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DESCRIPTIONS OF NEW GNAPHOSIDAE FROM THE UNITED STATES

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The present paper is based upon specimens of the Gnaphosidae (Drassidae) which have been accumulating in the collections of the University of Utah and The American Museum of Natural History during the past few years. The nineteen species herein described pertain, with one exception, to rather well-known genera, the American genus *Drassyllus* as usual being strongly represented with nine undescribed species. Of especial interest is a new genus, *Sostogeus*, which is allied to *Sosticus* and agrees with that genus in that the female is provided with a strongly developed, elongated appendage which is free for most of its length and attached to the frontal margin of the female epigynum.

The holotype and the allotype, whenever represented, are deposited in The American Museum of Natural History. Some of the paratypes, as indicated below, are deposited in the collection of the University of Utah.

SOSTOGEUS, NEW GENUS

Lower margin of the furrow of the chelicera with a single small tooth; the upper margin with three small discrete teeth. Posterior row of eyes straight, the median eyes oval, set obliquely, larger than and farther from the lateral eyes. First row of eyes moderately procurved, the somewhat smaller medians nearer the lateral eyes. Lateral eyes of each side separated by less than the diameter. Fourth tibia with a basal and a submedian spine above. Embolus of male palpus long, originating near the base on the retrolateral side and free for most of the length. Tibial apophysis a short spur. Epigynum of female with a long free process projecting caudad in the atrium.

GENOTYPE.—*Sostogeus zygethus*, new species.

This genus is related to *Sosticus* in general characteristics. It may be distinguished by the relations of the eyes of the second row, the medians of which are

larger than and farther removed from the laterals. In *Sosticus* the median eyes of this row are smaller than the laterals, the four eyes being subequidistantly spaced. In *Sostogeus* the lower margin of the furrow of the chelicera is armed with three teeth, whereas in *Sostogeus* only one tooth is present.

Sostogeus zygethus, new species

Figures 1, 2, 3 and 4

MALE.—Total length, 6.35 mm.

	Length	Width
CARAPACE	3.25 mm.	2.50 mm.
FRONT	0.26	1.15
STERNUM	1.75	1.20
LABIUM	0.55	0.40
MAXILLA	0.75	0.40
ABDOMEN	3.25	2.20

Carapace pale yellowish brown, lightly infuscated on the sides, the eyes narrowly ringed with black, the clothing fine procumbent black hairs and a few suberect black hairs most numerous on the sides. Sternum bright orange-brown, clothed evenly with suberect short black hairs. Legs nearly concolorous with the carapace, unmarked, clothed with rows of fine black hairs. Abdomen gray above, the base with a subtriangular sclerotized scutum which is yellowish brown in color, the venter gray. Clothing of the abdomen suberect black hairs, the scutum with a thick brush of shorter hairs.

Carapace moderately and evenly convex, relatively low, not elevated in the head region, essentially equal in height from the eyes to the median groove, the posterior declivity moderately convex. Median groove a slight linear depression situated back two-thirds of the total length of the carapace. Clypeus low, equal in height to the radius of an anterior median eye. First row of eyes moderately procurved, the dark medians separated by two-thirds their diameter, almost touching the laterals which are larger (15/11). Second row of eyes very gently procurved, essentially straight, the suboval medians set somewhat obliquely and separated by about one-fifth their long diameter, separated from the laterals by one-half their long diameter

and somewhat larger than these eyes (17/14). Median ocular quadrangle longer than broad (36/33), narrowed in front (36/30), the anterior median eyes smaller (11/17). Lateral eyes of each side subequal, separated by the radius of the posterior lateral eye. Sternum suboval, longer than broad, bluntly pointed behind, the posterior coxae slightly separated by one-sixth their width. Lower margin of the furrow of the chelicera with a single small tooth, the upper with three small teeth.

First and second tarsi scopulate beneath, the corresponding metatarsi also scopulate but the second metatarsus scopulate only to the middle of the joint. Third and fourth tarsi and metatarsi apparently without true scopular hairs. First and second tibiae with a weak prolateral spine near the base and three pairs of ventral spines, the corresponding metatarsi with two pairs, lacking distals. All femora with dorsal and prolateral spines. Third tibia with a single dorsal spine at the base, the fourth tibia with a basal and a submedian spine above. Posterior legs strongly spinose.

	I	II
FEMUR	2.70 mm.	2.40 mm.
PATELLA	1.52	1.35
TIBIA	2.30	1.85
METATARSUS	2.00	1.75
TARSUS	1.30	1.25
TOTAL	9.82	8.60

	III	IV
FEMUR	2.15 mm.	3.00 mm.
PATELLA	1.15	1.60
TIBIA	1.45	2.50
METATARSUS	1.95	3.35
TARSUS	1.15	1.40
TOTAL	7.85	11.85

Palpus as illustrated in Figs. 1, 2 and 3.

FEMALE.—Total length, 9.00 mm.

	Length	Width
CARAPACE	3.80 mm.	2.70 mm.
FRONT	0.30	1.50
STERNUM	4.10	3.00
LABIUM	0.76	0.50
MAXILLA	1.00	0.45
ABDOMEN	5.30	3.00

Coloration in close agreement with the male but the abdomen lacks the sclerotized scutum above near the base. Structure closely approximating the male. Posterior median eyes oval, proportionately smaller than in the other sex, the separation from the laterals greater, two-thirds of the long diameter.

First and second tarsi and metatarsi heavily scopulate beneath. First tibia completely unspined, the first metatarsus with a single ventral spine near the base. Second tibia with a submedian spine beneath, the metatarsus with a single basal spine. Posterior legs spined as in the male.

	I	II
FEMUR	2.80 mm.	2.50 mm.
PATELLA	1.70	1.35
TIBIA	2.30	1.90
METATARSUS	1.80	1.75
TARSUS	1.30	1.20
TOTAL	9.90	8.70

	III	IV
FEMUR	2.20 mm.	3.00 mm.
PATELLA	1.20	1.70
TIBIA	1.60	2.50
METATARSUS	2.00	3.30
TARSUS	1.15	1.50
TOTAL	8.15	12.00

Epigynum as illustrated in Fig. 4.

TYPE LOCALITY.—Male holotype from Brookings, South Dakota, June 30, 1937 (Peterson). Female allotype from near Chicago, Illinois. Male paratype from Logan, Utah, August 10, 1936 (G. F. Knowlton).

Litopyllus liber, new species

Figures 11 and 12

MALE.—Total length, 4.85 mm.

	Length	Width
CARAPACE	2.35 mm.	1.60 mm.
FRONT	0.30	0.75
STERNUM	1.30	0.92
LABIUM	0.35	0.26
MAXILLA	0.65	0.28
ABDOMEN	2.45	1.30

Carapace pale yellow to yellowish brown, unmarked, the eyes narrowly ringed with black, sparsely clothed with fine procumbent black hairs, the clypeal margin with several projecting bristles. Underside of the carapace and the appendages concolorous with the carapace, the clothing black hairs. Abdomen gray to white, the base with a yellow sclerotized scutum.

Carapace low, moderately convex, nearly equal in height from the eyes to the posterior declivity, the head not elevated. Front relatively narrow, subtruncated, the clypeus narrow, about two-thirds as high as the diameter of an anterior median eye. Median groove a short linear depression situated back two-thirds of the length of the carapace. First row of eyes lightly procurved as seen from in front, the medians separated by two-thirds their diameter, subcontiguous with the slightly smaller lateral eyes. Second row of eyes moderately procurved, the large oval medians set obliquely and separated by one-fifth their diameter, twice as far from the somewhat smaller laterals. Median ocular quadrangle longer than broad (39/34), broader in front (34/30), the long diameter of the posterior median eyes slightly greater than the diameter of the circular an-

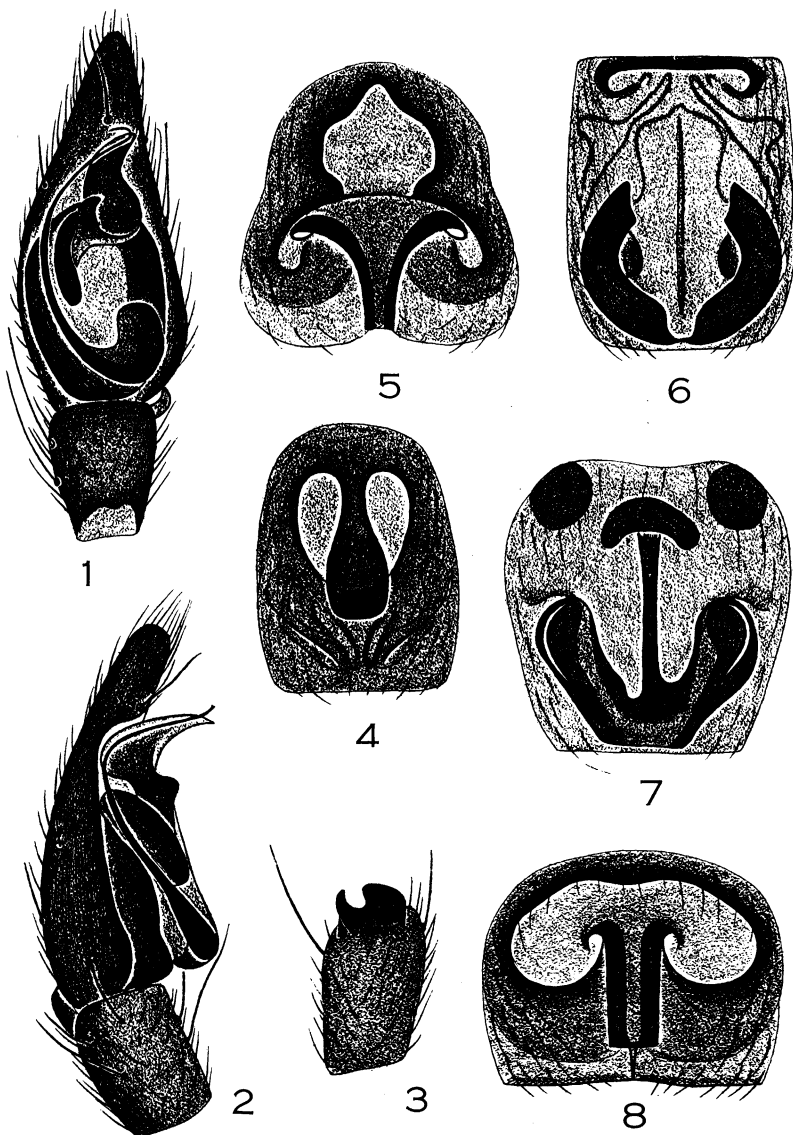


Fig. 1. *Sostogeus zygethus*, new species, left male palpus, ventral view.
 Fig. 2. Idem, left male palpus, prolateral view.
 Fig. 3. Idem, tibia of left male palpus, retrolateral view.
 Fig. 4. Idem, epigynum.
 Fig. 5. *Liodrassus metalleus*, new species, epigynum.
 Fig. 6. *Haplodrassus dystactus*, new species, epigynum.
 Fig. 7. *Orodrassus orites*, new species, epigynum.
 Fig. 8. *Liodrassus petersoni*, new species, epigynum.

terior median eyes. Lateral eyes of each side subcontiguous. Sternum suboval, gently rounded in front, the anterior coxae separated by their length, rounded on the sides, bluntly pointed behind where the posterior coxae are slightly separated by one-third their width. Lower margin of the furrow of the chelicera with a single small tooth.

All tarsi scopulate beneath. First and second metatarsi scopulate beneath but the third and fourth without scopular hairs. First tibia with a median and a distal spine, the metatarsus with a basal spine, these joints otherwise unarmed. Second tibia and metatarsus as the first. Fourth tibia without dorsal spines, the third with one near the base.

	I	II
FEMUR	1.60 mm.	1.52 mm.
PATELLA	0.97	0.94
TIBIA	1.16	1.16
METATARSUS	1.05	1.03
TARSUS	0.78	0.78
TOTAL	5.56	5.43

	III	IV
FEMUR	1.40 mm.	1.83 mm.
PATELLA	0.77	0.80
TIBIA	0.96	1.48
METATARSUS	1.06	1.80
TARSUS	0.65	0.73
TOTAL	4.84	6.64

Palpus as illustrated in Figs. 11 and 12.

TYPE LOCALITY.—Male holotype from Liberty County, Florida, April 17, 1936 (H. K. Wallace). Immature female allotype from Jackson County, Florida, May 12, 1935 (H. K. Wallace).

This species seems to agree in detail with *Litopyllus temporarius* Chamberlin, the genotype. It is distinct in the embolus which is longer and more strongly curved.

Litopyllus paludis, new species

Figures 22 and 23

FEMALE.—Total length, 5.15 mm.

	Length	Width
CARAPACE	2.35 mm.	1.70 mm.
FRONT	0.23	0.85
STERNUM	1.25	0.92
LABIUM	0.35	0.28
MAXILLA	0.60	0.32
ABDOMEN	2.80	1.75

Carapace light yellowish brown, clothed evenly but very sparsely with fine subprocumbent hairs, the eyes narrowly ringed with

black. Appendages and underside of the carapace essentially concolorous. Abdomen gray, without markings, sparsely covered with pale subprocumbent hairs.

Structure essentially typical, in close agreement with *Litopyllus liber*, new species. Median groove a slight linear depression situated back three-fourths of the total length of the carapace. Clypeus low, equal in height to two-thirds the diameter of an anterior lateral eye. First row of eyes moderately procurved, the medians separated by three-fourths their diameter, subcontiguous with the subequal laterals. Second row of eyes moderately procurved, the medians large, oval in shape, set slightly obliquely, separated by one-fourth of the short diameter, twice as far from the somewhat smaller laterals. Median ocular quadrangle longer than broad (37/33), slightly narrowed behind (33/31), the anterior median eyes smaller. Lateral eyes of each side subequal, separated by one-third of the diameter of the posterior lateral eye. Second eye row two-thirds as wide as the head at that point. Sternum suboval, bluntly pointed behind, the separation of the posterior coxae being one-third their width. Lower margin of the furrow of the chelicera with a single tooth.

All tarsi scopulate beneath, the first and second metatarsi with scopular hairs but the posterior metatarsi simply setose. First tibia with a single distal spine on the ventral surface, the first metatarsus with a single ventral spine near the base.

MALE.—Carapace, 2.00 mm. long, 1.65 mm. wide.

The male is in even a more fragmentary condition than the female. Coloration apparently as in the other sex. Structure in close agreement with the female, the chief difference being in the eyes of the second row of which the medians are subequidistantly spaced and are set more obliquely. Because of this the median ocular quadrangle is slightly wider behind than in front.

TYPE LOCALITY.—Male holotype and female allotype (immature) from Okefenokee Swamp, Georgia.

This species is characterized by the palpus which is much more robust than in the other known species of the genus. The tibial apophysis is a very broad process which is subtruncated at the distal end, very much larger than in *liber* and distinctive in form. The conductor of the embolus is a heavy spur which ends broadly near the distal end of the cymbium. The palpus is illustrated (Figs. 22 and 23).

Poecilochroa josephus, new species

Figure 32

FEMALE.—Total length, 5.75 mm.

	Length	Width
CARAPACE	2.35 mm.	1.80 mm.
FRONT	0.25	0.78
STERNUM	1.40	1.00
LABIUM	0.34	0.30
MAXILLA	0.60	0.32
ABDOMEN	3.50	2.00

Carapace reddish brown, with a broad dusky longitudinal stripe on each side the full length from the sides of the head to the caudal margin, the interval between pale, a median longitudinal stripe, and the margins pale except for a faint black seam. Pale stripes clothed with inconspicuous pale hairs, those on the darker areas black, the carapace otherwise set with suberect black bristles. Underside of the carapace reddish brown, evenly set with erect hairs. Legs reddish brown, lightly infuscated, the posterior femora darkened. Sides of the abdomen white, the dorsum with a black figure for most of the length which encloses a white band, and a black spot above the spinnerets. Venter margined in black, pale in the middle.

Carapace relatively low, convex, about equal in height from the eyes to the posterior declivity which is relatively abrupt. Median groove a short linear depression situated back eight-elevenths of the total length of the carapace. Clypeus low, equal in height to a diameter of the anterior lateral eye. First row of eyes moderately procurved, the medians separated by two-thirds the diameter, subcontiguous with the larger laterals. Second row of eyes straight, the medians separated by three-fourths their diameter, slightly nearer the subequal lateral eyes. Median ocular quadrangle longer than broad (40/30), narrowed in front (30/26), the anterior median eyes smaller. Lateral eyes of each side subequal and separated by more than the diameter. Sternum suboval, bluntly pointed behind where the posterior coxae are separated by scarcely one-fourth their width. Lower margin of the furrow of the chelicera lacking teeth.

First and second tarsi thickly scopulate beneath, the corresponding metatarsi with numerous scopular hairs. Third and fourth tarsi with a few scopular hairs, the corresponding metatarsi simply setose. First and second tibiae with a single submedian and a single distal spine beneath, the metatarsi unspined. Third and fourth tibiae with a single dorsal spine near the base, the other surfaces well spined.

	I	II
FEMUR	1.50 mm.	1.50 mm.
PATELLA	0.90	0.90
TIBIA	1.00	1.00
METATARSUS	0.90	0.85
TARSUS	0.60	0.60
TOTAL	4.90	4.85

	III	IV
FEMUR	1.35 mm.	1.70 mm.
PATELLA	0.75	0.95
TIBIA	0.90	1.25
METATARSUS	1.00	1.66
TARSUS	0.72	0.90
TOTAL	4.72	6.46

Epigynum as illustrated in Fig. 32.

TYPE LOCALITY.—Female holotype from Atherton, California, December 11, 1927 (J. C. Chamberlin).

This species may be distinguished from *Poecilochroa columbiana* Emerton by reference to the epigynum and by the very different color pattern. In *columbiana* the abdomen is black with a basal white transverse band and a pair of white spots near the middle. In *josephus* the dorsum is white with a longitudinal dark maculation which encloses a longitudinal white band.

Liodrassus metalleus, new species

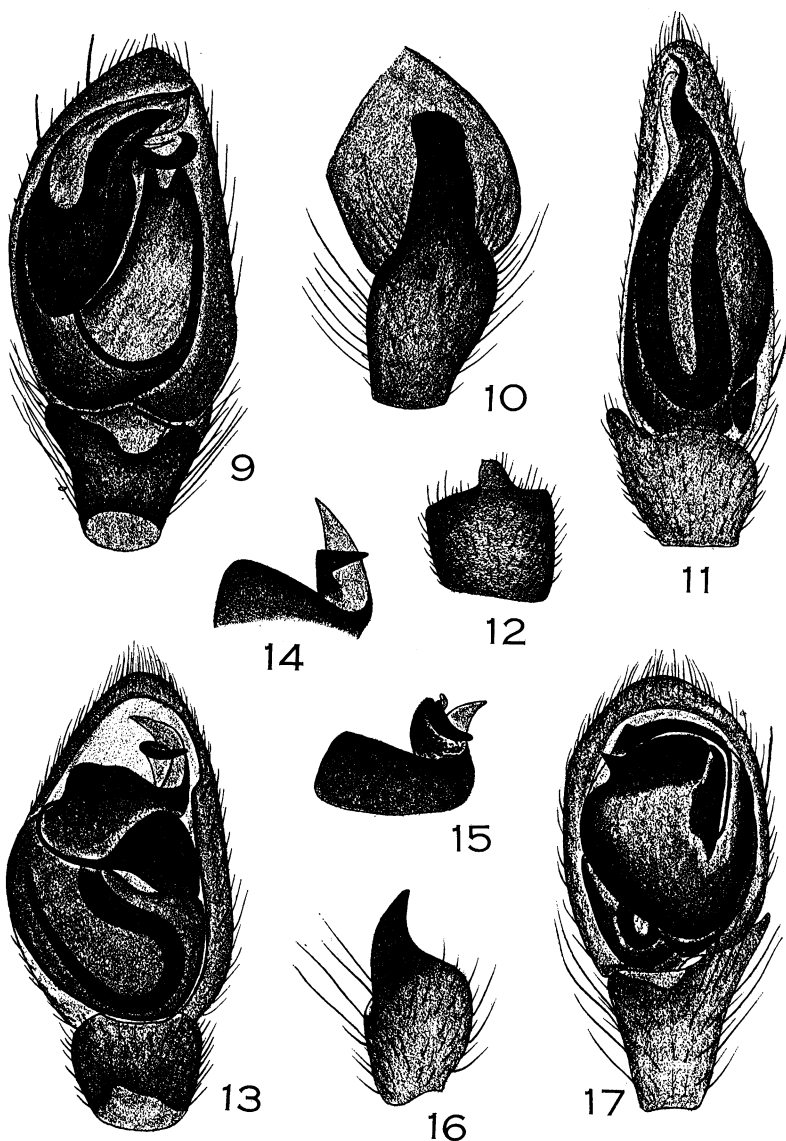
Figure 5

FEMALE.—Total length, 9.50 mm.

	Length	Width
CARAPACE	3.90 mm.	2.45 mm.
FRONT	0.50	1.10
STERNUM	2.10	1.20
LABIUM	0.70	0.45
MAXILLA	1.10	0.40
ABDOMEN	6.00	0.36

Carapace bright orange-brown, unmarked except for narrow black rings around the eyes, evenly clothed with fine black hairs. Sternum, coxae and maxillae nearly concolorous with the carapace, the labium darker, the clothing erect black hairs. Chelicerae dark reddish brown, set with long bristles in front. Legs concolorous with the carapace, covered sparsely with black hairs. Abdomen gray, clothed with black hairs.

Carapace low throughout, about equal in height from the eyes to the posterior declivity, the head not at all elevated. Median groove a short linear depression. Front relatively narrow, the width of the second row of eyes occupying two-thirds the width of the head at that point. First row of eyes weakly procurved, the medians separated by two-thirds their diameter, subcontiguous with the slightly smaller laterals. Eyes of the second row in a straight line, the circular medians separated by scarcely their diameter (21/17), about as far from the subequal laterals. Median ocular quadrangle slightly longer than broad (70/67), wider in front (67/56), the anterior median eyes larger. Lateral eyes of each side subequal in size, separated by four-sevenths the diameter of the posterior lateral eye. Sternum much longer



- Fig. 9. *Haplodrassus dystactus*, new species, left male palp, ventral view.
 Fig. 10. Idem, tibia of left male palp, retrolateral view.
 Fig. 11. *Litopyllus liber*, new species, right male palp, ventral view.
 Fig. 12. Idem, tibia of right male palp, retrolateral view.
 Fig. 13. *Callilepis gosoga*, new species, left male palp, ventral view.
 Fig. 14. Idem, conductor of left male palp, subventral view.
 Fig. 15. *Callilepis eremellus* Chamberlin, conductor of left male palp, subventral view.
 Fig. 16. *Zelotes nannus*, new species, tibia of left male palp, retrolateral view.
 Fig. 17. Idem, left male palp, ventral view.

than broad, truncated in front where the first coxae are separated by more than their width (4/3), the sides gently rounded, bluntly pointed behind, the posterior coxae separated by two-sevenths their width. Lower margin of the furrow of the chelicera completely unarmed, the upper margin with a keel and a small tooth.

Tarsi of first and second legs scopulate, the corresponding metatarsi scopulate more lightly to the base or nearly so. Tarsi of the third and fourth legs scopulate beneath, but the corresponding metatarsi without scopular hairs. Tibia of the first leg with a weak distal ventral spine, the metatarsi with a small basal spine, these joints otherwise unarmed. Fourth tibia unarmed above, the third with a single dorsal spine near the base.

	I	II
FEMUR	2.18 mm.	2.05 mm.
PATELLA	1.50	1.50
TIBIA	1.70	1.65
METATARSUS	1.45	1.35
TARSUS	0.80	0.80
TOTAL	7.63	7.35

	III	IV
FEMUR	2.00 mm.	2.35 mm.
PATELLA	1.15	1.40
TIBIA	1.35	1.85
METATARSUS	1.50	2.20
TARSUS	0.90	1.05
TOTAL	6.90	8.85

Epigynum as illustrated in Fig. 5.

TYPE LOCALITY.—Female holotype from Ophir, Utah, June 5, 1928 (G. Spendlove).

The epigynum of this species is suggestive of that of *Liodrassus arizonicus* Chamberlin but it is distinct in the details of that organ as illustrated in the figure. The posterior median eyes of *metalleus* are much closer together, being not fully a diameter apart, and the median ocular quadrangle is proportionately much broader in front. Both of these species are much larger than *Liodrassus utus* Chamberlin and differ conspicuously in the form of the epigynum.

Liodrassus petersoni, new species

Figure 8

FEMALE.—Total length, 7.65 mm.

	Length	Width
CARAPACE	2.55 mm.	1.75 mm.
FRONT	0.37	0.85
STERNUM	1.50	1.00
LABIUM	0.45	0.32
MAXILLA	0.75	0.35
ABDOMEN	5.25	2.70

Carapace light yellowish brown, without markings, the eyes narrowly ringed with black, the clothing fine black hairs, the clypeal margin with several stout bristles. Sternum, coxae and maxillae yellowish brown, the labium and chelicerae dark brown, all clothed with black hairs. Legs concolorous with the carapace but the joints distad of the patellae of the first two pairs of legs dark reddish brown. Abdomen gray, evenly clothed with fine black hairs.

Carapace low as usual, about the same height from the eyes to the posterior declivity, the head not elevated, the front relatively narrow, the width of the second eye row three-fifths the width of the head at that point. Median groove a linear depression, the cephalic sutures obsolete. First row of eyes gently procurved as seen from in front, the circular medians separated by two-thirds their diameter, subcontiguous with the somewhat smaller laterals. Second row of eyes gently procurved, the oval medians set obliquely, separated by two-fifths their long diameter, as far from the smaller lateral eyes. Median ocular quadrangle longer than broad (30/26), slightly wider in front (26/24), the eyes subequal. Lateral eyes of each side subequal, separated by one-half the diameter of the posterior lateral eye. Sternum rounded on the sides, subtruncated in front where the anterior coxae are separated by scarcely their length, bluntly pointed behind, the separation of the posterior coxae two-sevenths of their width. Lower margin of the furrow of the chelicera unarmed.

First and second tarsi scopulate beneath, the corresponding metatarsi scopulate beyond the middle of the joint. Third and fourth tarsi scopulate beneath, the corresponding metatarsi without scopular hairs. Tibia of the first leg with a weak ventral spine at the distal end, otherwise unspined; the first metatarsus without spines. Second tibia with a median and a distal ventral spine, the metatarsus with a ventral spine near the base, both these joints otherwise unspined. Fourth tibia without spines above; the third tibia with a single dorsal spine near the base.

	I	II
FEMUR	1.60 mm.	1.43 mm.
PATELLA	1.03	0.95
TIBIA	1.15	1.06
METATARSUS	0.95	0.88
TARSUS	0.70	0.70
TOTAL	5.43	5.02

	III	IV
FEMUR	1.34 mm.	1.80 mm.
PATELLA	0.75	0.95
TIBIA	0.89	1.30
METATARSUS	0.95	1.53
TARSUS	0.70	0.75
TOTAL	4.63	6.33

Epigynum as illustrated in Fig. 8.

TYPE LOCALITY.—Female holotype from Spear Fish, South Dakota, June 18, 1936 (Peterson).

This new form closely approximates *Liodrassus utus* Chamberlin in size and structure. It differs conspicuously in the epigynum which has the shallow atria less extensive and the median septum with subparallel sides.

Haplodrassus dystactus, new species

Figures 6, 9 and 10

FEMALE.—Total length, 11.50 mm.

	Length	Width
CARAPACE	4.30 mm.	3.25 mm.
FRONT	0.50	2.15
STERNUM	2.35	1.80
LABIUM	0.90	0.65
MAXILLA	1.40	0.70
ABDOMEN	7.20	4.50

Carapace bright reddish brown, darkest in front, lightly marked with dark radiating lines, the eyes narrowly ringed with black, the clothing fine black hairs. Sternum and maxillae reddish brown, the labium and chelicerae darker, all clothed with fine black hairs. Coxae and legs yellowish brown, the distal joints of the anterior legs darker, covered sparsely with black hairs. Abdomen uniform gray.

Carapace longer than broad, convex, moderately high, the sides gently rounded, the front very broad. Pars cephalica slightly higher just behind the eyes but essentially equal in height from the eyes to the posterior declivity. Median groove a short linear depression situated back three-fourths of the total length of the carapace. Second row of eyes only half as wide as the head at that point. Clypeus equal in height to the diameter of an anterior median eye. First row of eyes gently procurved as seen from in front, the medians separated by nearly their diameter, one-third as far from the subequal laterals. Second row of eyes moderately procurved, the suboval medians set obliquely, separated by one-half their long diameter or by scarcely their short diameter, their long diameter from the smaller laterals. Median ocular quadrangle longer than broad (50/45), slightly wider in front (45/41), the posterior median eyes larger (4/3). Lateral eyes of each side widely separated by the diameter of the smaller posterior lateral eye. Sternum truncated in front, the anterior coxae separated by somewhat more than their length, bluntly pointed behind, the posterior coxae separated by scarcely one-third their width. Chelicerae slightly geniculate at the base, the lower margin armed with two teeth, the upper margin with three teeth of which the median is much the largest.

First and second tarsi scopulate beneath, the corresponding metatarsi also scopulate until

near the base. Third and fourth tarsi scopulate beneath, but their corresponding metatarsi without scopular hairs. First and second tibiae unspined, the corresponding metatarsi with a ventral spine near the base and a ventral basal pair, respectively. Third and fourth tibiae without dorsal spines.

	I	II
FEMUR	2.80 mm.	2.30 mm.
PATELLA	1.75	1.55
TIBIA	2.25	1.85
METATARSUS	1.75	1.60
TARSUS	1.30	1.15
TOTAL	9.85	8.45

	III	IV
FEMUR	2.15 mm.	3.00 mm.
PATELLA	1.15	1.70
TIBIA	1.35	2.30
METATARSUS	1.70	2.60
TARSUS	1.15	1.35
TOTAL	7.50	10.95

Epigynum as illustrated in Fig. 6, agreeing closely in general with *Haplodrassus signifer* (C. Koch) but proportionately longer than broad and the sclerotized semilunar ridges relatively smaller.

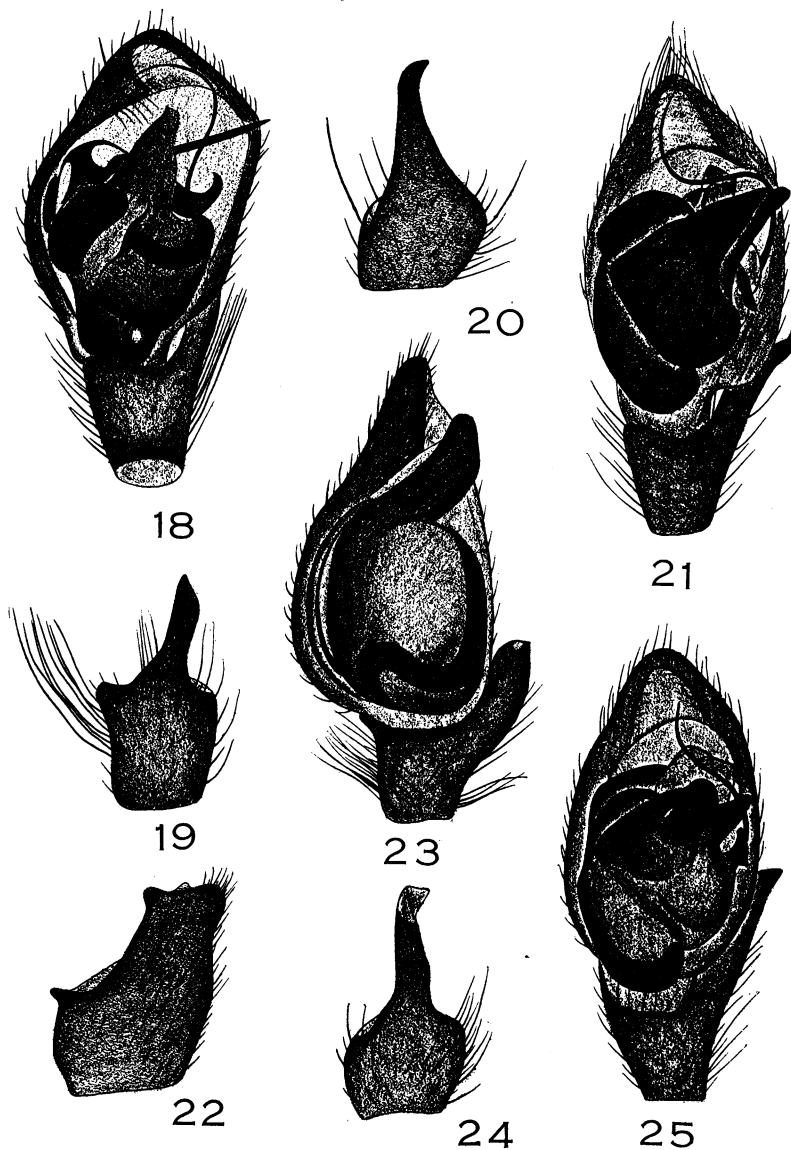
MALE.—Total length, 6.70 mm.

	Length	Width
CARAPACE	2.90 mm.	2.25 mm.
FRONT	0.35	1.15
STERNUM	1.70	1.30
LABIUM	0.65	0.46
MAXILLA	0.90	0.47
ABDOMEN	3.90	2.30

Coloration and general structure in close agreement with the female. Eye relations essentially as in the female. Second row of eyes moderately procurved, the oval medians separated by scarcely one-third their long diameter, set obliquely, scarcely their long diameter from the smaller laterals. Median ocular quadrangle slightly longer than broad (37/36), slightly narrowed behind (36/34), the eyes subequal. Leg spines as in the female but the first metatarsus without a basal spine.

	I	II
FEMUR	2.30 mm.	2.00 mm.
PATELLA	1.35	1.20
TIBIA	2.15	1.68
METATARSUS	1.75	1.55
TARSUS	1.20	1.05
TOTAL	8.75	7.48

	III	IV
FEMUR	1.75 mm.	2.25 mm.
PATELLA	0.95	1.15
TIBIA	1.20	1.80
METATARSUS	1.49	2.10
TARSUS	1.00	1.20
TOTAL	6.39	8.50



- Fig. 18. *Drassyllus eremophilus*, new species, left male palpus, ventral view.
 Fig. 19. Idem, tibia of left male palpus, retrolateral view.
 Fig. 20. *Drassyllus tonaquintus*, new species, tibia of left male palpus, retrolateral view.
 Fig. 21. Idem, left male palpus, ventral view.
 Fig. 22. *Litopyllus paludis*, new species, tibia of left male palpus, retrolateral view.
 Fig. 23. Idem, left male palpus, ventral view.
 Fig. 24. *Drassyllus inanus*, new species, tibia of left male palpus, retrolateral view.
 Fig. 25. Idem, left male palpus, ventral view.

Palpus as illustrated in Figs. 9 and 10, similar in most respects with that of *H. signifer* but distinct in the tibial apophysis which is not at all enlarged at the distal end.

TYPE LOCALITY.—Male holotype and female allotype from Gunnison Butte, Green River, Utah, May 8, 1933 (W. Ivie), in The American Museum of Natural History. Male paratype with the same data in the University of Utah. Female and immature paratypes from Moab, Utah, May 9, 1933 (W. Ivie), in The American Museum of Natural History. Three female paratypes from Richardson, Utah, May 13, 1933 (W. Ivie), in the University of Utah.

***Orodassus orites*, new species**

Figure 7

FEMALE.—Total length, 7.20 mm.

	Length	Width
CARAPACE	3.10 mm.	2.55 mm.
FRONT	0.40	1.30
STERNUM	1.70	1.45
LABIUM	0.42	0.50
MAXILLA	0.75	0.50
ABDOMEN	4.40	2.65

Carapace uniform orange-brown, the margins with a narrow black seam, the eyes narrowly ringed with black, clothed sparsely with fine black hairs. Sternum orange-brown, the sides darker, the labium and maxillae almost concolorous with the sternum. Coxae and appendages light orange-brown, without contrasting markings, clothed with fine black hairs. Abdomen darker brown than the carapace, without definite pattern.

Carapace low as usual, longer than broad, suboval in dorsal view, the sides well rounded, the front broad, the width of the second eye row about three-fifths the width of the head at that point. Pars cephalica not at all elevated, the height of the carapace being essentially equal from the eyes to the posterior declivity. Median groove a slight linear depression situated back two-thirds of the total length of the carapace. Clypeus equal in height to scarcely one-half the diameter of an anterior median eye. First row of eyes weakly procurved as seen from in front, the medians separated by two-thirds their diameter, subcontiguous with the subequal lateral eyes. Second row of eyes very weakly recurved, essentially straight, the medians separated by two-thirds their diameter, a full diameter from the subequal lateral eyes. Median ocular quadrangle as broad as long, equally wide in front as behind, the eyes subequal. Lateral eyes of each side subequal, separated by two-thirds their diameter. Labium slightly broader than long. Sternum somewhat

longer than broad, subcordate in outline, truncated in front, the anterior coxae separated by more than their length (60/50), bluntly pointed behind where the fourth coxae are slightly separated by three-sevenths of their width. Lower margin of the furrow of the chelicera with two stout teeth, the upper with three teeth of which the median one is largest.

First tibia with a basal and a median pair of ventral spines, without distals; the first metatarsus with a single pair at base. Second leg as the first but one of the basal spines missing on the tibia. Third and fourth tibiae without dorsal spines. First and second tarsi and metatarsi and the third and fourth tarsi scopulate beneath.

	I	II
FEMUR	2.40 mm.	2.25 mm.
PATELLA	1.35	1.22
TIBIA	2.00	1.77
METATARSUS	1.50	1.40
TARSUS	1.22	1.16
TOTAL	8.47	7.80

	III	IV
FEMUR	2.21 mm.	2.75 mm.
PATELLA	1.15	1.25
TIBIA	1.65	2.35
METATARSUS	1.38	2.15
TARSUS	1.15	1.35
TOTAL	7.54	9.85

Epigynum as illustrated in Fig. 7.

TYPE LOCALITY.—Female holotype from Mt. Rainier, Washington, August.

This interesting form is distinct from the other known species of the genus in lacking a strongly elevated projection or septal piece in the atrium of the epigynum.

***Callilepis gosoga*, new species**

Figures 13 and 14

MALE.—Total length, 2.50 mm.

	Length	Width
CARAPACE	1.50 mm.	1.20 mm.
FRONT	0.24	0.55
STERNUM	0.90	0.80
LABIUM	0.22	0.25
MAXILLA	0.38	0.27
ABDOMEN	1.90	1.15

Carapace pale yellow, lightly infuscated, the pars cephalica outlined by a dark line on each side from the median groove to the side of the head, the margins of the carapace with a distinct black seam. Eye area black. Underside of the carapace pale yellow, without markings. Legs pale yellow, the first and second pairs completely unmarked, the femora of the third and fourth pairs infuscated, the remaining joints pale.

Abdomen black above, with a white maculation just above the spinnerets, the venter pale, lightly infuscated.

Structure typical, in close agreement with *Callilepis eremellus* Chamberlin. Carapace relatively low, moderately convex, the median groove a short linear depression situated back five-sevenths of the total length. First row of eyes moderately procurved, the medians separated by their radius, contiguous with the larger laterals. Clypeus equal in height to one and one-half times the diameter of an anterior lateral eye. Second row of eyes moderately recurved, the subquadrangular median eyes separated by one-half their long diameter, half as far from the somewhat larger suborbicular median eyes. Median ocular quadrangle longer than broad (20/18), narrowed in front (20/15), the eyes subequal in size. Lower margin of the furrow of the chelicera with the usual lobe characteristic of the genus.

First tibia with three pairs of ventral spines and a single prolateral spine near the middle of the joint. First metatarsus with a basal and a distal pair of ventral spines. Fourth tibia with a single dorsal spine near the base.

	I	II
FEMUR	1.20 mm.	1.05 mm.
PATELLA	0.65	0.60
TIBIA	0.85	0.78
METATARSUS	0.81	0.78
TARSUS	0.70	0.70
TOTAL	4.21	3.91

	III	IV
FEMUR	1.00 mm.	1.40 mm.
PATELLA	0.50	0.70
TIBIA	0.70	1.10
METATARSUS	0.95	1.45
TARSUS	0.72	0.74
TOTAL	3.87	5.39

Palpus as illustrated in Figs. 13 and 14.

TYPE LOCALITY.—Male holotype from the desert region near Acton, California, August 5, 1931 (W. Ivie).

This small species closely approximates *Callilepis eremellus* Chamberlin in general appearance and structure. It is distinct in the conductor of the embolus which presents two spurs (Fig. 14) of which the dorsal one is longer and the ventral apophysis is without cusps. In *eremellus* (Fig. 15) the dorsal spur is proportionately shorter and the ventral prong is of a different form, provided with short spines.

Drassyllus nannellus, new species

Figure 33

FEMALE.—Total length, 2.90 mm.

	Length	Width
CARAPACE	1.23 mm.	0.93 mm.
FRONT	0.12	0.46
STERNUM	0.84	0.58
LABIUM	0.20	0.18
MAXILLA	0.32	0.20
ABDOMEN	1.65	1.05

Carapace dusky brown, with radiating black streaks from the median groove, the area enclosed by the eyes black, the clothing inconspicuous black hairs. Sternum, mouth parts and coxae dusky brown, clothed with black hairs. Legs dusky to dark brown, the terminal joints of the first two pairs paler. Abdomen nearly black, faintly iridescent, clothed with black hairs.

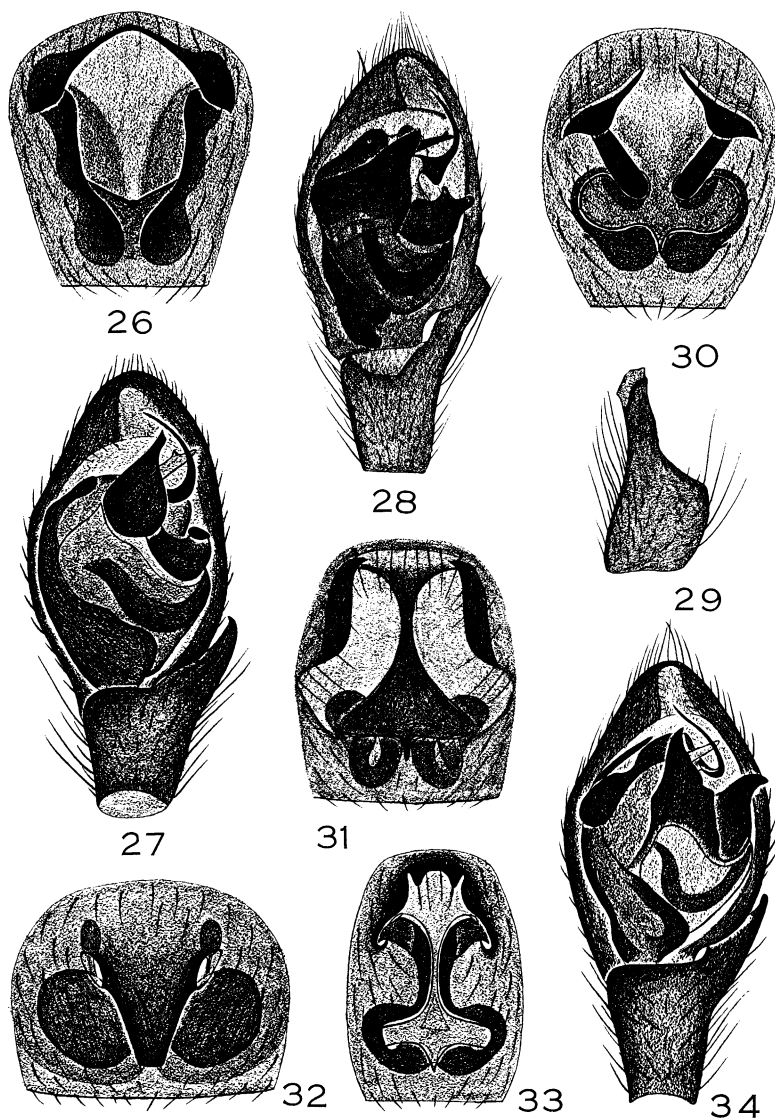
Carapace longer than broad, relatively flat, moderately convex, about equal in height throughout its length, the median groove a slight linear depression situated back three-fourths of the total length. Cephalic sutures practically obsolete. First row of eyes weakly procurved as seen from in front, the medians separated by two-thirds their radius, subcontiguous with the larger lateral eyes. Second row very weakly procurved, the medians suboval to subquadrangular in shape, rather large, separated by about one-fifth their short diameter, slightly farther from the smaller lateral eyes. Median ocular quadrangle longer than broad (24/22), slightly wider behind (22/20), the anterior median eyes much smaller. Posterior lateral eyes slightly smaller than and separated from the anterior lateral eyes by the radius. Clypeus low, equal in height to about the radius of an anterior median eye. Sternum subquadrangular, longer than broad, truncated in front, the first coxae separated by slightly more than their length, bluntly pointed behind where the posterior coxae are separated by five-eighths of their width. Chelicera with two small teeth on the lower margin.

Tarsi with a thin covering of scopular hairs beneath all of them, but all the metatarsi without scopular hairs. First and second tibiae and metatarsi completely unspined on all surfaces. Third and fourth tibiae without dorsal spines.

	I	II
FEMUR	0.85 mm.	0.73 mm.
PATELLA	0.56	0.44
TIBIA	0.64	0.53
METATARSUS	0.55	0.47
TARSUS	0.52	0.44
TOTAL	3.12	2.61

	III	IV
FEMUR	0.60 mm.	0.93 mm.
PATELLA	0.36	0.56
TIBIA	0.44	0.77
METATARSUS	0.47	0.85
TARSUS	0.39	0.52
TOTAL	2.26	3.63

Epigynum as illustrated in Fig. 33.



- Fig. 26. *Drassyllus creolus*, new species, epigynum.
 Fig. 27. Idem, left male palpus, ventral view.
 Fig. 28. *Drassyllus hubbelli*, new species, left male palpus, ventral view.
 Fig. 29. Idem, tibia of left male palpus, retrolateral view.
 Fig. 30. *Drassyllus lasatus*, new species, epigynum.
 Fig. 31. *Drassyllus seminolus*, new species, epigynum.
 Fig. 32. *Poecilochroa josephus*, new species, epigynum.
 Fig. 33. *Drassyllus nannellus*, new species, epigynum.
 Fig. 34. *Drassyllus ellipes*, new species, left male palpus, ventral view.

TYPE LOCALITY.—Female holotype from ten miles west of Tremonton, Utah, June 8, 1931 (W. Ivie).

This species is closely related to *Drassyllus lamprus* (Chamberlin). It is somewhat smaller in size and lighter in color and may be distinguished by the presence of two sclerotized cusps at the anterior margin of the epigynum which are lacking in *lamprus*.

Drassyllus lasalus, new species

Figure 30

FEMALE.—Total length, 8.00 mm.

	Length	Width
CARAPACE	2.80 mm.	2.15 mm.
FRONT	0.35	1.00
STERNUM	1.80	1.35
LABIUM	0.46	0.40
MAXILLA	0.70	0.40
ABDOMEN	5.20	3.00

Carapace uniform orange-brown, without contrasting markings, the eyes narrowly ringed with black, the clothing fine black hairs. Sternum, mouth parts and appendages concolorous, clothed with black hairs. Abdomen gray, without pattern, covered sparsely with inconspicuous black hairs.

Carapace longer than broad, subovate in outline, narrowed and truncated in front, the cephalic sutures obsolete, the median groove a linear depression situated back two-thirds of the total length. Pars cephalica of moderate height, not elevated, the height of the carapace being essentially the same from the eyes back to the posterior declivity. First row of eyes moderately procurved, the medians separated by three-fourths their diameter, subcontiguous with the much larger laterals. Second row of eyes moderately procurved, the large oval medians set obliquely and separated by one-third their short diameter, as far from the smaller laterals. Median ocular quadrangle longer than broad (40/30), slightly narrowed in front (30/28), the anterior median eyes much smaller. Posterior lateral eye smaller than and separated from the anterior lateral by its radius. Clypeus low, equal in height to two-thirds the diameter of an anterior median eye. Sternum longer than broad, subcordate, truncated in front where the anterior coxae are separated by their length, bluntly pointed behind where the posterior coxae are separated by one-third their width. Chelicera armed on the lower margin with two small teeth.

First tibia completely unspined, the corresponding metatarsus with a basal pair of ventral spines. Second tibia with a subbasal and a median ventral spine, the corresponding metatarsus with a basal pair on the ventral surface. First and second tarsi and metatarsi sparsely

scopulate beneath. Third and fourth tarsi sparsely scopulate beneath, the corresponding metatarsi without scopular hairs.

	I	II ^a
FEMUR	2.20 mm.	2.00 mm.
PATELLA	1.35	1.20
TIBIA	1.75	1.50
METATARSUS	1.50	1.40
TARSUS	1.30	1.20
TOTAL	8.10	7.30

	III	IV
FEMUR	1.70 mm.	2.50 mm.
PATELLA	1.00	1.35
TIBIA	1.30	2.15
METATARSUS	1.50	2.50
TARSUS	1.00	1.25
TOTAL	6.50	9.75

Epigynum as illustrated in Fig. 30.

TYPE LOCALITY.—Female holotype from the LaSal Mountains, Utah, October 29, 1931 (W. Ivie).

This species is closely related to *Drassyllus mormon* Chamberlin in the structure of the epigynum. It differs in the more widely separated sclerotized processes on the frontal margin of the organ and in the broader, more expanded septum.

Drassyllus creolus, new species

Figures 26 and 27

FEMALE.—Total length, 5.30 mm.

	Length	Width
CARAPACE	2.50 mm.	1.90 mm.
FRONT	0.30	0.80
STERNUM	1.43	1.10
LABIUM	0.45	0.32
MAXILLA	0.70	0.36
ABDOMEN	2.80	1.75

Carapace pale yellow, lightly infuscated, marked with black radiating lines, the eyes narrowly ringed with black, the clothing a few black hairs. Underside of the carapace and the appendages concolorous, without contrasting markings, clothed with black hairs. Abdomen nearly black, clothed with black hairs.

Structure essentially as in *Drassyllus lasalus*, new species. Carapace convex, relatively low, suboval in outline as seen from above, the cephalic sutures obsolete, the median groove a short linear depression. First row of eyes moderately procurved, the medians separated by three-fourths their diameter, subcontiguous with the slightly smaller lateral eyes. Second row of eyes moderately procurved, the large oval medians slightly divergent, subcontiguous, separated from the much smaller lateral eyes by

one-third their short diameter. Median ocular quadrangle longer than broad (40/33), as wide in front as behind, the anterior medians smaller. Posterior lateral eye smaller than and separated from the anterior lateral eye by a diameter. Clypeus low, equal in height to two-thirds the diameter of an anterior median eye. Sternum longer than broad, subcordate, truncated in front, the first coxae separated by four-fifths their length, bluntly pointed behind, the posterior coxae separated by two-fifths their width. Labium considerably longer than broad. Chelicera with three small teeth on the lower margin of the furrow.

First and second tarsi lightly scopulate beneath, the corresponding metatarsi with a few scopular hairs chiefly at the distal end. Third and fourth tarsi lightly scopulate beneath, the corresponding metatarsi lacking scopular hairs. First and second tibiae unspined, the corresponding metatarsi with a ventral pair of spines near the base. Fourth tibia without dorsal spines, the third with one near the base above which is sublateral in position.

	I	II
FEMUR	2.25 mm.	1.75 mm.
PATELLA	1.30	1.10
TIBIA	1.70	1.30
METATARSUS	1.50	1.25
TARSUS	1.25	1.10
TOTAL	8.00	6.50

	III	IV
FEMUR	1.30 mm.	2.40 mm.
PATELLA	0.85	1.30
TIBIA	1.15	1.83
METATARSUS	1.30	2.00
TARSUS	0.80	1.10
TOTAL	5.40	8.63

Epigynum as illustrated in Fig. 26.

MALE.—Total length, 5.15 mm.

	Length	Width
CARAPACE	2.35 mm.	1.90 mm.
FRONT	0.25	0.75
STERNUM	1.35	1.05
LABIUM	0.40	0.32
MAXILLA	0.60	0.36
ABDOMEN	2.80	1.75

Coloration and structure in close agreement with the female. First row of eyes moderately procurved, the medians separated by their radius, subcontiguous with the larger laterals. Second row of eyes moderately procurved, the very large oval medians set obliquely, contiguous, slightly separated from the smaller lateral eyes. Median ocular quadrangle longer than broad (40/33), slightly wider behind (33/30), the posterior medians larger. Posterior lateral eye slightly smaller than and separated from the anterior lateral eye by the radius. Clypeus

low, equal in height to one-third the diameter of an anterior median eye. Sternum truncated in front, the anterior coxae separated by their length, bluntly pointed behind where the posterior coxae are separated by two-fifths their width.

Legs for the most part missing. First tibia unspined, the corresponding metatarsi with a ventral pair near the base. First leg: femur, 1.90 mm., patella, 1.15 mm., tibia, 1.55 mm., metatarsus, 1.40 mm., and tarsus, 1.15 mm. long.

Palpus as illustrated in Fig. 27.

TYPE LOCALITY.—Male holotype and female allotype from Baton Rouge, Louisiana.

The male of this species is distinct from *ellipes* in the shape of the apophyses of the bulb of the palpus. In *creolus* the principal distal spur is broadly rounded at the base, essentially oval in shape but prolonged cephalad in a blunt point. The female is related to *virginianus* but the sclerotized frontal margin of the epigynum is rounded, not nearly straight.

Drassyllus ellipes, new species

Figure 34

MALE.—Total length, 5.85 mm.

	Length	Width
CARAPACE	2.70 mm.	2.10 mm.
FRONT	0.28	1.00
STERNUM	1.65	1.25
LABIUM	0.45	0.35
MAXILLA	0.70	0.40
ABDOMEN	3.15	1.80

Coloration and structure of the poorly preserved specimen in close agreement with *creolus*. First row of eyes moderately procurved, the medians separated by their radius, subcontiguous with the larger lateral eyes. Second row of eyes very weakly procurved, essentially straight, the large subcircular medians nearly contiguous, separated from the somewhat smaller laterals by scarcely a radius. Median ocular quadrangle longer than broad (36/30), slightly narrowed in front (30/28), the posterior median eyes larger. Posterior lateral eye subequal to and separated from the anterior lateral by a radius. Clypeus low, equal in height to slightly more than the radius of the anterior median eye. Sternum truncated in front, the anterior coxae separated by their length, bluntly pointed behind, the posterior coxae separated by two-fifths their width.

All tarsi lightly scopulate beneath, the first two metatarsi with a few scopular hairs especially near the base. First tibia unspined, the first metatarsus with a ventral pair near the base.

	I	II
FEMUR	2.30 mm.	1.80 mm.
PATELLA	1.35	1.00
TIBIA	1.90	1.50
METATARSUS	1.70	1.30
TARSUS	1.35	1.10
TOTAL	8.60	6.70

	III	IV
FEMUR	1.65 mm.	2.50 mm.
PATELLA	0.95	1.30
TIBIA	1.15	2.20
METATARSUS	1.45	2.30
TARSUS	0.75	1.20
TOTAL	5.95	9.50

Palpus as illustrated in Fig. 34.

TYPE LOCALITY.—Male holotype from Duncanville, Alabama.

This species is closely related to *Drassyllus creolus*, new species, but is distinct in having the eyes of the posterior row essentially straight, in the shape of the posterior median eyes, and in the details of the palpus. The principal distal spur on the bulb is subquadrangular in shape, not suboval.

Drassyllus hubbelli, new species

Figures 28 and 29

MALE.—Total length, 6.45 mm.

Carapace 2.80 mm. long, 2.20 mm. wide. Carapace and appendages light yellowish brown, without markings except for the narrow rings around the eyes and the black spot they enclose. Clothing sparse, a covering of subprocumbent black hairs and a few suberect black setae. Abdomen gray, the base with an orange sclerite, the clothing long black hairs, the base with a patch of stout black setae.

Structure typical, in essential agreement with *Drassyllus devexus* Chamberlin. Carapace low, convex, the median groove a linear depression situated back five-sevenths of the total length. First row of eyes moderately recurved, the medians separated by their radius, subcontiguous with the much larger lateral eyes. Second row of eyes moderately recurved, the large oval medians set obliquely, contiguous, one-third their short diameter from the smaller laterals. Median ocular quadrangle longer than broad (40/34), slightly narrower in front (34/31), the anterior median eyes smaller. Clypeus equal in height to one-half the diameter of an anterior lateral eye. Lower margin of the furrow of the chelicera with three small teeth, the upper margin with six teeth of which the four median ones are much larger. Sternum truncated in front, bluntly pointed behind, the posterior coxae separated by about one-half their width.

First femur with two dorsal and a weak pro-

lateral spine; first metatarsus with a pair of ventral spines near the base; first leg otherwise unspined. Second leg as the first but the tibia with a ventral spine near the base and a median pair. Third and fourth tibiae without dorsal spines. All tarsi lightly scopulate beneath.

Palpus as illustrated in Figs. 28 and 29.

	I	II
FEMUR	2.25 mm.	2.00 mm.
PATELLA	1.48	1.20
TIBIA	1.87	1.52
METATARSUS	1.70	1.40
TARSUS	1.35	1.25
TOTAL	8.65	7.37

	III	IV
FEMUR	1.75 mm.	2.48 mm.
PATELLA	0.85	1.30
TIBIA	1.30	2.20
METATARSUS	1.40	2.60
TARSUS	1.00	1.30
TOTAL	6.30	9.88

TYPE LOCALITY.—Male holotype from five miles east of Springerville, Apache County, Arizona, August 23–25, 1935 (T. H. Hubbell).

This species is characterized by and may be distinguished from *creolus* and *ellipes* by the broadened distal end of the tibial apophysis. In the other species the tibial apophysis is evenly rounded, not at all enlarged at the end.

Drassyllus eremophilus, new species

Figures 18 and 19

MALE.—Total length, 4.40 mm.

	Length	Width
CARAPACE	2.00 mm.	1.63 mm.
FRONT	0.30	0.63
STERNUM	1.15	0.90
LABIUM	0.33	0.26
MAXILLA	0.50	0.30
ABDOMEN	2.40	2.00

Coloration in close agreement with *Drassyllus niger* (Banks). Carapace yellowish brown, somewhat infuscated, with a small V-shaped black figure just in front of the median groove, the eyes enclosing a black field. Clothing of the carapace sparse, made up of fine subprocumbent black hairs and a few suberect stouter bristles, particularly in the ocular area. Sternum, coxae and maxillae yellowish brown, the labium darker, all clothed evenly with suberect black hairs. Legs yellowish brown except for the first which has the distal end of the femur, the patella, and the tibia nearly black, and the second leg which has these joints less strongly marked with black. Abdomen black, the dor-

sum with the usual sclerotized plate, the clothing long black hairs and iridescent scales.

Structure essentially as in *niger*. Median furrow of the carapace an inconspicuous linear depression situated back three-fifths the total length. First row of eyes procurved, the medians separated by their radius, subcontiguous with the subequal lateral eyes. Second row of eyes weakly procurved, the suboval medians set obliquely, contiguous, separated by one-half their short diameter from the smaller laterals. Median ocular quadrangle slightly longer than broad (33/29), slightly narrowed in front (29/26), the eyes subequal in size. Clypeus low, equal in height to two-thirds the diameter of an anterior median eye. Lower margin of the furrow of the chelicera with three small teeth; the upper margin with four larger teeth. Sternum truncated in front, bluntly pointed behind, the posterior coxae separated by two-thirds their width.

First femur with two dorsal spines and a weak prolateral spine; first metatarsus with a ventral pair near the base, the leg otherwise unspined. All tarsi lightly scopulate beneath. Fourth tibia without dorsal spines, the third with a median prolateral and a retrolateral spine which are subdorsal in position.

	I	II
FEMUR	1.54 mm.	1.30 mm.
PATELLA	0.90	0.78
TIBIA	1.20	0.95
METATARSUS	1.03	0.86
TARSUS	0.95	0.82
TOTAL	5.62	4.71

	III	IV
FEMUR	1.10 mm.	1.60 mm.
PATELLA	0.62	0.82
TIBIA	0.70	1.24
METATARSUS	0.84	1.45
TARSUS	0.65	0.80
TOTAL	3.91	5.91

Palpus as illustrated in Figs. 18 and 19.

TYPE LOCALITY.—Male holotype from Douglas Lake, Michigan, April 14, 1930 (E. L. Miner).

This species is related to *Drassyllus niger* (Banks) of which *D. transversus* (Emerton) apparently represents the male. In *eremophilus* the principal distal spur of the bulb is directed forward, not laterad, and the strong spine beneath it is straight, not at all curved.

***Drassyllus seminolus*, new species**

Figure 31

FEMALE.—Total length, 2.80 mm.

Carapace, 1.33 mm. long, 1.05 mm. wide.

Color in close agreement with *Drassyllus dixinus*

Chamberlin. Carapace light yellowish brown, lightly infuscated on the sides, with a V-shaped dusky figure just in front of the median groove, the eyes enclosing a black field, the sides with a narrow black marginal seam. Clothing of the carapace very sparse, a few fine black hairs. Sternum, coxae and mouth parts yellowish brown, without markings, evenly set with suberect black hairs. Legs concolorous with the carapace, the first tibia lightly infuscated, clothed evenly with rows of black hairs. Abdomen all black above, with black hairs and iridescent scales, the venter paler.

Structure typical, essentially as in *dixinus*. Clypeus low, equal in height to two-fifths the diameter of an anterior lateral eye. First row of eyes moderately procurved, the medians separated by the radius, contiguous with the much larger laterals. Second row of eyes very gently procurved, the oval medians set obliquely, contiguous, separated from the somewhat smaller lateral eyes by one-third their short diameter. Median ocular quadrangle longer than broad (20/17), narrowed in front (17/14), the anterior median eyes smaller. Second row of eyes six-elevenths as wide as the carapace at that point. Chelicera with three small teeth on the lower margin, five larger ones on the upper margin. Sternum truncated in front, bluntly pointed behind, the posterior coxae separated by one-half their width.

First femur with two dorsal and a weaker prolateral spine; first metatarsus with a ventral pair of spines near the base; first leg otherwise unspined. Second leg as the first. Third and fourth tibiae without dorsal spines. All tarsi lightly scopulate beneath.

	I	II
FEMUR	0.90 mm.	0.73 mm.
PATELLA	0.55	0.49
TIBIA	0.70	0.55
METATARSUS	0.54	0.48
TARSUS	0.45	0.43
TOTAL	3.14	2.68

	III	IV
FEMUR	0.65 mm.	0.97 mm.
PATELLA	0.40	0.55
TIBIA	0.44	0.83
METATARSUS	0.55	0.95
TARSUS	0.40	0.54
TOTAL	2.44	3.84

Epigynum as illustrated in Fig. 31.

TYPE LOCALITY.—Female holotype from Gainesville, Florida, June, 1935 (W. J. Gertsch).

This species is distinct from *Drassyllus dixinus* Chamberlin in the epigynum which presents a subtriangular median septum the sides of which are moderately excavated, not abruptly and strongly ex-

panded near the base. In *dixinus* the posterior median eyes are decidedly larger than and nearer the laterals, subcontiguous with them.

Drassyllus inanus, new species

Figures 24 and 25

MALE.—Total length, 2.45 mm.

	Length	Width
CARAPACE	1.06 mm.	0.83 mm.
FRONT	0.12	0.36
STERNUM	0.66	0.55
LABIUM	0.15	0.15
MAXILLA	0.25	0.18
ABDOMEN	1.35	0.80

Carapace and appendages uniform yellow in color, without contrasting markings, the eyes narrowly ringed with black. Carapace smooth, with a few black hairs. Appendages more thickly clothed with black hairs. Abdomen a paler yellow than the carapace, the base with a sclerotized scutum concolorous with the carapace.

Carapace longer than broad, low, suboval in outline, considerably flattened, the sides broadly rounded, the front rather broad, the cephalic sutures obsolete. Median groove an inconspicuous linear depression situated back about two-thirds of the total length. First row of eyes moderately procurved, the medians separated by their radius, subcontiguous with the larger laterals. Second row of eyes half as broad as the carapace at that point, very gently procurved, essentially straight, the oval medians set obliquely, separated by half their short diameter, as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, slightly narrowed in front (15/13), the anterior median eyes smaller. Posterior lateral eye subequal in size and separated from the anterior lateral eye by its radius. Clypeus low, equal in height to two-thirds the diameter of an anterior median eye. Chelicera armed with two small teeth on the lower margin. Sternum truncated in front, the anterior coxae separated by their length, bluntly pointed behind, the posterior coxae separated by nearly their width.

Second tibia unspined, the corresponding metatarsus with a single spine near the base. All tarsi sparsely scopulate beneath, the second metatarsus with a few scopular hairs. Third and fourth tibiae lacking dorsal spines.

	I	II
FEMUR	0.65 mm.	0.58 mm.
PATELLA		0.39
TIBIA		0.45
METATARSUS		0.36
TARSUS		0.33
TOTAL		2.11

	III	IV
FEMUR	0.50 mm.	0.70 mm.
PATELLA	0.28	0.40
TIBIA	0.36	0.60
METATARSUS	0.38	0.58
TARSUS	0.32	0.39
TOTAL	1.84	2.67

Palpus as illustrated in Figs. 24 and 25.

TYPE LOCALITY.—Male holotype from Bluff, Utah, April 14, 1928 (W. J. Gertsch).

This small form agrees in a general way with *Drassyllus tonaquintus*, new species, but is much paler and has the posterior median eyes more widely separated. The palpus is radically distinct in details, the principal bulbal processes being much smaller and the embolus straighter.

Drassyllus tonaquintus, new species

Figures 20 and 21

MALE.—Total length, 3.00 mm.

	Length	Width
CARAPACE	1.44 mm.	1.10 mm.
FRONT	0.15	0.46
STERNUM	0.85	0.65
LABIUM	0.23	0.23
MAXILLA	0.33	0.24
ABDOMEN	1.50	1.00

Carapace dusky brown, marked with black radiating streaks, a V-shaped black maculation just in front of the median groove, the margins with a narrow black seam, the eye area black. Sternum, mouth parts and coxae dusky brown, sparsely clothed with black hairs. Legs reddish brown, dusky, the first and second patellae and tibiae blackened, the distal joints paler. Abdomen black above, with a blue iridescence, the base with a sclerotized brown scutum, the venter black.

Carapace longer than broad, flattened as usual, the cephalic sutures obsolete, the median groove a short linear depression situated back about two-thirds of the total length. Pars cephalica moderately broad, the second eye row about three-fifths as wide as the head at that point. Clypeus low, equal in height to two-thirds the diameter of an anterior median eye. First row of eyes moderately procurved, the medians separated by two-thirds their diameter, subcontiguous with the larger laterals. Second row of eyes gently procurved, the large oval medians slightly separated by one-fifth their short diameter, as far from the smaller laterals. Median ocular quadrangle as broad as long, narrowed in front (25/20), the anterior median eyes smaller. Posterior lateral eye subequal to and separated from the anterior lateral eye by one-third its diameter. Lower margin of the furrow of the chelicera with two small teeth, the

upper with three teeth of which the middle one is larger. Sternum truncated in front, the anterior coxae separated by their length, bluntly pointed behind, the posterior coxae separated by one-fourth their width.

First tibia and metatarsus completely unspined. Second tibia unspined, the metatarsus with a pair of ventral spines near the base. All tarsi lightly scopulate beneath. Third and fourth tibiae lacking dorsal spines.

	I	II
FEMUR	1.00 mm.	0.83 mm.
PATELLA	0.62	0.53
TIBIA	0.77	0.64
METATARSUS	0.62	0.55
TARSUS	0.50	0.46
TOTAL	3.51	3.01

	III	IV
FEMUR	0.73 mm.	1.05 mm.
PATELLA	0.40	0.64
TIBIA	0.50	0.82
METATARSUS	0.60	0.93
TARSUS	0.42	0.50
TOTAL	2.65	3.94

Palpus as illustrated in Figs. 20 and 21.

TYPE LOCALITY.—Male holotype and immature female allotype from St. George, Utah, 1927 (A. M. Woodbury), in The American Museum of Natural History. Male paratypes from shores of Great Salt Lake, northwest of Farmington, Utah, Nov. 17, 1931 (W. Ivie), in the University of Utah.

This little species is characterized by the very large, divided, principal apophyses of the bulb, the form of which is not closely approximated in any other known species.

Zelotes nannus, new species

Figures 16 and 17

MALE.—Total length, 3.45 mm.

	Length	Width
CARAPACE	1.17 mm.	0.87 mm.
FRONT	0.15	0.40
STERNUM	0.72	0.55
LABIUM	0.18	0.17
MAXILLA	0.30	0.20
ABDOMEN	1.45	0.80

Carapace and appendages pale yellow, without markings, the eyes narrowly ringed with black. Clothing of the appendages pale hairs and weak spines. Abdomen gray to pale yellow, the dorsum with a pale sclerotized scutum at the base, the clothing inconspicuous hairs and a tuft of longer, stouter hairs at the base.

Structure essentially typical for *Zelotes* al-

though the coloration is somewhat unusual. Carapace evenly convex, relatively low, the pars cephalica not at all elevated, essentially equal in height from the eyes to the posterior declivity which is moderately convex. Median groove almost obsolete, a faint linear depression situated back two-thirds of the total length of the carapace. Clypeus low, equal in height to the radius of an anterior lateral eye. First row of eyes gently procurved, the medians separated by about one-third their diameter, contiguous with the larger laterals. Posterior row of eyes very gently recurved, the medians separated by their radius, slightly nearer the subequal lateral eyes. Median ocular quadrangle broader than long (18/16), narrowed in front (18/14), the anterior median eyes smaller. Sternum sub-oval, bluntly pointed behind where the posterior coxae are separated by one-third their width. Lower margin of the furrow of the chelicera with one very small tooth.

First and second tarsi lightly scopulate beneath, the posterior tarsi and all metatarsi apparently lacking scopular hairs. First and second tibiae completely unspined, the metatarsi unspined except for a ventral pair near the base. Third and fourth tibiae without dorsal spines. Posterior legs otherwise well spined.

	I	II
FEMUR	0.80 mm.	0.65 mm.
PATELLA	0.50	0.42
TIBIA	0.64	0.52
METATARSUS	0.50	0.47
TARSUS	0.44	0.40
TOTAL	2.88	2.46

	III	IV
FEMUR	0.60 mm.	0.84 mm.
PATELLA	0.32	0.45
TIBIA	0.40	0.56
METATARSUS	0.50	0.73
TARSUS	0.35	0.45
TOTAL	2.17	3.03

Male palpus as illustrated in Figs. 16 and 17.

TYPE LOCALITY.—Male holotype from Richardson, Utah, May 11, 1935 (W. Ivie), in The American Museum of Natural History. Male paratype from Bluff, Utah, April 14, 1928 (W. J. Gertsch), in the University of Utah.

This interesting species is much paler than other known species of *Zelotes* which are usually deep black in color. It is closely related to *Zelotes laccus* Barrows, a species placed tentatively in *Drassyllus* by Chamberlin in 1922, and is easily separated by reference to the palpus as well as by the pale coloration. In both species the em-

bolus is a slender tube which fits in a grooved conductor on the retrolateral margin of the bulb. In *nannus* the conductor is well hidden in a groove and presents a single acuminate spur which is lightly sclerotized. In *laccus* the conductor is broader, more strongly sclerotized, and presents two distinct terminal branches.

