A REVISION OF THE AMERICAN SPIDERS OF THE GENUS ZELOTES (ARANEAE, GNAPHOSIDAE)

NORMAN I. PLATNICK AND MOHAMMAD U. SHADAB

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CONTENTS

Abstract .......................................................... 99
Introduction ......................................................... 99
Collections Examined ............................................ 103
Zelotes Gistel ....................................................... 103
   The subterraneus Group ...................................... 104
      The subterraneus Subgroup ............................... 105
      The hentzi Subgroup ...................................... 112
      The tuobus Subgroup ...................................... 123
      The catholicus Subgroup .................................. 135
      The talpa Subgroup ....................................... 140
   The funestus Group ............................................ 141
      The funestus Subgroup .................................... 141
      The petrophilus Subgroup ................................. 147
      The gynethus Subgroup .................................... 155
      The mayanus Subgroup ..................................... 163
      The jamaicensis Subgroup ................................ 167
   The duplex Group .............................................. 168
      The duplex Subgroup ...................................... 168
      The laccus Subgroup ....................................... 173
      The puritanus Subgroup .................................... 180
   Introduced Species ............................................ 184
   Literature Cited ............................................... 188
   Index of Specific Names ...................................... 191
The genus *Zelotes* is redefined to include those gnaphosids with a preening comb on metatarsi III and IV and an intercalary sclerite situated laterally between the tegulum and terminal apophysis on the male palp. The 58 known American species, found from Alaska and northern Canada south to southern Mexico and Jamaica, are placed in three species groups with 13 subgroups. Cladograms, keys, diagnoses, descriptions, illustrations, scanning electron micrographs, locality records, and distribution maps are provided. The American species *Z. fratris* is removed from the synonymy of the European *Z. subterraneus* (C. L. Koch), but three other European species [*Z. kodaensis* Miller and Buchar, *Z. pallidus* (O. P.-Cambridge), and *Z. nilicola* (O. P.-Cambridge)] are newly recorded from America. Apparently introduced populations of the southwestern species *Z. reformans* Chamberlin are newly recorded from Peru and Hawaii. Eleven specific names are newly synonymized: *Z. pallidenotatus* Mello-Leitão with *Eilica modesta* Keyserling; *Z. chicano* Gertsch and Riechert with *Z. lasalanus* Chamberlin; *Z. hermitus* Kaston with *Z. pullus* (Bryant); *Z. pullatus* Fox with *Z. tuobus* Chamberlin; *Z. calvanisticus* Chamberlin and *Z. protestans* Chamberlin, both with *Z. monachus* Chamberlin; *Z. omissus* Chamberlin with *Z. perditus* Chamberlin; *Z. montereus* Chamberlin with *Z. discens* Chamberlin; *Z. nannus* Chamberlin and Gertsch with *Z. nannodes* Chamberlin; *Z. kodaensis* Miller and Buchar with *Z. puritanus* Chamberlin; and *Z. circumspectus* (Simon) with *Z. pallidus* (O. P.-Cambridge). The males of *Z. gynethus* Chamberlin, *Z. discs* Chamberlin, *Z. mayanus* Chamberlin and Ivie, *Z. monodens* Chamberlin, and *Z. reformans* Chamberlin, and the females of *Z. pullus* (Bryant), *Z. pseustes* Chamberlin, *Z. anglo* Gertsch and Riechert, *Z. petrophilus* Chamberlin, and *Z. nilicola* (O. P.-Cambridge) are described for the first time. Thirty new species are described.

**INTRODUCTION**

This paper, the sixteenth in a series on the spider family Gnaphosidae, is the third devoted to the New World representatives of the *Zelotes* complex, a highly speciose and worldwide group containing those gnaphosids with a preening comb on metatarsi III and IV. Generic limits within this complex have always been poorly understood (Berland, 1919; Marinaro, 1967), and the genus *Zelotes* itself, the subject of the present study, is no exception. For example, recent keys to American gnaphosid genera, such as those of Roth and Brown (1973) and Kaston (1978), assign specimens to *Zelotes* only by the absence of the modifications of the posterior eye row that characterize the two sister genera *Drassyllus* and *Camillina* (Platnick and Shadab, 1982a, 1982b). The situation is no better in the Old World, where *Zelotes* has been so vaguely defined that even some *Drassyllus* species have been lumped into the genus.

The first question to be confronted is whether the species currently included in *Zelotes* are united by any features that can be considered synapomorphic. Even a cursory examination of the illustrations presented below reveals an astonishing variety of both male and female genitalic structures. Moreover, many Old World species (of which there are probably at least 200) belong to species groups that are unrepresented in America and that extend the range of genitalic variation even farther; most of these taxa have never been adequately described or illustrated, much less studied comparatively. Hence, any conclusions about the genus reached here are only tentative and will have to be tested by future revisionary studies of the Old World fauna.

A comparison of the palpal structure of *Zelotes subterraneus* (C. L. Koch), the type species (figs. 2, 3), and its immediate relatives with that typical of *Drassyllus* (Platnick and Shadab, 1982a, fig. 3) provides a starting point. As Chamberlin (1922) noted (and used as a key character), the *Zelotes* palp differs mainly in that the embolus and associated
terminal elements are restricted to the distal edge of the bulb. This feature must be considered plesiomorphic, however, because (1) it is the general case within the Gnaphosidae and, for that matter, most other families of two-clawed hunting spiders as well, and (2) the differences in the Drassyllus palp are almost entirely due to the enlargement of the terminal apophysis into the bifid unit peculiar to that genus.

A feature of the typical Zelotes palp that seems not to have been noticed previously, however, is that the area of the bulb corresponding to that occupied by the enlarged terminal apophysis in Drassyllus is not, as one would expect, occupied entirely by the tegulum. In fact, the tegulum in Zelotes is proportionally only slightly larger than it is in Drassyllus, and much of the intervening area is taken over by a separate, prolaterally situated sclerite not found in either Drassyllus or Camillina. Hence, we hypothesized that the presence of this intercalary sclerite (fig. 2) is synapomorphic for Zelotes, and tested that conjecture by examining the palpal structure of all the North American species currently assigned to Zelotes. These species were cataloged by Ubick and Roth (1973); subsequently two additional species were described by Gertsch and Riechert (1976) and two others transferred from Zelotes to other genera by Platnick and Shadab (1980, 1982a).

The intercalary sclerite is immediately recognizable in almost all the species. In a few cases, the distal edge of the sclerite is very close to the proximal edge of the terminal apophysis, but detailed examination (particularly of freshly matured individuals) always reveals their separation. In only four taxa is the sclerite not readily observable: the three species assigned below to the duplex subgroup, and Zelotes rusticus (L. Koch). In the case of the duplex subgroup, dissection of the tegulum and terminal elements away from the subtetegulum revealed the sclerite. It is largely obscured (in its normal position) because the distal edge of the tegulum and the proximal edge of the terminal apophysis have expanded and cover it, but the sclerite is present and has actually become greatly elongated, running around the back of the bulb (between the subtetegulum and the remainder of the bulb) and reappearing in ventral view at the distal edge as one of the terminal elements (figs. 207, 208).

In the case of Z. rusticus, however, dissection of the palp revealed no trace of the sclerite or any obvious homolog. This species has always been problematical; in North America alone, it has been described six times and in three different genera (Ubick and Roth, 1973), including Drassyllus. Roth and Brown (1973), in their generic key, were compelled to highlight the species in a footnote and include a palpal illustration in order to assign it to Zelotes, and suggested that the species is misplaced. It is evidently not a native member of the American fauna; it is synanthropic and largely, if not entirely, restricted to human habitations. Specimens are abundant, for example, in New York City apartments where they feed predominantly on cockroaches (also introduced). Because of its synanthropic habits, Z. rusticus occurs in scattered localities all over the world (and has therefore accumulated what is probably the longest list of synonyms of any gnaphosid species), but no close relatives of the species have been identified in the literature on any fauna.

To determine whether Z. rusticus is in fact misplaced, and not a member of Zelotes at all, or is merely a highly autapomorphic member of some Old World species group of Zelotes that has lost the intercalary sclerite, we surveyed the Old World zelotines available in the collections of the American Museum of Natural History, the Museum of Comparative Zoology, and the California Academy of Sciences, and enlisted the aid of Mr. John A. Murphy of Hampton, England, who examined specimens in the British Museum (Natural History) and in his own extensive collections of Mediterranean and African gnaphosids. These surveys indicate that the vast majority of Old World taxa that would currently be assigned to Zelotes do indeed have an intercalary sclerite. The only specimens found that might be close relatives of Z. rusticus are African, lack the sclerite, and provide no links between Z. rusticus and taxa with the sclerite. We therefore tentatively accept the sclerite as a synapomorphy and here exclude Z. rusticus from the genus. The proper placement of that species, and of those excluded from Drassyllus by Platnick and Shadab (1982a), will be discussed in a
subsequent paper in this series. As delimited here, *Zelotes* includes the subgenera *Zelotes, Archizelotes, Heterozelotes,* and *Microzelotes* of Lohmander (1944) and Miller (1967).

As thus delimited, *Zelotes* occurs in America from Alaska and northern Canada south to Oaxaca, Mexico, and Jamaica. Some 20 species from Central and South America are currently assigned to the genus, but aside from an apparently introduced population of *Zelotes reformans* Chamberlin in Peru, no true *Zelotes* have been found in collections of Neotropical gnaphosids. Examination of the descriptions and (in some cases) type specimens of these taxa indicates that most are not even members of the *Zelotes* complex, and some are grossly misplaced. For example, study of the female holotype of *Zelotes pallidenotatus* Mello-Leitão (1938, p. 113, figs. 32, 33) from Argentina, housed in the Museo de La Plata and made available through the courtesy of Dr. Ricardo F. Arrospide, indicates that the name is a junior synonym of *Eilica modesta* Keyserling (NEW SYNONMY), a species revised by Platnick (1975, p. 6, figs. 3, 8–11; 1977, p. 397) and a member of the Laroniinae! The described Neotropical species that are members of the *Zelotes* complex are synonyms of "*Z.*" *rusticus* or other synanthropic species, and will be reassigned in subsequent papers. The absence of *Zelotes* from South America is surprising, for there are numerous species in Africa, but it is paralleled in Australia. The only described Australian species, *Zelotes flavens* (L. Koch), appears to be a member of the *Zelotes* complex but not of *Zelotes* itself.

Prior to the present study, only one species of true *Zelotes* was believed to occur in both the Old World and the New. This species, the most commonly collected gnaphosid in America (comprising over one-third of the approximately 7300 adult specimens examined for this study), has been considered to be identical with the European *Z. subterraneus* since the time of Simon (1878), although Schenkel (1950) misidentified a Canadian specimen as a different European species, *Zelotes gallicus* Simon. As has been independently discovered by Ms. Ute Grimm of the Universität Hamburg, however, the American population is not conspecific with either European species. The name *Zelotes fratris* Chamberlin is available for the American population, which is readily distinguishable from *Z. subterraneus* in both sexes (compare figs. 2–5 with 6–9).

At least three additional Old World species do occur in America, however. Two of these are Mediterranean taxa that probably represent relatively recent introductions into America. One, *Zelotes pallidus* (O. P.-Cambridge), a species best known under the name of a junior synonym, *Zelotes circumspectus* (Simon), was collected at a single locality in Contra Costa County, California, in 1980. The other, *Zelotes nilicola* (O. P.-Cambridge), has been collected at many localities in southern California and adjacent Arizona since 1955, often in buildings, orchards, and agricultural fields. The third species was recently described from Czechoslovakia as *Zelotes kodaensis* by Miller and Buchar (1977), and has also been recorded from Poland (Starega, 1976) and Austria (Thaler, 1981). Examination of specimens kindly lent by Dr. Jan Buchar of the University Karlovy indicates that *Z. kodaensis* is a synonym of *Zelotes puritanus* Chamberlin, a species widespread and commonly collected in northern North America. This taxon is so distinct from all other European *Zelotes* that it is difficult to believe that it is a native element of the north European fauna that was overlooked by the many students of Palaeartic spiders prior to 1977. We therefore suspect that it represents a recent introduction into Europe.

One additional species, *Z. reformans*, is also a possible introduction. This southwestern species has many close relatives in Africa and India, and the occurrence of isolated populations in Peru and Hawaii suggests that it may not be natively American. The African and Asian collections examined thus far, however, have produced no specimens of *Z. reformans*.

The introduced species notwithstanding, the most unexpected aspect of the distribution of American *Zelotes* is undoubtedly the high diversity of the genus in the state of California. No fewer than 15 new Californian species are described below, and we would not be surprised if several others remain to be discovered. Because these species are almost entirely allopatric, special attention
has been paid below to detailed mapping of their known ranges, and fully resolved cladograms of their interrelationships are provided whenever possible in the hope that these will prove useful in future studies of vicariance patterns within California.

Also of interest are the temporal separations evident between some sympatric Zelotes, with spring-maturing and fall-maturing species pairs often occurring at the same localities. For example, in series of pitfall traps run by Dr. Martin H. Muma at several localities in Grant County, New Mexico, in 1972 and 1973, males of Zelotes lasalanus Chamberlin were collected commonly from April 14 through August 1, but were replaced by males of Zelotes anglo Gertsch and Riechert from September 1 through November 4; similarly, females of Z. lasalanus were taken from May 3 through September 15 and those of Z. anglo from September 16 through December 3. At a nearby site in Hidalgo County, New Mexico, the spring-maturing species was Zelotes monachus Chamberlin, but the temporal separation from Z. anglo was maintained.

A cladogram (fig. 1) of the presumably native American Zelotes (component 1, defined by the presence of the intercalary sclerite discussed above) can also serve as a guide to placing specimens in the three species groups (the subterraneus group, component 2; the funestus group, component 5; and the duplex group, component 8) and 13 subgroups (the terminal taxa of fig. 1) listed in the Contents, by consulting the diagnoses of the various components provided below. Of course, simply flipping through the illustrations to find the right “ballpark” should provide equally quick access to the keys to the closely similar members of each subgroup.

The format of the descriptions and standard abbreviations of morphological terms follow those used in Platnick and Shadab (1975) and in figures 2–5. Whenever sufficient material was available, we supplied

**FIG. 1.** Cladogram of species groups (components 2, 5, and 8) and subgroups (the terminal taxa) of American Zelotes. Characters defining the numbered components are discussed in text. The numbers of American species assigned to each subgroup are indicated in parentheses.
scanning electron micrographs of the distal elements of the male palpal bulb (removed from the cymbium) and the female epigynum (scraped free of setae). Complete collection data are provided for the less commonly collected species and only summaries for those taxa abundant in collections. Unless another depository is indicated, all specimens mentioned below are in the American Museum of Natural History. All measurements are in millimeters.

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COLLECTIONS EXAMINED

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AMNH, American Museum of Natural History, including material made available by Dr. W. J. Gertsch
ARB, Dr. A. R. Brady
BJK, Dr. B. J. Kaston
BMNH, British Museum (Natural History), Mr. F. Wanless and Mr. P. Hillyard
BRV, Dr. B. R. Vogel
CAS, California Academy of Sciences, Dr. W. Pulawski
CDFase, California State Department of Food and Agriculture, Ms. M. J. Moody
CNC, Canadian National Collection, Dr. C. D. Dondale and Mr. J. H. Redner
CUC, Cornell University Collection, housed at AMNH
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ZELOTES GISTEL

Melanophora C. L. Koch, 1833, pt. 120 (type species by original designation Melanophora subterranea C. L. Koch); preoccupied by Melanophora Meigen, 1803 (Diptera).

Zelotes Gistel, 1848, p. xi (nomen novum for Melanophora C. L. Koch).

Prosthesima L. Koch, 1872, p. 139 (superfluous nomen novum for Melanophora C. L. Koch).

DIAGNOSIS: Males of Zelotes can be distinguished from all other gnaphosids by the combined presence of a preening comb on metatarsi III and IV (Platnick and Shadab, 1982a, figs. 1, 2) and an intercalary sclerite on the male palp (fig. 2). No comparable synapomorphy has been found for females, but
in America, females of *Zelotes* can be distinguished from all other gnaphosids by the combined presence of the preening comb and posterior median eyes that are scarcely, if at all, larger than the posterior laterals and about as far apart as they are from the posterior laterals.

**DESCRIPTION:** Total length 1.8–12.6. Carapace oval in dorsal view, widest between coxae II and III, slightly invaginated at middle of posterior margin, narrowed just behind level of palpi, usually dark brown with black reticulations but sometimes lighter, with long erect black setae along edges of posterior declivity; cephalic area flattened, thoracic groove long, longitudinal. From above, anterior eye row recurved, posterior row straight; from front, anterior row straight, posterior row slightly procurved; AME circular, dark; PME irregularly triangular, light; ALE and PLE oval, light; AME usually smaller than other subequal eyes, separated by roughly their diameter, by less than their radius from ALE; PME separated by their radius or more from each other and from PLE; lateral eyes of each side separated by roughly their diameter; MOQ usually longer than wide, wider in back than in front. Clypeal height roughly equal to AME diameter. Chelicerae usually with one denticle and three teeth on promargin and one denticle and one tooth on retromargin. Endites short, rectangular, obliquely and posteromedially depressed, narrowed at palpal insertion; labium broadly triangular, gently rounded distally; sternum with marginal brush of setae and sclerotized extensions to and between coxae. Leg formula 4I23. Typical leg spination pattern (only surfaces bearing spines listed): femora I, II d1-1-0, p0-0-1; III, IV d1-1-0, p0-1-1, r0-1-1; patella III r0-1-0; tibiae: III p1-1-1, v2-2-2, r0-1-1; IV p1-1-1, v2-2-2, r1-1-1; metatarsi: I, II v2-0-0; III p1-2-2, v2-2-0, r1-1-2; IV p1-2-2, v2-2-0, r1-2-2. Legs usually dark brown with tarsi lightest but sometimes lighter; distal halves of metatarsi and tarsi scopulate; tarsi with two dentate claws and weak claw tufts; trochanters not notched; metatarsi III and IV with preening comb; distal segments with two rows of long trichobothria. Abdomen usually dark gray; males with shiny brown anterior scutum; six spinnerets, anterioris much the largest, sclerotized, separated at base by more than their width. Palp with simple ledge-shaped terminal apophysis (sometimes fused dorsally to embolar base), large embolar base (bearing projection and curved embolus), median apophysis, membranous conductor, and intercalary sclerite. Epigynum variable, often with pair of blind paramedian ducts.

**MISPLACED SPECIES:** See the Introduction.

**UNCERTAIN NAMES:** The holotype of *Z. adolescens* Chamberlin (1922) is an unidentifiable juvenile. The type material of the following specific names is lost or destroyed and the taxa are not recognizable from the original descriptions: *Z. ater* (Hentz, 1832); *Z. directus* (Banks, 1898); *Z. fidelis* (Banks, 1898; see comments in Platnick and Shadab, 1982a, p. 93); *Z. gentilis* (Banks, 1898); *Z. griseus* (Banks, 1898); *Z. indecisus* (Banks, 1898); *Z. melancholicus* (Thorell, 1877); and *Z. paludis* Chamberlin (1922). All these names are therefore regarded as *nomina dubia*.

**THE *subterraneus* GROUP**

**DIAGNOSIS:** The *subterraneus* group (component 2, fig. 1) contains those species with typical *Zelotes* genitalic morphology. Males are unique in having a very wide embolar base that extends across most of the width of the palpal bulb; they also have a relatively short, distally originating embolus and a relatively small median apophysis (as in fig. 2). Females have a basically rectangular epigynum outlined by paired anterior, lateral, and (straight) posterior margins; internally, the median, paramedian, and lateral ducts are arranged transversely (as in figs. 4, 5).

**INTRARELATIONSHIPS:** The *subterraneus, hentzi,* and *tuobus* subgroups (component 4, fig. 1) form a tightly knit complex in which males have a short, straight, transversely oriented embolar projection (as in fig. 2) and females have the paramedian ducts oriented longitudinally (as in fig. 5). By contrast, in the *catholicus* subgroup males have a long, curved embolar projection that crosses a peculiarly short, squared embolus and then twists distally (as in fig. 92); females have the paramedian ducts oriented transversely (as in fig. 95). The *talpa* subgroup contains a single species known only from males, which have a complexity convoluted embolar base...
bearing a bifid embolar projection (fig. 108). The placement of this species will remain uncertain until females are discovered. If the peculiar embolar base and projection represent a modification of the type of structure found in all other members of the subterraneus group, then Z. talpa would constitute an independent subgroup within component 4. In the absence of any other characters supporting that arrangement, we prefer the hypothesis that the untwisted embolar base bearing a single projection and the convoluted base bearing a bifid projection are each synapomorphic, and therefore consider Z. talpa the sister group of all other species in the subterraneus group (i.e., component 3, fig. 1).

The subterraneus Subgroup

Diagnosis: The subterraneus subgroup contains those species in which males have a short, flat embolar base (figs. 2, 6, 14), the distal ridge of which is produced ventrally (figs. 10, 12). Females of the American species can be recognized by their simple, uncoiled median epigynal ducts (figs. 9, 17). The subgroup is predominantly European, including such species as Z. subterraneus (C. L. Koch), Z. apricorum (L. Koch), Z. gallicus Simon, and Z. cyanescens Simon. As only two species occur in America, a key is omitted.

**Zelotes subterraneus** (C. L. Koch)

Figures 2–5

*Melanophora subterranea* C. L. Koch, 1833, pt. 120, pls. 20, 21 (male and female syntypes from Germany, may be in Zoologisches Museum, Berlin, not examined).


Zelotes ater (misidentification): Roewer, 1954, p. 461 (European specimens only).

Illustrations of this, the type species, based on specimens from Austria (JAM), are provided here primarily for comparison with the
American species *Z. fratris*, which has generally been confused with *Z. subterraneus*. Males of *Z. subterraneus* have a longer embolus than do those of *Z. fratris*, and females have conspicuous extensions of the median epigynal ducts that are absent in *Z. fratris*. The catalogs of Bonnet and Roewer, cited above, provide detailed accounts of the long and complex history of the treatment of these species in the literature. Roewer listed the species as *Z. ater* (Hentz, 1832), but (aside from the fact that the original description of that species could apply to any member of the *subterraneus* group and no type material exists) Hentz's name is unavailable for the American population because it is a junior homonym of *Z. ater* (Latreille, 1806), one of many old European names that are equally unrecognizable.

**Zelotes fratris** Chamberlin

Figures 6–11; Map 1

Prosthesima subterranea* (misidentification): Simon, 1878, p. 54 (American specimens only).

Zelotes fratris Chamberlin, 1920, p. 193, fig. 1 (male holotype from Logan Canyon, Cache County, Utah, in MCZ, examined).


**Diagnosis:** *Zelotes fratris* can be easily distinguished from *Z. sula* by the much longer EMB (figs. 6, 10) of males and the more widely separated LEM (figs. 8, 11) and differently shaped MED (figs. 8, 9) of females.

**Male:** Total length 6.04 ± 0.49. Carapace 2.64 ± 0.15 long, 2.06 ± 0.13 wide. Femur II 1.54 ± 0.08 long (1077 specimens examined). Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.08, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.09. MOQ length 0.26, front width 0.18, back width 0.21. EMB long, narrow (figs. 6, 7, 10). Leg spination: tibia III r1-1-1; metatarsus III r1-2-2.

**Female:** Total length 6.96 ± 0.69. Carap...
pace 2.76 ± 0.13 long, 2.10 ± 0.09 wide. Femur II 1.55 ± 0.04 long (1832 specimens examined). Eye sizes and interdistances: AME 0.10, ALE 0.09, PME 0.09, PLE 0.08; AME–AME 0.09, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.25, front width 0.29, back width 0.23. MED (viewed ventrally) wide, distally transverse (figs. 8, 9, 11). Leg spination: metatarsus III r-1-2-2.

MAP 1. North America, showing distribution of Zelotes fratris.


Distribution: Alaska to Nova Scotia, south to southern California, New Mexico, Nebraska, and Massachusetts, with apparently isolated populations (Pleistocene relicts?) on the summits of Grandfather and Roan mountains in western North Carolina (map 1). Two male specimens from Livingston County, Texas (AMNH), and St. Lucia, British West Indies (MCZ), are presumed to be either mislabeled or introduced by humans.

Natural History: Mature males have been taken from late April through late September (and rarely in November and January), mature females in every month except January. Specimens have been collected in emergence, pitfall, and vacuum traps, in aspen, basswood, cedar, cottonwood, Douglas fir, juniper, maple, oak (gambel and pin), pine (jack, lodgepole, and ponderosa), poplar, red alder, spruce (black, blue, and white), and willow forests, on sand dunes, in apple orchards, clover, Equisetum, fields, heather, meadows, moss, roses, sagebrush, salt marshes, sphagnum bogs, tamarack swamps, Viburnum shrubs, and wheat fields, in an abandoned beaver house, a mouse nest on a beach, and a rotting stump, and under boards, debris, and rocks, at elevations up to 11,750 feet.

Zelotes sula Lowrie and Gertsch
Figures 12–17; Map 2


Diagnosis: Zelotes sula can be easily distinguished from Z. fratis by the much shorter, wider EMB (figs. 12, 14) of males and the more closely spaced LEM (figs. 13, 16) and differently shaped MED (figs. 16, 17) of females.

Male: Total length 4.47 ± 0.40. Carapace 1.92 ± 0.11 long, 1.51 ± 0.10 wide. Femur II 1.11 ± 0.07 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PLE 0.06; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.19, front width 0.13, back width 0.15. EMB short, wide (figs. 12, 14, 15). Leg spination: femur IV p0-0-1, r0-0-1; tibiae: III r1-1-1; IV r2-1-1; metatarsus III r1-2-2.

Female: Total length 4.61 ± 0.56. Carapace 1.94 ± 0.16 long, 1.50 ± 0.13 wide. Femur II 1.09 ± 0.11 long. Eye sizes and interdistances: AME 0.03, ALE 0.08, PME 0.06, PLE 0.06, AME–AME 0.05, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.06, ALE–PLE 0.05. MOQ length 0.16, front width 0.11, back width 0.16. MED (viewed ventrally) bifid (figs. 13, 16, 17). Leg spination: femur IV p0-0-1; metatarsus III r1-2-2.


Map 2. North America, showing distribution of Zelotes sula.
Lewis Falls, June 24, 1928 (W. Ivie), 1 ♀; Mt. Washburn, Aug. 1927 (Hansen), 1 ♀.

**Distribution:** This species, previously known only from Wyoming, is actually found from Alaska to Labrador, south to southern Colorado and northern New York and New Hampshire (map 2).

**The hentzi Subgroup**

**Diagnosis:** The hentzi subgroup (component 9, fig. 18) contains those species in which males have a recurved embolar tip (figs. 23, 25, 35, 37, 47) and the median epigynal ducts of females are narrow tubes forming at least one complete coil (figs. 22, 30, 34, 42, 46).

**Intrarelationships:** All the species other than *Z. moestus* (component 10, fig. 18) are united by having a blindly ending extension of the median epigynal ducts (figs. 23, 25, 35, 37). Within that group, *Z. pseustes* and *Z. pullus* are united (component 11, fig. 18) by the convex dorsal edge of the embolar base and the shortened embolar projection (figs. 31, 39), and *Z. lasalanus* and *Z. hentzi* are united (component 12, fig. 18) by their distally prolonged embolar base (figs. 19, 27).

**Key to Species**

1. EB bearing an extension along almost its entire distal width (figs. 19, 23); LEM greatly widened posteriorly (fig. 21) .................. *hentzi*  
   EB bearing at most a short extension on prolateral side of distal edge (as in figs. 27, 31); LEM not greatly widened posteriorly (figs. 29, 33, 41, 45) .................. 2

2. Males ........................................ 3  
   Females ...................................... 6

3. EP relatively short, blunt (figs. 31, 39) ........ 4  
   EP relatively long, sharp (figs. 27, 43) ....... 5

4. EB with triangular prolateral extension (figs. 31, 35) .................. *pullus*  
   EB without triangular prolateral extension (figs. 37, 39) .................. *pseustes*

5. EB relatively high, narrow; EMB relatively wide at base (figs. 25, 27) .................. *lasalanus*  
   EB relatively low, wide; EMB relatively narrow at base (figs. 43, 47) ........ *moestus*

6. MED relatively short (figs. 30, 34) .......... 7  
   MED relatively long (figs. 42, 46) .......... 8

7. AEM much wider than LEM (figs. 33, 36) ....... 9  
   AEM scarcely wider than LEM (figs. 26, 29) ...  
   .......... .................. *pullus*  
   .......... .................. *pseustes*  
   .......... .................. *moestus*

8. MED with wide posterior coil (fig. 42) ........ *pseustes*  
   MED with narrow posterior coil (fig. 46) .... *moestus*

_Zelotes hentzi_ Barrows  
Figures 19–24; Map 3

_Zelotes kentzi_ Barrows, 1945, p. 75, pl. 2, figs. 5, 6 (male holotype from Rockbridge, Hocking County, Ohio, in OSU, examined); _lapsus_.


**Diagnosis:** _Zelotes hentzi_ seems closest to _Z. lasalanus_ but can be distinguished by the long distal extension on the EB (figs. 19, 23) of males and the posteriorly widened LEM (fig. 21) of females.

**Male:** Total length 5.18 ± 0.53. Carapace 2.32 ± 0.21 long, 1.78 ± 0.16 wide. Femur II 1.37 ± 0.10 long (190 specimens examined). Eye sizes and interdistances: AME 0.05, ALE 0.07, PMA 0.06, PLE 0.06; AME–AME 0.05, AME–ALE 0.01, PMA–PME 0.04, PMA–PLE 0.06, ALE–PLE 0.06. MOQ length 0.20, front width 0.14, back width 0.15. EB with distinct ledgelike extension across distal edge (figs. 19, 20, 23). Leg spination: femur IV p0–0–1; tibia III r1–1–1.

**Female:** Total length 5.94 ± 0.77. Carapace 2.55 ± 0.23 long, 1.91 ± 0.11 wide. Femur II 1.44 ± 0.15 long (259 specimens examined). Eye sizes and interdistances: AME 0.05, ALE 0.07, PMA 0.06, PLE 0.08; AME–AME 0.06, AME–ALE 0.01, PMA–PME 0.07, PMA–PLE 0.07, ALE–PLE 0.09. MOQ length 0.24, front width 0.15, back width 0.19. LEM
widened posteriorly; MED with blind anterior extensions (figs. 21, 22, 24). Leg spination: tibia III r-1-0-1; metatarsus II v2-1p-0.


**DISTRIBUTION:** Southern Canada and the United States, except for the southwest (map 3).

**NATURAL HISTORY:** Mature males have been taken year round, mature females in every month except January. Specimens have been collected in Berlese, malt, molasses, and pitfall traps, in aspen, cottonwood, lodgepole pine, pin and scrub oak, and blue spruce forests, on beaches, sand dunes, and sandstone outcrops, in a beech-magnolia hammock, chaparral, citrus litter, cotton fields, meadows, pecan groves, prairies, and sagebrush, under boards, logs, and rocks, at elevations up to 6800 feet.

*Zelotes lasalanus* Chamberlin
Figures 25–30; Map 4

*Zelotes lasalanus* Chamberlin, 1928, p. 93 (female holotype from La Sal Mountains, San Juan


*Zelotes chicano* Gertsch and Riechert, 1976, p. 15, figs. 15-17 (male holotype from Malpais Lava Beds, Lincoln County, New Mexico, in AMNH, examined). NEW SYNONYMY.

**DIAGNOSIS:** *Zelotes lasalanus* seems closest to *Z. hentzi* but can be distinguished by the short (sometimes scarcely visible) distal extension of the EB (figs. 25, 27) of males and the narrow LEM (fig. 29) and the posteriorly situated blind extensions of the MED (fig. 30) of females.

**MALE:** Total length 4.54 ± 0.33. Carapace 2.09 ± 0.21 long, 1.59 ± 0.16 wide. Femur II 1.25 ± 0.14 long (422 specimens examined). Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.07, PLE 0.06; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.07, ALE–PLE 0.06. MOQ length 0.21, front width 0.14, back width 0.18. EB distally elongate, with slight (sometimes visible only in oblique view) extension on prolateral side (figs. 25, 27, 28). Leg spination typical for genus.

**FEMALE:** Total length 5.49 ± 0.39. Carapace 2.14 ± 0.14 long, 1.60 ± 0.10 wide. Femur II 1.22 ± 0.09 long (544 specimens examined). Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.08, PLE 0.09; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.25, front width 0.15, back width 0.20. MED (viewed ventrally) with anteromedian projections, with blind posterior extensions (figs. 26, 29, 30). Leg spination: femur IV p0-0-1.


**DISTRIBUTION:** This species, previously known only from Utah and New Mexico, is actually widespread in western North America (map 4). One female specimen from Liberty County, Georgia (AMNH) is presumed to be either mislabeled or introduced by humans.

**NATURAL HISTORY:** Mature males have been taken from mid-March through early October, mature females from mid-February through late October. Specimens have been collected in pitfall traps, associated with all-thorn, clover, *Caldenia*, juniper, mesquite, nolina, oak, pinyon pine, roses, sand verbena, and yucca, in fields, grass, and prairies, on

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shores, and under debris, dung, and stones, at elevations up to 9700 feet.

SYNONYMY: Gertsch and Riechert provided no characters by which to distinguish females of *Z. chicano* from those of *Z. lasalanus*, and there appear to be none.

**Zelotes pullus** (Bryant)

Figures 31–36; Map 5

**Drassyllus pullus** Bryant, 1936, p. 95, figs. 4, 5

(male holotype from Coral Gables, Dade County, Florida, in MCZ, examined). Bonnet, 1956, p. 1605.


**DIAGNOSIS**: *Zelotes pullus* seems closest to *Z. pseustes* but can be distinguished by the triangular prolaral extension of the EB (figs. 31, 35) of males and the widely separated AEM (figs. 33, 36) of females.

**MALE**: Total length 5.60 ± 0.79. Carapace 2.68 ± 0.37 long, 2.06 ± 0.33 wide. Femur II 1.63 ± 0.24 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.08, PLE 0.08; AME–AME 0.08, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.23, front width 0.18, back width 0.22. EB distally convex, with triangular prolaral extension; EP short, blunt (figs. 31, 32, 35). Leg spination typical for genus.

**FEMALE**: Total length 6.46 ± 0.87. Carapace 2.71 ± 0.30 long, 2.07 ± 0.23 wide. Femur II 1.63 ± 0.17 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.09, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.26, front width 0.18, back width 0.23. AEM widely separated (so much so that they are frequently hidden under the posterior coxae of preserved specimens), much farther apart than LEM (figs. 33, 34, 36). Leg spination: femur IV p0-0-1.


Map 5. North America, showing distribution of Zelotes pullus.
Zelotes pseustes Chamberlin. Figures 37–42; Map 6


**DIAGNOSIS:** Zelotes pseustes seems closest to Z. pullus but can be distinguished by the convex EB without a prolateral extension (figs. 37, 39) of males and the closer AEM (figs. 38, 41) and longer MED (fig. 42) of females.

**MALE:** Total length 5.60 ± 0.57. Carapace 2.58 ± 0.21 long, 2.00 ± 0.16 wide. Femur II 1.46 ± 0.12 long. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.08, PLE 0.07; AME–AME 0.07, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.07, ALE–PLE 0.08. MOQ length 0.23, front width 0.17, back width 0.21. EB distally convex, without prolateral extension; EP short, blunt (figs. 37, 39, 40). Leg spination: metatarsus II v2-1p-0.

**FEMALE:** Total length 6.00 ± 1.15. Carapace 2.59 ± 0.28 long, 1.93 ± 0.20 wide. Femur II 1.45 ± 0.17 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME

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**DISTRIBUTION:** Eastern United States (map 5).

**SYNONYMY:** Kaston (1945) indicated that the retrolateral tibial apophysis of Z. inheritus is "not as thin as in pullus." He was apparently misled on this point by Bryant's inadequate illustration of the tibial apophysis of Z. pullus, for we have not been able to separate northern and southern populations on the basis of this character.

0.08, PLE 0.08; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.07, ALE–PLE 0.09. MOQ length 0.25, front width 0.19, back width 0.21. AEM approximate; MED (viewed ventrally) forming broad basal triangle (figs. 38, 41, 42). Leg spinulation: femur IV p0-0-1.

MATERIAL EXAMINED: UNITED STATES:
\textbf{PLATNICK AND SHADAB: ZELOTES}


TTU), 1 ♀; 6 mi. S Victoria, Apr. 16, 1963 (W. J. Gertsch, W. Ivie), 2 ♂.

\textbf{Distribution:} This species, previously known only from Texas, actually extends north to Oklahoma, east to Florida and along the coastal plain north to Long Island, and south into Tamaulipas (map 6).

\textit{Zelotes moestus} (O. P.-Cambridge) Figures 43–48; Map 6

\textit{Prosthesima moesta} O. P.-Cambridge, 1898, p. 245, pl. 33, figs. 2–2f (male and female syntypes from Amula, Guerrero, Mexico, in BMNH, examined). F. O. P.-Cambridge, 1899, p. 57, pl. 4, figs. 15–15b.


\textbf{Diagnosis:} \textit{Zelotes moestus} is a distinctive species easily recognized by the wide, low EB, long EP, and very long, basally narrow EMB (figs. 43, 47) of males and the very long MED (figs. 45, 46) of females.

\textbf{Male:} Total length 6.00 ± 0.78. Carapace 2.81 ± 0.42 long, 2.20 ± 0.30 wide. Femur II 1.80 ± 0.25 long. Eye sizes and interdistances: AME 0.06, ALE 0.10, PME 0.09, PLE 0.09; AME–AME 0.08, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.07, ALE–PLE 0.09. MOQ length 0.27, front width 0.20, back width 0.24. EB wide, flattened distally; EMB narrow basally (figs. 43, 44, 47). Leg spination: femur IV p0-0-1.

\textbf{Female:} Total length 6.05 ± 0.43. Carapace 2.81 ± 0.14 long, 2.13 ± 0.09 wide. Femur II 1.71 ± 0.10 long. Eye sizes and interdistances: AME 0.04, ALE 0.09, PME 0.07, PLE 0.08; AME–AME 0.09, AME–ALE 0.04, PME–PME 0.08, PME–PLE 0.08, ALE–PLE 0.07. MOQ length 0.24, front width 0.17, back width 0.22. MED greatly elongated (figs. 45, 46, 48). Leg spination: femur IV p0-0-1; metatarsi: II v2-1p-0; III r1-2-2.

\textbf{Material Examined:} \textbf{MEXICO:} \textbf{Durango:} Coyotes, Aug. 8, 1947, elevation 8300 feet (W. J. Gertsch), 1 ♂; 10 mi. E El Salto, Aug. 8, 1947 (W. J. Gertsch), 1 ♂. \textbf{Guerrero:} Amula (H. H. Smith, BMNH), 6 ♂, 18 ♀ (including types); 16.3 mi. SW Ixtapan, July 24, 1975 (L. R. Erickson, M. E. Soleglad), 1 ♂. \textbf{Hidalgo:} Apulco, Oct. 6, 1947 (H. M. Wagner), 1 ♀;


**DISTRIBUTION:** Central Mexico (map 6).

**THE *tuobus* SUBGROUP**

**DIAGNOSIS:** The *tuobus* subgroup (component 13, fig. 51) contains those species in which males have a short, sharp, pronglike extension on the prolateral side of the embolar base (figs. 56, 58, 68, 70, 80, 82, 88) and females have anteriorly thickened median epigynal ducts that are either anteriorly folded (fig. 91) or twisted (figs. 55, 63, 67, 75, 79, 87).

**INTRARELATIONSHIPS:** All species other than *Z. ubicki* (component 14, fig. 51) are united by having anteriorly twisted median epigynal ducts (figs. 55, 63, 67, 75, 79, 87). Within that group, all species other than *Z. rainier* are united (component 15, fig. 51) by having a narrowed epignynum, with the lateral margins much closer than in other species of the *subterraneus* group (figs. 54, 62, 66, 74, 78). Within that group, *Z. aiken* and *Z. monachus* are united (component 16, fig. 51) by having the body of the embolar base curved and almost touching the tip of the prolateral extension of the embolar base (figs. 64, 68, 70, 72), and *Z. tuobus* and *Z. anglo* are united (component 17, fig. 51) by having an elongated embolar projection and shortened embolus (figs. 52, 56, 58, 60) and anteriorly displaced paramedian epigynal ducts (figs. 55, 63).

**KEY TO SPECIES**

1. EP relatively long, crossing short, thick EMB (figs. 56, 58); PED displaced anteriorly by thickened bases of LED (figs. 55, 63)  2
   EP relatively short, EMB relatively long (as in fig. 70); PED not displaced anteriorly, bases of LED narrow (as in fig. 67)  3
2. EB highest prolaterally (fig. 52), EP with shallow distal invagination (fig. 56); LEM relatively widely separated (figs. 54, 57),  4  tuobus
   EB highest mediadly (fig. 60), EP with deep distal invagination (fig. 58); LEM relatively narrowly separated (figs. 59, 62),  anglo
3. Males  4
   Females  8
4. Prolateral extension of EB projecting far beyond EB (figs. 76, 80),  gertschi
   Prolateral extension of EB not projecting far beyond EB (as in fig. 68)  5
5. Prolateral extension of EB reaching almost half of EB width (figs. 64, 72)  6
   Prolateral extension of EB restricted to prolateral side of EB (figs. 84, 88)  7
6. Prolateral extension of EB connected to body of EB by translucent flange (figs. 70, 72),  monachus
   Prolateral extension of EB not connected to body of EB by translucent flange (figs. 64, 68),  aiken
7. Prolateral extension of EB relatively long (fig. 88),  ubicki

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**FIG. 51.** Cladogram of species of the *tuobus* subgroup. Characters defining the numbered components are discussed in text.

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**Prolateral extension of EB relatively short** (fig. 84) .................. rainier

8. LEM relatively far apart (figs. 86, 90) ... 9
   LEM relatively close (figs. 66, 74, 78) ... 10
9. MED (viewed ventrally) occupying much of epigynal width (fig. 86) .......... rainier
   MED (viewed ventrally) restricted to median area of epigynum (fig. 90) ...... ubicki
10. LEM with rounded medial edges (fig. 74) .......... monachus
   LEM with angular medial edges (figs. 66, 78) ... 11
11. MED (viewed ventrally) relatively narrow (fig. 66) ...................... aiken
   MED (viewed ventrally) relatively wide (fig. 78) .................. gertschi

*Zelotes tuobus* Chamberlin
Figures 52–57; Map 7


Ubick and Roth, 1973, p. 8. NEW SYNONYMY.

**Diagnosis**: *Zelotes tuobus* seems closest to *Z. anglo* but can be distinguished by the prolaterally highest EB and the shallow distal invagination of the EP (figs. 52, 56) of males and the more widely separated LEM (figs. 54, 57) of females.

**Male**: Total length 6.50 ± 0.81. Carapace 2.91 ± 0.31 long, 2.18 ± 0.25 wide. Femur II 1.90 ± 0.24 long. Eye sizes and interdistances: AME 0.06, ALE 0.10, PME 0.09, PLE 0.08; AME–AME 0.07, AME–ALE 0.01, PME–PME 0.09, PME–PLE 0.09, ALE–PLE 0.08. MOQ length 0.30, front width 0.19, back width 0.27. EB highest prolaterally, EP elongated, with shallow invagination at tip, EMB shortened (figs. 52, 53, 56). Leg spination: tibia III r1-1-1; metatarsus I v0-0-0.

**Female**: Total length 7.86 ± 0.81. Carapace 3.13 ± 0.27 long, 2.26 ± 0.19 wide. Femur II 1.92 ± 0.20 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.10, PLE 0.10; AME–AME 0.11, AME–ALE 0.03, PME–PME 0.06, PME–PLE 0.10, ALE–PLE 0.11. MOQ length 0.31, front width 0.23, back width 0.26. LEM long, enclosing darkened patches; PED displaced anteriorly by

widened bases of LED (figs. 54, 55, 57). Leg spination: tibia III r1-1-1.


**DISTRIBUTION:** British Columbia south to New Mexico, east to Kentucky and Tennessee (map 7).

**SYNONYMY:** Fox provided no characters by which to distinguish *Z. pullatus* from *Z. tuobus,* and there appear to be none.

*Zelotes anglo* Gertsch and Riechert

Figures 58–63; Map 8

*Zelotes anglo* Gertsch and Riechert, 1976, p. 16, fig. 21 (male holotype from Carizozo, Lincoln County, New Mexico, in AMNH, examined).

**DIAGNOSIS:** *Zelotes anglo* seems closest to *Z. tuobus* but can be distinguished by the deeply invaginated bifid tip of the EP (figs. 58, 60) of males and the more closely spaced LEM (figs. 59, 62) of females.

**MALES:** Total length 5.22 ± 0.68. Carapace 2.43 ± 0.21 long, 1.81 ± 0.15 wide. Femur I 1.58 ± 0.11 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.09, PLE...
0.08; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.07. MOQ length 0.22, front width 0.16, back width 0.22. EP elongated, with bifid tip; EMB shortened (figs. 58, 60, 61). Leg spination: metatarsus I v0-0-0.

FEMALE: Total length 6.03 ± 0.70. Carapace 2.54 ± 0.22 long, 1.92 ± 0.19 wide. Femur II 1.63 ± 0.14 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.07, PLE 0.07; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.07, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.22, front width 0.17, back width 0.21. LEM closely spaced; PED displaced anteriorly by widened bases of LED (figs. 59, 62, 63). Leg spination: femur IV p0-0-1.

MATERIAL EXAMINED: UNITED STATES:


DISTRIBUTION: Colorado and South Dakota south to central Mexico (map 8).

**Zelotes aiken**, new species

Figures 64–69; Map 9

**TYPES:** Male holotype and female paratype from Savannah River Plant, Aiken County, South Carolina (male, April 10, 1959; female, May 29, 1959; W. Tarpley), deposited in AMNH.

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

**DIAGNOSIS:** *Zelotes aiken* seems closest to *Z. monachus* but can be distinguished by the absence of a translucent flange along the distal edge of the EB (figs. 64, 68) of males and the angular medial edges of the LEM (figs. 66, 69) of females.

**MALE:** Total length 4.41 ± 0.63. Carapace 2.08 ± 0.33 long, 1.60 ± 0.26 wide. Femur II 1.30 ± 0.23 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.07, PLE 0.07; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.06, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.23, back width 0.16, front width 0.20. EB with long extension reaching almost to middle of EB width; EMB wide basally (figs. 64, 65, 68). Leg spination: femur IV p0-0-1.

**FEMALE:** Total length 5.35 ± 0.57. Carapace 2.20 ± 0.17 long, 1.66 ± 0.13 wide. Femur II 1.27 ± 0.08 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.08, PLE 0.07; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.24, front width 0.16, back width 0.19. LEM long, angular posteriorly; MED stalklike posteriorly (figs. 66, 67, 69). Leg spination: femur IV p0-0-1.


DISTRIBUTION: Southeastern United States (map 9).

*Zelotes monachus* Chamberlin
Figures 70–75; Map 9


*Zelotes protestans* Chamberlin, 1924, p. 624, fig. 64 (female holotype from Guaymas, Sonora,

MAP 9. North America, showing distribution of *Zelotes aiken* (triangles) and *Z. monachus* (circles).
FIGS. 68–71. 68, 69. Zelotes aiken, new species. 70, 71. Z. monachus Chamberlin. 68, 70. Palp, ventral view, 250X. 69, 71. Epigynum, ventral view, 140X.


DIAGNOSIS: Zelotes monachus seems closest to Z. aiken but can be distinguished by the presence of a translucent flange along the distal edge of the EB connecting the body of the EB with its prolateral extension (figs. 70, 72) in males and the rounded medial edges of the LEM (figs. 71, 74) of females.

MALE: Total length 5.27 ± 0.75. Carapace 2.40 ± 0.34 long, 1.82 ± 0.25 wide. Femur II 1.39 ± 0.23 long (95 specimens examined). Eye sizes and interdistances: AME 0.04, ALE 0.08, PME 0.07, PLE 0.07; AME–AME 0.07, AME–ALE 0.03, PME–PME 0.09, PME–PLE 0.07, ALE–PLE 0.09. MOQ length 0.25, front width 0.15, back width 0.23. TA rounded; EB with distal translucent flange (figs. 70, 72, 73). Leg spination: tibia III r1-1-1.

FEMALE: Total length 5.81 ± 0.85. Carapace 2.68 ± 0.28 long, 2.01 ± 0.19 wide. Femur II 1.51 ± 0.12 long (129 specimens examined). Eye sizes and interdistances: AME 0.06, ALE 0.10, PME 0.09, PLE 0.10; AME–AME 0.09, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.09, ALE–PLE 0.09. MOQ length 0.28, front width 0.21, back width 0.24. LEM rounded posteriorly; MED stalklike posteriorly (figs. 71, 74, 75). Leg spination: tibia III r1-1-1; metatarsus II v2-2-0.

**Zelotes monachus** Chamberlin. 72. Palp, ventral view. 73. Palp, retrolateral view. 74. Epigynum, ventral view. 75. Epigynum, dorsal view.


**DISTRIBUTION:** Southwestern United States and northwestern Mexico (map 9).

**NATURAL HISTORY:** Mature males have been taken every month except February, October, and November; mature females every month except January and October. Specimens have been collected in pitfall traps, associated with ephedra, mesquite, and yucca, in climax chaparral, deserts, a peach orchard, poplar duff, and thorn thickets, on sand on beaches, and under reeds, stones, and trash, at elevations up to 8800 feet.

**SYNONYMY:** Numerous simultaneous collections of both sexes indicate that *Z. calvanisticus* is the female of *Z. monachus*. Chamberlin distinguished *Z. protestans* from *Z. calvanisticus* only on the basis of the number of promarginal cheliceral teeth and spines on metatarsus II, characters that can vary between the right and left sides of a single individual.

**Zelotes gertschi,** new species

Figures 76–81; Map 10

**TYPES:** Male holotype and female paratype from 8 miles northeast of Sinton, San Patricio County, Texas (August 4, 1960; H. E. Laughlin), deposited in AMNH.

**ETYMOLOGY:** The specific name is a patronym in honor of Dr. Willis J. Gertsch, who first recognized the species as new.

**DIAGNOSIS:** *Zelotes gertschi* is a distinctive species easily recognized by the prolonged prolateral extension of the EB (figs. 76, 80) of males and the elongated epigynum containing a pair of dark patches surrounding the MED (fig. 78) of females.

Male: Total length 4.83 ± 0.49, Carapace 2.23 ± 0.23 long, 1.70 ± 0.18 wide. Femur II 1.31 ± 0.12 long. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.07, PLE 0.06; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.19, front width 0.13, back width 0.18. EB bearing long, erect pro lateral extension; EP short (figs. 76, 77, 80). Leg spination typical for genus.

Female: Total length 4.87 ± 0.72. Carapace 2.06 ± 0.24 long, 1.55 ± 0.29 wide. Femur II 1.17 ± 0.10 long. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.08, PLE 0.07; AME–AME 0.06, AME–ALE 0.03, PME–PME 0.05, PME–PLE 0.08, ALE–PLE 0.07. MOQ length 0.21, front width 0.16, back width 0.21. LEM long; MED (viewed ventrally) surrounded by darkened areas (figs. 78, 79, 81). Leg spination: femur IV p0-0-1.

Figs. 80–83. 80, 81. *Zelotes gertschi*, new species. 82, 83. *Z. rainier*, new species. 80, 82. Palp, ventral view, 240X. 81, 83. Epigynum, ventral view, 130X.


**Distribution**: Colorado south to Texas and Colima (map 10).

*Zelotes rainier*, new species

Figures 82–87; Map 10

Types: Male holotype and female paratype from Paradise Park, Mount Rainier National Park, Pierce County, Washington (male, July 1922, Jones; female, September 12, 1965, J. and W. Ivie), deposited in AMNH.
ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: *Zelotes rainier* is a distinctive tarsi I, II species easily recognized by the long, rounded other (figs. 82, 84) of males and the wide epigynum enclosing very angular states: (fig. 86) Brothers of females. (CUC), 1 male: Total length 4.81 ± 0.56. Carapace 2.04 ± 0.18 long, 1.61 ± 0.14 wide. Femur II 1.29 ± 0.12 long. Eye sizes and interdistsances: AME 0.04, ALE 0.07, PME 0.07, PLE 0.06; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.04, ALE–PLE 0.05. MOQ length 0.20, front width 0.15, back width 0.19. EB elongated, rounded distally, with short prolateral extension (figs. 82, 84, 85). Leg spination: femur IV p0-0-0; metatarsus II v2-1p-0.

FEMALE: Total length 5.62 ± 0.95. Carapace 2.27 ± 0.22 long, 1.73 ± 0.16 wide. Femur II 1.36 ± 0.11 long. Eye sizes and interdistsances: AME 0.05, ALE 0.08, PME 0.06, PLE 0.06; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.19, front width 0.15, back width 0.18. LEM widely separated; MED (viewed ventrally) step-shaped (figs. 83, 86, 87). Leg spination: femur IV p0-0-1; metatarsi I, II v2-1p-0.

PLATNICK AND SHADAB: ZELOTES


DISTRIBUTION: Known only from Washington (map 10).

Zelotes ubicki, new species

Figures 88–91; Map 10

TYPES: Male holotype from pitfall trap at Playa Los Cerritos, El Pescadero, Baja California Sur, Mexico (April 16, 1979; M. Wasybauer) and female paratype from thorn scrub 6 miles west of San José del Cabo, Baja California Sur, Mexico (January 11, 1982; D. Ubick), deposited in CAS.

ETYMOLOGY: The specific name is a patronym in honor of Mr. Darrell Ubick, collector of the paratype and many other interesting Zelotes specimens.

DIAGNOSIS: Zelotes ubicki is a distinctive species easily recognized by the sharp prolatateral extension of the distally flattened EB (fig. 88) of males and the anteriorly folded MED and laterally displaced PED (fig. 91) of females.

MALE: Total length 3.02. Carapace 1.46 long, 1.13 wide. Femur II 0.83 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.06, PLE 0.06; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.04, ALE–PLE 0.04. TA sinuous distally; EB flattened, with sharp, semi-erect prolateral extension (figs. 88, 89). Leg spination: tibia III r1-1-1; metatarsus II v2-2-0.

FEMALE: Total length 4.75, 4.93. Carapace 2.09, 2.59 long, 1.66, 1.90 wide. Femur II 1.22, 1.51 long. Eye sizes and interdistances: AME 0.06, ALE 0.06, PME 0.06, PLE 0.06; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.06, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.21, front width 0.17, back width 0.18. LEM widely separated; MED folded anteriorly, PED near LED (figs. 90, 91). Leg spination: femur IV p0-0-1.

OTHER MATERIAL EXAMINED: MEXICO: Baja California Sur: Sierra Laguna, 17 mi. ENE Todos Santos, Dec. 12–18, 1979, elevation 6000 feet (C. E. Griswold, UCB), 1♀.

DISTRIBUTION: Known only from Baja California Sur, Mexico (map 10).

THE catholicus SUBGROUP

DIAGNOSIS: The catholicus subgroup contains those species in which males have a long, curved embolar projection that crosses
over a peculiarly short, squared embolus and then twists distally (figs. 92, 96, 100, 104) and females have transversely oriented paramedian epigynal ducts (figs. 95, 99, 103).

INTRARELATIONSHIPS: With only one out of six species known from both sexes, a discussion of their interrelationships is premature.

KEY TO SPECIES
1. Males (those of Z. catholicus and Z. santos unknown) ................................................. 2
   Females (those of Z. union, Z. grovus, and Z. piercy unknown) ........................................... 5
2. EB high, extending far beyond TA (figs. 100, 104) ......................................................... 3
   EB low, not extending far beyond TA (figs. 92, 96) ......................................................... 4
3. EB highest prolaterally; EP not paralleling EMB (fig. 104) .............................................. piercy
   EB highest at middle; EP paralleling EMB (fig. 100) ...................................................... gabriel
4. TA and EMB relatively narrow (fig. 92) ............................................................ union
   TA and EMB relatively wide (fig. 96) ............................................................ grovus
5. MED anteriorly folded (fig. 103) ............................................................ gabriel
   MED not anteriorly folded (figs. 95, 99) ............................................................ 6
6. MED relatively wide posteriorly (fig. 95) ............................................................ catholicus
   MED relatively narrow posteriorly (fig. 99) ............................................................ santos

Zelotes catholicus Chamberlin
Figures 94, 95; Map 11


DIAGNOSIS: Zelotes catholicus resembles Z. santos in having the MED and PED displaced anteriorly but can be distinguished by the posteriorly widened MED (fig. 95).

MALE: Unknown.

FEMALE: Total length 4.28. Carapace 2.16 long, 1.55 wide. Femur II 1.16 long. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.07, PLE 0.08; AME–AME 0.08, AME–ALE 0.08, PME–PME 0.09, PME–PLE 0.07, ALE–PLE 0.07. MOQ length 0.23, front width 0.19, back width 0.23. LEM convergent anteriorly; MED expanded posteriorly, rounded anteriorly (figs. 94, 95). Leg spination: tibia III r1-1-1; metatarsi: I v0-0-0; II v2-2-0.

MATERIAL EXAMINED: Only the holotype, collected on May 30, 1921, by J. C. Chamberlin.
DISTRIBUTION: Known only from Baja California Sur, Mexico (map 11).

**Zelotes santos**, new species

Figures 98, 99; Map 11

**TYPE:** Female holotype from an elevation of 6000 feet at Sierra Laguna, 17 miles east-northeast of Todos Santos, Baja California Sur, Mexico (December 12-18, 1979; C. E. Griswold), deposited in UCB, on permanent loan to CAS.

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

**DIAGNOSIS:** *Zelotes santos* resembles *Z. catholicus* but can be distinguished by the posteriorly narrow and anteriorly angular MED (fig. 99).

**MALE:** Unknown.

**FEMALE:** Total length 4.30–6.84. Carapace 1.89–2.59 long, 1.49–2.05 wide. Femur II 1.19–1.73 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.06, PLE 0.07; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.07, ALE–PLE 0.08. MOQ length 0.23, front width 0.14, back width 0.18. LEM straight; MED narrow posteriorly, angular anteriorly (figs. 98, 99). Leg spination: femur IV p0-0-1, r0-0-1; tibia II v0-1r-0.

**OTHER MATERIAL EXAMINED:** Three

**MAP 11.** North America, showing distribution of *Zelotes catholicus* (open square), *Z. santos* (open upright triangle), *Z. union* (open circle), *Z. grovus* (closed triangle), *Z. gabriel* (closed circles), *Z. piercy* (closed squares), and *Z. talpa* (inverted triangle).

females taken with the holotype (UCB, AMNH).

**Distribution:** Known only from Baja California Sur, Mexico (map 11).

**Zelotes union,** new species

*Figures* 92, 93; Map 11

**Type:** Male holotype from an elevation of 6200 feet 52 miles east of Villa Union, Sinaloa, Mexico (August 25, 1965; W. J. Gertsch and R. Hastings), deposited in AMNH.

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

**Diagnosis:** Zelotes union resembles Z. grovus in having a low EB but can be distinguished by the much narrower TA (fig. 92).

**Male:** Total length 5.41. Carapace 2.39 long, 1.86 wide. Femur II 1.45 long. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.06, PLE 0.08; AME–AME 0.07, AME–ALE 0.03, PME–PME 0.06, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.21, front width 0.15, back width 0.18. EB with slight prolateral hump, otherwise low; TA greatly narrowed (figs. 92, 93). Leg spination: femur IV p0-0-1, r0-0-1; tibiae: II v0-1r-0; IV r2-1-1; metatarsi I, II v2-2-0.

**Female:** Unknown.

**Other Material Examined:** None.

**Distribution:** Known only from Sinaloa, Mexico (map 11).

**Zelotes grovus,** new species

*Figures* 96, 97; Map 11

**Type:** Male holotype from Pacific Grove, Monterey County, California (April 3, 1960; W. J. Gertsch, W. Ivie, R. Schrammel), deposited in AMNH.

**Etymology:** The specific name is an arbitrary combination of letters.

**Diagnosis:** Zelotes grovus resembles Z. union but can be distinguished by the wider TA and EMB (fig. 96).

**Male:** Total length 5.06. Carapace 2.26 long, 1.86 wide. Femur II 1.55 long. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.07, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.22, front width 0.15, back width 0.20. EMB greatly widened below tip (figs. 96, 97). Leg spination: femur IV p0-0-0, r0-0-1; metatarsi I, II v2-2-0.

**Female:** Unknown.

**Other Material Examined:** None.

**Distribution:** Known only from Monterey County, California (map 11).

**Zelotes gabriel**, new species

Figures 100–103; Map 11

**Types:** Male holotype and female paratype from manzanita chaparral at an elevation of 1000 meters at the Coldbrook Ranger Station, San Gabriel Canyon, Los Angeles County, California (May 8, 1965; L. Pinter), deposited in MCZ.

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

**Diagnosis:** *Zelotes gabriel* resembles *Z. piercy* in having a high EB but can be distinguished by having the EB highest medially and the EP and EMB parallel (fig. 100) in males and the anteriorly folded MED (fig. 103) of females.

**Male:** Total length 3.36, 3.49. Carapace 1.30, 1.46 long, 0.91, 1.12 wide. Femur II 0.86, 0.88 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.06, PLE 0.06; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.05. MOQ length 0.14, front width 0.11, back width 0.14. TA relatively wide; EB distally elongated at middle (figs. 100, 101). Leg spination: femora: II p0-0-0; IV p0-0-0, r0-0-1; tibia III v1p-2-2; metatarsi: II v1r-0-0; III v2-0-0.

**Female:** Total length 3.06, 3.46. Carapace 1.31, 1.62 long, 0.96, 1.22 wide. Femur II 0.85, 0.97 long. Eye sizes and interdistances: AME 0.03, ALE 0.06, PME 0.05, PLE 0.05; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.14, front width 0.11, back width 0.14. LEM widened; MED folded anteriorly (figs. 102, 103). Leg spination: femur IV p0-0-0, r0-0-1; tibia III v1p-2-2; metatarsi: I, II v1r-0-0; III v1p-0-0, r0-1-2; IV v2-1p-0.


**Distribution:** Known only from southern California (map 11).
**Zelotes piercy**, new species  
Figures 104, 105; Map 11  

**TYPE:** Male holotype from 5 miles north of Piercy, Humboldt County, California (April 6, 1960; W. J. Gertsch, W. Ivie, R. Schrammel), deposited in AMNH.  

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

**DIAGNOSIS:** *Zelotes piercy* resembles *Z. gabriel* but can be distinguished by the prolately higher EB and the retrolaterally directed EP (fig. 104).  

**MALE:** Total length 4.59–5.90. Carapace 2.07–2.33 long, 1.75–1.92 wide. Femur II 1.55–1.73 long. Eye sizes and interdistances: AME 0.03, ALE 0.06, PME 0.06, PLE 0.06; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.21, front width 0.13, back width 0.17. TA relatively wide; EB distally elongated on prolateral side; EP not paralleling EMB (figs. 104, 105). Leg spination: femur IV p0-0-1, r0-0-1; tibiae: I v0-2-0; II v0-1r-0; III r1-1-1; metatarsi I, II v2-2-0.  

**FEMALE:** Unknown.  

**OTHER MATERIAL EXAMINED:** Three males taken with the holotype and one male taken in oak leaf litter at San Jose, Santa Clara County, California (May 1, 1977, D. Ubick, DU).  

**DISTRIBUTION:** Known only from Humboldt and Santa Clara counties, California (map 11).  

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**THE talpa SUBGROUP**  

**DIAGNOSIS:** The *talpa* subgroup contains a single species, known only from males, that can be easily recognized by the convoluted embolar base bearing a bifid embolar projection (fig. 108).  

**Zelotes talpa**, new species  
Figures 108, 109; Map 11  

**TYPE:** Male holotype from an elevation of 4900 feet 10.8 miles south of Talpa de Allende, Jalisco, Mexico (August 8, 1967; R. E. Leech), deposited in AMNH courtesy of Dr. Leech.  

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

**DIAGNOSIS:** With the characters of the subgroup.  

**MALE:** Total length 4.72. Carapace 2.23 long, 1.75 wide. Femur II 1.64 long. Eye sizes
and interdistances: AME 0.06, ALE 0.09, PME 0.08, PLE 0.06; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.23, front width 0.17, back width 0.22. TA relatively narrow; EB convoluted; EP bifid (figs. 108, 109). Leg spination: femur IV r0–0–1; tibiae: I v0–2–0; II v1p–2–0; III r1–1–1; IV p1–0–1, r2–1–1; metatarsi: I, II v2–2–0; III v2–0–0.

**FEMALE: Unknown.**

**OTHER MATERIAL EXAMINED:** None.

**DISTRIBUTION:** Known only from Jalisco, Mexico (map 11).

### The funestus Group

**DIAGNOSIS:** The *funestus* group (component 5, fig. 1) contains those species in which males have a greatly elongated and recurved embolus (as in fig. 117) and females have epigyna with a sinuous posterior margin, usually reaching posteriorly a considerable distance further at its middle than at its sides (as in fig. 106).

**INTRARELATIONSHIPS:** The five subgroups recognized below fall into two sets. The *funestus, petrophilus,* and *gynethus* subgroups are united (component 6, fig. 1) by having a narrow embolar base bearing a long prolateral extension and a beaklike embolus projection (as in fig. 121) in males and epigynal ducts that are longitudinally arranged and anteriorly expanded (as in figs. 128, 151) in females. The *mayanus* and *jamaicensis* subgroups are united (component 7, fig. 1) by having the epigynal ducts of females enormously elongated and convoluted (as in fig. 154).

### The funestus Subgroup

**DIAGNOSIS:** The *funestus* subgroup (component 18, fig. 112) contains those species in which males have a long, sharp, distally directed prolateral extension on the embolar base (figs. 113, 117, 121, 125) and females have the anterior epigynal margins fused (at least along their posterior edges) into a single hood (figs. 106, 110, 115, 119, 123, 127).

**INTRARELATIONSHIPS:** All the species other than *Z. perditus* (component 19, fig. 112) are united by having the anterior epigynal margins fused along both their anterior and posterior edges (figs. 106, 110, 115, 123, 127; this character is predicted to be present in the unknown female of *Z. foresta*). Within that group, *Z. icenoglei* and *Z. yosemite* are united (component 20, fig. 112) by having the embolar projection borne on a narrow, erect retrolateral extension of the embolar base (figs. 121, 125) in males and lobelike median epigynal ducts (figs. 124, 128) in females. The remaining four species are united (component 21, fig. 112) by having the embolus expanded into a flat plate proximally (figs. 113, 117) in the known males and the lateral epigynal ducts expanded into an anterior plate (figs. 107, 111, 116) in the known females. Within that group, *Z. funestus* and *Z. mesae* are united (component 22, fig. 112) by having transverse ridges on a depression between the lateral epigynal margins (figs. 106, 110) of females; *Z. foresta* may prove to be a member of component 22 when females are discovered.

### Key to Species

1. Males (those of *Z. funestus, Z. mesae*, and *Z. perditus* unknown) ........................................... 2
2. Females (those of *Z. foresta* unknown) .... 5
3. EP borne on narrow, erect retrolateral extension of EB, reaching almost as far distally as prolateral extension of EB (figs. 121, 125) .......................................................... 3
4. EP borne on body of EP, not reaching almost as far distally as prolateral extension of EB (figs. 113, 117) ........................................ 4
5. Prolateral extension of EB and proximal half of EMB relatively wide (fig. 121) ........................................ 3
6. Prolateral extension of EB relatively long; EP not raised distally from EB (fig. 113) ........................................ 4
7. Prolateral extension of EB relatively short; EP raised distally from EB (fig. 117) .... 6
8. AEM fused only along their posterior margins (fig. 119); MED simple, uniformly wide (fig. 120) .......................... 6
9. AEM fused along both their anterior and posterior margins (as in fig. 106); MED expanded anteriorly (as in figs. 107, 124) ...... 7
10. LED elaborated into anterior plate (figs. 107, 111, 116) ........................................ 7
11. LED not elaborated into anterior plate (figs. 124, 128) .......................... 9

**1983**

**PLATNICK AND SHADAB: ZELOTES**
7. Transverse ridges present between LEM (figs. 106, 110) .......... 8
Transverse ridges absent (fig. 115) ....... tulare
8. AEM and MED relatively wide (figs. 106, 107) ................. funestus
AEM and MED relatively narrow (figs. 110, 111) .......... mesa
9. PEM relatively short (fig. 123) .... icenoglei
PEM relatively long (fig. 127) ...... yosemite

**Zelotes funestus** (Keyserling)
Figures 106, 107; Map 12

_Prosthesima funesta_ Keyserling, 1887, p. 431, fig. 8 (female holotype from Santa Barbara, Santa Barbara County, California, in MCZ, examined).

_Zelotes funestus:_ Chamberlin, 1922, p. 165.

**Diagnosis:** *Zelotes funestus* seems closest to *Z. mesa* but can be distinguished by the presence of sharp projections at the posterior corners of the LEM (fig. 106) and the much wider MED (fig. 107).

**Male:** Unknown.

**Female:** Total length 4.43–7.07. Carapace 2.25–3.20 long, 1.66–2.29 wide. Femur II 1.30–1.84 long. Eye sizes and interdistances:
- AME 0.05, ALE 0.09, PME 0.09, PLE 0.08;
- AME–AME 0.08, AME–ALE 0.02, PME–PME 0.07, PME–PLE 0.06, ALE–PLE 0.07.
MOQ length 0.24, front width 0.18, back width 0.25. AEM relatively wide, LEM separated by depression, transverse ridges, and posterior projections; MED wide, sinuous (figs. 106, 107). Leg spination: femur IV p0-0-1, r0-0-1; metatarsi: I v0-0-0; III r1-2-2.

County unknown: quadrant around lat. 35° N, long. 120° W (W. Ivie), 1 ♀.

**Distribution:** Known only from San Luis Obispo and Santa Barbara counties, California (map 12).

_Zelotes mesa_, new species
Figures 110, 111; Map 12

**Type:** Female holotype from 0.1 miles north of the end of Harvest Road in Otay Mesa, Johnson Canyon, San Diego County, California (April 22, 1978; S. C. Johnson), deposited in AMNH courtesy of Mr. Johnson.

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

**Diagnosis:** *Zelotes mesa* seems closest to *Z. funestus* but can be distinguished by the absence of projections at the posterior corners of the LEM (fig. 110) and the narrower MED (fig. 111).

**Male:** Unknown.

**Female:** Total length 6.26–8.44. Carapace 2.84–3.24 long, 2.16–2.40 wide. Femur II 1.58–1.80 long. Eye sizes and interdistances:
- AME 0.05, ALE 0.08, PME 0.08, PLE 0.09;
- AME–AME 0.08, AME–ALE 0.03, PME–PME 0.08, PME–PLE 0.08, ALE–PLE 0.07.
MOQ length 0.23, front width 0.18, back width 0.24. AEM narrow, recurved, LEM separated by depression and transverse ridges; MED narrow (figs. 110, 111). Leg spination: femur IV p0-0-1; metatarsi: I v0-0-0; III r1-2-2.

**Other Material Examined:** MEXICO: Baja California Norte: 15 mi. N Ensenada, Apr. 10, 1937, 1 ♀; Rosarito Beach, Apr. 5, 1939 (E. S. Ross, AMNH, CAS), 2 ♀; Tecate, Mar. 14, 1968 (J. Y. Sandoval, BJK), 1 ♀.

**Distribution:** Known only from southern San Diego County, California, and adjacent
areas in Baja California Norte, Mexico (map 12).

**Zelotes tulare**, new species

*Figures 113–116; Map 12*

**Types:** Male holotype and female paratype from 10 miles west of Johnsondale, Tulare County, California (September 15, 1959; W. J. Gertsch and V. Roth), deposited in AMNH.

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

**Diagnosis:** *Zelotes tulare* is a distinctive species easily recognized by the long prolateral extension and long, flat body of the EB (fig. 113) of males and the anteriorly connected LEM and LED (figs. 115, 116) of females.

**Male:** Total length 5.83. Carapace 2.69 long, 2.02 wide. Femur II 1.69 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.09, PLE 0.09; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.07, ALE–PLE 0.07. MOQ length 0.26, front width 0.15, back width 0.22. EMB with enlarged proximal plate oriented dorsoventrally so that only its proximal edge is visible in ventral view (figs. 113, 114). Leg spination: femur IV p0-0-1; tibia III r1-1-1; metatarsus I v0-0-0.

**Female:** Total length 6.30–8.66. Carapace 2.40–3.37 long, 1.69–2.54 wide. Femur II 1.37–1.94 long. Eye sizes and interdistances: AME 0.07, ALE 0.11, PME 0.11, PLE 0.10; AME–AME 0.10, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.11, ALE–PLE 0.10. MOQ length 0.34, front width 0.24, back width 0.28. LEM and LED fused into anterior plate (figs. 115, 116). Leg spination as in male.


**Distribution:** Known only from Fresno
to San Bernardino counties, California (map 12).

**Zelotes foresta**, new species

Figs. 117, 118; Map 12

**TYPE:** Male holotype from Foresta, Yosemite National Park, Mariposa County, California (August 17, 1971; M. E. Thompson), deposited in AMNH courtesy of Mr. Thompson.

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

**DIAGNOSIS:** *Zelotes foresta* resembles *Z. tulare* in having a proximal, platelike enlargement on the EMB but can be distinguished by having that plate oriented longitudinally and visible in ventral view (fig. 117).

**MALE:** Total length 5.47. Carapace 2.63 long, 1.96 wide. Femur II 1.57 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME-AME 0.07, AME-ALE 0.02, PME-PME 0.06, PME-PLE 0.07, ALE-PLE 0.08. MOQ length 0.27, front width 0.17, back width 0.22. EP on slightly elevated retrolateral extension of EB; EMB with proximal plate oriented longitudinally (figs. 117, 118). Leg spination: tibia III r1-l-1-1; metatarsus I v0-0-0.

**FEMALE:** Unknown.

**OTHER MATERIAL EXAMINED:** None

**DISTRIBUTION:** Known only from Mariposa County, California (map 12).

**Zelotes icenoglei**, new species

Figs. 49, 50, 121–124; Map 12

**TYPES:** Male holotype and female paratype from Los Angeles, Los Angeles County, California (November–December 1922; G. Grant), deposited in AMNH.

**ETYMOLOGY:** The specific name is a patronym in honor of Mr. Wendell R. Icenogle, collector of several specimens of this species and many other interesting Californian *Zelotes*.

**DIAGNOSIS:** *Zelotes icenoglei* seems closest to *Z. yosemite* but can be distinguished by the characters listed in couplets 3 and 9 of the key.

**MALE:** Total length 4.00–7.45. Carapace 1.91–3.38 long, 1.32–2.59 wide. Femur II 1.12–2.03 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–
PLATNICK AND SHADAB: ZELOTES


PME 0.05, PME–PLE 0.06, ALE–PLE 0.06. MOQ length 0.23, front width 0.15, back width 0.22. Prolateral extension of EB, EP, TA, and EMB all widened (figs. 49, 121, 122).

Leg spination: metatarsi: I v0-0-0; III r1-2.

Female: Total length 6.94 ± 0.91. Carapace 2.87 ± 0.30 long, 2.12 ± 0.28 wide. Femur II 1.66 ± 0.19 long. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.08, PLE 0.09; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.07, PME–PLE 0.09, ALE–PLE 0.11. MOQ length 0.29, front width 0.15, back width 0.23. PEM relatively short; MED short, lobelike (figs. 50, 123, 124). Leg spination: tibia III r1-1-1; metatarsus I v0-0-0.


Distribution: Known only from southern Santa Barbara to Los Angeles counties, California (map 12).

Zelotes yosemite, new species

Figures 125–128; Map 12

Types: Male holotype and female paratype from Yosemite National Park (no specific locality or county), California (August 1), deposited in AMNH.

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

Diagnosis: Zelotes yosemite seems closest to Z. icenoglei but can be distinguished by
the characters listed in couplets 3 and 9 of the key.

MALE: Total length 5.99. Carapace 2.65 long, 1.91 wide. Femur II 1.55 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.07, PLE 0.09; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.27, front width 0.19, back width 0.20. Prolateral extension of EB spikelike; TA oblique (figs. 125, 126). Leg spination: femur IV p0-0-1; metatarsus I v0-0-0.

FEMALE: Total length 6.57, 7.62. Carapace 2.76, 3.24 long, 2.09, 2.41 wide. Femur II 1.58 long. Eye sizes and interdistances: AME 0.04, ALE 0.09, PME 0.07, PLE 0.08; AME–AME 0.09, AME–ALE 0.02, PME–PME 0.07, PME–PLE 0.07, ALE–PLE 0.07. MOQ length 0.24, front width 0.17, back width 0.22. PEM long, wide; MED long, lobelike (figs. 127, 128). Leg spination as in male.

OTHER MATERIAL EXAMINED: One female taken at an elevation of 4082 feet at Kyburz, El Dorado County, California, on June 29, 1977, by C. E. Griswold (UCB).

DISTRIBUTION: Known only from El Dorado County and Yosemite National Park, California (map 12).

**Zelotes perditus** Chamberlin

Figures 119, 120, 270; Map 12


DIAGNOSIS: **Zelotes perditus** is a distinctive species easily recognized by the incompletely fused AEM, long PEM, and simple, thick MED (figs. 119, 120, 270).

MALE: Unknown.

FEMALE: Total length 7.95 ± 0.62. Carapace 3.54 ± 0.28 long, 2.61 ± 0.23 wide. Femur II 2.07 ± 0.18 long. Eye sizes and interdistances: AME 0.04, ALE 0.10, PME 0.09, PLE 0.11; AME–AME 0.09, AME–ALE 0.03, PME–PME 0.10, PME–PLE 0.09, ALE–PLE 0.10. MOQ length 0.29, front width 0.17, back width 0.28. AEM fused only along posterior magins; MED and LED simple, wide.
MAP 12. Western North America, showing distribution of Zelotes funestus (inverted triangles), Z. mesa (upright triangles), Z. tulare (squares), Z. foresta (cross), Z. icensolei (open circles), Z. yosemite (diamonds), and Z. perditus (closed circles).

tubes (figs. 119, 120, 270). Leg spination: tibia III r1-1-1; metatarsus II v0-0-0.


DISTRIBUTION: Known only from San Francisco to Monterey counties, California (map 12). The type locality of Z. omissus is here presumed to be erroneous; Chamberlin evidently mislabeled the type specimen with collection data from his specimens (now the types) of Z. icensolei (one wonders whether Chamberlin’s choice of name does not reflect an omission in keeping locality data with the specimen).

SYNONYMY: Chamberlin provided no characters by which to distinguish Z. omissus from Z. perditus, and there appear to be none.

THE petrophilus SUBGROUP

DIAGNOSIS: The petrophilus subgroup (component 23, fig. 129) contains those species in which males have a small terminal apophysis situated at the very tip of the palpal bulb and covering much of the embolar base (figs. 130, 140, 144, 148, 156) and females have short, convergent, anteriorly situated lateral epigynal margins enclosing a pair of rounded elevations situated behind the posterior epigynal margin (figs. 132, 142, 146, 150, 152, 158).

INTRARELATIONSHIPS: The species fall into two sets. Zelotes inglenook, Z. cayucos, and Z. cruz are united (component 24, fig. 129)
by having the enlargements of the median epigynal ducts of females reflexed posteriorly, toward the spermathecae (figs. 151, 153, 159). The remaining species are united (component 25, fig. 129) by having the lateral epigynal ducts of females enlarged into oval bulbs (figs. 133, 143, 147). Within that set, Z. petrophilus and Z. viola are united (component 26, fig. 129) by having the retrolateral tibial apophysis of males shortened (figs. 131, 141) and the median epigynal ducts of females elongated and extending across the posterior edge of the epigynal bulbs (figs. 133, 143).

**KEY TO SPECIES**

1. Males (those of Z. cayucus unknown) . . . 2
   Females .................................................. 6
2. Prolateral extension of EB finger-like (figs. 130, 140, 144) ................................... 3
   Prolateral extension of EB not finger-like, not visible in ventral view (figs. 148, 156) . . 5
3. EMB relatively short (fig. 144); RTA relatively long (fig. 145) .................. josephine
   EMB relatively long (figs. 130, 140); RTA relatively short (figs. 131, 141) ............ 4
4. Prolateral extension of EB protruding beyond body of EB and EP (fig. 130) . . petrophilus
   Body of EB and EP protruding beyond pro-
   lateral extension of EB (fig. 140) . . viola
5. EMB relatively short (fig. 148) . . inglenook
   EMB relatively long (fig. 156) ........... cruz
6. LED expanded into oval bulbs (figs. 133, 143, 147) ............................................. 7
   LED not expanded into oval bulbs (figs. 151, 153, 159) ......................................... 9
7. MED extending across posterior edge of epig-
   ynal bulbs (figs. 133, 143) .................. petrophilus
   MED not extending across posterior edge of epigynal bulbs (fig. 147) ................... josephine
8. LEM situated near AEM (fig. 132) .................. petrophilus
   LEM situated far from AEM (fig. 142) .................. viola
9. MED greatly enlarged (fig. 159) ........... cruz
   MED not greatly enlarged (figs. 151, 153) ................................................. 10
10. Enlargements of MED oriented longitudinally (fig. 153) .................. cayucus
    Enlargements of MED oriented transversely (fig. 151) .................. inglenook

**Zelotes petrophilus Chamberlin**

Figures 130–133, 136; Map 13

Zelotes petrophilus Chamberlin, 1936b, p. 11, figs. 45, 46 (male holotype from Petrified Forest,

**DIAGNOSIS:** *Zelotes petrophilus* seems closest to *Z. viola* but can be distinguished by the larger prolateral extension of the EB (fig. 130) of males and the more anteriorly situated LEM (fig. 132) of females.

**MALE:** Total length 6.73. Carapace 3.15 long, 2.39 wide. Femur II 1.98 long. Eye sizes
and interdistances: AME 0.06, ALE 0.09, PME 0.09, PLE 0.10; AME–AME 0.08, AME–ALE 0.02, PME–PME 0.07, PME–PLE 0.08, ALE–PLE 0.08. MOQ length 0.28, front width 0.20, back width 0.25. Prolateral extension of EB large, erect, finger-like; RTA short (figs. 130, 131). Leg spination: tibia III r1-1-1; metatarsi: I v0-0-0; II v2-1p-0.

FEMALE: Total length 5.74–7.70. Carapace 2.53–3.47 long, 1.85–2.57 wide. Femur II 1.50–1.91 long. Eye sizes and interdistances: AME 0.05, ALE 0.10, PME 0.07, PLE 0.08; AME–AME 0.10, AME–ALE 0.02, PME–PME 0.08, PME–PLE 0.10, ALE–PLE 0.10. MOQ length 0.29, front width 0.20, back width 0.22. LEM near AEM; MED extending across posterior edge of oval bulbs (figs. 132, 133, 136). Leg spination: femur IV p0-0-1; tibia III r1-1-1; metatarsus I v0-0-1.

MATERIAL EXAMINED: UNITED STATES: California: Lake Co.: between Lakeport and Nice, Clear Lake, Apr. 5, 1960 (W. J. Gertsch, W. Ivie, R. Schrammel), 3 ♀; Middle Creek, 6 mi. NW Upper Lake, Feb. 12, 1955 (D. Burdick), 1 ♀. Napa Co.: N side, Howell Mountain, 3 km. NNE Angwin, May 24, 1980, elevation 396 m., under pile of rotting weeds in garden (H. B. Leech, CAS), 1 ♀; Petrified Forest, Calistoga, Aug. 27, 1931 (W. Ivie), 1 ♂, 1 ♀ (penultimate; types).

DISTRIBUTION: Known only from Lake and Napa counties, California (map 13).

**Zelotes viola**, new species

FIGURES 137, 140–143; MAP 13

TYPES: Male holotype from Viola, Shasta County, California (August 2, 1953; W. J. Gertsch and J. W. Gertsch), and female paratype from the north side of Lassen Volcanic National Park, Shasta County, California (July 1, 1940; W. M. Pearce), deposited in AMNH.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: *Zelotes viola* seems closest to *Z. petrophilus* but can be distinguished by the smaller prolateral extension of the EB (fig. 140) of males and the more posteriorly situated LEM (fig. 142) of females.

MALE: Total length 4.81–5.93. Carapace 2.24–2.94 long, 1.67–2.21 wide. Femur II 1.29–1.62 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.07, ALE–PLE 0.07.
MOQ length 0.23, front width 0.16, back width 0.21. Body of EB and EP projecting beyond prolateral extension of EB; RTA short (figs. 140, 141). Leg spination: tibia III r1-1-1.

FEMALE: Total length 6.33 ± 0.79. Carapace 2.71 ± 0.19 long, 2.03 ± 0.17 wide. Femur II 1.55 ± 0.09 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.05, PME-PLE 0.07, ALE-PLE 0.07. MOQ length 0.23, front width 0.16, back width 0.21. LEM far from AEM; MED extending across posterior edges of oval bulbs (figs. 137, 142, 143). Leg spination: femur IV p0-0-1; metatarsus I v0-0-0.


DISTRIBUTION: Known only from Trinity to El Dorado counties, California (map 13).

Zelotes josephine, new species

Figures 138, 144-147; Map 13

TYPES: Female holotype from Grants Pass, Josephine County, Oregon (July 2, 1952; W. J. Gertsch), deposited in AMNH, and male paratype from the same locality (fall 1973), deposited in MCZ.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Zelotes josephine seems closest

To Z. petrophilus and Z. viola but can be distinguished by the shorter EMB (fig. 144) of males and the anteriorly rounded MED (fig. 147) of females.

**Male**: Total length 3.68. Carapace 2.06 long, 1.53 wide. Femur II 1.22 long. Eye sizes and interdistances: AME 0.03, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.19, front width 0.12, back width 0.18. Prolateral extension of EB and RTA long, EMB short (figs. 144, 145). Leg spination: metatarsus I v0-0-0.

**Female**: Total length 7.60 ± 0.89. Carapace 3.00 ± 0.11 long, 2.31 ± 0.16 wide. Femur II 1.77 ± 0.10 long. Eye sizes and interdistances: AME 0.07, ALE 0.11, PME 0.10, PLE 0.11; AME–AME 0.08, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.08, ALE–PLE 0.08. MOQ length 0.31, front width 0.22, back width 0.25. LEM far from AEM; MED rounded anteriorly (figs. 138, 146, 147). Leg spination: tibia III r1-l-1.


**Distribution**: Washington south to Del Norte and Lassen counties, California (map 13).

**Zelotes inglenook**, new species

Figures 134, 135, 148-151; Map 13

Typcs: Male holotype and female paratype from Inglenook Fen, 4 miles north of Fort Bragg, Mendocino County, California (January 1975; R. R. Jackson), deposited in UCB, on permanent loan to CAS.

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

**Diagnosis:** Zelotes inglenook is a distinctive species easily recognized by the EB being almost entirely covered by the TA in ventral view (fig. 148) in males and the transversely oriented enlargements of the MED (fig. 181) of females.

**Male:** Total length 4.79–6.24. Carapace 2.22–2.81 long, 1.67–2.13 wide. Femur II 1.24–1.62 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.06. MOQ length 0.24, front width 0.15, back width 0.21. EB recessed behind TA; EMB relatively short (figs. 134, 148, 149). Leg spineation: metatarsi: II v2-1p-0; IV r1-1-2.

**Female:** Total length 5.35 ± 1.29. Carapace 2.31 ± 0.22 long, 1.70 ± 0.15 wide. Femur II 1.30 ± 0.13 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.06, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.06, PME–PLE 0.07, ALE–PLE 0.07. MOQ length 0.21, front width 0.15, back width 0.18. LEM widely separated posteriorly; MED with transversely oriented enlargements (figs. 135, 150, 151). Leg spineation: femur IV p0-0-1; metatarsi: II v2-1p-0; III r1-2-2.


**Distribution:** Known only from Humboldt to Marin counties, California (map 13).

Zelotes cayucos, new species

Figures 152, 153; Map 13

**Type:** Female holotype from an elevation of 300 feet at Cayucos, San Luis Obispo County, California (November 15, 1939; O. Bryant), deposited in CAS.
ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: *Zelotes cayucos* is a distinctive species easily recognized by the small, posteriorly reflexed expansions of the MED (fig. 153).

**MALE:** Unknown.

**FEMALE:** Total length 5.02. Carapace 2.07 long, 1.48 wide. Femur II 1.22 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.07, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.21, front width 0.15, back width 0.18. LEM widely separated, almost connected anteriorly; MED with small enlargements (figs. 152, 153). Leg spination: femur IV p0-0-1; metatarsus I v0-0-0.

**OTHER MATERIAL EXAMINED:** None.

**DISTRIBUTION:** Known only from San Luis Obispo County, California (map 13).

**Zelotes cruz,** new species

Figures 139, 156–159; Map 13

**TYPES:** Male holotype and female paratype from Santa Cruz Island, Santa Barbara County, California (male, collected August 18, 1968, matured November 2, 1968, M. E. Thompson; female, April 1913, R. V. Chamberlin), deposited in AMNH (male courtesy of Mr. Thompson).

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: *Zelotes cruz* is a distinctive species easily recognized by the high EB and long, sinuous EMB (fig. 156) of males and the large, sinuous enlargements of the MED (fig. 159) of females.

**MALE:** Total length 4.82. Carapace 2.23 long, 1.64 wide. Femur II 1.30 long. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.07, PLE 0.07; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.22, front width 0.17, back width 0.19. Prolateral extension of EB short; EP bifid; EMB whip-like (figs. 156, 157). Leg spination: femur IV p0-0-1; tibia IV p1-0-1; metatarsus I v0-0-0.

**FEMALE:** Total length 5.11–8.62. Carapace 2.32–3.60 long, 1.69–2.76 wide. Femur II 1.31–2.15 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.07, PLE 0.06;

AME–AME 0.04, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.08. MOQ length 0.24, front width 0.14, back width 0.19. LEM wide; MED with bulky, posteriorly lobe-like enlargements (figs. 139, 158, 159). Leg spination: femur IV p0-0-1, r0-0-1; metatarsus I v0-0-0.


Distribution: Known only from the Channel Islands of California (map 13).

The gynethus Subgroup

Diagnosis: The gynethus subgroup (component 27, fig. 160) contains those species in which males have a translucent flange on the embolus (figs. 161, 169, 173, 177, 183) and an elongated retrolateral tibial apophysis (figs. 162, 170, 174, 178, 186) and females have median epigynal ducts that are heavily sclerotized posteriorly but greatly expanded and unsclerotized anteriorly (figs. 164, 172, 176, 180, 188).

Intrarelationships: The five known species fall into two sets. *Zelotes discens*, Z. anthereus, and Z. griswoldi are united (com-
Zelotes gynethus Chamberlin.


3. EMB recurved (figs. 177, 185); epigynum widest anteriorly (figs. 179, 187) ........ 4
   EMB not recurved (fig. 173); epigynum widest posteriorly (fig. 176) ............ discens

4. EMB relatively large (figs. 177, 187); expansions of MED reaching almost to AEM (fig. 180) ......... anthereus
   EMB relatively small (figs. 185, 186); expansions of MED not reaching almost to AEM (fig. 188) ............ griswoldi

KEY TO SPECIES

1. Males with a prong protruding distally from EMB (figs. 161, 169); anterior expansions of MED narrower than SP (figs. 164, 172) .......... 2
   Males without such a prong (figs. 173, 177, 185); anterior expansions of MED as wide as SP or wider (figs. 176, 180, 188) ....... 3

2. Prong on EMB relatively long (fig. 169); expansions of MED not overlapping SP (fig. 172) ........................................... pinsos
   Prong on EMB relatively short (fig. 161); expansions of MED overlapping SP (fig. 164) .............................. gynethus

DIAGNOSIS: Zelotes gynethus seems closest to Z. pinsos but can be distinguished by the shorter prong on the EMB (figs. 161, 162) of males and the more posteriorly situated expansions of the MED (fig. 164) of females.

MALE: Total length 5.37 ± 0.46. Carapace 2.48 ± 0.25 long, 1.81 ± 0.22 wide, Femur II 1.47 ± 0.15 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.08, PLE 0.07; AME–AME 0.06, AME–ALE 0.01,
PLATNICK AND SHADAB: ZELOTES


PME–PME 0.05, PME–PLE 0.06, ALE–PLE 0.09. MOQ length 0.25, front width 0.15, back width 0.21. EB with short prolateral extension; EMB with short distal prong (figs. 161, 162, 165). Leg spination: tibia III r1-1-1; metatarsus I v0-0-0.

FEMALE: Total length 5.86 ± 0.66. Carapace 2.56 ± 0.24 long, 1.88 ± 0.14 wide. Femur II 1.46 ± 0.12 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.09, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.08, ALE–PLE 0.07. MOQ length 0.24, front width 0.19, back width 0.22. Anterior expansions of MED covering anterior part of SP (figs. 163, 164, 166). Leg spination: femur IV p0-0-1; metatarsus I v0-0-0.


**DISTRIBUTION:** Known only from southwestern California (map 14).

**Zelotes pino**, new species

_Figures 169–172; Map 14_

TYPES: Male holotype from an elevation of 8800 feet on the summit of Mt. Piños, Kern County, California (August 15, 1980; C. E. Griswold), and female paratype from an elevation of 7500 feet at McGill Campground, Mt. Piños, Kern County, California (May 7, 1980; C. E. Griswold), deposited in UCB, on permanent loan to CAS.

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

**DIAGNOSIS:** _Zelotes pino_ seems closest to _Z. gynethus_ but can be distinguished by the longer prong on the EMB (figs. 169, 170) of males and the more anteriorly situated expansions of the MED (fig. 172) of females.

**MALE:** Total length 5.11. Carapace 2.34 long, 1.81 wide. Femur II 1.46 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.08, ALE–PLE 0.07. MOQ length 0.24, front width 0.18, back width 0.22. EMB with long, sinuous distal prong (figs. 169, 170). Leg spination: metatarsus I v0-0-0.
**Female**: Total length 4.71–10.91. Carapace 2.30–3.24 long, 1.69–2.40 wide. Femur II 1.32–1.81 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.07, PLE 0.08; AME–AME 0.08, AME–ALE 0.02, PME–PME 0.06, PME–PLE 0.08, ALE–PLE 0.09. MOQ length 0.27, front width 0.18, back width 0.20. Expansions of MED long, anterior to SP (figs. 171, 172). Leg spination as in male.


**Distribution**: Known only from Kern, Ventura, and northern Los Angeles counties, California (map 14).

*Zelotes discens* Chamberlin

Figures 167, 168, 173–176; Map 14


**Diagnosis**: *Zelotes discens* is a distinctive species easily recognized by the wide TA, EB, and EMB (fig. 173) of males and the posteriorly widened epigynum (fig. 175) of females.

**Male**: Total length 4.25–7.07. Carapace 2.00–2.99 long, 1.47–2.24 wide. Femur II 1.21–1.84 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.09, PLE 0.09; AME–AME 0.10, AME–ALE 0.01, PME–PME 0.07, PME–PLE 0.08, ALE–PLE 0.09. MOQ length 0.30, front width 0.22, back width 0.25. TA and EB wide, flat; EMB greatly widened at base (figs. 167, 173, 174). Leg spination: femur IV p0-0-1; metatarsi: I v0-0-0; II v2-1p-0.

**Female**: Total length 7.23 ± 1.12. Carapace 3.08 ± 0.34 long, 2.28 ± 0.24 wide. Femur II 1.76 ± 0.21 long. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.11, PLE 0.10; AME–AME 0.08, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.09, ALE–PLE 0.10. MOQ length 0.30, front width 0.22, back width 0.26. Epigynum widened posteriorly; expansions of MED with narrow anterior lobes (figs. 168, 175, 176). Leg spination: femur IV p0-0-1; tibia III r1-1-1; metatarsus II v2-1p-0.


DISTRIBUTION: Known only from Contra Costa to Monterey counties, California (map 14).

SYNONYMY: We have been unable to separate populations of Z. montereus by the differences in the AEM cited by Chamberlin (1922), which are subject to individual variation in virtually all species of Zelotes.

Zelotes anthereus Chamberlin

Figures 177–182; Map 14


DIAGNOSIS: Zelotes anthereus seems closest to Z. griswoldi but can be distinguished by the larger EMB (figs. 177, 178) of males and the wider expansions of the MED (fig. 180) of females.

MALE: Total length 4.75–7.67. Carapace 2.27–4.03 long, 1.66–2.89 wide. Femur II 1.45–2.57 long. Eye sizes and interdistances: AME 0.07, ALE 0.11, PME 0.10, PLE 0.11; AME–AME 0.09, AME–ALE 0.02, PME–PME 0.10, PME–PLE 0.09, ALE–PLE 0.10. MOQ length 0.35, front width 0.23, back

width 0.30. EMB recurved, large (figs. 177, 178, 181). Leg spination: tibiae: III r1-1-1; IV r1-1-0; metatarsus I v0-0-0.

**FEMALE:** Total length 6.69 ± 1.13. Carapace 2.96 ± 0.37 long, 2.20 ± 0.32 wide. Femur II 1.71 ± 0.23 long. Eye sizes and interdistances: AME 0.06, ALE 0.10, PME 0.09, PLE 0.09; AME-AME 0.07, AME-ALE 0.01, PME-PME 0.06, PME-PLE 0.08, ALE-PLE 0.08. MOQ length 0.27, front width 0.19, back width 0.24. Expansions of MED occupying most of anterior half of epigynum (figs. 179, 180, 182). Leg spination: tibia III r1-1-1; metatarsus I v0-0-0.


DISTRIBUTION: Known only from Sonoma to Mono counties, California (map 14).

**Zelotes griswoldi**, new species

*Figures 183–188; Map 14*

**TYPES:** Male holotype from an elevation of 6000 feet in Tehachapi Mountain Park, 8 miles southwest of Tehachapi, Kern County, California (August 13, 1980; C. E. Griswold), and female paratype from Del Puerto Canyon, North Fork of Del Puerto Creek, Stanislaus County, California (February 25, 1975; C. E. Griswold), deposited in UCB, on permanent loan to CAS.

**ETYMOLOGY:** The specific name is a patronym in honor of Mr. Charles E. Griswold, collector of the types and many other interesting Californian *Zelotes*.

**DIAGNOSIS:** *Zelotes griswoldi* seems closest to *Z. anthereus* but can be distinguished by the smaller EMB (figs. 185, 186) of males and the narrower expansions of the MED (fig. 188) of females.

**MALE:** Total length 4.36–6.62. Carapace 2.00–2.65 long, 1.44–1.94 wide. Femur II 1.19–1.64 long. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.07, PLE 0.08; AME–AME 0.07, AME–ALE 0.03, PME–PME 0.07, PME–PLE 0.05, ALE–PLE 0.07. MOQ length 0.22, front width 0.15, back width 0.21. EMB recurved, small (figs. 183, 185, 186). Leg spination: metatarsi: I v0-0-0; IV v2-2-1p.

**FEMALE:** Total length 8.00 ± 2.45. Carapace 2.74 ± 0.35 long, 2.00 ± 0.24 wide. Femur II 1.53 ± 0.19 long. Eye sizes and interdistances: AME 0.05, ALE 0.10, PME 0.09, PLE 0.10; AME–AME 0.09, AME–ALE

0.03, PME–PME 0.07, PME–PLE 0.09, ALE–PLE 0.09. MOQ length 0.28, front width 0.19, back width 0.25. Expansions of MED far from AEM (figs. 184, 187, 188). Leg spination: femur IV p0–0–1.


Distribution: Central California (map 14).

The mayanus Subgroup

Diagnosis: The mayanus subgroup contains those species in which males have a high
embolar base bearing a long embolar projection (figs. 195, 271) and females resemble those of the *jamaicensis* subgroup in having enormously elongated epigynal ducts but differ in retaining the typical *Zelotes* epigynal morphology, with paired anterior, lateral, and posterior margins (figs. 154, 189, 191, 193).

**INTRARELATIONSHIPS:** With most of the species known from only one sex, a discussion of their interrelationships is premature.

**KEY TO SPECIES**

1. Males (those of *Z. acapulcoanus*, *Z. bajo*, and *Z. ivierorum* unknown) ............... 2
   Females (those of *Z. miramar* unknown) ... 3
2. EP relatively narrow (figs. 195, 196) .......... *miramar*  
   EP relatively wide (figs. 271, 272) .......... *mayanus*
3. Epigynal ducts with bulbous enlargements (figs. 155, 192, 194) ............... 4
   Epigynal ducts without bulbous enlargements (fig. 190) .......... *acapulcoanus*
4. PEM near AEM (fig. 154) .......... *mayanus*  
   PEM far from AEM (figs. 191, 193) ........ 5
5. MED near AEM (figs. 191, 192) .......... *bajo*  
   MED far from AEM (figs. 193, 194) .......... *ivierorum*

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**Zelotes mayanus** Chamberlin and Ivie  
**Figures 154, 155, 271, 272; Map 15**


**DIAGNOSIS:** *Zelotes mayanus* is a distinctive species easily recognized by the pronglike EP (figs. 271, 272) of males and the anteriorly advanced PEM (fig. 154) of females.

**MALE:** Total length 2.99. Carapace 1.45 long, 1.13 wide. Femur II 0.83 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.06, PLE 0.06; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.16, front width 0.11, back width 0.16. EP pronglike, protruding ventrally (figs. 271, 272). Leg spination: femur IV p0-0-1, r0-0-1; tibiae: II v1p-1p-0; III v1p-1p-2; IV p1-0-1; metatarsus III v2-0-0.

**FEMALE:** Total length 2.99–3.40. Carapace 1.22–1.38 long, 0.90–0.97 wide. Femur II 0.70–0.74 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.05, PLE 0.06; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.05. MOQ length 0.17, front width 0.11, back width 0.14. AEM widely separated; PEM near AEM (figs. 154, 155). Leg spination: femora: II p0-0-0; IV p0-0-0, r0-0-1; tibia IV v1p-0-1; metatarsi: I v0-0-0; II v1p-0-0; III v2-0-0, r1-2-2.


**DISTRIBUTION:** Known only from the Yucatán peninsula of Mexico (map 15).

**Zelotes acapulcoanus** Gertsch and Davis  
**Figures 189, 190; Map 15**


**DIAGNOSIS:** *Zelotes acapulcoanus* is a dis-
distinctive species easily recognized by having the MED running the entire length of the epigynum (figs. 189, 190).

**MALE:** Unknown.

**FEMALE:** Total length 3.65. Carapace 1.43 long, 1.08 wide. Femur II 0.76 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.05, PLE 0.06; AME—AME 0.05, AME—ALE 0.01, PME—PME 0.05, PME—PLE 0.05, ALE—PLE 0.05. MOQ length 0.16, front width 0.13, back width 0.15. AEM widely separated; MED long, longitudinal (figs. 189, 190). Leg spination: femur IV p0-0-1, r0-0-1; metatarsus I v0-0-0.

**MATERIAL EXAMINED:** Only the holotype, collected on June 17, 1936, by L. I. Davis.

**DISTRIBUTION:** Known only from Guerrero, Mexico (map 15).

**Zelotes bajo**, new species

Figures 191, 192; Map 15

**TYPE:** Female holotype from Lo Bajo, Guerrero, Mexico (June 30, 1941; L. I. Davis), deposited in AMNH.

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

**DIAGNOSIS:** Zelotes bajo resembles Z. ivieorum in having a pair of anterior bulbous epigynal enlargements but can be distinguished by the enlargements being more anteriorly situated (figs. 191, 192).

**MALE:** Unknown.

**FEMALE:** Total length 4.45. Carapace 1.60 long, 1.37 wide. Femur II 1.25 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.05, PLE 0.06; AME—AME 0.04, AME—ALE 0.01, PME—PME 0.07, PME—PLE 0.05, ALE—PLE 0.04. MOQ length 0.19, front width 0.12, back width 0.17. AEM near each other and enlargements of epigynal ducts (figs. 191, 192). Leg spination: femur IV r0-0-1; tibia IV p1-0-1; metatarsi: III v2-0-0; IV v2-1p-0.

**OTHER MATERIAL EXAMINED:** None.

**DISTRIBUTION:** Known only from Guerrero, Mexico (map 15).

**Zelotes ivieorum**, new species

Figures 193, 194; Map 15

**TYPE:** Female holotype from 12 miles west-northwest of Tehuantepec, lat. 16°22' N, long.

95°22' W, Oaxaca, Mexico (September 1, 1964; J. and W. Ivie), deposited in AMNH.

ETYMOLOGY: The specific name is a patronym in honor of the collectors of the holotype.

DIAGNOSIS: Zelotes ivieorum resembles Z. bajo but can be distinguished by the more posteriorly situated epigynal duct enlargements (figs. 193, 194).

MALE: Unknown.
FEMALE: Total length 4.07, 4.79. Carapace 1.51, 1.73 long, 1.19, 1.33 wide. Femur II 0.94, 1.15 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.05, PLE 0.06; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.19, front width 0.15, back width 0.15. AEM near each other, far from enlargements of epigynal ducts (figs. 193, 194). Leg spination: metatarsus III v2-0-0.

OTHER MATERIAL EXAMINED: One female taken with the holotype.

DISTRIBUTION: Known only from Oaxaca, Mexico (map 15).

Zelotes miramar, new species
Figures 195, 196; Map 15

TYPE: Male holotype from Miramar, Manzanillo, Colima, Mexico (January 15, 1943; F. Bonet), deposited in AMNH.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Zelotes miramar is a distinctive species easily recognized by the high EB and the elongated EP and EMB (figs. 195, 196).

MALE: Total length 3.68. Carapace 1.76 long, 1.32 wide. Femur II 1.12 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.05, PLE 0.06; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.19, front width 0.13, back width 0.16. EB twice as high as TA, bearing long, curved EP and EMB (figs. 195, 196). Leg spination: tibia IV p1-0-1; metatarsi: I, II v2-2-0; III v2-0-0.

FEMALE: Unknown.
OTHER MATERIAL EXAMINED: None.
DISTRIBUTION: Known only from Colima, Mexico (map 15).

THE jamaicensis SUBGROUP

DIAGNOSIS: The jamaicensis subgroup contains those species in which males have a long embolus reaching to the proximal edge of the palpal bulb (fig. 199) and females have a pair of tubular epigynal openings (figs. 197, 201). As only two species are known, a key is omitted.

Zelotes jamaicensis, new species

Figures 199–202; Map 15

TYPES: Male holotype and female paratype from pitfall trap at the Jamaica School of Agriculture, Spanish Town, St. Catherine Parish, Jamaica (October 24–30, 1968; M. H. Muma), deposited in FSCA.

ETYMOLOGY: The specific name refers to the type locality.

DIAGNOSIS: Females of Z. jamaicensis can be distinguished from those of Z. hardwar by the narrower epigynal openings and less convoluted epigynal ducts (figs. 201, 202); males of Z. hardwar are unknown, but those of Z. jamaicensis have a peculiarly excavated palpal tibia (fig. 200).

MALE: Total length 2.29. Carapace 1.13 long, 0.83 wide. Femur II 0.68 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.13, front width 0.09, back width 0.11. EB shifted retrolaterally; EMB greatly elongated; palpal tibia excavated ventrally (figs. 199, 200). Leg spination: femur IV r0-0-1; tibia III r1-1-1; metatarsus II v2-1p-0.

FEMALE: Total length 3.22. Carapace 1.17 long, 0.86 wide. Femur II 0.72 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.15, front width 0.12, back width 0.13. Epigynal openings narrow; ducts with two lateral extensions
(figs. 201, 202). Leg spination: femur II p0-0-0; tibiae: III v1p-2-2; IV p1-0-1; metatarsi: I v0-0-0; II v1p-0-0; III v2-0-0; IV v2-1p-0.

**OTHER MATERIAL EXAMINED:** None.

**DISTRIBUTION:** Known only from St. Catherine Parish, Jamaica (map 15).

**Zelotes hardwar,** new species

Figures 197, 198; Map 15

**TYPE:** Female holotype from Berlese sample of concentrated forest floor litter taken at an elevation of 4000 feet at Hardwar Gap, Blue Mountains, St. Andrew Parish, Jamaica (December 6, 1975; H. S. Dybas), deposited in FMNH.

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

**DIAGNOSIS:** *Zelotes hardwar* can be distinguished from *Z. jamaicensis* by the wider epigynal openings and more convoluted epigynal ducts (figs. 197, 198).

**MALE:** Unknown.

**FEMALE:** Total length 3.96. Carapace 1.79 long, 1.30 wide. Femur II 1.19 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.06, PLE 0.07; AME–AME 0.05, AME–ALE 0.03, PME–PME 0.05, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.20, front width 0.15, back width 0.18. Epigynal openings wide; ducts with three lateral extensions (figs. 197, 198). Leg spination: femur IV p0-0-1, r0-0-1; tibiae: III v1p-2-2, r1-1-1; IV p1-0-1, v1p-2-2; metatarsi: I v0-0-0; III v2-0-0.

**OTHER MATERIAL EXAMINED:** None.

**DISTRIBUTION:** Known only from St. Andrew Parish, Jamaica (map 15).

**The duplex Group**

**DIAGNOSIS:** The *duplex* group (component 8, fig. 1) contains three very distinct subgroups that are united by having male palpi with an enlarged median apophysis that extends further proximally than in the *subterraneus* or *funestus* groups (as in fig. 203). No comparable synapomorphy has been found for females, whose genitalic morphology is atypical and peculiar to each subgroup.

**The duplex Subgroup**

**DIAGNOSIS:** The *duplex* subgroup contains those species in which the intercalary sclerite of males has been covered by extensions of the tegulum and terminal apophysis (figs. 203, 211, 215) and the epigynum of females has become greatly elongated and bears transverse ridges anteriorly (figs. 205, 213, 217).

**INTRARELATIONSHIPS:** Of the three known species, *Z. duplex* and *Z. ocala* are evidently closest relatives; they share a convex tip of the distal extension of the intercalary sclerite (figs. 203, 211) in males and a depressed epigynal atrium (figs. 205, 213) in females.

**KEY TO SPECIES**

1. Distal extension of IS straight (fig. 215); epigynum raised medially (fig. 217) .................................................. lynnophilus

   Distal extension of IS convex (figs. 203, 211); epigynum depressed medially (figs. 205, 213) ........................................ 2

2. TA rounded distally (fig. 203); LEM relatively long (fig. 205) ........... *duplex*

   TA angular distally (fig. 211); LEM relatively short (fig. 213) ............. *oca*la

**Zelotes duplex** Chamberlin

Figures 203–208, 269; Map 16


**Zelotes sylvanus** Chamberlin and Ivie, 1944, p. 176, figs. 202, 203 (female holotype from Sylvania, Screven County, Georgia, in AMNH, examined). First synonymized by Kaston, 1945, p. 2.

**DIAGNOSIS:** *Zelotes duplex* seems closest to *Z. ocala* but can be distinguished by the characters listed in couplet 2 of the key.

**MALE:** Total length 5.13 ± 0.54. Carapace 2.22 ± 0.17 long, 1.77 ± 0.10 wide. Femur II 1.46 ± 0.07 long (249 specimens examined). Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.22, front width 0.12, back width 0.18. TA rounded distally; EB broad, paralleling distal extension of IS (figs. 203, 204, 207, 208). Leg spination: patella IV r0-1-0; tibiae: I v1r-2-0; II v1r-1r-0; III d1-0-0, p1-1-0, r1-1-1; IV

d1-0-0; metatarsi: I, II v2-2-0; III r1-2-2; IV r2-2-2.

**FEMALE:** Total length 5.03 ± 1.00. Carapace 2.03 ± 0.19 long, 1.60 ± 0.20 wide. Femur II 1.25 ± 0.10 long (167 specimens examined). Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.05, PLE 0.07; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.07, ALE–PLE 0.05. MOQ length 0.21, front width 0.16, back width 0.15. LEM long, enclosing depressed atrium (figs. 205, 206, 269). Leg spination: femur IV p0-0-1; patella IV r0-1-0; tibiae: III d1-0-0, r1-1-1; IV d1-0-0; metatarsi: I, II v2-2-0; III r1-2-2; IV r2-2-2.


**DISTRIBUTION**: Eastern United States and Canada (map 16). One female specimen from Sevier County, Utah (AMNH) is presumed to be either mislabeled or introduced by humans.

**NATURAL HISTORY**: Mature males have been taken from April through October, mature females from February through October. Specimens have been collected in pitfall traps, in hickory, oak, and pine forests, a beech-magnolia hammock, pastures, and prairies, and in buildings, at elevations up to 3000 feet.

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**Zelotes ocala**, new species

*Figures 209, 211–214; Map 17*

**TYPES**: Male holotype and female paratype from a Berlese sample of *Pinus elliotti* litter and from mixed oak litter, respectively, at the Archbold Biological Station, Lake Placid, Highlands County, Florida (April 1956; C. C. Hoff), deposited in AMNH.

**ETYMOLOGY**: The specific name is a noun in apposition taken from the Ocala National Forest, where the species has been collected.

**DIAGNOSIS**: *Zelotes ocala* seems closest to *Z. duplex* but can be distinguished by the characters listed in couplet 2 of the key.

**MALE**: Total length 3.13–4.72. Carapace 1.71–2.18 long, 1.33–1.71 wide. Femur II 0.92–1.44 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.07, PLE 0.06;
AME–AME 0.06, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.17, front width 0.14, back width 0.18. TA angular distally; RTA sinuous (figs. 209, 211, 212). Leg spination: patella IV r0-1-0; tibiae: I, II v1r-1r-0; III d1-0-0, r1-1-1; IV d1-0-0, r2-1-1; metatarsi: I, II v2-2-0; III r1-2-2; IV r2-2-2.

FEMALE: Total length 4.07–4.85. Carapace 1.87–2.19 long, 1.43–1.81 wide. Femur II 1.10–1.16 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.05, PLE 0.05; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.18, front width 0.14, back width 0.14. LEM short, enclosing depressed atrium (figs. 213, 214). Leg spination: tibiae: III d1-0-0, r1-1-1; IV d1-0-0, r2-1-1; metatarsi: I, II v2-1r-0; III r1-2-2; IV r2-2-2.


MAP 17. North America, showing distribution of Zelotes ocala (triangles), Z. monodens (square), and Z. nilicola (circles).

**DISTRIBUTION:** Known only from Florida (map 17).

*Zelotes lymnophilus* Chamberlin

**Figures 210, 215–218; Map 18**


*Zelotes cymbiolus* Chamberlin, 1936b, p. 12 (male holotype from Alachua County, Florida, in AMNH, examined). Bonnet, 1959, p. 4919. First synonymized by Chamberlin and Ivie, 1944, p. 175.

*Zelotes limnophilus*: Chamberlin and Ivie, 1944, p. 175 (lapsus).

**DIAGNOSIS:** *Zelotes lymnophilus* is a distinctive species easily recognized by the long, dorsally directed RTA (fig. 216) of males and the medially elevated epigynum (fig. 217) of females.

**MALE:** Total length 3.24 ± 0.41. Carapace 1.55 ± 0.22 long, 1.20 ± 0.11 wide. Femur II 0.97 ± 0.11 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.05, PLE 0.05; AME–AME 0.04, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.15, front width 0.11, back width 0.13. EB and EP oriented longitudinally; distal extension of IS straight (figs. 210, 215, 216). Leg spination: patella IV r0-l-0; tibiae: I v2-2-0; II v1r-1r-0; III d1-0-0, r1-1-1; IV d1-0-0, r2-1-1; metatarsi: I, II v2-2-0; III r1-2-2; IV r2-2-2.

**FEMALE:** Total length 2.66–3.44. Carapace 1.27–1.34 long, 1.00–1.13 wide. Femur II 0.79–0.90 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.04, AME–ALE 0.02, PME–PME 0.03, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.14, front width 0.11, back width 0.11. Epigynum elevated medially (figs. 217, 218). Leg spination: femur IV p0-0-1; patella IV r0-1-0; tibiae: I, II v1r-1r-0; III d1-0-0; IV d1-0-0, r2-1-1; metatarsi: III r1-2-2; IV r2-2-2.


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1 δ. Leon Co.: Tall Timbers Research Station, June 1, 1969 (W. W. Baker, E. V. Komarek, FSCA), 1 δ, 1 ², May 18–25, 1970, pit-fall, annually burned pine woods (D. L. Harris, FSCA), 1 δ. Liberty Co.: Torreya Ravine, Apr. 16, 1938 (W. J. Gertsch), 2 δ.


**DISTRIBUTION:** Southeastern United States (map 18).

**THE laccus SUBGROUP**

**DIAGNOSIS:** The laccus subgroup contains those species in which males have a transverse embolus extending across the distal edge of the palpal bulb (figs. 219, 227, 231, 239, 243); females of each species have differenty constructed epigyna (figs. 221, 229, 233, 241, 245). All the species are much smaller than most *Zelotes*.

**INTRARELATIONSHIPS:** Two species pairs can be recognized among the five known species. *Zelotes laccus* and *Z. exiguoides* are united by having males with a bifid median apophysis (figs. 220, 228), whereas *Z. nannodes* and *Z. florodes* are united by having males with a shortened retrolateral tibial apophysis (figs. 232, 240) and females with a triangular median epigynal plate (figs. 233, 241).

**KEY TO SPECIES**

1. RTA proximal, doubled (figs. 243, 244); SP anterior (figs. 245, 246) .......... *monodens* 1 δ. RTA distal, single (as in fig. 220); SP posterior (as in fig. 221) ................. 2
2. RTA relatively long (figs. 220, 228); epigynum without a median plate (figs. 221, 229) 3 RTA relatively short (figs. 232, 240); epigynum with a median plate (figs. 233, 241) .... 4
3. Palpal tibia with brush of stiff setae (fig. 220); LEM widely separated (fig. 221) .... *laccus* 
   Palpal tibia without such a brush (fig. 228); LEM not widely separated (fig. 229) .... *exiguoides*
4. EMB relatively long (fig. 231); median epigynal plate relatively small (fig. 233) .... *nannodes* EMB relatively short (fig. 239); median epigynal plate relatively large (fig. 241) ................. *florodes*

*Zelotes laccus* (Barrows) Figures 219–224; Map 19

**Prosthesima lacca** Barrows, 1919, p. 355, fig. 3 (male holotype [lacking both palpi] from Columbus, Franklin County, Ohio, in OSU, examined).

**Drassyllus laccus:** Chamberlin, 1922, p. 167.


**DIAGNOSIS:** *Zelotes laccus* seems closest to *Z. exiguoides* but can be distinguished by the shorter RTA (fig. 220) of males and the wider epigynum (fig. 221) of females.

**MALE:** Total length 2.02 ± 0.13. Carapace 0.84 ± 0.03 long, 0.62 ± 0.04 wide. Femur II 0.50 ± 0.03 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.04; AME-AME 0.02, ALE-ALE 0.01, PME-PME 0.02, PME-PLE 0.03, ALE-PLE 0.03. MOQ length 0.10, front width 0.07, back width 0.09. RTA short, tibia with dorsal brush of stiff setae (figs. 219, 220, 223). Leg spination: femora: I, II p0-0-0; III p0-0-1, r0- 0-1; IV p0-0-0; patella III r0-0-0; tibiae: I v1r-1r-0; II v0-1r-0; III d1-0-0, p0-1-1, v0-1p-2; IV v1p-2-2; metatarsi: I v0-2-2; II v0-

1r-2; III p0-1-2, v0-0-0, r0-1-2; IV p0-2-2, v2-0-0, r0-2-1.

Female: Total length 2.43 ± 0.32. Carapace 0.89 ± 0.04 long, 0.67 ± 0.04 wide. Femur II 0.52 ± 0.02 long. Eye sizes and interdistances: AME 0.03, ALE 0.04, PME 0.04, PLE 0.04; AME–AME 0.02, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03. ALE–PLE 0.04. MOQ length 0.12, front width 0.09, back width 0.11. AEM fused, LEM widely separated (figs. 221, 222, 224). Leg spination: femora II, IV p0-0-0; tibiae: I, II v1r-1r-0; III d1-0-0, p0-1-1, v0-1p-2; IV d1-0-0, v1p-lp-2; metatarsi: I, II v0-2-2; III v0-0-0, r0-2-2; IV p1-2-1, v0-0-0, r1-2-1.

vation 2900 feet (F. A. Coyle, FAC), 1 ♀. Ohio: Hocking Co.: Cantwell Cliffs, June 12, 1940 (OSU), 2 ♂, 1 ♀; Rockbridge, June 1–7, 1922–1925 (MCZ, OSU), 11 ♂, 6 ♀.

DISTRIBUTION: Eastern United States and Canada (map 19).

**Zelotes exiguoides**, new species

Figures 225–230; Map 20

**TYPES:** Male holotype and female paratype from Halsey, Thomas County, Nebraska (July 1–8, 1957; R. Henzlik), deposited in AMNH.

**ETYMOLOGY:** The specific name refers to the close relationship between this species and the European species *Z. exiguis* (Müller and Schenkel).

**DIAGNOSIS:** Among American species, *Z. exiguoides* seems closest to *Z. laccus* but can be distinguished by the longer RTA (fig. 228) of males and the narrower epigynum (fig. 229) of females. However, the species is probably more closely related to the European *Z. exiguis* (see Miller and Buchar, 1977, figs. 10–17), from which it can be distinguished by the same characters.

**MALE:** Total length 2.30 ± 0.28. Carapace 0.98 ± 0.10 long, 0.77 ± 0.11 wide. Femur II 0.61 ± 0.07 long. Eye sizes and interdistances: AME 0.03, ALE 0.04, PME 0.05, PLE 0.05; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.12, front width 0.10, back width 0.12. RTA long, sinuous distally (figs. 225, 227, 228). Leg spination: femora: III r0-0-1; IV p0-0-0, r0-0-0; patella III r0-0-0; tibiae: I, II v1r-1r-0; III, IV v1p-2-2; metatarsi: I, II v0-2-2; III p0-1-2, v0-0-0, r0-1-2; IV p1-1-2, v0-0-0, r1-2-1.

**FEMALE:** Total length 2.55 ± 0.28. Carap-
pace 0.95 ± 0.08 long, 0.78 ± 0.05 wide. Femur II 0.58 ± 0.05 long. Eye sizes and interdistances: AME 0.03, ALE 0.04, PME 0.05, PLE 0.05; AME–AME 0.02, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.05. MOQ length 0.13, front width 0.07, back width 0.12. LEM approximate, straight

(figs. 226, 229, 230). Leg spination: femora: III r0-0-0; IV p0-0-0, r0-0-1; tibiae: I, II v1r-1r-0; III v0-2-2, r0-1-0; IV v1p-2-2; metatarsi: I, II v0-2-2; III p0-2-2, v0-0-0, r0-1-2; IV v0-0-0, r1-2-1.

**Zelotes nannodes** Chamberlin

**Figures 231-236; Map 19**

**Zelotes nannodes** Chamberlin and Gertsch, 1940, p. 18, figs. 16, 17 (male holotype from Richardson, Grand County, Utah, in AMNH, examined). Roewer, 1954, p. 471. Ubick and Roth, 1973, p. 8.

**Zelotes nanodes**: Bonnet, 1959, p. 4936 (unjustified emendation).

**Diagnosis**: **Zelotes nannodes** seems closest to *Z. florodes* but can be distinguished by the longer EMB and larger MA (fig. 231) of males and the smaller epigynal plate (fig. 233) of females.

**Male**: Total length 1.93–3.30. Carapace 0.90–1.24 long, 0.61–1.14 wide. Femur II 0.50–0.76 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.02, ALE–PLE 0.03. MOQ length 0.14, front width 0.09, back width 0.13. EMB long, with prolateral hump (figs. 231, 232, 235). Leg spination: tibia II v1r-lr-0; metatarsus III p0-2-2, v2-0-0, r1-2-2.

**Female**: Total length 2.27–3.15. Carapace 0.94–1.24 long, 0.70–0.95 wide. Femur II 0.52–0.73 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.06, PME–PLE 0.04, ALE–PLE 0.05. MOQ length 0.14, front width 0.11, back width 0.14. Epigynum with small, triangular median plate (figs. 233, 234, 236). Leg spination: femur IV p0-0-1, r0-0-1; tibia III v1p-2-2; metatarsi: III p0-2-2, v2-0-0, r0-1-2; IV v2-1p-0.

**Material Examined**: United States: Nevada: Nye Co.: Mercury, June 2–23, 1961, 1 $\delta$, 2 $\varphi$. Pershing Co.: Oreana, June 12, 1964 (NDA), 3 $\varphi$. Oregon: Harney Co.: Alvord Basin, 1979, pitfall (J. D. Lattin, CNC), 1 $\delta$. Utah: Box Elder Co.: 10 mi. W Tremonton, June 8, 1931, under rock on dry hillside (W. Ivie), 1 $\varphi$ (type). Grand Co.: Moab, May 8, 1933, 1 $\varphi$; Richardson, May 13, 1933 (W.


**DISTRIBUTION:** Known only from Utah, Nevada, and southeastern Oregon (map 19).

**SYNONYMY:** Simultaneous collections of both sexes indicate that *Z. nannus* is the male of *Z. nannodes*.

**Zelotes florodes**, new species

Figures 237–242; Map 20

**TYPES:** Male holotype from pitfall trap on sand pine dune at Winter Haven, Polk County, Florida (May 12, 1969; K. J. Stone), deposited in FSCA.

**ETYMOLOGY:** The specific name is an arbitrary combination of letters.

**DIAGNOSIS:** *Zelotes florodes* seems closest to *Z. nannodes* but can be distinguished by the shorter EMB and smaller MA (fig. 239) of males and the larger epigynal plate (fig. 241) of females.

**MALE:** Total length 3.55 ± 0.36. Carapace 1.66 ± 0.20 long, 1.29 ± 0.17 wide. Femur II 0.97 ± 0.12 long. Eye sizes and interdistances: AME 0.04, ALE 0.05, PME 0.06, PLE 0.05; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.15, front width 0.13, back width 0.16. EMB not extending along MA (figs. 237, 239, 240). Leg spination: femur IV r0-0-1; tibiae: III d1-0-0; IV r2-1-1; metatarsi: I, II v2-2-0; III, IV r2-2-2.

**FEMALE:** Total length 3.39 ± 0.16. Carapace 1.54 ± 0.12 long, 1.17 ± 0.10 wide.

Femur II $0.88 \pm 0.04$ long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.05, PLE 0.06; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.15, front width 0.11, back width 0.13. Epigynum with large, triangular median plate (figs. 238, 241, 242).

Leg spination: patella IV $r_0-0-1-0$; tibiae: III $dl-0-0$; IV $dl-0-0, r_2-1-1$; metatarsi III, IV $r-2-2-2$.


**DISTRIBUTION:** Known only from Florida (map 20).

*Zelotes monodens* Chamberlin

Figures 243–246; Map 17

*Zelotes monodens* Chamberlin, 1936b, p. 9, fig. 36 (female holotype from Edinburg, Hidalgo County, Texas, in AMNH, examined). Roewer, 1954, p. 471.


**DIAGNOSIS:** *Zelotes monodens* is a bizarre species easily recognized by the proximally situated, doubled RTA (figs. 243, 244) of males and the anteriorly situated SP (figs. 245, 246) of females.

**MALE:** Total length 2.59. Carapace 1.21 long, 0.92 wide. Femur II 0.79 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.12, front width 0.11, back width 0.13. EMB extending along MA; RTA doubled, shifted proximally (figs. 243, 244). Leg spination: femur IV $p_0-0-0, r_0-0-1$; metatarsi: III $p_0-2-2, v_2-0-0$; IV $r_1-2-1$.

**FEMALE:** Total length 3.56. Carapace 1.33 long, 0.92 wide. Femur II 0.79 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.12, front width 0.10, back width 0.12. Epigynum with pair of lateral pockets; SP anterior (figs. 245,

246). Leg spination: femora: I p0-0-0; IV p0-0-0, r0-1-0; tibia IV p1-0-1; metatarsi: I v0-0-0; III p0-2-2, v2-0-0.


Distribution: Known only from Hidalgo County, Texas (map 17).

The puritanus Subgroup

Diagnosis: The puritanus subgroup contains those species in which males have an elongated palpal bulb with the median apophysis facing retrolaterally (figs. 247, 248, 255, 256) and females have an elongated epigynum with a single anterior margin and wide, longitudinally arranged ducts (figs. 249, 250, 257, 258). The bulk of the members of this group occur in Africa; as only two species are known from America, a key is omitted.

Zelotes puritanus Chamberlin

Figures 247–252; Map 21


Zelotes kodaensis Miller and Buchar, 1977, p. 157, pl. 1, figs. 1–9 (male holotype from Koda, Středočeský, Czechoslovakia, not examined). Thaler, 1981, p. 115, figs. 23–27. NEW SYNONYMY.

Diagnosis: Zelotes puritanus can be distinguished from Z. reformans by the rounded TA (fig. 247) of males and the more widely separated LEM (fig. 249) of females.

Male: Total length 4.66 ± 0.48. Carapace 2.15 ± 0.20 long, 1.66 ± 0.15 wide. Femur II 1.27 ± 0.13 long (127 specimens examined). Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.08, PLE 0.07; AME–AME 0.08, AME–ALE 0.05, PME–PME 0.09, PME–PLE 0.06, ALE–PLE 0.08. MOQ length 0.23, front width 0.20, back width 0.25. TA rounded distally; MA with proximal lobe (figs. 247, 248, 251). Leg spination: femur IV p0-0-0, r0-0-1; tibia IV p1-0-1; metatarsi: I, II v0-0-0; III v2-0-0.

Female: Total length 5.78 ± 0.80. Carap-
pace 2.30 ± 0.27 long, 1.80 ± 0.21 wide. Femur II 1.34 ± 0.18 long (308 specimens examined). Eye sizes and interdistances: AME 0.06, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.07, AME–ALE 0.03, PME–PME 0.08, PME–PLE 0.07, ALE–PLE 0.06. MOQ length 0.22, front width 0.19, back width 0.22. LEM widely separated; LED wide, PED small (figs. 249, 250, 252). Leg spination: femur IV p0-0-0, r0-0-1; tibia IV p1-0-1, r1-0-1; metatarsi: I, II v0-0-0; III v2-0-0.


DISTRIBUTION: Alaska to New Brunswick, south to New Mexico, South Dakota, and Massachusetts (map 21); Czechoslovakia, Poland, and Austria.

NATURAL HISTORY: Mature males have been taken from late April through July, mature females from early May through late October. Specimens have been collected in pitfall traps, in aspen, fir, scrub oak, lodgepole and ponderosa pine, and black spruce forests, in beach litter, meadows, pastures, prairies, sagebrush, and under logs and rocks, at elevations up to 12,300 feet.

SYNONYMY: No significant differences were detected between American specimens of Z. puritanus and Czechoslovakian representatives of Z. kodaensis lent by Dr. Jan Buchar.

Zelotes reformans Chamberlin
Figures 253–258; Map 22


DIAGNOSIS: Zelotes reformans can be distinguished from Z. puritanus by the more angular TA and longer RTA (figs. 255, 256) of males and the more closely spaced LEM (fig. 257) of females. The species seems clos-
est to *Z. inaurus* (O. P.-Cambridge) of Egypt, which is probably a senior synonym of both *Z. antiope* (Simon) of France and *Z. simplex* Denis of Algeria, but has a shorter EMB and less highly coiled MED.

**MALE:** Total length 4.66 ± 0.72. Carapace 2.15 ± 0.26 long, 1.70 ± 0.20 wide. Femur II 1.30 ± 0.17 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.08, AME–ALE 0.03, PME–PME 0.07, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.24, front width 0.18, back width 0.23. MA with long retrolateral process (figs. 253, 255, 256). Leg spination: femur IV r0-0-1; tibia IV p1-0-1, r2-1-1; metatarsi: I, II v0-0-0; III v2-1p-0.

**FEMALE:** Total length 5.52 ± 0.42. Carapace 2.31 ± 0.16 long, 1.81 ± 0.12 wide. Femur II 1.37 ± 0.08 long. Eye sizes and interdistances: AME 0.05, ALE 0.09, PME 0.08, PLE 0.08; AME–AME 0.08, AME–ALE 0.03, PME–PME 0.07, PME–PLE 0.06, ALE–PLE 0.09. MOQ length 0.24, front width 0.18, back width 0.23. LEM approximate; LED sinuous laterally (figs. 254, 257, 258). Leg spination: femur IV r0-0-1; tibia IV p1-0-1; metatarsi: I, II v0-0-0; III v2-0-0.

**MATERIAL EXAMINED:** UNITED STATES:

**DISTRIBUTION:** Southwestern United States and northwestern Mexico (map 22); Peru; Hawaii.

**INTRODUCED SPECIES**

*Note:* The two species treated below seem not to be native members of the American fauna, and belong to species groups that are otherwise unrepresented in America.
Zelotes pallidus (O. P.-Cambridge)  
Figures 259–262; Map 18

Prosthesima pallida O. P.-Cambridge, 1874, p. 383, pl. 51, figs. 11a, 11b (male and female syntypes from Alexandria, Egypt, in HEC, examined).

Prosthesima circumspecta Simon, 1878, p. 94, pl. 14, figs. 26, 27 (male and female syntypes from France and Corsica, in MNHN, not examined).

NEW SYNONYMY.


DIAGNOSIS: Zelotes pallidus is a distinctive species easily recognized by the greatly expanded EB (fig. 259) of males and the narrow MED (fig. 262) of females.

MALE: Total length 4.15 ± 0.84. Carapace 1.98 ± 0.39 long, 1.47 ± 0.28 wide. Femur II 1.33 ± 0.24 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.10, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.26, front width 0.18, back width 0.25. EB enlarged, wrapped around EMB retrolaterally (figs. 259, 260).

FEMALE: Total length 4.68–6.57. Carapace 1.50–2.41 long, 1.17–1.79 wide. Femur II 0.87–1.51 long. Eye sizes and interdistances: AME 0.07, ALE 0.09, PME 0.10, PLE 0.10;

Leg spination: femur IV p0-0-1, r0-0-1; tibiae: III r1-1-1; IV p1-0-1, r2-1-1; metatarsi: I v0-0-0; II v2-1p-0; III r1-2-2; IV r1-2-1.

MAP 22. North America, showing distribution of Zelotes reformans.

*Zelotes nilicola* (O. P.-Cambridge) is known in America only from Contra Costa County, California (map 18).

**SYNONYMY:** Simon provided no characters by which to distinguish *Z. circumspectus* from *Z. pallidus*, and there appear to be none.

**Zelotes nilicola** (O. P.-Cambridge) Figures 263–268; Map 17

*Prosthesima nilicola* O. P.-Cambridge, 1874, p. 380, pl. 51, fig. 8 (male holotype from Alexandria, Egypt, in HEC, examined).

*Prosthesima tantula* Simon, 1878, p. 88, pl. 14, fig. 21 (male holotype from Corsica, in MNHN, not examined). First synonymized by Dalmas, 1922, p. 84.


**DIAGNOSIS:** *Zelotes nilicola* is a bizarre species easily recognized by the enormously elongated EMB (fig. 263) of males and the massive epigynal ducts (fig. 266) of females.

**MALE:** Total length 2.75 ± 0.43. Carapace

AME–AME 0.07, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.07. MOQ length 0.28, front width 0.21, back width 0.25. PEM extending as far anteriorly as LEM (figs. 261, 262). Leg spination: femur IV p0-0-1; tibiae: III r1-1-1; IV r2-1-1; metatarsi: I v0-0-0; III r1-2-2; IV r1-2-1.


**DISTRIBUTION:** This Mediterranean species...
1.27 ± 0.13 long, 0.96 ± 0.10 wide. Femur II 0.73 ± 0.08 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.05, PLE 0.05; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.13, front width 0.09, back width 0.13. EMB wrapped around CYM retrolaterally (figs. 263, 264, 267). Leg spination: femur IV r0-0-1; tibiae: III r1-1-1; IV p1-0-1; metatarsi: I v0-0-0; III v2-0-0.

FEMALE: Total length 2.95 ± 0.28. Carapace 1.28 ± 0.12 long, 0.95 ± 0.07 wide. Femur II 0.71 ± 0.09 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.06; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.13, front width 0.11, back width 0.12. Epigynum with short, anteriorly situated median plate, ducts massive (figs. 265, 266, 268). Leg spination: femora: I, II p0-0-0; IV p0-0-1, r0-0-1; tibia IV p1-0-1; metatarsi: I v0-0-0; III v2-1p-0.

MATERIAL EXAMINED: UNITED STATES:

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**DISTRIBUTION:** This Mediterranean species is known in America only from southern California and adjacent Arizona (map 17).

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188 VOL. 174
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Thaler, Konrad  

Thorell, Tamerlan  

Ubick, Darrell, and Vincent D. Roth  
INDEX OF SPECIFIC NAMES

(Valid names are printed in italics)

acapulcoanus, 164
adolescens, 104
aiken, 128
ango, 102, 126
anthereus, 160
antiope, 183
apricorum, 105
ater, 104, 105, 106
bajo, 165
calvanisticus, 129
catholicus, 136
cayucos, 153
chicano, 115
circumspectus, 101, 185
cruz, 154
cyanescens, 105
cymbiolus, 172
directus, 104
discens, 159
duplex, 168
exiguoides, 175
exiguus, 179
gallicus, 101, 105, 106
gentilis, 104
gertschi, 131
griseus, 104
griswoldi, 162
grovus, 138
gynethus, 156
hardwar, 168
hentzi, 112
icenoglei, 144
inauratus, 183
indecisus, 104
inglenook, 152
inheritus, 106, 117
ivieorum, 165
jamaicensis, 167
josephine, 151
kentzi, 112
kodaensis, 101, 180
lacca, 173
laccus, 173
lasalanus, 102, 114
limnophilus, 172
lymnophilus, 172
mayanus, 164
melancholicus, 104
mesa, 142
miramar, 166
moesta, 121
moestus, 121
monachus, 102, 129
monodens, 179
monodon, 179
montereus, 159
nannodes, 177
nannus, 177
nanodes, 177
nilicola, 101, 186
niliculus, 186
niliotica, 186
ocala, 170
omissus, 146
pallidenotatus, 101
pallidus, 101, 185
paludis, 104
perditus, 146
petrophilus, 148
piercy, 140
pinos, 158
protestsans, 129
pseustes, 119
pullatus, 124
pullus, 117
puritanus, 101, 180
rainier, 133
reformans, 101, 182
rusticus, 100
santos, 137
shoshoneus, 180
simplex, 183
subterranea, 105, 106
subterraneus, 99, 101, 105, 106
sula, 109
sylvanus, 168
talpa, 140
tantula, 186
tantulus, 186
tulare, 143
tuobus, 124
ubicki, 135
union, 138
viola, 150
yosemite, 145