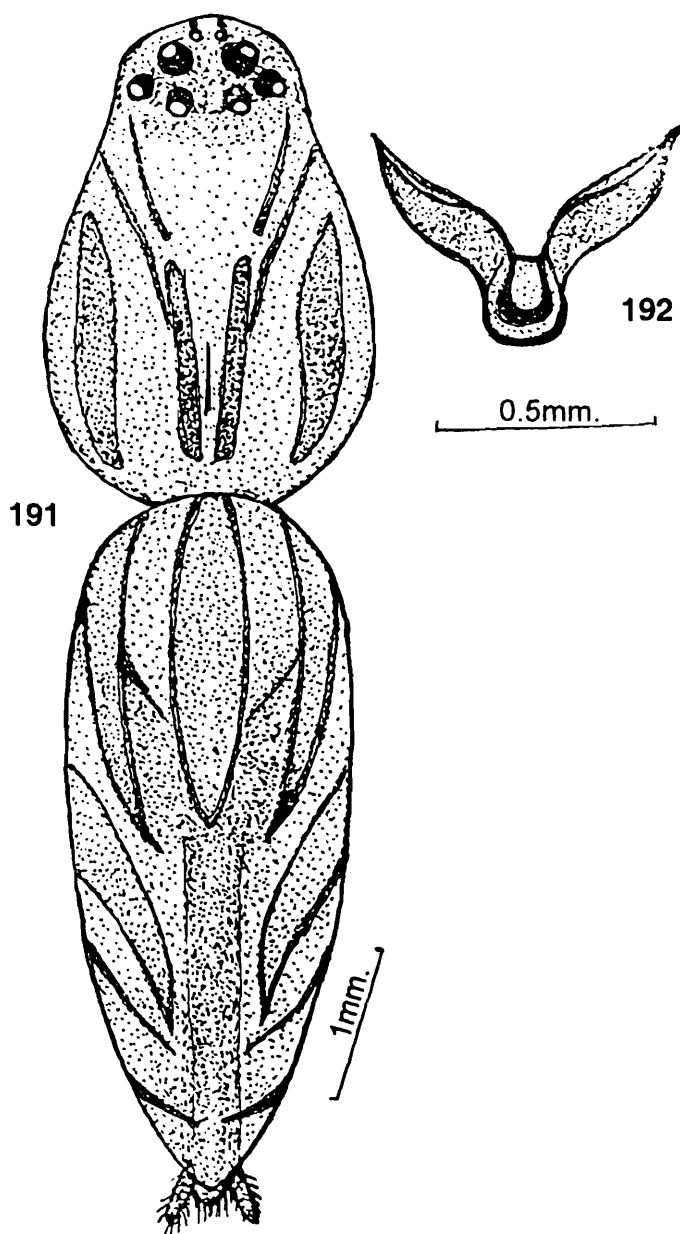
1970. *Oxyopes sunandae* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 74.

1999. *Oxyopes sunandae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 38.

General : Cephalothorax and legs light brownish-green, abdomen dirty white. Total length 8.0 mm. Carapace 3.4 mm long 2.2 mm wide; abdomen 4.8 mm long, 2.0 mm wide.

Cephalothorax : Longer than wide, convex, clothed with fine hairs and some deep brown special type of blunt or spatulate hairs mainly on the thoracic region as in fig. 191. Centre of thorax with fine fovea. Eyes pearly white, in two rows, eyes encircled by black patch. Posterior row of eyes procurved and equal distance apart. Anterior row strongly recurved, anterior lateral eyes large and median very small. Clypeus long and broad, provided with two black stripes extending from anterior median eyes to near the base of fangs of chelicerae. Sternum heart shaped, pointed behind, clothed with fine hairs and conspicuous long spines, lower side of femora of all legs provided with a longitudinal black stripe.

Abdomen : Longer than wide, narrowing behind, clothed with fine grey hairs; anteriorly with a mid-dorsal lance shaped yellowish-brown patch; laterally provided with conspicuous deep brown broad longitudinal lines extending from epigastric furrow to spinnerets as in fig. 191 Epigyne as in fig. 192.



Figs. 191-192. *Oxyopes sunandae* Tikader : **191.** Dorsal view of female, legs omitted; **192.** Epigyne.

Type-specimen : Holotype female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3184/18).

Type-locality : India, West Sikkim, Legship. Coll. B. K. Tikader, 1.X.1959.

Distribution : India : Legship, Sikkim; Shillong, Meghalaya; Tripura.

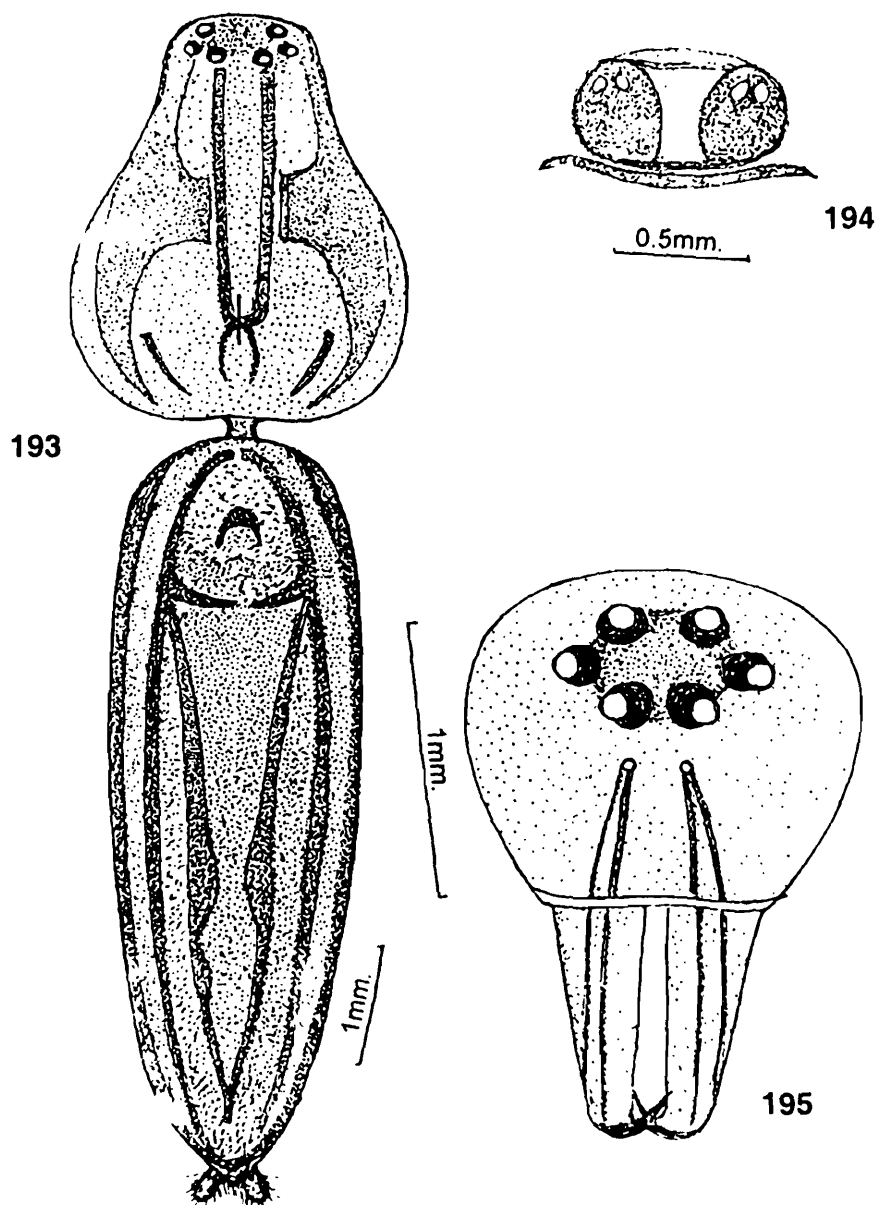
56. *Oxyopes sushilae* Tikader
(Figs. 193-195)

1965. *Oxyopes sushilae* Tikader, *Proc. Indian Acad. Sci.*, **62**(3) : 141.

1999. *Oxyopes sushilae* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 52.

General : Cephalothorax and legs green, abdomen brown. Total length 10.0 mm. Carapace 3.5 mm long, 2.9 mm wide; abdomen 6.4 mm long, 1.9 mm wide.

Cephalothorax : Longer than wide, convex, cephalic region slightly higher, clothed with short spatulate deep brown hairs; centre of thorax provided with foveal depression. Eyes eight in two rows, encircled by black patch; posterior row of eyes slightly procurved and situated equal distance apart; anterior row strongly recurved and anterior median eyes smallest. Clypeus long and broad, provided with two black lines extending from anterior median eyes to near the base of fangs of chelicerae as in fig. 195. Sternum heart shaped, pointed, clothed with fine hairs and spines. Legs long and strong, clothed with hairs and conspicuous long spines; a-ventral side of femora of all legs provided with a conspicuous longitudinal black line.



Figs. 193-195. *Oxyopes sushilae* Tikader : 193. Dorsal view of female, legs omitted; 194. Epigyne; 195. Clypeus.

Abdomen : Long, narrowing behind, clothed with fine thick hairs, dorsally with a broad longitudinally light to deep brown stripe as in fig. 193. Ventral side yellowish-white and mid-ventrally with a broad longitudinal deep brown stripe extending from epigastric fold to near the base of spinnerets. Epigyne as in fig. 194.

Type-specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg No. 3190/18).

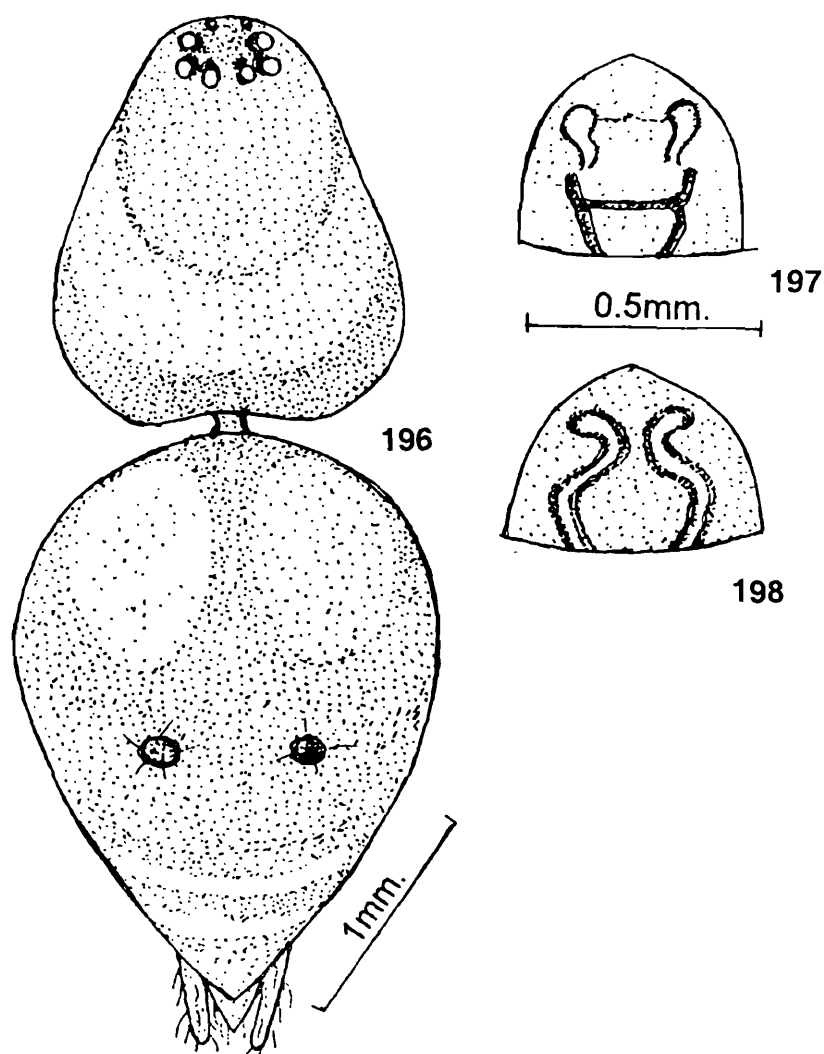
Type-locality : India, Maharashtra, Poona University Compound, Poona. Coll. B.K. Tikader., 11.IX.1962.

Distribution : India : Maharashtra, Poona.

Elsewhere : China.

57 *Oxyopes tikaderi* Biswas & Mazumder
(Figs. 196-198)

1995. *Oxyopes tikaderi* Biswas & Mazumder, *St. F. Ser. A.F. of Meghalaya*, 2 : 123.



Figs. 196-198. *Oxyopes tikaderi* Biswas & Mazumder : **196.** Dorsal view of female, legs omitted; **197.** Epigyne; **198.** Internal genitalia.

General : Cephalothorax and legs reddish-brown, abdomen yellowish in colour. Total length 4.3 mm. Carapace 1.8 mm long, 1.8 mm wide; abdomen 2.8 mm long, 1.9 mm wide.

Cephalothorax : Round in shape, not longer than wide. Central fovea almost absent. Cephalic region slightly high, clothed with brown hairs. Posterior row of eyes strongly procurved, situated at as equal distance, median eyes pearly white. Anterior row strongly recurved, black in colour, lateral eyes are large and the medians small. Ocular area with no conspicuous black patches. Sternum heart-shaped, pointed behind, clothed with hairs and spines. Legs long and strong clothed with hairs and spines.

Abdomen : Longer than wide, narrow behind, clothed with fine grey and brown hairs. Dorsum with irregular decoration almost uniformly coloured as in fig. 196. Ventral side not provided with any black patches. Epigyne as in fig. 197 Internal genitalia as in fig. 198.

Type specimen : *Holotype* female, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata. (Reg. No. 5413/18).

Type locality : India : Meghalaya, Shillong, Botanical garden, Coll. B. K. Tikader, 18.XI.1965.

Distribution : India : Meghalaya.

58. *Oxyopes wroughtoni* Pocock (Figs. 199-202)

1901. *Oxyopes wroughtoni* Pocock, *J. Bombay nat. Hist., Soc.*, **13** : 483-484.

1951. *Oxyopes wroughtoni*; Sherriffs, *Proc. Zool. Soc. London*, **120** : 674-677.

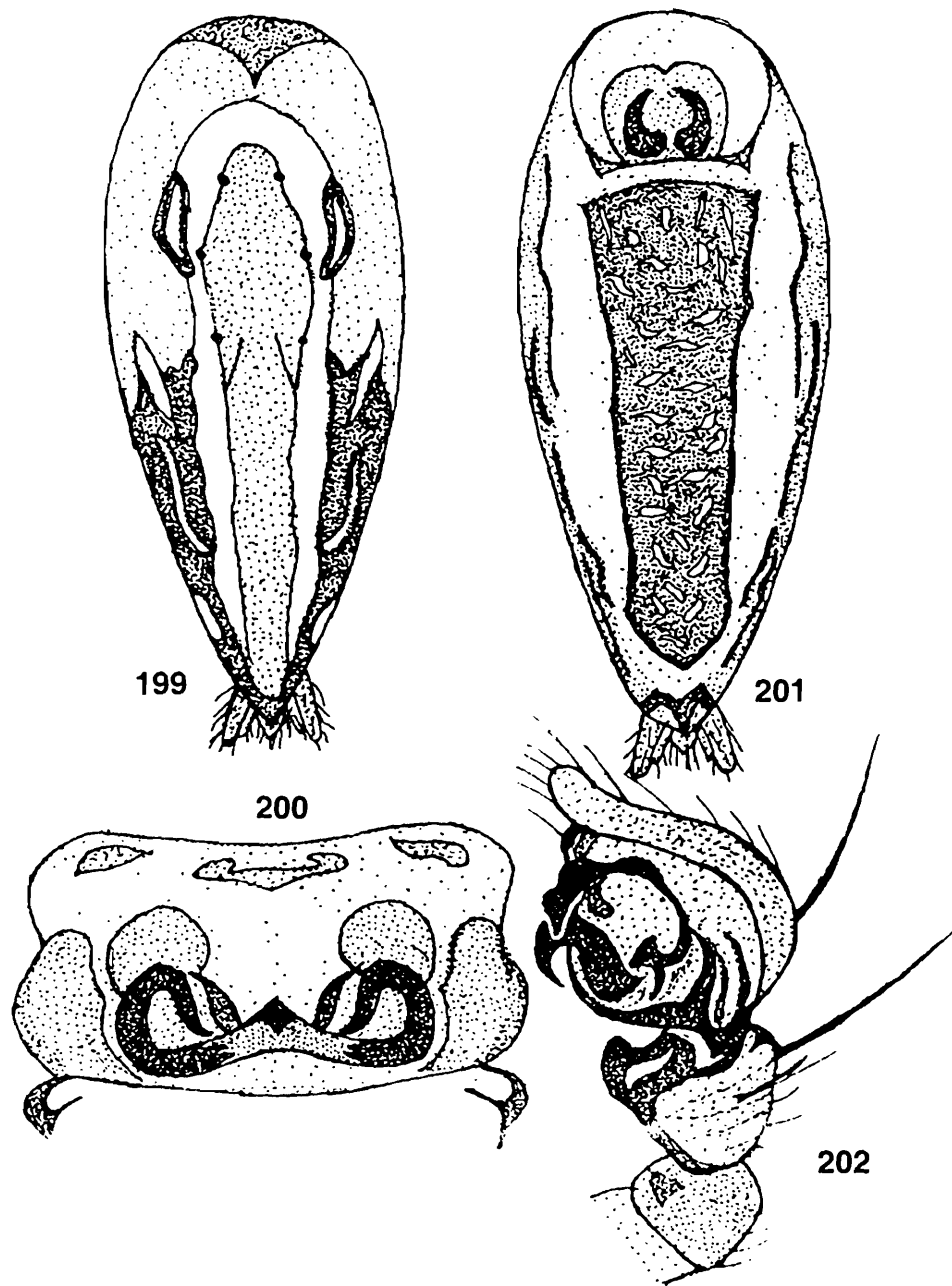
Male + Female : Cephalothorax fawn ground with orange marks and lines, a faint broken black line round edge, fovea distinct, sometimes patches of blackish scales at sides; ocular area light-orange; eyes with white hairs between them; clypeus light yellow with a red-brown dot at each outer angle, black lines from AM eyes down mandibles; chelicerae (mandibles) fawn, inward, half yellow, outer half amber, fangs brown, fang groove with one tooth and some bristles; labium dark fwn; maxillary lobes light fawn; sternum light fawn; abdomen broad in front, upper part clear orange-yellow, centre light yellow with faint goldenish marks and grayish bands on.

Type measurement : Male body 10; cephalothorax 3.7; legs I 17, II 15, III 13, IV 15 mm female body 11; cephalothorax 3.7; legs I 15, II 14, III 12, IV 14, patella + tibia 4.5 mm

Specimen examined : 3 male and 6 female, length male ranging from 6.5 to 10 mm, 8.5 to 11.0 mm

Locality : India, Bulsar, Gujarat (Wroughton 1898).

Distribution : India, Gujarat.



Figs. 199-200. *Oxyopes wroughtoni* Pocock : **199.** Dorsal view of abdomen of female; **200.** Epigyne; **201.** Ventral view of abdomen of female; **202.** Male palp, lateral view.

Genus III. *Hamataliwa* Keyserling

1887. *Hamataliwa* Keyserling, Verh, Zool. Bot. Ges. Wien., **6** : 458.
 1898. *Hamataliwa* : Simon, Hist. Nat. Araign., **2** : 380.
 1948. *Hamataliwa* : Bryant, Bull. Mus. Comp. Zool., **100**(4) : 357.
 1964. *Hamataliwa* : Brady, Bull. Mus. Comp. Zool., **131**(13) : 496.
 1970. *Hamataliwa* : Brady, Bull. Mus. Comp. Zool., **140**(3) : 75.
 2005. *Hamataliwa* : Zhang et al. Zootaxa, **1017** : 3.

Type-species : *Hamataliwa grisea* keyserling.

Distribution : Asia, America, Africa.

Characters : Cephalothorax very high and convex, sometimes rectangular in appearance. The vertical slope of the face, however is much more gradual. Sides of cephalothorax vertical. Carapace often clothed with long hair, and with tufts of hair in eye region. Eyes in two rows, anterior median eyes smallest; posterior median eyes larger than anterior lateral eyes. Anterior lateral eyes largest.

Labium longer than wide, maxillae exceeding the length of labium and converging in front of it.

Leg formula I-II-III-IV. The first pair of legs very long and robust. The third pair of legs sub-equal to or larger than the fourth pair. Fourth pair of legs comparatively weakly developed. Legs often with long fringes of hair on the lateral surfaces.

Abdomen oblong-oval, sometimes quite broad and truncate near the base, more ovate. Long hairs often along sides of abdomen.

Hamataliwa is easily recognized by the general form of the body, colouration, relative length of the legs, and above all, by the structure of the genitalia. The arrangement of the eyes is not a valid criterion for separating genera.

59. *Hamataliwa sikkimensis* (Tikader)

(Figs. 203-205)

1970. *Oxyopes sikkimensis* Tikader, *Rec. zool. Surv. India*, **64**(1-4) : 76.

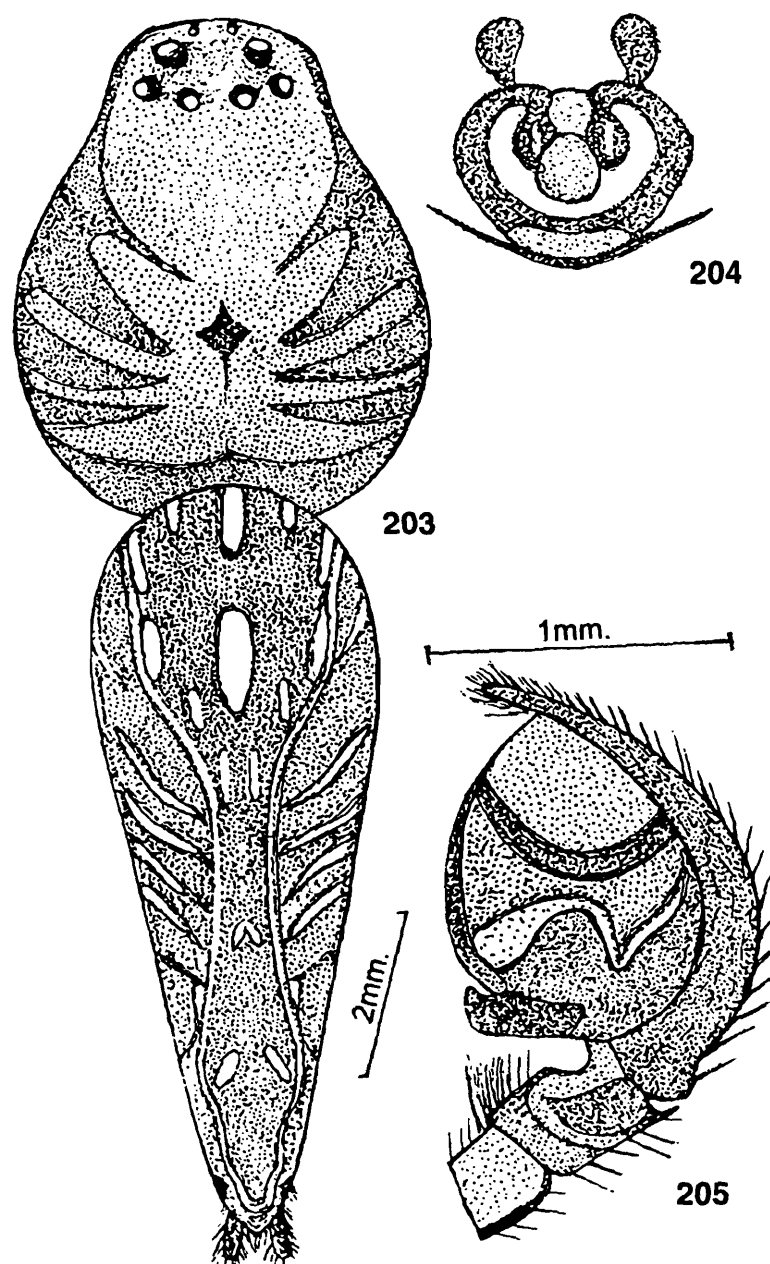
1999. *Oxyopes sikkimensis* : Gajbe, *Rec. zool. Surv. India*, **97**(3) : 47.

2005. *Hamataliwa sikkimensis* : Zhang, *et al. Zootaxa*, **1017** : 13.

General : Cephalothorax and legs brownish-green, abdomen blackish. Total length 14.5 mm. Carapace 6.0 mm long, 5.0 mm wide; abdomen 9.0 mm long, 3.5 mm wide.

Cephalothorax : Slightly longer than wide, convex, cephalic region high, clothed with short and blunt deep brown hairs. Eyes in two rows, all eyes encircled by black patch. Posterior row slightly procurved all eyes equidistant to each other. Anterior row slightly recurved, anterior medians very small. Clypeus long and broad, clothed with similar hairs like those on cephalothorax, lateral end of margin with a black spot. Sternum heart-shaped, pointed behind, clothed with hairs and some spines, legs long and strong, clothed with hairs and conspicuous long spines; front side of each femur provided with a longitudinal deep brown line.

Abdomen : Longer than wide, narrowing behind, clothed with fine grey and brown hairs; dorsum provided with irregular dirty-white and deep brown bands as in fig. 203. Ventral side uniform light brown, but middle provided with two conspicuous



Figs. 203-205. *Hamataliva sikkimensis* (Tikader) : 203. Dorsal view of female, legs omitted; 204. Epigyne; 205. Male palp, lateral view.

blackish lines, extending from epigastric furrow to base of spinnerets. Epigyne as in fig. 204. Male similar in colour but smaller than female; male palp as in fig. 205.

Type-specimen : *Holotype* female, *Allotype* two males, deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (Reg. No. 3181/18 and 3182/18).

Type-locality : India : West Sikkim, Legship. Coll. B. K. Tikader, 2.X.1959.

Distribution : India : Sikkim Legship, Nayabazar; Shillong, Meghalaya; South Tripura District, Tripura; West Bengal.

Elsewhere : China.

GLOSSARY OF ANATOMICAL TERMS OF SPIDERS

abdomen : The posterior body division of a spider, divided from the cephalothorax by the pedicel.

alveolus : A cuplike cavity on the ventral side of the cymbium of the male palpus containing the genital bulb.

anal tubercle : A small prominence at the tip of the abdomen; the anus is situated on its ventral surface.

anteriad : Toward the anterior end of the body.

anterior : Pertaining to the foremost end of the body of one of its main division.

anterolateral : Towards the anterior end and the side.

anterolateral : Pertaining to the anterior end and the side.

anteromesad : Towards the anterior end and the midline.

apical division : That part of the genital bulb of the male palpus comprising the conductor, embolus, and associated structures.

apophysis : A spine found on the male chelicerae, palpi or legs and usually having a sexual function.

atrial : Pertaining to the atrium.

atrium : A cavity in the epigynal plate having the copulatory openings of the female in its floor or wall; it may be subdivided by a median septum.

based : Towards the base, or point of attachment, of an appendage or segment.

basal : Pertaining to the base of an appendage or segment.

basal division : That part of the bulb of the male palpus comprising the subtegulum and associated structures.

basitarsus : The basal subdivision of the leg tarsus.

bidentate : Having two teeth.

book lungs : The paired booklike respiratory organs on the venter of the abdomen; representatives of Mygalomorphae have two pairs, those of Araneomorphae one pair (occasionally two).

calamistrum : A series of stiff curved setae of uniform length along the dorsal surface of basitarsus IV in cribellate spiders.

carapace : The dorsal plate of the cephalothorax, bearing the eyes and the dorsal groove and representing the fused terga of the cephalothoracic segments.

cephalothorax : The undivided head–thorax, or anterior body division, to which are appended the chelicerae, palpi and legs.

chelicerae : The paired, seizing and pinching organs hanging down at the anterior end of the cephalothorax; each comprises a large basal segment and a movable fang with internally, the associated venom gland and muscles. They arise between the mouth and the palpi in the early embryo, but move anterior to the mouth and rostrum during embryonic development.

clavate : Club-shaped.

claw : A short curved, usually toothed process at the tip of the pretarsus of a leg or palpus; in dionychous spiders, each leg pretarsus has two claws, in trionychous spiders, three.

claw tuft : A bundle of setae at the tip of the leg tarsus in many dionychous spiders.

colulus : A small median sclerite on the venter of the abdomen located in the membranous area at the base of the anterior pair of spinnerets.

conductor : A structure in the male palpus on which the terminal part of the embolus rest; although primitively part of the aprical division of the bulb, it may be a secondary structure derived from the tegulum, as in some male Lycosidae, or from the cymbium, as in some male Thomisidae.

copulatory tube : The paired tubes leading to inward from the copulatory openings of the female and receiving the embolus of the male in copulation.

coax : The first or most basal segment of a leg or palpus.

cribellate : Pertaining to the spiders in which the abdomen has a cribellum.

cribellum : A transverse, plate like spinning organ on the venter of the abdomen anterior to the spinnerets.

cuticle : The outer layer of the integument, or body wall.

cymbium : The tarsus of the male palpus, containing the alveolus on its ventral side.

dentate : Toothed.

dionychous : Pertaining to those groups of spiders in which the leg tarsus bears only two claws.

distad : Toward the distal end of a leg or palpus.

distal : Pertaining to the end of a leg or palpus furthest from the base.

distitarsus : The distal subdivision of the leg tarsus.

distomesad : Toward the tip and the midline.

dorsad : Toward the dorsum.

dorsal : Pertaining to the uppermost surface of the body or of an appendage.

dorsal groove : A median furrow, or groove, on the carapace marking the presence of an ingrowth of the body wall on which the dilator muscles of the sucking pump are attached.

dorsum : The entire upper surface of the body; also used for the upper surface of the abdomen.

ecribellate : Pertaining to spiders in which the abdomen has no cribellum.

emarginated : Having a notched margin.

embolus : The intromittent, or inserting, organ of the male palpus.

epigastric : Pertaining to the ventral side of the abdomen; e.g. the epigastric scutum is a plate found on the abdominal venter of some spiders anterior to the genital groove.

epigynum or epigyne : The copulatory organ of the female located in the midline immediately anterior to the genital groove; usually with a sclerotized plate in which the copulatory openings are found.

epistome : An outgrowth of the body wall at the base of the labrum and partly covering the preoral cavity in front; thought to be the morphological equivalent of the insect clypeus.

fang : The distal piercing segment of the chelicera.

Fang furrow : A depression along the distomesal surface of the chelicera that receives the folded fang.

femur : The third from the base and usually longest segment of leg or palpus.

Fertilization tubes : The paired tubes by which semen stored in the spermathecae of the female is conveyed to the eggs as they pass out of the body.

front : That part of the carapace located between the anterior margin and the anterior row of eyes.

genital bulb : The copulatory apparatus lying within the alveolus of the cybium on the male palpus.

genital groove : A transverse groove on the venter of the abdomen in which lie the openings of the internal genitalia (ovaries, testicles) and a pair of book lungs.

haematodocha : An inflatable sac that extends and rotate the sclerotized parts of the bulb of the male palpus into copulatory position when filled with haemolymph from the body cavity.

hood : A pocketlike cavity at the anterior end of the epigyne of some female spiders.

integument : The body wall.

labium : The lower lip, which closes the preoral cavity behind; it develops from the sternum of the palpal segment in the embryo.

labrum : The upper lip, which is appended to the epistome, with the combination forming the rostrum.

laterad : toward one side.

lateral : Pertaining to the side.

laterigrade : Denotes the orientation of the legs of such spiders as Thomisidae in which these limbs are partly rotated on their bases so that the anatomically; prolateral surface is uppermost; also used to describe the mode of locomotion of such spiders.

longitudinal : Lying parallel on the midline of the body.

lorum : The tergum of the pedicel.

macroseta : An erectile seta that arises from a membranous area on the legs and palpi.

median : Pertaining to the middle.

median apophysis : The appendage of the tegulum on the bulb of the male palpus.

median septum : A raised longitudinal piece on the floor of the atrium of the epigyne.

mesad : Toward the midline.

mesal : Pertaining to the midline.

middle division : That part of the bulb of the male palpus comprising the tegulum and associated structures.

midline : An imaginary line dividing the body into right and left halves.

nonclavate : Not club-shaped.

ocular quadrangle : The area enclosed by certain groups of eyes; e.g. the median ocular quadrangle of spiders with the eyes in two transverse rows is the area enclosed by the anterior median eyes and posterior median eyes.

opisthosoma : The pedial and abdomen together.

palea : A convex usually rugose pad at the disal end of the genital bulb of the palpus in some male spiders.

palp-coxal lobes : The paired lobes on the prolateral surfaces of the palpal coxae; they form the sides of the preoral cavity.

palpus (pl., palpi) : One of a pair of leg like appendages arising between the preoral cavity and the first pair of legs; in adult male spiders, modified as a semen-storing and copulatory organ.

paracymbium : An apophysis at the base of the cymbium of the palpus in some male spiders.

pars pendula : A thin flap along the margin of the embolus in some male spiders.

patella : The fourth segment from the base of a leg or palpus, forming a rigid piece with the tibia.

pedicel : The slender connection between cephalothorax and abdomen; the first opisthosomatic segment.

petiole : A slender sclerite in the bulb of the male palpus connecting the subtegulum with the alveolar wall.

posteriad : Toward the posteriod end.

posterior : Pertaining to the hindmost end of the body or to one of its main divisions.

posteromesad : Towards the posterior end and the midline.

posteromesal : Pertaining to the posterior end and the side.

posterolaterad : Toward the posterior end and the side.

posterolateral : Pertaining to the posterior end and the side.

preoral cavity : The entrance passage anterior to the mouth, bounded anteriorly by the rostrum, lateral by the palpcoxal lobes, and posteriad by the labium.

pretarsus : The seventh or terminal segment of a leg or palpus; bearing the claws.

procurved : Denotes the anterior displacement of the ends of a transverse otherwise straight row (of eyes, for example) or groove.

prograde : Denotes the normal or nonlaterigrade orientation of the legs in spiders with the limbs not rotated on their bases; also used to describe the mode of locomotion of such spiders.

prolaterad : Towards the prolateral surface.

prolateral : Pertaining to the lateral surface of a leg or palpus nearest the anterior end of the body, with the appendage extended at right angle to the trunk.

prolaterobasad : Toward the prolateral side and the base.

prolaterobasal : Pertaining to the prolateral side and the base.

prolateromesad : Toward the prolateral side and the midline.

prolateromesal : Pertaining to the prolateral side and the midline.

prolateroventral : Pertaining to the prolateral side and the venter.

prolateroventral : Towards the prolateral side and the venter.

promargin : The anterior margin of the fang furrow.

restellum : A series of stout setae forming a digging structure on the chelicerae of certain spiders.

recurved : Denotes the posterior displacement of the ends of a transverse otherwise straight row (of eyes, for example) or groove.

retrolaterad : Towards the retrolateral surface.

retrolateral : The lateral surface of a leg or palpus nearest the posterior end of the body, with the appendage extended at right angles to the trunk.

retromargin : The posterior margin of the fang furrow.

rostrum : The combined epistome and labrum, which together cover the preoral cavity anteriorly; though to be the morphological equivalent of the insect clypeus and labrum respectively.

scape : A median unpaired process of the epigynal plate, free at one end and usually directed posteriorly.

sclerite : A sclerotized plate forming part of the body wall.

sclerotized : Hardened and darkened through tanning of proteins.

scopula (pl., scopulae) : A brush of stiff flattened setae along the ventral surface of the leg; a scopulae leg is one that is provided with a scopula.

scutum : A sclerite covering part of the abdomen; e.g. dorsal scutum, epigastric scutum.

segment : One of a series of ringlike divisions into which the body or an appendage is divided.

seminal duct : A tube that conducts the semen from the interior of the male palpus to the embolus.

serrated : Notched like a saw.

seta (pl., setae) : A bristle like outgrowth of the cuticle secreted by a single cell and supplied with a nerve; setae may be modified in shape, e.g., flattened or clublike.

spermatheca (pl., spermathecae) : One of a pair of semen-storing organs of the female.

spermathecal organ : A small prominence at or near the junction of copulatory tube and spermatheca.

spine : A fixed, usually pointed, rise in the body wall.

spinnerets : The paired appendages at the posterior end of the abdomen through which liquid silk passes from the silk glands to the outside; usually occurring in three pairs, anterior, median, and posterior.

spiracle : Tracheal opening in the body wall located on the venter of the abdomen.

sternum : The ventral wall of a body segment; also used for the fused sterna of the cephalothorax.

subtegulum : A ringlike sclerite in the wall of the basal haematodocha in the bulb of the male palpus.

subterminal apophysis : A sclerotized piece in the apical division of the bulb of the male palpus.

suture : A groove in the body wall.

tapetum : A carpet or sheath of cells behind the retina of the eye reflecting light that enters the retina outward again, thus causing the shining of the eyes in faint light.

tarsal comb : A midventral series of serrated setae on distitarsus IV of some spiders; e.g. Theridiidae.

tarsus (pl., tarsi) : The sixth segment of a leg or palpus from the base; in legs; subdivided into basitarsus and distitarsus.

tegulum : A sclerite of the middle division of the genital bulb in the male palpus; usually the dominant ventral sclerite of the unexpanded palpus in hunting spiders.

tergum (pl., terga) : The dorsal wall of a body segment.

terminal apophysis : A variously shaped sclerite of the apical division of the genital bulb in the male palpus.

tibia : The fifth segment from the base of a leg or palpus, forming a rigid piece with the patella.

tooth : A spine found on the chelicerae and assisting in feeding; also a small outgrowth on the paired claws of the leg in many spiders.

trachea : The internal system of tubes through which air exchange takes place, thus supplementing and sometimes replacing the book lungs; their openings are the spiracles.

transverse : Lying at right angles to the midline of the body.

trichobothrium (pl., trichobothria) : A fine, erect kind of seta arising from a rimmed socket and found on the legs and palpi.

trionychous : Denotes group of spiders in which each leg tarsus has three claws.

trochanter : The second segment from the base of a leg or palpus.

truncate : Squared rather than rounded or pointed at the tip.

tubercle : A small, fixed, usually rounded rise in the body wall; eyes may be located on tubercles.

venom gland : The venom-secreting gland within the chelicera or the cephalothorax, or both, and opening on the chelicerel fang.

venter : The undersurface of the body; also used for the undersurface of the abdomen or of the body's appendages.

ventrad : Toward the venter.

ventral : Pertaining to the venter.

BIBLIOGRAPHY

- AUDOUIN, V 1826. Explication sommaire des planches d' arachnids de 1; Egypte et de La Syrie publiees---in "Description de 1' Egypte--Histoire Naturelle 1(4) : 1-339 (arachnids, pp. 99-186).
- BANKS, N. 1893. Notes on spiders. *J. New York Ent. Soc.*, 1 : 133-134.
- BANKS, N. 1903. Some spiders and other arachnida from Porto Rico. *Proc. U. S. Nat. Hist.*, 3(10) : 348-360.
- BANKS, N. 1903. A list of Arachnida from Hayti with description of new species. *Proc. Acad Nat. Sci. Philadelphia*, 56 : 121.
- BANKS, N. 1905. Synopsis of North American Invertrates. XX. Families and genera of Arachnida. *American Naturalist*, 39 : 293-323.
- BASU, B.D. 1963. On the description of two new spiders of the family Thomisidae (Arachnida : Araneae) from India. *J. Asiatic Soc. Bengal*, 5(1-2) : 23-26.
- BASU, B.D. 1964. Diagnosis of two new species of Pistius (Thomisidae : Araneae : Arachnida) from India. *J. Bengal nat. Hist. Soc.*, 32(2) : 104-109.
- BASU, B.D. 1965. Four new species of the spider genus Pistius Simon (Arachnida : Araneae : Thomisidae) from India. *Proc. Zool. Soc.*, 18 : 71-77.
- BERLAND, L. 1932. Les Arachnides (scorpions, Araignees, etc) *Encyclopedie Entomologigue* 16 : 1-485.
- BERLAND, L. 1936. Mission de M. A. Chevalier aux lies du cap vert (1934). 1. Araignees *Revue francaise d' entomologie*, 3 : 67-88.
- BHANDARI, R. & GAJBE, P.U. 2001. A study of three new species of spiders of the genera *Chorizopes* Cambridge, *Larinia* Simon and *Neoscona* Simon (Araneae : Araneidae) from Madhya Pradesh, India. *Rec. zool. Surv. India*, 99(1-4) : 59-63.
- BHANDARI, R. & GAJBE, P.U. 2001. Description of three new species of spiders of the Genera *Thomisus* Walckenaer, *Oxyptila* Simon and *Xysticus* Koch (Araneae : Thomisidae) from Madhya Pradesh, India. *Rec. zool. Surv. India*, 99(1-4) : 81-85.
- BHANDARI, R. & GAJBE, P.U. 2001. Description of three new species of spiders of the Families Uloboridae, Philodromidae, Gnaphosidae and Lycosidae (Arachnida : Araneae) from Madhya Pradesh, India. *Rec. zool. Surv. India*, 99(1-4) : 87-93.
- BHANDARI, R. & GAJBE, P.U. 2001. An ecological study of some spiders from Jabalpur. *Contemporary Trends in Biological sciences* Prof. S. C. Pathak Festschrift. (Edited by S. M. Singh) : 121-127, R.D. University, Jabalpur, India.

- BIWAS, A. T. 1975. A new species of spider of the genus *Peucetia* Thorell (Family : Oxyopidae) from Orissa, India. *Cur. Sci.*, **44**(10) : 350-351.
- BISWAS, A. T. 1977 A new spider of the genus *Platythomisus* (Family : Thomisidae) From Coorg, Karnataka, India. *J. Bombay nat. Hist. Soc.*, **74**(2) : 332-333.
- BISWAS, B. & MAZUMDER, S. C. 1981. description of two new species of crab-spiders of the genera *Diaea* and *Bomis* (Family : Thomisidae) from India *Bull. zool. Surv. India*, **4** : 271-275.
- BISWAS, B. & BISWAS, K. 1992. Araneae : Spiders, *Fauna of West Bengal, State Fauna series*, **3**(3) : 357-500. *Zool. Surv. India*. Kolkata.
- BISWAS, V., KUNDU, B., RAYCHAUDHURI, D., et al. All. Spiders of the genus *Oxyopes* Latreille (Araneae : Oxyopidae) of Buxa Tiger reserve, West Bengal. *Acta arachnol.*, **45**(1) : 53-61.
- BLACKWALL, J. 1858. Description of six newly discovered species and characters of a New genus of Araneida. *Annals Mag. Nat. Hist.*, **1**(3) : 426-434.
- BLACKWALL, J. 1862. Description of newly discovered spiders captured on Rio Janeiro by John Gray, Esq., and the Rev. Hamlet Clark. *Ann. Mag. Nat. Hist.*, **10**(3) : 348-360.
- BLACKWALL, J. 1865. Description of recently discovered species and characters of a New genus of Araneida from the East of Central Africa. *Annals Mag. Nat. Hist.*, **16**(3) : 336-352.
- BLACKWALL, J. 1864. Descriptions of seven new species of East Indian spiders received from the Rev. O. P. Cambridge. *Ann. Mag. Nat. Hist.* **14**(3) : 36-45.
- BRADY, A. R. 1962. The spider genus *Sosippus* in North America, Mexico and Central America (Araneae, Lycosidae). *Psyche*, **69**(3) : 129-164.
- BRADY, A. R. 1964. The Lynx spiders of North America north of Mexico (Araneae: Oxyopidae). *Bull. Mus. Comp. Zool.*, **131**(13) : 429-518.
- BRADY, A. R. 1969. A Reconsideration of the *Oxyopes* Apollo species group with the Description of two new species (Araneae : Oxyopidae). *Psyche*, **76**(4) : 426-438.
- BRADY, A. R. 1970. The lynx spider Genus *Hamataliwa* in Mexico and Central America (Araneae : Oxyopidae). *Bull. Mus. Comp. Zool.*, **140**(3) : 75-127.
- BREYMEYER, A. 1966. Relations between wandering spiders and other epigeic Predatory arthropoda. *Ekol. Pol.*, (A). **14** : 18-71.
- BRYANT, E. R. 1933. Notes on types of Urquhart's spiders. *Rec. Canterbury Mus.*, **4** : 7-8.
- BRYANT, E. B. 1933. New species of southern spiders. *Psyche*, **36**(4) : 92-93.

- BRYANT, E. B. 1948. The spiders of Hispaniola. *Bull. Mus. Comp. Zool.*, **100**(4) : 357-363.
- BUTLER, A. G. 1879. On a small collection of Arachnida from the Island of Johanna etc. *Annals Mag. Nat. Hist.*, **4**(5) : 41-44.
- CAMBRIDGE, O. P. 1870. On some new genera and species of Araneids. *Proc. Zool. Soc. London* : 541-630.
- CAMBRIDGE, O. P. 1876. Catalogue of a collection of spiders made in Egypt with Descriptions of new species and characters of a new genus. *Proc. Zool. Soc. London* : 541-630.
- CAMBRIDGE, F. O. P. 1900. Arachnida-Araneida and Opiliones. *Biologia Centr. Americana Zoology, London*, **2** : 89-192.
- CAMBRIDGE, F. O. P. 1902. A revision of the genera of Araneae or spiders with Reference to their type species. *Ann. Mag. Nat. Hist.* **9**(7) : 5-20.
- CAPORIACCO, L. DI. 1941. Arachnida In : Missione Biologica Sagan-omo. *Zoologia* **6** : 1-159.
- CAPORIACCO, L. DI. 1947. Arachnida Africae orientalis a dominibus Kittenberger. Kovacs et Bornemisza lecta *Ann. Historico-naturales Musei Nationalis Hungarici*, **40** : 97-257.
- CAPORIACCO, L. DI. 1949. Arachnida della colonia del Kenya raccolti da Toschi e Meneghetti negli anni 1944-1946. *Comentationes Pontificiae Academiae Scientiarum*, **13** : 309-492.
- CHAMBERLIN, R. V. 1924. The spider fauna of the shores and islands of the gulf of California. *Proc. California Acad. Sci.*, **12** : 561-694.
- CHAMBERLIN, R. V. 1929. On three new spiders of the genus *Oxyopes* (Araneina) *Ent. News*, **40** : 17-20.
- CHAMBERLIN, R. V. & IVIE, W. 1944. Spiders of the Georgia region of North America. *Bull. Univ. Utah. Boil. Ser.*, **8**(5) : 1-267.
- COMSTOCK, J. H. 1940. The spider book, revised and edited by W. J. Gertsch Cornell Univ. Press, Ithaca : 1-727.
- DONDALE, C. D. & REDNER, J. H. 1990. The insects and arachnids of Canada. 17. The wolf spiders, nursery web spiders and lynx spiders of Canada & Alaska. Araneae : Lycosidae, Pisauridae, and Oxyopidae. *Research Branch agriculture, Canada*, **1856** : 1-383.
- DUFOUR, L. 1820. Descriptions de cinq arachnides nouvelles. *Ann. Gen. sci. phys.* **5** : 198-209.

- DYAL, S. 1935. Fauna of Lahore 4 : Spiders of Lahore. *Punjab Univ. Dept. zool. Bull.* **1** : 119-252.
- EXLINE, H. & WHITCOMB W. H. 1965. Classification of the mating procedure of *Peucetia viridans* (Araneida : Oxyopidae) by a microscopic examination of the epigynal plug. *Florida Entomologist*, **48** : 169-171.
- FABRICIUS, J. C. 1793. Entomologiae syustematica. Hafniae, **2** : 407-428.
- FINK, L. S. 1984. Venom spitting by the green Lynx spider *Peucetia viridans* (Araneae : Oxyopidae). *J. arachnol.*, **12** : 373.
- FORSKAL, P. 1775. Descriptions animalium avium, amphibiorum, piscium, insectorum, vermium; quae in itinere orientali observavit Petrus Forskal, Hauniae, : 85-86.
- FORSTER, R. 1955. Spiders from the Subantarctic Islands of New Zealand. *Rec. Dominion Mus.*, **2**(4) : 186-189.
- GAJBE, U. A. 1992. A new species of *Oxyopes* Latrelle and one of *Peucetia* Thorell from Uttar Pradesh, India (Aranae, family : Oxyopidae) *Rec. zool. Surv. India*, **91**(3-4) : 389-393.
- GAJBE, U. A. 1999. Studies on some spiders of the family Oxyopidae (Araneae : Arachnida) from India, *Rec zool Surv. India*, **97**(3) : 31-79.
- GAJBE, U.A. & GAJBE, P.U. 1999. Two new species of *Oxyopes* Latreille (Araneae : Oxyopidae) from Jabalpur, Madhya Pradesh. India. *Geobios*, **18**(1) : 9-12.
- GAJBE, U.A. & GAJBE, P.U. 1999. Two new species of *Peucetia* Thorell (Araneae : Oxyopidae) from Jabalpur, Madhya Pradesh, India. *Geobios*, **18**(1) : 9-12.
- GAJBE, U.A. & GAJBE, P.U. 2000. A new species of the genus *Oxyopes* Latreille (Araneae : Oxyopidae) from Jabalpur, Madhya Pradesh, India. *Rec. zool. Surv. India*, **98**(2) : 123-125.
- GAJBE, P. U. 2004. Spiders of Jabalpur, Madhya Pradesh (Arachnida : Araneae). *Rec. zool. Surv. India, OCC. PAP.*, **227** : 1-154.
- GERTSCH, W. J. 1949. American spiders, New York, **94** : 212-214.
- GLICK, P. A. 1939. The distribution of insects, spiders and mites in the air. *U. S. Dept Agric. Tech. Bull.*, **673** : 19.
- HENTZ, N. 1832. On North American spiders. *Amer. Jour. Sci. Arts*, **21** : 106.
- HENTZ, N. M. 1845. Descriptions and figures of the Araneides of the United States. *Boston Journal Nat. Hist.*, **5** : 189-202.
- KASTON, B. J. 1948. Spiders of Connecticut. *State Geol Nat. Hist. Surv. Connecticut*, **70** : 783.
- KASTON, B. J. 1972. Web making by young *Peucetia*. *Notes Arachnol Southwest*, **3** : 6-7

PLATE-I



♂ *Peucetia harishankarensis* Biswas, A.T.



♀ *Peucetia latikae* Tikader (Family Oxyopidae) Dorsal view

PLATE-II



♀ *Peucetia latikae* Tikader (Family Oxyopidae) Ventral view



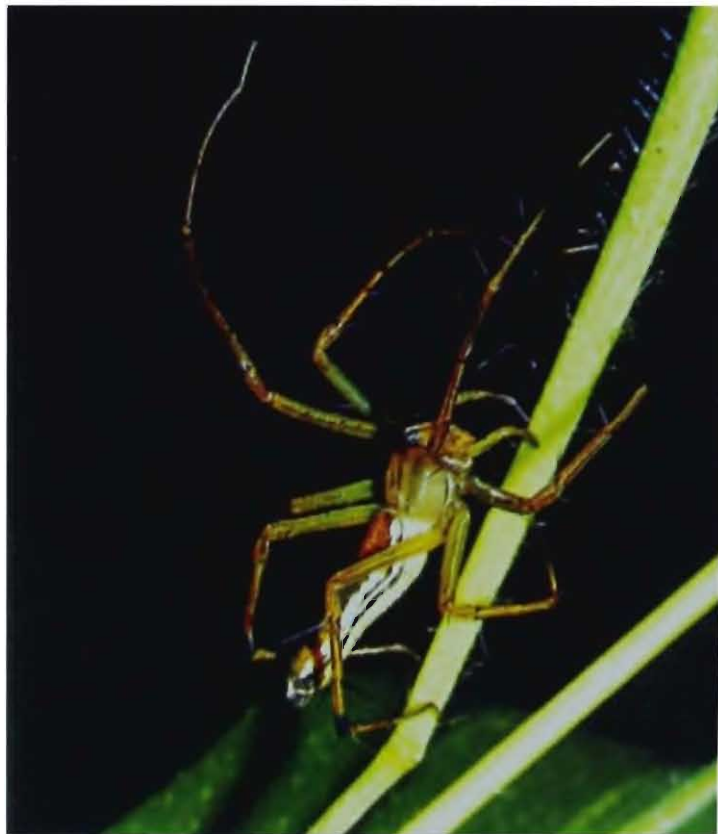
♀ *Oxyopes birmanicus* Thorell (Family Oxyopidae)

GAJBE : *Spider (Arachnida : Araneae : Oxyopidae)*

PLATE-III



♀ *Oxyopes bharatae* Gajbe (Family Oxyopidae) Dorsal view



♀ *Oxyopes bharatae* Gajbe (Family Oxyopidae) Lateral view

PLATE-IV



a.



b.

♀ *Oxyopes pankaji* Gajbe & Gajbe (Family Oxyopidae) a. Lateral view; b. Dorsal view



♀ *Oxyopes pankaji* Gajbe & Gajbe (Family Oxyopidae) Ventral view

- LAWRENCE, R. F. 1927. Contributions of the knowledge of the fauna of South West Africa 5. Arachnida. *Annals South African Museum*, **25** : 1-75.
- LAWRENCE R. F. 1936. Scientific results of the Verney-long Kalahari expedition, March to September, 1930. Spiders (Ctenizidae excepted). *Annals Transvaal Museum*, **17** : 145-158.
- LEVI, H. W. & LEVI, L. R. 1961. Some comments on Walckenaer's names of American Spiders based on Abott's drawings. *Psyche*, **68**(2-3) : 53-57.
- LUTZ, F. E. 1915. List of Greater Antillean spiders with notes on their distribution. *Ann. New York Acad. Sci.*, **26** : 103.
- MARX. G. 1890. Catalogue of the described Araneae of temperate North America. *Proc. U. S. Nat. Mus.*, **12** : 497-594.
- MAZUMDER, S. C. 2004. Taxonomic studies of some spiders from Mangrove and semi-Mangrove areas of Sunderbans. *Mem. zool. Surv. India*, **20**(2) : 1-42.
- MCCOOK, H. C. 1888. Necessity for revising the nomenclature of American spiders. *Proc. Acad. Nat. Sci. Philadelphia*, pp. 74-79.
- MELLO-LEITAO, C. F. DE. 1929. Oxyopides do Brazil. *Revisia do Museu paulista* **16** : 489-536 And Separatum 1-32.
- PATEL, B. H. 1978. A new species of spider of the family Oxyopidae from Gujarat, India, with notes on other species of the family. *J. Bombay nat. Hist. Soc.*, **74** : 327-333.
- PATEL, B. H. 2003. Fauna of protected areas 2 : A preliminary list of spiders with descriptions of three new species from Prambikulam Wildlife Sanctuary. *Zoo's Print Journal*, **18**(10) : 1207-1212.
- PETRUNKOVITCH, A. 1911. A synonymic index-catalogue of spiders of North Central and South America with all adjacent islands. *Bull. Amer. Mus. Nat. Hist.*, **29** : 585.
- PICKARD-CAMBRIDGE, F. O. 1902. Arachnida : Araneida. *Biologia Centrali Americana Zoologia*, **2** : 313-424.
- PICKARD-CAMBRIDGE, O. 1869. Notes on some spiders and scorpions from St. Helena, with descriptions of new species. *Proc. zool. Soc. London*, : 531-544.
- PICKARD-CAMBRIDGE, O. 1870. Notes on a collection of Arachnida made by J. K. Lord Esq. in the Peninsula of Sinai and on the African Borders of the Red Sea. *Proc. Zool. Soc. London* : 818-823.
- PICKARD-CAMBRIDGE, O. 1872. General list of the spiders of Palestine and Syria, with descriptions of numerous new species and characters of two new genera. *Proc. Zool. Soc. London* : 212-354.

- PICKARD-CAMBRIDGE, O. 1894. *Biologia Centrali-Americana*, Arachnida, Araneidea, London, **1** : 139-142.
- POCOCK, R. I. 1898. The Arachnida from the regions of Lakes Nyasa and Tanganyika Contained in the collections of the British Museum, *Annals Mag. Nat. Hist.* **2**(7) : 429-448.
- POCOCK, R. I. 1899. On the scorpions, pedipalpi and spiders from Tropical West Africa, represented in the collection of the British Museum. *Proc. Zool. Soc. London*, : 833-885.
- POCOCK, R. I. 1900. The fauna of British India, Arachnida : 1-279.
- POCOCK, R. I. 1900. Some new Arachnida from Cape Colony *Annals Mag. Nat. Hist.*, **6**(7) : 316-333.
- POCOCK, R. I. 1901. Description of some new species of spiders from British India. *J. Bombay nat. Hist. Soc.*, **13** : 482-484.
- RANDALL, J. B. 1982. Prey records of the green lynx spider *Peucetia viridans* (Hentz) (Araneae, Oxyopidae). *J. Arachnol.*, **10** : 19-22.
- ROEWER, C. F. 1954. Katalog der Araneae, Bruxelles, **2**(a) : 315-340.
- SADANA, G. L. & GUPTA, R. 1995. A new species of Oxyopid spider from India. *J. Bombay nat. Hist. Soc.*, **92**(2) : 242-243.
- SADANA, G. L. & GOEL, N. K. 1995. A new species of spider of the genus *Oxyopes* Latreille From India. *Entomol.*, **20**(1) : 71-73.
- SAHA, S & RAYCHAUDHURI, D. 2003. New Lynx spiders *Oxyopes* Latreille (Oxyopidae) From Buxa Tiger reserve, Jalpaiguri, West Bengal. *Entomon*, **28**(4) : 321-327.
- SAHA, S & RAYCHAUDHURI, D. 2004. A new species of the spider of the genus *Peucetia* Thorell (Oxyopidae : Araneae) from Digha, Midnapore, West Bengal, India. *J. Bombay nat. Hist. Soc.*, **101**(2) : 288-290.
- SETHI, V. & TIKDER, B. K. 1988. Studies on some giant crab spiders of the family Heteropodidae from India. *Rec. zool. Surv. India. Occ. Pap.*, **93** : 1-94.
- SHERIFFS, W. R. 1950. Some oriental spiders of the genus *Oxyopes* *Proc. Zool. Soc. Lond.*, **120**(4) : 651-677.
- SILWAL, M. MOLUR, S. & BISWAS, B. K. 2005. Indian spiders (Arachnida : Araneae) : Updated Checklist 2005. *Zoos' Print Journal*, **20**(10) : 1999-2049.
- SIMON, E. 1864. *Histoire naturelle des Araignees* (Araneides) Paris, : 1-387.
- SIMON, E. 1866. Sur quelques des Araignees d'Espagne. *Annals Soc. entomol France*, **6**(4) : 281-292.

- SIMON, E. 1876. *Les Arachnides de France, Paris, 3* : 1-360.
- SIMON, E. 1882. Etude sur les Arachnides du Yemen meridional in Viaggio ad Assab nel Mar Rosso dei signori C., Dorio ed Beccari conil Aviso Explortero del 16 Nov. 1879 od 26 Feb 1881. *Annals mus civ. Storia nat. Genova, 18* : 107-206.
- SIMON, E. 1884. Arachnides recueillis a Kharoum (Soudan egyptien) par M. Vossion, vice-cousul be France atappartenant au Museum de Paris. *Bull. Soc. Zool. France, 9* : 1-28.
- SIMON, E. 1884. Etudes arachnologiques, 15 e Memoire 22. Arachnides recuellis Par M l'abbe David a Smyrne a Beirouth et a Akbes en 1883. *Annals Soc. Ent. France, 4(6)* : 181-196.
- SIMON, E. 1890. Etudes arachnologiques 22 e Memorie 34. Etude sur les Arachnides De l' yemen. *Annals Soc. Ent, Frnace, 10(6)* : 77-124.
- SIMON, E. 1896. Arachnides recuellis par M. Arnold Penther dans 1' Afrique Qustrale. *Bull. Soc. Zool. France, 21* : 220-223.
- SIMON, E. 1897. Araneae In : Smith (A. D.) Through unknown African Countries. London : 386-391.
- SIMON, E. 1898. *Historie naturelle des Araignees, Paris, 2* : 370-380.
- SIMON, E. 1899. Arachnides recueilliis par M Charles van Cassel, sous officier D' cavity (Soudan francals), au posted du zo, en Septembre 1899. *Bull. Mus. Hist. nat.* : 416-418.
- SIMON, E. 1904. Etude sur les Arachnides recueillis au cours de la Mission Du Bourg de Bozas en frique. *Bull. Mus. Hist. Nat., 7* : 442-448.
- SONG, D. X. 1987. Spider from agricultural regions of China (Arachnida : Araneae). *Agriculture Publishing House, Beijing, China* : 1-376.
- STOLICZKA, F. 1869. Contribution towards the knowledge of Indian Arachnoidea. J. *Proc. Asia. Soc. Bengal, 38* : 201-251.
- STRAND, E. 1908. Nordafrikanische, hauptsachlich von Carlo Freitherr von Erlanger Gessamelte Oxyopiden and Salticiden. *Soc. Ent., 22* : 156.163-164.180-181.
- SUBRAMANYAM, T. V 1935. On the mating habits of spiders. *J. Bombay nat. Hist. Soc., 37* : 962-963.
- TIKADER, B. K. 1965. On some new species of spiders of the family Oxyopidae from India. *Proc. Indian Acad Sci., 62(3)* : 140-144.
- TIKADER, B. K. 1969. On some new species of spiders of the family Oxyopidae from India. *Oriental Ins., 3(1)* : 33-36.
- TIKADER, B. K. 1969. Spider Fauna of India : Catalogue and Bibliography, Part I., *J. Bombay nat. Hist. Soc., 66(1)* : 81-91.

- TIKADER, B. K. 1970. Spider Fauna of Sikkim. *Rec. zool. Surv. India*, **64**(1-4) : 61-81.
- TIKADER, B. K. 1970. Spider Fauna of India : Catalogue and Bibliography, Part II. *J. Bombay nat hist. Soc.*, **66**(3) : 491-499.
- TIKADER, B. K. 1970. Spider Fauna of India : Catalogue and Bibliography, Part III. *J. Bombay nat Hist. Soc.*, **67**(2) : 212-221.
- TIKADER, B. K. 1972. The Fauna of India : Catalogue and Bibliography. Part IV. *J. Bombay nat Hist. Soc.*, **68**(3) : 609-618.
- TIKADER, B. K. 1972. Spider Fauna of India : Catalogue and Bibliography. Part V. *J. Bombay nat Hist. Soc.*, **69**(1) : 91-101.
- TIKADER, B. K. 1973. Spider Fauna of India : Catalogue and Bibliography. Part VI. *J. Bombay nat Hist. Soc.*, **70**(1) : 95-103.
- TIKADER, B. K. 1977. Studies on spider fauna of Andaman and Nicobar Islands, Indian Ocean. *Rec. zool. Surv. India.*, **72** : 153-212.
- TIKADER, B. K. 1980. *The Fauna of India; Araneae*, **1**(1) : 1-247.
- TIKADER, B. K. & MALHOTRA, M. S. 1980. *The Fauna of India, Araneae*, **1**(2) : 259-443.
- TIKADER, B. K. & BISWAS, BIJAN. 1981. Spider Fauna of Calcutta and vicinity, pt. 1. *Rec. zool. Surv. India. Occ. Pap.*, **30** : 1-149.
- TIKADER, B. K. 1982. *The Fauna of India; Spiders : Araneae*, **2**(1) : 1-293.
- TIKADER, B. K. 1982. *The Fauna of India; Spiders : Araneae*, **2**(2) : 295-536.
- THORELL, T. 1869. On European Spiders. *Nova acta regiae societatis scientiarum Upsaliensis*, **7** : 1-108.
- THORELL, T. 1870. On European Spiders. *Nova acta regiae societatis scientiarum Upsaliensis*, **7** : 109-242.
- THORELL, T. 1875. On some spiders from New-Calidonia Madagascar and Reunion. *Proc. Zool. Soc. London*, : 130-149.
- TURNER, M. 1979. Diet and feeding phenology of the green lynx spider *Peucetia viridans* (Araneae : Oxyopidae). *J. arachnol.*, **7** : 149-159.
- WALLACE, H. K. 1942. A study of the lenta group of the Lycosa, with description of new species (Araneae, Lycosidae) *Amer. Mus. Nov.*, **1185** : 1-21.
- WALLACE, H. K. 1942. A revision of the burrowing spiders of the genus *Geolycosa* (Araneae, Lycosidae). *Amer. Midl. Nat.*, **27**(1) : 1-62.
- WHITCOMB, W. H. 1962. Egg sac construction and oviposition of the green lynx spider, *Peucetia viridans* (Oxyopidae) *Southwestern Nat.*, **7**(3-4) : 198-201.

WHITCOMB, W. H. *et al.* 1963. Spiders of the Arakansas cotton field. *Ann. Ent. Soc. America*, **56** : 653-660.

Whitcomb, W. H., Hite, M. & Eason, R. 1966. Life history of the green lynx spider. *Peucetia viridans* (Araneida : Oxyopidae). *J. Kansas Ent. Soc.* **39** : 259-267.

ZHANG, J. M. ZHU & D. SONG. 2005. Revision of the spider genus *Hamataliwa* keyserling from China (Araneae : Oxyopidae) *Zootaxa*. **1017** : 1-17.

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