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## A Revision of the *celer* Group of the Spider Genus *Anyphaena* (Araneae, Anyphaenidae) in Mexico and Central America

NORMAN I. PLATNICK<sup>1</sup> AND AMELIA LAU<sup>2</sup>

### ABSTRACT

The 26 species of the *celer* group of *Anyphaena* known from Mexico and Central America are diagnosed and described. Modifications of the leg spination pattern and of genitalic sclerites are discussed. The use of claw tuft structure as a diagnostic character of the Anyphaenidae is investigated with scanning electron microscopy; differences from the Clubionidae in the number and orientation of the component setae are

demonstrated. Fourteen new species are described: *alamos*, *cielo*, *cortes*, *cumbre*, *encino*, *felipe*, *morelia*, *obregon*, *otinapa*, *salto*, *tancitaro*, *tehuacan*, *wanlessi*, and *xochimilco*. *Anyphaena excepta* O. P.-Cambridge is newly synonymized with *subgibba* O. P.-Cambridge. The females of *gibba* O. P.-Cambridge, *plana* F. O. P.-Cambridge, and *trifida* F. O. P.-Cambridge are described for the first time.

### INTRODUCTION

Platnick (1974) established the *celer* group of *Anyphaena* for a compact series of 13 species from the United States. The present paper completes coverage of the group, which is known from New England west to California and south to Panama, with a single species on the Revilla Gigedo Islands, approximately 300 miles off the west coast of Michoacán, Mexico. Species belonging to the *celer* group may be easily recognized by the long ventral prong of the retrolateral tibial apophysis (fig. 24), the presence of a retrolateral tegular apophysis (fig. 23), and the characteristic epigynum consisting of a hood, midpiece, and two sidepieces (fig. 25). A total of

34 species are now known; most occur in the mountainous regions of southeastern Arizona and northern and central Mexico. The richness of species is apparently due at least in part to the isolation of populations on individual mountain ranges.

*Leg spination.* Forster and Wilton (1973, figs. 2-5) presented illustrations of what they regard as the "basic" leg spination pattern within the superfamily Amaurobioidea, in which they include the Anyphaenidae. In standard descriptive form this pattern is: femur d1-1-1, p0-1-2, r0-1-1; patella d1-0-1; tibia d1-0-1, p1-1-1, v2-2-2, r1-1-1; metatarsus d1-0-0, p0-0-1, v2-2-1, r0-0-1.

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They stated that deviations from this pattern are generally the result of reduction in the number of spines, and that ranked from most to least conservative, the legs are III, IV, II, and I.

Species of the *celer* group of *Anyphaena* fit reasonably well within this pattern, but there are some noticeable discrepancies. The second, ventrally situated prolateral femoral spine is never present, and the middle prolateral and retrolateral spines are usually not present on femora II through IV. The dorsal patellar spines are reduced to bristles; patellae III and IV usually have instead a middle retrolateral spine, common in both the Anyphaenidae and Gnaphosidae. The most striking modification of the spination pattern in the *celer* group is the doubling of the ventral spination on tibiae I and II, which usually have eight (but can have up to 10) ventral spines. In addition, metatarsi III and IV have greatly increased prolateral and retrolateral spination, usually with single proximal and median spines and two very closely spaced distal spines.

Of interest is the modification of the proximal and middle spines on the retrolateral side of the ventral series of tibia III in many *celer* group males. These spines are often shortened, thickened, and conelike (fig. 3), and it is reasonable to assume that they perform some clasping function during mating. Males with these modified spines often have some or all of their coxae coated with thick, cusplike setae (fig. 2); those on coxae III are often elevated on a knob (fig. 1). These short setae closely resemble cusps from the legs of *Trachelas* (Platnick and Shadab, 1974, fig. 43) and the maxillae of *Dugesia* (Foelix and Chu-Wang, 1973a, fig. 9).

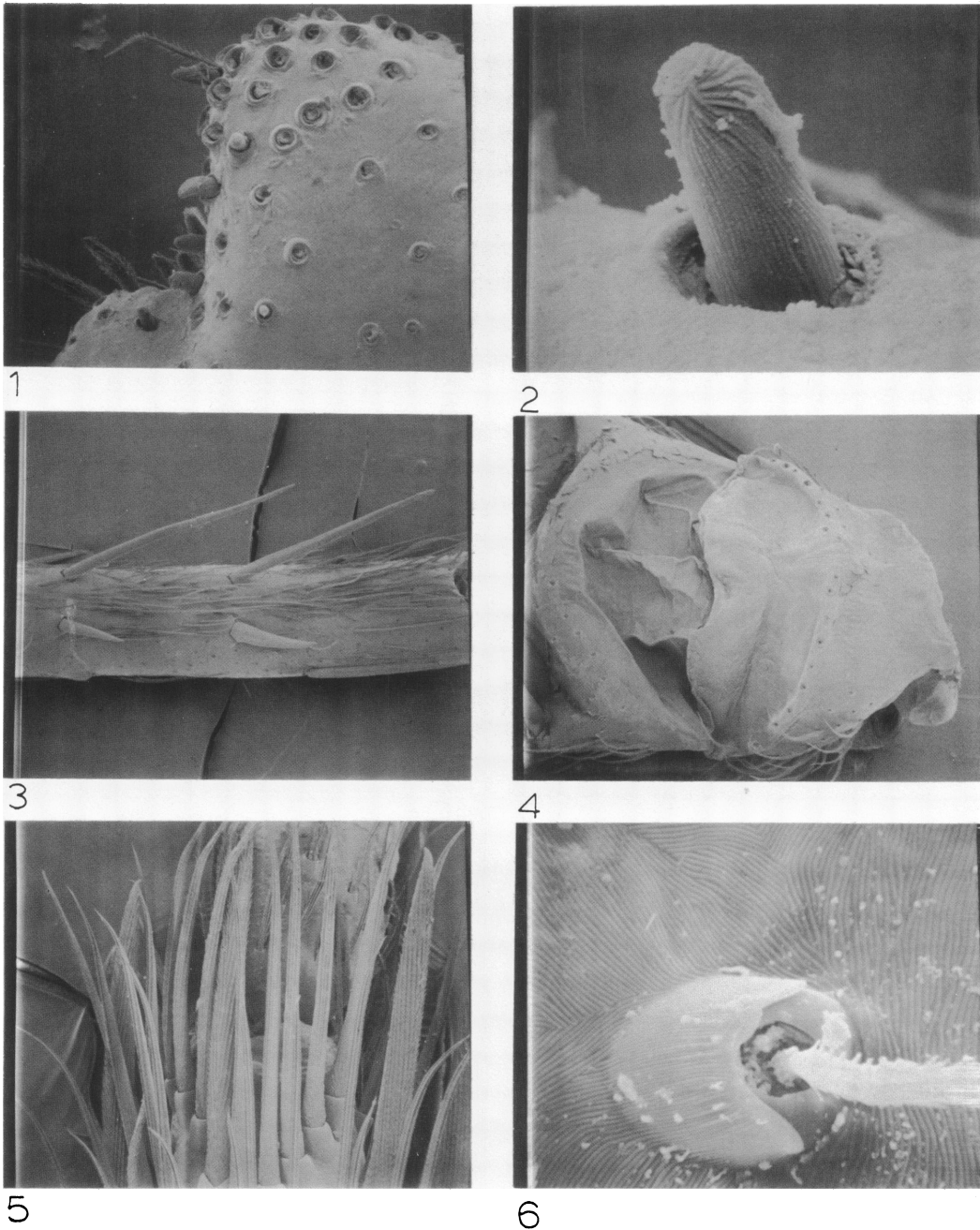
*Genitalic sclerites.* The terms employed below to designate individual genitalic sclerites are used for their convenience in description, and are not meant to imply homologies with similarly named structures in other groups of spiders. As Forster has pointed out (*in litt.*), in the *celer* group the functional conductor of the long embolus is probably just the tip of the cymbium, and not the short, bent structure so named because of its proximity to the embolus; similar arguments could be made against the use of these terms in any spider group. Usage here follows that of Platnick (1974, text-fig. 3).

The tibia of the male palp bears a ventral en-

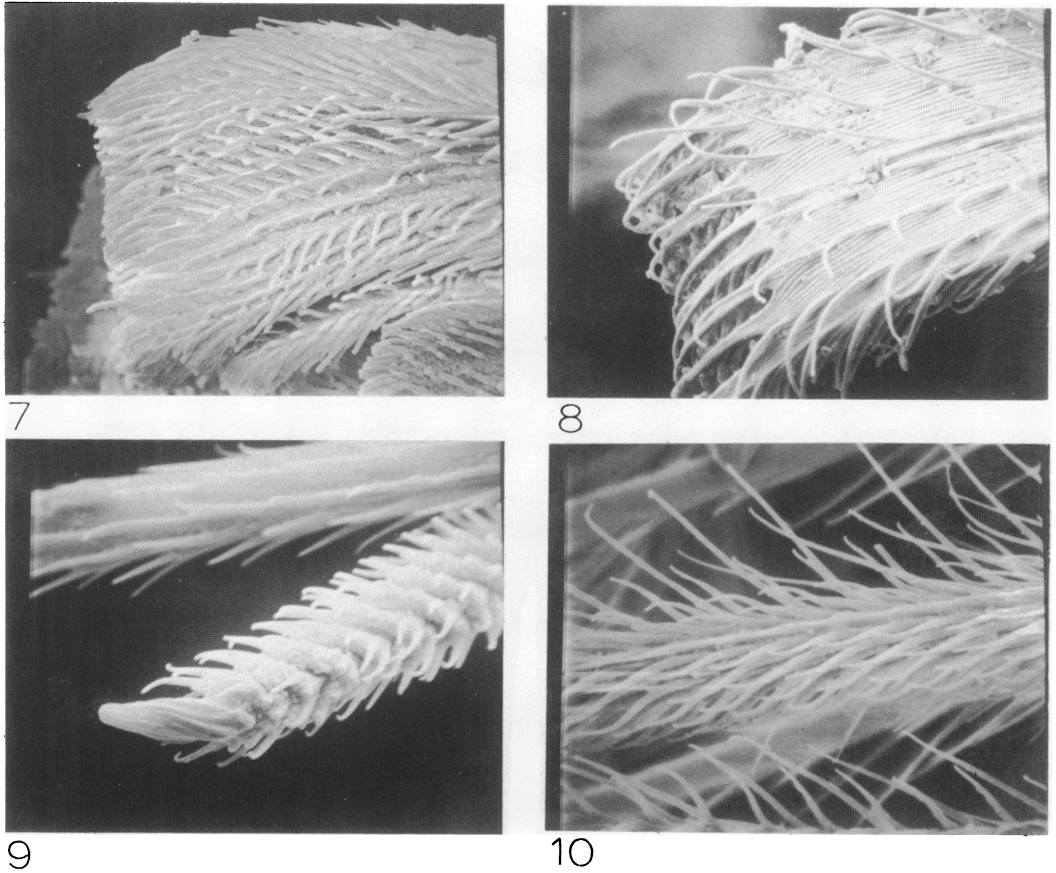
largement and a retrolateral apophysis. The enlargement is usually situated basally, but in *gibbosa*, *encino*, *tancitaro*, *felipe*, *tehuacan*, *wanlessi*, and *gibba* it is shifted apically (as in fig. 56). The retrolateral apophysis is usually bifid with an elongate ventral prong; although the shape of the dorsal prong is species-specific, seven general types can be distinguished. In *celer*, *maculata*, *crebrispina*, *hespar*, *subgibba*, and *xochimilco* the dorsal prong has a single sharp point (as in fig. 40); *dixiana*, *rita*, *cielo*, *gibbosa*, *cortes*, and *tehuacan* have a broad, laterally expanded, platelike dorsal prong (as in fig. 24); the dorsal prong has proximal and distal points (as in fig. 92) in *judicata*, *trifida*, *encino*, *obregon*, and *felipe*, an elongate basal hook (as in fig. 84) in *autumna* and *salto*, and two hooks (as in fig. 28) in *arbida* and *catalina*; in *marginalis*, *gibboides*, *cochise*, *morelia*, *cumbre*, and *gibba* the dorsal prong is reduced to a narrow ledgelike strip (as in fig. 44), and in *tancitaro*, *wanlessi*, and *plana* it is a rounded knob (as in fig. 80).

The palpus consists of a cymbium containing a bulb composed of a rounded, prolateral subtegulum, a tegulum bearing on its ventral surface an elongate median apophysis and a retrolateral tegular apophysis, a narrow, bent conductor originating from a sclerotized plate situated between the median apophysis and the retrolateral tegular apophysis, and a long, curved embolus. The subtegulum and tegulum are relatively standardized, although in *salto* and *judicata* the basal tip of the tegulum is prolonged prolaterally into a distinct beak (figs. 83, 91). The shape of the median apophysis is also species-specific; the tip is usually smooth and elongated but may be lobed (*cortes* and *cumbre*, figs. 59, 63) or recurved (*tehuacan*, *wanlessi*, and *gibba*, figs. 99, 103, 107). The retrolateral tegular apophysis varies in width and angle; in *cielo*, *catalina*, *subgibba*, and *trifida* the tip is recurved (as in fig. 24). Both the length of the conductor and the location of its bend vary greatly. The embolus is typically twisted and narrow; in *rita*, *autumna*, and *cochise* it is greatly widened (as in fig. 47).

The size and shape of the epigynal hood and midpiece are species-specific; the hood is occasionally reduced (*crebrispina*) or expanded (*gibba*, fig. 109). The sidepieces may be straight or curved and are sometimes greatly widened.



FIGS. 1-6. *Anyphaena judicata* O. P.-Cambridge, male, scanning electron micrographs. 1. Coxa III, posterior view, showing coxal knob and cusplike setae, 480X. 2. Cusplike seta from coxal knob, posterior view, 4900X. 3. Tibia III, ventral view, showing modified ventral spines, 100X. 4. Trochanter III, ventral view, showing notch, 210X. 5. Tip of metatarsus III, ventrolateral view, showing preening comb, 500X. 6. Tarsus III, dorsal view, showing base of trichobothrium, 4700X.



FIGS. 7-10. Types of setae found in claw tufts, scanning electron micrographs. 7. Dense side of lamelliform seta, *Anyphaena celer*, 2380X. 8. Ridged side of lamelliform seta, *Clubiona obesa*, 6000X. 9. Foreground: spikelike seta with whorled microsetae; background: typical spikelike seta, *Strotarchus piscatorius*, 6000X. 10. Spikelike seta with elongate microsetae, *Agroeca ornata*, 4750X.

The spermathecae may be simple and rotund (as in fig. 26), fused together (as in fig. 78), or modified with a dorsal lobe (as in fig. 30).

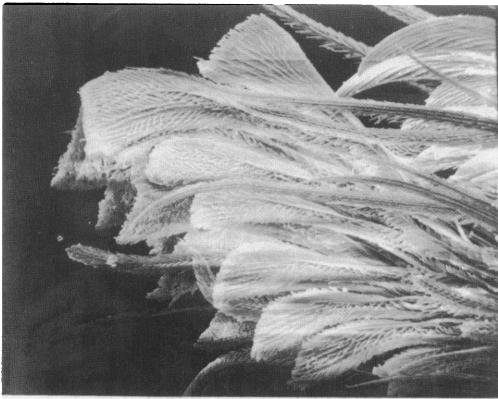
**Claw tufts.** Several authors have used the structure of the claw tufts to distinguish the Anyphaenidae from the Clubionidae. To test the validity of this character, preparations of the fourth tarsus of a representative series of genera from both families were examined with the scanning electron microscope. Thirteen species were utilized: the anyphaenids *Anyphaena celer*, *Aysha velox*, and *Wulfila saltabunda*, and the clubionids *Clubiona obesa*, *Chiracanthium mildei*, *Strotarchus piscatorius*, *Trachelas tran-*

*quillus*, *Castianeira cingulata*, *Corinna bicarata*, *Liocranoides sober*, *Agroeca ornata*, *Phrurotimpus alarius*, and *Scotinella redempta*. Two to four preparations of each species were used; control samples showed no sexual dimorphism. The results indicate that although the basic structure of the claw tufts is similar in anyphaenids and typical clubionids, there is a sharp dichotomy between the two groups in the number and orientation of the component setae.

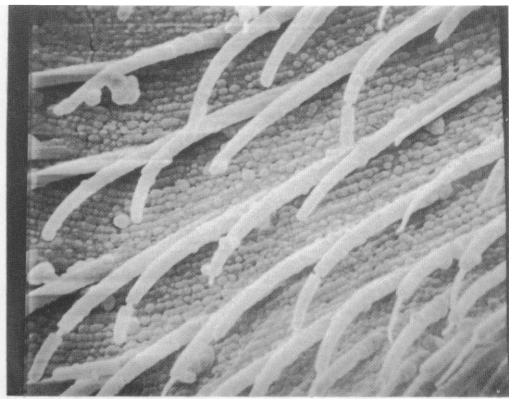
The claw tufts in these groups seem to be composed of two types of setae: flattened, lamelliform setae that are much wider distally than proximally (fig. 11), and rounded, spikelike setae

that do not increase in width distally (fig. 21). The lamelliform setae are found only in the claw tufts and originate from the tip of the tarsus, whereas the spikelike setae are also found among the scopula hairs and in most cases originate from the side or bottom of the tarsus. The lamelliform setae have a dense side with numerous microsetae (fig. 7) and a ridged side with few microsetae (fig. 8), and would seem to be tactile in function. The spikelike setae often have the blunt tips and whorled arrangement of microsetae (fig. 9) characteristic of chemosensitive hairs in spiders (Foelix and Chu-Wang, 1973b).

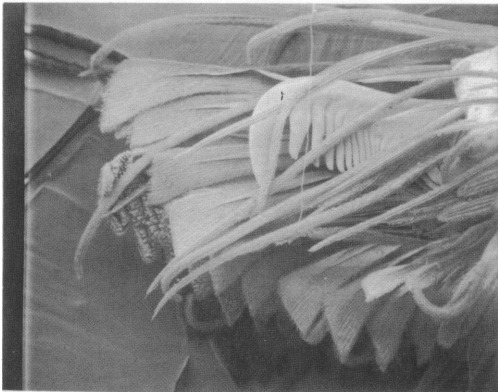
In the anyphaenids the claw tuft is composed of a few spikelike setae and proteral and retro-lateral rows of five to 10 lamelliform setae, each with the ridged side directed outward (figs. 11, 13, 14). In *Clubiona* and its relatives, on the other hand, there are 30 or more lamelliform setae closely packed together, each with the ridged side directed dorsally (figs. 15-18). Thus, although the setae themselves are structurally similar, the differences in number and orientation produce, at low magnification, the disparate appearances diagrammed by Platnick (1974, text-figs. 1, 2).



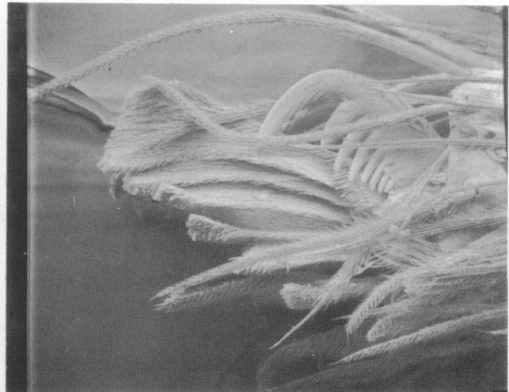
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FIGS. 11-14. Claw tufts of anyphaenids, scanning electron micrographs, lateral views of tarsi IV. 11. *Anyphaena celer*, showing ridged sides of lamelliform setae of one row and tips of dense sides of lamelliform setae of second row; 580X. 12. *Anyphaena celer*, showing microsetae of ridged side of lamelliform seta; 5800X. 13. *Aysha velox*, showing ridged and dense sides of lamelliform setae and dentate tarsal claw; 250X. 14. *Wulfilia saltabunda*; note origin of spikelike setae on side rather than tip of tarsus; 610X.



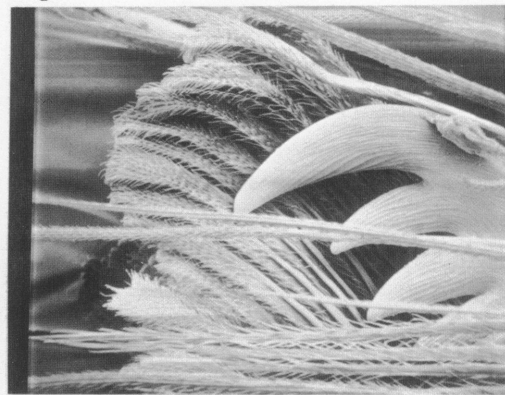
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FIGS. 15-18. Claw tufts of typical clubionids, scanning electron micrographs, lateral views of tarsi IV; note dorsoventral orientation and close packing of lamelliform setae. 15. *Clubiona obesa*, 600X. 16. *Chiracanthium mildei*, 600X. 17. *Castianeira cingulata*, 1180X. 18. *Trachelas tranquillus*, 600X.

Although the claw tufts of *Chiracanthium*, *Trachelas*, *Castianeira*, *Corinna*, and *Liocranoides* show no significant differences from those of *Clubiona*, those of *Scotinella* (fig. 19) have a greatly reduced number of lamelliform setae, and those of *Strotarchus*, *Agroeca*, and *Phrurotimpus* (figs. 20-22) have no lamelliform setae at all, although their spikelike setae sometimes have elongated microsetae (fig. 10). These differences support the contention that the classical family Clubionidae is polyphyletic and should be split.

Now that the separation of anyphaenid claw tufts from those of the Clubionidae has been confirmed, future work should aim at comparing

the claw tufts of the various groups included by Forster and Wilton in the Amaurobioidea, to see how widespread the anyphaenid-like arrangement is, and how useful this character may be for spider classification at the family level and above.

#### Methods

Format of the descriptions follows that of Platnick and Shadab, 1975. Discrepancies from the typical leg spination pattern are given in the individual descriptions. As most of the species considered are known from few specimens, complete locality data is provided. Matching of sexes from allopatric areas has been attempted by

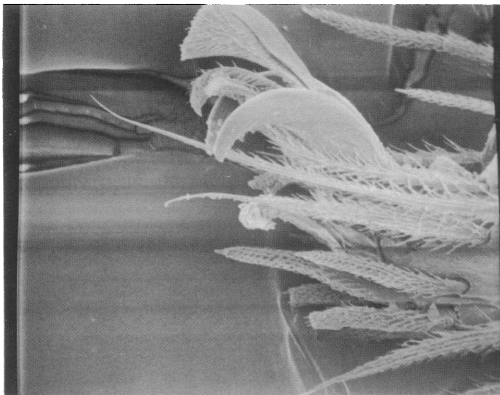


searching for sister species within each sex; if one pair of these has been collected together, the other pair can reasonably be associated as well. While future collecting may reveal errors in a few of these associations, this procedure seems biologically more coherent than assigning each sex to a separate species. The senior author has been responsible for the taxonomic analysis and the preparation of the text, and the junior author for the illustrations.

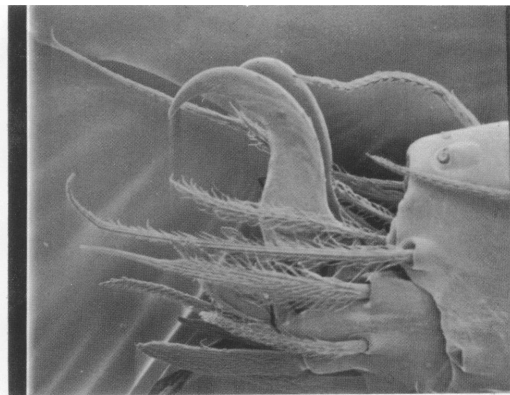
#### Acknowledgments

The present study is based largely on the collection of the American Museum of Natural His-

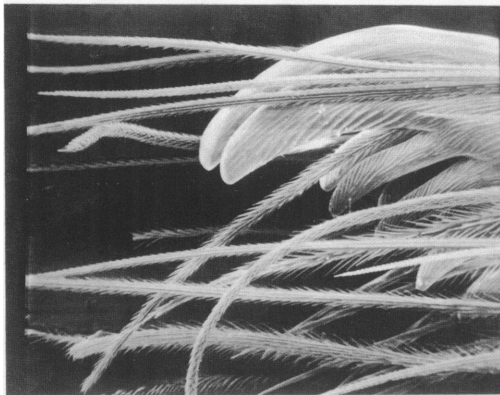
tory (AMNH); specimens were also obtained from Dr. J. A. Beatty (CJAB), Dr. H. W. Levi of the Museum of Comparative Zoology, Harvard University (MCZ), and Mr. F. R. Wanless of the British Museum (Natural History), London (BMNH), to each of whom we are grateful. Dr. J. Gruber of the Naturhistorisches Museum, Vienna, and Dr. J. Cooreman and Mr. J. Kekenbosch of the Institut Royal des Sciences Naturelles de Belgique, Brussels, lent types that proved to be members of other species groups but had to be examined for purposes of nomenclature. We are grateful to Dr. M. U. Shadab of the American Museum of Natural History for contributing a few of the illustrations, and to Mr.



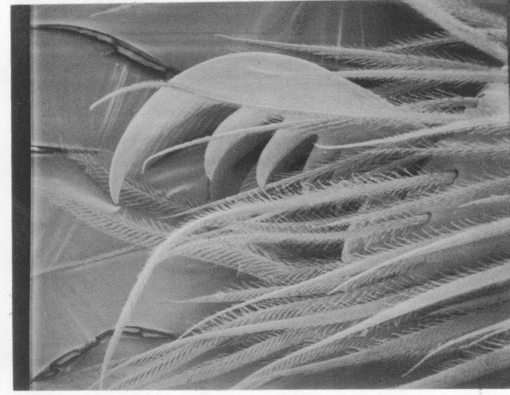
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FIGS. 19-22. Claw tufts of atypical clubionids, scanning electron micrographs, lateral views of tarsi IV; note reduced number or absence of lamelliform setae and presence of spikelike setae with elongate microsetae. 19. *Scotinella redempta*, 980 $\times$ . 20. *Phrurotimpus alarius*, 950 $\times$ . 21. *Strotarchus piscatorius*, 600 $\times$ . 22. *Agroeca ornata*, 470 $\times$ .

R. J. Koestler, also of the American Museum, for his able assistance with the scanning electron microscope, a Cambridge Scientific Instruments Model S-4 purchased with the aid of a grant from the National Science Foundation.

### THE *CELER* GROUP

*Diagnosis.* Species of *Anyphaena* belonging to the *celer* group may be recognized by the long ventral prong of the bifid retrolateral tibial apophysis (fig. 24), the retrolateral tegular apophysis (fig. 23), and the hood, midpiece, and two sidepieces of the epigynum (fig. 25).

*Description.* Total length 3.0-8.2 mm. Carapace oval in dorsal view, widest at coxae II, narrowed anteriorly, pale orange with two dark longitudinal paramedian bands, dark border, and iridescent scalelike setae. Thoracic groove longitudinal; cephalic area slightly elevated. Clypeal height equal to anterior lateral eye diameter. Eyes round, anterior medians smaller than others. From front, anterior eye row slightly recurved, posterior row procurved. Anterior median eyes separated by their diameter or less, by their radius from anterior laterals. Eyes of posterior row separated by their diameter or more. Median ocular quadrangle wider in back than in front, wider than long. Chelicerae with three to five promarginal teeth and five to 10 retromarginal denticles, light brown with boss outlined in gray. Endites pale orange, slightly expanded anterolaterally. Labium light brown proximally, lighter distally, narrowed at base. Sternum pale yellow with dark markings opposite coxae. Abdomen pale yellow with dark lateral bands and median chevrons; venter sometimes with median dark band. Six spinnerets, no colulus; posterior spinnerets darkened dorsally. Leg formula 1423. Leg segments with proximal and distal dark rings. Trochanters notched (fig. 4). Metatarsi III and IV with distal preening comb (fig. 5). Tarsi with two dentate claws, claw tufts, and dorsal trichobothria (fig. 6). Femur III of males sometimes thickened; coxae of males often with cusplike setae (fig. 2); coxae III of males often with knob (fig. 1); ventral spines on retrolateral side of tibia III of males often shortened, thickened (fig. 3). Typical leg spi-

nation (only surfaces bearing spines listed): femora: I d1-1-1, p0-1-1, r0-0-1; II-IV d1-1-1, p0-0-1, r0-0-1; patellae III, IV r0-1-0; tibiae: I p0-1-0, v4-4-0; II p1-1-0, v4-4-0; III d1-0-1, p1-1-1, v2-2-2, r1-0-1; IV d1-0-1, p1-1-1, v1-2-2, r1-1-1; metatarsi: I p1-1-1, v2-2-0, r0-1-1; II d0-1-0, p1-1-1, v2-2-0, r0-1-1; III d0-1-0, p1-1-2, v2-0-2, r1-1-2; IV d0-1-0, p1-1-2, v2-2-2, p1-1-2. Palp with subtegulum, tegulum bearing duct, median apophysis, retrolateral tegular apophysis, conductor, and long embolus. Retrolateral tibial apophysis bifid with elongate ventral prong. Epigynum with hood, midpiece, and two sidepieces; two rounded spermathecae.

*Leg modifications.* Coxal knobs (fig. 1) are present on the third legs of male *subgibba*, *trifida*, *gibbosa*, *tancitaro*, *judicata*, *wanlessi*, and *gibba*. Cusplike setae (fig. 2) are present on all the coxae of male *catalina*, *hespar*, *gibbosa*, *encino*, *xochimilco*, *tancitaro*, *wanlessi*, and *gibba*, on coxae I through III in male *cielo*, *subgibba*, *trifida*, and *judicata*, on coxae II through IV in male *cumbre* and *felipe*, on coxae III only in male *plana* and IV only in male *salto*, and on no coxae in male *marginalis*, *rita*, *morelia*, and *cortes* and females of all species.

### KEY TO SPECIES OF THE *CELER* GROUP IN MEXICO AND CENTRAL AMERICA

1. Males . . . . . 2  
Females . . . . . 23
2. Retrolateral tegular apophysis with recurved tip (figs. 24, 28, 32, 36) . . . . . 3  
Retrolateral tegular apophysis without recurved tip (as in fig. 40) . . . . . 6
3. Dorsal prong of retrolateral tibial apophysis (RTA) relatively long (figs. 32, 36) . . . 4  
Dorsal prong of retrolateral tibial apophysis (RTA) relatively short (figs. 24, 28) . . . 5
4. Dorsal prong of RTA with basal point (fig. 36) . . . . . *trifida*  
Dorsal prong of RTA without basal point (fig. 32) . . . . . *subgibba*
5. Dorsal prong of RTA with basal hook (fig. 28) . . . . . *catalina*  
Dorsal prong of RTA without basal hook (fig. 24) . . . . . *cielo*
6. Dorsal prong of RTA with a single sharp point (figs. 40, 76) . . . . . 7  
Dorsal prong of RTA rounded or with two points . . . . . 8

7. Dorsal prong of RTA with recurved tip (fig. 76) . . . . . *xochimilco*  
Dorsal prong of RTA without recurved tip (fig. 40) . . . . . *hespar*
8. Tip of median apophysis lobed (figs. 59, 63) . . . . . 9  
Tip of median apophysis smooth (as in fig. 67) . . . . . 10
9. Dorsal prong of RTA expanded dorsally (fig. 60) . . . . . *cortes*  
Dorsal prong of RTA not expanded dorsally (fig. 64) . . . . . *cumbre*
10. Dorsal prong of RTA a narrow ledge (figs. 44, 52, 108) . . . . . 11  
Dorsal prong of RTA not a narrow ledge . 13
11. Tip of median apophysis recurved (fig. 107) . . . . . *gibba*  
Tip of median apophysis not recurved (figs. 43, 51) . . . . . 12
12. Dorsal prong of RTA expanded dorsally (fig. 52) . . . . . *morelia*  
Dorsal prong of RTA not expanded dorsally (fig. 44) . . . . . *marginalis*
13. Tip of median apophysis recurved (figs. 99, 103) . . . . . 14  
Tip of median apophysis not recurved (as in fig. 95) . . . . . 15
14. Dorsal prong of RTA bearing basal projection (fig. 100) . . . . . *tehuacan*  
Dorsal prong of RTA not bearing basal projection (fig. 104) . . . . . *wanlessi*
15. Embolus relatively wide (fig. 47) . . . . . *rita*  
Embolus relatively narrow (as in fig. 55) . 16
16. Ventral prong of RTA expanded distally (fig. 56) . . . . . *gibbosa*  
Ventral prong of RTA not expanded distally (as in fig. 60) . . . . . 17
17. Dorsal prong of RTA with distinct proximal and distal points (figs. 68, 84, 88, 92, 96) . . . . . 18  
Dorsal prong of RTA without distinct proximal and distal points (figs. 80, 112) . . 22
18. Basal tip of tegulum with produced pro-lateral beak (figs. 83, 91) . . . . . 19  
Basal tip of tegulum without produced pro-lateral beak (figs. 67, 87, 95) . . . . . 20
19. Dorsal prong of RTA with elongate basal hook (fig. 84) . . . . . *salto*  
Dorsal prong of RTA without elongate basal hook (fig. 92) . . . . . *judicata*
20. Median apophysis narrowed apically (fig. 67) . . . . . *encino*  
Median apophysis widened apically (figs. 87, 95) . . . . . 21
21. Dorsal prong of RTA with tubercles (fig. 96) . . . . . *felipe*  
Dorsal prong of RTA without tubercles (fig. 88) . . . . . *obregon*
22. Dorsal prong of RTA with tubercles (fig. 112) . . . . . *plana*  
Dorsal prong of RTA without tubercles (fig. 80) . . . . . *tancitaro*
23. Spermathecae with distinct dorsal lobes (figs. 30, 34, 42, 62, 98, 102, 106) . . 24  
Spermathecae with indistinct dorsal lobes (as in fig. 38) or without dorsal lobes (as in fig. 26) . . . . . 30
24. Dorsal lobes of spermathecae semicircular (figs. 30, 42) . . . . . 25  
Dorsal lobes of spermathecae straight (figs. 34, 62, 98, 102, 106) . . . . . 26
25. Spermathecae wider than long (fig. 30) . . . . . *catalina*  
Spermathecae longer than wide (fig. 42) . . . . . *hespar*
26. Epigynal midpiece relatively long (figs. 33, 105) . . . . . 27  
Epigynal midpiece relatively short (figs. 61, 97, 101) . . . . . 28
27. Epigynal midpiece relatively wide (fig. 33) . . . . . *subgibba*  
Epigynal midpiece relatively narrow (fig. 105) . . . . . *wanlessi*
28. Epigynal surface ridged (fig. 61) . . . . . *cortes*  
Epigynal surface smooth (figs. 97, 101) . . 29
29. Dorsal lobes of spermathecae relatively short (fig. 98) . . . . . *felipe*  
Dorsal lobes of spermathecae relatively long (fig. 102) . . . . . *tehuacan*
30. Spermathecae touching (figs. 46, 54) or fused (figs. 78, 86, 90, 118) . . . . . 31  
Spermathecae well separated (as in fig. 26) . . . . . 36
31. Spermathecae touching (figs. 46, 54) . . 32  
Spermathecae fused (figs. 78, 86, 90, 118) . . . . . 33
32. Epigynal midpiece relatively long (fig. 45) . . . . . *marginalis*  
Epigynal midpiece relatively short (fig. 53) . . . . . *morelia*
33. Spermathecae with posteromedial projection (fig. 78) . . . . . *xochimilco*  
Spermathecae without posteromedial projection (figs. 86, 90 118) . . . . . 34
34. Spermathecae longer than wide (fig. 118) . . . . . *pretiosa*  
Spermathecae wider than long (figs. 86, 90) . . . . . 35

35. Posterior lobes of spermathecae relatively wide (fig. 86) . . . . . *salto*  
 Posterior lobes of spermathecae relatively narrow (fig. 90) . . . . . *obregon*
36. Epigynal hood covering midpiece (fig. 109) . . . . . *gibba*  
 Epigynal hood not covering midpiece . . . . . 37
37. Epigynal surface ridged (fig. 65) . . . . . *cumbre*  
 Epigynal surface smooth. . . . . 38
38. Epigynal midpiece reaching sidepieces (figs. 25, 113) . . . . . 39  
 Epigynal midpiece not reaching sidepieces (as in fig. 37) . . . . . 40
39. Epigynal midpiece widened posteriorly (fig. 113) . . . . . *plana*  
 Epigynal midpiece not widened posteriorly (fig. 25) . . . . . *cielo*
40. Spermathecae separated by their diameter (fig. 72) . . . . . *alamos*  
 Spermathecae separated by much less than their diameter . . . . . 41
41. Epigynal midpiece very short (fig. 73) . . . . . *otinapa*  
 Epigynal midpiece relatively long (as in fig. 37) . . . . . 42
42. Epigynal midpiece no wider than hood (figs. 57, 115) . . . . . 43  
 Epigynal midpiece wider than hood (figs. 37, 49, 69, 81, 93) . . . . . 44
43. Epigynal midpiece relatively wide (fig. 57) . . . . . *gibbosa*  
 Epigynal midpiece relatively narrow (fig. 115) . . . . . *inferens*
44. Epigynal midpiece relatively short (figs. 49, 69) . . . . . 45  
 Epigynal midpiece relatively long (figs. 37, 81, 93) . . . . . 46
45. Posterior lobes of spermathecae originating laterally (fig. 50) . . . . . *rita*  
 Posterior lobes of spermathecae originating medially (fig. 70) . . . . . *encino*
46. Spermathecae each with two posterior lobes (fig. 82) . . . . . *tancitaro*  
 Spermathecae each with one posterior lobe (figs. 38, 94) . . . . . 47
47. Posterior lobes of spermathecae relatively wide (fig. 38) . . . . . *trifida*  
 Posterior lobes of spermathecae relatively narrow (fig. 94) . . . . . *judicata*

***Anyphaena cielo*, new species**

Figures 23-26

*Types.* Male holotype and female paratype from Rancho del Cielo, 8 miles northwest of

Gómez Farías, Tamaulipas, Mexico (June 1-5, 1964; J. Reddell, D. McKenzie, L. Manire), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition taken from the type locality.

*Diagnosis.* *Anyphaena cielo* is closest to *catalina* but may be distinguished by the shorter tip of the retrolateral tegular apophysis (fig. 23) and the longer epigynal midpiece (fig. 25).

*Male.* Total length 3.74-4.01 mm. Carapace 1.70-1.83 mm. long, 1.33-1.51 mm. wide. Femur II 1.51-1.58 mm. long (three specimens). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.09, PME 0.09, PLE 0.10; AME-AME 0.05, AME-ALE 0.03, PME-PME 0.11, PME-PLE 0.09, ALE-PLE 0.08. MOQ length 0.26 mm., front width 0.16 mm., back width 0.28 mm. Retro-lateral tegular apophysis recurved, with short tip (fig. 23); retrolateral tibial apophysis broad, with median tubercle and distal projection on dorsal prong (fig. 24). Leg spination: tibiae: I p1-1-1, v2-2-0, r0-1-1; II p1-1-1, v2-2-0, r1-1-1; III p1-0-1, v1-2-2; IV p1-0-1, v1-1-1; metatarsi: I d0-1-0; III d0-1-1, p1-1-1, v2-1-2, r1-1-1; IV d0-0-1, p1-1-1, v2-1-2, r1-1-1.

*Female.* Total length 3.89 mm. Carapace 1.71 mm. long, 1.22 mm. wide. Femur IV 1.55 mm. long (paratype). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.09, PLE 0.10; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.13, PME-PLE 0.11, ALE-PLE 0.05. MOQ length 0.24 mm., front width 0.17 mm., back width 0.31 mm. Epigynal midpiece long, no wider than hood (fig. 25); spermathecae rotund, widely separated (fig. 26). Leg spination (right and left legs I-III missing): tibia IV v1-1-2.

*Material Examined.* Mexico: *Hidalgo*: 5 mi. N Encarnación, July 28, 1966, elevation 6000 feet (J. and W. Ivie, AMNH), 1♂. *Tamaulipas*: Rancho del Cielo, June 3, 1967, elevation 4200 feet (R. Mitchell, AMNH), 1♂.

*Distribution.* Northeastern Mexico from Tamaulipas south to Hidalgo.

***Anyphaena catalina* Platnick**

Figures 27-30

*Anyphaena catalina* Platnick, 1974, p. 228, figs. 15, 31, 41, 48 (male holotype and female paratype from Mt. Lemon, Santa Catalina

Mountains, Pima County, Arizona, in AMNH, examined).

**Diagnosis.** *Anyphaena catalina* is closest to *cielo* but may be distinguished by the longer tip of the retrolateral tegular apophysis (fig. 27) and the shorter epigynal midpiece (fig. 29).

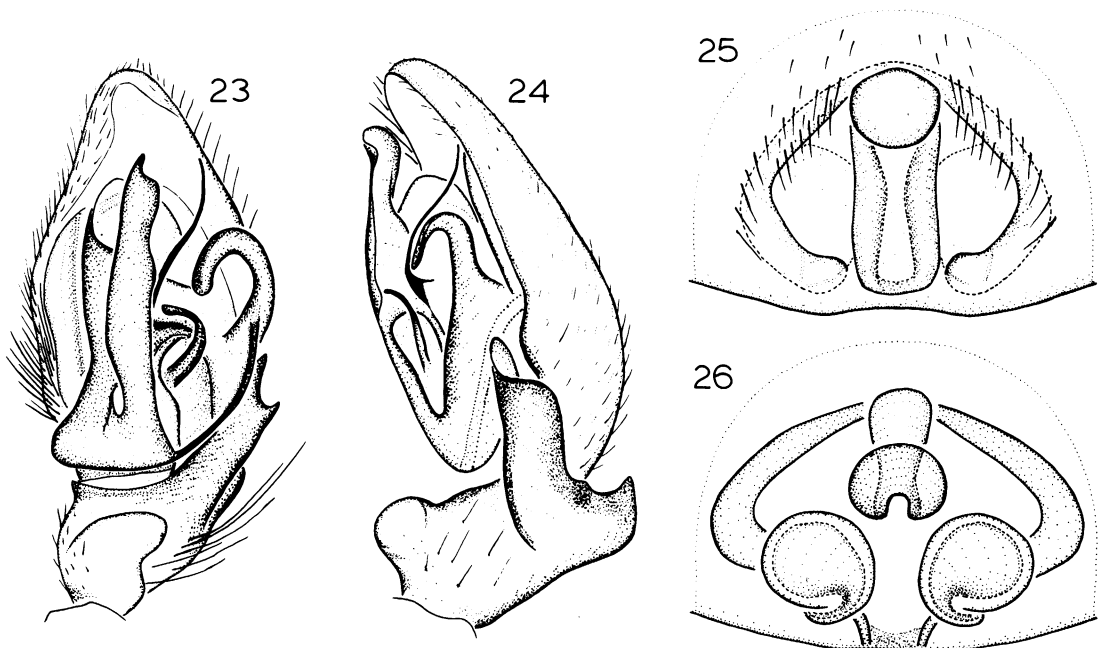
**Male.** Total length 4.14-5.03 mm. Carapace 1.91-2.27 mm. long, 1.55-1.74 mm. wide. Femur II 1.79-2.20 mm. long (eight specimens). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.11, PME 0.11, PLE 0.13; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.14, PME-PLE 0.08, ALE-PLE 0.04. MOQ length 0.33 mm., front width 0.23 mm., back width 0.36 mm. Retrolateral tegular apophysis recurved, with long tip (fig. 27); dorsal prong of retrolateral tibial apophysis a basal hook (fig. 28). Leg spination: femora: I p0-2-1; II p0-1-2, r0-1-1; III, IV p0-1-1, r0-1-1; tibiae: I, II p1-2-0, r1-2-0; III v2-2-0, r1-1-1; IV v2-2-2; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III d0-1-1, p1-2-1, v2-2-2; IV d0-1-1, p1-1-1.

**Female.** Total length  $5.20 \pm 0.55$  mm. Cara-

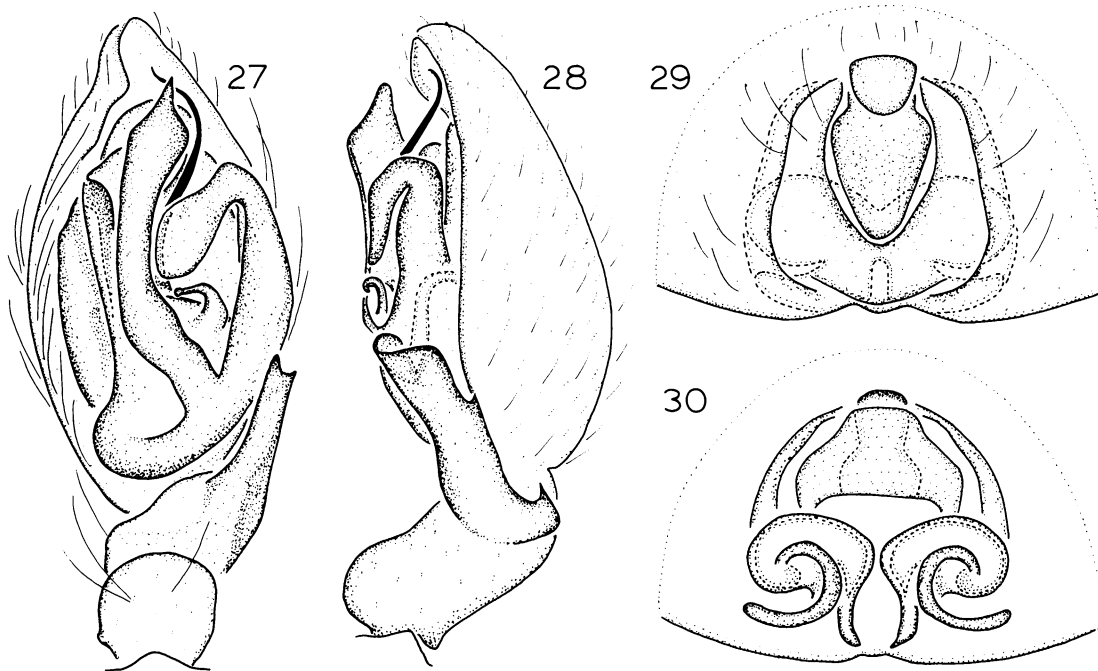
pace  $2.04 \pm 0.11$  mm. long,  $1.57 \pm 0.09$  mm. wide. Femur II  $1.63 \pm 0.15$  mm. long (10 specimens). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.10, PME 0.09, PLE 0.11; AME-AME 0.09, AME-ALE 0.03, PME-PME 0.17, PME-PLE 0.10, ALE-PLE 0.05. MOQ length 0.34 mm., front width 0.24 mm., back width 0.35 mm. Epigynal midpiece arrow-shaped (fig. 29); spermathecae with semicircular dorsal lobes (fig. 30). Leg spination: tibiae: I p1-1-1, r1-1-1; II p0-1-1, r0-1-1; III p1-0-1, v1-1-2; IV v1-1-2; metatarsi: I d0-1-0; II v2-1-0, r1-1-1; III v2-1-2.

**Material Examined.** Mexico: *Distrito Federal*: Ciudad de México, Sept. 25, 1957 (R. Dreisbach, MCZ), 1♀; National Park near Las Cruces, June 11, 1941 (A. M. and L. I. Davis, AMNH), 1♂, 1♀; 2 mi. W Río Frío, July 24, 1956, elevation 10,500 feet (W. J. Gertsch, V. Roth, AMNH), 1♂, 1♀. *Hidalgo*: Apulco, Oct. 6, 1947 (H. Wagner, AMNH), 5♂, 4♀. *México*: W Paso de Cortés, July 11-12, 1963 (J. A. Beatty, CJAB), 2♀. *Michoacán*: Morelia (AMNH), 1♂, 1♀.

**Distribution.** Southeastern Arizona south to central Mexico.



FIGS. 23-26. *Anyphaena cielo*, new species. 23. Palp, ventral view. 24. Palp, retrolateral view. 25. Epigynum, ventral view. 26. Vulva, dorsal view.



FIGS. 27-30. *Anyphaena catalina* Platnick. 27. Palp, ventral view. 28. Palp, retrolateral view. 29. Epigynum, ventral view. 30. Vulva, dorsal view.

**Variation.** Both the angle and the shape of the bent tip of the retrolateral tegular apophysis are variable. As the shape of the retrolateral tibial apophysis is constant and no differences were detected among the females, these variants are considered intraspecific.

***Anyphaena alamos*, new species**  
Figures 71, 72

**Type.** Female holotype from the north side of Sierra de Álamos, latitude 27° 02' N, longitude 108° 55' W, elevation 6600 feet, Sonora, Mexico (November 13-14, 1972; V. Roth), deposited in AMNH.

**Etymology.** The specific name is a noun in apposition taken from the type locality.

**Diagnosis.** *Anyphaena alamos* is closest to *cielo* but may be distinguished by the shorter epigynal midpiece (fig. 71) and the longer posterior lobes of the spermathecae (fig. 72).

**Male.** Unknown.

**Female.** Total length 4.50 mm. Carapace 1.91 mm. long, 1.55 mm. wide. Femur II 1.58 mm. long (holotype). Eye sizes and interdistances

(mm.): AME 0.07, ALE 0.09, PME 0.09, PLE 0.10; AME-AME 0.08, AME-ALE 0.03, PME-PME 0.15, PME-PLE 0.10, ALE-PLE 0.07. MOQ length 0.42 mm., front width 0.22 mm., back width 0.33 mm. Epigynal hood with postero-medial projection (fig. 71); spermathecae well separated, with long posterior lobes (fig. 72). Leg spination: femur IV r0-0-2; tibiae: I, II p0-1-1, r0-1-1; III v1-1-2, r1-1-1; IV v1-1-2, r0-1-1; metatarsi: I p0-1-1; II d0-1-1, p1-1-0; III, IV r1-1-1.

**Distribution.** Known only from the type specimen from Sonora.

***Anyphaena subgibba* O. P.-Cambridge**  
Figures 31-34

*Anyphaena subgibba* O. P.-Cambridge, 1896, p. 202, pl. 25, fig. 8 (male holotype from Guatemala, no specific locality, in BMNH, examined). F. O. P.-Cambridge, 1900, p. 96, pl. 7, fig. 8. Roewer, 1954, p. 527. Bonnet, 1955, p. 348.

*Anyphaena excepta* O. P.-Cambridge, 1896, p. 203, pl. 25, fig. 7 (female holotype from Cobán, Alta Verapaz, Guatemala, in BMNH, examined). F. O. P.-Cambridge, 1900, p. 96,

pl. 7, fig. 10. Roewer, 1954, p. 525. Bonnet, 1955, p. 343. NEW SYNONYMY.

**Diagnosis.** *Anyphaena subgibba* is closest to *trifida* but may be distinguished by the single point of the dorsal prong of the retrolateral tibial apophysis (fig. 32) and the smaller epigynal hood (fig. 33).

**Male.** Total length 3.35, 3.38 mm. Carapace 1.58, 1.66 mm. long, 1.32, 1.40 mm. wide. Femur II 1.58 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.11, PME 0.11, PLE 0.11; AME-AME 0.04, AME-ALE 0.02, PME-PME 0.08, PME-PLE 0.06, ALE-PLE 0.03. MOQ length 0.27 mm., front width 0.15 mm., back width 0.30 mm. Retrolateral tegular apophysis with broad, recurved tip (fig. 31); dorsal prong of retrolateral tibial apophysis with single, sharp point (fig. 32). Leg spination: tibiae: I p1-1-0, r1-1-0; II r1-1-0; III p1-0-1, v2-2-0; metatarsi: I r1-1-1; III v2-1-2.

**Female.** Total length 4.46 mm. Carapace 1.75 mm. long, 1.44 mm. wide. Femur II 1.42 mm. long (holotype). Eye sizes and interdistances

(mm.): AME 0.06, ALE 0.12, PME 0.11, PLE 0.12; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.14, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.30 mm., front width 0.18 mm., back width 0.36 mm. Epigynal hood narrow (fig. 33); spermathecae with distinct dorsal lobes (fig. 34). Leg spination (right and left leg I missing): tibiae: II r1-1-0; III p1-0-1, v1-2-0; metatarsi: II d0-0-0; III v2-1-2.

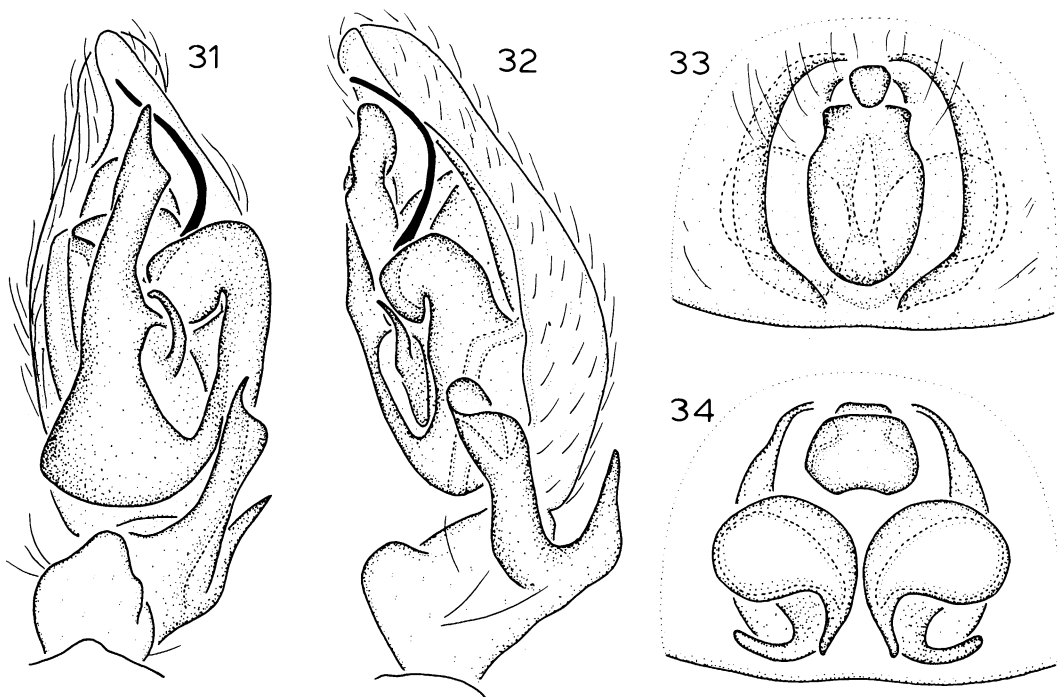
**Material Examined.** Guatemala: no specific locality (BMNH), 1♂.

**Distribution.** Guatemala.

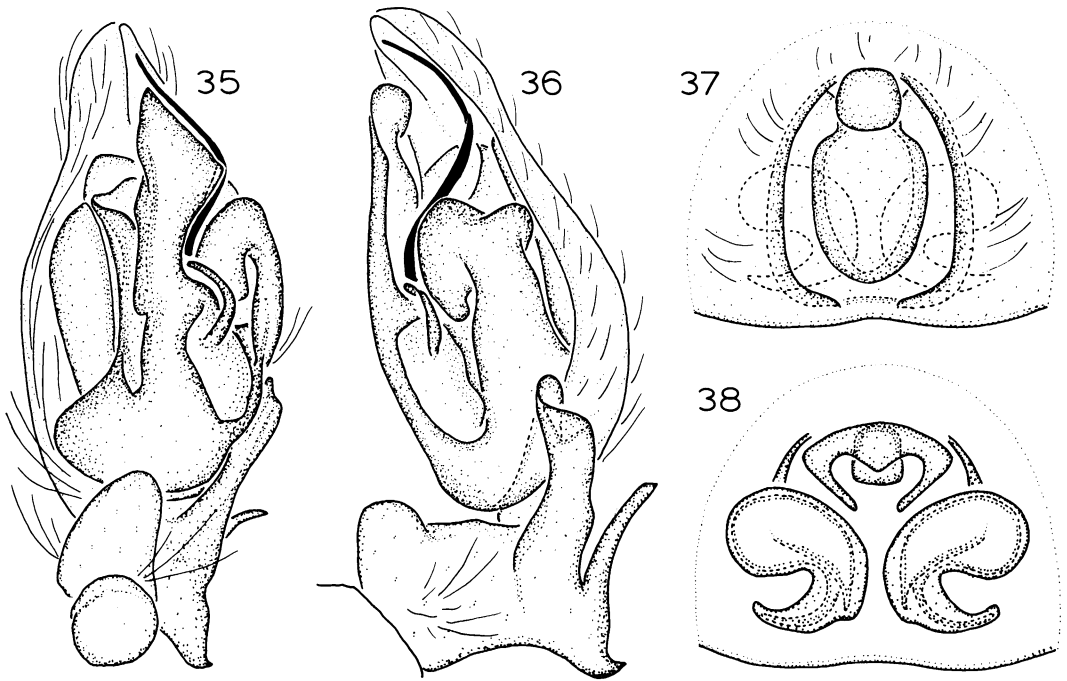
**Synonymy.** That *subgibba* and *excepta* are male and female of the same species is indicated by the close relationship of each to the male and female of *trifida*. As first revisers, we choose the name *subgibba* as it was based on the male.

*Anyphaena trifida* F. O. P.-Cambridge  
Figures 35-38

*Anyphaena trifida* F. O. P.-Cambridge, 1900, p. 97, pl. 7, fig. 14 (male holotype from Guatemala, no specific locality, in BMNH, ex-



FIGS. 31-34. *Anyphaena subgibba* O. P.-Cambridge. 31. Palp, ventral view. 32. Palp, retrolateral view. 33. Epigynum, ventral view. 34. Vulva, dorsal view.



FIGS. 35-38. *Anyphaena trifida* F. O. P.-Cambridge. 35. Palp, ventral view. 36. Palp, retrolateral view. 37. Epigynum, ventral view. 38. Vulva, dorsal view.

amed). Roewer, 1954, p. 527. Bonnet, 1955, p. 349.

**Diagnosis.** *Anyphaena trifida* is closest to *subgibba* but may be distinguished by the two points of the dorsal prong of the retrolateral tibial apophysis (fig. 36) and the larger epigynal hood (fig. 37).

**Male.** Total length 4.18 mm. Carapace 2.03 mm. long, 1.62 mm. wide. Femur II 2.02 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.12, PME 0.11, PLE 0.12; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.12, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.31 mm., front width 0.18 mm., back width 0.35 mm. Retrolateral tegular apophysis with abruptly recurved tip (fig. 35); dorsal prong of retrolateral tibial apophysis with elongate distal and short proximal points (fig. 36). Leg spination: femur I p0-0-1; tibiae: I p2-1-0, r2-1-0; II r1-1-0; III p1-0-1, v2-2-0; IV p1-0-1, v1-1-2; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III v2-1-2, r1-1-1.

**Female.** Total length 3.42, 4.03 mm. Carapace

1.62, 1.84 mm. long, 1.26, 1.44 mm. wide. Femur II 1.32, 1.55 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.11, PME 0.11, PLE 0.12; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.09, ALE-PLE 0.04. MOQ length 0.31 mm., front width 0.18 mm., back width 0.32 mm. Epigynal hood wide (fig. 37); spermathecae with indistinct dorsal lobes (fig. 38). Leg spination: I p1-1-0, r1-1-0; II r1-1-0; III p1-0-1, v2-0-2; IV p1-0-1, v1-1-2; metatarsi: I d0-1-0, r1-1-1; III p1-0-1.

**Material Examined.** Mexico: Chiapas: 15 mi. NW Arriaga, Aug. 27, 1966, pine forest (J. and W. Ivie, AMNH), 2♀.

**Distribution.** Southern Mexico and Guatemala.

*Anyphaena hespar* Platnick  
Figures 39-42

*Anyphaena hespar* Platnick, 1974, p. 224, figs. 16, 32, 42, 49 (male holotype and female paratype from Bear Canyon, Santa Catalina



Mountains, Pima County, Arizona, in AMNH, examined).

**Diagnosis.** *Anyphaena hespar* is closest to *marginalis* but may be distinguished by the wide dorsal prong of the retrolateral tibial apophysis (fig. 40) and the short epigynal midpiece (fig. 45).

**Male.** Total length 3.28 mm. Carapace 1.58 mm. long, 1.26 mm. wide. Femur II 1.22 mm. long (one specimen). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.08, PME 0.07, PLE 0.09; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.09, PME-PLE 0.06, ALE-PLE 0.05. MOQ length 0.23 mm., front width 0.14 mm., back width 0.23 mm. Median apophysis curved retrolaterally (fig. 39); dorsal prong of retrolateral tibial apophysis wide, with single sharp point (fig. 40). Leg spination: femora: I p0-0-1, r0-0-0; II r0-0-0; patella III r0-0-0; tibiae: II p0-1-1, v3-4-0, r1-1-1; III d0-0-0, r1-1-1; IV v2-2-2; metatarsi: I p0-0-0, r0-0-0; II p0-1-1, r0-0-0; III d0-1-1.

**Female.** Total length 3.06 mm. Carapace 1.55

mm. long, 1.26 mm. wide. Femur II 1.15 mm. long (one specimen, from Arizona). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.08, PME 0.08, PLE 0.08; AME-AME 0.05, AME-ALE 0.03, PME-PME 0.10, PME-PLE 0.07, ALE-PLE 0.04. MOQ length 0.20 mm., front width 0.14 mm., back width 0.26 mm. Epigynal hood short (fig. 41); spermathecae well separated (fig. 42). Leg spination: femora and patellae as in male; tibiae: II p0-1-0; III d0-0-0, v1-1-2, r1-1-1; IV d1-0-0; metatarsi: I p0-0-0, r0-0-0; II d0-0-0, p0-1-1, r0-0-0; III d0-0-1.

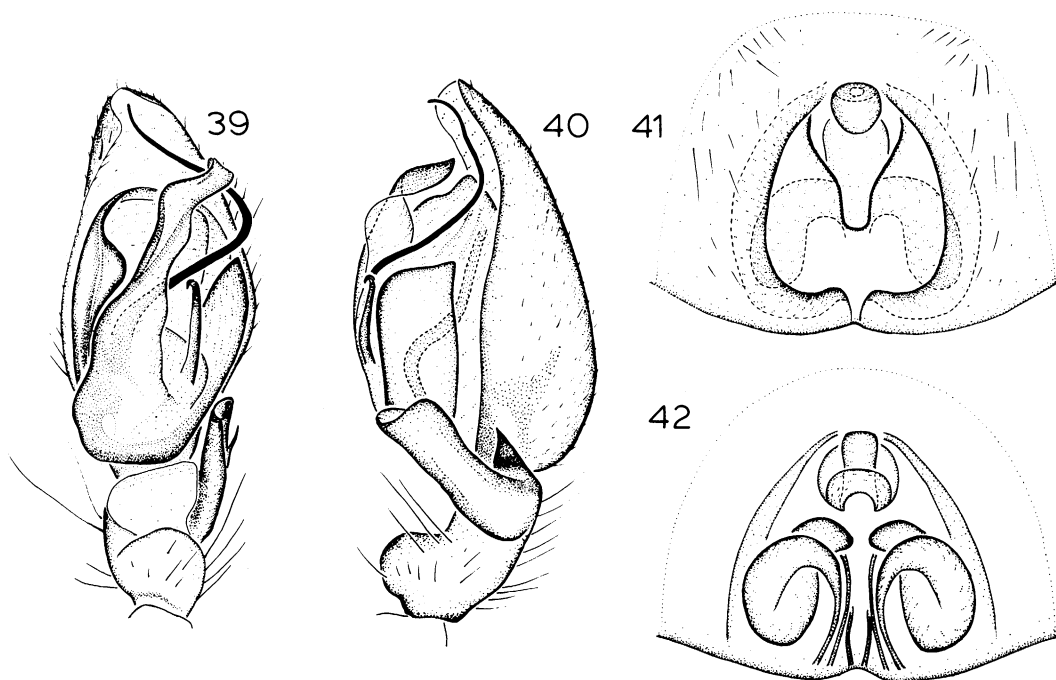
**Material Examined.** Mexico: Chihuahua: San Rafael, near latitude 27° 40' N, longitude 107° 45' W, Nov. 17, 1972, elevation 7500 feet (V. Roth, AMNH), 1♂.

**Distribution.** Arizona and Chihuahua.

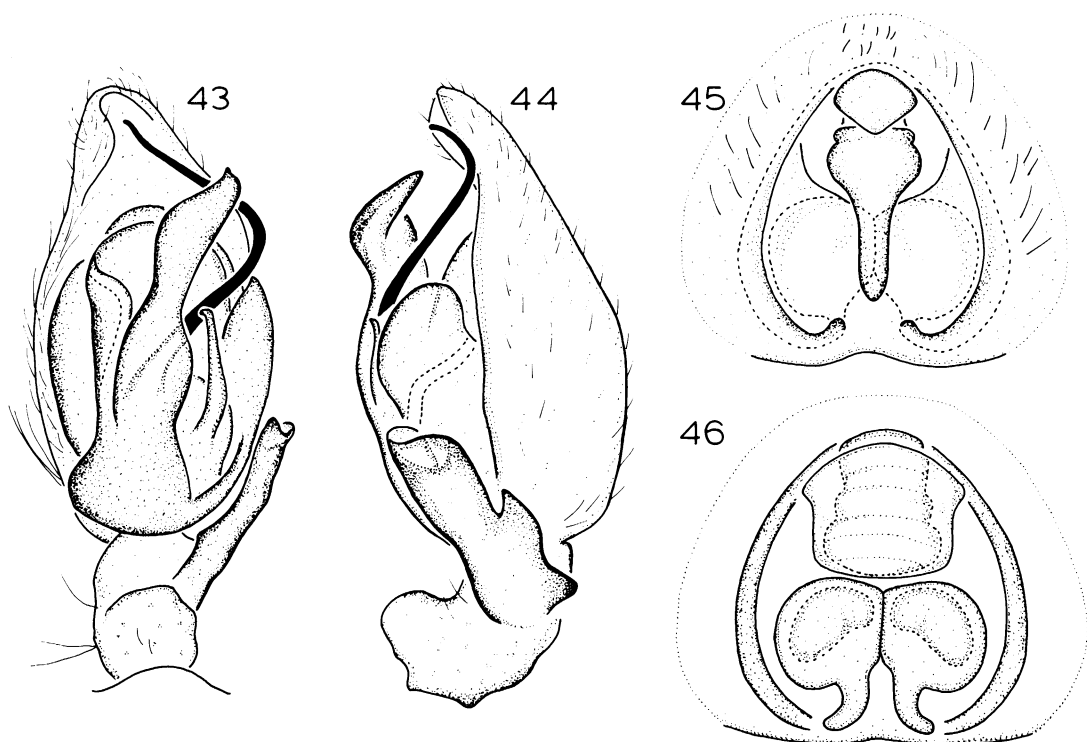
*Anyphaena marginalis* (Banks)

Figures 43-46

*Gayenna marginalis* Banks, 1901, p. 574, fig. 22 (female holotype from Beulah, San Miguel County, New Mexico, should be in MCZ, lost).



FIGS. 39-42. *Anyphaena hespar* Platnick. 39. Palp, ventral view. 40. Palp, retrolateral view. 41. Epigynum, ventral view. 42. Vulva, dorsal view.



FIGS. 43-46. *Anyphaena marginalis* (Banks). 43. Palp, ventral view. 44. Palp, retrolateral view. 45. Epigynum, ventral view. 46. Vulva, dorsal view.

Roewer, 1954, p. 540. Bonnet, 1957, p. 1978.  
*Anyphaena marginalis*: Platnick, 1974, p. 223,  
 figs. 6, 27, 36, 43.

**Diagnosis.** *Anyphaena marginalis* is closest to *hespar* but may be distinguished by the narrow, ledgelike dorsal prong of the retrolateral tibial apophysis (fig. 44) and the long epigynal midpiece (fig. 45).

**Male.** Total length 4.06 mm. Carapace 1.84 mm. long, 1.37 mm. wide. Femur II 1.37 mm. long (one specimen). Eye sizes and interdistances (mm.): AME 0.04, ALE 0.08, PME 0.07, PLE 0.09; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.07, ALE-PLE 0.05. MOQ length 0.24 mm., front width 0.14 mm., back width 0.24 mm. Tip of median apophysis blunt (fig. 43); retrolateral tibial apophysis narrow, with proximal and distal points (fig. 44). Leg spination: femora: I p0-0-2, r0-0-0; II r0-0-0; III p0-1-1; tibiae: I p0-0-0, r0-0-0; II p0-1-1, v2-4-0;

III d0-0-0, r1-1-1; IV d1-0-0, v2-2-2; metatarsi: I p0-1-0, r0-0-0; II d0-0-0, p0-1-0, r0-0-0.

**Female.** Total length 4.20 mm. Carapace 1.45 mm. long, 1.18 mm. wide. Femur II 1.06 mm. long (one specimen). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.09, PLE 0.09; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.06, ALE-PLE 0.05. MOQ length 0.26 mm., front width 0.15 mm., back width 0.29 mm. Epigynal midpiece long, posteriorly narrowed (fig. 45); spermathecae touching (fig. 46). Leg spination: femur I p0-0-2; tibiae: I p1-1-0, v3-3-0; II v1-2-0; III, IV p1-0-1, v1-1-2; metatarsi: I p0-1-0, r0-0-0; II d0-0-0, p0-1-1, r0-0-0.

**Material Examined.** Mexico: Chihuahua: Creel, Nov. 16, 1972, elevation 7900 feet (V. Roth, AMNH), 1♂; San José Bavicora, July 4, 1947 (W. J. Gertsch, AMNH), 1♀.

**Distribution.** Colorado, Arizona, New Mexico, and Chihuahua.

*Anyphaena rita* Platnick

Figures 47-50

*Anyphaena rita* Platnick, 1974, p. 225, figs. 7, 28, 37, 44 (male holotype and female paratype from Bear Canyon, Santa Catalina Mountains, Pima County, Arizona, in AMNH, examined).

**Diagnosis.** *Anyphaena rita* is closest to *morelia* but may be distinguished by the wide embolus (fig. 47) and separated spermathecae (fig. 50).

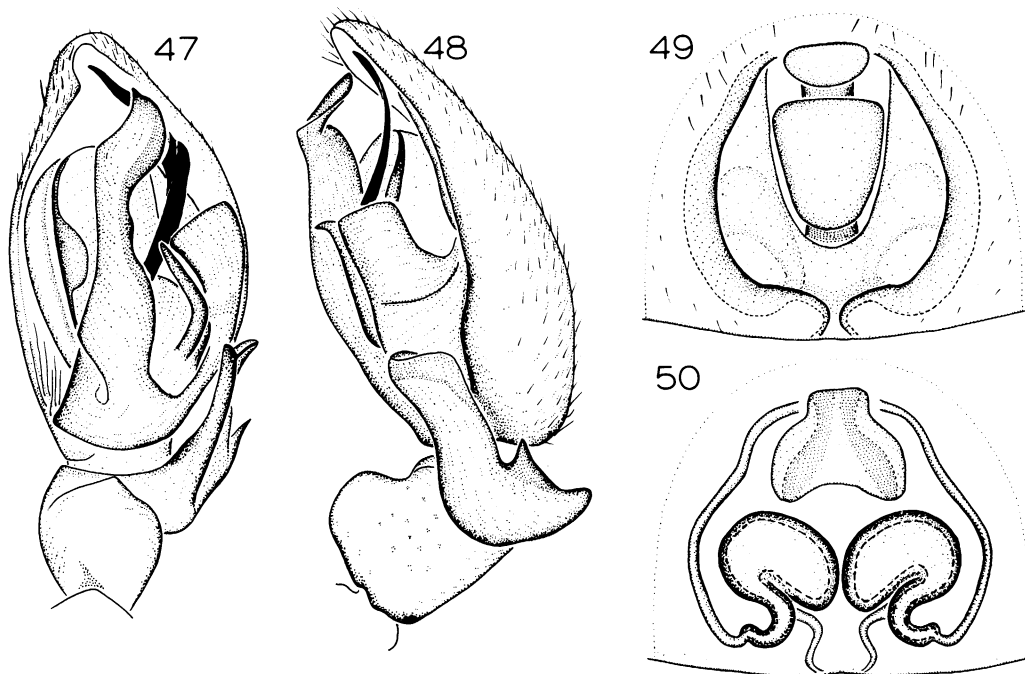
**Male.** Total length 3.78, 4.10 mm. Carapace 1.86, 1.91 mm. long, 1.40, 1.53 mm. wide. Femur II 1.51, 1.55 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.04, ALE 0.07, PME 0.09, PLE 0.08; AME-AME 0.05, AME-ALE 0.03, PME-PME 0.09, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.32 mm., front width 0.14 mm., back width 0.27 mm. Embolus greatly widened (fig. 47); dorsal prong of retrolateral tibial apophysis expanded dorsally (fig. 48). Leg spination: femora I, II r0-0-0;

tibiae: II v3-4-0; III d1-0-0, p0-1-1, r0-1-1; IV v2-2-2; metatarsi: I p0-1-0, r0-0-0; II p0-1-1; III, IV r1-1-1.

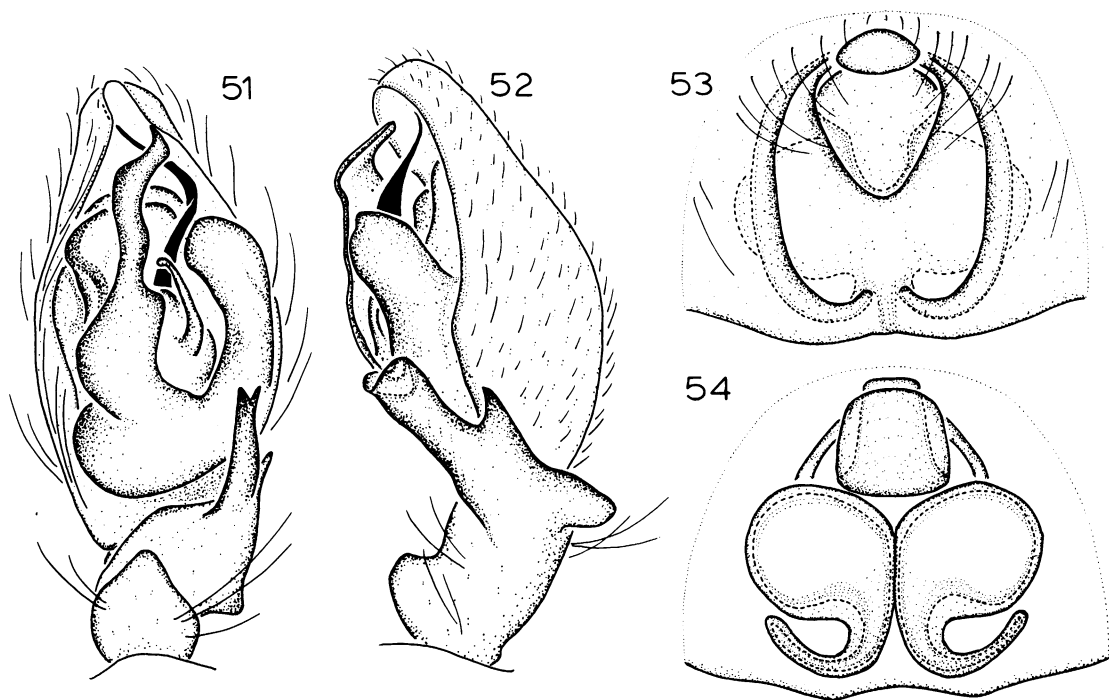
**Female.** Total length 4.76-5.15 mm. Carapace 1.94-2.04 mm. long, 1.44-1.55 mm. wide. Femur II 1.48-1.59 mm. long (three specimens). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.11, PME 0.10, PLE 0.11; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.08, ALE-PLE 0.05. MOQ length 0.25 mm., front width 0.17 mm., back width 0.30 mm. Epigynal midpiece triangular (fig. 49); spermathecae narrowly separated (fig. 50). Leg spination: femora: I, II r0-0-0; III d1-1-2; tibia III d1-0-0, v1-1-2, r0-1-1; metatarsi: I p0-1-1, r0-0-1; III r1-1-1.

**Material Examined.** Mexico: Chihuahua: Arroyo del Álamo, Sierra del Nido, Oct. 14-15, 1969, elevation 7000 feet (V. Roth, AMNH), 2♂, 2♀. Sonora: Sierra de los Ajos, July 20, 1971 (V. Roth, AMNH), 1♀.

**Distribution.** Arizona, Sonora, and Chihuahua.



FIGS. 47-50. *Anyphaena rita* Platnick. 47. Palp, ventral view. 48. Palp, retrolateral view. 49. Epigynum, ventral view. 50. Vulva, dorsal view.



FIGS. 51-54. *Anyphaena morelia*, new species. 51. Palp, ventral view. 52. Palp, retrolateral view. 53. Epigynum, ventral view. 54. Vulva, dorsal view.

***Anyphaena morelia*, new species**

Figures 51-54

*Types.* Male holotype and female paratype from Morelia, Michoacán, Mexico (no date or collector), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition from the type locality.

*Diagnosis.* *Anyphaena morelia* is closest to *rita* but may be distinguished by the narrow embolus (fig. 51) and touching spermathecae (fig. 54).

*Male.* Total length 5.69 mm. Carapace 2.50 mm. long, 1.93 mm. wide. Femur II 2.12 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.10, PME 0.10, PLE 0.11; AME-AME 0.09, AME-ALE 0.04, PME-PME 0.16, PME-PLE 0.14, ALE-PLE 0.10. MOQ length 0.33 mm., front width 0.27 mm., back width 0.36 mm. Median apophysis narrowed apically (fig. 51); dorsal prong of retrolateral tibial apophysis with blunt proximal point (fig. 52). Leg spination: femora I, II r0-0-0; patella IV

r0-0-0; tibiae: I p1-1-0, r0-1-0; II v2-4-0, r0-1-0; III p1-0-1, v1-2-2; IV p1-0-1; metatarsi: I p0-1-1; II d0-0-0, p0-1-1, r1-1-1; III v2-2-2.

*Female.* Total length 6.83 mm. Carapace 2.34 mm. long, 1.91 mm. wide. Femur II 1.81 mm. long (paratype). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.12, PME 0.11, PLE 0.11; AME-AME 0.09, AME-ALE 0.04, PME-PME 0.18, PME-PLE 0.18, ALE-PLE 0.09. MOQ length 0.38 mm., front width 0.27 mm., back width 0.40 mm. Epigynal midpiece wide (fig. 53); spermathecae touching (fig. 54). Leg spination: femora I, II r0-0-0; tibiae: I v3-4-0, r0-1-0; II v1-4-0; III p1-0-1, v1-2-2; metatarsi: I p0-1-1; III v2-2-2; IV v1-2-2, r1-1-1.

*Distribution.* Known only from the type specimens from Michoacán.

*Anyphaena gibbosa* O. P.-Cambridge  
Figures 55-58

*Anyphaena gibbosa* O. P.-Cambridge, 1896, p.

202, pl. 25, fig. 9 (male holotype from Amula, Guerrero, Mexico, in BMNH, examined; not female, =*wanlessi*). F. O. P.-Cambridge, 1900, p. 96, pl. 7, figs. 6, 7. Roewer, 1954, p. 525. Bonnet, 1955, p. 344.

**Diagnosis.** *Anyphaena gibbosa* is a distinctive species easily recognizable by the distally expanded ventral prong of the retrolateral tibial apophysis (fig. 56) and the extremely wide epigynal hood and midpiece (fig. 57).

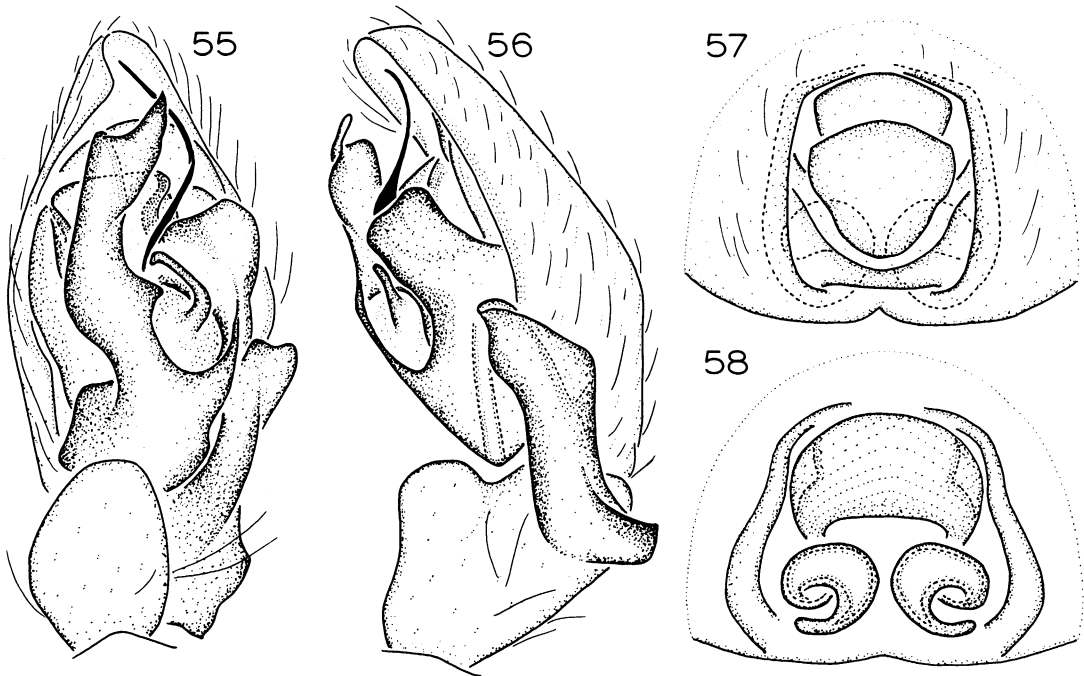
**Male.** Total length 4.82-5.49 mm. Carapace 2.34-2.59 mm. long, 1.87-2.08 mm. wide. Femur II 2.30-2.66 mm. long (nine specimens). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.13, PME 0.12, PLE 0.13; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.16, PME-PLE 0.09, ALE-PLE 0.04. MOQ length 0.36 mm., front width 0.22 mm., back width 0.40 mm. Conductor sharply bent (fig. 55); ventral prong of retrolateral tibial apophysis greatly expanded distally (fig. 56). Leg spination: femora: I r0-1-1; II, III p0-1-1, r0-1-1; tibiae: I p1-1-1, r1-1-1; II p1-1-1,

r0-1-1; III p0-1-1, r0-1-1; IV p1-1-0, v1-1-2, r1-1-0; metatarsi: I, II r1-1-1; IV v1-2-2.

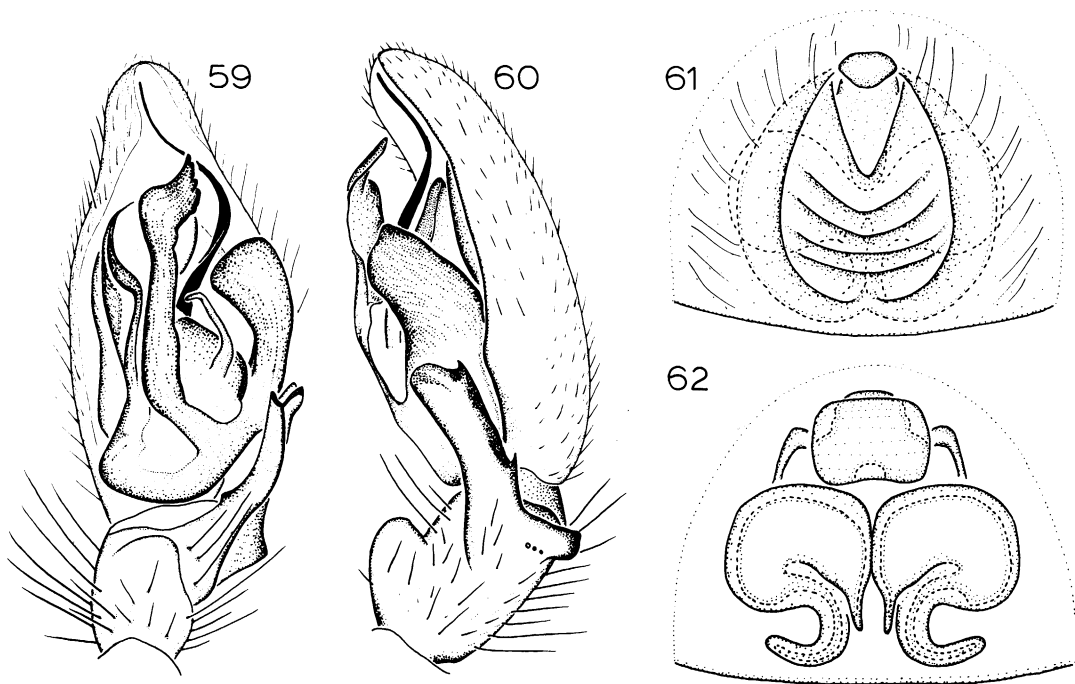
**Female.** Total length 5.37-8.06 mm. Carapace 2.51-2.82 mm. long, 1.94-2.14 mm. wide. Femur II 2.34-2.74 mm. long (six specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.14, PME 0.14, PLE 0.15; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.13, PME-PLE 0.08, ALE-PLE 0.04. MOQ length 0.39 mm., front width 0.23 mm., back width 0.41 mm. Epigynal hood and midpiece extremely wide (fig. 57); spermathecae small (fig. 58). Leg spination: femora: I p1-1-1, r0-1-1; II, III p0-1-1, r0-1-1; tibiae: I p1-0-1, v4-4-2, r0-1-1; II p1-1-1, v3-4-0, r0-1-1; III v1-2-2, r0-1-1; IV v1-1-2; metatarsi: I p1-1-0, r1-1-0; II r1-1-1.

**Material Examined.** Mexico: Guerrero: Amula (H. H. Smith, BMNH), 5♂, 6♀; Taxco, Aug. 15, 1943 (Bolívar, Pelaez, Osorio, AMNH), 1♂. Morelos: Tepoztlán, Aug. 13, 1944 (C. Bolívar, AMNH), 1♂; Aug. 18, 1946, elevation 5750 feet (C. Bolívar, I. Pina, AMNH), 1♂.

**Distribution.** Central Mexico.



FIGS. 55-58. *Anyphaena gibbosa* O. P.-Cambridge. 55. Palp, ventral view. 56. Palp, retrolateral view. 57. Epigynum, ventral view. 58. Vulva, dorsal view.



FIGS. 59-62. *Anyphaena cortes*, new species. 59. Palp, ventral view. 60. Palp, retrolateral view. 61. Epigynum, ventral view. 62. Vulva, dorsal view.

***Anyphaena cortes*, new species**

Figures 59-62

*Types.* Male holotype from Paso de Cortes, elevation 9800 feet, Puebla, Mexico (July 18, 1943; C. Bolivar) and female paratype from 2 miles southwest of Río Frío, latitude 19° 19' N, longitude 98° 42' W, Puebla, Mexico (May 2, 1963; W. J. Gertsch, W. Ivie), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition taken from the type locality.

*Diagnosis.* *Anyphaena cortes* is closest to *cumbre* but may be distinguished by the rectangular dorsal prong of the retrolateral tibial apophysis (fig. 60) and the narrow epigynal mid-piece (fig. 61).

*Male.* Total length  $6.40 \pm 0.50$  mm. Carapace  $2.79 \pm 0.22$  mm. long,  $2.14 \pm 0.23$  mm. wide. Femur II  $2.51 \pm 0.17$  mm. long (19 specimens examined). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.12, PME 0.12, PLE 0.11; AME-AME 0.07, AME-ALE 0.04, PME-PME 0.17, PME-PLE 0.14, ALE-PLE 0.11. MOQ

length 0.40 mm., front width 0.22 mm., back width 0.40 mm. Tip of median apophysis lobed (fig. 59); proximal point of dorsal prong of retrolateral tibial apophysis squared (fig. 60). Leg spination: femora I, II r0-0-0; tibiae: I p0-0-1, v4-2-1; II p0-1-1, v2-4-0; III d1-0-0, r0-1-1; IV d1-0-0, v2-2-2; metatarsi: I p0-0-0, r0-0-0; II d0-0-1, p1-1-0, r0-0-0.

*Female.* Total length 4.68-6.53 mm. Carapace 2.15-2.56 mm. long, 1.62-1.94 mm. wide. Femur II 1.51-1.88 mm. long (eight specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.12, PME 0.12, PLE 0.12; AME-AME 0.07, AME-ALE 0.05, PME-PME 0.17, PME-PLE 0.10, ALE-PLE 0.11. MOQ length 0.40 mm., front width 0.25 mm., back width 0.40 mm. Epigynal surface ridged (fig. 61); spermathecae touching (fig. 62). Leg spination: femora: I p0-0-2, r0-0-0; II r0-0-0; tibiae: II v2-4-0; III d1-0-0, v1-1-2, r0-1-1; IV d1-0-0; metatarsi: I p0-1-0, r0-0-0; II d0-0-0; III v2-1-2.

*Material Examined.* Mexico: Distrito Federal: Desierto de los Leones, Aug. 4-28, 1946 (C. and M. Goodnight, AMNH), 2♂; Rancho Córdoba,

Oct. 29, 1944 (H. Wagner, AMNH), 1♂; 2 mi. W Río Frío, July 24, 1956, elevation 10,500 feet (W. J. Gertsch, V. Roth, AMNH), 7♂. *México*: Neriaco, Oct. 1, 1946 (Bordas, AMNH), 2♀; Salazar, Oct., 1946 (Bordas, AMNH), 1♂, 2♀; Volcán Popocatepetl, July 20-Aug. 1, 1969, dung trap, grassland, elevation 12,000 feet (S. and J. Peck, AMNH), 1♀. *Morelos*: Cuernavaca, Sept., 1941, elevation 5600 feet (H. Wagner, AMNH), 1♂. *Nuevo León*: El Potosí, Cerro Potosí, June 13, 1968 (Hoogstraal, MCZ), 2♂; Galeana, Cerro Potosí, June 26, 1969, elevation 10,000-12,000 feet (S. and J. Peck, AMNH), 3♂. *Puebla*: Paso de Cortes, July 18, 1943, elevation 9800 feet (C. Bolívar, AMNH), 1♂; 2 mi. SW Río Frío, May 2, 1963 (W. J. Gertsch, W. Ivie, AMNH), 2♀.

*Distribution*. Central Mexico.

*Anyphaena cumbre*, new species

Figures 63-66

*Types*. Male holotype from Mil Cumbre, 70 km. east of Morelia, malt trap, pine-oak forest, elevation 9000 feet, Michoacán, Mexico (September 8-10, 1969; S. and J. Peck) and female para-

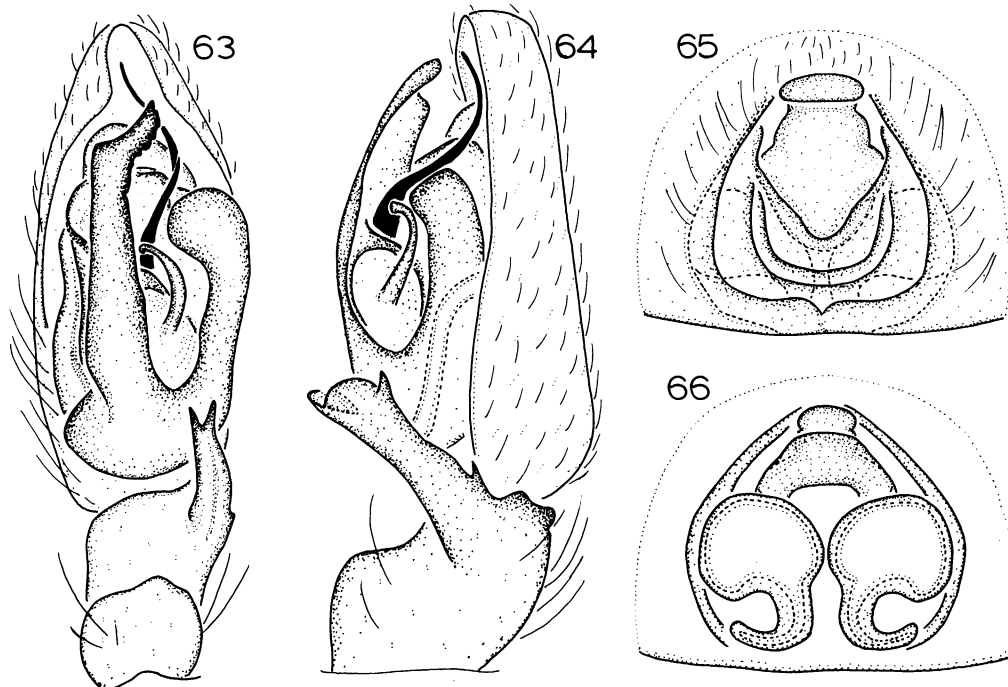
type from Santa Rosa, Distrito Federal, Mexico (July 13, 1946; H. Wagner), deposited in AMNH.

*Etymology*. The specific name is a noun in apposition taken from the type locality.

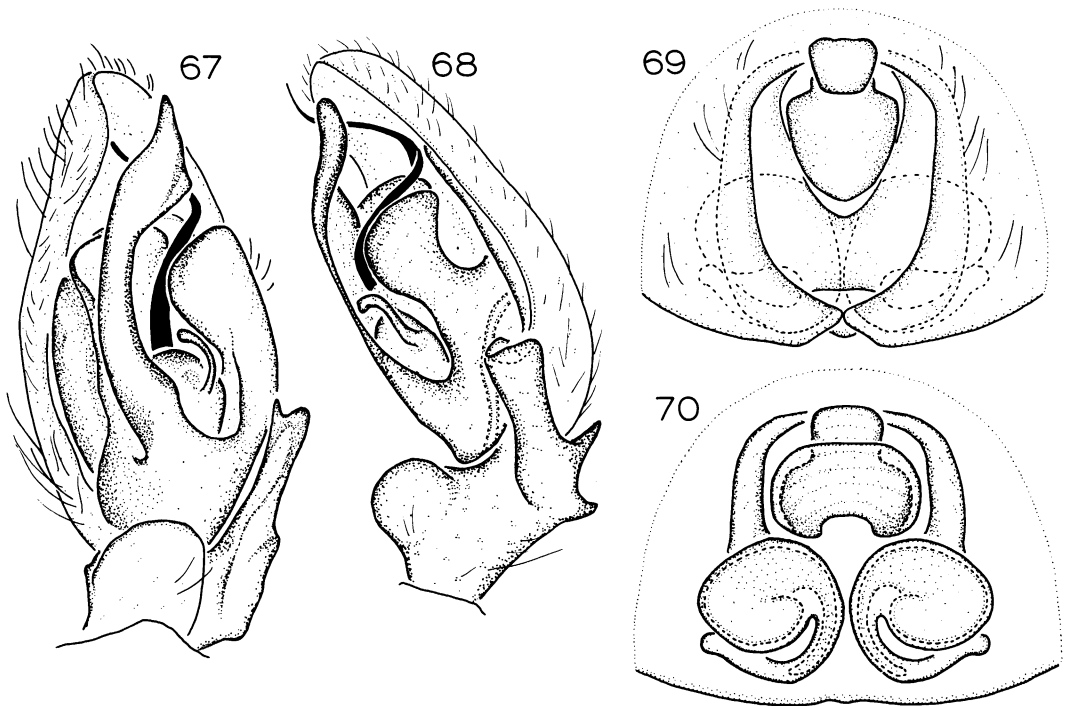
*Diagnosis*. *Anyphaena cumbre* is closest to *cortes* but may be distinguished by the rounded dorsal prong of the retrolateral tibial apophysis (fig. 64) and the wide epigynal midpiece (fig. 65).

*Male*. Total length 8.14 mm. Carapace 2.88 mm. long, 2.41 mm. wide. Femur II 2.77 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.13, PME 0.14, PLE 0.13; AME-AME 0.09, AME-ALE 0.05, PME-PME 0.16, PME-PLE 0.13, ALE-PLE 0.11. MOQ length 0.43 mm., front width 0.25 mm., back width 0.43 mm. Tip of median apophysis lobed (fig. 63); proximal point of dorsal prong of retrolateral tibial apophysis rounded (fig. 64). Leg spination: femur IV r0-1-1; tibiae: I p1-1-1, r1-1-1; II p1-1-1, v3-4-0, r1-1-1; III r1-1-1; IV v2-2-2; metatarsi: I p2-0-1, r1-0-1; III v2-2-2.

*Female*. Total length 5.44-7.20 mm. Carapace 2.16-2.36 mm. long, 1.63-1.87 mm. wide. Femur



FIGS. 63-66. *Anyphaena cumbre*, new species. 63. Palp, ventral view. 64. Palp, retrolateral view. 65. Epigynum, ventral view. 66. Vulva, dorsal view.



FIGS. 67-70. *Anyphaena encino*, new species. 67. Palp, ventral view. 68. Palp, retrolateral view. 69. Epigynum, ventral view. 70. Vulva, dorsal view.

II 1.44-1.87 mm. long (five specimens). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.13, PME 0.12, PLE 0.12; AME-AME 0.08, AME-ALE 0.03, PME-PME 0.18, PME-PLE 0.11, ALE-PLE 0.06. MOQ length 0.37 mm., front width 0.24 mm., back width 0.42 mm. Epigynal surface ridged (fig. 65); spermathecae slightly separated (fig. 66). Leg spination: femora I, II r-0-0-0; tibiae: I v3-4-0, r0-1-0; II v2-4-0, r0-1-0; III d1-0-0, v1-1-2, r0-1-1; metatarsi: I p0-1-1; II d0-0-0; III v2-1-2, r0-1-2.

*Material Examined.* Mexico: Distrito Federal: Santa Rosa, July 13, 1946 (H. Wagner, AMNH), 1♀. México: Nevado de Toluca, Apr. 21, 1940, elevation 13,800-15,100 feet (C. Bolívar, D. Pelaez, AMNH), 1♀; Volcán Popocatepetl, July 18, 1943, elevation 14,100 feet (C. Bolívar, AMNH), 2♀.

*Distribution.* Central Mexico.

***Anyphaena encino*, new species**

Figures 67-70

*Types.* Male holotype from Encino, Durango, Mexico (July 27, 1947; W. J. Gertsch) and

female paratype from Nombre de Dios, Durango, Mexico (August 13, 1947; W. J. Gertsch), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition from the type locality.

*Diagnosis.* *Anyphaena encino* is closest to *otinapa* but may be distinguished by the two points of the dorsal prong of the retrolateral tibial apophysis (fig. 68) and the wide epigynal sidepieces (fig. 69).

*Male.* Total length 3.64 mm. Carapace 1.66 mm. long, 1.31 mm. wide. Femur II 1.40 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.09, PLE 0.09; AME-AME 0.03, AME-ALE 0.02, PME-PME 0.09, PME-PLE 0.07, ALE-PLE 0.04. MOQ length 0.25 mm., front width 0.16 mm., back width 0.27 mm. Tip of median apophysis elongate (fig. 67); dorsal prong of retrolateral tibial apophysis with two widely separated points (fig. 68). Leg spination (right and left leg IV missing): femur I r0-0-0; tibiae: I p0-0-1, v2-4-0; II p0-1-1, v1-3-0; III p1-0-1, v2-2-0; metatarsi: I p0-0-0, r0-0-0; II d0-0-0, p1-0-1, r0-0-0; III r0-1-2.



*Female*. Total length 3.78, 4.24 mm. Carapace 1.55, 1.75 mm. long, 1.22, 1.33 mm. wide. Femur II 1.33, 1.44 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.07, ALE 0.11, PME 0.10, PLE 0.09; AME-AME 0.03, AME-ALE 0.02, PME-PME 0.09, PME-PLE 0.07, ALE-PLE 0.03. MOQ length 0.27 mm., front width 0.18 mm., back width 0.30 mm. Epigynal sidepieces wide (fig. 69); spermathecae enlarged (fig. 70). Leg spination: tibiae: I v3-3-0, r0-1-0; II v4-3-0, r0-1-0; III v1-2-0, r0-1-1; IV v1-1-2; metatarsi: I p0-1-1; III v2-1-2; IV d0-0-0.

*Material Examined*. Mexico: Durango: Nombre de Dios, Aug. 14, 1947 (W. J. Gertsch, AMNH), 1♀.

*Distribution*. Known only from Durango.

*Note*. The male holotype has an abnormal ninth eye between the left anterior median and posterior median eyes.

*Anyphaena otinapa*, new species

Figures 73, 74

*Type*. Female holotype from Otinapa, ele-

vation 8200 feet, Durango, Mexico (August 12, 1947; W. J. Gertsch), deposited in AMNH.

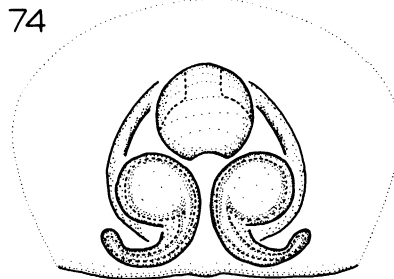
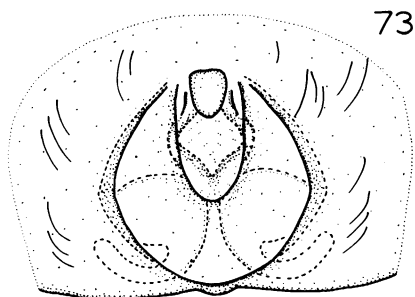
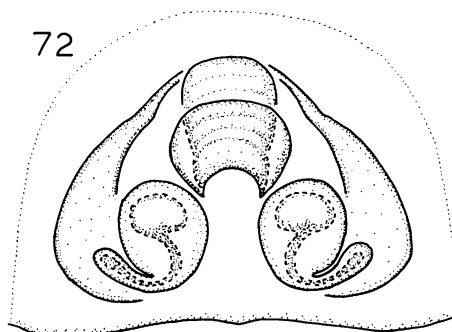
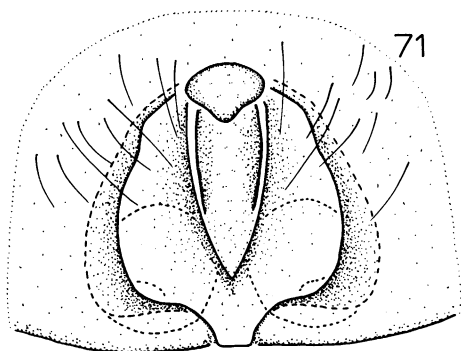
*Etymology*. The specific name is a noun in apposition from the type locality.

*Diagnosis*. *Anyphaena otinapa* is closest to *encino* but may be distinguished by the narrow epigynal sidepieces (fig. 73).

*Male*. Unknown.

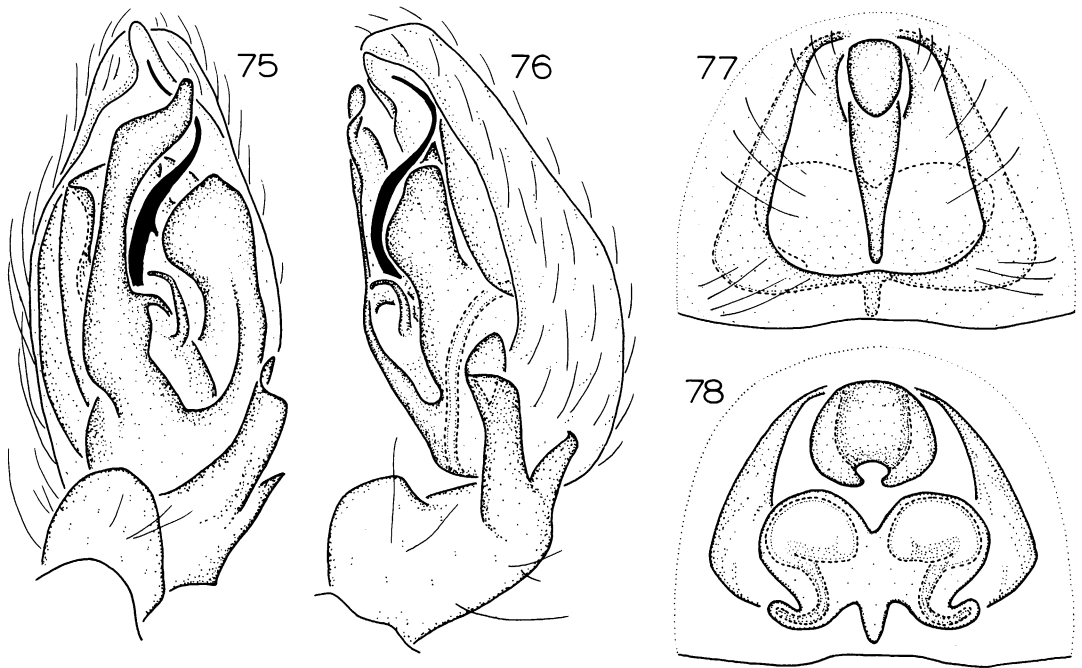
*Female*. Total length 5.22 mm. Carapace 2.12 mm. long, 1.62 mm. wide. Femur II 1.69 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.12, PME 0.11, PLE 0.10; AME-AME 0.08, AME-ALE 0.03, PME-PME 0.14, PME-PLE 0.11, ALE-PLE 0.04. MOQ length 0.32 mm., front width 0.24 mm., back width 0.36 mm. Epigynal sidepieces extremely narrow (fig. 73); spermathecae small, with elongated posterior lobes (fig. 74). Leg spination: femora: I r0-1-1; II, III p0-1-1, r0-1-1; tibiae: I d1-0-1, p1-1-1, r1-1-1; II d1-0-1, v3-4-0, r1-1-1; III v1-2-2; metatarsi: I, II r1-1-1; III v2-1-2.

*Distribution*. Known only from the type specimen from Durango.



FIGS. 71, 72. *Anyphaena alamos*, new species. 71. Epigynum, ventral view. 72. Vulva, dorsal view.

FIGS. 73, 74. *Anyphaena otinapa*, new species. 73. Epigynum, ventral view. 74. Vulva, dorsal view.



FIGS. 75-78. *Anyphaena xochimilco*, new species. 75. Palp, ventral view. 76. Palp, retrolateral view. 77. Epigynum, ventral view. 78. Vulva, dorsal view.

***Anyphaena xochimilco*, new species**  
 Figures 75-78

*Types.* Male holotype and female paratype from Xochimilco, Distrito Federal, Mexico (June 30, 1947; C. Goodnight), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition from the type locality.

*Diagnosis.* *Anyphaena xochimilco* is closest to *tancitaro* but may be distinguished by the long dorsal prong of the retrolateral tibial apophysis (fig. 76) and the long, narrow epigynal midpiece (fig. 77).

*Male.* Total length 4.86, 4.97 mm. Carapace 2.21, 2.44 mm. long, 1.69, 1.87 mm. wide. Femur II 2.09, 2.27 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.12, PME 0.11, PLE 0.12; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.13, PME-PLE 0.08, ALE-PLE 0.05. MOQ length 0.34 mm., front width 0.23 mm., back width 0.35 mm. Conductor short, with two bends (fig. 75); dorsal prong of retrolateral tibial apophysis elongate (fig. 76). Leg spination: femora: I r0-0-0; II

p0-1-1, r0-1-0; III, IV p0-1-1, r0-1-1; tibiae: I v2-4-0; II v2-4-0, r0-1-0; III v2-2-0, r1-1-1; IV v2-2-2; metatarsi: I p0-1-0, r0-1-0; II d0-0-0, p1-0-1, r1-0-1; III v2-1-2.

*Female.* Total length 6.35 ± 0.50 mm. Carapace 2.28 ± 0.10 mm. long, 1.74 ± 0.08 mm. wide. Femur II 2.00 ± 0.10 mm. long (12 specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.12, PME 0.12, PLE 0.12; AME-AME 0.07, AME-ALE 0.03, PME-PME 0.16, PME-PLE 0.11, ALE-PLE 0.06. MOQ length 0.33 mm., front width 0.25 mm., back width 0.40 mm. Epigynal midpiece long, narrow (fig. 77); spermathecae fused, with posteromedial projection (fig. 78). Leg spination: femora: I, II r0-0-0; III p0-1-1, r0-1-1; tibiae: I v2-4-0; II v1-4-0, r0-1-0; III p1-0-1, v1-2-0; metatarsi: I p0-1-1, r0-1-1; III v2-2-2.

*Material Examined.* Mexico: Distrito Federal: Coyoacán, July 28, 1947 (H. Wagner, AMNH), 4♀; El Calvario Acolman, July 26, 1947, elevation 7500 feet (H. Wagner, AMNH), 1♂; Santa Rosa, July 13, 1946, elevation 8900 feet (H. Wagner, AMNH), 1♀; Tlalpan, July 20-21, 1947,

elevation 7500 feet (H. Wagner, AMNH), 3♀; Xochimilco, June 30, 1947 (C. Goodnight, AMNH), 1♀, July 22, 1947 (H. Wagner, AMNH), 1♀. Jalisco: Tepatitlán de Morelos, Aug. 3, 1954 (W. J. Gertsch, AMNH), 1♀.

*Distribution.* Central Mexico.

*Anyphaena tancitaro*, new species

Figures 79-82

*Types.* Male holotype and female paratype from Tancítaro, elevation 6500 feet, among rocks in dry area, Michoacán, Mexico (July-August, 1940; H. Hoogstraal), deposited in MCZ.

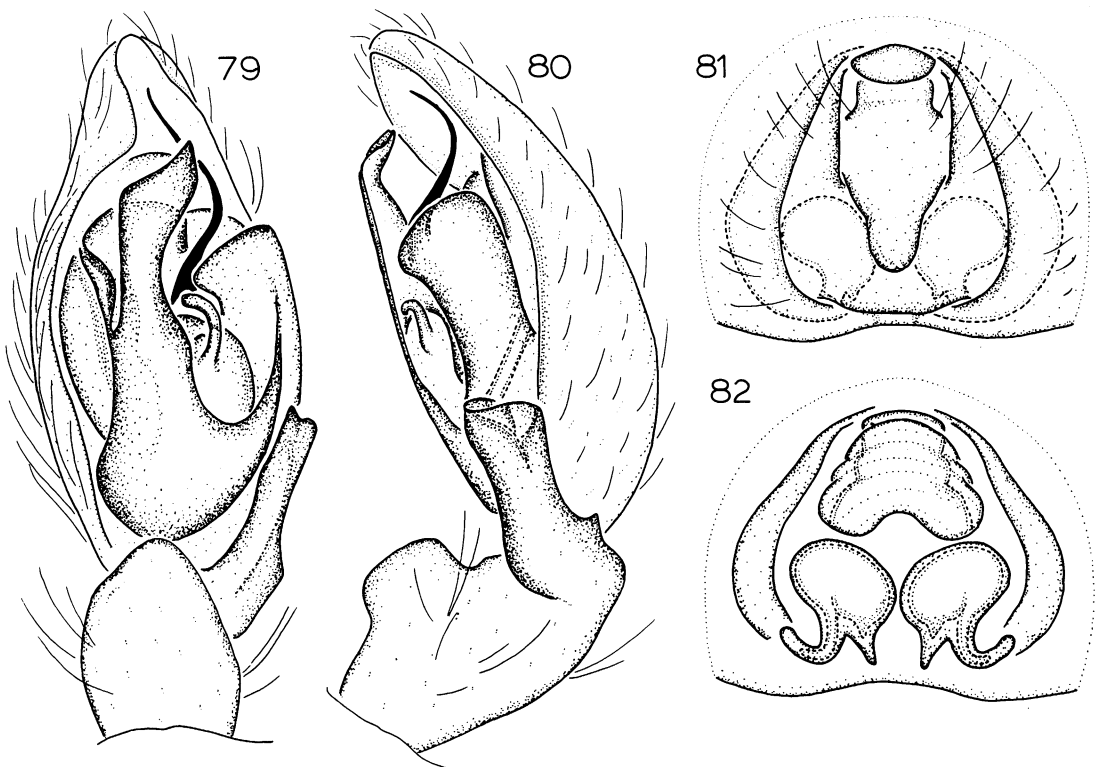
*Etymology.* The specific name is a noun in apposition from the type locality.

*Diagnosis.* *Anyphaena tancitaro* is closest to *xochimilco* but may be distinguished by the short dorsal prong of the retrolateral tibial

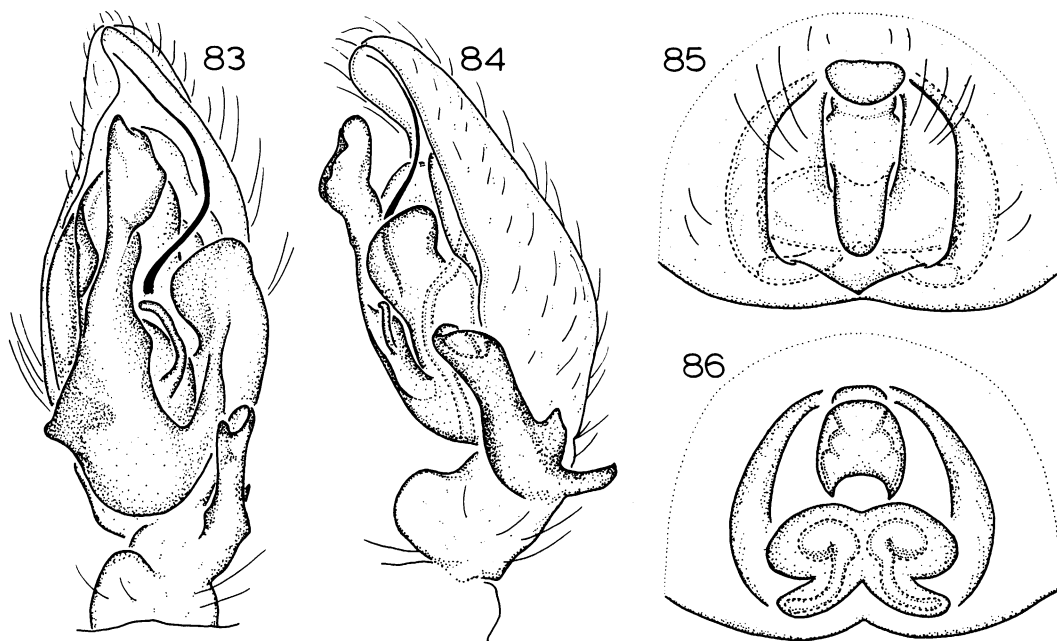
apophysis (fig. 80) and the wide epigynal midpiece (fig. 81).

*Male.* Total length 5.76 mm. Carapace 2.59 mm. long, 2.02 mm. wide. Femur II 2.45 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.14, PME 0.13, PLE 0.15; AME-AME 0.07, AME-ALE 0.02, PME-PME 0.14, PME-PLE 0.11, ALE-PLE 0.06. MOQ length 0.40 mm., front width 0.23 mm., back width 0.39 mm. Conductor short, with one bend (fig. 79); dorsal prong of retrolateral tibial apophysis short, rounded (fig. 80). Leg spination: femora: I p0-2-1, r0-1-1; II p0-1-2, r0-1-1; III p0-1-1, r0-1-1; IV p0-1-1; tibiae: I p1-1-1, v2-4-0, r1-1-1; II p1-1-1, v1-4-0, r1-1-1; III p1-0-1; IV v2-2-2; metatarsi: I p0-0-0, r0-1-0; II d0-0-0, p0-1-0, r0-1-0; III v2-1-2.

*Female.* Total length 4.97 mm. Carapace 2.56 mm. long, 1.98 mm. wide. Femur II 2.12 mm. long (paratype). Eye sizes and interdistances



FIGS. 79-82. *Anyphaena tancitaro*, new species. 79. Palp, ventral view. 80. Palp, retrolateral view. 81. Epigynum, ventral view. 82. Vulva, dorsal view.



FIGS. 83-86. *Anyphaena salto*, new species. 83. Palp, ventral view. 84. Palp, retrolateral view. 85. Epigynum, ventral view. 86. Vulva, dorsal view.

(mm.): AME 0.05, ALE 0.13, PME 0.13, PLE 0.13; AME-AME 0.12, AME-ALE 0.05, PME-PME 0.14, PME-PLE 0.13, ALE-PLE 0.09. MOQ length 0.35 mm., front width 0.22 mm., back width 0.39 mm. Epigynal midpiece wide (fig. 81); spermathecae each with two posterior lobes (fig. 82). Leg spination (right and left legs I and II missing): femora: I r0-0-0; II p0-1-1; tibiae: I p1-1-0, v2-4-0, r0-1-1; II v2-4-0; metatarsi: I p0-1-0, r0-0-0; II d0-0-0, p0-1-1, r0-1-0.

*Distribution.* Known only from the type specimens from Michoacán.

***Anyphaena salto*, new species**  
 Figures 83-86

*Types.* Male holotype and female paratype from Palos Colorados, elevation 8000 feet, Durango, Mexico (August 5, 1947; W. J. Gertsch), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition taken from El Salto, where the species has been collected.

*Diagnosis.* *Anyphaena salto* is closest to

*obregon* but may be distinguished by the produced prolateral beak at the base of the median apophysis (fig. 83) and the broad epigynal hood (fig. 85).

*Male.* Total length 3.01-3.55 mm. Carapace 1.51-1.63 mm. long, 1.26-1.34 mm. wide. Femur II 1.30-1.37 mm. long (three specimens). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.08, PLE 0.09; AME-AME 0.04, AME-ALE 0.02, PME-PME 0.09, PME-PLE 0.06, ALE-PLE 0.04. MOQ length 0.24 mm., front width 0.14 mm., back width 0.25 mm. Base of median apophysis prolonged into prolateral beak (fig. 83); proximal point of dorsal prong of retrolateral tibial apophysis elongated (fig. 84). Leg spination: femur II p0-1-1; tibiae: I d1-0-0, p1-1-1, r1-1-1; II d1-0-0, p1-1-1, r0-1-1; III d1-0-0, r1-1-1; metatarsi: I p1-0-1, r1-0-1; II d0-0-0, p1-0-1, r1-0-1.

*Female.* Total length 4.10, 4.28 mm. Carapace 1.55, 1.58 mm. long, 1.22, 1.25 mm. wide. Femur II 1.30, 1.33 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.09, PLE 0.10; AME-AME 0.04, AME-ALE 0.02, PME-PME 0.09, PME-PLE

0.06, ALE-PLE 0.05. MOQ length 0.25 mm., front width 0.15 mm., back width 0.27 mm. Epigynal hood broad (fig. 85); spermathecae fused (fig. 86). Leg spination: tibiae: I v2-4-0; II v1-4-0; III v1-1-0, r1-1-1; metatarsi: I p0-0-0, r0-0-0; II d0-0-0, p1-0-1, r0-0-0; IV r1-0-2.

*Material Examined.* Mexico: *Durango*: 10 mi. E El Salto, Aug. 8, 1947 (W. J. Gertsch, AMNH), 2♂; Palos Colorados, Aug. 5, 1947, elevation 8000 feet (W. J. Gertsch, AMNH), 1♀.

*Distribution.* Known only from Durango.

***Anyphaena obregon*, new species**

Figures 87-90

*Types.* Male holotype and female paratype from Coajomulco, Morelos, Mexico (June 7, 1946; J. C. and D. L. Pallister), deposited in AMNH.

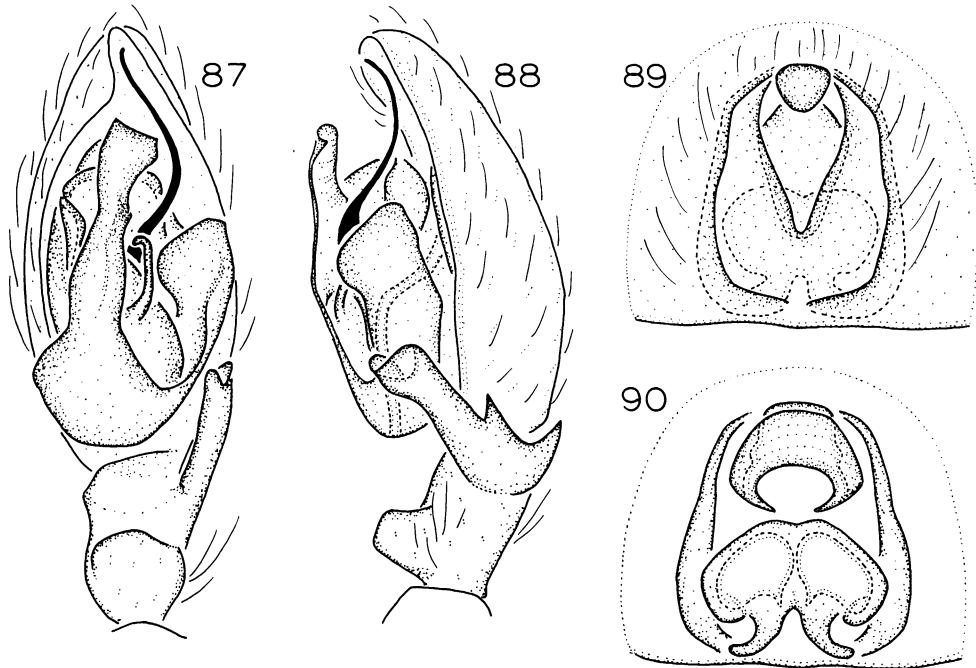
*Etymology.* The specific name is a noun in apposition taken from Villa Obregón, where the species has been collected.

*Diagnosis.* *Anyphaena obregon* is closest to *salto* but may be distinguished by the lack of a

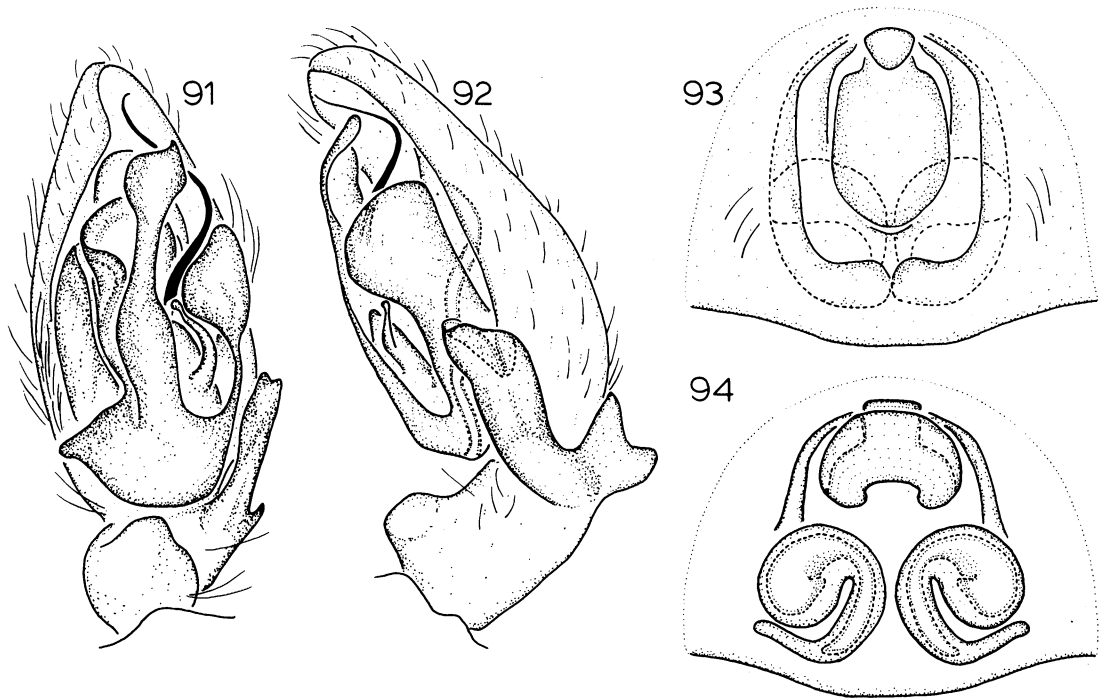
produced prolateral beak at the base of the median apophysis (fig. 87) and the narrow epigynal hood (fig. 89).

*Male.* Total length 3.35-3.71 mm. Carapace 1.73-1.75 mm. long, 1.33-1.37 mm. wide. Femur II 1.30-1.40 mm. long (three specimens). Eye sizes and interdistances (mm.): AME 0.04, ALE 0.08, PME 0.08, PLE 0.08; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.13, PME-PLE 0.07, ALE-PLE 0.05. MOQ length 0.25 mm., front width 0.13 mm., back width 0.29 mm. Tip of median apophysis expanded retrolaterally (fig. 87); dorsal prong of retrolateral tibial apophysis concave (fig. 88). Leg spination: femur I r0-0-0; tibiae: I p1-1-1, v2-2-0, r0-1-1; II p1-1-1, v2-2-0, r1-1-1; III v1-2-2; IV v1-1-2; metatarsus I d0-1-0, p0-1-1.

*Female.* Total length 3.38 mm. Carapace 1.52 mm. long, 1.22 mm. wide. Femur II 1.07 mm. long (paratype). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.06, PME 0.06, PLE 0.07; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.14, PME-PLE 0.08, ALE-PLE 0.07. MOQ length 0.26 mm., front width 0.16 mm.,



FIGS. 87-90. *Anyphaena obregon*, new species. 87. Palp, ventral view. 88. Palp, retrolateral view. 89. Epigynum, ventral view. 90. Vulva, dorsal view.



FIGS. 91-94. *Anyphaena judicata* O. P.-Cambridge. 91. Palp, ventral view. 92. Palp, retrolateral view. 93. Epigynum, ventral view. 94. Vulva, dorsal view.

back width 0.27 mm. Epigynal hood narrow (fig. 89); spermathecae with long posterior lobes (fig. 90). Leg spination: femur I r0-0-0; tibiae: I p0-1-1, v2-2-0, r0-1-1; II p0-1-1, v1-2-0, r0-1-1; III p0-1-1, r0-1-1; IV p0-1-1, v1-1-2; metatarsi: I d0-1-0, p0-1-1; II p0-1-1.

*Material Examined. Mexico: Distrito Federal:* Villa Obregón, June 25-28, 1963 (J. A. Beatty, CJAB), 1♂. *Morelos:* Coajomulco, June 7, 1946 (J. C. and D. L. Pallister, AMNH), 1♂.

*Distribution.* Central Mexico.

*Anyphaena judicata* O. P.-Cambridge  
Figures 1-6, 91-94

*Anyphaena judicata* O. P.-Cambridge, 1896, p. 203, pl. 26, fig. 4 (male holotype from Omiltemi, Guerrero, Mexico, in BMNH, examined). F. O. P.-Cambridge, 1900, p. 96, pl. 7, fig. 9. Roewer, 1954, p. 525. Bonnet, 1955, p. 345. Platnick, 1974, p. 222, figs. 5, 26, 33, 34.

*Diagnosis.* *Anyphaena judicata* is closest to

*felipe* but may be distinguished by the smooth dorsal prong of the retrolateral tibial apophysis (fig. 92) and the wide epigynal midpiece (fig. 93).

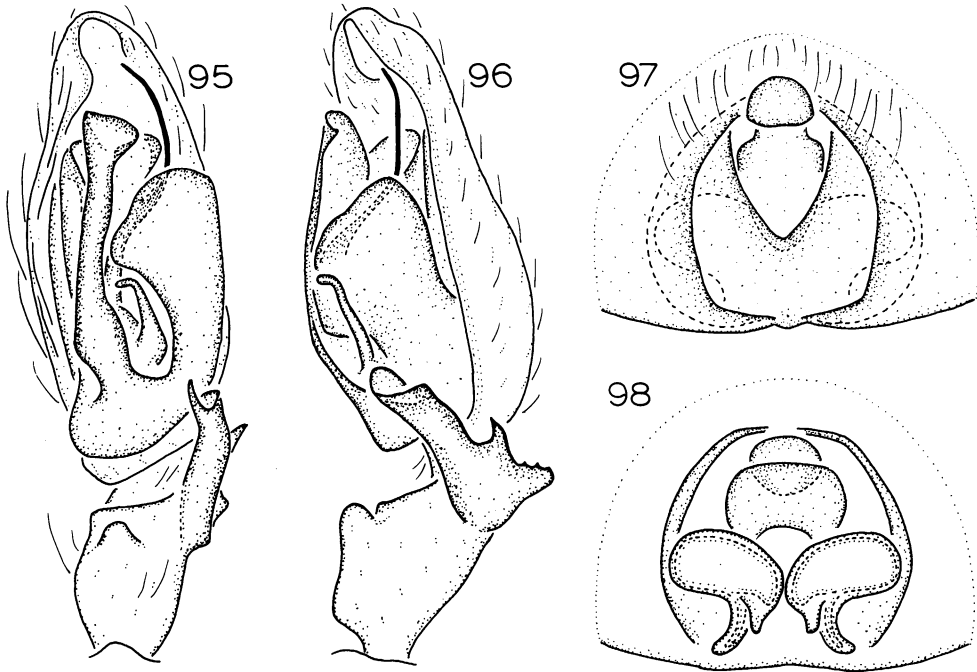
*Male.* Total length  $3.64 \pm 0.40$  mm. Carapace  $1.79 \pm 0.18$  mm. long,  $1.44 \pm 0.16$  mm. wide. Femur II  $1.70 \pm 0.27$  mm. long (22 specimens examined). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.09, PLE 0.11; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.12, PME-PLE 0.07, ALE-PLE 0.04. MOQ length 0.27 mm., front width 0.16 mm., back width 0.30 mm. Base of median apophysis prolonged into prolateral beak (fig. 91); dorsal prong of retrolateral tibial apophysis concave, expanded dorsally (fig. 92). Leg spination: tibiae: I p0-1-1, r0-1-1; II p0-1-1, v2-4-0, r1-1-1; III p1-0-1, v1-2-2; IV p0-1-1, v1-1-2, r0-1-1; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III v2-2-2, r1-2-2; IV d0-0-0.

*Female.* Total length  $4.19 \pm 0.58$  mm. Carapace  $1.63 \pm 0.15$  mm. long,  $1.22 \pm 0.10$  mm. wide. Femur II  $1.24 \pm 0.19$  mm. long (19

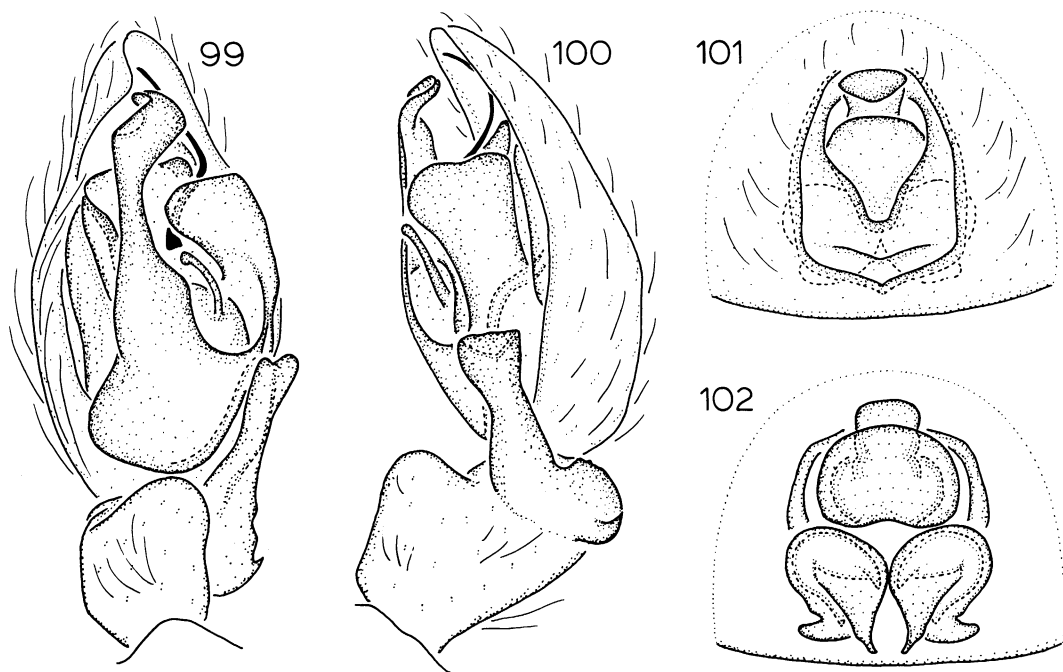
specimens examined). Eye sizes and interdistances (mm.): AME 0.07, ALE 0.10, PME 0.10, PLE 0.12; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.13, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.31 mm., front width 0.21 mm., back width 0.33 mm. Epigynal midpiece broad (fig. 93); spermathecae with long posterior lobes (fig. 94). Leg spination: tibiae: I, II p0-1-1, r0-1-1; III p1-0-1, v1-2-2; IV p1-0-1, v1-1-2, r1-0-1; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III v2-1-2.

*Material Examined.* Mexico: *Chiapas*: San Cristóbal de las Casas, July 11, 1950 (C. and M. Goodnight, L. Stannard, AMNH), 1♂; 5 mi. W San Cristóbal de las Casas, Aug. 24, 1966, pine-oak forest (J. and W. Ivie, AMNH), 1♂. *Distrito Federal*: Coyoacán, Sept., 1946, elevation 7500 feet (H. Wagner, AMNH), 1♂; Xochimilco, July 22, 1947 (H. Wagner, AMNH), 2♂; no specific locality, July-Aug., 1941 (H. Wagner, AMNH), 1♂. *Guerrero*: Amula (BMNH), 2♂, 8♀; Taxco, Aug. 29, 1959 (A. F. Archer, AMNH), 1♂. *Hidalgo*: 5 mi. N Encarnación, July

28, 1966, elevation 6000 feet (J. and W. Ivie, AMNH), 1♀; 2 mi. SW Jacala, Aug. 18, 1964 (J. and W. Ivie, AMNH), 1♂, 1♀. *México*: Intapan de la Sal, Aug. 21-28, 1946 (H. Wagner, AMNH), 2♂, 1♀; Tenancingo, Aug. 30-Sept. 6, 1946, elevation 6750 feet (H. Wagner, AMNH), 1♀; Tenango de Arista, Aug. 26-29, 1946, elevation 7900 feet (H. Wagner, AMNH), 1♀. *Nayarit*: Tepic, Aug. 27, 1947 (C. and J. Goodnight, B. Malkin, AMNH), 1♂, Sept. 15, 1953 (B. Malkin, AMNH), 1♀. *Oaxaca*: Oaxaca, July 19, 1947 (B. Malkin, AMNH), 2♂, Sept. 13-20, 1947 (B. Malkin, AMNH), 1♀. *Puebla*: Huauchinango, Aug. 24, 1946 (Goodnight, Bordas, AMNH), 1♂, Oct. 7, 1947 (H. Wagner, AMNH), 1♀; 10 mi. N Tehuacan, Aug. 3, 1966 (J. and W. Ivie, AMNH), 1♂. *Revilla Gigedo Islands*: Isla Socorro, May 3, 1932 (Templeton, AMNH), 1♂. *Sinaloa*: Mazatlan, July 17, 1963 (J. A. Beatty, CJAB), 1♂. *Tlaxcala*: Tlaxcala, July 26, 1956 (W. J. Gertsch, V. Roth, AMNH), 1♀. *Veracruz*: Ciudad Mendoza, Aug. 24, 1964 (J. and W. Ivie, AMNH), 1♂; Jalapa, May 19-21, 1946 (J. and D. Pallister,



FIGS. 95-98. *Anyphaena felipe*, new species. 95. Palp, ventral view. 96. Palp, retrolateral view. 97. Epigynum, ventral view. 98. Vulva, dorsal view.



FIGS. 99-102. *Anyphaena tehuacan*, new species. 99. Palp, ventral view. 100. Palp, retrolateral view. 101. Epigynum, ventral view. 102. Vulva, dorsal view.

AMNH), 1♀. **Guatemala:** *Sacatepéquez*: Capetillo, Aug. 20-23, 1947 (C. and P. Vaurie, AMNH), 1♂. *Sololá*: Lago de Atitlán, Aug. 18, 1950 (C. and M. Goodnight, AMNH), 1♀.

*Distribution.* Arizona south to Guatemala.

***Anyphaena felipe*, new species**  
Figures 95-98

*Types.* Male holotype and female paratype from the base of San Felipe Mountain, Oaxaca, Oaxaca, Mexico (September 16-17, 1947; B. Malkin), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition taken from the type locality.

*Diagnosis.* *Anyphaena felipe* is closest to *judicata* but may be distinguished by the serrate dorsal prong of the retrolateral tibial apophysis (fig. 96) and the smaller epigynal midpiece (fig. 97).

*Male.* Total length 4.46 mm. Carapace 2.09 mm. long, 1.62 mm. wide. Femur II 1.98 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.07, ALE 0.12, PME 0.11, PLE

0.11; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.10, ALE-PLE 0.04. MOQ length 0.32 mm., front width 0.20 mm., back width 0.32 mm. Tip of median apophysis expanded (fig. 95); dorsal prong of retrolateral tibial apophysis serrated (fig. 96). Leg spination: tibiae: I, II d1-0-1, p1-2-0, r1-2-0; III v3-2-2, r1-1-1; IV v2-2-2; metatarsi: I d0-1-0, r1-1-1; II r1-1-1.

*Female.* Total length 3.99 mm. Carapace 1.92 mm. long, 1.55 mm. wide. Femur II 1.55 mm. long (paratype). Eye sizes and interdistances (mm.): AME 0.05, ALE 0.09, PME 0.10, PLE 0.09; AME-AME 0.08, AME-ALE 0.05, PME-PME 0.14, PME-PLE 0.10, ALE-PLE 0.07. MOQ length 0.28 mm., front width 0.18 mm., back width 0.33 mm. Epigynal midpiece small (fig. 97); spermathecae with distinct dorsal lobes (fig. 98). Leg spination: tibiae: I, II p1-1-1, r0-1-1; III p1-0-1, v1-1-0; IV v1-1-2; metatarsi (right and left I missing): II r1-1-1.

*Distribution.* Known only from the type specimens from Oaxaca.



*Anyphaena tehuacan*, new species  
Figures 99-102

*Types.* Male holotype and female paratype from 10 miles north of Tehuacán, latitude 19° 40' N, longitude 97° 23' W, Puebla, Mexico (August 3, 1966; J. and W. Ivie), deposited in AMNH.

*Etymology.* The specific name is a noun in apposition from the type locality.

*Diagnosis.* *Anyphaena tehuacan* is closest to *wanlessi* but may be distinguished by the broad dorsal prong of the retrolateral tibial apophysis (fig. 100) and the wide epigynal midpiece (fig. 101).

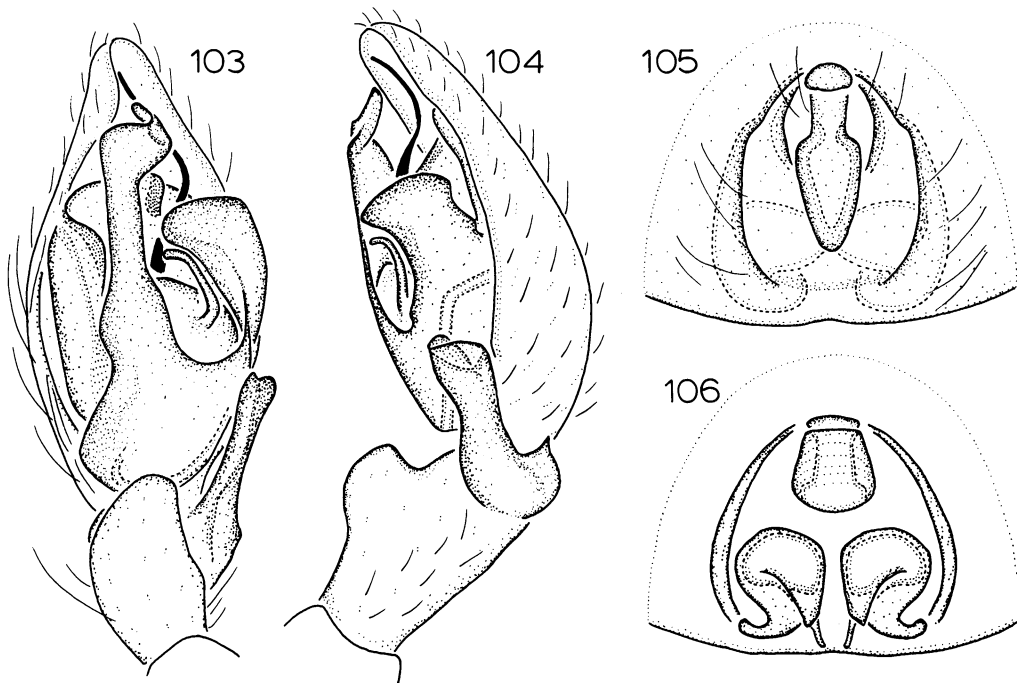
*Male.* Total length 4.00-4.72 mm. Carapace 1.94-2.20 mm. long, 1.62-1.80 mm. wide. Femur II 1.91-2.09 mm. long (five specimens). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.10, PME 0.11, PLE 0.12; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.11, PME-PLE 0.07, ALE-PLE 0.04. MOQ length 0.26 mm., front width 0.18 mm., back width 0.33 mm. Tip of

median apophysis recurved (fig. 99); dorsal prong of retrolateral tibial apophysis broad, bearing a basal hook (fig. 100). Leg spination: femur I p0-0-1; tibiae: II v2-4-0; III p0-1-1, r0-1-1; metatarsi I, II p0-1-1.

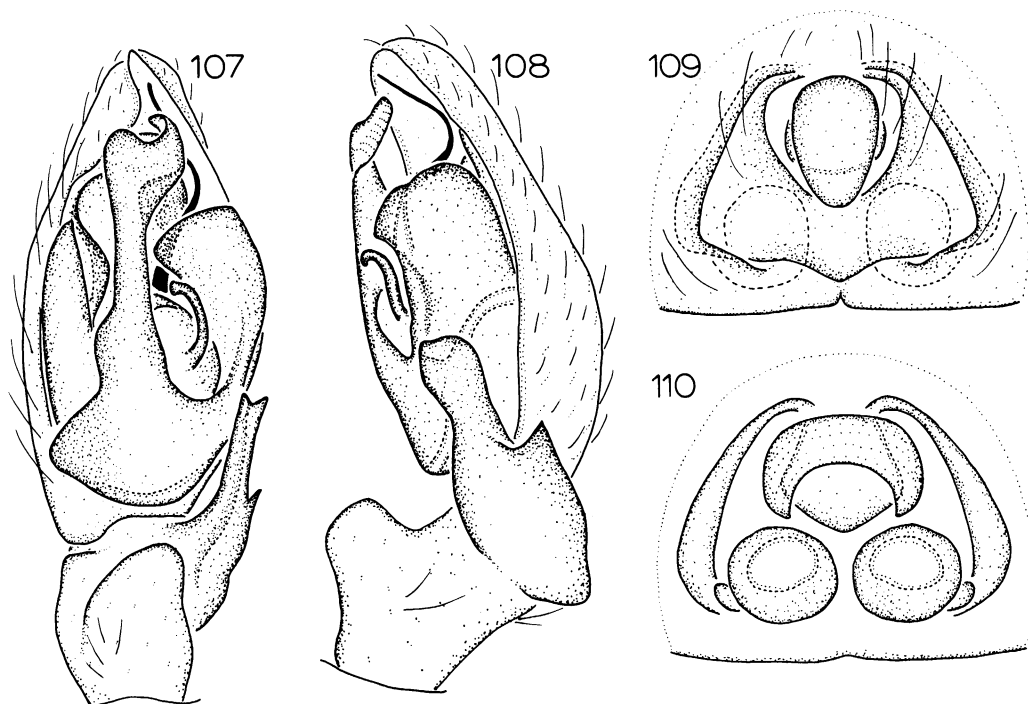
*Female.* Total length 4.43-5.69 mm. Carapace 1.94-2.30 mm. long, 1.58-1.79 mm. wide. Femur II 1.66-1.92 mm. long (three specimens). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.12, PME 0.12, PLE 0.12; AME-AME 0.07, AME-ALE 0.03, PME-PME 0.12, PME-PLE 0.08, ALE-PLE 0.05. MOQ length 0.30 mm., front width 0.19 mm., back width 0.36 mm. Epigynal midpiece broad (fig. 101); spermathecae almost touching (fig. 102). Leg spination: femur I r0-0-0; tibiae: II v3-4-0; III v1-1-2, r0-1-1; metatarsi: I p0-1-1, r0-0-1; II d0-0-0, p0-1-1.

*Material Examined.* Mexico: *Hidalgo*: 10-25 mi. S Jacala, July 20, 1956 (W. J. Gertsch, V. Roth, AMNH), 1♂. *Puebla*: 10 mi. N Tehuacán, Aug. 3, 1966 (J. and W. Ivie, AMNH), 3♂, 2♀.

*Distribution.* Central Mexico.



FIGS. 103-106. *Anyphaena wanlessi*, new species. 103. Palp, ventral view. 104. Palp, retro-lateral view. 105. Epigynum, ventral view. 106. Vulva, dorsal view.



FIGS. 107-110. *Anyphaena gibba* O. P.-Cambridge. 107. Palp, ventral view. 108. Palp, retrolateral view. 109. Epigynum, ventral view. 110. Vulva, dorsal view.

***Anyphaena wanlessi*, new species**

Figures 103-106

*Anyphaena gibbosa* (misidentification): O. P.-Cambridge, 1896, p. 202, pl. 25, fig. 10 (female only).

*Anyphaena gibba* (misidentification): F. O. P.-Cambridge, 1900, p. 96, pl. 7, fig. 5 (female only).

**Types.** Male holotype and female paratype from Omiltemi, Guerrero, Mexico (no date; H. H. Smith), deposited in BMNH.

**Etymology.** The specific name is a patronym in honor of Mr. Fred R. Wanless of the British Museum (Natural History), who made available for study the type and many other specimens.

**Diagnosis.** *Anyphaena wanlessi* is closest to *tehuacan* but may be distinguished by the narrower dorsal prong of the retrolateral tibial apophysis (fig. 104) and the narrow epigynal midpiece (fig. 105).

**Male.** Total length  $4.80 \pm 0.34$  mm. Carapace  $2.29 \pm 0.22$  mm. long,  $1.74 \pm 0.11$  mm. wide.

Femur II  $2.22 \pm 0.30$  mm. long (10 specimens). Eye sizes and interdistances (mm.): AME 0.07, ALE 0.14, PME 0.13, PLE 0.13; AME-AME 0.07, AME-ALE 0.02, PME-PME 0.12, PME-PLE 0.08, ALE-PLE 0.04. MOQ length 0.34 mm., front width 0.21 mm., back width 0.38 mm. Tip of median apophysis recurved (fig. 103); dorsal prong of retrolateral tibial apophysis relatively narrow, without basal hook (fig. 104). Leg spination: femora: I p0-2-1; II, III p0-1-1, r0-1-1; IV r0-1-1; tibiae: I r0-1-0; II p0-1-0, v3-4-0, r0-1-1; III p1-0-1, r0-1-1; metatarsi: I p0-1-1; II r1-1-1.

**Female.** Total length  $5.72 \pm 0.53$  mm. Carapace  $2.27 \pm 0.14$  mm. long,  $1.73 \pm 0.13$  mm. wide. Femur II  $1.97 \pm 0.11$  mm. long (25 specimens examined). Eye sizes and interdistances (mm.): AME 0.08, ALE 0.13, PME 0.13, PLE 0.13; AME-AME 0.07, AME-ALE 0.02, PME-PME 0.13, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.38 mm., front width 0.23 mm., back width 0.40 mm. Epigynal midpiece narrow (fig. 105); spermathecae well separated (fig. 106). Leg

spination: femur III p0-1-1, r0-1-1; tibiae: I p0-2-0, r0-1-0; II p0-2-0, v3-4-0, r0-1-0; III v1-2-2, r0-1-1; metatarsi: I p0-1-1; III v2-1-2.

*Material Examined.* Mexico: Guerrero: Amula (BMNH), 1♀; Omiltemi (H. H. Smith, BMNH), 9♂, 23♀.

*Distribution.* Known only from Guerrero.

*Anyphaena gibba* O. P.-Cambridge  
Figs. 107-110

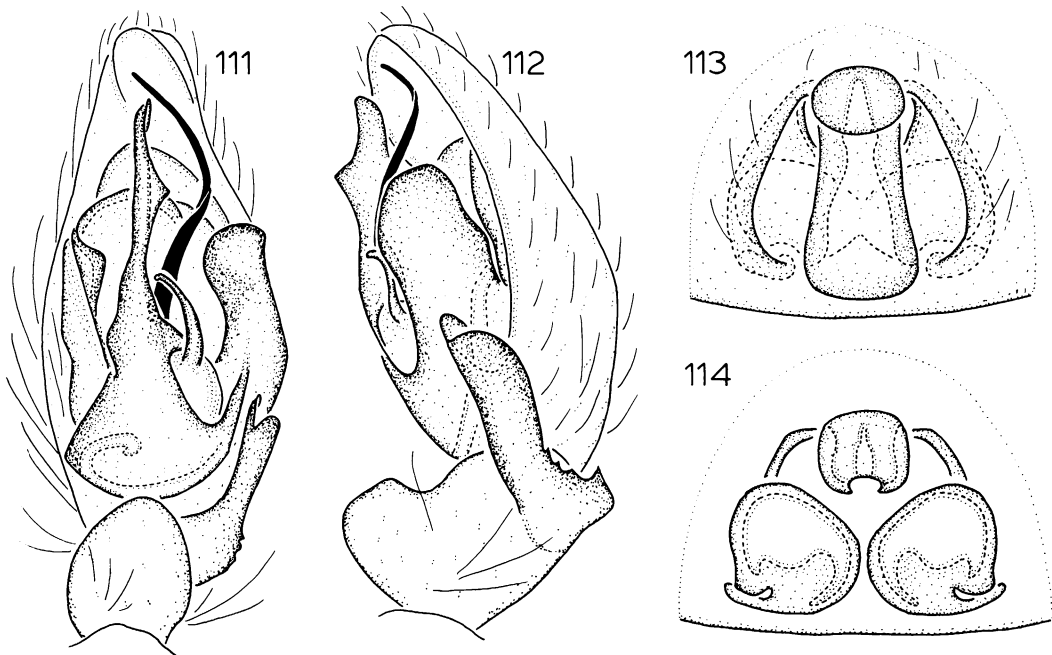
*Anyphaena gibba* O. P.-Cambridge, 1896, p. 201, pl. 26, fig. 7 (male holotype from Omiltemi, Guerrero, Mexico, in BMNH, examined). F. O. P.-Cambridge, 1900, p. 96, pl. 7, fig. 4 (male only). Roewer, 1954, p. 525. Bonnet, 1955, p. 344.

*Diagnosis.* *Anyphaena gibba* is closest to *tehuacan* and *wanlessi* but may be distinguished by the greatly enlarged dorsal prong of the retrolateral tibial apophysis (fig. 108) and epigynal hood (fig. 109).

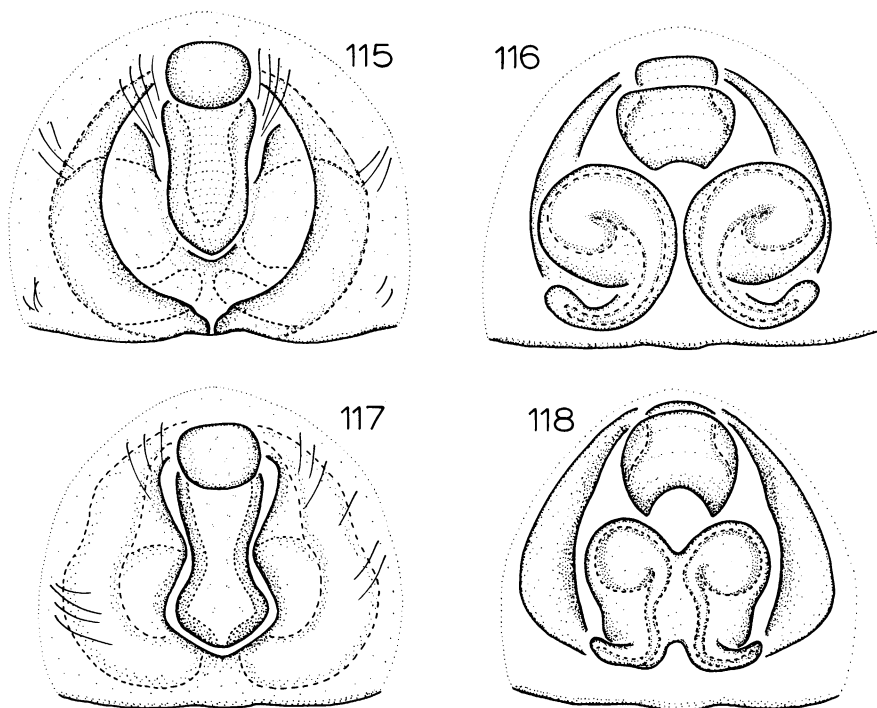
*Male.* Total length 6.19 mm. Carapace 2.61 mm. long, 2.06 mm. wide. Femur II 2.88 mm. long (holotype). Eye sizes and interdistances

(mm.): AME 0.08, ALE 0.14, PME 0.13, PLE 0.15; AME-AME 0.05, AME-ALE 0.03, PME-PME 0.15, PME-PLE 0.09, ALE-PLE 0.05. MOQ length 0.37 mm., front width 0.21 mm., back width 0.41 mm. Tip of median apophysis recurved (fig. 107); dorsal prong of retrolateral tibial apophysis greatly enlarged (fig. 108). Leg spination: femora: I, II p0-1-2, r0-1-1; III, IV p0-1-1, r0-1-1; tibiae: I, II p1-1-1, r1-1-1; III r1-1-1; metatarsi I, II r1-1-1.

*Female.* Total length 6.16, 6.73 mm. Carapace 2.20, 2.30 mm. long, 1.67, 1.76 mm. wide. Femur II 1.80, 1.92 mm. long (two specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.14, PME 0.13, PLE 0.12; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.14, PME-PLE 0.07, ALE-PLE 0.03. MOQ length 0.32 mm., front width 0.23 mm., back width 0.40 mm. Epigynal hood greatly enlarged, covering midpiece (fig. 109); spermathecae rotund (fig. 110). Leg spination: femora: I r-0-0-0; II r0-1-0; III p0-1-1, r0-1-1; IV p0-1-1; tibiae: I v2-4-0; II v1-4-0; III p1-1-0, v1-1-2, r1-1-0; metatarsi: I p1-0-1, r0-1-1; II p0-1-1; IV v2-1-2.



FIGS. 111-114. *Anyphaena plana* F. O. P.-Cambridge. 111. Palp, ventral view. 112. Palp, retrolateral view. 113. Epigynum, ventral view. 114. Vulva, dorsal view.



FIGS. 115, 116. *Anyphaena inferens* Chamberlin. 115. Epigynum, ventral view. 116. Vulva, dorsal view.

FIGS. 117, 118. *Anyphaena pretiosa* Banks. 117. Epigynum, ventral view. 118. Vulva, dorsal view.

**Material Examined.** Mexico: Guerrero: Taxco, Aug. 15, 1943 (Bolívar, Peláez, Osorio, AMNH), 1♀. Puebla: Tlacotepec, July 25, 1956 (W. J. Gertsch, V. Roth, AMNH), 1♀.

**Distribution.** Central Mexico.

*Anyphaena plana* F. O. P.-Cambridge  
Figures 111-114

*Anyphaena plana* F. O. P.-Cambridge, 1900, p. 97, pl. 7, fig. 15 (male holotype from Bugaba, Chiriquí, Panama, in BMNH, examined). Roewer, 1954, p. 526. Bonnet, 1955, p. 346.

**Diagnosis.** *Anyphaena plana* is closest to *inferens* but may be distinguished by the narrow median apophysis (fig. 111) and the long epigynal midpiece (fig. 113).

**Male.** Total length 3.49 mm. Carapace 1.91 mm. long, 1.48 mm. wide. Femur II 1.80 mm. long (holotype). Eye sizes and interdistances

(mm.): AME 0.06, ALE 0.10, PME 0.09, PLE 0.10; AME-AME 0.05, AME-ALE 0.02, PME-PME 0.11, PME-PLE 0.08, ALE-PLE 0.05. MOQ length 0.29 mm., front width 0.17 mm., back width 0.29 mm. Tip of median apophysis extremely narrow (fig. 111); dorsal prong of retrolateral tibial apophysis serrate (fig. 112). Leg spination: tibiae: I, II p1-1-1, v2-2-2, r1-1-1; III p1-0-1; IV v2-2-2; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III v2-1-2.

**Female.** Total length 4.54 mm. Carapace 1.80 mm. long, 1.26 mm. wide. Femur IV 1.48 mm. long (one specimen, leg II missing). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.10, PME 0.09, PLE 0.10; AME-AME 0.06, AME-ALE 0.02, PME-PME 0.14, PME-PLE 0.10, ALE-PLE 0.07. MOQ length 0.30 mm., front width 0.18 mm., back width 0.32 mm. Epigynal midpiece long, broad (fig. 113); spermathecae with narrow

posterior lobes (fig. 114). Leg spination (right and left legs I and II missing): tibiae: III p1-0-1, v1-1-2; IV v1-1-2; metatarsus III v2-1-2.

*Material Examined.* Panama: *Chiriqui*: Bugaba (BMNH), 1♀.

*Distribution.* Known only from Panama.

*Anyphaena inferens* Chamberlin

Figures 115, 116

*Anyphaena inferens* Chamberlin, 1925, p. 221 (female holotype from Costa Rica, no specific locality, in MCZ, examined). Roewer, 1954, p. 525. Bonnet, 1955, p. 345.

*Diagnosis.* *Anyphaena inferens* is closest to *plana* but may be distinguished by the shorter epigynal midpiece (fig. 115).

*Male.* Unknown.

*Female.* Total length 6.26-7.65 mm. Carapace 2.66-3.02 mm. long, 1.98-2.20 mm. wide. Femur II 1.91-2.41 mm. long (five specimens). Eye sizes and interdistances (mm.): AME 0.09, ALE 0.12, PME 0.11, PLE 0.12; AME-AME 0.09, AME-ALE 0.05, PME-PME 0.19, PME-PLE 0.15, ALE-PLE 0.08. MOQ length 0.40 mm., front width 0.26 mm., back width 0.41 mm. Epigynal sidepieces wide (fig. 115); spermathecae with long posterior lobes (fig. 116). Leg spination: femora: I, II r0-0-0; III p0-1-1; tibiae: I r0-1-0; II v3-4-0; III d0-0-0, v1-2-2; IV d0-0-0; metatarsi: I p0-1-1; III v2-1-2, r1-1-1.

*Material Examined.* Costa Rica: no specific locality (AMNH), 1♀. *Cartago*: Volcán Irazú, Nov. 26, 1955, elevation 11,200 feet (B. Malkin, AMNH), 2♀. *San José*: "Tablago," probably Cerro Tablazo (MCZ), 1♀.

*Distribution.* Known only from Costa Rica.

*Anyphaena pretiosa* Banks

Figures 117, 118

*Anyphaena pretiosa* Banks, 1914, p. 677, fig. 4 (female holotype from Santa María, San José, Costa Rica, in MCZ, examined). Roewer, 1954, p. 526. Bonnet, 1955, p. 346.

*Diagnosis.* *Anyphaena pretiosa* is a distinctive species easily recognizable by the sinuous epigynal midpiece (fig. 117).

*Male.* Unknown.

*Female.* Total length 4.97 mm. Carapace 1.87

mm. long, 1.41 mm. wide. Femur II 1.51 mm. long (holotype). Eye sizes and interdistances (mm.): AME 0.06, ALE 0.11, PME 0.09, PLE 0.10; AME-AME 0.06, AME-ALE 0.03, PME-PME 0.14, PME-PLE 0.10, ALE-PLE 0.05. MOQ length 0.33 mm., front width 0.18 mm., back width 0.32 mm. Epigynal midpiece sinuous (fig. 117); spermathecae fused, longer than wide (fig. 118). Leg spination: tibiae: I p1-1-0, r0-1-0; II r1-1-0; III p1-0-1, v1-1-2; IV v1-1-2; metatarsi: I d0-1-0, r1-1-1; II r1-1-1; III v2-1-2, r1-1-1.

*Distribution.* Known only from the type specimen from Costa Rica.

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