METAGOVEA PHILIPI, N. SP., A NEW CYPHOPHTHALMID (ARACHNIDA) FROM ECUADOR

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GOODNIGHT, CLARENCE J. & GOODNIGHT, MARIE L. 1980. *Metagovea philipi*, n. sp., a new cyphophthalmid (Arachnida) from Ecuador. *Trans. Amer. Micros. Soc.*, 99: 128–131. *Metagovea philipi*, n. sp. is described and figured on the basis of specimens taken from within and from debris just without Los Taxos Cave, 3°6′ South and 78°12′ West, in Ecuador. Savory (1977) suggested ordinal recognition of Cyphophthalmi because of the distinctive characteristics of its members. The authors concur in this opinion.

Cyphophthalmids are minute arachnids found mainly in tropical and subtropical areas. These forms are encountered only infrequently and usually only in small numbers. Latreille (1804) described the first specimens, and some 64 years elapsed before a second species was reported from Austria by Joseph (1868). More recently, the number of described species has increased, but little is known of the natural history of these organisms.

Presently, three genera are recognized from South America. These are: *Neogovea* Hinton (two species, *N. immsi* from Paraguay and Brazil and *N. kartabo* from British Guiana); *Metagovea* Rosas Costa (two species, *M. disparunguis* from Colombia and *M. oviformis* from Brazil); and *Chileogovea* Roewer (one species *C. oedipus* from Chepu, Chile).

Of the 16 specimens collected for this study, 14 were taken from within Los Taxos Cave; one female specimen was taken from debris just outside the cave. This cave is located at 3°6′ South and 78°12′ West in Ecuador.

The holotype and several paratypes are deposited in the American Museum of Natural History; additional paratypes are deposited at the University of Edinburgh.

SYSTEMATIC ACCOUNT

Order Cyphophthalmi Simon, 1879

Savory (1977) suggested that the cyphophthalmids differed sufficiently from the opilionids to deserve ordinal recognition; his conclusions, with which we concur, were based on an evaluation of the distinctive features of the cyphophthalmids. These features include, among others: a tarsal gland (adenos-

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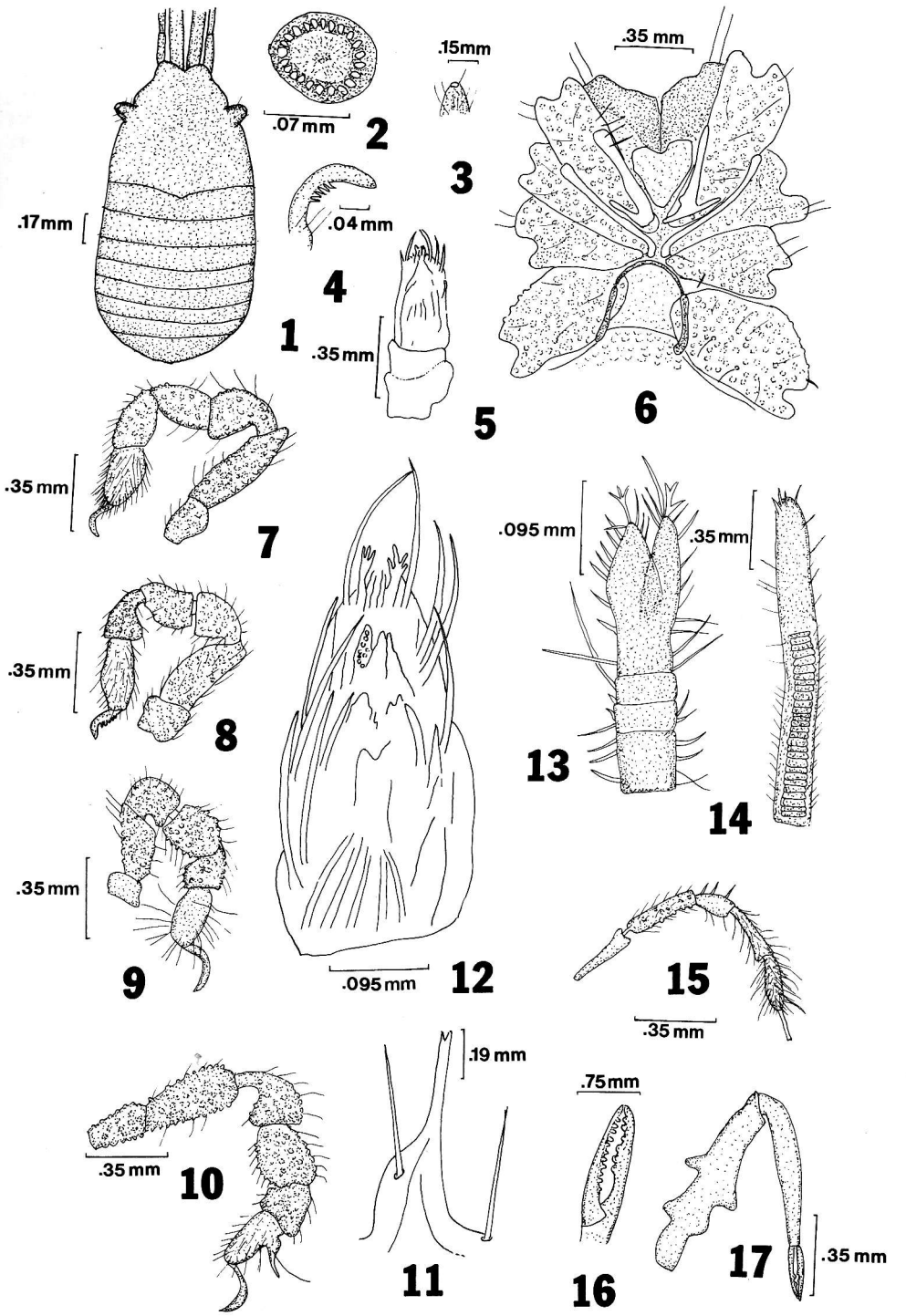
FIGS. 1–17. *Metagovea philipi*, n. sp. Fig. 1, male, dorsal view. Fig. 2, Spiracle, male. Fig. 3. Ozophore, male. Fig. 4. Tarsal claw of leg II, male. Fig. 5. Penis. Fig. 6, Male, anterior ventral surface. Fig. 7. Leg I, male. Fig. 8. Leg II, male. Fig. 9. Leg III, male. Fig. 10. Leg IV, male. Fig. 11. Adenostyle, male. Fig. 12. Tip of penis. Fig. 13. Tip of ovipositor. Fig. 14. Entire ovipositor. Fig. 15. Palpus, male. Fig. 16. Claw of chelicera, male. Fig. 17. Chelicera, male.


.17mm
1
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9
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12
.095 mm
13
.35 mm
14
.35 mm
15
.35 mm
10
.19 mm
11
.75mm
16
17
.35 mm

tyle, Hoffman, 1963) on the fourth tarsus of the male, relatively short legs with the tarsus consisting of but a single segment, a bifurcate ovipositor and spinous penis, spermatophore production, and a distinctive life cycle.

The placement of our new species in a family and subfamily awaits the completion of a proposed work by Shear (personal communication). At present, it is deemed best to forego such placement; however, under the older classification (Rosas Costa, 1950), this form would be placed in the family Sironidae, subfamily Stylocellinae.

Genus *Metagovea* Rosas Costa, 1950

After careful consideration, it was decided to place the new species in the genus *Metagovea* Rosas Costa, 1950. Rosas Costa defines the genus as follows: cephalothorax with the anterior border indented and the lateral margins somewhat curved, without a dorsal groove. Repugnatorial glands projecting over the body surface; without eyes. A posterior suture present, indicating the cephalothorax, abdominal tergites clearly indicated. Abdomen without dorsal longitudinal line, posterior margin rounded. Maxillary lobes of coxa I much longer than wide, coxa I much wider than coxa II, but scarcely larger than III and about one-third narrower than IV. Sternum absent. Corona analis formed by the fusion of tergite 8 and sternites 8 and 9. Pedipalpus with the trochanter claviform and armed with tubercles, much shorter than tarsus. Tarsus I much larger than the metatarsus; tarsi II, III, and IV much shorter than their respective metatarsi; all without longitudinal divisions. Tarsus I with many hairs. Claws simple, I unarmed, II with mesial teeth, III and IV lancelet-shaped.

Type species. *Metagovea disparunguis* Rosas Costa from the Department of Antioquia, Rio Negro, Colombia 1945; collected from debris.

Metagovea philipi, n. sp.

(Figs. 1–17)

Small cyphophthalmids, of typical appearance. Dorsal grooves between the abdominal tergites well defined, no median sulcus. Ozophores slightly removed from the margins of the cephalothorax, dorsolateral in position, openings terminal. Eyes absent. Anterior margin of cephalothorax bluntly narrowed, projecting over the chelicerae. Entire body and appendages with pebbled appearance, many hairs present.

Anterior ventral complex as illustrated (Fig. 6). Sternum absent. Posterior lip of gonostome formed by lobular extension of the first abdominal segment; lateral walls formed by gonostomal lobes of coxae IV, marginal flange present. Spiracles (Fig. 2) rounded in shape. Corona analis formed by fusion of sternites 8 and 9 and tergite 9.

Chelicerae (Figs. 16 and 17) typical, basal segment 0.8 mm long, second segment 0.5 mm, movable finger 0.15 mm. Fingers with teeth. Palpus (Fig. 15) less pebbled than other appendages with many hairs, particularly dense on the tarsus.

All leg segments except tarsi densely pebbled, numerous hairs present. Second tarsal claw with teeth, other claws simple (Figs. 4, 6, 7–10). Adenostyle (Fig. 11) without brush, with basal large seta, distal portion not set off by groove, opening at tip, length 0.76 mm.

Measurements of male legs and palpi (mm):

	Palpus	Leg I	Leg II	Leg III	Leg IV
Trochanter	0.5	0.15	0.15	0.15	0.15
Femur	0.22	0.38	0.30	0.26	0.19
Patella	0.11	0.22	0.19	0.19	0.22
Tibia	0.03	0.22	0.19	0.19	0.19
Metatarsus		0.19	0.19	0.15	0.15
Tarsus	0.15	0.11	0.11	0.11	0.22
Total	1.01	1.27	1.13	1.05	1.12

Penis (Figs. 5, 12) with tip having numerous complex spinous hairs.

Color of specimens dark brown, black in appearance when examined without magnification.

Male, total length of body 1.5 mm, maximum width 0.95 mm, width over tips of ozophores 0.57 mm.

Female, total length of body 1.16 mm, maximum width 0.88 mm, width across tips of ozophores 0.76 mm. Similar in appearance to male except for sexual differences. First segment of chelicera 0.4 mm long, second segment 0.6 mm. Ovipositor typical of group (Figs. 13, 14).

Measurements of female legs and palpi (mm):

	Palpus	Leg I	Leg II	Leg III	Leg IV
Trochanter	0.08	0.12	0.16	0.16	0.16
Femur	0.28	0.36	0.28	0.20	0.19
Patella	0.12	0.20	0.16	0.12	0.22
Tibia	0.20	0.24	0.20	0.20	0.24
Metatarsus		0.20	0.12	0.16	0.20
Tarsus	0.16	0.24	0.16	0.16	0.20
Total	0.84	1.36	1.08	1.00	1.21

Distribution. Known only from type locality; male holotype and male and female paratypes from Los Taxos Cave, Ecuador; seven males and six females collected 12 October 1976 from a seed deposit near a doorway in the main cave; one female 12 July 1976, also from a seed deposit; one male from the cave 12 July 1976; and one female 30 July 1976 from leaf litter near the cave entrance.

This interesting new species is named in honor of Dr. N. Philip Ashmole, University of Edinburgh, Scotland who collected all of the specimens and kindly made them available to us for study.

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