

American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 1904

AUGUST 13, 1958

The Spider Family Diguetidae

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The primitive six-eyed weavers of the spider family Diguetidae range from the southwestern United States deep into southern Mexico. They have as their nearest relatives the eight-eyed Plectreuridae, which have a similar distribution and are also exclusively American. The elongate, long-legged diguetids weave expansive webs consisting of a maze of threads and move through these webs much in the fashion of aerial spiders. Favorite sites for the webs are the prickly pear and bush cacti of arid regions, but they may be found on almost any kind of shrub vegetation. At the center of the web is suspended vertically a tubular retreat, sometimes fully 3 inches long, which is closed at the top. The females incorporate their egg sacs in the tube, laying one upon the other like the tiles of a roof. The tubes are covered with leaves or plant debris available from the plant supporting the web or from the soil nearby.

The family Diguetidae was established by me in 1949 when it was briefly characterized in my book "American spiders" and was listed as a family under the section Plectreuroidea. Until that time it was placed as the subfamily Diguetinae of the family Sicariidae, or Scytodidae. The heterogeneous family Sicariidae of Simon, which was quite valid and suitably proportionate in the terms of his system and conservative family outlook, was held together largely by a single character. In all the subfamilies the chelicerae are bound together at the base on the inner side by a white membrane, but the degree of "soldering" varies consid-

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erably from group to group. An inner transparent lamina runs to near the apex of the chelicera. Other families featuring this type of chelicerae are the cribellate Filistatidae and the derivative Pholcidae. Whereas there is no good reason for questioning the close relationship of the spiders previously assigned to the Sicariidae, the question of proper rank of the subdivisions remains. The present writer regards the group as a complex of families that, in spite of relative small size numerically, cannot be kept together except on the basis of convenience and convention. It is the only major complex not marked since Simon's time by extensive subdivision. The several families now established for this group are fully as valid from the angle of systematic proportion as are numerous families accepted without hesitation by modern students of spiders.

FAMILY DIGUETIDAE

Diguetidae GERTSCH, 1949, American spiders, pp. 234, 266.

Ecribellate spiders of the suborder Araneomorphae. Respiratory system consisting of a pair of book lungs at base of the abdomen and tracheal tubes opening externally through a pair of small tracheal spiracles placed in advance of the spinnerets one-third of the distance to the genital groove. Spinnerets small and set close together, six in number, the front and hind pairs two-segmented, but their apical segments small and conical. Colulus present as a small suboval plate, undivided and set with numerous short setae. Chelicerae without boss, tied together at base for half of their length by a flexible membrane, the inner margin with a transparent lamina apically thickened and darkened in tooth form and the outer sides with a large stridulating file of many fine grooves. Femur of pedipalp with a series of four or five stridulating pins on prolateral side. Labium longer than broad, free; maxillae long, convergent in front around labium. Eyes six, in three diads, the anterior lateral eyes and the median eyes (presumably the posterior median, the anterior median ones being lost) forming a straight transverse row. Claws three in number; several serrated bristles present on each tarsus which bears a small onychium. Paired claws pectinated in a single series; median claw strongly bent at base, with one or two basal teeth. Female pedipalp without a claw, terminated in a corneous point. Female copulatory organ of the haplogyne type, the seminal receptacles opening directly into the vagina. Male palpus a simple bulb, without a hematodocha, bearing the embolus as a thin terminal spine and a broad laminate conductor, or its analogue.

TYPE OF THE FAMILY: The genus *Diguetia* Simon.

MALE AND FEMALE GENITALIA OF *Diguetia*

The male palpus is a relatively short appendage, with a large terminal bulb which in the resting position lies parallel to the femur. The palpi of all the species are very similar in design and are well exemplified by the palpus of *Diguetia imperiosa* (figs. 7, 8, and 10). On the pro-lateral side of the femur are the stridulating pins which scrape the file of fine ridges on the side of the chelicera. The femur is a short cylinder little more than twice as long as broad. The small patella is less than half as long as the femur and scarcely as long as broad. The inflated tibia, which is not so long as the femur, is bulbous, and its girth is about four-fifths of its length. The very short tarsus is produced apically into a pair of finger-like processes.

The narrow juncture of the bulb to the tarsus is subapical in position, but the bulb lies at a right angle to the tibia. The suboval bulb narrows apically to give rise to the thin embolus and the expansive conductor, which is a spoon-shaped lamina with the concavity away from the adjacent embolus. The bulb, with its elements, is somewhat longer than the femur. The element termed "embolus" is the homologue of that part in other haplogyne spiders. If not homologous to that element in higher spiders, it is an analogue lying in the same position on the bulb. The primitive conductor was probably not concerned with protection of the embolus. In *Diguetia* the role of the conductor is one of positioning the thin embolus for entrance into the orifice of the receptacle, as can easily be inferred by a study of the palpal and epigynal parts.

Maturity of the females is usually evident externally by distinct swelling of the lips of the genital groove. This is most evident in front where there appears a transverse, reddish brown sclerite, which becomes narrowed as it approaches the lung openings. A smaller, narrower, sclerotized band lies along the caudal lip. In *Diguetia* the female genital organ is completely hidden beneath the surface in the fashion of all haplogyne spiders. Within the vulval cavity a broad orifice opens into a single transverse bursa, which is thin walled above but presents on the ventral surface a pair of oval, somewhat sclerotized, brown-pigmented laminae. The wide bursa is regarded as a bursa copulatrix and presumably receives the laminate conductor of the embolus during the mating. Just below the bursa lies a single median pouch which seems to be the seminal receptacle. The various details of the genital organ are shown in figures 18 and 19. The presence of a single median seminal receptacle is most unusual and seemingly previously unreported in other spiders. A semidiagrammatic section of the genitalia of *Diguetia*

canities is shown in figure 17. The vagina communicates with the uterus by means of a vaginal valve.

Nothing is known about the copulatory habits of the diguetids. In most of the other Haplogynae both palpi are inserted simultaneously into the vulva. In the case of *Diguetia* it can be assumed that both the embolus and conductor are inserted into the bursa copulatrix and that the embolus is then directed into the seminal receptacle. In higher spiders the conductor, after being freed from the embolus, is held outside the orifice to the receptacle.

The relationship of the diguetid genitalia is clearly with those of the Plectreuridae, Segestriidae, and Dysderidae and far more remotely with those of such families as the Scytodidae and Loxoscelidae. The palpus of the plectreurids lacks a conductor of the embolus, but in some of the dysderids a distinct accessory element resembles the conductor of *Diguetia*. In the Scytodidae and Loxoscelidae the female copulatory organ has two distinct, often widely separated, seminal receptacles. In *Dysdera* only a single, T-shaped, median receptacle is present, similar to this organ in *Diguetia*. In *Plectreurys*, which is probably more generalized than *Diguetia* or *Loxosceles*, the large bursa copulatrix is presumably the receptacle as well, inasmuch as no distinct pouches are present.

GENUS *DIGUETIA* SIMON

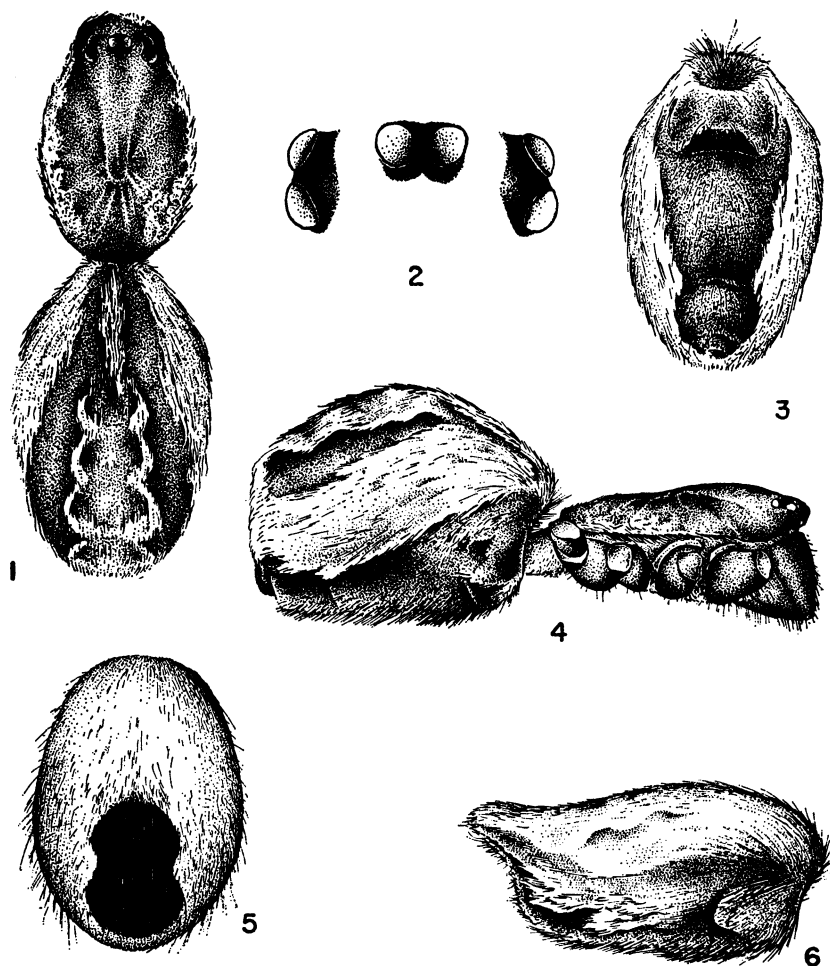
Diguetia SIMON, 1895, Bull. Mus. Hist. Nat. Paris, vol. 3, p. 106; 1895, Histoire naturelle des araignées, vol. 1, fasc. 4, p. 1068. COMSTOCK, 1913, The spider book, p. 304. ROEWER, 1954, Katalog der Araneae, vol. 1, p. 323. BONNET, 1956, Bibliographia araneorum, vol. 2, pt. 2, p. 1467.

Characters of the genus as indicated for the family. Carapace elongate, suboval, rather low and quite flat, the sutures evident as shallow grooves. Eyes subequal in size, the group occupying three-fourths of the width of the carapace. Clypeus rather high, equaling two or more diameters of the median eye. Legs long and thin, set with black hairs and relatively few thin spines. First leg of the male very long, with the tibia slightly incrassated near apex, and the flexible tarsus with numerous false sutures.

TYPE OF THE GENUS: *Segestria canities* McCook.

KEY TO THE SPECIES OF *Diguetia*

1. Abdomen broadly or obtusely rounded behind3
- Abdomen higher behind and produced into a conical angle or well-marked tail2



FIGS. 1-4. *Diguettia canities mulaiki*, new subspecies, female. 1. Carapace and abdomen, dorsal view. 2. Eyes. 3. Abdomen, ventral view. 4. Cephalothorax and abdomen, lateral view.

FIG. 5. *Diguettia signata*, new species, abdomen of female, dorsal view.

FIG. 6. *Diguettia albolineata* O. P.-Cambridge, abdomen of female, lateral view.

2. First metatarsus of females longer than the fourth; first femur of male leg not fully twice as long as the carapace; tarsal fingers of male palpus long (see fig. 8).....*propinqua* O. P.-Cambridge
- First metatarsus equal in length to the fourth; first femur of male twice as long as the carapace; tarsal fingers of male palpus relatively short (fig. 15)*albolineata* O. P.-Cambridge

3. Abdomen provided with numerous long, aculeate setae*stridulans* Chamberlin
Abdomen lacking such setae4
4. Dorsum of abdomen white, with a conspicuous black maculation (fig. 5);
first tibia lacking a submedian dark ring.....*signata*, new species
Dorsum of abdomen without a conspicuous black maculation5
5. Dorsum of abdomen uniform white in coloration6
Dorsum of abdomen with a median dusky or brown band, with sinuous
white edges from base to apex*canities* McCook
6. Dark annuli on all the legs distinct; large spiders with carapace over 3
mm. in length7
Annuli on the legs faintly indicated and submedian annulus missing on
tibiae; small spiders with carapace 2.6 mm. long, or less.....
.....*andersoni*, new species
7. Legs shorter, the first leg in males being 4.7 times the length of the cara-
pace; first tibia longer than the carapace (5.3 mm./4.7 mm.); for females,
see description and leg measurements; distributed from southern Texas
to Arizona and Sonora.....*imperiola* Gertsch and Mulaik
Legs longer, the first leg in males being 5.2 times the length of the cara-
pace; first tibia longer than the carapace (4.1 mm./3.25 mm.); for fe-
males, see description and leg measurements; southern California and
western Nevada*mojavea*, new species

Diguetia canities McCook

Figures 16-19

Segestria canities McCook, 1890, American spiders and their spinningwork, vol. 2, pp. 135, 136. SIMON, 1893, Histoire naturelle des araignées, vol. 1, fasc. 2, p. 322. McCook, 1894, American spiders and their spinningwork, vol. 3, p. 322.

Diguetia canities SIMON, 1895, Bull. Mus. Hist. Nat. Paris, vol. 3, p. 106; 1895, Histoire naturelle des araignées, vol. 1, fasc. 4, p. 1068; 1898, Ann. Soc. Ent. France, vol. 66, p. 209. LAMY, 1902, Ann. Sci. Nat. Zool., ser. 8, vol. 15, p. 174. COMSTOCK, 1903, A classification of North American spiders, p. 15. BANKS, 1904, Proc. California Acad. Sci., ser. 3, vol. 3, p. 333; 1910, Bull. U. S. Natl. Mus., vol. 72, p. 5. COMSTOCK, 1913, The spider book, p. 304. PETRUNKEVITCH, 1911, Bull. Amer. Mus. Nat. Hist., vol. 29, p. 117. MOLES, 1921, Jour. Ent. Zool., Claremont, ser. 4, vol. 13, p. 40. CHAMBERLIN, 1924, Proc. California Acad. Sci., vol. 12, p. 591. PETRUNKEVITCH, 1928, Trans. Connecticut Acad. Arts Sci., vol. 29, p. 109. CHAMBERLIN AND WOODBURY, 1929, Proc. Biol. Soc. Washington, vol. 42, p. 132. BANKS AND NEWPORT, 1932, Publ. Univ. Oklahoma Biol. Surv., ser. 1, vol. 4, p. 14. GERTSCH, 1935, Amer. Mus. Novitates, no. 792, p. 6. ROEWER, 1954, Katalog der Araneae, vol. 1, p. 323. BONNET, 1956, Bibliographia araneorum, vol. 2, pt. 2, p. 1467.

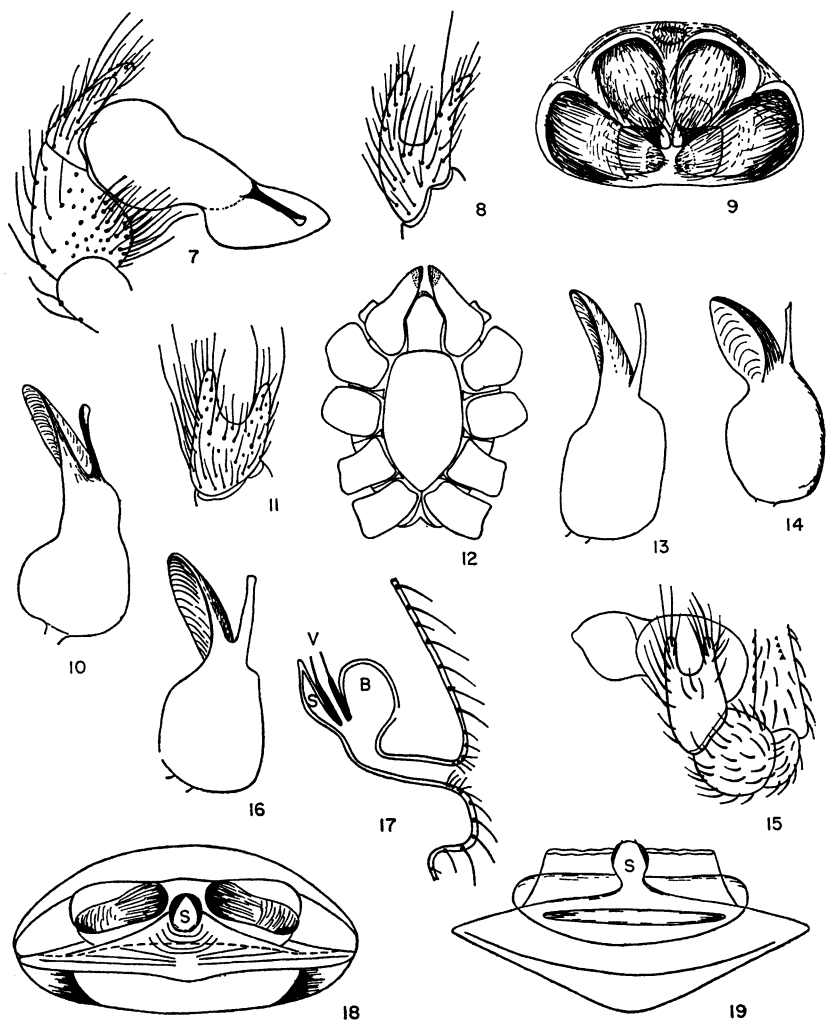
Adult females vary from 5.5 mm. to 10 mm., and average about 7 mm., in length.

FEMALE FROM GRAND CANYON, ARIZONA: Total length, 8 mm.; cara-

pace, 3.25 mm. long, 1.9 mm. wide; abdomen, 4.6 mm. long, 3.5 mm. wide.

Integument of the carapace light to dark brown, somewhat paler above, the sides often with radiating darker markings, the eye tubercles blackened. Carapace very finely rugose, as is especially evident at the position of the median grooves, and somewhat shiny. Clothing of the carapace consisting of procumbent white scales which form a thick woolly matting over much of the carapace in unrubbed examples, but the hairs particularly concentrated around the margins. Head less thickly covered with scaly hairs, the majority concentrated in two bands which go from the median groove to near each posterior lateral eye, forming a V-shaped figure. Clypeus thickly clothed with white scales. Spines on the thorax few or none present; head with a spine just behind and one just in front of the lateral eyes of each side. Sternum and mouth parts dark brown, evenly and thickly clothed with white scales with which are intermixed erect black hairs. Coxae with some white scales on the sides. Chelicerae with fewer white scales, clothed with long black hairs. Scales on the animal usually rubbed off in alcoholic specimens. Integument of the legs varying in color from very pale yellow to yellowish brown, the first and second tarsi light brown. Annuli on all legs brown to black, distributed as follows: femora with a narrow distal ring and with a suggestion of a median annulus on the first legs of some examples; patella almost completely occupied by a dark annulus, but sometimes paler above; tibiae with a narrow median and a distal ring, the median one often faint or incomplete above; metatarsi completely unmarked or occasionally darkened distally in well-marked specimens. Clothing of the appendages fine black hairs and spines and scattered white scales. Integument of the abdomen white to gray, the dorsum with a brown band as wide as the eye group which goes from the base to the middle and is continued caudad as two narrow dark lines or stripes. Clothing of the dorsum consisting of procumbent white to yellow scaly hairs which are concentrated in the middle area to form a basal stripe and continue caudally as two narrow scalloped bands. Venter of the abdomen with a broad dark band. Area around the genital opening sclerotized, brown in color.

Carapace much longer than broad, gently rounded in front and on the sides, rather low, the sides convex. Head subtriangular, the cephalic sutures shallow grooves, the median groove represented by a shallow depression. Carapace as viewed from the side narrow, about equal in height throughout the length. Sternum longer than broad, gently rounded on the side, bluntly rounded behind, widest between the sec-



FIGS. 7-10. *Diguetia imperiosa* Gertsch and Mulaik. 7. Left male palpus, prolateral view. 8. Tarsus of left male palpus, dorsal view. 9. Spinnerets of female. 10. Bulb of left male palpus, dorsal view.

FIGS. 11-13. *Diguetia canities mulaiki*, new subspecies. 11. Tarsus of left male palpus, dorsal view. 12. Under side of cephalothorax of female. 13. Bulb of left male palpus, dorsal view.

FIGS. 14, 15. *Diguetia albolineata* O. P.-CAMBRIDGE. 14. Bulb of left male palpus, dorsal view. 15. Left male palpus, subdorsal view.

FIGS. 16-19. *Diguetia canities* McCook. 16. Bulb of left male palpus, dorsal view. 17. Section through female genital organ. 18. Female genital organ, dorsal view. 19. Female genital organ, subcaudal view.

Abbreviations: B, bursa copulatrix; S, seminal receptable; V, vaginal valve.

ond coxae, not produced between the posterior coxae which are separated by about half of their width. Labium longer than broad, with narrow white side extensions and with a pale terminal rounded tip, the details as shown in figure 12. Chelicerae intimately joined for nearly half of their length on the inner side by a V-shaped membrane. Chelicera twice as long as broad, subquadrangular, thickest just below the base. Promargin with a transparent subtriangular lamina and two small teeth distal of it. Retromargin with two weak teeth, one of which is tricuspid. Claw of the chelicera relatively heavy, short, strongly curved. Chelicera sparsely clothed with black hairs, the outer side with a patch of very fine striae.

Abdomen oval, evenly rounded behind, without a caudal extension.

Eye group placed far forward near the anterior margin of the carapace, occupying three-fourths of the width of the carapace at the second eye row (92/115). Eyes subequal in size, the median eyes 0.16 mm. in greatest diameter. Row formed by the anterior lateral eyes and the median (first row) slightly narrower than the second, very weakly re-curved, a line along the anterior edges cutting the front fifth of the oval median eyes separated by three-thirteenths of the breadth, more than a long diameter from the anterior lateral eye (20/16), and decidedly more than the short diameter (20/13). Posterior lateral eyes separated by about six short diameters of the median eye (74/13). Lateral eyes slightly separated, on connate tubercles. Clypeus gently rounded in front, convex, equal in height to more than two long diameters of the median eyes (42/16).

	I	II	III	IV
Femur	3.90 mm.	3.35 mm.	2.65 mm.	3.75 mm.
Patella	1.10	1.05	0.80	1.00
Tibia	3.35	2.70	1.70	2.90
Metatarsus	3.00	2.65	2.15	3.20
Tarsus	1.20	1.00	0.80	0.90
Total	12.55 mm.	10.75 mm.	8.10 mm.	11.75 mm.

Leg formula, 1423. Legs evenly clothed with numerous long black hairs or setae, all of which are essentially of equivalent robustness, but some of the ventral ones somewhat larger and set in pairs. Palpus clothed with black hairs, especially concentrated on the tarsus which lacks a terminal claw but ends in a corneous spur. Claws on the tarsi three, the unpaired claw with a single tooth, the paired claws similar on all the legs, with a row of 10 fine teeth on each claw.

Adult males vary from 5 mm. to nearly 9 mm., and average about 6.5 mm., in length.

MALE FROM THATCHER, ARIZONA: Total length, 6.8 mm.; carapace, 3.25 mm. long, 1.9 mm. wide; abdomen, 4.2 mm. long, 2.2 mm. wide.

Color pattern essentially as in the female, but the abdomen usually paler and with less bold pattern. Legs orange-brown to dark reddish brown, the dark annuli indistinct, particularly on the first legs which are mostly darker reddish brown. Clothing of white scales on carapace somewhat less dense than in the female.

Structure of the carapace in close agreement with that of the female. Eyes subequal, the first row essentially straight, the median eyes separated from the lateral by one short diameter, or by five-sixths of the long diameter. Posterior lateral eyes separated from each other by scarcely five short diameters (10.5/50). Clypeus equal in height to not fully two diameters of an anterior median eye (12/19). Abdomen thin and less elevated.

	I	II	III	IV
Femur	5.75 mm.	5.00 mm.	4.00 mm.	5.50 mm.
Patella	1.25	1.10	0.78	1.00
Tibia	4.85	4.20	2.70	4.50
Metatarsus	4.70	4.25	3.00	5.15
Tarsus	1.80	1.30	1.20	1.35
Total	18.35 mm.	15.85 mm.	11.68 mm.	17.50 mm.

Leg formula, 1423. Legs proportionately very much longer than in the female, slender, clothed with long black hairs or setae. First leg longest, the joints cylindrical, modified as follows: tibia slightly incrassated near the distal end where it is armed with 10 or 12 setiform spines on the retrolateral side; metatarsus slightly incrassated in the basal third and evenly tapering distally; tarsus flexible, marked with numerous false sutures. Joints of other legs slender and cylindrical. Tarsal claws as in the female. First metatarsus considerably shorter than the fourth.

Palpus as illustrated in figure 16. Patella moderately inflated, in lateral view about four-fifths as deep as long. Tarsal fingers rather short. Bulb proportionately shorter than in *imperiosa* and the embolus of moderate length.

TYPE LOCALITY: Near San Bernardino, California, the types probably in the Academy of Natural Sciences of Philadelphia.

DISTRIBUTION: Southwestern United States from California and

southern Utah, eastward into Oklahoma and west Texas, southward into Mexico.

KNOWN RECORDS: *New Mexico:* Sixteen miles south of Artesia, September 23, 1950 (W. J. Gertsch), one immature. Whites City, July 8, 1954, September 16, 1950 (W. J. Gertsch), three females. Eight miles southeast of Rodeo, June 30, 1955 (M. Statham), male, female. *Arizona:* Sabino Canyon, July 26, 1949 (W. J. and J. W. Gertsch), males, females. Entrance to Sabino Canyon, near Tucson, September 30, 1950 (W. J. Gertsch), males, females. Ten miles south of Oracle, Santa Catalina Mountains, July 25, 1949 (W. J. and J. W. Gertsch), males, females. Madera Canyon, July 27, 1949 (W. J. and J. W. Gertsch), males, females. Fifteen miles east of Tucson, June 6, 1952 (W. J. Gertsch), female. Saguaro National Monument, 17 miles east of Tucson, July 26, 1949 (W. J. and J. W. Gertsch), males, females. Indian Gardens, Grand Canyon National Park, July 24, 1934 (F. E. Lutz), one female. Whiteriver, July 9, 1940 (W. J. Gertsch and L. Hook), males, females. Bear Canyon, 5 miles east of Tucson, July 25, 1946 (W. J. and J. W. Gertsch) males, females. Phoenix, May, 1950 (R. H. Crandall), female. Rancho El Mirador, Baboquivari Mountains, September 4, 1950 (W. J. Gertsch), females. Colossal Cave, October 8, 1939 (R. H. Crandall) females. Superior, July 11, 1940 (W. J. Gertsch), immature females. Near Globe, July 11, 1940 (W. J. Gertsch), females. Five miles southwest of Sedona, July 22, 1949 (W. J. and J. W. Gertsch), males, females. Five miles west of Portal, June 15, 1955 (M. Statham), immature. Five miles west of Portal, August 5, 1955 (W. J. Gertsch), female. Oak Creek Canyon, July 22, 1949 (W. J. and J. W. Gertsch), male. Thatcher, July 20, 1940 (W. J. Gertsch) males, females. Fifteen miles south of Benson, July 20, 1949 (W. J. and J. W. Gertsch), female. Cameron, July 17, 1934 (F. E. Lutz), female. *Oklahoma:* Wichita National Forest, June 8, one female. *Texas:* Basin, Big Bend National Park, September 6, 1952 (B. Malkin), females, immature. El Paso, August 6, 1954 (W. J. Gertsch) immature. Ten miles south of Alpine, August 17, 1935 (S. Mulaik), male, females. Palo Duro Canyon, December, 1939 (D. and S. Mulaik), juvenile. *Utah:* St. George, 1928, female. *Nevada:* Beatty, July 20, 1952 (W. J. Gertsch), male, female. *California:* Near Roads End, Sequoia National Forest, July 3, 1956 (W. J. Gertsch and V. Roth), females. Four miles south of Banning, Riverside County, June 20, 1952 (W. J. Gertsch), female. Chuckawalla Mountains, December 26, 1927 (E. C. Jaeger), female. Near San Bernardino, July, 1939 (J. A. Anderson), males, females. Palm Desert, San Jacinto Mountains, June 16, 1952 (W. J. Gertsch), males, females. Mt. Whitney, east base, August 8, 1931 (W.

Ivie), female. Los Angeles (N. Banks collection), immature female. *Durango*: San Juan del Rio, August 1, 1947 (W. J. Gertsch), female. *Chihuahua*: Catarinas, July 25, 1947 (W. J. Gertsch), female. Valle de Olivos, July 20, 1947 (W. J. Gertsch), female. *Coahuila*: Saltillo, August 22, 1947 (W. J. Gertsch), females. Fifteen miles north of Saltillo, May 24, 1952 (W. J. Gertsch), female.

***Diguetia canities mulaiki*, new subspecies**

Figures 1-4, 11-13

FEMALE FROM EDINBURG, TEXAS: Total length, 5.25 mm.; carapace, 2.6 mm. long, 1.6 mm. wide; abdomen, 3.7 mm. long, 2.7 mm. wide.

Color pattern and appearance in very close agreement with those of *canities*, but the spider smaller and of duller tone. Pattern as illustrated in figures 1, 2, and 4. Annuli on the legs as in *canities*.

Structure in very close agreement with that of *canities*.

	I	II	III	IV
Femur	3.20 mm.	2.70 mm.	2.10 mm.	3.00 mm.
Patella	0.85	0.80	0.68	0.75
Tibia	2.65	2.20	1.35	2.25
Metatarsus	2.35	2.15	1.70	2.35
Tarsus	1.05	0.90	0.70	0.75
Total	10.10 mm.	8.75 mm.	6.53 mm.	9.10 mm.

Leg formula, 1423. Leg lengths essentially as in *canities*, but the first and fourth metatarsi subequal in length, whereas in *canities* the fourth metatarsus is distinctly longer than the first one.

MALE FROM EDINBURG, TEXAS: Total length, 5 mm.; carapace, 2.35 mm. long, 1.48 mm. wide; abdomen, 2.8 mm. long, 1.6 mm. wide.

Coloration and structure as in the male of *canities*.

	I	II	III	IV
Femur	4.40 mm.	3.83 mm.	2.80 mm.	2.86 mm.
Patella	0.80	0.76	0.65	0.70
Tibia	3.70	3.20	1.85	3.20
Metatarsus	3.22	3.00	2.30	3.47
Tarsus	1.35	1.15	0.78	0.90
Total	13.47 mm.	11.94 mm.	8.38 mm.	12.13 mm.

Leg formula, 1423. Legs clothed as in *canities*, with the first leg similarly modified, with the relative lengths of the joints similar, but the fourth metatarsus shorter. First metatarsus slightly longer than the second.

Palpus as illustrated in figures 11 and 12, essentially as in *canities*.

TYPE LOCALITY: Edinburg, Texas, male holotype and female allotype taken in 1933 by Stanley Mulaik, in the American Museum of Natural History.

DISTRIBUTION: Southern Texas. The specimens listed below are labeled as paratypes.

KNOWN RECORDS: *Texas*: Edinburg, September–December, 1933, mud-dauber's nest (S. Mulaik), male, females; September 24, 1938 (S. Mulaik), one female; May 5, 1936 (S. Mulaik), female; April 23, 1938 (D. Mulaik), immature female. Five miles east of Couch, Hidalgo County, December 1, 1934 (S. Mulaik), female. Seventeen miles north of Alice, December, 1939 (D. and S. Mulaik), immature. Thirty miles southeast of Laredo, August 5, 1935 (D. and S. Mulaik), two females. Hudspeth County, August 11, 1935 (S. Mulaik), females. Laguna Madre, 25 miles southeast of Harlingen, August 22, 1945 (D. E. Hardy), from nest of *Neotoma*, immature.

Diguetia canities dialectica Chamberlin

Diguetia dialectica CHAMBERLIN, 1924, Proc. California Acad. Sci., ser. 4, vol. 12, p. 591.

Diguetia canities CHAMBERLIN, 1924, Proc. California Acad. Sci., ser. 4, vol. 12, p. 591.

FEMALE FROM ESPIRITU SANTO ISLAND, BAJA CALIFORNIA: Total length, 5.7 mm.; carapace, 2.5 mm. long, 1.5 mm. wide; abdomen, 3.2 mm. long, 2.2 mm. wide.

Color pattern and appearance in very close agreement with those of *canities*, but the dark annuli on the legs are less distinct and the median annulus of the tibiae is indistinct, incomplete above.

Structure in close agreement with that of *canities*.

	I	II	III	IV
Femur	3.25 mm.	2.70 mm.	2.00 mm.	3.15 mm.
Patella	0.85	0.75	0.65	0.70
Tibia	2.50	2.10	1.25	2.20
Metatarsus	2.20	2.00	1.50	2.30
Tarsus	1.00	0.75	0.70	0.75
Total	9.80 mm.	8.30 mm.	6.10 mm.	9.10 mm.

Leg formula, 1423. First and fourth metatarsi essentially equal in length.

MALE FROM SIERRA SAN NICOLAS, BAJA CALIFORNIA: Total length,

5.3 mm.; carapace, 2.3 mm. long, 1.3 mm. wide; abdomen, 3.0 mm. long, 1.6 mm. wide.

Coloration and structure as in *canities*.

	I	II	III	IV
Femur	4.75 mm.	4.10 mm.	3.00 mm.	4.50 mm.
Patella	0.90	0.80	0.65	0.75
Tibia	4.15	3.25	1.85	3.35
Metatarsus	3.60	3.50	2.35	3.85
Tarsus	1.75	1.25	0.95	1.15
Total	15.15 mm.	12.90 mm.	8.80 mm.	13.60 mm.

Leg formula, 1423. Legs modified as in *canities*, but the fourth metatarsus is proportionately shorter. Palpus essentially as in *canities*.

TYPE LOCALITY: Puerto Ballandra, Carmen Island, Baja California, female holotype in the California Academy of Sciences.

DISTRIBUTION: Baja California.

KNOWN RECORDS: Baja California: Espiritu Santo Island, June 1 (J. C. Chamberlin), female. Sierra San Nicolas (Eisen and Vaslit), male (N. Banks collection).

Diguetia propinqua O. P.-Cambridge

Ervig propinquus O. P.-CAMBRIDGE, 1896, Biologia Centrali-Americana, Arachnida, Araneidea, vol. 1, p. 221, pl. 27, figs. 2, 2a-3.

Diguetia propinqua SIMON, 1898, Ann. Soc. Ent. France, vol. 66, p. 209. F. P.-CAMBRIDGE, 1899, Biologia Centrali-Americana, Arachnida, Araneidea, vol. 2, p. 53. PETRUNKEVITCH, 1911, Bull. Amer. Mus. Nat. Hist., vol. 29, p. 117. ROEWER, 1954, Katalog der Araneae, vol. 1, p. 323. BONNET, 1956, Bibliographia araneorum, vol. 2, pt. 2, p. 1467.

FEMALE FROM PEDREGALES, DISTRITO FEDERAL, MEXICO: Total length, 8.5 mm.; carapace, 4 mm. long, 2.6 mm. wide; abdomen, 5 mm. long, 3.2 mm. wide.

Coloration essentially as in *canities*. Carapace orange to dusky brown, with the typical covering of white scales less dense, but the V-shaped bands on the head distinct. Sternum, coxae, and mouth parts dark reddish brown, all clothed with thin black hairs, the sternum with white scales concentrated on the midline. Legs dull yellowish brown, annulated as in *canities*, the rings orange-brown to blackish, usually well marked, the submedian ring on the tibiae always present. Abdomen mixed yellowish to purplish brown above, with a central dark stripe the length, broadest behind, which encloses a smaller yellowish stripe

bordered with a thin sinuous line of white scales. Caudal declivity of abdomen with a large brown spot; venter dark brown.

Structure as in *canities* except as follows: Median eyes slightly more than the long diameter from the subequal lateral eyes. Abdomen precipitous behind, with the upper edge produced into a conical projection of somewhat variable size. Abdomen of juvenile and even subadult species sometimes broadly rounded as in *canities*.

	I	II	III	IV
Femur	4.80 mm.	4.25 mm.	3.20 mm.	4.50 mm.
Patella	1.30	1.20	1.00	1.15
Tibia	3.65	3.15	1.90	3.10
Metatarsus	3.40	3.17	2.30	3.20
Tarsus	1.55	1.30	1.00	1.13
Total	14.70 mm.	13.07 mm.	9.40 mm.	13.08 mm.

Leg formula, 1423, the legs of moderate stoutness, the first being three and one-half times as long as the carapace. First metatarsus longer than the fourth.

MALE FROM PEDREGALES, DISTRITO FEDERAL, MEXICO: Total length, 7.3 mm.; carapace, 3.25 mm. long, 2 mm. wide; abdomen, 4.2 mm. long, 2.5 mm. wide.

Coloration and general appearance as in the female except for the legs which are longer and darker, the first two pairs being quite uniform reddish brown so that the dark annuli are scarcely evident. Structure much as in the female except for the longer legs and the greater development of the tail on the abdomen.

	I	II	III	IV
Femur	5.90 mm.	5.15 mm.	3.50 mm.	5.00 mm.
Patella	1.20	1.15	0.75	0.85
Tibia	4.10	3.90	2.30	3.60
Metatarsus	4.35	4.20	2.90	4.20
Tarsus	1.90	1.50	1.20	1.20
Total	17.45 mm.	15.90 mm.	10.65 mm.	14.85 mm.

Leg formula, 1243, the second leg clearly exceeding the fourth. First leg essentially as in *canities*, with the tibia slightly thickened near the apex and bearing on the outer side a series of weak spines.

Palpal details essentially as in *canities* and *imperiola*. Tarsal fingers long, as in the latter species. Bulb essentially as in *canities*, with the embolus nearly attaining the apex of the conductor.

TYPE LOCALITY: Atlixco, Puebla, Mexico, female type, in the British Museum (Natural History).

DISTRIBUTION: Widespread in Mexico.

KNOWN RECORDS: *Puebla*: Tehuacan, October 17–24, 1944 (H. Wagner), males, females. Tlacotepec, July 25, 1956 (V. Roth; W. J. Gertsch), one immature. *Morelos*: Cocoyoc, July 27, 1956 (W. J. Gertsch; V. Roth), female. Cuernavaca, July 27, 1956 (W. J. Gertsch; V. Roth), female. *Distrito Federal*: Pedregales, August, 1909 (A. Petrunkevitch), male, females; August 8, 1947 (H. Wagner), female. San Jeronimo, June 11, 1946 (J. Pallister), two subadult females. *Guerrero*: Taxco, July 28, 1956 (W. J. Gertsch; V. Roth), females, one immature. Seven miles south of Chilpancingo, July 29–31, 1956 (W. J. Gertsch; V. Roth), one immature. Thirty miles south of Chilpancingo, June 30, 1941 (L. I. Davis), one immature. *Michoacan*: Seventeen miles east of Morelia, July 8, 1947 (H. Wagner), one immature. *Jalisco*: Plan de Barrancas, August 4, 1956 (W. J. Gertsch; V. Roth), one female. *Coahuila*: Gloria, August 24, 1947 (W. J. Gertsch), females. *Durango*: Los Puentes, July 23, 1947 (W. J. Gertsch), two females. *Chihuahua*: Cañon Prieto, near Primavera, June 30, 1947 (W. J. Gertsch), immature. Agua Caliente, west of Santa Barbara, July 23, 1947 (W. J. Gertsch), male, two immature females. Catarinas, 5800 feet, July 25, 1947 (W. J. Gertsch), three subadult females.

Diguetia albolineata O. P.-Cambridge

Figures 6, 14, 15

Ervig albolineatus O. P.-CAMBRIDGE, 1895, *Biologia Centrali-Americana*, Arachnida, Araneidea, vol. 1, pp. 151; 1896, *op. cit.*, p. 221, pl. 19, figs. 3, 3a–e, pl. 27, figs. 6, 6a–e.

Diguetia albolineata SIMON, 1898, *Ann. Soc. Ent. France*, vol. 66, p. 209. F. P.-CAMBRIDGE, 1899, *Biologia Centrali-Americana*, Arachnida, Araneidea, vol. 2, p. 53, pl. 4, figs. 9, 9a–h, 10, 10a. PETRUNKEVITCH, 1911, *Bull. Amer. Mus. Nat. Hist.*, vol. 29, p. 117. ROEWER, 1954, *Katalog der Araneae*, vol. 1, p. 322. BONNET, 1956, *Bibliographia araneorum*, vol. 2, pt. 2, p. 1466.

Diguetia caudata GERTSCH, 1935, *Amer. Mus. Novitates*, no. 792, p. 6. ROEWER, 1954, *Katalog der Araneae*, vol. 1, p. 323. BONNET, 1956, *Bibliographia araneorum*, vol. 2, pt. 2, p. 1467.

FEMALE FROM THE BASIN, CHISOS MOUNTAINS, TEXAS: Total length, 6.3 mm.; carapace, 2.5 mm. long, 1.56 mm. wide; abdomen, 3.9 mm. long, 2.5 mm. wide.

Coloration and general appearance as in *canities*, the pattern on the carapace and abdomen being quite similar. Legs with reddish brown annuli on a pale ground, but the annuli are often not well marked or

are even seemingly missing. Structure in close agreement with that of *canities* except as follows: abdomen high behind and produced into a distinct tail (see fig. 6) which varies considerably in development but is usually more pointed and elongate than that of *propinqua*.

	I	II	III	IV
Femur	3.00 mm.	2.55 mm.	1.95 mm.	2.75 mm.
Patella	0.70	0.60	0.50	0.60
Tibia	2.37	2.00	1.20	2.00
Metatarsus	2.15	1.87	1.50	2.15
Tarsus	0.95	0.80	0.57	0.70
Total	9.17 mm.	7.82 mm.	5.72 mm.	8.20 mm.

Leg formula, 1423. First and fourth metatarsi equal in length.

MALE FROM THE BASIN, CHISOS MOUNTAINS, TEXAS: Total length, 5.1 mm.; carapace, 2.25 mm. long, 1.55 mm. wide; abdomen, 3 mm. long, 1.6 mm. wide.

Coloration essentially as in the female except for the bright reddish brown front legs and the less conspicuous brown rings on the posterior legs.

	I	II	III	IV
Femur	4.50 mm.	4.00 mm.	2.85 mm.	4.00 mm.
Patella	0.80	0.72	0.60	0.72
Tibia	3.82	3.30	1.90	3.10
Metatarsus	3.25	3.20	2.40	3.50
Tarsus	1.65	1.15	0.80	1.00
Total	14.02 mm.	12.37 mm.	8.55 mm.	12.32 mm.

Leg formula, 1423, the second and fourth legs subequal in length. Fourth metatarsus slightly longer than the first. First femur twice as long as the carapace. First leg essentially as in *propinqua*, but the tibia not apically thickened and bearing on the retrolateral surface a series of long setae.

Palpus (figs. 14 and 15) essentially as in *canities* and *propinqua* except as follows: Tarsal fingers relatively short and of moderate separation. Bulb quite short, the conductor shorter in dorsal view than the inflated base, and the embolus of moderate length.

TYPE LOCALITIES: Of *Ervig albolineatus*, Vente de Zopilote, Guerrero, Mexico, female type, in the British Museum (Natural History); and of *Diguettia caudata*, The Basin, Chisos Mountains, Big Bend Na-

tional Park, Texas, male holotype, in the American Museum of Natural History.

DISTRIBUTION: Southwestern United States from southern California to western Texas and southward into southern Texas.

KNOWN RECORDS: *Arizona:* Sabino Canyon, Santa Catalina Mountains, July 26, 1949 (W. J. and J. W. Gertsch), males, females; September 3, 1950 (W. J. Gertsch), male, females; June 5, 1952 (W. J. Gertsch), female; August 8, 1956 (V. Roth), female. Fifteen miles east of Tucson, June 6, 1952 (W. J. Gertsch), female. Bear Canyon, east of Tucson, July 25, 1940 (W. J. and J. W. Gertsch), two immature. Sabino Basin, Santa Catalina Mountains, July 8–12, 1916 (F. E. Lutz), female paratype. Fifteen miles south of Benson, July 30, 1949 (W. J. and J. W. Gertsch), male, female. Madera Canyon, July 27, 1949 (W. J. and J. W. Gertsch), female. Cochise Stronghold, Dragoon Mountains, August 29, 1951 (T. Cohn), two males, female; September 7, 1950 (W. J. Gertsch), females. Moon Creek, Graham Mountains, August 29, 1951 (T. Cohn), female. Brown Canyon, Baboquivari Mountains, June 8, 1952 (W. J. Gertsch), two females. Cave Creek Canyon, 5 miles west of Portal, August 28, 1956 (A. F. Archer), males, females. Two miles west of Chiricahua National Monument, 6000 feet, August 7, 1951 (T. Cohn), male. *Texas:* The Basin, Chisos Mountains, September 28, 1950 (W. J. Gertsch), male, two females; July, 1935 (L. I. Davis), male, females; July 1, 1957 (R. Zweifel), males, females. *California:* Banner, San Diego County, August 13, 1948 (W. M. Pearce), female. *Sonora:* Ten miles south of Hermosillo, June 16, 1939 (A. M. and L. I. Davis), one female. Hermosillo, August 18, 1953 (B. Malkin), one subadult female. *Guerrero:* Mexcala, July 2, 1941 (L. I. Davis), immature.

Diguetia imperiosa Gertsch and Mulaik

Figures 7–10

Diguetia imperiosa GERTSCH AND MULAİK, 1940, Bull. Amer. Mus. Nat. Hist., vol. 77, p. 317.

FEMALE FROM LANGTRY, TEXAS: Total length, 9.25 mm.; carapace, 4.5 mm. long, 2.85 mm. wide; abdomen, 5.7 mm. long, 4.3 mm. wide.

Integument of the carapace bright reddish brown, the cephalic sutures somewhat darker, the eye tubercles black. Clothing of the carapace the usual thick mat of white scales in the characteristic arrangement, thickest on the margins and clypeus and concentrated to form the two subparallel bands that go forward along the pars cephalica to the median eyes. Clypeal margin with a transverse row of four weak

spines. Sternum and mouth parts reddish brown, with the usual covering of procumbent white scales interspersed with erect black hairs. Chelicerae black, set with black hairs and with a few white scales near the base. Legs yellowish brown, the femora with faint submedian dark patches or incomplete rings, the other joints with black annuli placed as in *canities*, the submedian ring on the tibiae being present. Clothing of the legs numerous black hairs and setae and a thin covering of white scales.

Integument of the abdomen gray to yellow, the dorsum completely covered with a mat of procumbent white scales with which are interspersed a few suberect black hairs, without any distinctive markings, essentially as in *signata* (fig. 5) but lacking the black maculation. Sides of the abdomen white as the dorsum, but the venter with a longitudinal dusky area, which is more thickly set with black hairs, the epigynal ridges brown, the spinnerets black.

Structure in close agreement with that of *canities*. Eyes subequal in size, the anterior lateral and median eyes forming a very weakly recurved row, a line along the front edges of the laterals cutting slightly into the medians. Median eyes slightly separated, more than a diameter from the anterior lateral eyes (21/32). Clypeus rounded, protruding, equal in height to three diameters of the median eyes.

	I	II	III	IV
Femur	4.35 mm.	3.85 mm.	3.30 mm.	4.55 mm.
Patella	1.40	1.38	1.15	1.25
Tibia	3.60	3.25	2.20	3.65
Metatarsus	3.70	3.35	2.75	4.18
Tarsus	1.60	1.30	1.00	1.20
	<hr/>	<hr/>	<hr/>	<hr/>
Total	14.65 mm.	13.13 mm.	10.40 mm.	14.83 mm.

Leg formula, 4123. Legs rather robust, the first leg a little more than three times as long as the carapace, slightly exceeded in length by the fourth leg. First metatarsus shorter than the fourth.

MALE FROM LANGTRY, TEXAS: Total length, 10.1 mm.; carapace, 4.7 mm. long, 2.85 mm. wide; abdomen, 5.5 mm. long, 3 mm. wide.

Carapace dark reddish brown, with the thick mat of white scales distributed as in the female. Legs dark reddish brown, the color largely masking the blackish annuli, which are most evident on the somewhat lighter posterior legs. Abdomen evenly covered with white scales as in the female.

	I	II	III	IV
Femur	6.60 mm.	6.15 mm.	5.25 mm.	6.80 mm.
Patella	1.90	1.65	1.35	1.50
Tibia	5.30	5.20	3.75	5.75
Metatarsus	5.80	5.75	5.00	7.50
Tarsus	2.50	1.75	1.35	1.60
Total	22.10 mm.	20.50 mm.	16.70 mm.	23.15 mm.

Leg formula, 4123. Fourth metatarsus distinctly longer than the first. First leg heavier and proportionately shorter than in *canities*, but with the incrasation of the tibia similar, the retrolateral surface bearing a series of black setae.

Palpus as illustrated in figures 7, 8, and 10, proportionately more slender than that of *canities*. Tarsus with longer apical processes; bulb somewhat longer, but the embolus distinctly shorter, not attaining the end of the conductor.

TYPE LOCALITY: Langtry, Texas, male holotype, in the American Museum of Natural History.

DISTRIBUTION: Southern Texas westward to Arizona and western Mexico.

KNOWN RECORDS: *Texas*: Langtry, August 18, 1935 (S. Mulaik), male holotype, female allotype, and paratypes. Five miles east of Dryden, summer, 1934 (S. Mulaik), two female paratypes. Edinburg, May 5, 1938 (S. Mulaik), female. Hot Springs, Big Bend National Park, September 28, 1950 (W. J. Gertsch), four females; June 10, 1938 (D. and S. Mulaik), immature. Santa Elena Canyon, Big Bend National Park, December 13, 1954 (K. W. Haller), two females. Near Terlingua, Big Bend area, November 1, 1940 (Barnum Brown), two females. *Arizona*: Tucson (O. Bryant), three males. *Coahuila*: Across Rio Grande from Hot Springs, Texas, June 9, 1938 (D. and S. Mulaik), male, females, and immature. Twenty-five miles southeast of San Pedro, August 21, 1947 (W. J. Gertsch), three females. *Sonora*: Estero de Sargente, 10 miles south of Desemboque, August 11, 1953 (B. Malkin), male.

Diguetia mojavea, new species

FEMALE FROM NEAR TWENTYNINE PALMS, CALIFORNIA: Total length, 10 mm.; carapace, 4.7 mm. long, 2.8 mm. wide; abdomen, 6 mm. long, 3.5 mm. wide.

Coloration in close agreement with that of *imperirosa*. Base color of the carapace orange-brown, the mat of white scales thickly covering most of the dorsum, but the V-shaped band of scales from the median groove to the eyes distinct. Legs yellow to orange, annulated in reddish

brown as in *imperiosa*, but the rings less dark and the submedian ring on the tibia often indistinct, especially above. Abdomen with a thick, uniform covering of white scales, but rarely with a faint sinuous stripe evident on the dorsum.

Structure in close agreement with that of *imperiosa* except as follows: anterior eye row straight, a line along the front edges of the lateral eyes touching the front edges of the median eyes, which are separated from the lateral by more than the diameter (20/30); clypeus rounded, protruding, equal in height to three diameters of the median eye.

	I	II	III	IV
Femur	5.15 mm.	4.50 mm.	3.75 mm.	5.30 mm.
Patella	1.60	1.40	1.20	2.30
Tibia	4.30	3.60	2.60	4.10
Metatarsus	4.10	3.70	3.10	4.55
Tarsus	1.75	1.50	1.10	1.40
Total	16.90 mm.	14.70 mm.	11.75 mm.	17.65 mm.

Leg formula, 4123. Legs a little longer and more slender than in *imperiosa*, the first leg being about three and one-half times as long as the carapace. First metatarsus shorter than the fourth.

MALE FROM YERMO, CALIFORNIA: Total length, 6.8 mm.; carapace, 3.25 mm. long, 2.1 mm. wide; abdomen, 3.8 mm. long, 2.2 mm. wide.

Coloration in close agreement with that of the female. Legs darker but the annuli quite distinct.

	I	II	III	IV
Femur	5.10 mm.	4.60 mm.	3.80 mm.	5.10 mm.
Patella	1.35	1.10	0.85	1.00
Tibia	4.10	3.75	2.75	4.65
Metatarsus	4.25	4.25	3.60	5.50
Tarsus	2.25	1.50	1.15	1.50
Total	17.05 mm.	15.20 mm.	12.15 mm.	17.75 mm.

Leg formula, 4123. Fourth metatarsus longer than the first. First femur very much longer than the carapace. First leg thinner and much longer than in *imperiosa*, the tibia only slightly thickened apically.

Palpus essentially as in *imperiosa* (for which see figs. 7, 8, and 10).

TYPE LOCALITY: Yermo, San Bernardino County, California, male holotype, taken September 22, 1939, by W. M. Pearce, in the American Museum of Natural History.

DISTRIBUTION: Southern California and adjacent Nevada. The specimens listed below are designated as paratypes.

KNOWN RECORDS: *California*: Mohave Desert, 30 miles north of San Bernardino, July, 1941 (J. A. Anderson), male, two females; August 26, 1938 (J. A. Anderson), female. Near Twentynine Palms, August 10, 1939 (J. A. Anderson), two females. Colorado Desert, July, 1941 (J. A. Anderson), two females. North end of Salton Sea, August 11, 1955 (W. J. Gertsch), female. Jacumba, August 10, 1955 (W. J. Gertsch), female. *Nevada*: Beatty, July 10, 1952 (W. J. Gertsch), female. Twenty miles south of Goldfield, July 20, 1952 (W. J. Gertsch), two females.

***Diguetia andersoni*, new species**

FEMALE FROM NEAR TWENTYNINE PALMS, CALIFORNIA: Total length, 5.5 mm.; carapace, 2.6 mm. long, 1.6 mm. wide; abdomen, 3.25 mm. long, 2.00 mm. wide.

Carapace pale orange-brown, thinly matted with white scales, and with the V-shaped bands of scales on the head distinct. Legs yellowish, the rings orange-brown, indistinct, without a submedian ring on the tibiae. Abdomen covered evenly with white scales above, the venter with a median dusky brown band from base to apex.

Structure essentially as in *mojavea* and *signata*. Front eye row essentially straight, the median larger than and separated from the lateral eyes by the long diameter. Clypeus rounded, equal in height to slightly more than two full diameters of the median eye. Abdomen obtusely rounded behind but lacking a distinct conical prolongation.

	I	II	III	IV
Femur	3.15 mm.	2.65 mm.	2.10 mm.	3.15 mm.
Patella	0.75	0.80	0.65	0.70
Tibia	2.65	2.15	1.35	2.20
Metatarsus	2.25	2.00	1.15	2.50
Tarsus	1.10	0.75	0.70	0.80
Total	9.90 mm.	8.35 mm.	5.95 mm.	9.35 mm.

Leg formula, 1423, the first pair distinctly longer than the fourth. First metatarsus shorter than the fourth.

TYPE LOCALITY: Near Twentynine Palms, Mojave Desert, California, female holotype and four paratypes taken in 1939 by John A. Anderson, in the American Museum of Natural History.

***Diguetia signata*, new species**

Figure 5

FEMALE FROM SCOTTSDALE, ARIZONA: Total length, 7.7 mm.; carapace, 3.3 mm. long, 2.15 mm. wide; abdomen, 4.6 mm. long, 3.5 mm. wide.

Integument of the carapace light orange to brown, the head portion somewhat darker, the eyes ringed in black. Clothing of the carapace a thick matting of white scales which are concentrated on the margins and form two thick bands on the pars thoracica which run forward to the median eyes as in *canities*. Sternum and mouth parts light brown, clothed as in the other species. Integument of the legs concolorous with the carapace, set with black hairs and weak spines and annulated as follows: femora with a terminal dark ring; patella completely occupied by a dark ring; tibia with a terminal brown annulus but completely lacking the median ring of most other species; and metatarsus with a narrow terminal dark annulus. Tarsi somewhat darker than the basal joints. Integument of the abdomen light gray to white, the dorsum evenly clothed with procumbent white scales except at the caudal end where is present a conspicuous black maculation covered with procumbent black scales as illustrated in figure 5.

Dorsum evenly set with long, inconspicuous, suberect, pale setae or spines except on the area of the black marking. Sides of the abdomen white, the venter light brown, darker around the spinnerets.

Structure and eye relations in close agreement with those of the female of *canities*.

	I	II	III	IV
Femur	3.95 mm.	3.45 mm.	2.70 mm.	4.10 mm.
Patella	1.05	1.00	0.80	1.00
Tibia	3.10	2.65	1.70	3.15
Metatarsus	2.80	2.60	2.10	3.15
Tarsus	1.30	1.10	0.80	1.00
Total	12.20 mm.	10.80 mm.	8.10 mm.	12.40 mm.

Leg formula, 4123. Fourth metatarsus longer than the first. Fourth femur slightly longer than the first.

This interesting species is characterized by the conspicuous black maculations on the dorsum of the abdomen and the complete lack of a submedian dark annulus on the tibiae of the legs. The last leg is proportionately longer than in females of the other species, slightly exceeding the first one in length. *Diguetia albolineata* agrees with *signata* in lacking the submedian annulus on the tibiae, but has the pattern of the dorsum of the abdomen essentially as in *canities*.

TYPE LOCALITY: Scottsdale, Arizona, female holotype, taken January 28, 1903, by H. W. Britcher, in the American Museum of Natural History.

DISTRIBUTION: Southern Arizona to California and Nevada. The specimens listed below are all marked as paratypes.

OTHER LOCALITIES: *Arizona:* Tucson, July, 1935 (P. Steckler), female; September, 1939 (R. H. Crandall), two females. Fourteen miles west of Tucson, September 4, 1950 (W. J. Gertsch), female. *Nevada:* Twenty-seven miles northwest of Las Vegas, July 21, 1952 (W. J. Gertsch), female. *California:* Palm Desert, San Jacinto Mountains, June 16, 1952 (W. J. Gertsch), 17 females. Colorado Desert, July, 1941 (John A. Anderson), two females.

Diguetia stridulans Chamberlin

Diguetia stridulans CHAMBERLIN, 1924, Proc. California Acad. Sci., ser. 4, vol. 12, p. 590, figs. 19–20. ROEWER, 1954, Katalog der Araneae, vol. 1, p. 323. BONNET, 1956, Bibliographia araneorum, vol. 2, pt. 2, p. 1467.

FEMALE HOLOTYPE: Total length, 4.2 mm.; carapace, 2 mm. long, 1.2 mm. wide.

Carapace yellowish, clothed with white scales. Legs yellowish, without contrasting annuli. Abdomen with dusky integument, clothed above with white scales and long, aculeate setae.

Structure essentially as in *canities* except as follows: Striae on the outer side of the chelicerae fine and close set but with much coarser ones at intervals in the series. Legs longer and more slender, bearing numerous long setae which on the distal joints of the first pairs become more spinescent.

	I	II	III	IV
Femur	2.80 mm.	2.70 mm.	2.25 mm.	3.25 mm.
Patella	0.75	0.70	0.65	0.65
Tibia	2.70	2.25	1.65	2.60
Metatarsus	2.35	2.20	1.85	2.70
Tarsus	1.10	0.95	0.75	1.00
Total	9.70 mm.	8.80 mm.	7.15 mm.	10.20 mm.

Leg formula, 4123. The first and fourth pairs subequal in length, the legs obviously thinner than those of *canities* and other species. First leg nearly five times as long as the carapace. Fourth metatarsus a little longer than the first.

TYPE LOCALITY: Mejia Island, Gulf of California, Baja California; female holotype, in the collection of the California Academy of Sciences.

Only the type of this distinctive species is known, and that is in poor condition. The longer legs, coarse setae on the abdomen, and the character of the cheliceral striae readily separate it from other species.