

STUDIES ON SPIDER FAUNA OF ANDAMAN AND NICOBAR ISLANDS, INDIAN OCEAN

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(With 27 Text--figures)

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INTRODUCTION

The spider fauna of Andaman and Nicobar Islands has not yet been studied in a comprehensive manner. Thorell (1892) and Pocock (1900) were the pioneer workers in this field and they recorded only sixteen species of spiders from these oceanic islands. There are many oceanic islands around Indian mainland but no effort has so far been made to explore intensively the spider fauna of these islands. All oceanic islands have, presumably, received their spider fauna mainly through ballooning mechanism of spiders from adjacent mainland. The present study was undertaken with the aim of describing the species occurring in these islands and also comparing the distribution of spider fauna of these islands with the adjoining mainlands of India, Burma and Sumatra. It is possible that some species are common with mainland while a few are characteristic of the places of their respective occurrence. The present account is based on spiders collected by the author from Andaman and Nicobar islands during the faunistic survey conducted during February to May 1970 and April to June 1971. The author believes that there are still a number of spider species from these islands which have not yet been collected and described.

Altogether fifty-eight species, contained in forty-one genera, distributed in the families Scytodidae, Psechridae, Filistatidae, Uloboridae, Amaurobiidae, Dictynidae, Pholcidae, Linyphiidae, Theridiidae, Tetragnathidae, Argiopidae, Hersiliidae, Oxyopidae, Pisauridae, Lycosidae, Gnaphosidae, Heteropodidae, Thomisidae, Clubionidae and Salticidae are dealt with in this paper. Of these, twenty-six species are new to science. All type specimens will be deposited in due course in the National Collection, Zoological Survey of India, Calcutta.

GENERAL DESCRIPTION OF ANDAMAN AND NICOBAR ISLANDS

The Andaman and Nicobar Islands comprise of 348 Islands of various sizes. They run in a more or less north-south line between 6° and 14° North latitude and 92° East longitude in the South-East Bay of Bengal. The total land area of the Islands is about 8,293 sq. kms. They are the summits of the submarine range of hills, 1,120 kms. long that connects the Arakan Yomas of Burma with Achin head in Sumatra. These Islands which can be broadly divided into two groups: (1) the Andaman Group, and (2) the Nicobar Group, are separated from each other by the ten-degree channel which is about 150 kms. wide and 400 fathoms deep.

Andaman group consists of 324 Islands, of which only 18 are inhabited. The main part of the group, collectively known as Great Andamans, consists of five closely adjoining Islands viz. North Andamans, Middle

Andamans, South Andamans, Baratang and Rutland. The Great Andaman group covers land area of 6,340 sq. kms. Little Andamans (48 kms. long. and 27 kms. wide) forms the southern extremity and lies about 50 kms. south of Great Andamans from which it is separated by a strait called Duncan Passage.

The Nicobar Group of Islands covering a land area of 1,953 sq. kms. comprises of 24 Islands, of which only 12 are inhabited. The distance between Car Nicobar, the northern-most Island, and Pygmalion Point, the southern-most tip of the Great Nicobar is about 260 kms. The Pygmalion Point is about 150 kms. from Achin Head, the northern tip of Sumatra Islands of Indonesia.

The Andaman and Nicobar Islands generally have low ranges of hills enclosing narrow valleys, which are covered by dense forest descending in many places to the sea shore. The vegetation is Burmese and Malay type. The middle Andaman and Great Nicobar have steep ridges and valleys with perennial streams and rivers. The climate of the Islands is tropical (Max. 23°-31°C) and variation in temperature is very little. Humidity is high, the average being 80%. These islands get both the monsoons; the heavy annual rainfall of about 313 cms. is mostly derived from the South-West monsoon.

The dense tropical forests are completely devoid of big mammals. Only pigs (a source of food for the aborigines) and rats occur in these islands. Spotted and barking deer were introduced from the Indian mainland in the last century. A great variety of birds, a few species of snakes and amphibians constitute the bulk of the endemic vertebrate fauna. The most poisonous creature is the giant centipede which some times is more than a foot long. The Giant African Snail was introduced during the Japanese occupation along with some plants. This snail has further spread to different Islands where it has become a great nuisance to the vegetable and fruit gardens. Biological control methods are being tried at present to control the population of these snails.

Key to the families of Andaman and Nicobar Islands Spiders

- | | |
|--|---------------|
| 1. Eyes eight | .2 |
| Eyes six | .SCYTODIDAE |
| 2. Cribellum and calamistrum present | .3 |
| Cribellum and calamistrum absent | 7 |
| 3. Tarsi furnished with unguis tufts and inferior claw | .PSECHRIDAE |
| Tarsi without unguis tufts and inferior claw | .4 |
| 4. Tracheal spiracles advanced in front of spinnerets | .FILISTATIDAE |
| Tracheal spiracles not advanced in front of spinnerets | .5 |

5. All eyes dark colouredULOBORIDAE
All eyes not dark coloured6
6. All eyes pearly white colouredAMAUROBIIDAE
Eyes white except anterior medians darkDICTYNIDAE
7. Palpal tarsus with claw in female8
Palpal tarsus without claw in femalePHOLCIDAE
8. Eyes heterogenousLINYPHIIDAE
Eyes homogenous9
9. Tarsi bear three claws10
Tarsi bear two claws17
10. Fourth tarsi with a ventral row of serrated bristlesTHERIDIIDAE
Fourth tarsi without a ventral row of serrated bristles11
11. Chelicerae very longTETRAGNATHIDAE
Chelicerae not long12
12. True web-weavers, sedentaryARGIOPIDAE
Not true web-weavers, not sedentary13
13. Chelicera without a lateral condyle and
very long spinneretsHERSILIIDAE
Chelicera with a lateral condyle and spinnerets short14
14. Trochanters not notchedAGELENIDAE*
Trochanters deeply notched15
15. Only fourth trochanters deeply notchedOXYOPIDAE
All trochanters deeply notched16
16. Paired claws with numerous teethPISAURIDAE
Paired claws with few teethLYCOSIDAE
17. Lower margin of chelicerae with distinct teeth18
Lower margin of chelicerae without distinct teeth19
18. Eyes heterogenous, small spiderGNAPHOSIDAE
Eyes homogeneous, big spiderHETEROPODIDAE
19. Crab-like spiderTHOMISIDAE
Not crab-like spider20
20. Eyes in two rows, almost equal in sizeCLUBIONIDAE
Eyes in three rows, very unequal in sizeSALTICIDAE

* Family not dealt with in this paper.

III. SYSTEMATIC ACCOUNT

Family I. SCYTODIDAE

Genus 1. *Scytodes* Latreille1. *Scytodes thoracica* (Latreille)

1802. *Aranea thoracica* Latreille, *Hist. Nat. Incrus. Ins.*, 7: 249.
 1864. *Scytodes thoracica* Blackwall, *History of British Spiders*, : 380.
 1902. *Scytodes thoracica*: Rainbow, *Rec. Aust. Mus. Sydney*, 4: 312.
 1935. *Scytodes thoracica*: Dyal, *Bull. Zool. Punjab Univ.*, 1: 154.
 1963. *Scytodes thoracica*: Tikader, *J. Univ. Poona Sci.*, 24: 31.

Specimens examined—1 ♀, Diglipur, North Andaman, Coll. B. K. Tikader, 23.4.1971. 1 ♀, Chiriatapu, South Andaman, Coll. B. K. Tikader, 29.5.1971. 1 ♀, Tugapur, Mayabandar, North Andaman, Coll. B. K. Tikader, 13.4.1971. 1 ♀, Durgapur, Diglipur, North Andaman, Coll. B. K. Tikader, 30.4.1971.

This species differs from *S. propingua* Stoliczka in being deep brown in colour. Cephalothorax has only a few black longitudinal streaks. Legs with transverse bands. Abdomen is dotted with black or brown colour.

According to Rainbow (1902) this was an European species which made its way to Australia by the agency of commerce. If so, it is quite possible that this species has migrated into India as well as Andaman Islands during the British time.

This spider is not web-spinning, but hides itself in dark corners of old houses and inside packing boxes.

Distribution.—India: Calcutta, Shillong, Punjab, Gujarat, Poona, Andaman Islands; Australia, Europe, America and Africa.

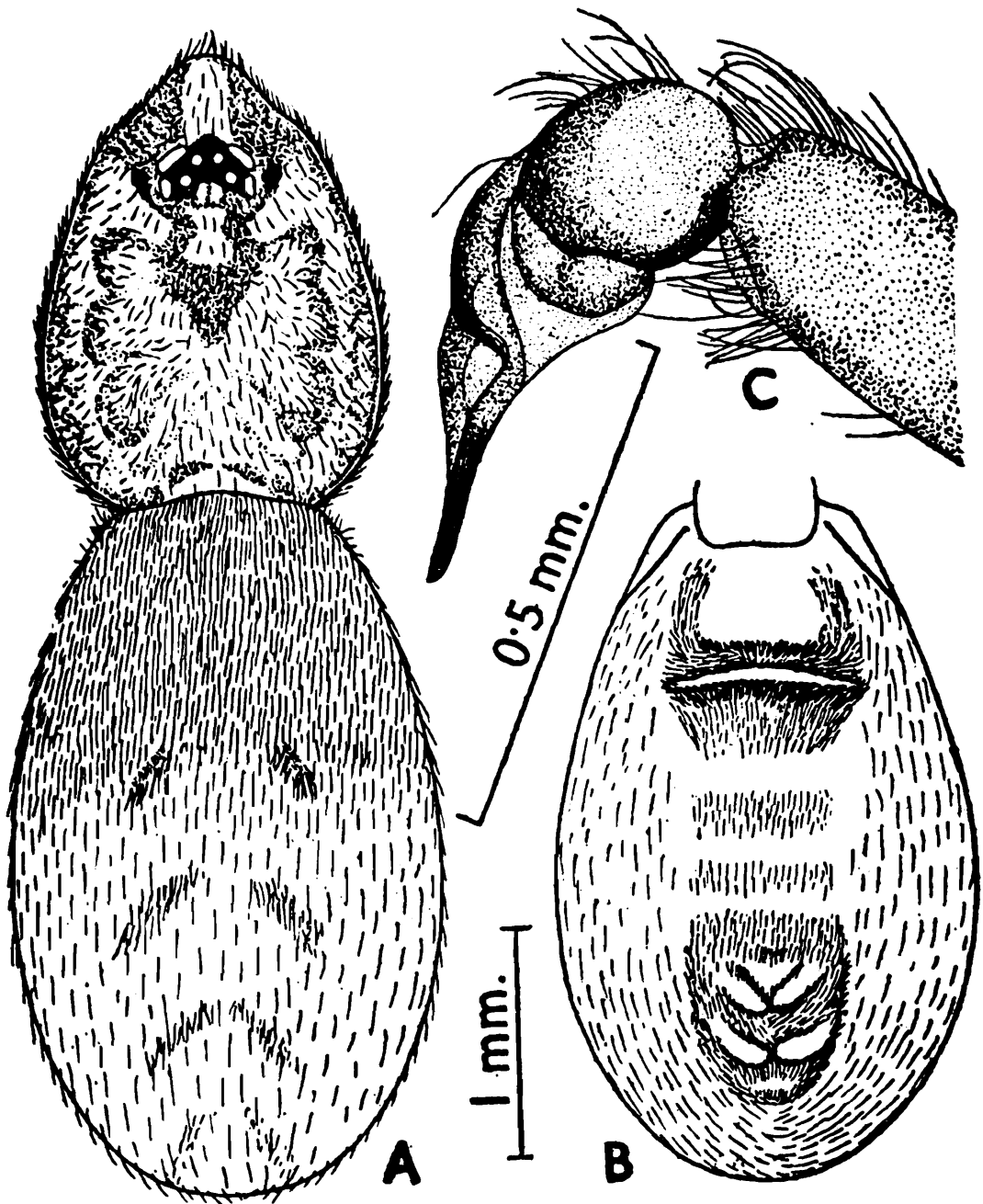
Family II. FILISTATIDAE

Genus 2. *Filistata* Latreille2. *Filistata nicobarensis* sp. nov.

General.—Cephalothorax and legs light brownish-green, abdomen brown or pale. Total length 5.00 mm. Carapace 2.00 mm. long, 1.50 mm. wide; abdomen 3.00 mm. long, 1.80 mm. wide.

Cephalothorax.—Longer than wide, pointed forward, almost flat but ocular area high, clothed with brown hairs. On lateral side of eye group a deep pointed muscular depression on each side. Eyes formed in a small group on the cephalic region, which is wider than long. Only anterior median eyes dark in colour, round and small, the others pearly

white and oval; both rows procurved; anterior lateral eyes larger than the others; the posterior median eyes contiguous with posterior laterals. Sternum oval, slightly pointed behind, thickly clothed with fine hairs. Legs long, specially the 1st pair. Legs formula 1243. Male palp as in text-fig. 1C.



Text-fig. 1 *Filistata nicobarensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Ventral view of abdomen, (C) Male palp.

Abdomen.— Nearly egg shaped slightly narrower in front; clothed with fine brown hairs. Ventral side pale in colour; spinners situated near the middle of ventral side of abdomen. Epigyne simple like a transverse fold.

Type-specimen.—*Holotype* one ♀, *paratype* twenty ♀♀, *allotype* one ♂ in spirit.

Type locality.—Horticulture garden, office building, Car-Nicobar, India. Coll. B. K. Tikader, 8.3.1970.

This species resembles *Filistata poonaensis* Tikader but is separated from it as follows: (i) Abdomen nearly egg-shaped but in *F. poonaensis* Tikader abdomen nearly elliptical. (ii) Spinners situated near the middle of ventral side of abdomen but in *F. poonaensis* spinners situated near the end of ventral side of abdomen.

Other localities.—1 ♀ Aerial Bay, Guest House, Diglipur, North Andaman. Coll. B. K. Tikader, 23.4.1971. 2 ♀♀, Mayabandar Government Rest House, North Andamans. Coll. B. K. Tikader, 4.5.1971.

Family III. ULOBORIDAE

Genus 3. *Uloborus* Latreille

3. *Uloborus danolius* Tikader

1969. *Uloborus danolius* Tikader, *Proc. Indian Acad. Sci.*, 70: 129.

Specimens examined.—25 ♀♀, 10 ♂♂, Malacca village, Car-Nicobar India, Coll. B. K. Tikader, 11.3.1970.

Field notes.—This spider was collected from inside of an old and abandoned house. It prefers dark, old and abandoned houses. It spins an extremely fine web and it lies suspended upside down. The webs are placed near each other almost like a colony in a single abandoned house mainly in the dark corner of house.

Distribution.—India: Calcutta, North Bengal, Poona. Car-Nicobar. *Type-locality*—Danoli, District Ratnagiri, Maharashtra.

4. *Uloborus krishnae* Tikader

1970. *Uloborus krishnae* Tikader, *Rec. zool. Surv. India*, 64(1-4): 5.

Specimens examined.—4 ♀♀, 2 ♂♂ Kakana village, Car-Nicobar India, Coll. B. K. Tikader, 9.3.1970. 10 ♀♀, Keating point, Car-Nicobar, Coll. B. K. Tikader, 7.3.1970. 2 ♀♀, 1 ♂, Arong village, Car-Nicobar, Coll. B. K. Tikader, 9.3.1970. 5 ♀♀, 2 ♂♂, Diglipur, North Andaman, Coll. B. K. Tikader, 25.4.1971. 10 ♀♀, 7 ♂♂, Horticulture garden, Kamorta Island, Nicobar, Coll. B. K. Tikader, 25.3.1970.

Field notes.—I have collected this species from inside of an old and temporary abandoned hut. The specimens of Kamorta Island have some colour variation, mainly the abdomens of some females are without black bands and completely white in colour.

Distribution.—India: Gujarat, Sikkim, Andaman and Nicobar Islands,

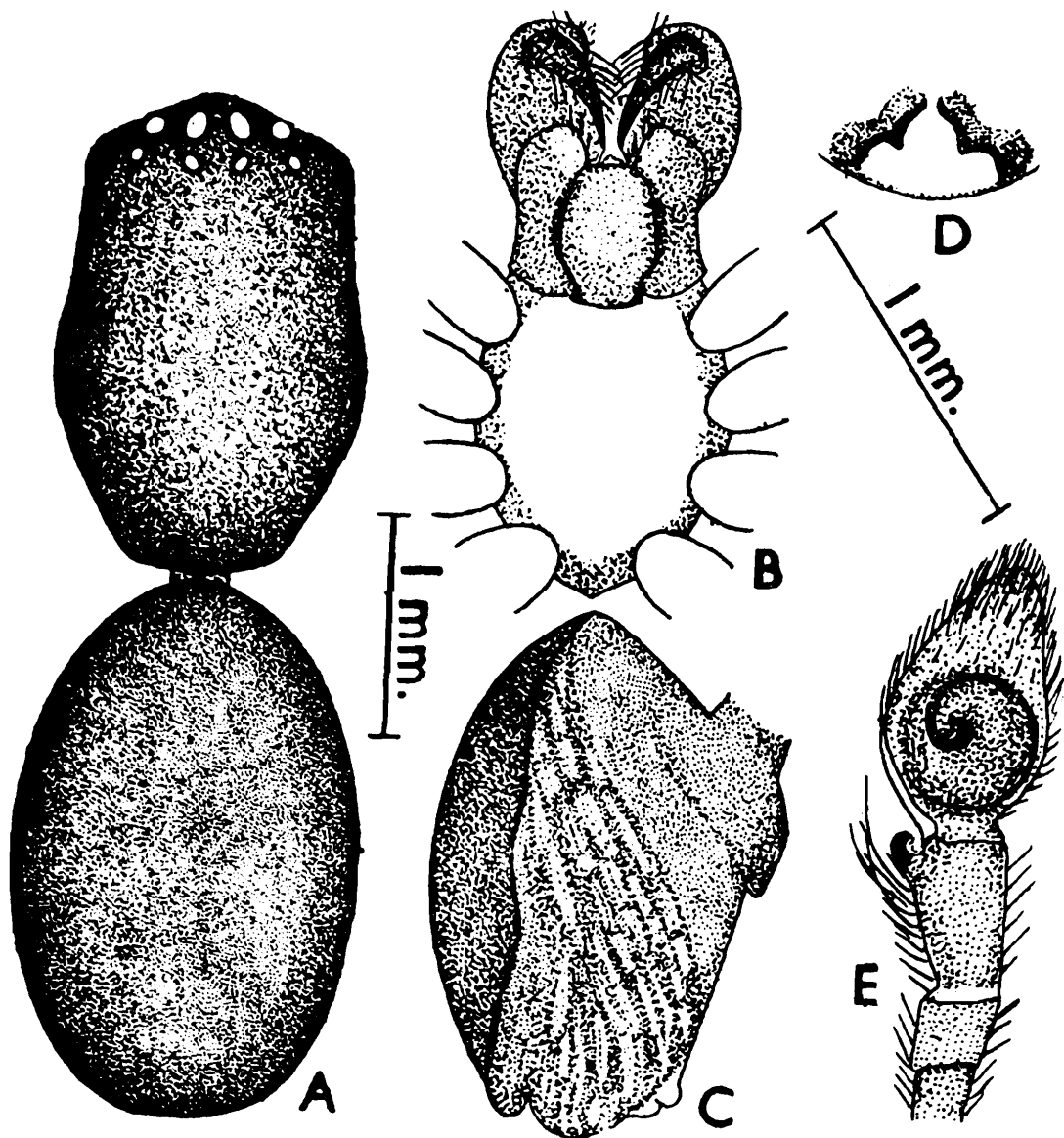
Family IV. AMAUROBIIDAE

Genus 4. Amaurobius Koch

5. *Amaurobius andamanensis* sp. nov.

General.—Cephalothorax, abdomen and legs deep reddish in colour. Total length 3.00 mm. Carapace 1.40 mm. long, 0.90 mm. wide, abdomen 1.60 mm. long, 1.10 mm. wide.

Cephalothorax.—Longer than wide, smooth, practically devoid of hairs or spines. Middle of cephalothorax high and sloping in all the directions. Eyes pearly white in two rows, both the rows procurved; ocular quad narrowing in front, slightly longer than wide. Legs thin and long clothed with fine hairs and spine like hairs. Tibiae and metatarsi of I leg with six and four pairs of ventral spines respectively. Legs for-



Text fig. 2 *Amaurobius andamanensis* sp. nov.

- (A) Dorsal view of female, legs omitted, (B) Maxillae and labium,
(C) Lateral view of abdomen, (D) Epigyne, (E) Male palp.

mula 1423. Chelicerae strong and stout. Sternum heart shaped, pointed behind. Maxilla and labium as in text-fig. 2B. Male palp as in text-fig. 2E.

Abdomen.—Longer than wide, narrowing in front without hairs and very smooth. Upper portion of abdomen provided with a chitinous collar. Ventral side without chitinous collar and clothed with fine hairs. Epigyne as in text-fig. 2D.

Type specimen.—*Holotype* one ♀, *allotype* one ♂ in spirit.

Type-locality.—Aerial Bay, Diglipur, North Andaman, India. Coll. B. K. Tikader, 25.4.1971. *allotype*, from Smith Island, North Andaman, India, Coll. B. K. Tikader, 27.4.1971.

This species somewhat resembles *Amaurobius bennetti* (Blackwall) from America, but it is separated as follows: (i) Upper portion of abdomen provided with chitinous collar but in *A. bennetti* abdomen with two parallel longitudinal light bands; each of these is continued in a zig-zag manner, up to the tip of the abdomen. (ii) Epigyne and male palp structurally different.

Family V. DICTYNIDAE

Genus 5. *Dictyna* Sundevall

6. *Dictyna bedeshai* Tikader

1966. *Dictyna bedeshai* Tikader *Proc. Linn. Soc.*, 177: 50.

Specimens examined.—1 ♀, Long Island, Middle Andaman, India, Coll. B. K. Tikader, 17.5.1971. 1 ♀, Chiriatapu, South Andaman, India, Coll. B. K. Tikader, 29.5.1971.

Distribution.—India : Poona, Maharashtra, Andaman and Nicobar Islands.

7. *Dictyna rebai* Tikader

1966. *Dictyna rebai* Tikader, *Proc. Linn. Soc.*, 177: 45.

Specimens examined—1 ♀, Kamorta Island, Nicobar Islands, India, Coll. B. K. Tikader, 17.3.1970.

Distribution—India: Poona, Maharashtra, Andaman and Nicobar Islands.

Family VI. PHOLCIDAE

Genus 6. *Artema* Walckenaer

8. *Artema atlanta* Walckenaer

1837. *Artema atlanta* Walckenaer, *Ins. Apteres.*, 1: 656.

1900. *Artema atlanta*: Pocock, *Fauna. Brit. India. Arach.*, : 238.

1963. *Artema atlanta*: Tikader, *J. Univ. Poona, Sci. & Tech.*, 24: 38.

Specimens examined— 5 ♀♀, 2 ♂♂, in the waiting hall near Rangat Jetty, Middle Andaman, India, Coll. B. K. Tikader, 22.4.1970. 7 ♀♀, at Mayabandar rest house, North Andaman, India, Coll. B. K. Tikader, 4.5.1971. 1 ♀, in the rest house of Delanipur, Port Blair, South Andaman, Coll. B. K. Tikader, 22.4.1971.

Distribution—India: Travancore, Bombay, Meerut, Poona, Rajasthan, Bengal, Andaman Island; Ceylon, Burma.

Genus 7. Pholcus Walckenaer

9. *Pholcus kapuri* sp. nov.*

General— Cephalothorax, abdomen and legs light greenish. Total length 6.20 mm. Carapace 1.50 mm. long, 1.40 mm. wide; abdomen 4.80 mm. long, 1.20 mm. wide.

Cephalothorax—Nearly as long as wide, slightly narrow in front; ocular area slightly high. Middle of cephalothorax provided with a conspicuous broad longitudinal line extending from ocular area to base of cephalothorax, lateral side of cephalothorax also provided with similar brown patch. Anterior median eyes almost continuous and smaller than the other eyes. Anterior and posterior lateral along with posterior median eyes formed a compact group. In the male this group of eyes formed a little stalk-like projection as in text-fig. 3C. Legs thin and very long provided with inconspicuous light brown transverse bands. Sternum nearly as wide as long, narrowing behind, clothed with fine hairs. Male palp as in text fig. 3E & F.

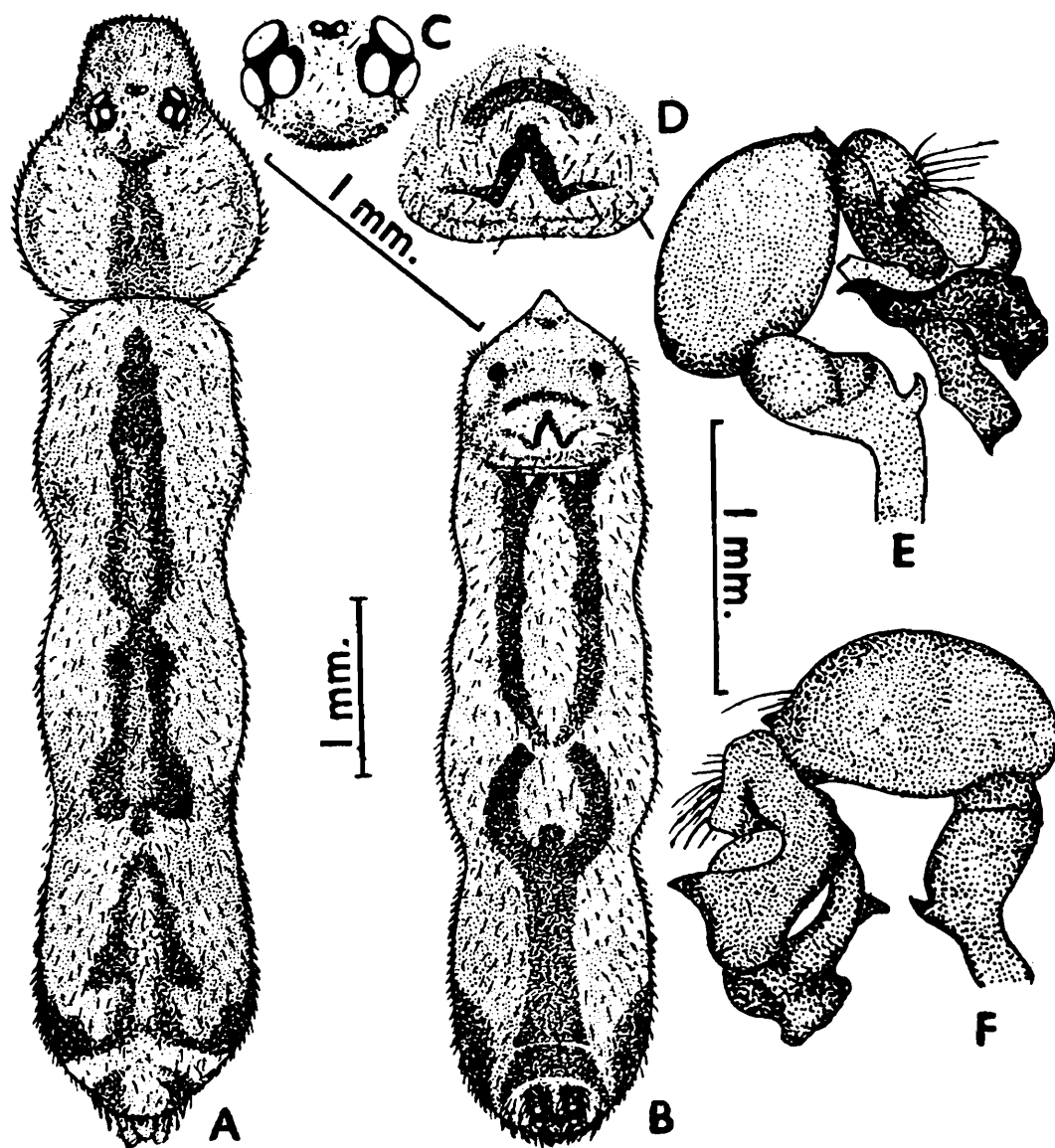
Abdomen— Cylindrical in shape, about ten times as long as wide. Mid-dorsally and mid-ventrally provided with conspicuous longitudinal brownish band as in text-fig. 3A & B. Spinners situated at the end of abdomen. Epigyne very simple as in text fig. 3D.

Type-specimen— *Holotype* one ♀, *paratype* two ♀♀, *allotype* one ♂ in spirit.

Type locality—Neil Island, Reserve forest, Andaman and Nicobar Islands, India, Coll. B. K. Tikader, 11.4.1970. Also collected from Chiria-tapu South Andaman. One female, Coll. B. K. Tikader, 28.5.1971.

This species resembles *Pholcus gracillimus* Thorell but separated as follows: (i) Abdomen mid-dorsally and mid-ventrally provided with a longitudinal brownish-red band but in *P. gracillimus* no such band. (ii) Epigyne and male palp also structurally different.

*It is with much pleasure that I named this species after Dr. A. P. Kapur, an eminent Entomologist and former Director, Zoological Survey of India.



Text fig. 3 *Pholcus kapuri* sp. nov.

- (A) Dorsal view of female, legs omitted, (B) Ventral view of abdomen,
 (C) Eyes of male, (D) Epigyne, (E) Ventral view of male palp,
 (F) Dorsal view of male palp.

Family VII. LINYPHIIDAE

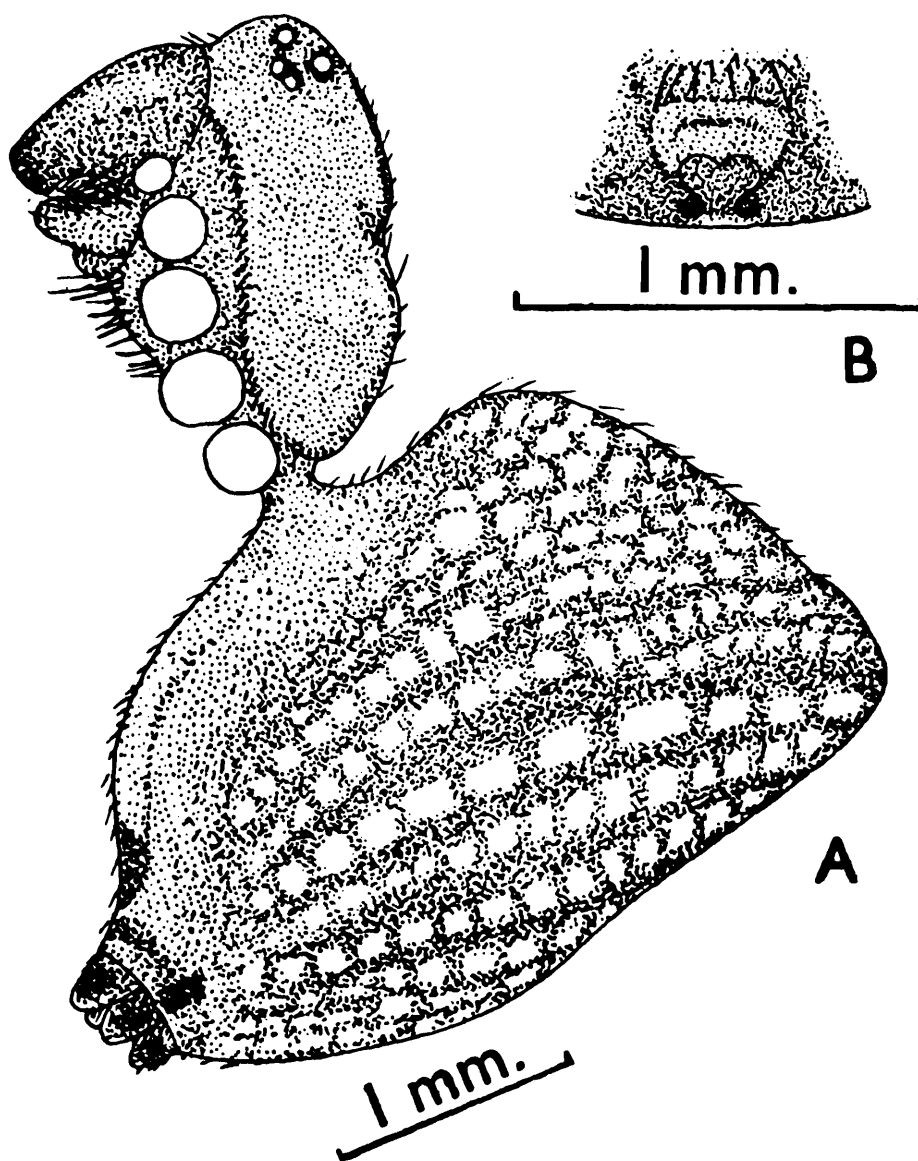
Genus 8. *Linyphia* Latreille

10. *Linyphia nicobarensis* sp. nov.

General—Cephalothorax and legs light greenish, abdomen greenish brown ornamented, with silvery patches. Total length 5.00 mm. Carapace 1.80. mm. long, 1.40 mm. wide, abdomen 3.20 mm. long, 2.00 mm. wide.

Cephalothorax— Longer than wide, nearly flat, cephalic region slightly convex, lower half broadest and narrowing in front. Middle of cephalothorax provided with two conspicuous dark brown lines extending from

base of posterior middle eyes to near the base of cephalothorax; lateral margin also provided with dark brown line. Eyes pearly white, anterior row recurved, posterior row straight, lateral eyes small and contiguous, base of each eye encircled by conspicuous black patch. Sternum heart-shaped, longer than wide and pointed behind. Legs long and clothed with fine hairs and spines. I pair of leg very long and stout. Legs formula 1243.



Text-fig. 4 *Linyphia nicobarensis* sp. nov.

(A) Lateral view of female, legs omitted, (B) Epigyne.

Abdomen—Globular, slightly longer than wide, clothed with very fine hairs, slightly overlapping the posterior region of cephalothorax in front. Anterodorsal side provided with two humps as in text-fig. 4A. All the sides of abdomen beautifully decorated with silvery patches as in text-fig. 4A. Epigyne as in text-fig. 4B.

Holotype—One ♀ in spirit.

Type-locality—Kamorta Island, Nicobar, India, Coll. B. K. Tikader, 22.3.1970.

This species resembles *Linyphia urbasae* Tikader but it is distinguished from it as follows: (i) Cephalothorax provided with two brown conspicuous longitudinal lines but in *L. urbasae* cephalothorax uniform brown. (ii) Abdomen with a dorsal hump and decorated with conspicuous silvery patches but in *L. urbasae* abdomen chalk-white and dorsal side conspicuously marked with a longitudinal and two transverse black bars. (iii) Epigyne is also structurally different.

Family VIII. THERIDIIDAE

Genus 9. *Theridion* Walckenaer

11. *Theridion indica* sp. nov.

General—Cephalothorax and legs light green, abdomen brownish white with black and white patches. Total length 4.20 mm. Carapace 1.20 mm. long, 0.90 mm. wide; abdomen 3.00 mm. long, 2.80 mm. wide.

Cephalothorax—Slightly longer than wide, convex, moderately narrowing in front, clothed with fine pubescence. Eyes pearly white, lateral eyes contiguous, ocular quad longer than wide, anterior row strongly recurved and posterior row straight. Sternum heart-shaped, pointed behind and provided with a mid-longitudinal dark line. Legs stout and strong, clothed with hairs. Tarsi of IV pair of legs with distinct comb-like setae.

Abdomen—Globular in shape, slightly longer than wide, clothed with fine hairs. Dorsal and lateral sides beautifully coloured with regular admixture of chalk-white and brownish green patches as in text-fig. 5A, A1. Ventral side uniform light brown or pale brown in colour without white patches. Epigyne as in text-fig. 5B.

Holotype—one ♀, *paratype* three ♀♀ in spirit.

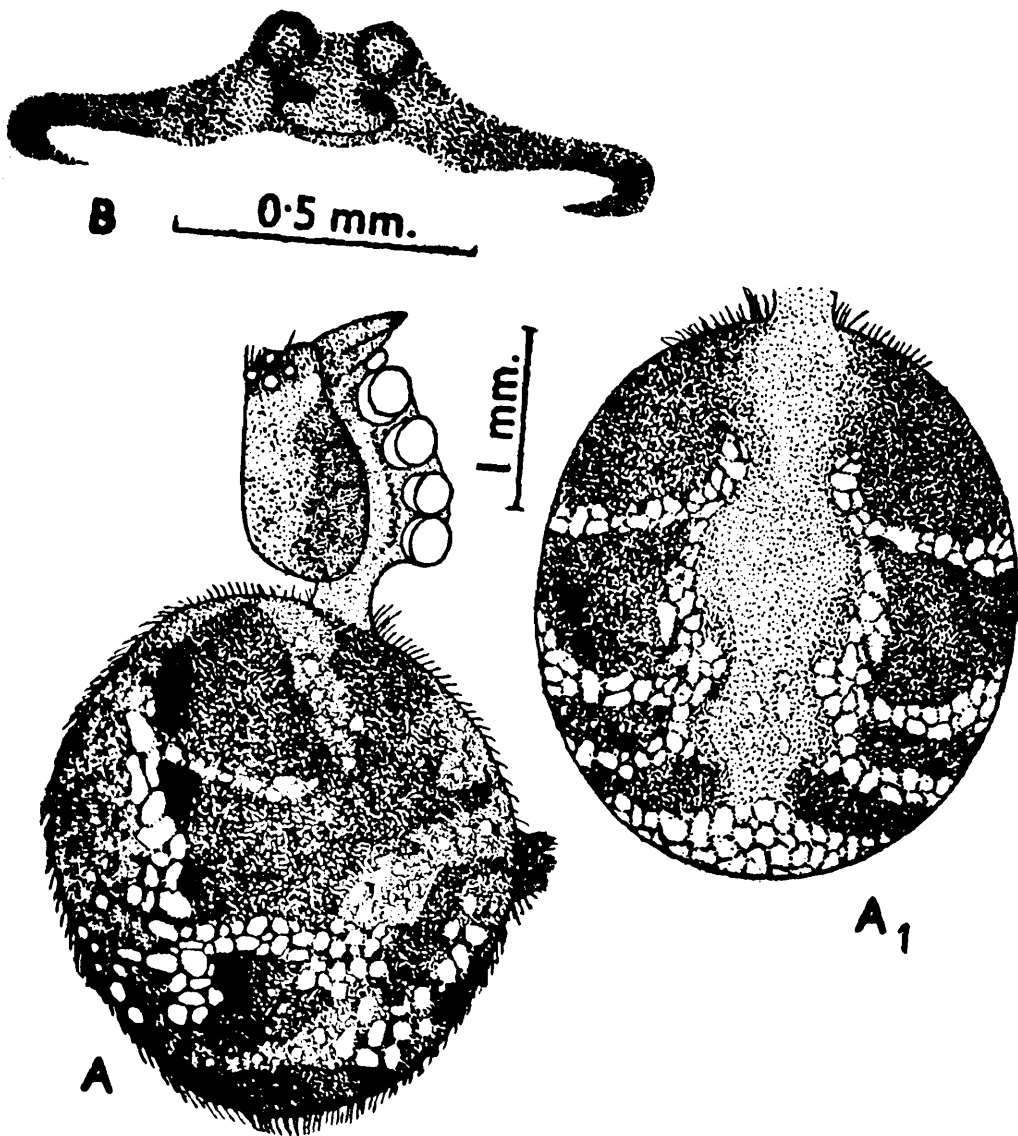
Type-locality—Neil Island, South Andaman, India, Coll. B. K. Tikader, 13.4.1970.

This species resembles *Theridion manjithar* Tikader from Sikkim but it is separated as follows: (i) Abdomen beautifully coloured with regular admixture of chalk-white and brownish green patches but in *T. manjithar* abdomen beautifully coloured with irregular white and black spots. (ii) Epigyne is also structurally different.

Genus 10. *Argyroides* Simon

12. *Argyroides carnicobarensis* sp. nov.

General—Cephalothorax and legs light to deep brown, abdomen light silvery in colour. Total length 3.00 mm. Carapace 1.20 mm. long, 1.00 mm. wide; abdomen 2.00 mm. long, 1.50 mm. wide.



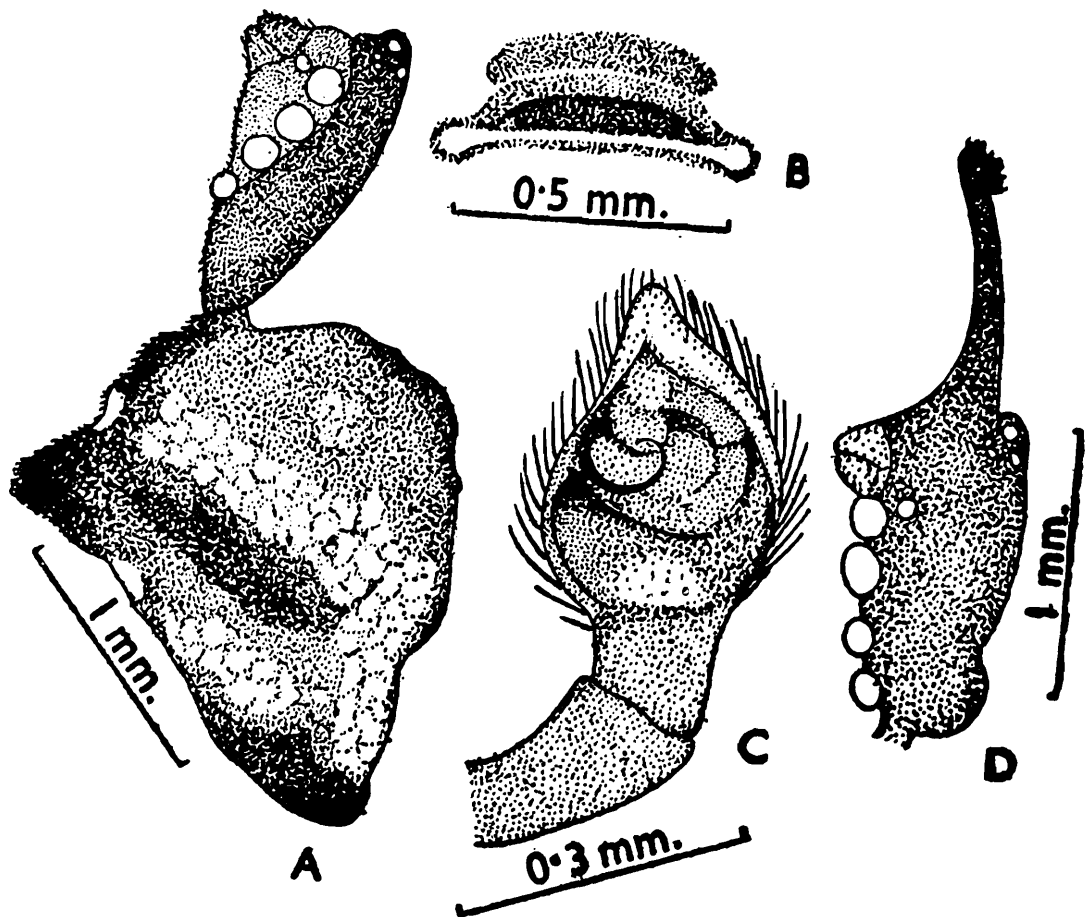
Text-fig. 5 *Theridion indica* sp. nov.

(A) Lateral view of female, legs omitted, (A 1) Dorsal view of abdomen of female, (B) Epigyne.

Cephalothorax—Longer than wide, cephalic region slightly high, anterior and posterior ends narrow. Eyes pearly white, lateral eyes small and contiguous, anterior medians slightly larger than posterior medians; ocular quadrangle wider than long. Anterior row recurved and posterior row procurved. Sternum heart-shaped, pointed behind. Legs long and slender, clothed with fine hairs.

Abdomen— Nearly as long as wide or slightly longer than wide, abdomen extends posteriorly beyond the spinners. Dorsal side of abdomen decorated with conspicuous silvery patches. Ventral side uniform dark brown in colour, provided with three conspicuous silvery dots, one in front of spinners and another two behind the spinners. Epigyne as in text-fig. 6B. Males more slender than females and with less silvery decoration on the abdomen. Head of male bears one conspicuous long

horn as in text-fig. 6D. Legs of male longer and slender than female. Male palp as in text-fig. 6C.



Text-fig. 6 *Argyrodes carnicobarensis* sp. nov.

(A) Lateral view of female, legs omitted, (B) Epigyne, (C) Male palp, (D) Head of male.

Holotype— one ♀, *paratype* four ♀♀, *allotype* three ♂♂ in spirit.

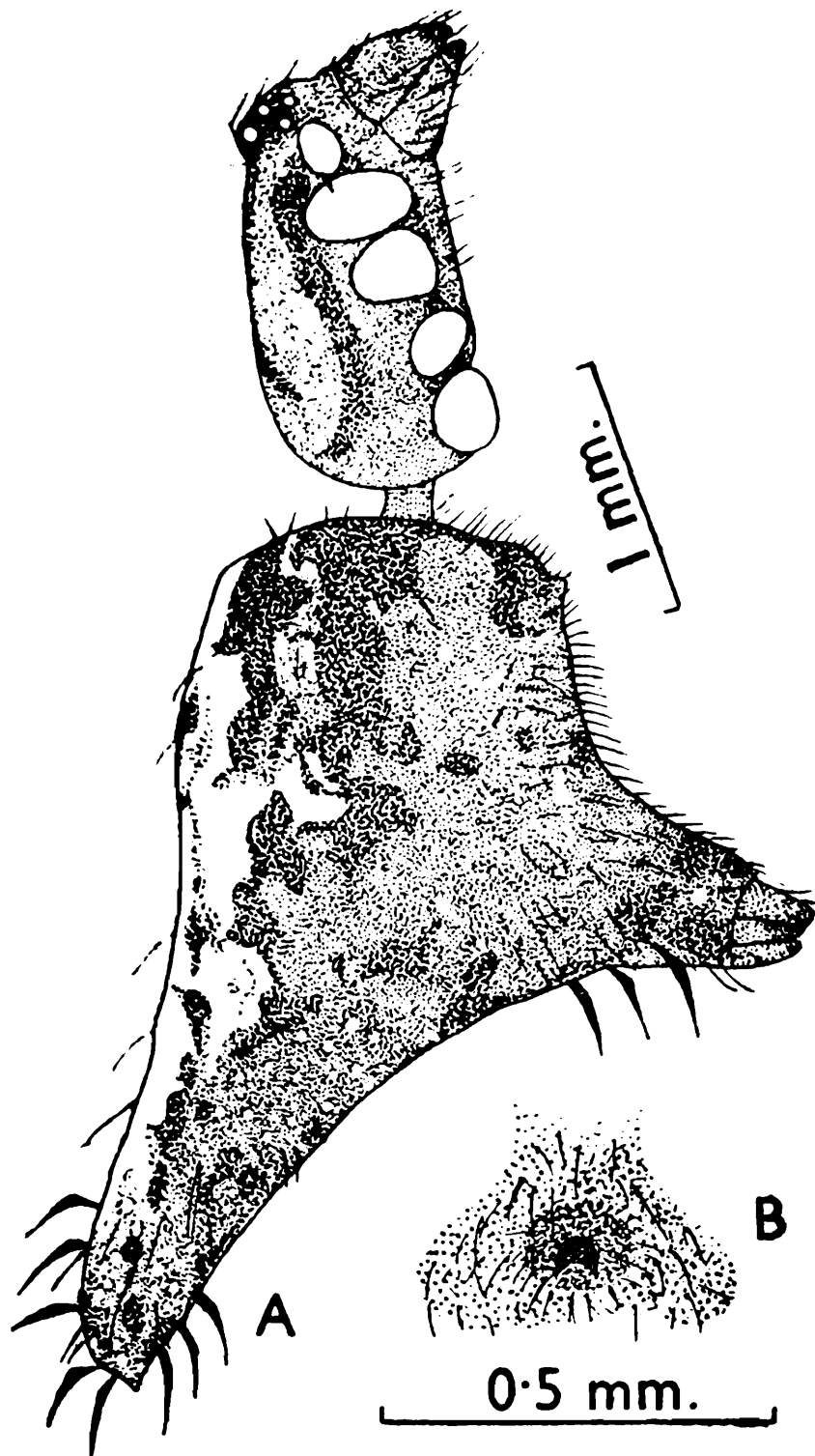
Type-locality— Kakana village, Car-Nicobar, India, Coll. B. K. Tikader, 4.3.1970.

I have collected this species from the web of pisaurid spider. This species resembles *Argyrodes gazedes* Tikader from Sikkim but it is distinguished from it as follows: (i) Carapace of male bears a conspicuous long horn but in *A. gazedes* male bears two horns. (ii) Posterior end of abdomen without black spot but in *A. gazedes* abdomen with a conspicuous black spot. (iii) Female epigyne and male palp also structurally different.

13. *Argyrodes andamanensis* sp. nov.

General— Cephalothorax and legs light greenish yellow, abdomen chalk-white. Total length 5.00 mm., Carapace 1.50 mm. long, 0.80 mm. wide; abdomen 3.50 mm. long, 1.50 mm. wide.

Cephalothorax— Longer than wide, narrowing in front clothed with fine hairs and with long hairs, ocular area conspicuously elevated. Middle of cephalothorax slightly depressed, centre provided with conspicuous triangular deep brown markings and similar deep-brown markings near the border as in text-fig. 7A. Eyes of anterior row slightly recurved and posterior row procurved; lateral eyes contiguous. Ocular quad as long as wide. Sternum heart-shaped, pointed behind. Legs very long,



Text-fig. 7 *Argyrodes andamanensis* sp. nov.

(A) Lateral view of female, legs omitted, (B) Epigyne.

clothed with hairs and special type of black setae and black dots. I and IV legs robust and end of tibiae provided with conspicuous black setae.

Abdomen— Long, remarkably slender and moderately prolonged from beyond the spinners as in text-fig. 7A. Abdomen provided with deep brown and silvery white patches. Posterior pointed portion of abdomen provided with tuft of conspicuous black setae. Epigyne as in text-fig. 7B.

Holotype— one ♀ in spirit.

Type locality— Forest adjoining rest house, Chiriatapu, South Andaman, India, Coll. B. K. Tikader, 28.5.1971.

This species resembles *A. ambalika* Tikader from Sikkim but it is separated as follows: (i) Cephalothorax provided with conspicuous triangular deep brown marking but in *A. ambalika* no such markings on cephalothorax. (ii) Abdomen on the posterior end provided with conspicuous black setae but in *A. ambalika* no such setae on the posterior end of abdomen. (iii) Epigyne also structurally different.

14. *Argyrodes chiriatapuensis* sp. nov.

General.— Cephalothorax and abdomen deep brown, legs reddish. Total length 3.70 mm. Carapace 1.20 mm. long, 0.85 mm. wide; abdomen 2.50 mm. long, 1.80 mm. wide.

Cephalothorax.— Longer than wide, narrowing in front, cephalic region slightly high, posterior end of cephalothorax provided with longitudinal white patch. Eyes pearly white except anterior median, posterior row nearly straight, anterior row strongly recurved, lateral eyes contiguous. Sternum heart-shaped, pointed behind. Legs long and slender, clothed with fine hairs.

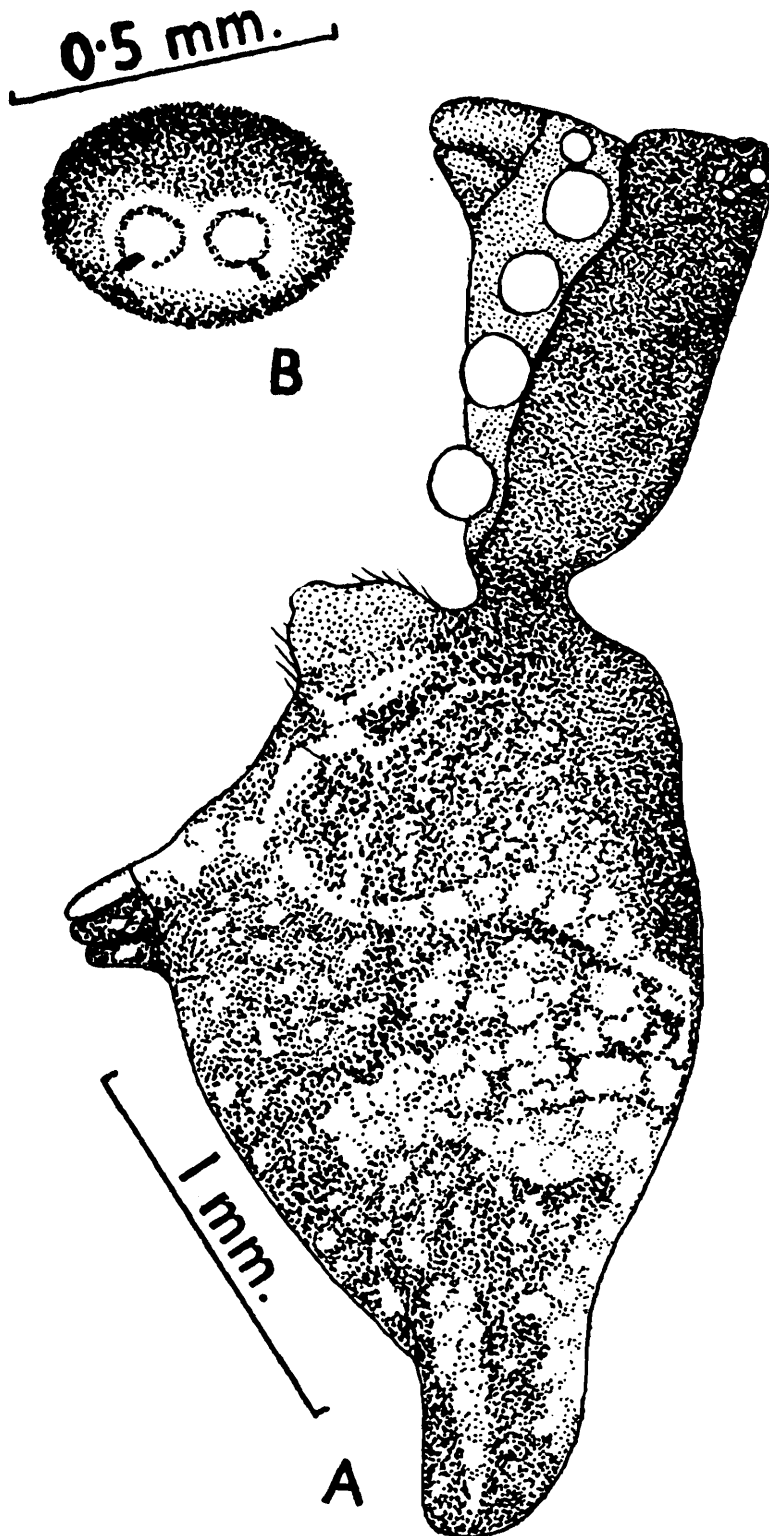
Abdomen.— Wider than long, clothed with fine hairs; overlapping the posterior region of cephalothorax in front, broadest in the region of spinnerets, abdomen extended behind spinners, posterior end elevated and provided with a conspicuous black patch. Abdomen decorated with silver white and deep brown patches as in text-fig. 8A. Epigyne as in text-fig. 8B.

Holotype.— one ♀ in spirit.

Type-locality.— Chiriatapu, South Andaman, India, Coll. B. K. Tikader, 29.5.1971.

This species resembles *Argyrodes gazedes* Tikader from Sikkim but it is distinguished from it as follows: (i) Posterior end of cephalothorax provided with longitudinal white patch but in *A. gazedes* no such patch on cephalothorax. (ii) Posterior end of abdomen provided with a con-

spicuous black patch but in *A. gazedes* posterior end of abdomen provided with white patch. (iii) Epigyne structurally different.



Text-fig. 8 *Argyroides chiriatapuensis* sp. nov.

(A) Lateral view of female, legs omitted, (B) Epigyne.

Genus 11. *Achaearanea* Strand

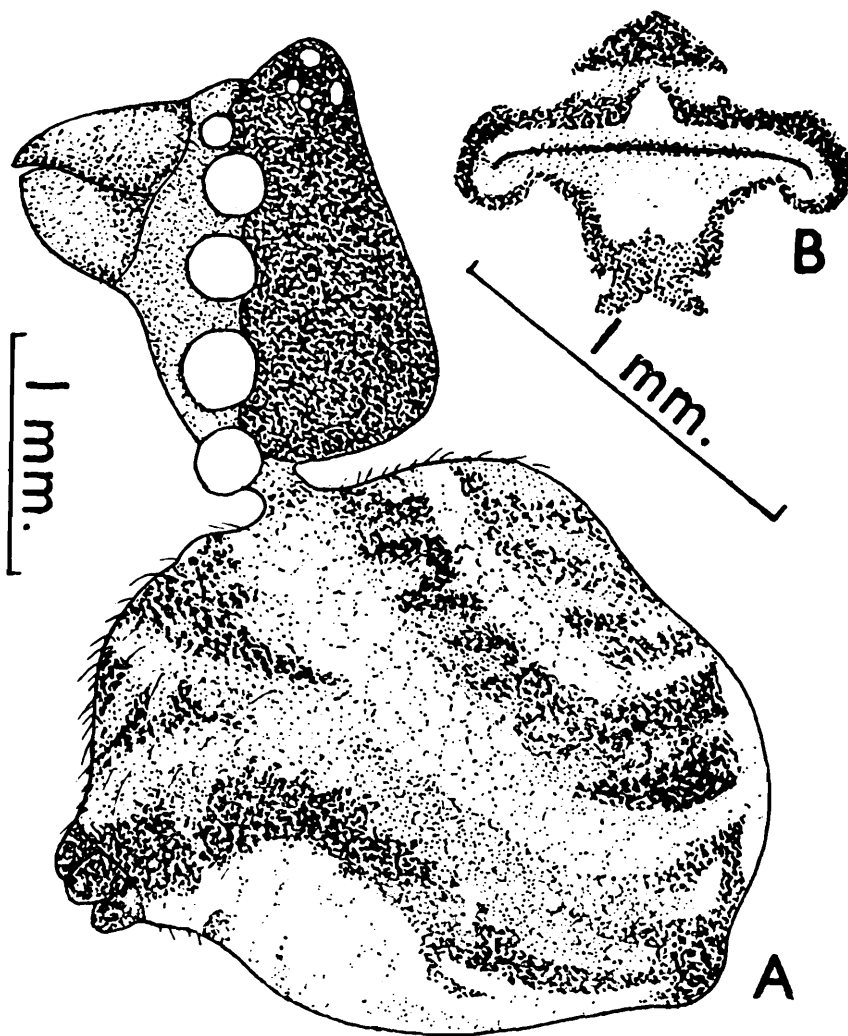
15. *Achaearanea diglipuriensis* sp. nov.

General.— Cephalothorax light to deep brown, legs brownish green,

abdomen brown. Total length 4.10 mm. Carapace 1.60 mm. long, 1.00 mm. wide; abdomen 2.50 mm. long, 2.00 mm. wide.

Cephalothorax.— Longer than wide, convex, narrowing in front; clothed with fine hairs. Eyes pearly white except anterior medians, lateral eyes small and contiguous, ocular quad longer than wide. Clypeus round and slightly grooved under eyes. Sternum heart-shaped, longer than wide, pointed behind, clothed with fine hairs and posterior extremity of sternum provided with dark brown patch. Legs robust, clothed with thick hairs. Tarsi of IV pair of leg with distinct comb-like setae.

Abdomen.— Globular, nearly as long as wide, clothed with fine hairs slightly overlapping the posterior region of cephalothorax in front. Spinners behind the middle of abdomen with an elevated knob having posteriorly a blackish-white mark. Abdomen provided with a regular pattern of chalk-white and deep brown patches as in text-fig. 9A. Epigyne as in text-fig. 9B.



Text-fig. 9 *Achaearanea diglipuriensis* sp. nov.

- (A) Lateral view of female, legs omitted, (B) Epigyne.

Holotype.— one ♀, **paratypes** six ♀♀, **allotypes** three ♂♂ in spirit.

Type-locality.— Aerial Bay, Diglipur, North Andaman, India, Coll. B. K. Tikader, 25.4.1971.

This species resembles *Achaearanea durgae* Tikader from Sikkim but it can be distinguished from it as follows: (i) Abdomen with an elevated knob having posteriorly blackish-white mark but in *A. durgae* Tikader abdomen greenish-brown and moderately elevated posteriorly with a knob having yellowish-white mark. (ii) Epigyne and male palp also structurally different.

Family IX. TETRAGNATHIDAE

Genus 12. *Tetragnatha* Latreille

16. *Tetragnatha mandibulata* Walckenaer

1837. *Tetragnatha mandibulata* Walckenaer, *Ins. Apt.*, 2: 211.

1900. *Tetragnatha mandibulata*: Pocock, *Fauna Brit. India, Arach.*, : 215.

1921. *Tetragnatha mandibulata*: Gravely, *Rec. Indian Mus. Calcutta*, 22: 429.

1962. *Tetragnatha mandibulata*: Tikader, *J. Univ. Poona, Sci. Tech*, 24: 49.

Specimens examined.—1 ♀, 1 ♂, Neil Island, Andaman, India, Coll. B. K. Tikader, 11.4.1970. 1 ♀, 1 ♂, Port Blair, South Andaman, India, Coll. B. K. Tikader, 18.4.1971.

Distribution.— India: Cochin, Bangalore, Mysore, Madras, Orissa, West Bengal, Bihar, Nepal, Sikkim, Assam, Andaman Islands; Burma,

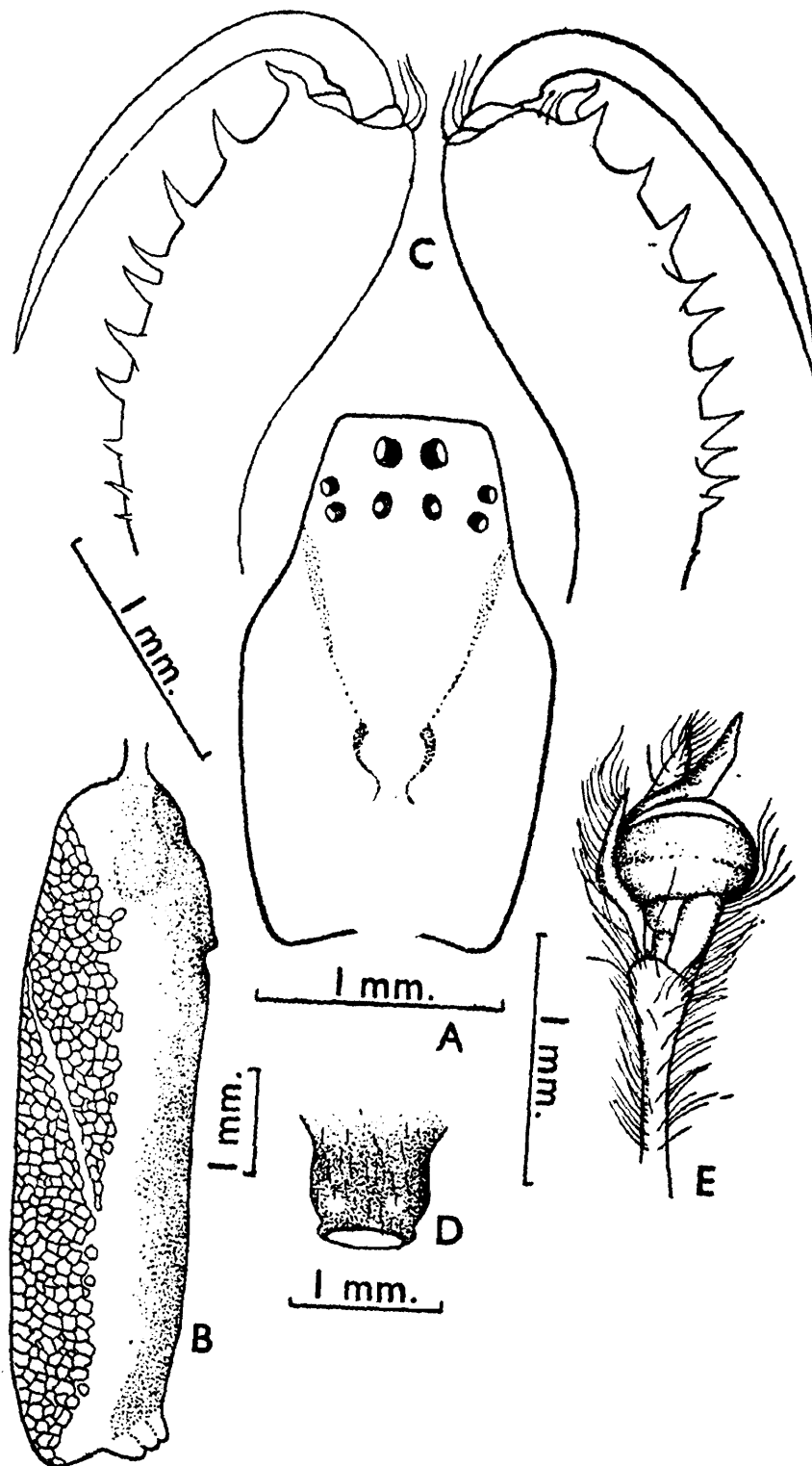
17. *Tetragnatha andamanensis* sp. nov.

General.— Cephalothorax and legs light brownish green, abdomen light brown. Total length 4.80 mm. Carapace 2.00 mm. long, 1.20 mm. wide; abdomen 2.80 mm. long, 0.80 mm. wide.

Cephalothorax— Longer than wide, narrowing in cephalic region; flat, cephalic region slightly high, centre of the cephalothorax depressed. Eyes in two rows, both rows recurved but anterior row more recurved than the posterior row. Anterior median eyes larger than the others, lateral eyes nearly contiguous. Ocular quad longer than wide and slightly narrower in front than behind. Chelicerae nearly as long as carapace and strongly divaricate. Outer row of chelicerae provided with ten teeth, first is larger, others gradually diminishing in size as in text-fig. 10C. Inner margin also provided with ten teeth but first tooth is slightly curved than the others. Fang slender and unarmed. Legs very long, clothed with hairs and spines. Male palp as in text-fig. 10E.

Abdomen— Long, nearly parallel sided, clothed with fine hairs. Supinnerets nearly to the posterior end of the abdome. Abdomen de-

corated with minute silvery white dots as in text-fig. 10B. Ventral side uniform pale colour without silvery dots. Epigyne as in text-fig. 10D.



Text-fig. 10 *Tetragnatha andamanensis* sp. nov.

- (A) Cephalothorax of female,
 (B) Abdomen of female, (C) Chelicerae of female, (D) Epigyne,
 (E) Male palp.

Holotype— one ♀, *paratype* one ♀, *allotype* one ♂ in spirit.

Type-locality— Chiriatapu, South Andaman, India, Coll. B. K. Tikader, 28.4.1971. **Allotype**: Delanipur, Port Blair, Andaman Island, India, Coll. B. K. Tikader, 22.5.1971.

This species somewhat resembles *Tetragnatha sutherlandi* Gravely but it is separated as follows: (i) Dorsal and ventral row of chelicerae provided with ten teeth but in *T. sutherlandi*, chelicerae with five teeth. (ii) Abdomen long, parallel sided but in *T. sutherlandi* abdomen long and narrowing behind. (iii) Epigyne and pedipalp also structurally different.

Family X. ARGIOPIDAE

Genus 13. *Argiope* Savigny

18. *Argiope aemula* (Walck.)

1837. *Epeira aemula* Walck., *Ins. Apt.*, 2: 118.

1881. *Argiope aemula*: Thorell, *Ann. Mus. Genova*, 17: 63.

Specimens examined— 1 ♀, Neil Islands, Andaman, Coll. B. K. Tikader, 11.4.1970. 1 ♀, Car-Nicobar, Coll. B. K. Tikader, 8.3.1970. 1 ♀, Durgapur village, Diglipur, North Andaman, Coll. B. K. Tikader, 30.4.1971.

Distribution— India: Trivandrum, Nilgiri Hills, Maharashtra, Gujarat, Andaman and Nicobar Islands; Ceylon, Burma, Rangoon and Austro-Malaysia.

Genus 14. *Nephila* Leach

19. *Nephila maculata* (Fab.)

1793. *Araneae maculata* Fabricius, *Ent. Syst.*, 2: 425.

1900. *Nephila maculata*: Pocock, *Fauna Brit. India Arach.*, : 217.

1923. *Nephila maculata*: Gravely, *J. Bombay nat. Hist. Soc.*, 28: 1047.

1962. *Nephila maculata*: Tikader, *J. Linn. Soc. London*. 44(300).

Specimens examined— 1 ♀, Durgapur near Diglipur Jetty, North Andaman, Coll. B. K. Tikader, 23.4.1971. 1 ♀, Kamorta Island, Nicobar, Coll. B. K. Tikader, 21.3.1970.

Distribution— India: Tinnevely, Trivandrum, Ootacamund, Kanara, Dehra Dun, Darjeeling, Madhya Pradesh, Sikkim, Assam, Maharashtra, Mysore, West Bengal, Andaman and Nicobar Islands; Burma, Ceylon, China and Australia.

Genus 15. *Gasteracantha* Sundevall

20. *Gasteracantha brevispina* (Dol.)

1857. *Plactana brevispina* Doleschall, *Nat. Tij. Nederland, India*, 13: 423.

1900. *Gasteracantha brevispina*: Pocock, *Fauna Brit. India Arach.*, 235.

1970. *Gasteracantha brevispina*: Tikader, *Rec. zool. Surv. India*, 64(1-4): 38.

Specimens examined— 2 ♀♀, Horticulture garden, Car-Nicobar, Coll. B. K. Tikader, 11.3.1970. 2 ♀, 1 ♂, Arong Village, Car-Nicobar, Coll. B. K. Tikader, 9.3.1970. 18 ♀♀, Diglipur, North Andaman, Coll. B. K. Tikader, 28.4.1971. 13 ♀♀, Malacca village, Car-Nicobar, Coll. B. K. Tikader, 5.3.1970. 2 ♀♀, Durgapur, near Diglipur jetty, North Andaman, Coll. B. K. Tikader, 30.4.1971.

Distribution— India: Madras, Dehra Dun, Poona, Bombay, Andaman & Nicobar Islands, Darjeeling, Calcutta, Bihar, Shillong, Orissa; Bangladesh; Burma; Sikkim; Ceylon; Austro-Malaysia; Japan.

21. *Gasteracantha diadesmia* Thorell

1887. *Gasteracantha diadesmia* Thorell, *Ann. Mus. Geneva*, 25: 225.

1900. *Gasteracantha diadesmia*: Pocock, *Fauna Brit. India Arach.*, : 234.

1970. *Gasteracantha diadesmia*: Tikader, *Rec. zool. Surv. India*, 64(1-4): 40.

Specimens examined— 1 ♀, Neil Island, Andaman, Coll. B. K. Tikader, 12.3.1970.

Distribution— India: Kalimpong, West Bengal, Andaman and Nicobar Islands, Sikkim; Burma, Rangoon, Thailand.

Genus 16. *Araneus* Clerck

22. *Araneus dehaanii* (Dol.)

1859. *Epeira dehaanii* Doleschall, *Verh. Nut. Vereen Nederland India*. 5: 83.

1900. *Araneus dehaanii*: Pocock, *Fauna Brit. India Arach.*, : 225.

1970. *Araneus dehaanii*: Tikader, *Rec. zool. Surv. India*, 64 (1-4): 30.

Specimens examined— 1 ♀, Kamorta Island, Nicobar, Coll. B. K. Tikader, 17.3.1970. 1 ♀, Haddoo, Port Blair. Coll. B. K. Tikader, 18.4.1971.

Distribution— India: Kanara; Cochin, Mysore, Darjeeling, Kalimpong in West Bengal, Assam; Sikkim, Ceylon, Malay Peninsula and Austro-Malaysia.

23. *Araneus mitifica* (Thorell)

1878. *Epeira mitifica* Thorell, *Ann. Mus. Genova*, 13 : 187.

1896. *Epeira mitifica*: Workman, *Malaysian Spider*, : 39.

1963. *Araneus mitifica*: Tikader, *J. Univ. Poona*, 24: 43.

Specimens examined— 1 ♀, Kamorta Island, Nicobar Islands, Coll. B. K. Tikader, 17.3.1970.

Distribution— India: West Bengal, Mysore, Assam, Maharashtra, Andaman and Nicobar Islands; Burma.

24. *Araneus noegeata* (Thorell)

1895. *Epeira noegeata* Thorell, *Spider of Burma*, : 178.

1896. *Epeira noegeata*: Workman, *Malayasian Spiders, Belfast*, : 43.

Specimen examined— 1 ♀, Long Island, Middle Andaman, India, Coll. B. K. Tikader, 17.5.1971.

Distribution— India: Andaman Islands; Burma, Sumatra.

Genus 17. *Cyclosa* Menga25. *Cyclosa centrodes* (Thorell)

1887. *Epeira centrodes*, Thorell, *Ann. Mus. Genova*, 5 : 209.

1896. *Epeira centrodes*: Workman, *Spiders, Malaysian Spiders, Belfast*, : 35.

Specimens examined— 1 ♀, Long Island, Middle Andaman. Coll. B. K. Tikader, 17.5.1971.

This species was first described by Thorell (1887) and subsequently described by Workman (1896). But their description is very inadequate. I am giving full description for future help to recognise this species easily.

General— Cephalothorax and legs yellowish-red, abdomen whitish brown. Total length 6.00 mm. Carapace 2.00 mm. long, 1.50 mm. wide; abdomen 5.00 mm. long, 3.00 mm. wide.

Cephalothorax— Slightly longer than wide, cephalic region and cervical groove prominent. Eyes two rows, posterior row slightly procurved and anterior row slightly recurved and lateral eyes contiguous. Ocular quad slightly longer than wide. Posterior half of the cephalothorax overlapped by the abdomen. Legs long, clothed with hairs and spine-like hair. Legs formula 1243.

Abdomen— Longer than wide, posterior end pointed like a tail. Anterior side of abdomen provided with three pairs of sigilla. Dorsal side more deep brown than the ventral side and provided with transverse muscular ridges. Spinnerets situated near epigyne.

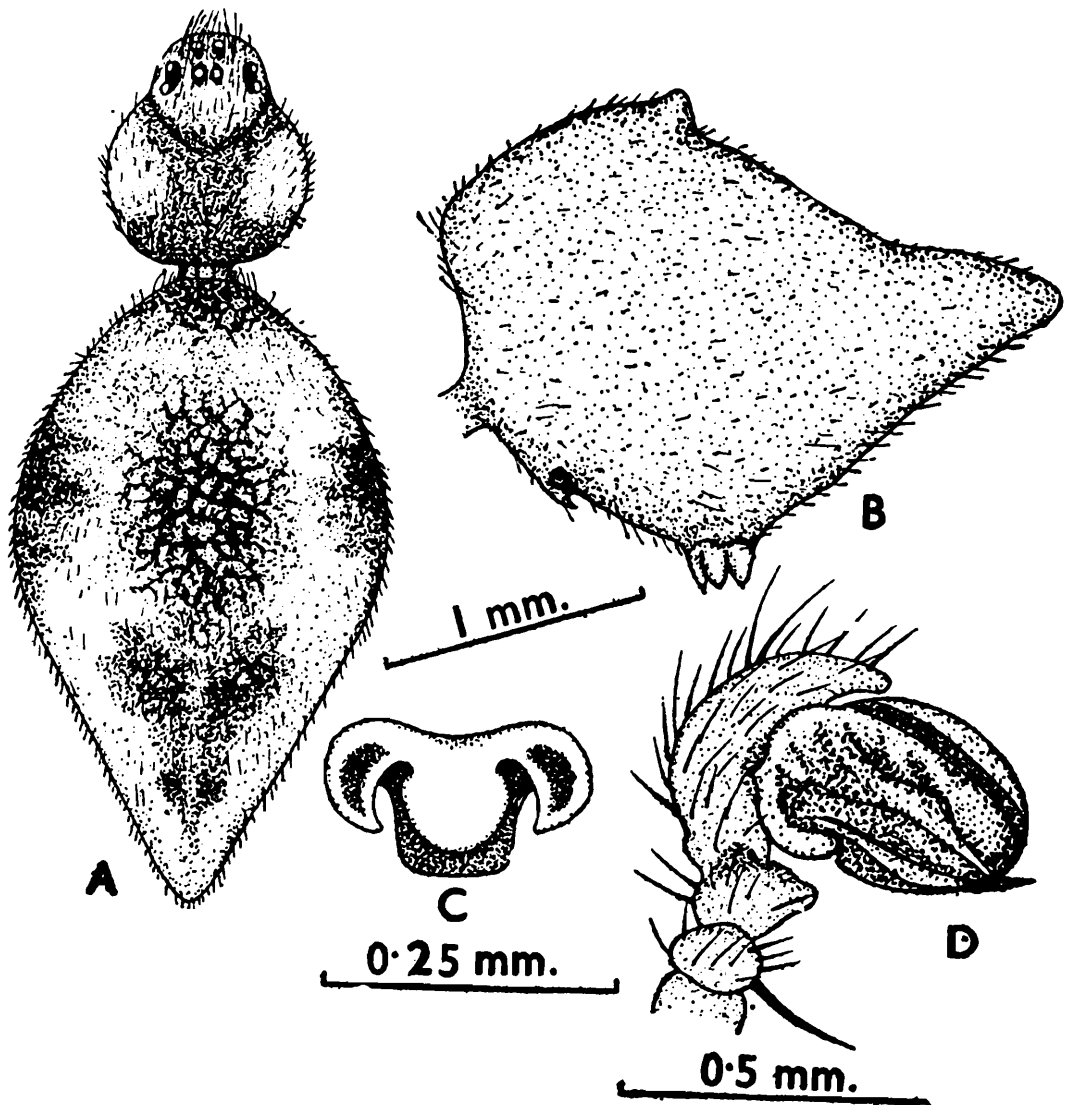
Distribution— India: Andaman and Nicobar Islands; Burma, Sumatra.

26. *Cyclosa neilensis* sp. nov.

General— Cephalothorax and legs light brown, abdomen chalk white. Total length 3.20 mm. Carapace 0.80 mm. long, 0.60 mm. wide; abdomen 2.20 mm. long, 1.50 mm. wide.

Cephalothorax— Longer than wide, cephalic region slightly high, cervical groove very prominent. Thoracic region provided with conspicuous brown patch. Eyes two rows, posterior row straight and anterior

row strongly recurved and lateral eyes contiguous. Ocular quad wide in front. Legs thin and clothed with fine hairs and provided with deep brown transverse bands. Legs formula 1243. Sternum heart-shaped pointed behind. Male palp as in text-fig. 11D.



Text-fig. 11 *Cyclosa neilensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Lateral view of abdomen, (C) Epigyne, (D) Male palp.

Abdomen— Longer than wide, pointed behind, clothed with fine hairs. Two small muscular prominences on the antero-dorsal side of the abdomen. Ventral side almost similar colour like dorsal. Spinnerets situated on the middle of abdomen. Epigyne as in text-fig. 11 C

Holotype—one ♀, *paratypes* eleven ♀♀ in spirit.

Type-locality— Neil Island, Andaman, India, Coll. B. K. Tikader, 12.3.1970.

This species resembles *Cyclosa centrodes* (Thorell) but is separated as follows: (i) Posterior row of eyes straight but in *C. centrodes* posterior

row of eyes procurved. (ii) Abdomen pointed behind but in *C. centrodes* abdomen pointed behind like a tail. (iii) Epigyne and male palp also structurally different.

Genus 18. *Cyrtophora* Simon

27. *Cyrtophora cicatrosa* (Stoliczka)

1869. *Eperia* (*Nephila*) *cicatrosa* Stoliczka, *J. Asia. Soc. Bengal*, 38:242.
 1900. *Araneus cicatrosa*: Pocock, *Fauna Brit. India, Arach.*, : 226.
 1921. *Cyrtophora cicatrosa*: Gravely, *Rec. Indian Mus.*, Calcutta, 22:413.
 1962. *Cyrtophora cicatrosa*: Tikader, *J. Linn. Soc. London*, 44(300): 563.

Specimens examined.— 1 ♀, Haddoo, Port Blair, South Andaman, Coll. B. K. Tikader, 30.4.1970. 1 ♀, Kamorta Island, Nicobar Islands, Coll. B. K. Tikader, 21.3.1970.

Distribution.— India: Chingalput, Allahabad, West-Bengal, Calcutta, Mysore, Maharashtra, Punjab, Andaman and Nicobar Islands; Burma.

28. *Cyrtophora moluccensis* (Dol.)

1857. *Epeira moluccensis* Doleschall, *Nat. Tijdschr. Nederland, India*, 13: 418.
 1900. *Araneus moluccensis*: Pocock, *Fauna Brit. India, Arach.*, : 226.
 1962. *Cyrtophora moluccensis*: Tikader, *J. Linn. Soc. London*, 44(300): 562.

Specimens examined.— 1 ♀, Malacca village, Car-Nicobar, Coll. B. K. Tikader, 4.3.1970.

Distribution.—India: Trivandrum, Nilgiri Hills, Sikkim, Darjeeling, Kalimpong, Madhya Pradesh; Ceylon, Burma, Austro-Malaysia.

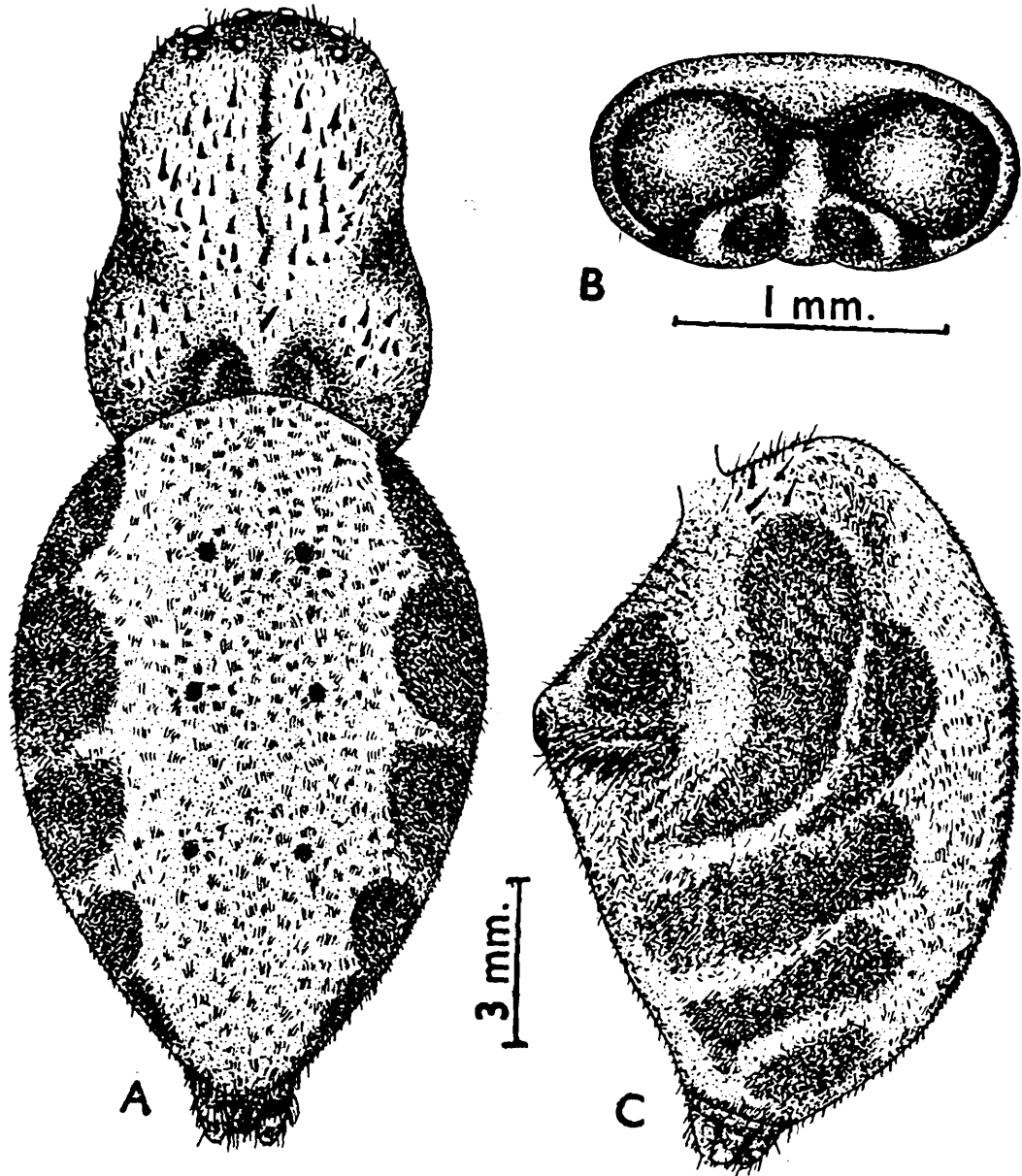
Genus 19. *Metepeira* Cambridge

29. *Metepeira andamanensis* sp. nov.

General.— Cephalothorax light to deep brown, abdomen and legs pale colour. Total length 20.00 mm. Carapace 8.00 mm. long, 6.10 mm. wide; abdomen 13.00 mm. long, 9.00 mm. wide.

Cephalothorax.—Longer than wide, cephalic region slightly high and broad, clothed with prominent black, short and stout spines. Eyes two rows, posterior row almost straight and anterior row slightly recurved. Lateral eyes not contiguous but situated on the common elevated portion of cephalothorax. Ocular quad slightly longer than wide and narrowing in front. Chelicerae strong, outer and inner margin provided with three teeth but middle tooth of outer row larger than others. Sternum heart-shaped, whitish yellow, provided with black hairs. Legs long and strong, clothed with hairs and few spines, legs formula 1243. All legs provided with conspicuous transverse deep brown or black bands.

Abdomen.—Longer than wide; clothed with fine hairs and anterior portion high and overlapping the cephalothorax; posterior portion narrow. Dorsal side of abdomen provided with three pairs of small sigilla and decorated with fine brown pattern as in text-fig. 12A, C. Ventral side more dark-brown than dorsal, provided with conspicuous whitish yellow spots. Epigyne as in text-fig. 12B.



Text-fig. 12 *Metepeira andamanensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Lateral view of female, (C) Epigyne.

The web of this species is different from the other species of Argiopidae. It has incomplete orb and an irregular net and upper portion provided with labyrinth and the end of labyrinth attached with the base which may be a branch of tree or old house's roof etc. The spider generally waits in the labyrinth in day time. This genus is being reported here for the first time from Indian sub-continent.

Holotype.— one ♀, **paratypes** four ♀♀ in spirit.

Type-locality.— Aerial Bay, P.W.D. workshop compound, Diglipur, North Andaman, India. Coll. B. K. Tikader, 28.4.1971.

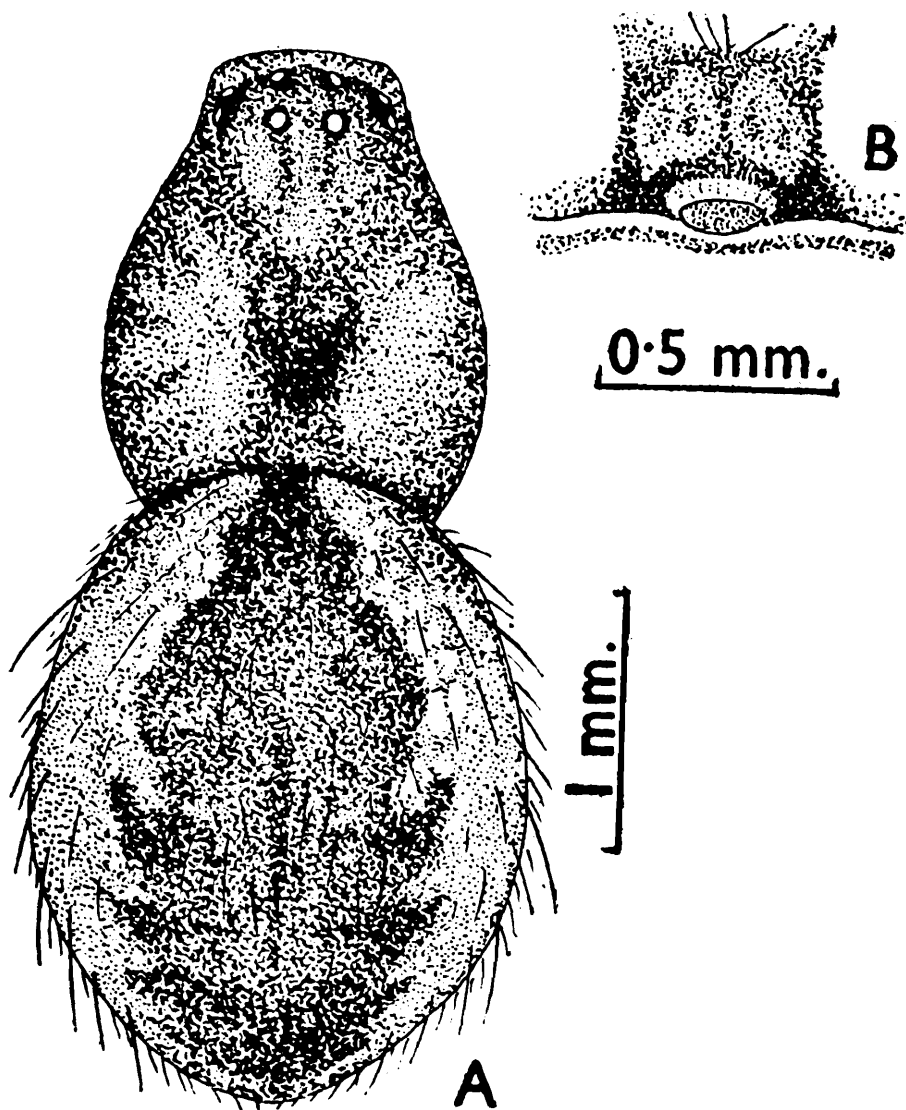
This species resembles *Metepeira labyrinthea* (Hentz) but is distinguished from it as follows: (i) The colour pattern of abdomen different. (ii) Epigyne also structurally different.

Genus 20. *Singa* Koch

30. *Singa haddoensis* sp. nov.

General.— Cephalothorax and legs light to deep brown, abdomen chalk-white. Total length 4.20 mm. Carapace 2.00 mm. long, 1.60 mm. wide; abdomen 2.80 mm. long, 2.00 mm. wide.

Cephalothorax.— Longer than wide, narrowing in front. Mid-dorsally provided with a longitudinal deep-brown broad patch. Eyes two rows,



Text-fig. 13 *Singa haddoensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne.

posterior row straight and anterior row strongly recurved, lateral eyes contiguous. Posterior median eyes larger and posterior median eyes closer to each other than to the posterior lateral eyes. Sternum heart-shaped, pointed behind. Legs clothed with hairs and without spine. Legs formula 1423.

Abdomen.— Longer than wide and almost elliptical in shape. Mid-dorsally provided with a longitudinal conspicuous brown broad patch extending from base to end of the abdomen. Ventral side light pale colour and provided with a deep brown longitudinal band. Epigyne as in text-fig. 13B.

Holotype.— one ♀, *paratypes* two ♀♀ in spirit.

Type-locality.— Haddoo, Port Blair, South Andaman, India. Coll. B. K. Tikader, 18.4.1971.

This species resembles *Singa chota* Tikader from Sikkim but it is distinguished from it as follows: (i) Cephalothorax mid-dorsally provided with a conspicuous longitudinal brown band, but in *S. chota* cephalic region with reddish brown patches. (ii) Abdomen mid-dorsally provided with a longitudinal conspicuous brown broad patch but in *S. chota* abdomen shiny-white and mid-dorsally with a longitudinal brown cracked line. (iii) Epigyne structurally different.

Family XI. HERSILIIDAE

Genus 21. *Hersilia* Audouin

31. *Hersilia savignyi* Lucas

1836. *Hersilia savignyi* Lucas, *Mag. zool.*, 8: 10.

1869. *Hersilia calcuttensis*: Stoliczka, *J. Asia Soc. Bengal*, 38: 216.

1900. *Hersilia savignyi*: Pocock, *Fauna British India Arach.*,: 241.

1950. *Hersilia savignyi*: Sinha, *Rec. Indian Mus. Calcutta*, 48: 122.

1963. *Hersilia savignyi*: Tikader, *J. Uni. Poona*, 24:48.

Specimen examined.— 3 ♀♀, Tugapur, Mayabandar, N. Andaman, India. Coll. B. K. Tikader, 13.4.1971.

Distribution.— India: Nilgiri Hills, Travancore, Poona, Allahabad, Calcutta, Assam, Andaman Islands; Ceylon, Burma.

Family XII. OXYOPIDAE

Genus 22. *Oxyopes* Latreille

32. *Oxyopes sitae* Tikader

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

Specimens examined.— 4 ♀♀, 1 ♂, Durgapur, Diglipur, North Andaman. Coll. B. K. Tikader, 23.4.1971. 7 ♀♀, 3 ♂♂, Chiriatapu, South Andaman, Mayabandar, North Andaman. Coll. B. K. Tikader, 10.5.1971. 6 ♀♀, 3 ♂♂, Tugapur, Mayabandar, North Andaman. Coll. B. K. Tikader, 13.4.1971. 1 ♀, 1 ♂, Tugapur, Mayabandar, North Andaman. Coll. B. K. Tikader, 13.5.1971.

Distribution.— India: Sikkim, Andaman Islands.

Family XIII. PISAURIDAE

Genus 23. *Pisaura* Simon

33. *Pisaura gitae* Tikader

1970. *Pisaura gitae* Tikader, *Rec. zool. Surv. India*, 64(1-4): 59.

Specimens examined.— 1 ♀, Aerial Bay, Diglipur, North Andaman Island, India, Coll. B. K. Tikader, 28.4.1971. 2 ♀♀, Neil Island, India. Coll. B. K. Tikader, 8.4.1970.

Distribution.— India: Sikkim, West Bengal, Andaman, Neil Islands.

Genus 24. *Tinus* Cambridge

34. *Tinus sikkimus* Tikader

1970. *Tinus sikkimus* Tikader, *Rec. zool. Surv. India*, 64(1-4): 61.

Specimen examined.— 10 ♀♀, Tugapur, Mayabandar, North Andaman Island, India. Coll. B. K. Tikader, 13.5.1971.

Distribution.— India: Sikkim, West Bengal, Andaman Island.

Family XIV LYCOSIDAE

Genus 25. *Lycosa* Latreille

35. *Lycosa sumatrana* Thorell

1890. *Lycosa sumatrana* Thorell, *Ann. Mus. Stor. Nat.*, 10(2): 136.

1924. *Lycosa sumatrana*: Gravely, *Rec. Indian. Mus. Caclutta*, 26: 604.

1963. *Lycosa sumatrana*: Tikader, *J. Univ. Poona*, 24: 51.

Specimens examined.— 1 ♀, 1 ♂, Chiriatapu village, South Andaman, India. Coll. B. K. Tikader, 30.5.1971. 1 ♀, 1 ♂, Tugapur, Mayabandar, North Andaman. Coll. B. K. Tikader, 13.5.1971.

Distribution.— India: Bengal, Mysore (Karnataka), Kerala, Madras (Tamil Nadu), Bihar, Himachal Pradesh, U. P., Assam, Andaman, Nicobar; Burma, Sumatra.

36. *Lycosa birmanica* (Simon)

1884. *Pardosa birmanica* Simon, *Ann. Mus. Stor. Nat.*, 20: 333.
 1895. *Lycosa birmanica*: Thorell, *Spiders of Burma*,: 242.
 1924. *Lycosa birmanica*: Gravelly, *Rec. Indian Mus. Calcutta*,: 607.
 1935. *Lycosa birmanica*: Dyal, *Bull. Zool. Punjab Univ.*, 1:136.
 1963. *Lycosa birmanica*: Tikader, *J. Univ. Poona*, 24:51.

Specimens examined.— 7 ♀♀, 1 ♂, Chiriatapu village, South Andaman, India. Coll. B. K. Tikader, 30.5.1971. 13 ♀♀, 3 ♂♂, Tugapur, Mayabandar, North Andaman, India. Coll. B. K. Tikader, 10.5.1971. 10 ♀♀, 5 ♂♂, Chiriatapu village, South Andaman. Coll. B. K. Tikader, 30.5.1971. 16 ♀♀, 2 ♂♂, Mayabandar, North Andaman, Coll. B. K. Tikader, 5.5.1971. 30 ♀♀, 7 ♂♂, Tugapur, Mayabandar, Delanipur, Port Blair, Andaman. Coll. B. K. Tikader, 22.5.1971. 1 ♀, Aerial bay, Diglipur, North Andaman. Coll. B. K. Tikader, 23.4.1971. 2 ♀♀, 1 ♂, Smith Island, North Andaman. Coll. B. K. Tikader, 27.4.1971. 1 ♀, Neil Island, South Andaman. Coll. B. K. Tikader, 10.4.1971.

Distribution.— India: Karnataka, Tamil Nadu, Orissa, Maharashtra, Assam, West Bengal, Andaman, Nicobar; Burma.

Family XV GNAPHOSIDAE

Genus 26. *Drassodes* Westring37. *Drassodes andamanensis* sp. nov.

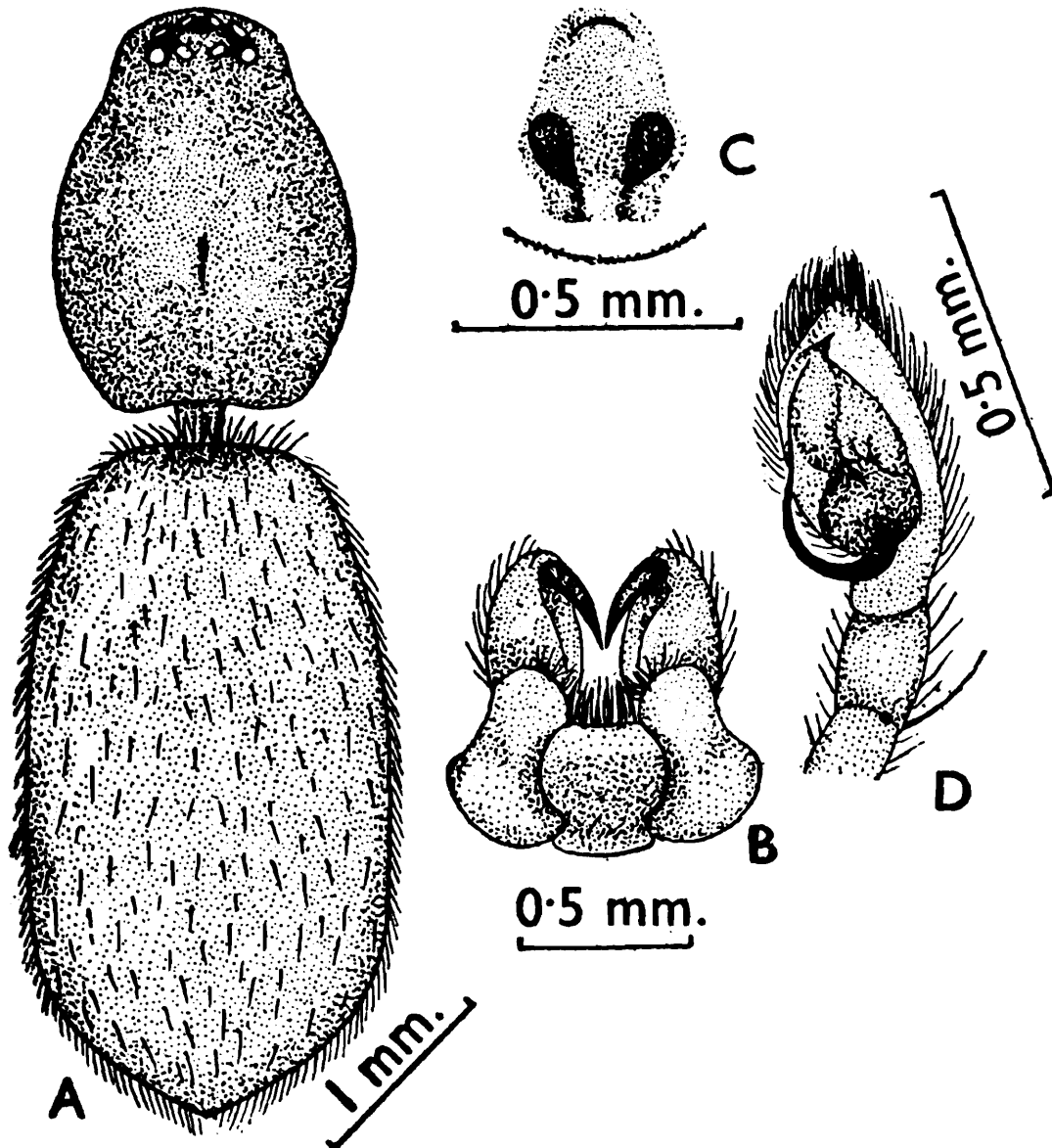
General.— Cephalothorax and legs light reddish brown, abdomen light greenish. Total length 5.50 mm. Carapace 2.00 mm. long, 1.60 mm. wide; abdomen 3.50 mm. long, 1.90 mm. wide.

Cephalothorax.— Longer than wide, broader in front, clothed with fine hairs, convex with a small fovea at the centre of cephalothorax. Eyes in two rows, anterior median dark and rest pearly white in colour and irregular in shape, both rows procurved (as seen from front) anterior medians smaller than the others, posterior row larger than anterior row. Clypeus narrow. Ocular quad slightly longer than wide. Sternum heart-shaped, pointed behind, clothed with hairs. Maxillae and labium as in text-fig. 14B. Chelicerae strong, nearly vertical, two small teeth on inner margin and two slightly larger teeth on outer margin. Legs long, stout, clothed with hairs and few spines. Leg formula 4123. Male palp as in text-fig. 14D.

Abdomen.—Nearly oval, wider behind, clothed with fine brown pubescence, slightly overlapping the posterior region of cephalothorax in front. Ventral surface uniform pale colour. Epigyne as in text fig. 14C.

Holotype.— one ♀, *allotype* one ♂ in spirit.

Type-locality.—Smith Island, near forest Department Camp, Andaman, India. Coll. B. K. Tikader, 27.4.1971. **allotype:** Durgapur, 3 km. away from Aerial Bay Jetty Diglipur, N. Andaman, India, Coll. B. K. Tikader, 23.4.1971.



Text-fig. 14 *Drassodes andamanensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Maxillae and labium, (C) Epigyne, (D) Male palp.

This species closely resembles *Drassodes malodes* Tikader but it can be distinguished as follows : (i) Cephalothorax and legs light reddish brown but in *D. malodes* cephalothorax and legs light brown. (ii) Maxillae and labium structurally different. (iii) Epigyne structurally different.

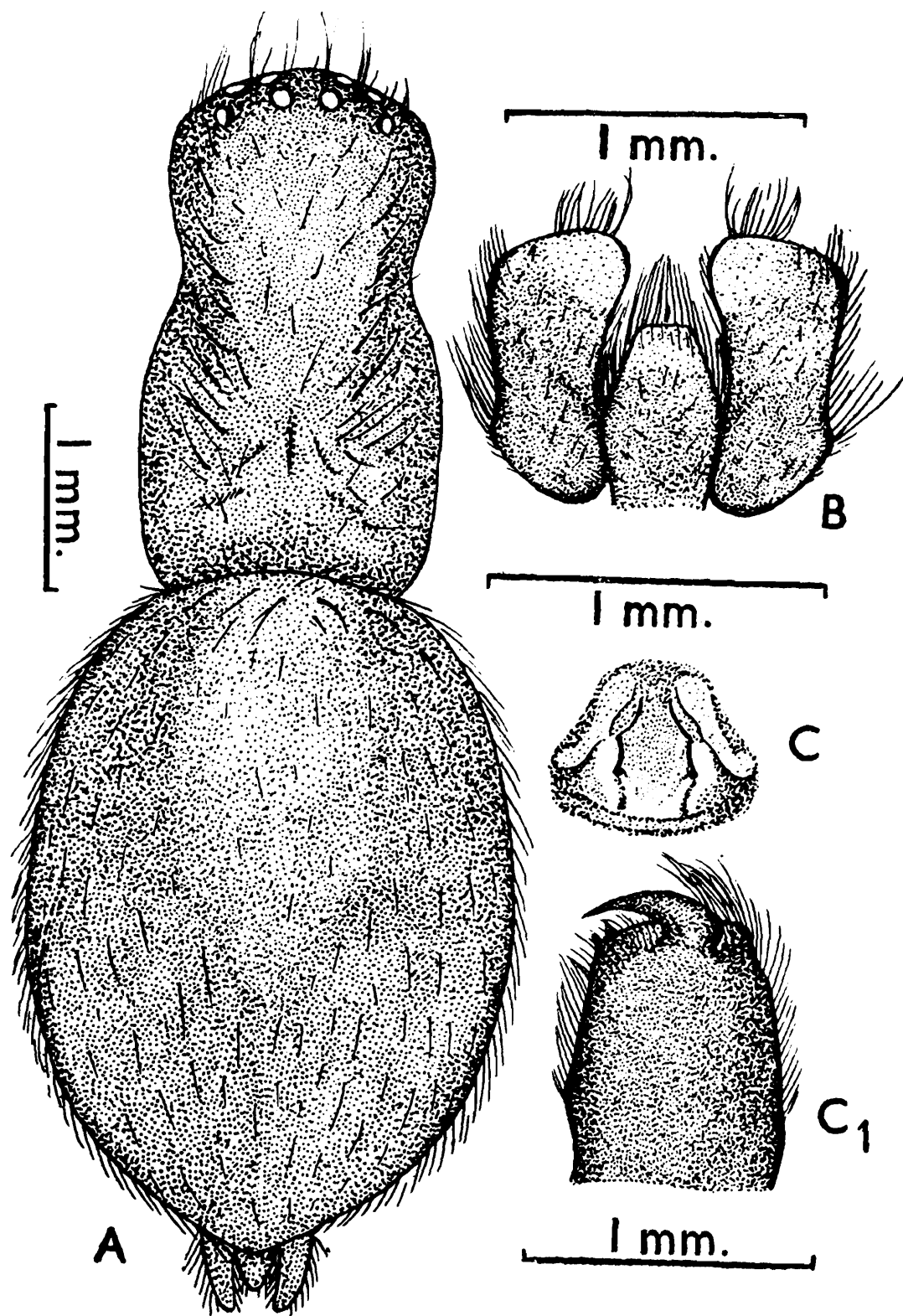
Genus 27. *Phaeocedus* Simon

38. *Phaeocedus nicobarensis* sp. nov.

General.—Cephalothorax and chelicerae reddish brown, legs pale-greenish, abdomen light brown. Total length 6.30 mm. Carapace

2.80 mm. long, 1.60 mm. wide; abdomen 3.60 mm. long, 2.50 mm. wide.

Cephalothorax.— Longer than wide, clothed with hairs, cephalic region high and convex, slightly broader in front, centre with a minute fovea, posterior lateral sides of cephalothorax with two inconspicuous



Text-fig. 15 *Phaeocedus nicobarensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Maxillae and labium, (C) Epigyne, (C₁) Chelicera.

brown lines as in text-fig. 15A. Eyes pearly white, anterior row straight, anterior eyes larger than the anterior medians, posterior row also straight but slightly longer than the anterior row; middle eyes slightly larger than the laterals. Ocular quad longer than wide narrowing in front. Chelicerae vertical noticeably long and narrow, convex at base, bearing no teeth, but with an angular projection apically inside. Sternum oval, clothed with hairs, pointed behind. Maxillae and labium as in text-fig. 15B. Legs long, stout, clothed with hairs and a few spines. Metatarsi I and II with three pairs of ventral spines.

Abdomen.—Oval, clothed with fine hairs, ventral side more lighter than dorsal. Epigyne as in text-fig. 15C.

Holotype.—one ♀, *allotype* one immature ♂ in spirit.

Type-locality.—Keating point, Car-Nicobar, India. Coll. B. K. Tikader 6.3.1970.

This species resembles *Phaeoedus mosambaensis* Tikader but it can be distinguished as follows: (i) Posterior lateral sides of cephalothorax with two inconspicuous brown lines but in *P. mosambaensis* cephalothorax uniform. (ii) Abdomen oval without any dorsal marking but in *P. mosambaensis* posterior dorsal side with deep brown cheverons. (iii) Epigyne structurally different.

Family XVI. HETEROPODIDAE

Genus 28. *Heteropoda* Latreille

39. *Heteropoda venatoria* Linn.

1766. *Heteropoda venatoria* Linn., *Syst. Nat. ed.*, 12:1035.

1887. *Heteropoda venatoria*: Simon, *J. Asia Soc. Bengal*, 56:102.

1900. *Heteropoda venatoria*: Pocock, *Fauna Brit. India, Arach.*, : 260.

Specimens examined.—1 ♀, 1 ♂, Narcondam Island, Andaman, India. Coll. Humayun Abdulali, 26.3.1972.

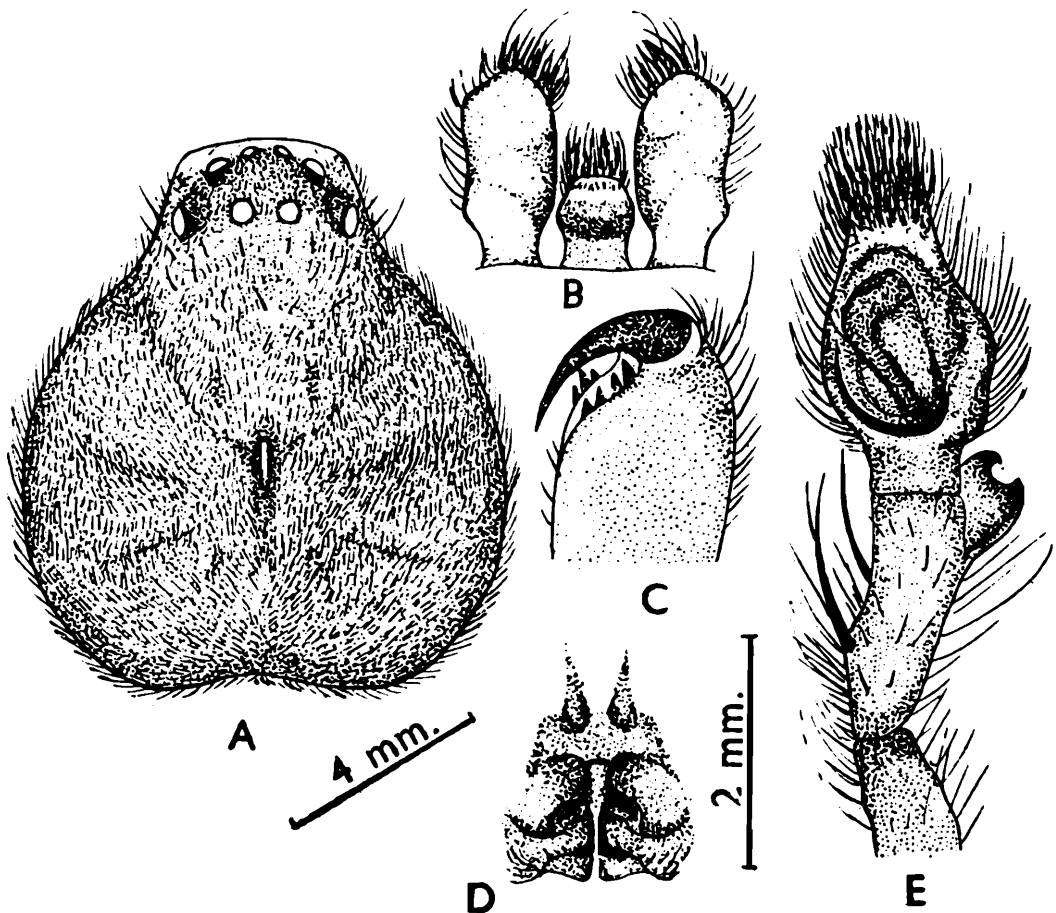
Distribution.—India; Ceylon, Burma and all tropical Countries of the world.

40. *Heteropoda andamanensis* sp. nov.

General.—Cephalothorax and legs reddish brown, abdomen pale brown. Total length 27.00 mm. Carapace 11.00 mm. long, 10.00 mm. wide; abdomen 16.00 mm. long, 10.00 mm. wide.

Cephalothorax.—Slightly longer than wide, clothed with fine hairs, cephalic region slightly high, middle of cephalothorax provided with a fovea. Eyes pearly white, posterior row slightly recurved, lateral eyes

larger than the medians, anterior row short and slightly procurved (as seen from front), lateral eyes larger than the medians. Ocular quad longer than wide and narrow in front. Chelicerae moderate, inner margin provided with four teeth and outer margin with three teeth as in text-fig. 16C. Sternum nearly heart-shaped, clothed with hairs and pointed posteriorly. Maxillae and labium as in text-fig. 16B. Legs very long and stout, clothed with hairs and spines. Tibiae and metatarsi of I and II provided with three pairs of ventral spines Male palp as in text-fig. 16E.



Text-fig. 16 *Heteropoda andamanensis* sp. nov.

(A) Cephalothorax of female, (B) Maxillae and labium, (C) Chelicera of female, (D) Epigyne, (E) Male palp.

Abdomen.— Longer than wide, clothed with fine hairs, tapering at both ends. Ventral side more pale than the dorsal, clothed with pale hairs. Epigyne as in text-fig. 16D.

Holotype— one ♀, *paratypes* two ♀♀, *allotype* one ♂ in spirit.

Type-locality— Long Island, Middle Andaman, India. Coll. B. K. Tikader, 17.5.1971. *Allotype*, Havlock Island, Coll. B. K. Tikader, 18.4.1970.

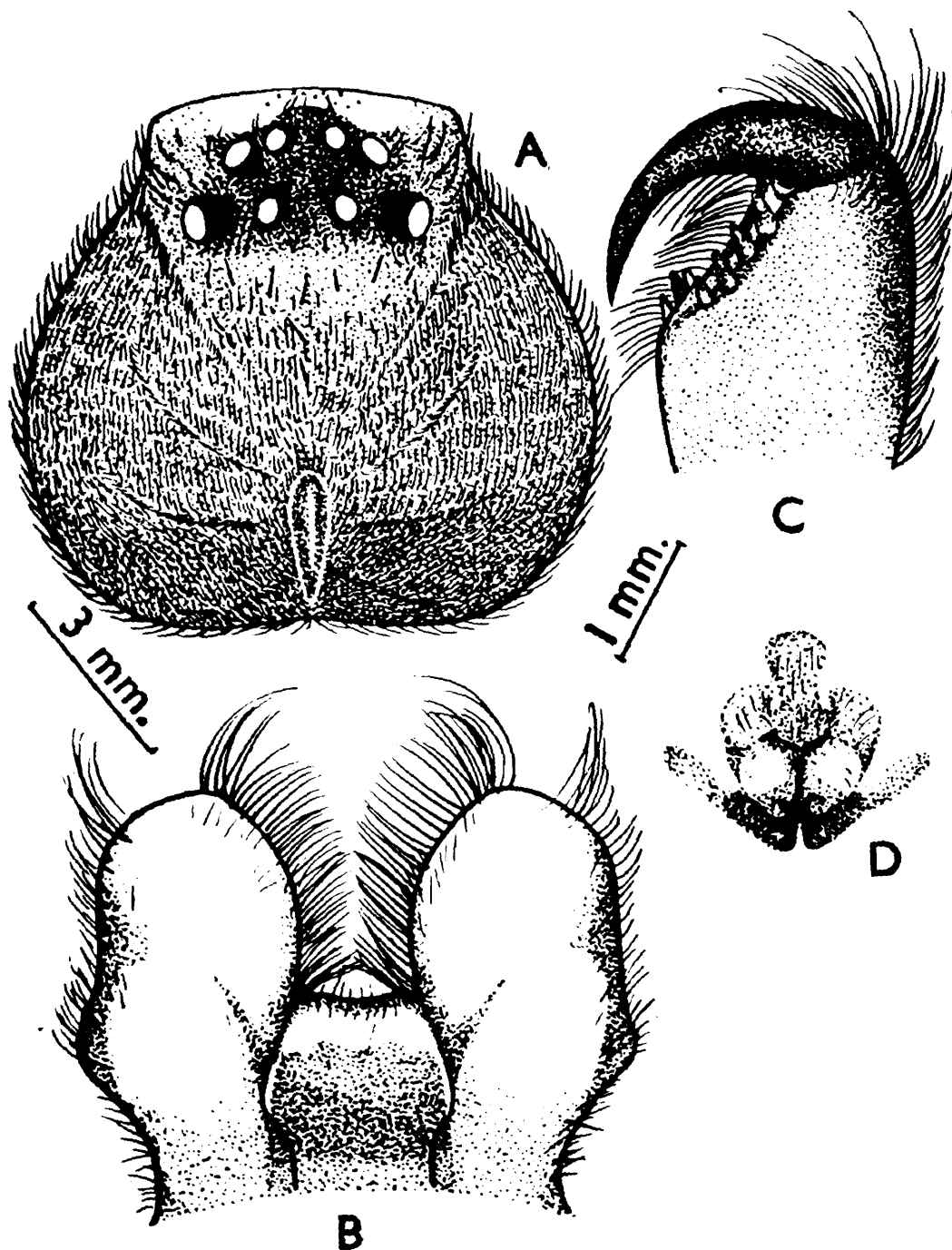
This species resembles *Heteropoda robusta* Fage from Siju Cave, Assam, but differs as follows: (i) Maximum length upto 30 mm. but in

H. robusta maximum length more than 32 mm. (ii) Epigyne and male, palp also structurally different.

41. *Heteropoda nicobarensis* sp. nov.

General— Cephalothorax and abdomen brown, legs brownish green. Total length 18.40 mm. Carapace 8.40 mm. long, 9.00 mm. wide; abdomen 10.00 mm. long, 6.00 mm. wide.

Cephalothorax— Wider than long, flat, clothed with thick brown hairs, centre provided with a fovea. Cephalic region slightly high. Eyes pearly



Text-fig. 17 *Heteropoda nicobarensis* sp. nov.

(A) Cephalothorax of female, (B) Maxillae and labium, (C) Chelicera, (D) Epigyne.

white, posterior row nearly straight or very slightly recurved, lateral eyes larger than the medians, median eyes more closer to each other than to adjacent laterals. Anterior row short, slightly procurved (as seen from in front), median eyes more closer to adjacent laterals than to each other. Chelicerae moderate, inner margin provided with four teeth, first three teeth are very large, while the fourth is very small; outer margin provided with three teeth close together, middle tooth larger while the other two are small as in text-fig. 17C. Maxillae and labium as in text-fig. 17B. Sternum oval clothed with fine hairs, pointed behind. Legs long and strong, clothed with thick hairs and few spines. Tibiae and metatarsi I and II provided with three and two pairs of ventral spines respectively.

Abdomen— Longer than wide, clothed with thick hairs, slightly narrow behind, ventral surface pale than dorsal surface, clothed with grey hairs. Epigyne as in text-fig. 17D.

Holotype— one ♀ in spirit.

Type-locality— Guest House, Kamorta Island, Nicobar, India. Coll. B. K. Tikader, 20.3.1970.

This species resembles the foregoing species, *H. andamanensis* sp. nov. but can be distinguished from it as follows: (i) Maximum length up to 19 mm. but in *H. andamanensis* maximum length upto 27 mm. (ii) Cephalothorax of *H. nicobarensis* more flat than *H. andamanensis*. (iii) Epigyne structurally different.

Family XVII. THOMISIDAE

Genus 29. *Thomisus* Walckenaer

42. *Thomisus cherapunjeus* Tikader

1966. *Thomisus cherapunjeus* Tikader, *Proc. Indian Acad. Sci.*, 64(1) : 53.

Specimens examined— 2 ♀♀, Chiriatapu, South Andaman, India. Coll. B. K. Tikader, 29.5.1971. 1 ♀, Haddoo, Port Blair, Andaman, India. Coll. B. K. Tikader, 30.4.1970.

Distribution— India: Cherapunji, Shillong, Assam, Calcutta, West Bengal, Andaman.

Genus 30. *Camaricus* Thorell

43. *Camaricus formosus* Thorell

1887. *Camaricus formosus* Thorell, *Ann. Mus. Civ. Gen.*, : 261.

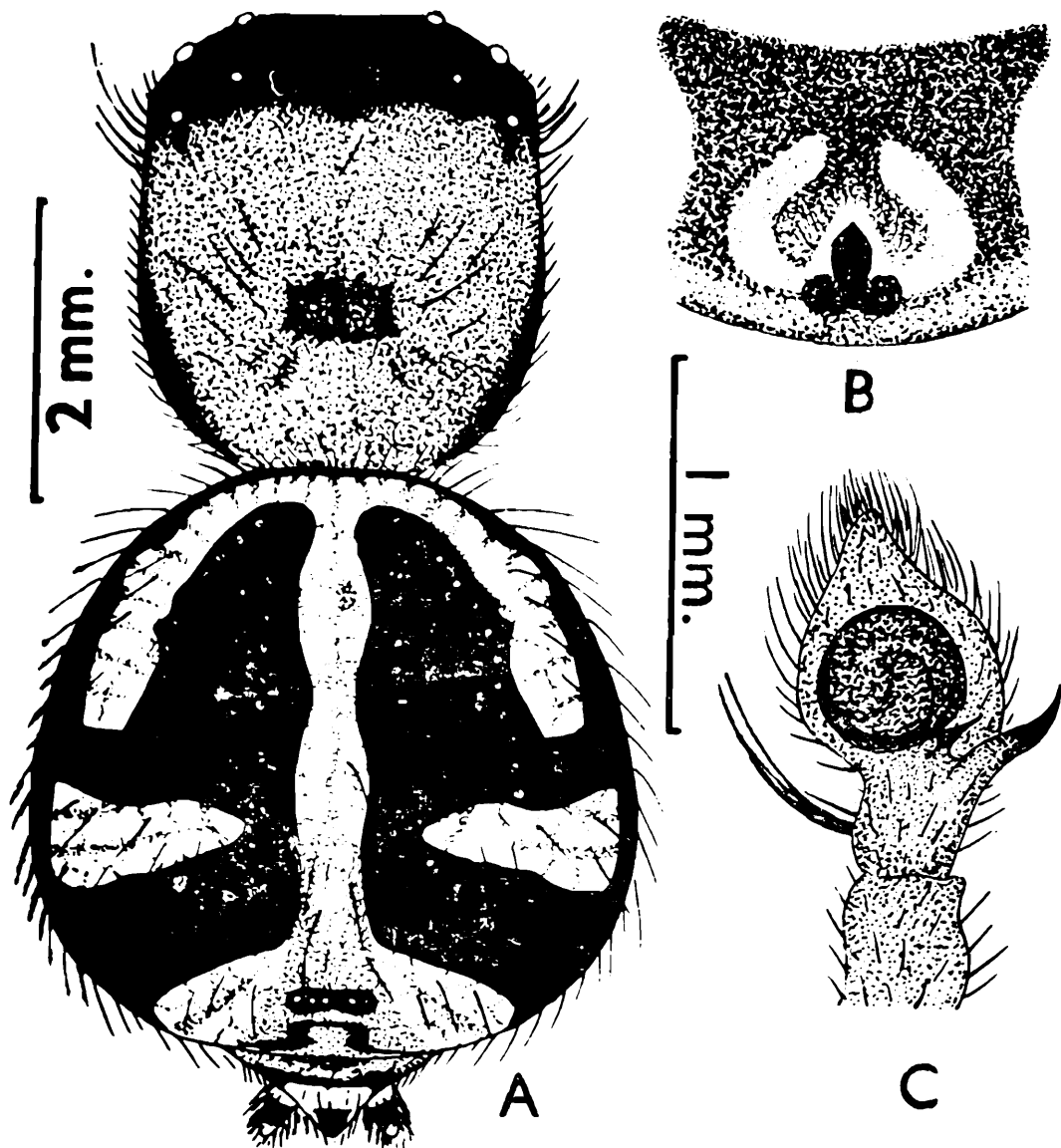
1890. *Camaricus fornicatus* Thorell, *Arach. Nies. de. Sumatra*, : 60.

1896. *Camaricus formosus*: Workman, *Malaysian Spider*, 1:-4.

Specimens examined— 1 ♀, Chiriatapu village, South Andaman, India, Coll. B. K. Tikader, 29.5.1971. 3 ♂♂, Tugapur, Mayabandar, North Andaman, India. Coll. B. K. Tikader, 13.4.1971. 3 ♀♀, Havlock Island, Middle Andaman, Coll. B. K. Tikader, 17.4.1970. 1 ♂, Rangat Jetty, Middle Andaman, Coll. B. K. Tikader, 23.4.1970.

This species was first reported by Thorell (1887) and subsequently described by Workman (1896). But their description is very inadequate, moreover, Workman has mentioned that he has examined only the male. I am describing and illustrating the male and female to recognise this species easily, by future workers.

General— Cephalothorax red, legs light greenish, abdomen dark brown. Total length 7.40 mm. Carapace 3.00 mm. long, 2.50 mm. wide; abdomen 4.20 mm. long, 4.00 mm. wide.



Text-fig. 18 *Camaricus formosus* Thorell

(A) Dorsal view of female, legs omitted, (B) Epigyne, (C) Male palp.

Cephalothorax— High, clothed with black hairs, wider in front, anterior portion and the lateral sides of cephalothorax provided with con-

spicuous deep brown or black patches. Centre of cephalothorax provided with deep brown patch but in male specimen there is no such patch. Eyes two rows, both rows recurved, posterior row slightly longer than anterior row. Middle eyes situated adjacent to lateral eyes. Ocular quad longer than wide. Legs robust, clothed with hairs and spines and ornamented with black patches, but in male I and II pair complete dark brown in colour. Tibiae and metatarsi provided with three pairs of ventral spines. Chelicerae moderate, dark brown colour. Sternum heart-shaped, pointed behind, clothed with fine hairs. Male palp as in text-fig. 18C.

Abdomen— Longer than wide, widest behind the middle, clothed with black hairs, conspicuously decorated longitudinally and laterally by chalk-white bands as in text-fig. 18A. Ventral side light brown, mid-ventral side provided with longitudinal broad brown patch extending from epigastric fold to near the base of spinnerets. Epigyne as in text-fig. 18B.

Distribution— India: Andaman Islands, West Bengal; Burma, Sumatra.

Genus 31. *Misumenoides* Cambridge

44. *Misumenoides kripalaniae* Tikader

1963. *Misumenoides kripalaniae* Tikader, *Proc. Indian Acad. Sci.*, **58**(5): 257.

Specimen examined— 1♀, Tugapur, Mayabandar, North Andaman, India. Coll. B. K. Tikader, 13.4.1971.

Distribution— India: Kotigehara, Dist. Chikmagalur, Karnatak, Poona, Maharashtra, Andaman.

Genus 32. *Ebo* Keyserling

45. *Ebo bharatae* Tikader

1965. *Ebo bharatae* Tikader, *Proc. Indian Acad. Sci.*, **61**(5): 278.

Specimens examined.— 2♀♀, Rest House Campus, Long Island, Middle Andaman, India. Coll. B. K. Tikader, 17.5.1971. 1♀, Sipighat, Port Blair, Andaman, India. Coll. B. K. Tikader, 4.6.1971.

Distribution— India: Poona, Maharashtra, Andaman Island.

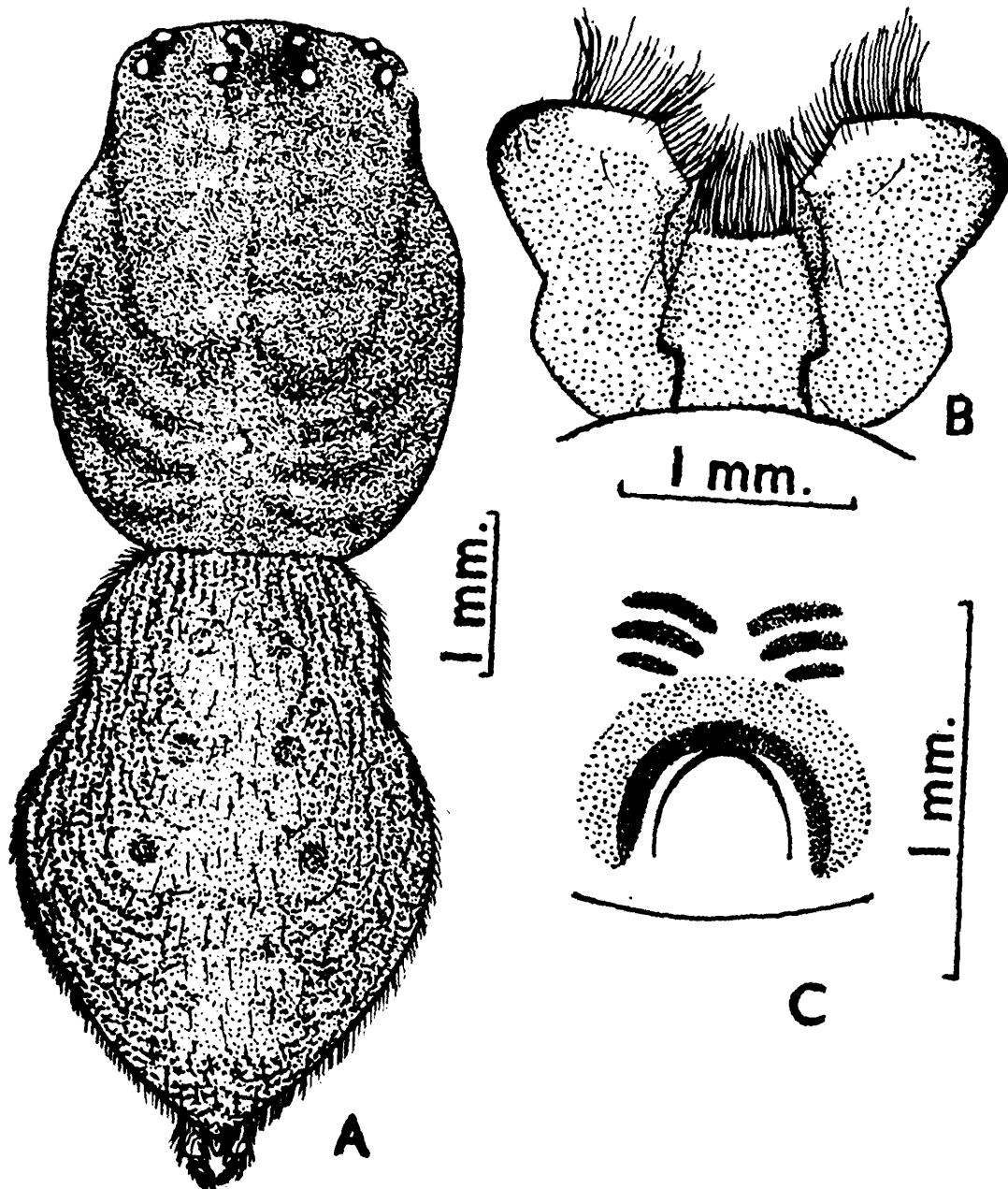
Family XVIII. CLUBIONIDAE

Genus 33. *Clubiona* Latreille

46. *Clubiona andamanensis* sp. nov.

General— Cephalothorax, legs brownish green, abdomen light brown. Total length 8.50 mm. Carapace 4.00 mm. long, 3.00 mm. wide, abdomen 4.20 mm. long, 3.20 mm. wide.

Cephalothorax— Longer than wide, broader in front and cephalic region slightly high, clothed with fine hairs. Eyes pearly white, two rows, posterior row slightly longer than the anterior row, nearly straight or slightly procurved, anterior row recurved, anterior two eyes nearer to each other than the adjacent laterals; and the posterior laterals conti-



Text-fig. 19 *Clubiona andamanensis* sp. nov.

- (A) Dorsal view of female, legs omitted, (B) Maxillae and labium, (C) Epigyne.

guous. Ocular quad longer than wide and geniculate and deep brown colour. Maxillae and labium as in text-fig. 19B. Sternum nearly oval, pointed behind, clothed with hairs. Legs long and strong, I and II leg longer than III and IV

Abdomen— Longer than wide, narrowing behind, clothed with fine hairs, ventral side more pale than the dorsal side. Epigyne as in text-fig. 19 C

Holotype— one ♀ in spirit.

Type-locality— Long Island, Middle Andaman, India. Coll. B. K. Tikader, 17.5 1971.

This species resembles *Clubiona pashabhii* Patel and Patel, but differs as follows: (i) Cephalothorax brownish green but in *C. pashabhii* cephalothorax yellow brown. (ii) Abdomen uniform without any marking but in *C. pashabhii* abdomen dorsally ornamented with brown patches. (iii) Epigyne structurally different.

47. *Clubiona nicobarensis* sp. nov.

General—Cephalothorax, chelicerae reddish brown, legs greenish brown, abdomen whitish. Total length 7.40 mm. Carapace 3.00 mm. long, 2.00 mm. wide; abdomen 4.20 mm. long, 2.50 mm. wide.

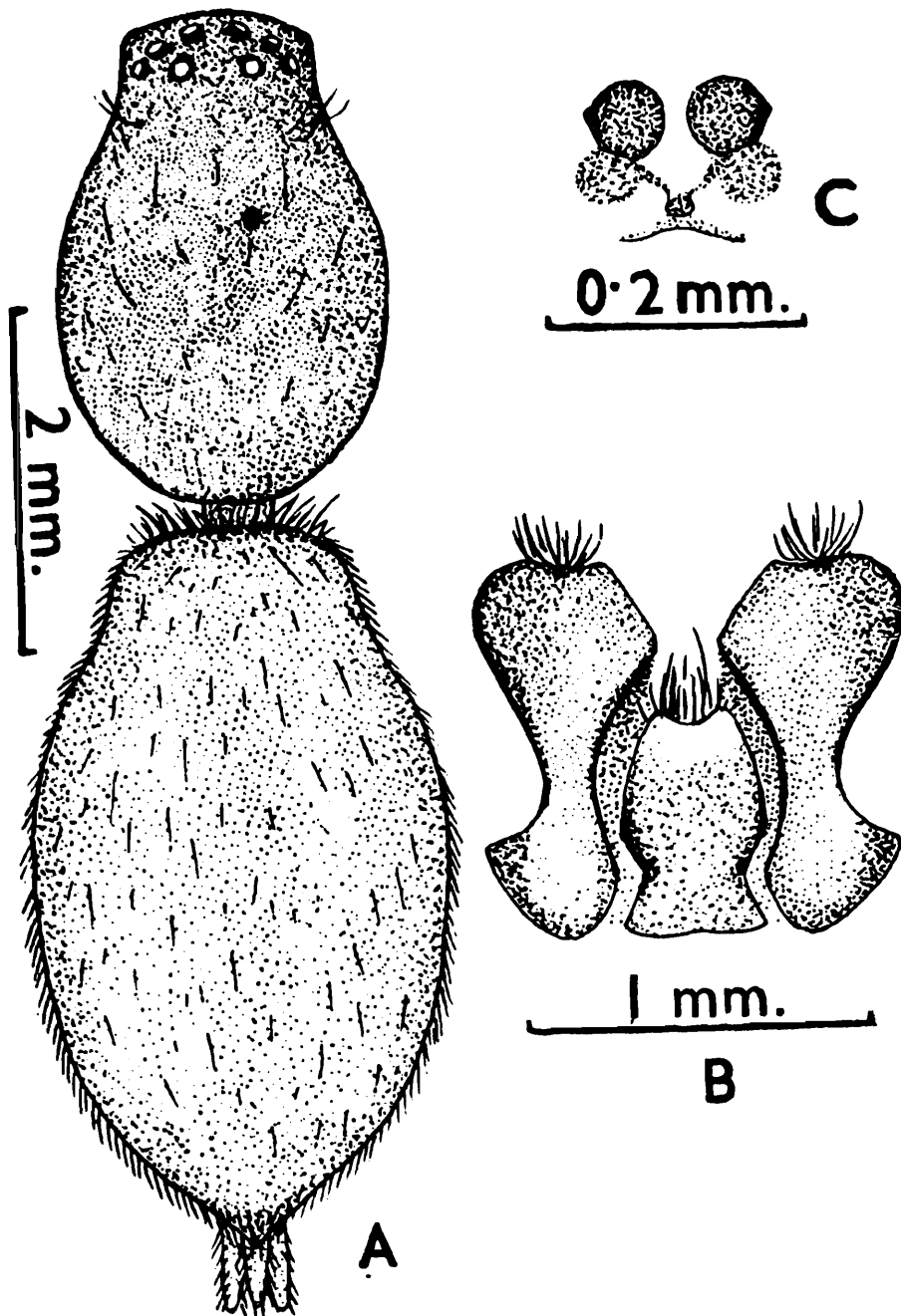
Cephalothorax— Longer than wide, clothed with fine hairs and few spine-like hairs, centre of cephalothorax provided with fine fovea moderately high and slightly narrowing in cephalic region. Eyes pearly white except anterior median, anterior row recurved, posterior row nearly straight, lateral eyes close together. Ocular quad slightly longer than wide, narrowing in front. Chelicerae prominent, inner row of chelicerae with two small teeth and outer row with a big tooth along with six-seven teeth. Maxillae and labium as in text-fig. 20B. Sternum oval, clothed with fine hairs, pointed behind. Legs long and strong, clothed with hairs and spines. Legs formula 2413. Tibiae and metatarsi of I and II provided with two pairs of ventral spines.

Abdomen— Longer than wide, tapering in both ends but posterior side is more tapering than anterior, clothed with fine hairs. Ventral side more white than dorsal side. Epigyne as in text-fig. 20C.

Holotype— one ♀, *paratype* one ♀ in spirit.

Type-locality— Kamorta Island, Nicobar, India. Coll. B. K. Tikader, 21.3.1970. *Paratype*, Port Blair, South Andaman, India. Coll. B. K. Tikader, 18.4.1971.

This species resembles the previous species *Clubiona andamanensis* sp. nov. but it is separated as follows: (i) Cephalothorax reddish brown but in *C. andamanensis* cephalothorax brownish green. (ii) Epigyne structurally different.



Text-fig. 20 *Clubiona nicobarensis* sp. nov.

- (A) Dorsal view of female, legs omitted, (B) Maxillae and labium,
(C) Epigyne.

Family XIX. SALTICIDAE

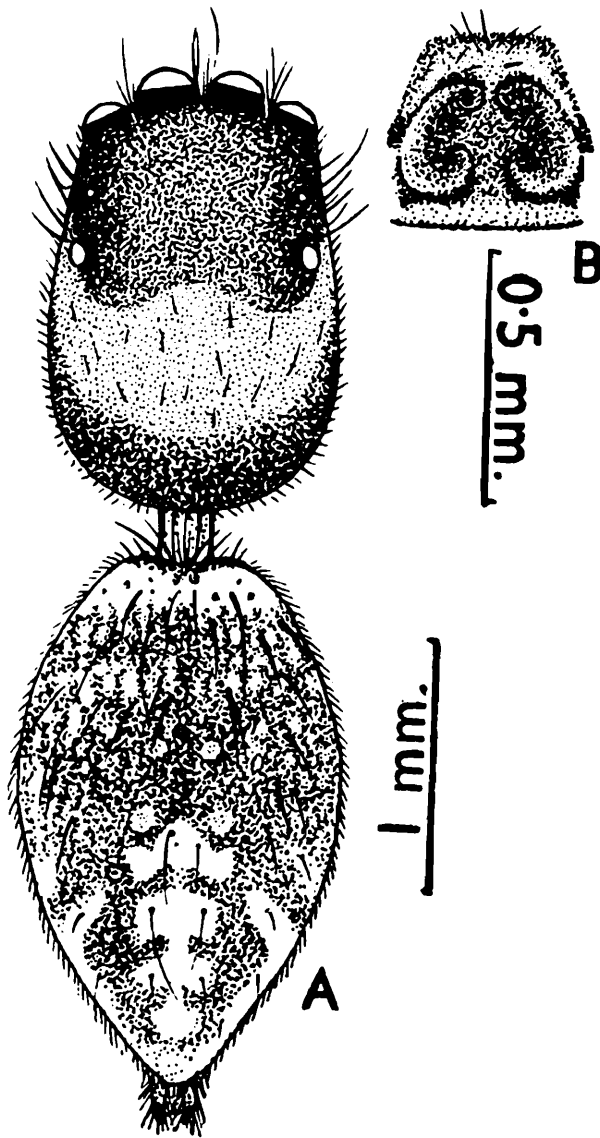
Genus 34. *Salticus* Latreille

48. *Salticus andamanius* sp. nov.

General— Cephalothorax and abdomen light brown to deep brown, legs brownish green. Total length 4.00 mm. Carapace 1.80 mm. long, 1.20 mm. wide; abdomen 2.00 mm. long, 1.40 mm. wide.

Cephalothorax— Longer than wide, cephalic region nearly flat in the first half and then slopes abruptly behind, clothed with fine black hairs and a few coarse hairs. Middle of cephalothorax provided with a small fovea. Cephalic region flat with conspicuous deep brown colour, later-

ally and posteriorly encircled by a semi-crescent shaped light patch as in text-fig. 21B, and rest of the portion of cephalothorax is deep brown. Eyes pearly white, anterior row slightly recurved and anterior median eyes larger than laterals by more than four times. Middle row of eyes very small and situated nearly equidistant from anterior and posterior rows. The ocular trapezium about one third broader than long. Chelicerae with one small tooth on inner margin and two very small teeth on outer margin. Sternum oval, clothed with fine hairs. Legs strong and stout, I and II more stout than III and IV legs. Tibiae and metatarsi of I and II provided with three and two ventral spines respectively.



Text-fig. 21 *Salticus andamanicus* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne.

Abdomen— Longer than wide and narrow behind, clothed with fine hairs. Mid-dorsum provided with white patch as in text-fig. 21A. Ventral side with pale colour and provided with a broad longitudinal deep brown line extending from epigastric fold to nearly base of spinners. Epigyne as in text-fig. 21B.

Holotype— one ♀, *paratypes* two ♀♀ in spirit.

Type-locality— Rest house Campus, Long Island, Middle Andaman, India. Coll. B. K. Tikader, 17.4.1971., and *paratype* from Chiriatapu, South Andaman, India. Coll. B. K. Tikader, 29.4.1971.

This species resembles *Salticus ranjitus* Tikader but it is distinguished from it as follows: (i) Abdomen posterior with white markings but in *S. ranjitus* abdomen black with minute dots. (ii) Epigyne structurally different.

Genus 35. *Marpissa* Koch

49. *Marpissa andamanensis* sp. nov.

General— Cephalothorax and legs deep brownish grey and abdomen brown. Total length 12.00 mm. Carapace 5.00 mm. long, 3.80 mm. wide; abdomen 6.90 mm. long, 4.40 mm. wide.

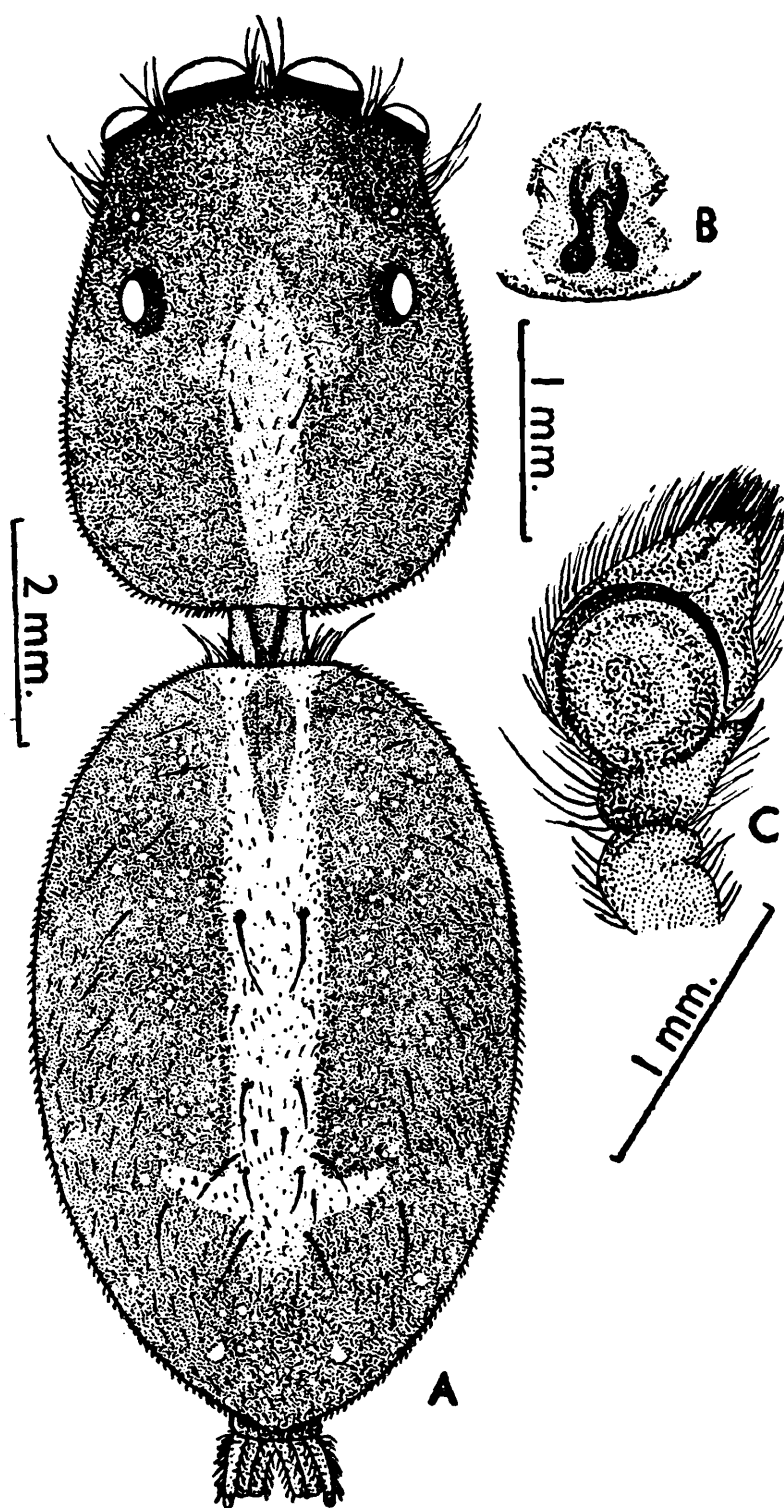
Cephalothorax: Longer than wide, high in front, posterior and lateral sides sloping. Cephalic region flat, clothed with fine hairs and few spines or spine-like hairs, just behind the ocular platform on the middle of cephalothorax provided with longitudinal conspicuous white bands, inside of the bands provided with small black fovea. Eyes moderate, anterior row of eyes pearly white. Anterior lateral eyes slightly larger than the posterior lateral eyes; second pair of eyes are very small and situated on the middle of anterior and posterior eyes. The ocular trapezium is slightly broader than long. Chelicerae with a moderate tooth on inner margin and two similar teeth on outer margin. Maxillae provided with fine scopulae. Sternum nearly oval, narrowing in both ends. Legs I and II more robust than III and IV, clothed with long grey hairs and few spines, legs formula 4132. Tibiae and metatarsi I and II provided with three and two pairs of ventral spines respectively.

Abdomen— Longer than wide and pointed behind and clothed with two types of hairs. Base provided with fine short hairs and some long grey hairs all over the abdomen. Mid-dorsally provided with a longitudinal white patch as in text-fig. 22A. Ventral side with uniform deep brown colour and clothed with small hairs. Epigyne as in text-fig. 22. B. Male much smaller than female. Legs deep brown and robust. Abdomen black provided with longitudinal central and lateral bands. Legs formula 1423. Male palp as in text-fig. 22C.

Holotype— one ♀, *allotype* one ♂ in spirit.

Type-locality— Chiriatapu village, South Andaman, India. Coll. B. K. Tikader, 30.5.1971.

This species resembles *Marpissa bengalensis* Tikader but it is distinguished from it as follows: (i) Colour pattern of abdomen and cephalothorax different. (ii) Epigyne and male palp also structurally different.



Text-fig. 22 *Marpissa andamanensis* sp. nov.

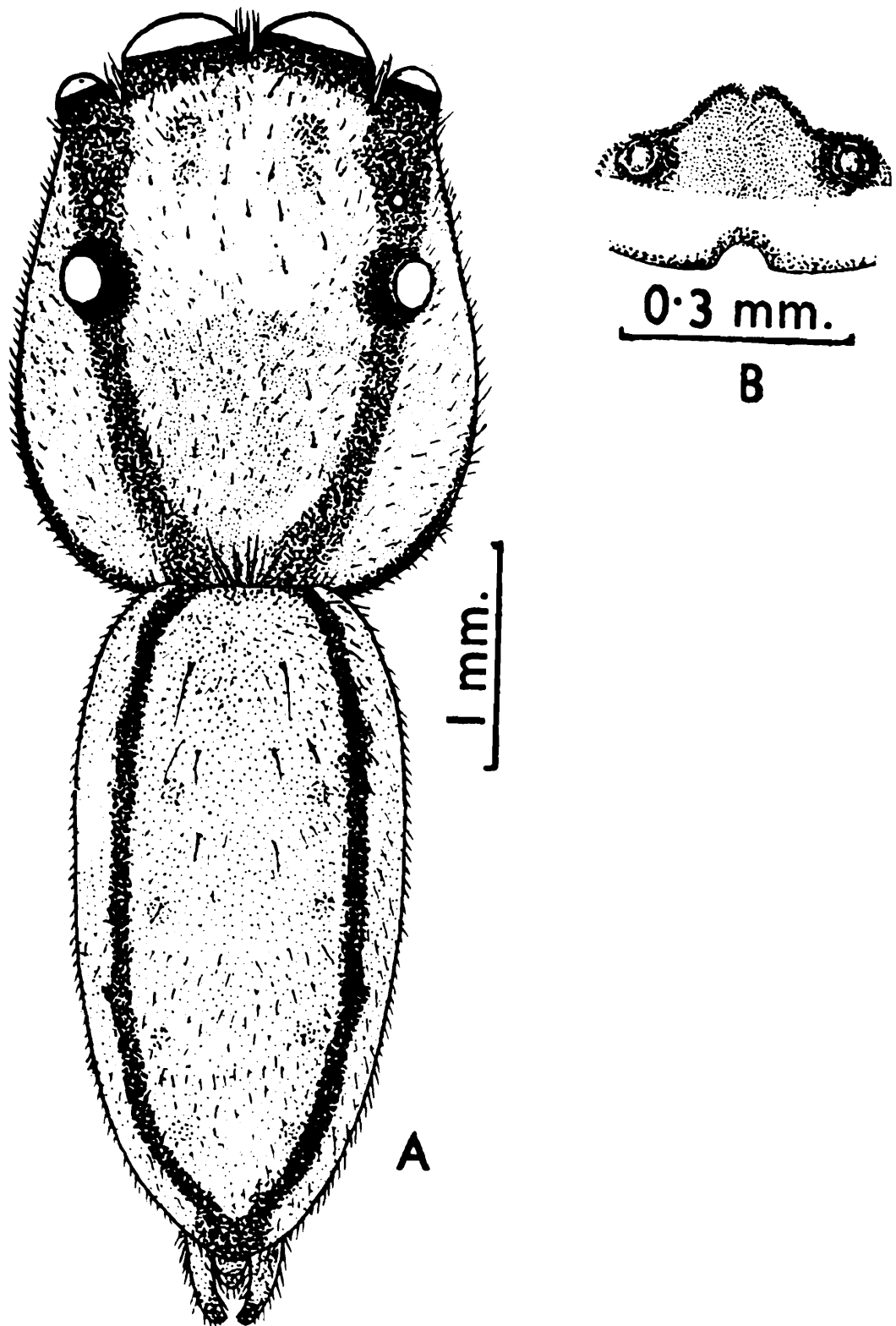
(A) Dorsal view of female, legs omitted, (B) Epigyne, (C) Male palp.

50. *Marpissa kalapani* sp. nov.

General— Cephalothorax, abdomen and legs are light yellowish in colour. Total length 5.80 mm. Carapace 2.80 mm. long, 2.00 mm. wide; abdomen 3.20 mm. long, 1.50 mm. wide.

Cephalothorax— Longer than wide, cephalic region flat and slightly higher than the rest of the portion. Just behind the cephalic high portion

on the middle of cephalothorax there is a small fovea; posterior portion of cephalothorax slightly sloping behind. Cephalothorax clothed with hairs. Two conspicuous longitudinal deep brown lines extending from base of anterior lateral eyes to the base of cephalothorax as in text-fig. 23A. Eyes of anterior row recurved and anterior median eyes nearly four times larger than the lateral eyes. Middle row of eyes small and



Text-fig. 23 *Marpissa kalapani* sp. nov.

(A) Dorsal view of female, legs omitted (B) Epigyne.

situated nearly equidistant from anterior and posterior rows. Base of eyes encircled by black patch. Posterior eyes and anterior lateral eyes nearly same size. Chelicerae with one small tooth on inner margin and two nearly similar size teeth on outer margin. Sternum nearly oval, narrowed in front, clothed with fine hairs. Leg; moderately strong, clothed with hairs and spines and leg formula of female 4132. Tibiae and metatarsi of I provided with three and two pairs of ventral spines respectively.

Abdomen— Longer than wide, narrowing behind, clothed with fine hairs and few coarse hairs. Dorsum provided with two longitudinal conspicuous deep brown bands extending from base to the end of abdomen as in text-fig. 23A. Ventral side uniform pale colour. Epigyne as in text-fig. 23B.

Holotype— one ♀ in spirit.

Type-locality— Horticulture Cum Zoological garden, Haddoo, Port Blair, South Andaman, India. Coll. B. K. Tikader, 19.4.1971.

This species resembles *Marpissa tigrina* Tikader but it is distinguished from it as follows: (i) Dorsal side of abdomen provided with two longitudinal conspicuous deep brown bands extending from base to end but in *M. tigrina* abdomen provided with conspicuous red-brown chevron-like pattern. (ii) Epigyne structurally different.

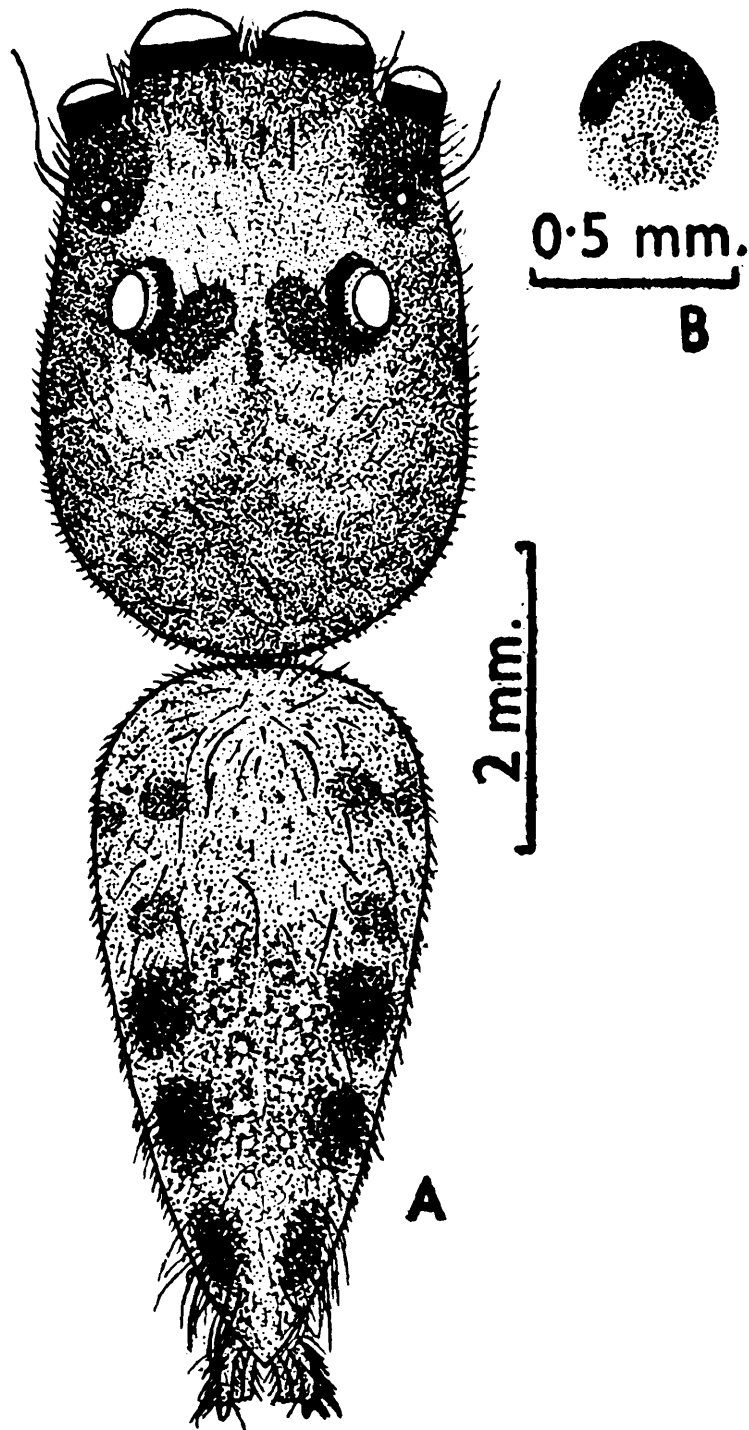
Genus 36. *Phidippus* Koch

51. *Phidippus yashodharae* sp. nov.

General— Cephalothorax and legs light grey, abdomen yellowish lemon colour. Total length 9.00 mm. Carapace 4.00 mm. long, 3.00 mm. wide; abdomen 5.00 mm. long, 2.20 mm. wide.

Cephalothorax— Longer than wide, high in front, posterior and lateral sides very sloping. Cephalic region flat, clothed with fine pubescence and few spine-like hairs. Outer sides of lateral eyes provided with two long black hairs. Eyes comparatively small according to the size of the spider. Anterior row recurved and anterior middle eyes pearly white and others black. Base of the eyes encircled with a conspicuous black patch. Anterior lateral eyes and posterior eyes nearly same size; second pair of eyes very small and situated near the anterior lateral eyes than the posterior eyes. Middle of cephalothorax provided with a small fovea. Chelicerae with one small tooth on inner margin and two small teeth on the outer margin. Sternum nearly oval, narrowing in front. Maxillae provided with thick scopulae at the upper end. Legs short and robust, clothed with hairs and spines. Tibiae and metatarsi I and II provided with three and two pairs of ventral spines respectively.

Abdomen— Longer than wide and pointed behind, clothed with fine hairs. Dorsally in front provided with two faint transverse yellowish bands and posteriorly three pairs of deep brown conspicuous dots as in text-fig. 24A. Ventral side uniform pale colour. Epigyne as in text-fig. 24B.



Text-fig. 24 *Phidippus yashodharae* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne.

Holotype— one ♀, **paratypes** three ♀♀ in spirit.

Type-locality— Haddoo, Port Blair, South Andaman, India. Coll. **B. K. Tikader**, 18.4.1971.

This species resembles *Phidippus pateli*, Tikader, but it is distinguished from it as follows: (i) Dorsally on the posterior end of abdomen with a

conspicuous three pairs of brown dots arranged longitudinally but in *P. pateli* dorsally on the abdomen with a conspicuous V-shaped longitudinal deep brown patch. (ii) Outer sides of lateral eyes provided with two long hairs but in *P. pateli* outer sides of lateral eyes provided with tuft of conspicuous long black hairs. (iii) Epigyne structurally different.

Genus 37. **Rhene** Thorell

52. **Rhene indicus** Tikader

1973. *Rhene indicus* Tikader, *Proc. Ind. Acad. Sci.*, **78**(2): 68-72.

Specimen examined— 2♀♀, Tugapur, Mayabandar, North Andaman, India. Coll. B. K. Tikader, 13.5.1971.

Distribution— India: Punjab Agriculture University Compound, Ludhiana (*Type-locality*), West Bengal, Andaman Islands.

Genus 38. **Myrmarachne** Mac Leay

53. **Myrmarachne orientales** Tikader

1973. *Myrmarachne orientales* Tikader, *Proc. Indian Acad. Sci.*, **78** (2): 60-62.

Specimen examined— 1♀, Kamorta Island, Nicobar, India. Coll. B. K. Tikader, 21.3.1970.

Distribution— India: Calcutta, West Bengal, Nicobar Islands.

54. **Myrmarachne plataleoides** (Camb.)

1869. *Salticus plataleoides* Cambridge, *Ann. Mag. nat. Hist.*, **3**(4): 68.

1897. *Myrmarachne plataleoides*: Simon, *Hist. Nat. Araig.*, **2**: 499.

1915. *Myrmarachne plataleoides*: Narayan, *Rec. Indian Mus.*, **11**(5): 396.

1973. *Myrmarachne plataleoides*: Tikader, *Proc. Indian Acad. Sci.*, **78**(2): 60.

Specimen examined— 2 ♀♀, Haddoo, Port Blair, South Andaman, India. Coll. B. K. Tikader, 18-4-1971.

Distribution— India: Bihar, West Bengal, Calcutta, Tamil Nadu, Maharashtra, Andaman.

55. **Myrmarachne bengalensis** Tikader

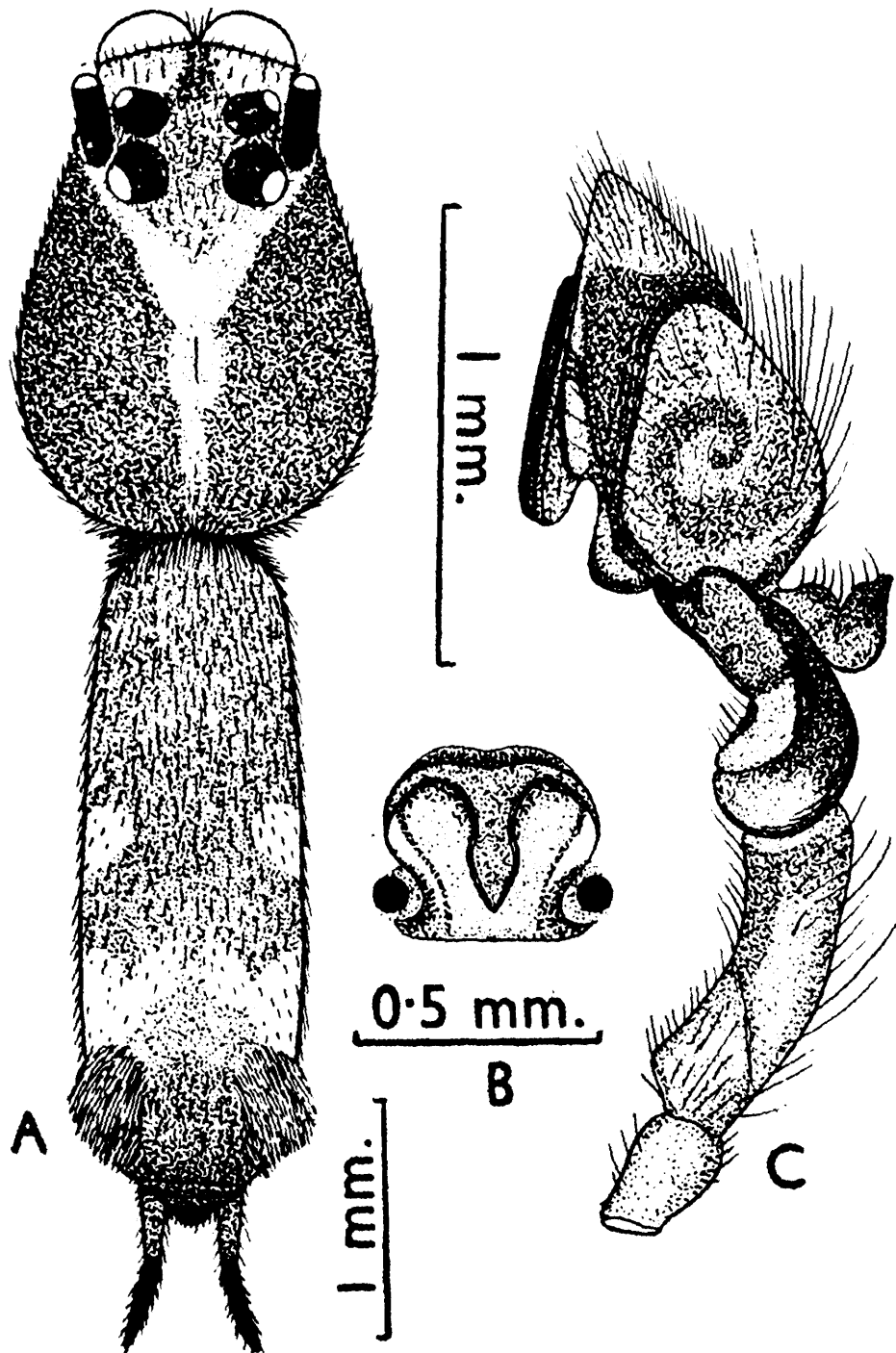
1973. *Myrmarachne bengalensis* Tikader, *Proc. Indian Acad. Sci.*, **78**(2): 65.

Specimen examined— 1 ♀, Rest house compound, Long Island, Middle Andaman, India. Coll. B. K. Tikader, 17.5.1971.

Distribution— India: Dhakuria, Calcutta, W Bengal, (*Type-locality*): Andaman Islands.

Genus 39. *Lyssomanes* Hentz56. *Lyssomanes andamanensis* sp. nov.

General—Cephalothorax and abdomen deep brown, legs light green. Total length 5.00 mm. Carapace 2.10 mm. long, 1.50 mm. wide; abdomen 2.80 mm. long, 1.00 mm. wide.



Text-fig. 25 *Lyssomanes andamanensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne, (C) Male palp.

Cephalothorax—Cephalothorax longer than wide, clothed with fine pubescence; cephalic region high, thoracic region sloping behind. Cepha-

lothorax provided with a conspicuous white light patch from anterior eyes to base of cephalothorax. Eyes four rows, anterior eyes white and bases of rest of the eyes encircled by conspicuous black patch. Anterior eyes close together and anterior median eyes more than six times larger than anterior lateral eyes, anterior lateral eyes with prominent stalk. Posterior middle row of eyes not very small and situated behind the stalk of the anterior lateral eyes; posterior row of eyes medium size. Ocular quad slightly wider than long. Sternum heart-shaped pointed behind and clothed with fine hairs. Chelicerae not strong. Legs long and slender clothed with hairs and spine-like hairs. Tibiae, metatarsi of all legs provided with conspicuous longitudinal deep brown line. In female there is no such marking on the leg. Tarsi provided with well developed claw tufts. Male palp as in text-fig. 25C.

Abdomen— Long, clothed with thick hairs, posterior end provided with deep brown transverse hairs and sides provided with a tuft of hairs as in text-fig. 25A. Spinners conspicuously long with two segments. Abdomen of female uniform pale colour. Epigyne as in text-fig. 25B.

Holotype— one ♂, *paratypes* three ♂♂, *allotype* one ♀ in spirit.

Type-locality— Tugapur, Mayabandar, North Andaman, India. Coll. B. K. Tikader, 13.5.1971.

This species resembles *Lyssomanes sikkimensis* Tikader but it is separated as follows: (i) Cephalothorax provided with conspicuous longitudinal marking but in *L. sikkimensis* cephalothorax uniform brownish green. (ii) Abdomen provided with transverse bands on the posterior end but in *L. sikkimensis* abdomen provided with 'V' shaped black markings. (iii) Spinners conspicuously long but in *L. sikkimensis* spinners not long. (iv) Epigyne structurally different.

Genus 40. *Euophrys* Koch

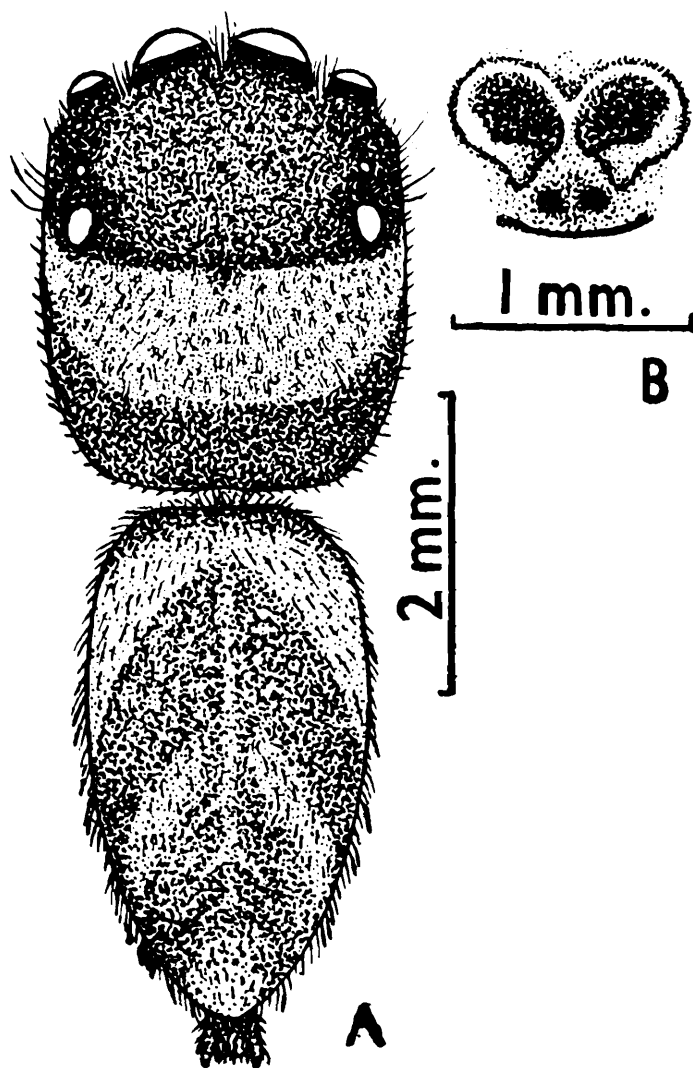
57. *Euophrys chiriatapuensis* sp. nov.

General— Cephalothorax deep brown, legs and abdomen greenish brown. Total length 7.00 mm. Carapace 3.00 mm. long, 2.20 mm. wide; abdomen 3.50 mm. long, 2.00 mm. wide.

Cephalothorax— Cephalothorax longer than wide, not very high, clothed with black hairs and white short spatulate hairs, anterior portion slightly wider than posterior region, centre of cephalothorax provided with conspicuous fovea. Behind the posterior eyes a conspicuous crescent shaped white hairy patch, covered the whole cephalothorax as in text-fig. 26A. Eyes pearly white, anterior median eyes nearly touching each other in a slightly recurved row, the lateral eyes nearly half of the middle eyes. Middle row of eyes between the anterior lateral eyes

and posterior eyes. Sternum oval, clothed with fine hairs. Labium slightly longer than wide, end of maxillae provided with conspicuous scopulae. Chelicerae not very strong, inner margin provided with two teeth and outer margin also with two small teeth. Legs clothed with hairs and spines; first pair of legs robust and longer than others. Tibiae and metatarsi I and II provided with three and two pairs of ventral spines respectively.

Abdomen— Longer than wide, narrowing behind, clothed with fine hairs, anterior portion and middle portion of abdomen decorated with golden patches as in text-fig. 26A. Ventral side pale white coloured



Text-fig. 26 *Euophrys chiriatapuensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne.

provided with longitudinal dark brown patch extending from epigastric fold to near the base of spinners. Epigyne as in text-fig. 26B.

Holotype— One ♀ in spirit.

Type-locality— Chiriatapu village, South Andaman, India. Col. B. K. Tikader, 29.4.1971,

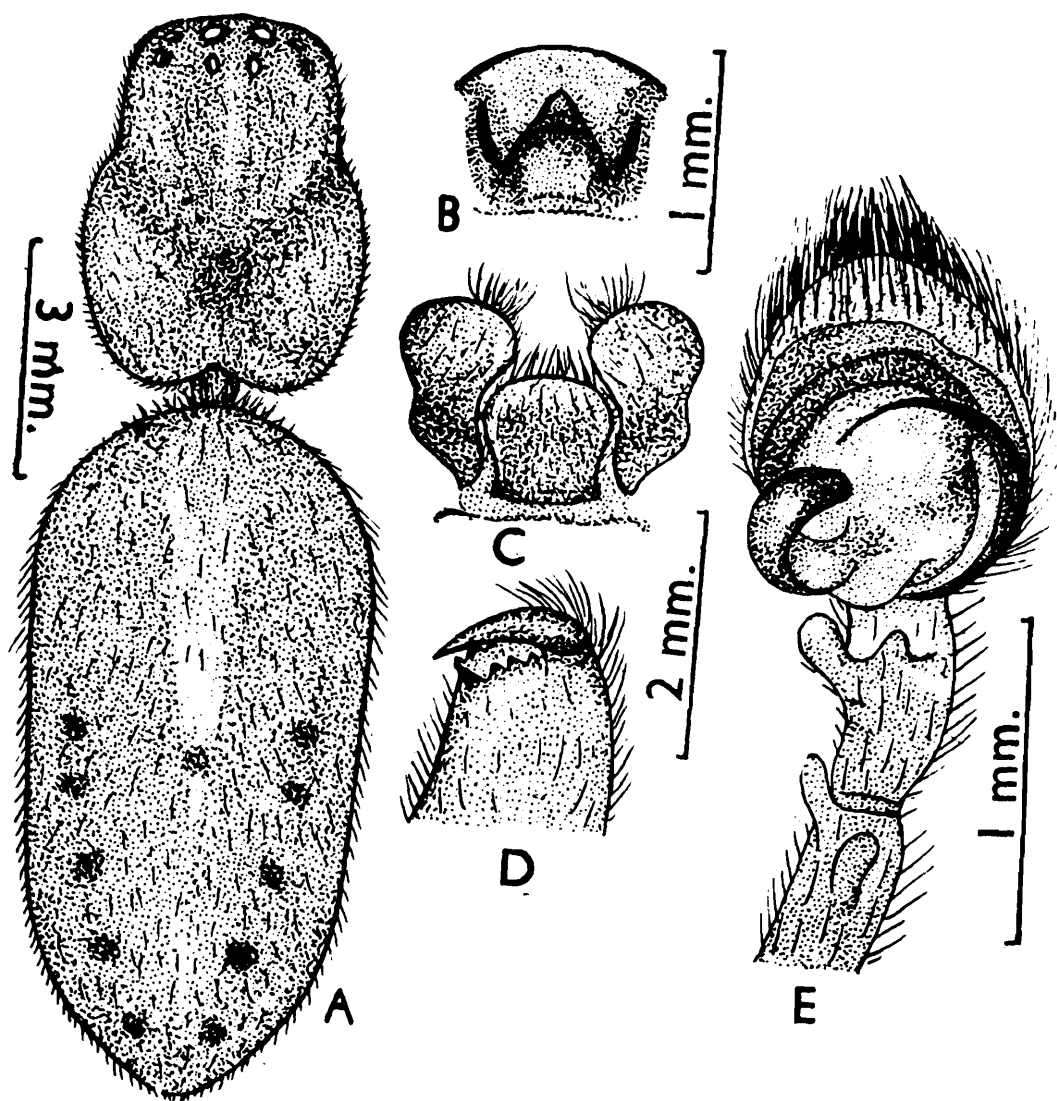
This species nearly resembles *Euophrys monadnock* Simon but differs as follows: (i) Abdomen provided with golden patches but in *E. monadnock* no such patches on the abdomen. (ii) Cephalothorax provided with crescent shaped silvery patch but no such patch in *E. monadnock*. (iii) Epigyne structurally different.

Family XX. PSECHRIDAE

Genus 41. *Psechrus* Thorell

58. *Psechrus nicobarensis* sp. nov.

General— Cephalothorax, legs, abdomen greenish brown. Total length 13.50 mm. Carapace 4.50 mm. long, 3.30 mm. wide; abdomen, 8.60 mm. long, 4.00 mm. wide.



Text-fig. 27 *Psechrus nicobarensis* sp. nov.

(A) Dorsal view of female, legs omitted, (B) Epigyne, (C) Maxillae and labium, (D) Chelicera, (E) Male palp.

Cephalothorax— Long, clothed with thick hairs, cephalic region prominently high and slightly wide in front. Eyes two rows encircled by

black base, anterior row slightly short or recurved and middle eyes larger than the others, posterior row slightly longer and almost straight. Ocular quad longer than wide. Clypeus moderate. Chelicerae strong, inner margin provided with four teeth and outer margin with three teeth. Sternum heart-shaped, clothed with fine hair. Legs long, clothed with hairs, I and II legs very much longer than the III and IV. Male palp as in text-fig. 27E.

Abdomen— Longer than wide, almost parallel sided, clothed with fine hairs, posterior end of dorsal side provided with two longitudinal brown dots line as in text-fig. 27A. Ventral side uniform light brown with fine hairs, prominent cribellum near the base of spinnerets. Epigyne as in text-fig. 27B.

Holotype— one ♀, **paratypes** nine ♀♀, **allotypes** two ♂♂.

Type-locality— Kakana village, Car-Nicobar Island, India. Coll. **B. K. Tikader**, 9.3.1970.

This species resembles *Psecrus torvus* Cambridge but separated as follows: (i) Cephalothorax uniform greenish brown but in *P. torvus* cephalothorax with broad pale band on each side. (ii) Posterior end of dorsal side of abdomen provided with two longitudinal brown dots but in *P. torvus* abdomen laterally with a black patch. (iii) Epigyne and male palp structurally different.

ACKNOWLEDGEMENTS

I take this opportunity to express my sincere thanks to Dr. A. P. Kapur, former Director, Zoological Survey of India for sending me to Andaman and Nicobar Islands, twice, for faunistic survey, for placing the valuable spider collection at my disposal and also for invaluable aid and encouragement in the present study. I am also thankful to Dr. N.V. Subba Rao, Zoologist, Zoological Survey of India, who accompanied me to the above mentioned surveys and Dr. M. Babu Rao, Zoologist, Zoological Survey of India, Western Regional Station, for kindly going through the manuscript. The illustrations used in this paper are prepared by Shri S. K. Chanda, Artist of this Station, to whom my thanks are also due.

SUMMARY

Fifty-eight species of spiders from Andaman and Nicobar Islands are described in this paper. Of these, 32 are known and 26 are new to science. The new species belong to 22 genera distributed in the families Filistidae, Amaurobiidae, Pholcidae, Linyphiidae, Theridiidae, Tetragnathidae, Argiopidae, Gnaphosidae, Heteropodidae, Clubionidae, Salticidae and Psecridae.

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