

Mysmenidae (Araneae) from Peru

by Léon BAERT

Abstract

Eight *Mysmenopsis* species, of which six new species (*M. viracocha* n. sp., *M. pachacutec* n. sp., *M. yupanqui* n. sp., *M. capac* n. sp., *M. huascar* n. sp. and *M. atahualpa* n. sp.) and one new species of *Maymena* (*M. roca* n. sp.) are added to the Peruvian mysmenid fauna. The female of *M. cienaga* MÜLLER, 1987 is described.

Key-words : Araneae - Mysmenidae - Peru.

Résumé

Huit espèces du genre *Mysmenopsis*, dont six nouvelles (*M. viracocha* n. sp., *M. pachacutec* n. sp., *M. yupanqui* n. sp., *M. capac* n. sp., *M. huascar* n. sp. and *M. atahualpa* n. sp.) et une nouvelle espèce du genre *Maymena* (*M. roca* n. sp.) sont ajoutées à la faune péruvienne. La femelle de *M. cienaga* MÜLLER, 1987 est décrite.

Mots-clefs : Araneae - Mysmenidae - Pérou.

Introduction

In 1978 PLATNICK & SHADAB published a review of the mysmenid genus *Mysmenopsis* SIMON, 1897, of the West Indies, Central and South America. Seventeen species were cited or described. Recently MÜLLER (1987) added a species from Colombia and COYLE & MEIGS (1989) two species from Jamaica. Till now only two species, *Mysmenopsis wygodzinskyi* and *Mysmenopsis schlingeri*, both described by PLATNICK & SHADAB, were known from Peru, both from single females. Diana SILVA sent me recently a collection of peruvian mysmenids for identification from the Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos.

This lot contained a new *Maymena* species and eight *Mysmenopsis* species of which six are new. Those species are described in this paper.

All types are deposited in the Museo de Historia natural de la Universidad nacional Mayor de San Marcos (Lima, Perú) and the Koninklijk Belgisch Instituut voor Natuurwetenschappen (K.B.I.N., Brussels, Belgium). The specimens deposited in the K.B.I.N. are indicated in the text. All measurements cited below are in millimeters.

Genus *Mysmenopsis* SIMON, 1897

For a thorough diagnosis of the genus I refer to PLATNICK & SHADAB (1978).

Mysmenopsis viracocha, new species Figures 1-6

Types :

Male holotype, female allotype, male paratype (K.B.I.N.) and two female paratypes (1 female in K.B.I.N.) : Amazonas, Cordillera del Cóndor, alto Río Comaina (Puesto de Vigilancia 22) Falso Paquisha, 850-1150 m (22 Oct. - 3 Nov. 1987; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the Inca emperor, Viracocha.

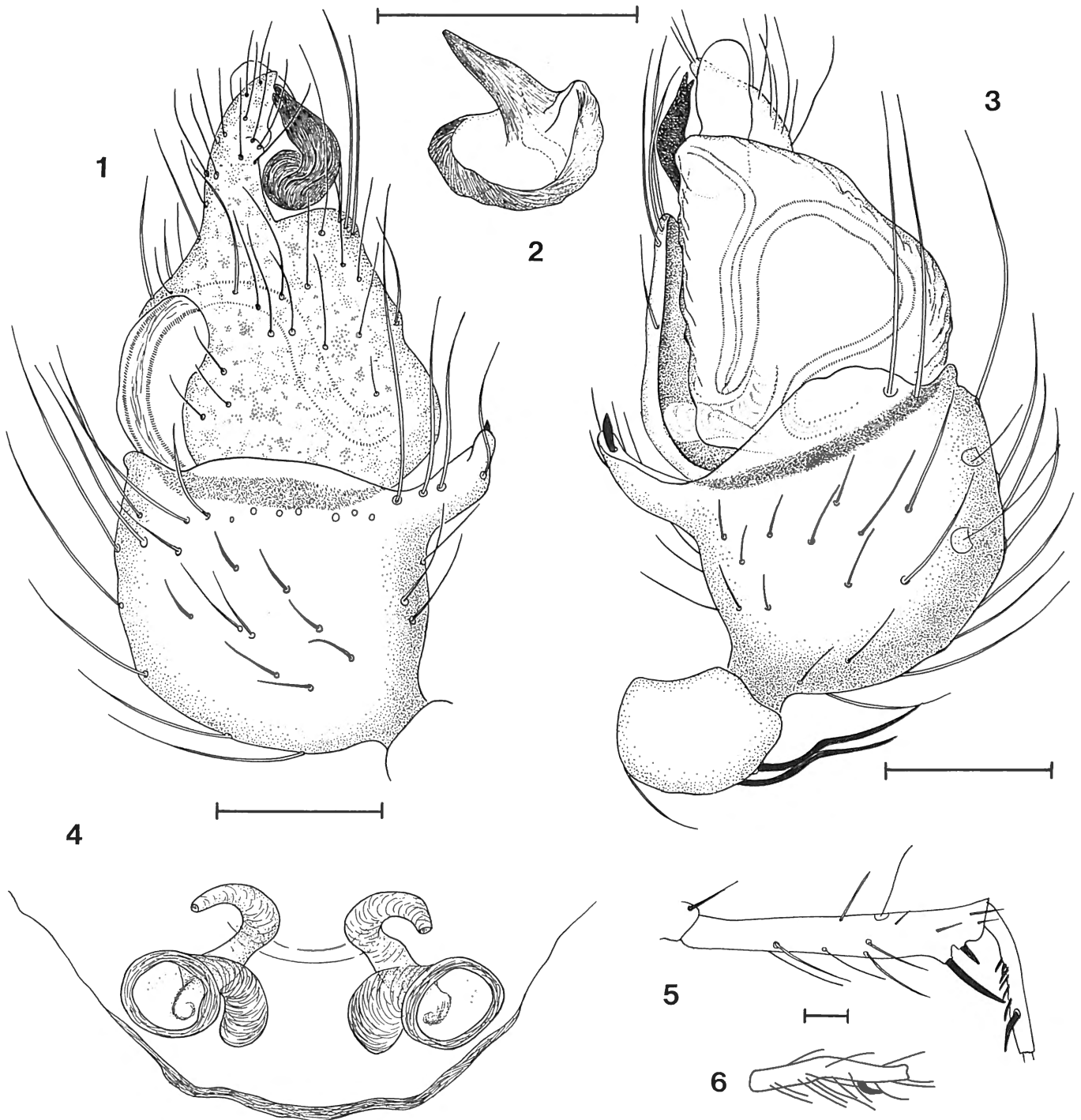
Diagnosis :

Mysmenopsis viracocha may be distinguished from the other *Mysmenopsis* species by the shape of the embolus (Fig. 2), the position of the single cusp on a lobe (Fig. 3) and the configuration of the vulva (Fig. 4).

Male (holotype) :

Total length 1.25. Carapace 0.63 long, 0.53 wide. Carapace olive brown, abdomen grey black with a lattice of four longitudinal and three transverse white bands. Femur I uniform brown; femora II-IV faintly annulated on ventral side; tibiae yellow brown with black ventral side and distal apex; metatarsi yellow with black distal tip; tarsi yellowish. Legs :

	I	II	III	IV
Femur	0.74	0.70	0.53	0.57
Patella	0.22	0.22	0.21	0.17
Tibia	0.67	0.53	0.33	0.43
Metatarsus	0.37	0.38	0.29	0.33
Tarsus	0.42	0.40	0.35	0.42
Total	2.42	2.23	1.71	1.92



Figs. 1-6. – *Mysmenopsis viracocha*, new species. 1. Palp, prolateral view. 2. Embolus. 3. Palp, retrolateral view. 4. Vulva, ventral view. 5. Male tibia and metatarsus I, anterior view. 6. Male metatarsus I, dorsal view. (Scale lines = 0.1 mm).

Tibia I with two ventral distal clasping spurs, metatarsus I with one ventral curved distal spur followed by row of small thick spines (Fig. 5). Ventral ledge of palpal tibia with lobe provided with one cusp (Fig. 4); tibia of more or less spheric shape; cymbium/tibia 1.36; embolus thick and short (Fig. 2).

Female (allotype) :

Total length 1.43. Carapace 0.74 long, 0.56 wide, 0.21 high. Colour as in male. Legs :

	I	II	III	IV
Femur	0.77	0.65	0.59	0.65
Patella	0.27	0.23	0.21	0.21
Tibia	0.65	0.47	0.37	0.45
Metatarsus	0.40	0.40	0.33	0.37
Tarsus	0.43	0.40	0.34	0.35
Total	2.52	2.15	1.84	2.03

Femur I slightly swollen. Vulva as in Fig. 4.

Mysmenopsis pachacutec, new species

Figures 7, 8

Types :

Female holotype from web of Dipluridae : Madre de Dios, Zona Reservada Pakitza (11°58'S, 71°18'W) (1 Oct. 1987; J. CODDINGTON & D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the Inca emperor, Pachacútec.

Diagnosis :

Mysmenopsis pachacutec may be distinguished from the other *Mysmenopsis* species by the spherical spermathecae and the caudal position of the spermducts (Fig. 8).

Male :

Unknown.

Female :

Total length 2.23. Carapace 0.96 long, 0.78 wide, 0.38 high. Carapace chestnut brown suffused with black, margins light brown. Legs yellow brown faintly suffused with black, especially distal tips of tibiae and metatarsi. Abdomen grey black with four faint creamy spots on dorsum and faint creamy pattern on caudum. Legs :

	I	II	III	IV
Femur	0.95	0.87	0.71	0.76
Patella	0.30	0.30	0.25	0.25
Tibia	0.75	0.67	0.46	0.55
Metatarsus	0.62	0.57	0.45	0.52
Tarsus	0.47	0.48	0.45	0.43
Total	3.09	2.89	2.32	2.51

Tibia I moderately swollen. Epigynum and vulva as in Figs 7 and 8.

Mysmenopsis yupanqui, new species

Figures 9-12

Types :

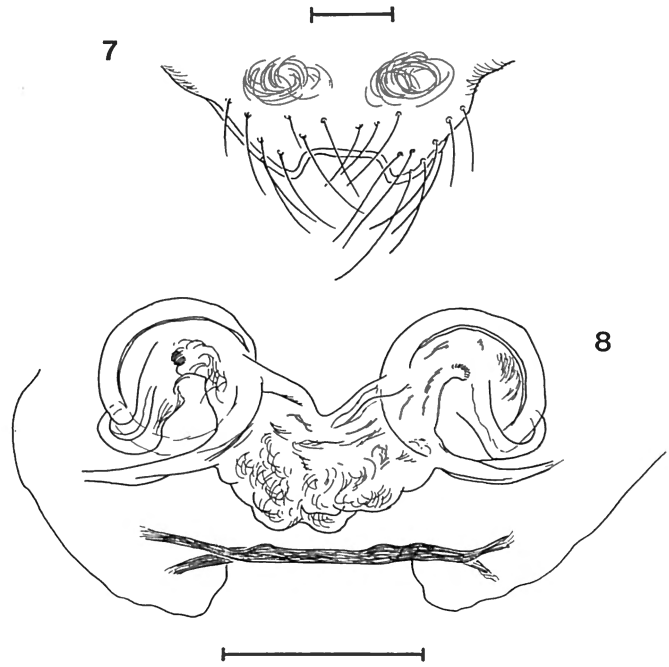
Male holotype and female allotype from Madre de Dios, Zona Reservada Tambopata, Trocha de las Hormigas, alt. 290 m (6 June 1988; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the Inca emperor, Túpac Yupanqui.

Diagnosis :

Mysmenopsis yupanqui is closest to *Mysmenopsis penai*



Figs. 7-8. — *Mysmenopsis pachacutec*, new species. 7. Epigynum, ventral view. 8. Vulva, dorsal view. (Scale lines = 0.1 mm).

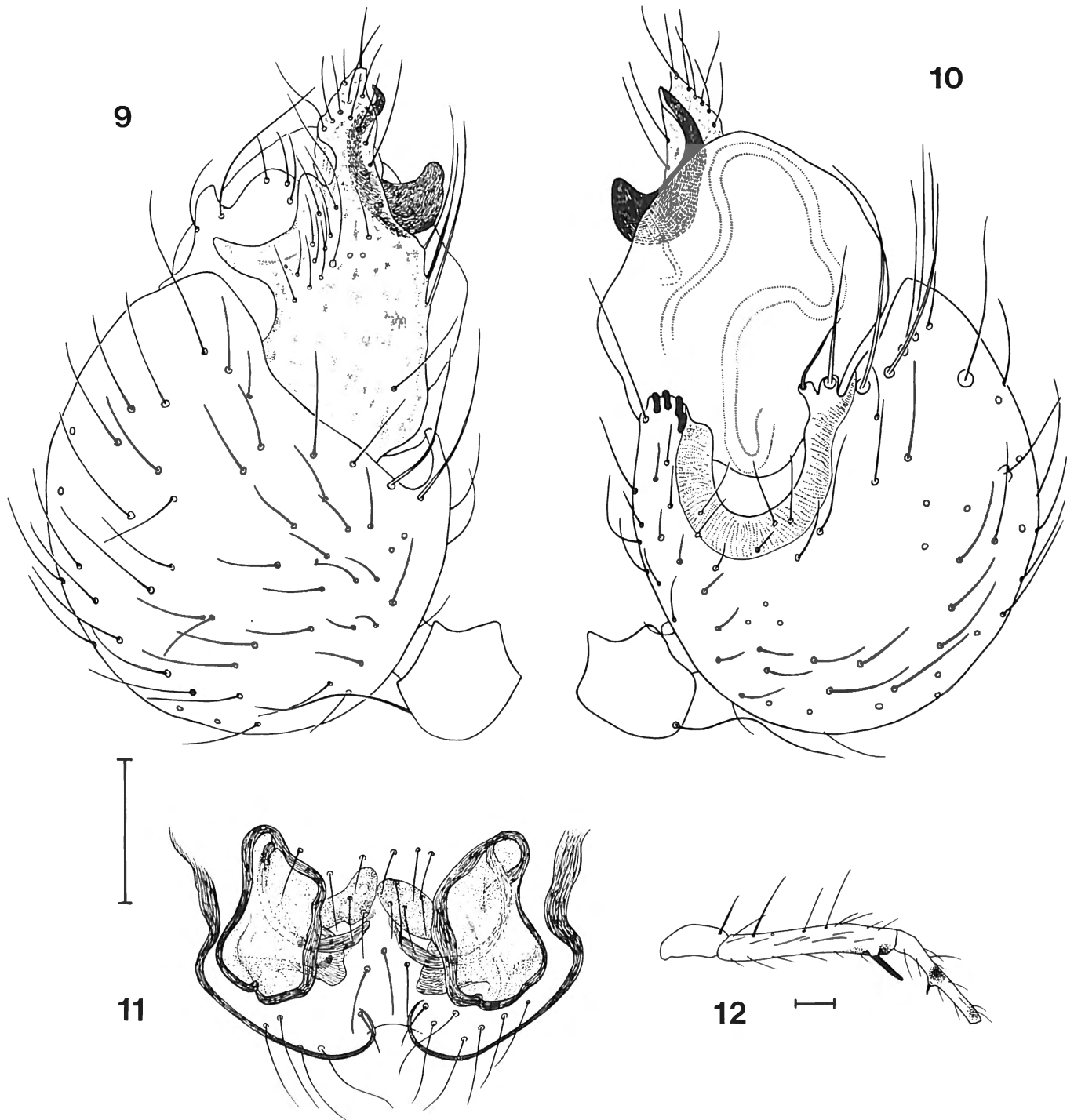
PLATNICK & SHADAB, 1978, but can be differentiated by the more strongly lobated cymbium (Fig. 9), the strong sclerotized retrolateral invagination of the tibial border (Fig. 10), the shape of the cusps and the sickle shaped embolus (Figs 9 & 10) (not bifurcated as in *M. penai*).

Male :

Total length 1.15. Carapace 0.58 long, 0.48 wide, 0.26 high. Carapace light olive brown. Abdomen creamy greyish with white lattic. Legs yellow with faint annulation (visible ventrally); patella with black tip; tibiae and metatarsi with median ventral black patch and distal black ring; tarsi with median black ring. Legs :

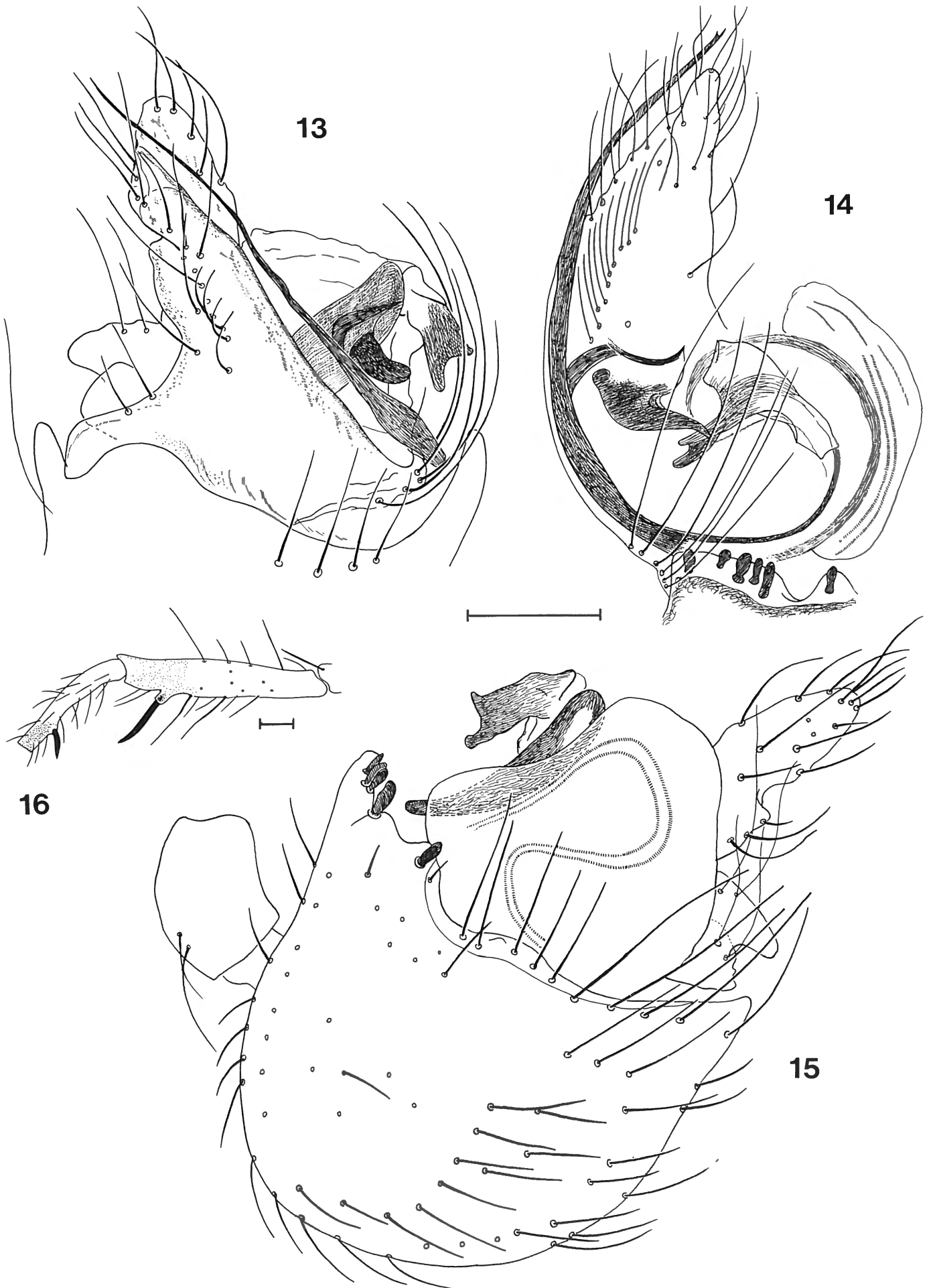
	I	II	III	IV
Femur	0.58	0.50	0.40	0.45
Patella	0.20	0.17	0.17	0.16
Tibia	0.48	0.38	0.24	0.30
Metatarsus	0.36	0.31	0.26	0.29
Tarsus	0.35	0.31	0.29	0.30
Total	1.97	1.66	1.35	1.50

Tibia I with ventral distal clasp spur, metatarsus I with median short spur (Fig. 12). Palpal tibia globose; ventral ledge with four cusps; dorsal border of strong sclerotized retrolateral invagination with two small extensions, each bearing a spine. Embolus sickle-shaped, shorter than tegulum and cymbium (Figs 9 & 10).



Figs. 9-12. – *Mysmenopsis yupanqui*, new species. 9. Palp, prolateral view. 10. Palp, retrolateral view. 11. Vulva, ventral view. 12. Male tibia and metatarsus I, anterior view. (Scale lines = 0.1 mm).

Figs. 13-16. – *Mysmenopsis capac*, new species. 13. Palp, prolateral view. 14. Palp, ventral view. 15. Palp, retrolateral view. 16. Male tibia and metatarsus I, posterior view. (Scale lines = 0.1 mm). ▷



Female :

Carapace 0.58 long, 0.44 wide, 0.23 high. Colour as in male. Legs :

	I	II	III	IV
Femur	0.53	0.48	0.46	0.48
Patella	0.19	0.19	0.16	0.16
Tibia	0.40	0.38	0.26	0.29
Metatarsus	0.37	0.31	0.31	0.31
Tarsus	0.33	0.31	0.29	0.27
Total	1.82	1.67	1.48	1.51

Femur I of normal shape. Epigynal margin medially invaginated. Vulva as in Fig. 11.

Mysmenopsis capac, new species

Figures 13-16

Type :

Male holotype from the web of a *Cyrtophora* species : Madre de Dios, Zona Reservada Tambopata, alt. 290 m (2 May 1988; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the Inca emperor, Huayna Cápac.

Diagnosis :

Mysmenopsis capac can easily be distinguished from the other *Mysmenopsis* species by the localization of the cusps along the ventrolateral ledge (Figs 14 & 15), the very long slender embolus and the numerous sclerotized appendages of the bulbus (Figs 13-15).

Male :

Total length 1.28. Carapace 0.64 long, 0.54 wide, 0.22 high. Carapace olive brown with darker center; eye area slightly elevated. Abdomen grey black with dorsal creamy central area surrounded by six white patches; caudally with transverse white arc running back to spinnerets, turning forward to epigynal fold. Legs yellow; coxae yellow-white; femora yellow, distal tip of femur I strongly suffused with black, femora II-IV with black ring; patellae strongly suffused with black, with yellow area around spine; tibiae and metatarsi yellow with black apex; tarsi yellow. Legs :

	I	II	III	IV
Femur	0.73	0.57	0.41	0.54
Patella	0.27	0.23	0.18	0.19
Tibia	0.57	0.43	0.28	0.38
Metatarsus	0.38	0.37	0.27	0.34
Tarsus	0.43	0.38	0.32	0.34
Total	2.38	1.98	1.46	1.79

Tibia I with clasping spur and two strong spines, metatarsus I with distal clasping spur (Fig. 16). Palpal tibia bulbous with five cusps on retro-ventrolateral ledge (Figs 14 & 15). Embolus long and slender, nearly as long as cymbium (Figs 13 & 14).

Female :

Unknown.

Mysmenopsis huascar, new species

Figures 17-26

Types :

Male holotype and female allotype from web of a diplurid spider species : Madre de Dios, Zona Reservada Pakitza, 11°58'S - 71°18'W (1 Oct. 1987; J. CODDINGTON & D. SILVA). One male (K.B.I.N.) and one female paratypes (1 female in K.B.I.N.) from Loreto, Jenaro Herrera, río Ucayali, 04°55'S - 73°45'W (27 Aug. 1988; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the eldest son of Inca Huayna Cápac, Huáscar, ruler over Cuzco.

Diagnosis :

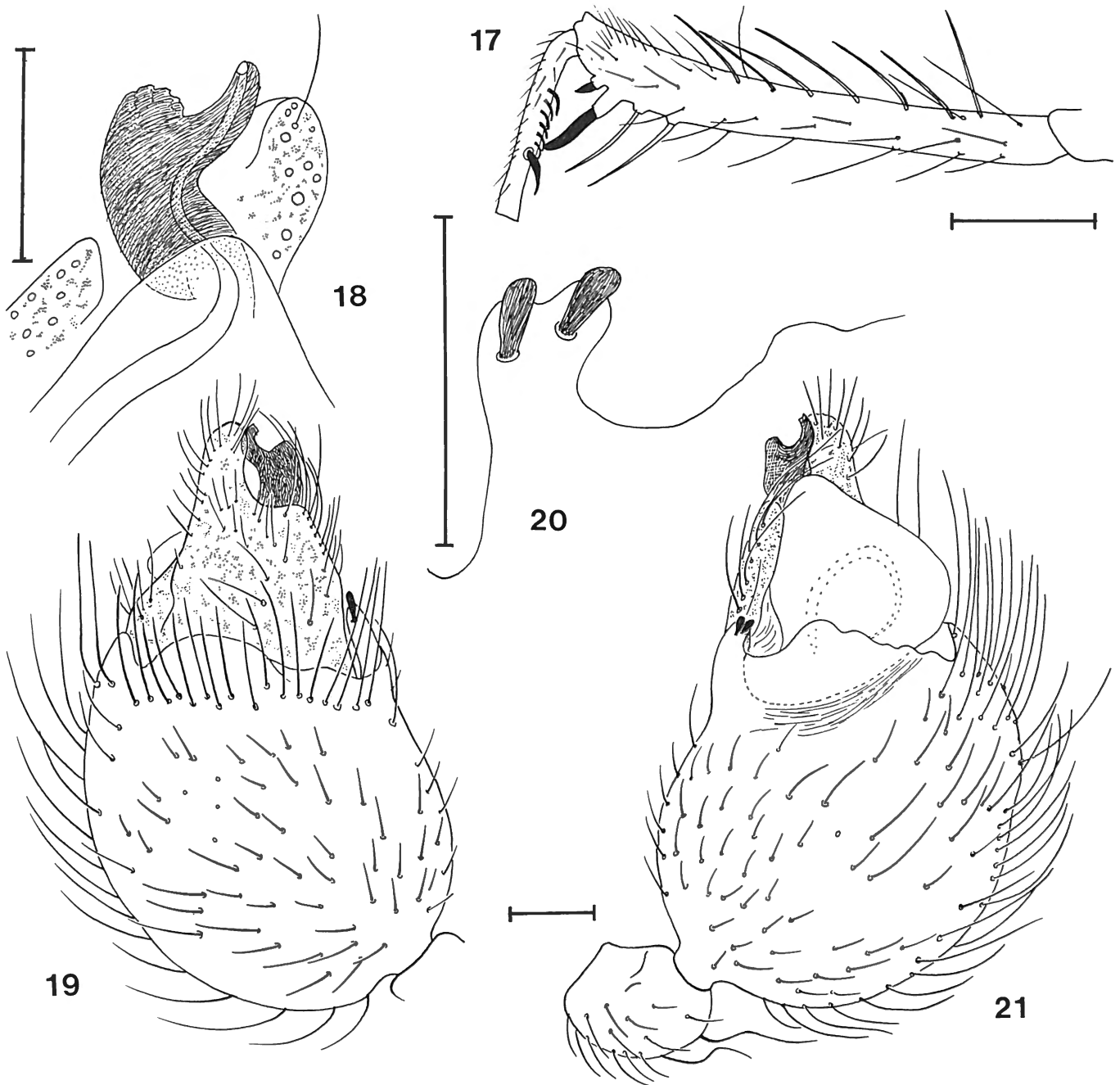
Mysmenopsis huascar seems, from female characters such as the swollen femur I bearing a prolateral tubercle (Fig. 22) and a row of sharp spines on metatarsus I (Fig. 23), closest to *M. schlingeri* (male unknown). The females can however be distinguished from each other by the shape of the spermathecae (Figs 25 & 26).

Male :

Total length 2.23. Carapace 1.14 long, 0.86 wide, 0.45 high. Carapace chestnut brown. Abdomen black with two white backwardly curved bands on dorsum and white broken oval pattern on caudum. Legs yellow brown; coxae yellow; femur I uniform brown, femora II-IV with faint transverse yellow band; tibiae with black distal tip. Legs :

	I	II	III	IV
Femur	1.87	1.53	1.12	1.27
Patella	0.53	0.46	0.36	0.36
Tibia	1.60	1.23	0.76	0.94
Metatarsus	0.67	0.95	0.76	0.85
Tarsus	0.66	0.62	0.57	0.56
Total	5.33	4.79	3.57	3.98

Tibia I with two clasping spurs and two strong spines, metatarsus I with one curved spur and row of strong spines (Fig. 17). Ventral ledge of palpal tibia with small bilobed lobe provided with two cusps (Fig. 14); cymbium/tibia nearly 0.63. Embolus very short (Fig. 18).



Figs. 17-21. – *Mysmenopsis huascar*, new species. 17. Male tibia and metatarsus I, anterior view (Scale line = 0.5 mm). 18. Embolus. 19. Palp, prolateral view. 20. Detail of cusps on ventral ledge of palp. 21. Palp, retrolateral view. (Scale lines = 0.1 mm).

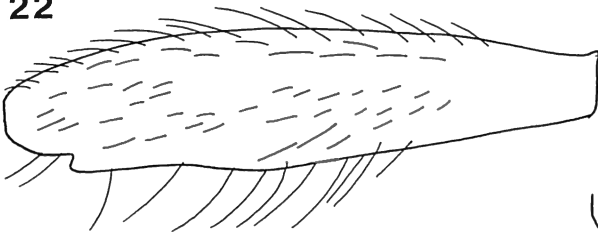
Female :

Total length 2.67. Carapace 1.14 long, 0.87 wide, 0.44 high. Colour as in male except carapace darker. Femora (especially I and II) more strongly suffused with black.

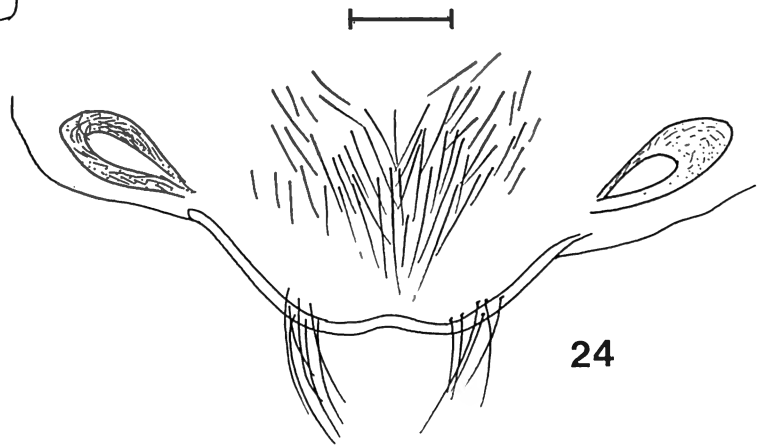
Legs :

	I	II	III	IV
Femur	1.64	1.30	1.11	1.00
Patella	0.47	0.40	0.32	0.32
Tibia	1.32	1.12	0.89	0.71
Metatarsus	0.96	0.93	0.84	0.71
Tarsus	0.64	0.62	0.56	0.50
Total	5.03	4.37	3.72	3.24

22

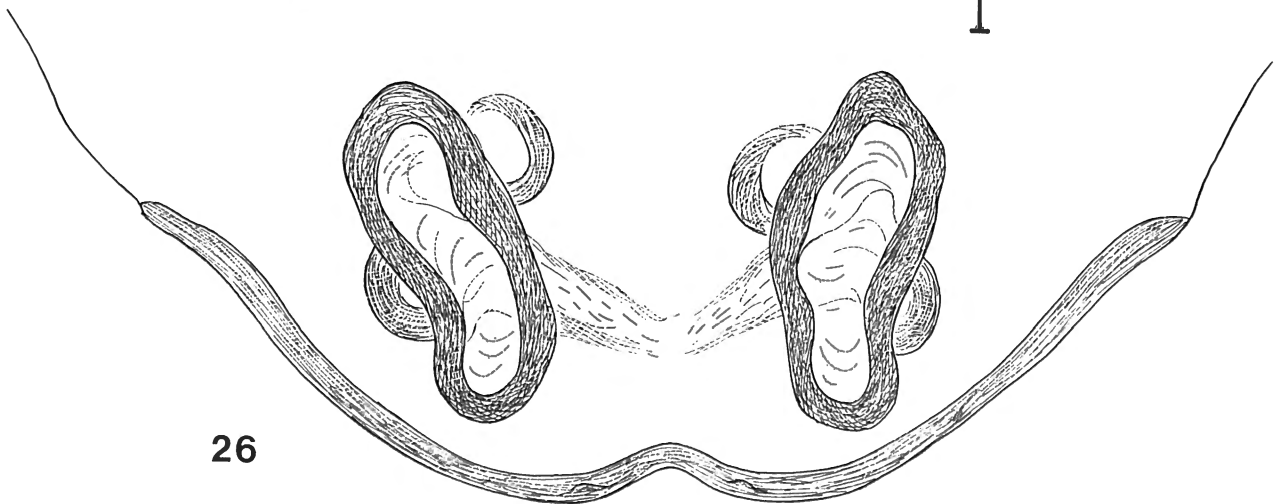
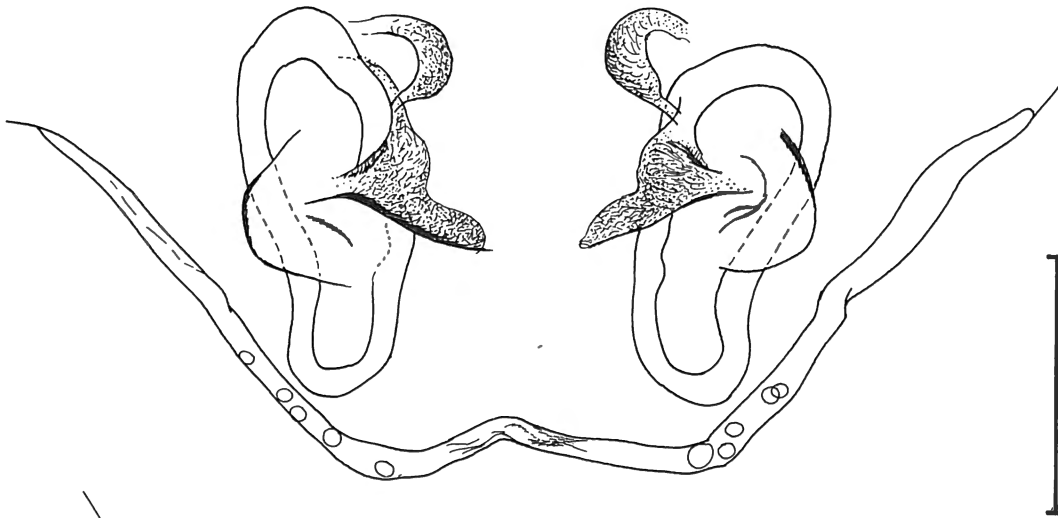


23



24

25



26

Figs. 22-26. – *Mysmenopsis huascar*, new species. 22. Female femur I, posterior view. 23. Female metatarsus I, posterior view. (Scale lines = 0.5 mm). 24. Epigynum, ventral view. 25. Vulva, dorsal view. 26. Vulva, ventral view. (Scale lines = 0.1 mm).

Femur I swollen (less pronounced than in *M. schlingeri*) with ventral distal tubercle (Fig. 22), metatarsus with ventral row of ten short spines (Fig. 23). Vulva as in Figs 24 & 25.

Mysmenopsis atahualpa, new species
Figures 27-32

Types :

Male holotype and female allotype from Loreto, Jenaro Herrera, río Ucayali, 04°55'S - 73°45'W (together with *M. huascar*) (27 Aug. 1988; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the youngest son of Inca Huayna Cápac and brother of Huáscar, Atahualpa, ruler over Quito.

Diagnosis :

Mysmenopsis atahualpa is very close to *M. huascar*, but can easily be distinguished by the embolus shape (Fig. 28), the position of the cusps (Fig. 27), and the vulva (Figs 30 & 31).

Male :

Total length 2.08. Carapace 1.14 long, 0.87 wide, 0.44 high. Carapace light olive brown. Abdomen black with creamy white lattice. Legs yellow-brown with patellae, tibiae and metatarsi very faintly suffused with black at distal tips. Legs very hairy. Legs :

	I	II	III	IV
Femur	1.67	1.34	1.12	1.26
Patella	0.46	0.40	0.32	0.32
Tibia	1.48	1.07	0.65	0.84
Metatarsus	0.68	0.84	0.69	0.81
Tarsus	0.73	0.70	0.53	0.55
Total	5.02	4.35	3.31	3.78

Femur I with two clasping spurs and two strong spines, metatarsus with curved distal spur and row of strong short spines (Fig. 32). Ledge of palpal tibia with lateral and ventral cusps (Fig. 27), tibia more or less elongated. Embolus shorter than cymbium and tegulum; cymbium with a lobe (Fig. 29).

Female :

Total length 2.68. Carapace 1.14 long, 0.87 wide, 0.41 high. Carapace dark olive brown. Legs darker than in male; femora I-III brown, femur IV with broad yellow median band; tibiae yellow with brown venters and distal tip; metatarsi yellow with brown suffused tip; tarsi yellow. Legs :

	I	II	III	IV
Femur	1.62	1.32	0.98	1.13
Patella	0.55	0.45	0.34	0.35
Tibia	1.29	1.00	0.68	0.89
Metatarsus	0.91	0.87	0.68	0.73
Tarsus	0.59	0.57	0.52	0.53
Total	4.96	4.21	3.20	3.63

Femur I moderately swollen with retrolateroventral boss. Metatarsus I with row of ten short spines. Vulva as in Figs 30 & 31.

Mysmenopsis cienaga MÜLLER, 1987
Figures 33-39

Mysmenopsis cienaga MÜLLER, 1987, p.185, figs 1-3 (male holotype from Ciénaga Grande de Santa Marta near Tasajera, northern Colombia, in Senckenberg Museum Frankfurt, examined).

Diagnosis :

Mysmenopsis cienaga seems closest to *M. funebris* in male and female characters, but can be distinguished by the embolus shape (Fig. 34), the tibial ledge (Figs 33 & 35), and the spherical spermathecae (Fig. 37).

Male :

Described by MÜLLER (1987).

Female :

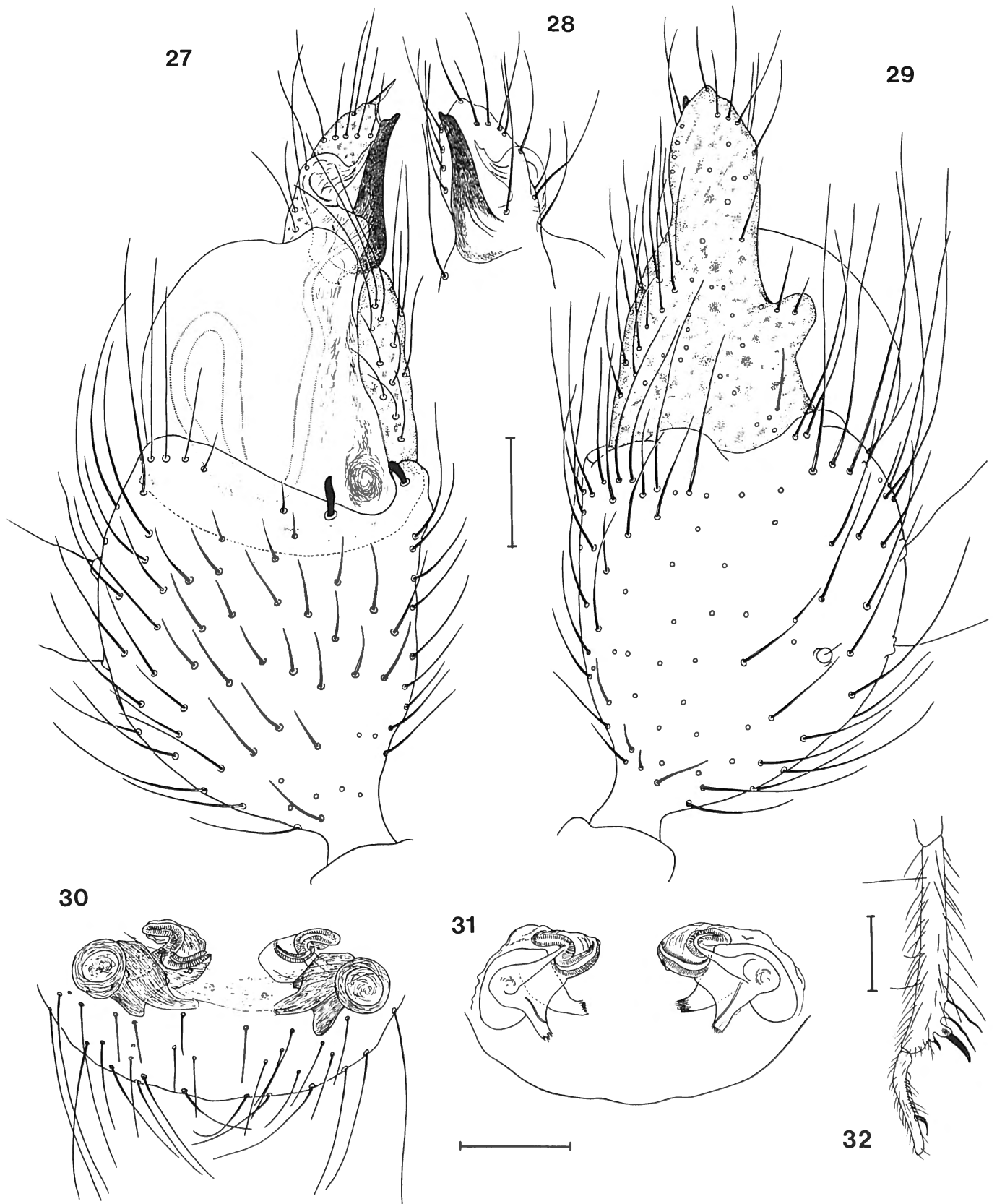
Total length 1.53. Carapace 0.70 long, 0.52 wide, 0.26 high. Carapace light olive brown. Abdomen black with pattern of small white patches arranged in radiating figure : two parallel median rows on dorsum, four rows on caudum, sides with radiating rows. Legs olive brown; tibiae III, IV with faint annulation; metatarsi and tarsi with yellow/olive brown annulation. Legs :

	I	II	III	IV
Femur	0.69	0.66	0.55	0.69
Patella	0.26	0.26	0.20	0.21
Tibia	0.54	0.48	0.35	0.40
Metatarsus	0.50	0.48	0.38	0.43
Tarsus	0.38	0.34	0.31	0.30
Total	2.37	2.22	1.79	2.03

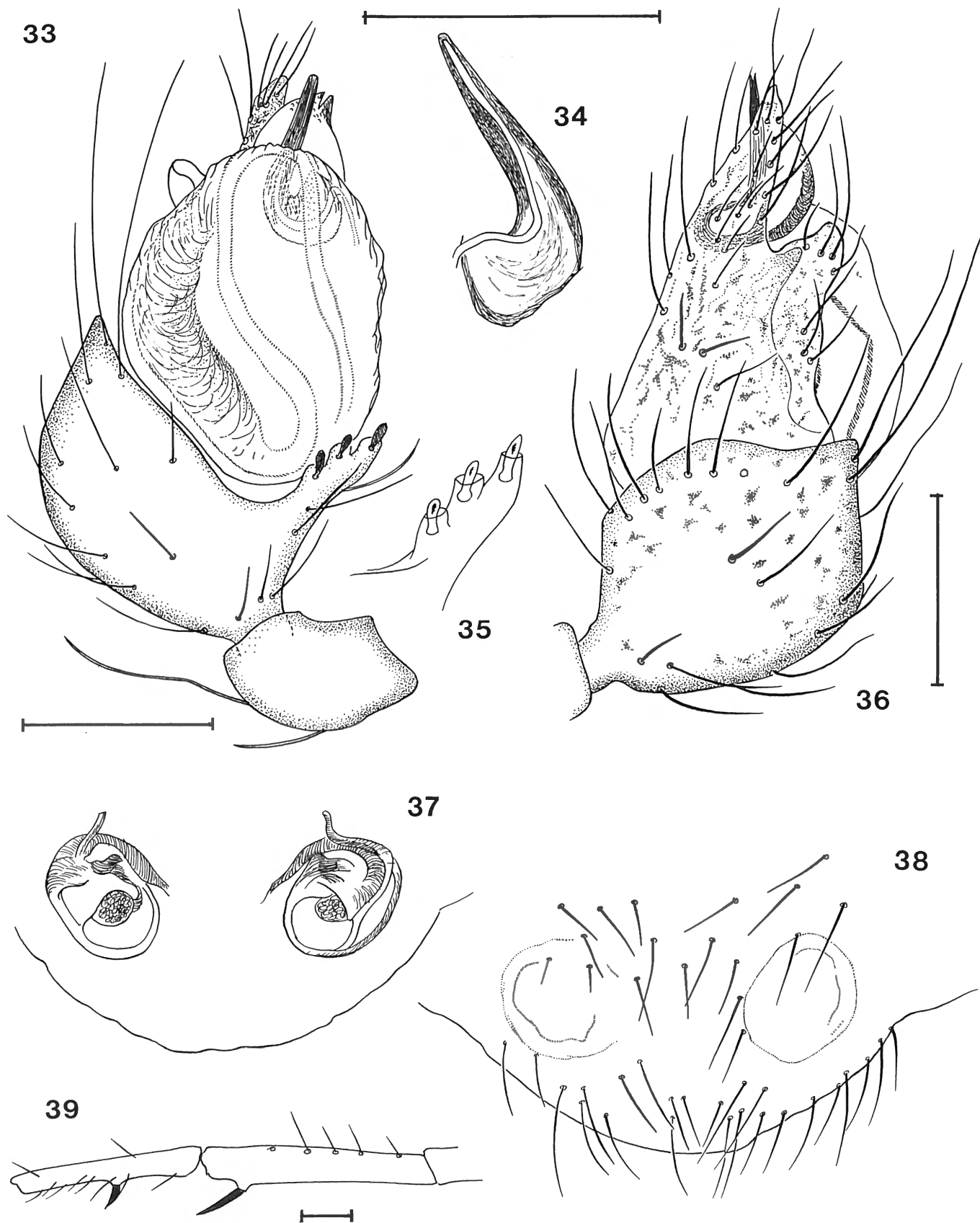
Femur I normal. Vulva with spherical spermathecae, as in Figure 37.

Material examined :

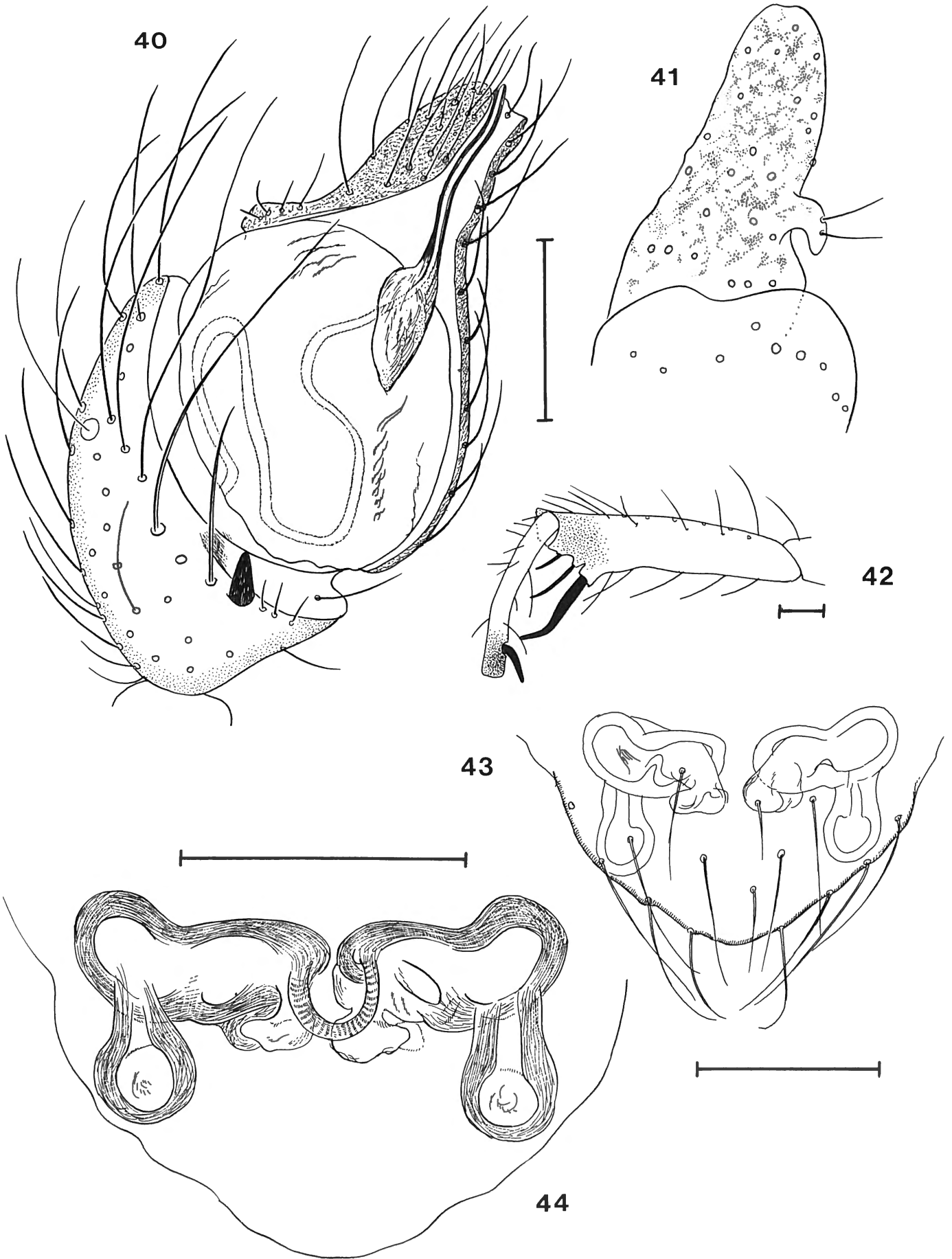
Peru : Madre de Dios, Zona Reservada Tambopata, alt. 290 m, Trocha Cocococha (5 Apr. 1988; D. SILVA), 1 ♂;

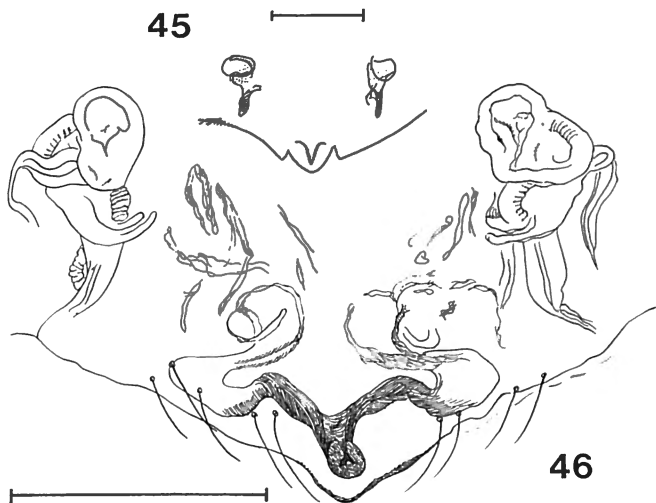


Figs. 27-32. – *Mysmenopsis atahualpa*, new species. 27. Palp, retrolateral view. 28. Embolus. 29. Palp, prolateral view. 30. Vulva, ventral view. 31. Vulva, dorsal view. (Scale lines = 0.5 mm). 32. Male tibia and metatarsus I, posterior view. (Scale line = 0.1 mm).



Figs. 33-39. – *Mysmenopsis cienaga* MÜLLER. 33. Palp, retrolateral view. 34. Embolus. 35. Detail of cusps. 36. Palp, prolateral view. 37. Vulva, dorsal view. 38. Vulva, ventral view. 39. Male tibia and metatarsus I, posterior view. (Scale lines = 0.1 mm).





Figs. 45-46. – *Maymena roca*, new species. 45. Epigynum, ventral view. 46. Vulva, ventral view. (Scale lines = 0.1 mm).

ibid. from web of a *Cyrtophora* species (2 May 1988; D. SILVA), 3 ♀♀, 1 ♂.

***Mysmenopsis ischnamigo* PLATNICK & SHADAB, 1978**
Figures 40-44

Mysmenopsis ischnamigo PLATNICK & SHADAB, 1978, p. 7, figs 10-15 (male holotype and female paratype from Cerro Galera, Canal Zone, Panama, in American Museum Natural History New York, examined).

Material examined :

Peru : Madre de Dios, Zona Reservada Pakitza, 11°58'S - 71°18'W (6 Oct. 1987; J. CODDINGTON & D. SILVA), 5 ♂♂, 3 ♀♀, SA ♂, 3j. ♀♀.

Genus *Maymena* GERTSCH, 1960

***Maymena roca*, new species**

Figures 45-46

Types :

Female holotype and four female paratypes (2 females in K.B.I.N.) from San Martín, Parque Nacional, Río Abiseo, Puerta del Monte, alt. 3300 m (14 Feb. 1988; D. SILVA).

Etymology :

The specific name is a noun in apposition taken from the name of the Inca emperor, Inca Roca.

Diagnosis :

Maymena roca can be distinguished from the other *Maymena* species (cfr. GERTSCH, 1960) by the position of the spermatheca and the fused terminal parts of the sperm ducts (Figs 45, 46).

Male :

Unknown.

Female :

Total length 0.91 (variation : 0.80-1.06). Carapace 0.36 long, 0.33 wide, 0.15 high (highest point in posterior half). Carapace yellow-brown with black suffused striae. Abdomen creamy, suffused with grey black; dorsum with pattern of eight white spots; creamy venter and caudum separated from dorsum by a white band. Legs yellow brown.

	I	II	III	IV
Femur	0.36	0.31	0.21	0.29
Patella	0.16	0.13	0.12	0.13
Tibia	0.24	0.19	0.13	0.16
Metatarsus	0.18	0.18	0.13	0.20
Tarsus	0.20	0.20	0.17	0.16
Total	1.14	1.01	0.76	0.94

Median ocular quadrat broader than long, broader in front. Anterior median and posterior median eyes large; anterior medians black; posterior eyes equidistant, separated by half their diameter; anterior median eyes separated by slightly more than their diameter, overhanging clypeus. Area between anterior median eyes and clypeus depressed. Clypeus slightly longer than diameter of anterior median eyes. Vulva as in Fig 46.

Acknowledgments

I wish to thank Gerardo LAMAS (Director) and Diana SILVA of the Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos, Lima - Peru, for sending me their mysmenid material and giving me so the opportunity to study it. I also wish to thank Dr. N. PLATNICK for reading critically the manuscript and the loan of *Mysmenopsis* types, Dr. M. GRASSHOFF for the loan of *Mysmenopsis* types, and Mrs K. BOUCKAERT for the final drawings.

Fig. 40-44. – *Mysmenopsis ischnamigo* PLATNICK & SHADAB. 40. Palp, retrolateral view. 41. Cymbium, prolateral view. 42. Male tibia and metatarsus I, posterior view. 43. Epigynum and vulva, ventral view. 44. Vulva, dorsal view. (Scale lines = 0.1 mm).

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LÉON BAERT
Departement Entomologie
Koninklijk Belgisch Instituut
voor Natuurwetenschappen
Vautierstraat 29
B-1040 Brussel,
Belgium