

PSEUDOSCORPIONS FROM FLORIDA AND THE
CARIBBEAN AREA.¹ 5. *AMERICHERNES*, A NEW GENUS
BASED UPON *CHELIFER OBLONGUS*
SAY (CHERNETIDAE)²

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ABSTRACT

The genus *Americhernes* is defined, with *Chelifer oblongus* Say, from eastern United States, as the type species. Also placed in the genus are: *Lamprochernes ellipticus* Hoff, from Baja California, Mexico; *Lamprochernes levipalpus* Muchmore, from Utah; *Americhernes longimanus*, new species, from Florida and the Gulf Coast; *A. reductus*, new species, from the Florida Keys; and *A. puertoricensis*, new species, from Puerto Rico. The relationships between this and allied genera are discussed briefly.

As pointed out in an earlier paper (Muchmore 1972), a certain amount of confusion has resulted from the inclusion in the genus *Lamprochernes* Tömösváry of some American forms of pseudoscorpions of basically different morphology. One of the most common of these, *Chelifer oblongus* Say, which has long been known as *Lamprochernes oblongus* (Beier 1932b: 84; Hoff 1949:450) is selected as the type species of the new genus.

Americhernes Muchmore, new genus

TYPE SPECIES: *Chelifer oblongus* Say, 1821.

DIAGNOSIS: A genus of the family Chernetidae (Muchmore 1974:26). Generally small pseudoscorpions of elongate form and with relatively stout appendages and smooth, shiny derm. Usually moderately sclerotized and darkly colored; surfaces of carapace and abdominal sclerites smooth and shiny, those of palps mostly smooth and shiny but with some areas of small granules; pleural membranes smoothly, longitudinally striate; vestitural setae weakly denticulate subterminally to acuminate; setae of genital opercula acuminate, those of spiracular plates and anal plates finely denticulate; 11th tergite and sternite each with 4-6 long, acuminate tactile setae. Carapace with a single transverse furrow at about middle; 2 eyespots present. Cheliceral hand with 5 setae, of which *sb*, *b* and *es* are terminally denticulate; flagellum of 3 setae, distalmost larger and serrate along 1 margin; galea conspicuous, with 5-6 rami. Palps rather robust; trochanter with prominent dorsal protuberance; femur and tibia distinctly pedicellate; chelal fingers shorter than hand; venom apparatus

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well developed in movable finger, apparently absent in fixed finger; on fixed finger, trichobothrium *ist* at level of, or proximal to, *est*; *it* close to *ist* and farther from finger tip than distance between *ist* and *isb*; each pedal tarsus with an elevated slit sensillum near proximal end; tibia of leg IV (and III) with 2 long, tactile setae on outer margin, 1 near middle and the other very near distal end; tarsus of leg IV (and III) with long, tactile seta about 0.25 length of segment from proximal end; male anterior genital operculum with about 4 long, curved, heavy setae surrounded by 14-18 smaller ones; male posterior operculum with 2-3 small setae on either side of middle inside of anterior margin and 6-12 larger setae on face; female anterior genital operculum with a compact group of about 6-10 small setae near center and 2 sets of 2-3 small setae posterior to this, with 2 conspicuous, obliquely oriented lyrifissures just behind the compact group of setae, and with a longitudinally striated and roughened sclerotized area lying between the 2 small sets of setae; female posterior operculum with about 6-10 setae in a row along posterior margin; internal genitalia of male typical of the family; spermathecae of female in form of 2 separate, curved tubes, expanded distally into cylindrical sacs.

REMARKS: *Americhernes* may be distinguished from *Lamprochernes* and allied American genera by means of the following key:

1. Tibia of leg IV with a prominent tactile seta very near distal end of outer margin (Fig. 1); spermatheca of female in form of single tube divided distally into 2 backward curving cornua (Fig. 2) *Lamprochernes*
- 1'. Tibia of leg IV with a prominent tactile seta near middle of outer margin in addition to tactile seta near distal end (Fig. 9); spermathecae of female in form of 2 separate tubules with saclike expansions in distal halves (Fig. 5) 2

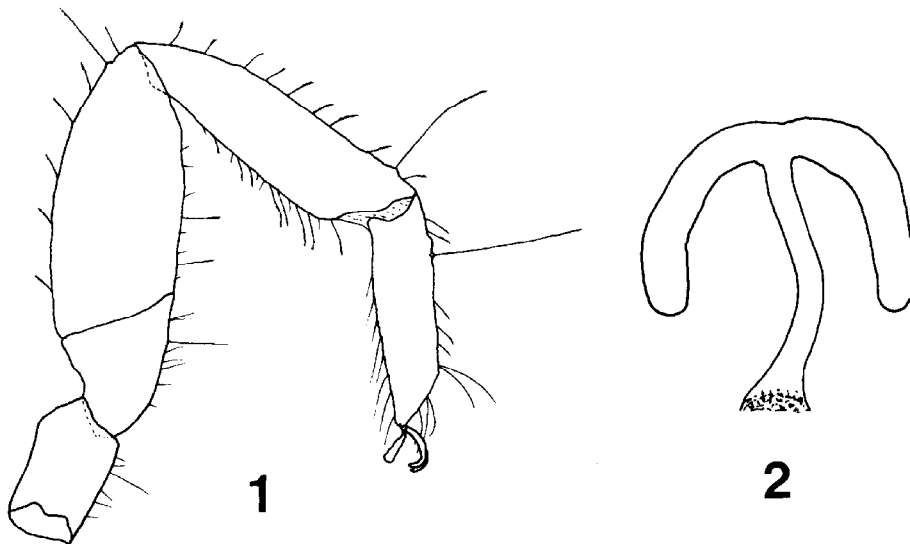


Fig. 1-2. *Lamprochernes chyzeri* (Tömösváry): 1) Leg IV; 2) Spermatheca of female.

2. Trichobothrium *it* of fixed chelal finger clearly farther from finger tip than the distance between *ist* and *isb* *Americhernes*
- 2'. Trichobothrium *it* of fixed chelal finger at least as close to finger tip as the distance between *ist* and *isb* *Lustrochernes*, etc.

Americhernes differs further from *Lamprochernes* in having a perfectly smooth carapace, without granules laterally as is the case in *Lamprochernes*, and in the arrangement of setae on the genital operculum of the female, some of which are tightly grouped in *Americhernes* but more scattered in *Lamprochernes*. In neither genus are the tactile setae on leg IV necessarily acuminate, but are often very finely denticulate subterminally.

The distinction between *Americhernes* and the other allied American genera such as *Lustrochernes*, *Cordylochernes* and *Mesochernes* is less easy to make, mainly because these other genera are only poorly defined at present. However, the distinction made by Beier (1932a:259) with respect to the placement of trichobothria on the fixed chelal finger seems to hold and is employed in the key given above. It appears also that *Americhernes* species are smaller than those of the other genera, but this may not always be so. Other more subtle differences are presently being investigated in the attempt to settle the relationships in this entire group.

Americhernes oblongus (Say), new combination

Fig. 3-9

Chelifer oblongus Say, 1821:64.

Chelifer (Lamprochernes) oblongus; Ellingsen, 1909:368.

Chelanops oblongus; Ewing, 1911:79.

Lamprochernes oblongus; Beier, 1932b:84; Hoff, 1945:37; 1949:450; 1958:20; Hoff and Bolsterli, 1956:165.

The type specimens are lost, and the species is presently based upon a neotype from Illinois, designated by Hoff (1949). The type specimen (5748-S-483.2) is in the collection of the Illinois Natural History Survey, Urbana, Illinois.

MATERIAL STUDIED. ILLINOIS: Neotype male from Havana, Mason County; Massac County, 2 males, 2 females. NEW YORK: Genesee County, 2 males, 1 female. MASSACHUSETTS: Barnstable County, 5 males, 8 females. NEW JERSEY: Gloucester County, 5 males, 1 female. MARYLAND: Caroline County, 2 males, 4 females. NORTH CAROLINA: Carteret County, 4 males, 6 females. SOUTH CAROLINA: Oconee County, 2 males; Pickens County, 1 female. FLORIDA: Alachua County, 2 males; Lake County, 2 males; Highlands County, 4 males, 1 female. MISSISSIPPI: Harrison County, 2 females; Hinds County, 1 male; Leake County, 1 female; Choctaw County, 1 male. LOUISIANA: St. Tammany Parish, 1 female. TENNESSEE: Henderson County, 1 male, 1 female.

DIAGNOSIS: A moderate sized species of the genus, with carapace 0.60-0.75 mm, with palpal femur 0.45-0.55 mm, and chela 0.70-0.85 mm in length; with length/depth ratio of chelal hand 1.4-1.75; and with distinct granules on surfaces of all palpal segments.

DESCRIPTION: Hoff's description (1949:450-452) of the neotype and several other specimens from Illinois is generally adequate. However, a

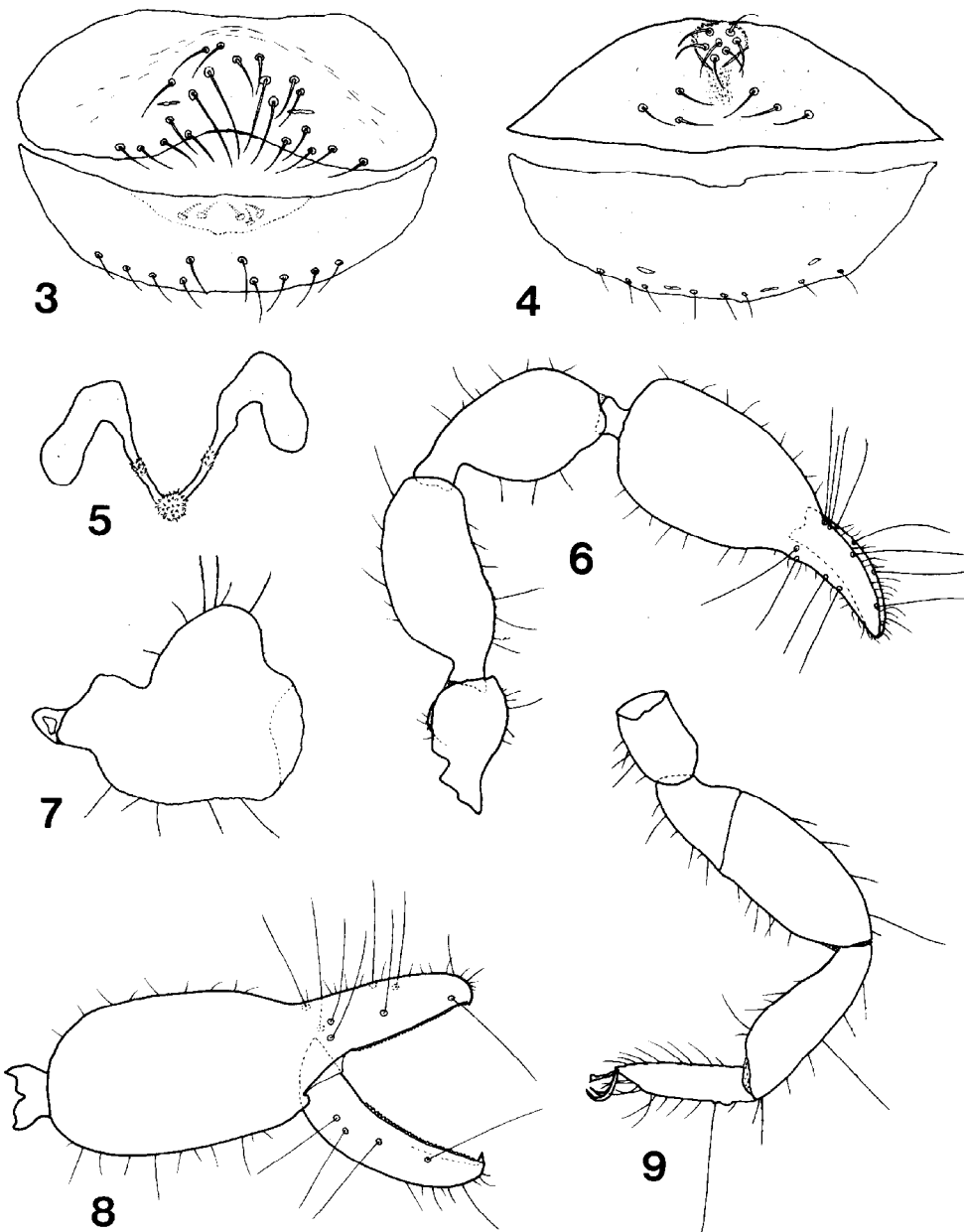


Fig. 3-9. *Americhernes oblongus* (Say): 3) Genital opercula of male; 4) Genital opercula of female; 5) Spermathecae of female; 6) Dorsal view of left palp; 7) Lateral view of palpal trochanter; 8) Lateral view of right chela; 9) Leg IV.

few important additions can be made, based upon careful study of the many individuals mentioned above. Aside from differences of the genitalia, males and females are quite similar, the latter being on the average a little larger. Therefore, most of the description applies to both sexes alike.

Surface of carapace entirely without granules, being mostly smooth

and shiny, but finely lined laterally; eyespots weak, but always noticeable; the statement of Hoff to the contrary, only a single transverse furrow is visible, lying just at middle of carapace; about 40-50 delicate vestitural setae, mostly terminally or subterminally denticulate, like those of other parts of body and appendages. Abdominal tergites and sternites mostly smooth, but with occasional weak sculpturing; pleural membranes smoothly, longitudinally striate; typical tergal chaetotaxy 10:11:12:12:14:15:16:16:16:17:T4T5T4T:2; typical chaetotaxy of 5th-12th sternites—14:17:18:18:20:20:T3T5T3T:2. Male with anterior genital operculum bearing 4 long, heavy setae surrounded by about 14 smaller ones; posterior operculum with 2 pairs of small setae just inside anterior margin and about 8 setae on face (Fig. 3). Female anterior genital operculum with a compact group of about 10 setae near center and 2 sets of 2-3 setae posterior to this; just behind the compact group of setae are 2 conspicuous, obliquely oriented lyrifissures, and extending posteriorly between the 2 small sets of setae is a heavily sclerotized area, more or less longitudinally striated and roughened; posterior operculum with about 8 setae in row along posterior margin (Fig. 4). Anterior spiracular plates with 3-4 and posterior plates with 1-2 small setae; these setae, as well as those of anal plates, finely denticulate subterminally. Internal genitalia of male generally typical of the family, without any particular modifications as far as is known now. Spermathecae of female in form of 2 separate, curved, saclike tubes, each with a conspicuous band of gland openings toward the base (Fig. 5).

Chelicera about 0.33 as long as carapace; hand with 5 setae, *sb*, *b*, and *es* finely denticulate near tips; flagellum of 3 setae, the distalmost larger and serrate along one edge; galea with 5-6 rami in the distal half, that of the male only slightly less well developed than that of female.

Palps relatively short and heavy (Fig. 6); femur about 0.75 and chela about 1.2 as long as carapace; in males (females) femur 1.95-2.3(2.1-2.4), tibia 1.8-1.9(1.8-2.0) and chela without pedical 2.3-2.6(2.4-2.7) times as long as broad; hand 1.4-1.75(1.5-1.75) times as long as deep; movable finger 0.79-0.88(0.79-0.89) as long as hand; trochanter with large, conspicuous protuberance on dorsal side (Fig. 7). Surfaces of segments generally smooth and shiny, but with areas of fine granules over most of trochanter, on medial and lateral sides of femur, on medial side of trochanter, and on medial and lateral sides of chelal hand at base of fingers. Trichobothria positioned as shown in Fig. 8; *est* and *ist* at about same level on fixed finger; *it* close to *ist* and farther from finger tip than distance between *ist* and *isb*. Fixed finger of chela with 20-25 and movable finger with 25-30 marginal teeth; each finger with 3-6 external and 1-3 internal accessory teeth.

Legs moderately slender; leg IV (Fig. 9) with femur 2.6-3.0 and tibia 3.1-3.6 times as long as deep. Tibia of leg IV (and III) with 2 long, tactile setae on outer margin, 1 near middle and other very near distal end; tarsus of leg IV (and III) with a long tactile seta about 0.25 length of segment from proximal end. Each tarsus with an elevated slit sensillum on outer margin close to proximal end; subterminal tarsal setae curved, simple.

MEASUREMENTS (mm): Inclusive of both males and females; males are usually slightly smaller than females but there is much overlap of the size ranges for the sexes: Body length 1.7-2.8; carapace length 0.605-0.72. Chelicera 0.20-0.25 by 0.10-0.12. Palpal femur 0.445-0.54 by 0.20-0.25; tibia

0.42-0.48 by 0.22-0.27; chela (without pedicel) 0.70-0.835 by 0.29-0.34; hand (without pedicel) 0.415-0.49 by 0.25-0.32; pedicel about 0.06 long; movable finger 0.33-0.415 long. Leg IV: entire femur 0.43-0.51 by 0.155-0.185; tibia 0.31-0.37 by 0.095-0.115.

REMARKS: In addition to the states mentioned above, this species has been reported from Arkansas, District of Columbia, Georgia, Indiana, Kentucky, Michigan, Missouri, Nebraska, Ohio, Pennsylvania, Texas and Virginia (Hoff 1958) and from Colorado (Hoff 1961). Whether all these records actually pertain to *Americhernes oblongus* is not certain at this time.

Americhernes longimanus Muchmore, new species

Fig. 10-13

MATERIAL: Holotype female (WM3493.01001) and paratype male taken in light traps at the Archbold Biological Station, Highlands County, Florida, 27-XI-1971 and 16-III-1967, respectively (S. W. Frost); 1 female paratype from a bolt of *Pinus elliottii* at Gainesville, Alachua County, Florida, 2-I-1966 (R. E. Woodruff); 1 female and 1 tritonymph paratype from Marion County, Florida, 19-I-1948 (H. K. Wallace); 1 female paratype from Horn Island, Jackson County, Mississippi, 21-IV-1965 (E. A. Richmond). The types are deposited in the Florida State Collection of Arthropods, Gainesville.

DIAGNOSIS: A moderate sized species of the genus, a little larger than *A. oblongus*, with carapace 0.75-0.82 mm, palpal femur greater than 0.55 mm and chela greater than 0.85 mm in length; and with chelal hand noticeably long and narrow, the length/depth ratio about 2.0 or greater.

DESCRIPTION OF FEMALE: With the characters of the genus as defined above. Carapace quite smooth and shiny; without any transverse furrow; no eyes apparent; with about 70-75 finely denticulate, vestitural setae, 4 at anterior and 8-10 at posterior margin. Abdomen elongate; tergites 3-10 and sternites 4-10 divided; surfaces smooth; pleural membranes smoothly, longitudinally striate. Tergal chaetotaxy of holotype 14:13:13:20:19:20:-20:21:24:22:T4TT4TT3T:2, others similar. Sternal chaetotaxy of holotype 15:(3)10(3):(1)8(1):18:21:21:21:20:24:T3TT2TT3T:2, others generally similar; anterior operculum with a central, compact group of 9-14 small setae and 2 sets of 2-4 setae posterior to this, and with 2 slightly oblique lyrifissures and a median longitudinal sclerotized area, as in *A. oblongus* (Fig. 4); setae on spiracular and anal plates terminally denticulate. Spermathecae as shown in Fig. 10; the conspicuous gland openings are confined to the common base of the 2 tubules.

Chelicera typical; about 0.3 as long as carapace; hand with 5 setae, *sb*, *b*, and *es* finely denticulate; galea long and with 5-6 small rami; flagellum of 3 setae, the distal 1 serrate along anterior margin; serrula exterior with about 18 blades.

Palps fairly robust (Fig. 11); femur about 0.8 and chela about 1.15 as long as carapace; femur 2.25-2.45, tibia 1.85-2.1, and chela (without pedicel) 2.55-2.8 times as long as broad; hand (without pedicel) 1.95-2.1 times as long as deep; movable finger 0.61-0.72 as long as hand. Surfaces of segments generally smooth but with areas of small granules on lateral side of trochanter, entire medio-ventral side of femur, medial side of tibia at distal end, and medial side of chelal hand at base of fingers. Trichobothria

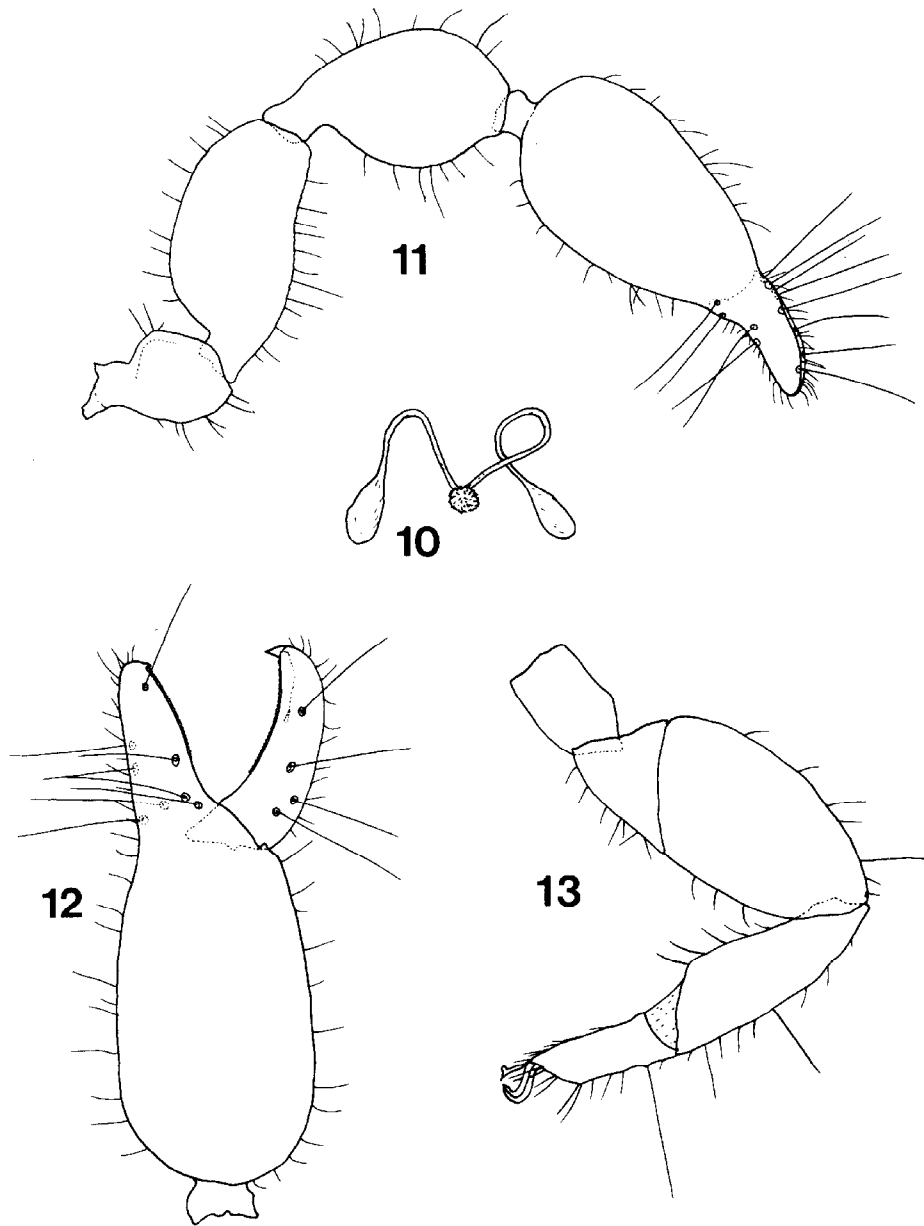


Fig. 10-13. *Americhernes longimanus*, new species: 10) Spermathecae of female; 11) Dorsal view of left palp; 12) Lateral view of right chela; 13) Leg IV.

as shown in Fig. 12; on fixed finger *ist* at or very slightly proximad of level of *est*; *it* close to *ist* and farther from finger tip than distance between *ist* and *isb*. Fixed finger of chela with 22-24 and movable finger with 26-28 contiguous, marginal teeth; each finger with 5-7 external and usually 2 internal accessory teeth.

Legs robust; leg IV (Fig. 13) with entire femur 2.4-2.55 and tibia 2.7-2.9 times as long as deep. Tibia of leg IV with 2 tactile setae on outer margin,

a longer 1 near middle and a shorter 1 near distal end, both of which are finely denticulate; tarsus IV with a very long, acuminate, tactile seta about 0.25 length of segment from proximal end. Each tarsus with an elevated slit sensillum on outer margin close to proximal end; subterminal tarsal setae curved, simple.

MALE: Very similar to female in all details except the genitalia. Anterior genital operculum with 6 long, heavy setae surrounded by 17 smaller ones; posterior operculum with 2 sets of 3 small setae just inside anterior margin and 13 setae on face. Galea on chelicera with 6 small rami, as well developed as in female. Palpal femur 2.1, tibia 1.8, and chela 2.5 times as long as broad; hand 1.9 times as long as deep; movable finger 0.64 as long as hand.

MEASUREMENTS (mm): Ranges for the 4 females are given first, followed in parentheses by figures for the male. Body length 2.2-3.5(3.0). Carapace length 0.755-0.815(0.82). Chelicera 0.23-0.25(0.235) by 0.12-0.13(0.12). Palpal femur 0.555-0.62(0.63) by 0.245-0.27(0.295); tibia 0.51-0.58(0.57) by 0.265-0.31(0.32); chela (without pedicel) 0.85-0.955(0.93) by 0.325-0.36(0.37); hand (without pedicel) 0.555-0.61(0.615) by 0.28-0.31(0.325); movable finger 0.35-0.435(0.385) long. Leg IV: entire femur 0.52-0.58(0.57) by 0.215-0.235 (0.26); tibia 0.36-0.41(0.415) by 0.125-0.145(0.15); tarsus 0.21-0.26(0.25) by 0.08-0.09(0.09).

ETYMOLOGY: The species is named *longimanus* for the relatively long hand of the palpal chela.

Americhernes reductus Muchmore, new species

Fig. 14-17

MATERIAL: Holotype male (WM2237.01001) and 6 paratypes (4 females, 2 tritonymphs) from Rattlesnake Lumps, NE of Sugarloaf Key, Monroe County, Florida, 7-VIII-1970 (D. Simberloff); 12 male and 4 female paratypes from several of the Florida Keys, Monroe County, Florida (R. Silberglied, D. Simberloff). The type specimens are deposited in the Florida State Collection of Arthropods, Gainesville.

DIAGNOSIS: A small species of the genus, with carapace 0.52-0.64, palpal femur less than 0.50 mm and chela usually 0.75 mm or less in length; with trichobothrium *it* at same level as *est* on fixed chelal finger; and with only 4 setae on hand of chelicera.

DESCRIPTION OF MALE (based on 7 mounted specimens, including holotype): With the characters of the genus as defined above. Carapace smooth and shiny; with a faint transverse furrow at middle; 2 faint eyespots; about 50 finely denticulate vestitural setae, 4 at anterior and 6-10 at posterior margin. Abdomen elongate; tergites 3-10 and sternites 4-10 divided; surfaces smooth; pleural membranes smoothly, longitudinally striate. Tergal chaetotaxy of holotype 8:10:8:11:12:11:15:15:16:17:-T3TTTT3T:2 (others similar). Sternal chaetotaxy of holotype 19:(2)²⁻²/₈-(2):(1)6(1):13:14:15:15:17:14:T2T2T2T:2 (others similar); anterior operculum with 3 long setae surrounded by 16 shorter ones (other paratypes usually with 4 long setae); setae on spiracular and anal plates terminally denticulate. Internal genitalia typical.

Chelicera generally typical; about 0.3 as long as carapace; hand with only 4 setae (apparently *sb* wanting), *b* and *es* finely denticulate; galea

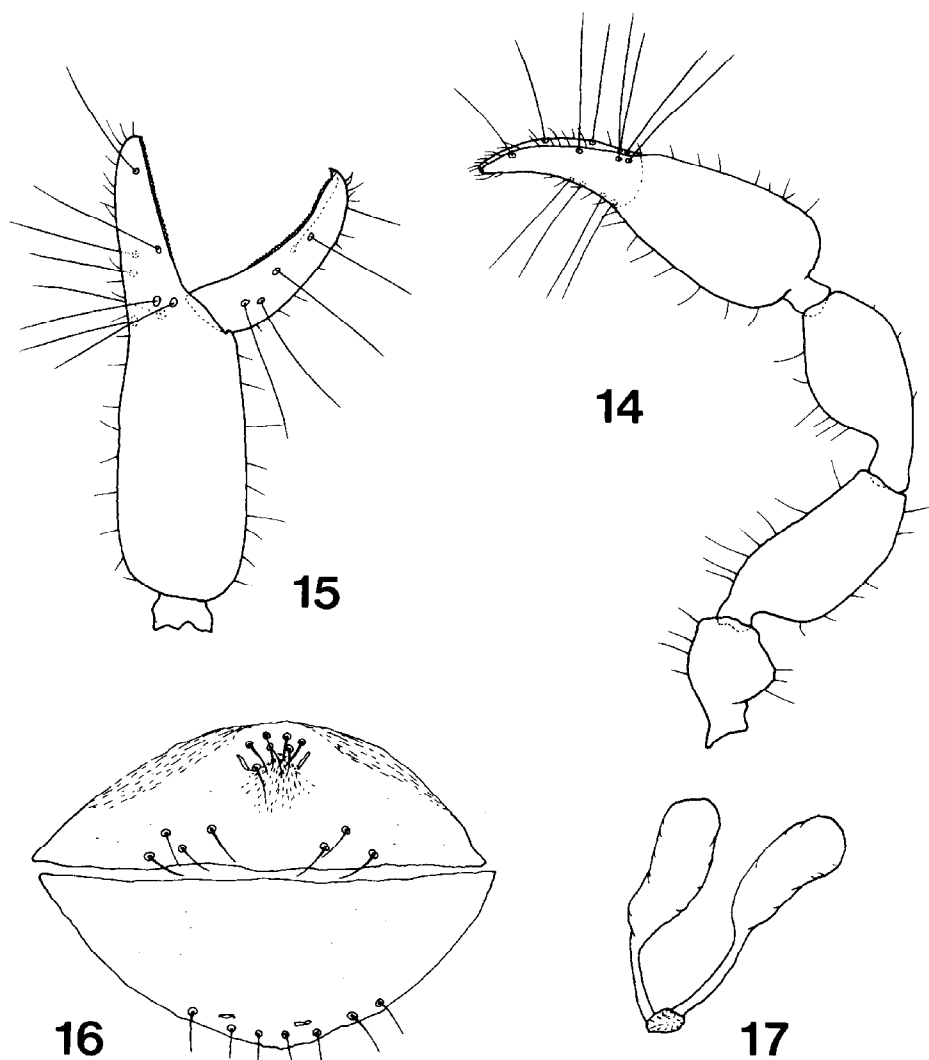


Fig. 14-17. *Americhernes reductus*, new species: 14) Dorsal view of right palp; 15) Lateral view of right chela; 16) Genital opercula of female; 17) Spermathecae of female.

thin, with 5 small rami; flagellum of 3 setae; serrula exterior with 16 or 17 blades.

Palps fairly robust (Fig. 14); femur about 0.8 and chela about 1.2 as long as carapace; femur 2.3-2.5, tibia 1.95-2.15, and chela (without pedicel) 2.8-3.1 times as long as broad; hand (without pedicel) 2.0-2.05 times as long as deep; movable finger 0.74-0.81 times as long as hand. Surfaces of segments generally smooth, but with small areas of tiny granules on trochanter and medial parts of femur and tibia. Trichobothria as shown in Fig. 15; on fixed finger *it* is at level of *est*, much farther from finger tip than distance between *ist* and *isb*; *ist* not far proximad of *it*. Fixed finger of chela with 25-27 and movable finger with 30-32 contiguous marginal teeth; each finger with 2-3 internal and external accessory teeth.

Legs robust; leg IV with entire femur 2.65-2.85 and tibia 3.0-3.3 times as long as deep. Tibia of leg IV with 2 tactile setae on outer margin, both only moderately elongated and denticulate, 1 near middle, the other near distal end (the 1 at middle sometimes reduced in size); tarsus IV with a very long, acuminate, tactile seta about 0.25 length of segment from proximal end. Each tarsus with an elevated slit sensillum near proximal end.

FEMALE (based on 4 mounted specimens): Very similar to male but slightly larger. Anterior genital operculum (Fig. 16) with a central group of 5-7 small setae and 2 sets of 3 setae posterior to this, and with 2 oblique lyrifissures and a median, longitudinal, sclerotized area, much as in *A. oblongus*; posterior operculum with row of 5-7 setae on posterior margin. Spermathecae as shown in Fig. 17, rather short tubes with long, cylindrical expanded ends and no gland openings evident anywhere. Galea a little better developed than in male.

MEASUREMENTS (mm): Ranges of 7 mounted males given first, followed in parentheses by ranges for 4 mounted females: Body length 1.7-2.25(2.0-2.7). Carapace length 0.52-0.605(0.58-0.64). Chelicera 0.15-0.19(0.185-0.19) by 0.08-0.10(0.095). Palpal femur 0.435-0.49(0.44-0.50) by 0.18-0.215(0.19-0.21); tibia 0.39-0.46(0.41-0.47) by 0.20-0.22(0.20-0.23); chela (without pedicel) 0.64-0.74(0.70-0.78) by 0.21-0.26(0.24-0.27); hand (without pedicel) 0.37-0.44(0.41-0.48) by 0.19-0.24(0.19-0.24); movable finger 0.295-0.33(0.30-0.35) long. Leg IV: entire femur 0.37-0.445(0.41-0.46) by 0.13-0.16(0.15-0.17); tibia 0.26-0.30(0.28-0.32) by 0.08-0.095(0.10); tarsus 0.18-0.215(0.19-0.21) by 0.05-0.065(0.06-0.07).

ETYMOLOGY: The species is named *reductus* because of the reduced number of setae on the cheliceral hand.

REMARKS: All of the specimens of *A. reductus* mentioned above, except 1, were taken from under the bark of standing red mangrove trees on small islands of the Florida Keys; most of the islands possessed no supratidal ground at all, only the trees. The single excepted specimen was taken from under the bark of a fallen log in the center of Key Largo.

A female specimen which undoubtedly belongs to this species was collected by D. Simberloff from under dead bark of a red mangrove tree on a small, groundless island at Landivar, Belize City, Belize, 2-II-1970. This record makes it appear likely that *A. reductus* is widespread in mangrove growths throughout the Caribbean area.

Americhernes puertoricensis Muchmore, new species

Fig. 18-20

MATERIAL: Holotype female (WM1828.01001) and 3 female paratypes from Rio Piedras, Puerto Rico, 14-III-1959 (W. M. Nadler). Types are in the collection of the American Museum of Natural History, New York.

DIAGNOSIS: A small species of the genus with carapace 0.50-0.55 mm, palpal femur less than 0.40 mm and chela less than 0.62 mm in length; with *it* at same level as *est* on fixed chelal finger; and with 5 setae on hand of chelicera.

DESCRIPTION OF FEMALE: With the characters of the genus. Carapace smooth; with a shallow transverse furrow at about middle; 2 faint eyespots present; about 40 finely denticulate, vestitural setae, 4 at anterior

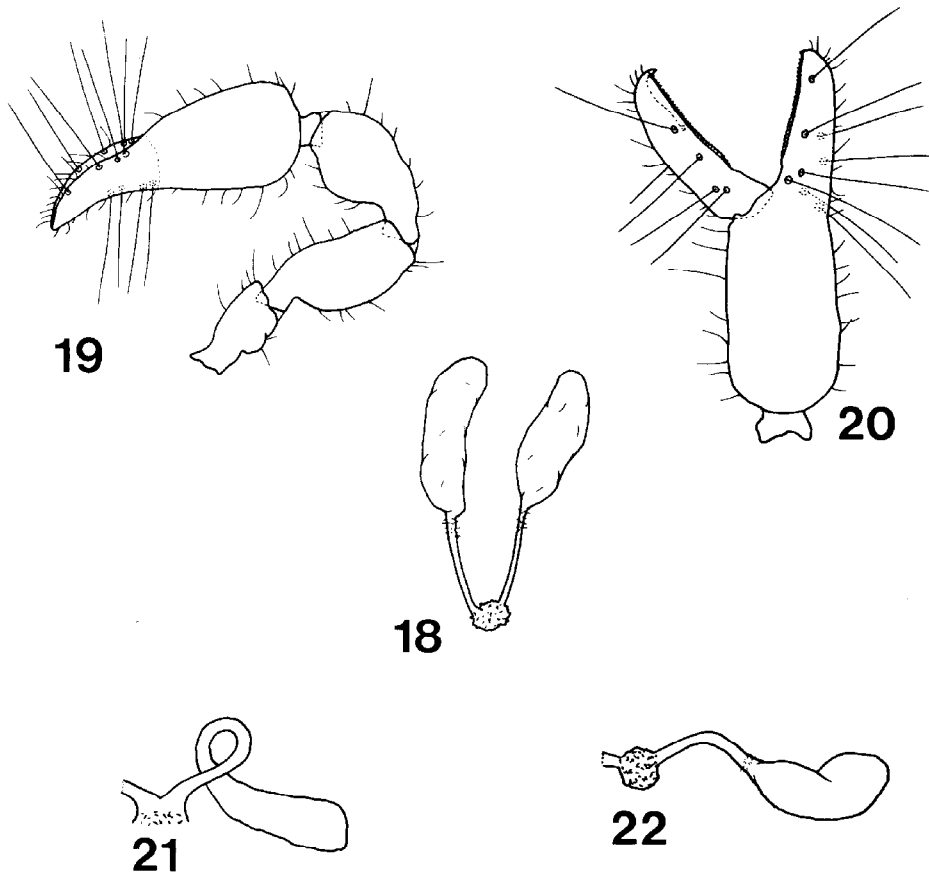


Fig. 18-22. *Americhernes* spp. *A. puertoricensis*, new species: 18) Spermathecae of female; 19) Dorsal view of right palp; 20) Lateral view of left chela; 21) *A. ellipticus* (Hoff). Spermatheca of female (other one obscured); 22) *A. levipalpus* (Muchmore). Spermatheca of female (other one obscured).

margin and 6-8 at posterior margin. Abdomen elongate; tergites 2-10 and sternites 4-10 divided; surfaces smooth; pleural membranes smoothly, longitudinally striate. Tergal chaetotaxy of holotype 10:8:9:16:15:14:16:17:18:19:T3TTTT4T:2; others similar. Sternal chaetotaxy 13:(3)5(2):(1)6-(1):15:17:20:18:18:18:T3T2T3T:2; others generally similar; anterior operculum with a central group of 6-8 small setae and 2 sets of 3-4 setae posterior to this, and with 2 oblique lyrifissures and a median longitudinal sclerotized area, much as in *A. oblongus* (Fig. 4); posterior operculum with marginal row of 4-6 small setae. Spermathecae as shown in Fig. 18, each consisting of a narrow tube and an expanded sac of equal length, with conspicuous gland openings at junction of tube and sac.

Chelicera typical; about 0.33 as long as carapace; hand with 5 setae, *sb*, *b* and *es* finely denticulate; galea long, with 5 or 6 rami; flagellum of 3 setae; serrula exterior with 16-17 blades.

Palps fairly robust (Fig. 19); femur about 0.7 and chela about 1.15 as long as carapace; femur 2.2-2.3, tibia 1.8-2.0, and chela (without pedicel) 2.7-2.8 times as long as broad; hand (without pedicel) 1.75-1.9 times as long as deep; movable finger 0.80-0.85 as long as hand. Surfaces of segments

generally smooth, but with few small granules on trochanter and on medial sides of femur and tibia. Trichobothria as shown in Fig. 20; on fixed finger *it* at level of *est*, much farther from finger tip than distance between *ist* and *isb*; *ist* not far proximad of *it*. Fixed finger of chela with about 24-25 and movable finger with 28-31 contiguous, marginal teeth; each finger with 1-2 internal and 3-5 external accessory teeth.

Legs robust; leg IV with entire femur 2.4-2.55 and tibia 2.8-3.0 times as long as deep. Tibia of leg IV with 2 denticulate tactile setae on outer margin, 1 near middle and 1 near distal end, the former longer than the latter; tarsus IV with a very long, acuminate tactile seta about 0.25 length of segment from proximal end. Each tarsus with an elevated slit sensillum near proximal end.

MALE: Unknown.

MEASUREMENTS (mm): Female (ranges for the 4 types): Body length 1.95-2.0. Carapace length 0.50-0.55. Chelicera 0.17-0.18 by 0.08-0.09. Palpal femur 0.35-0.38 by 0.155-0.17; tibia 0.33-0.36 by 0.17-0.18; chela (without pedicel) 0.585-0.605 by 0.215-0.22; hand (without pedicel) 0.325-0.34 by 0.18-0.19; movable finger 0.27-0.29. Leg IV: entire femur 0.33-0.36 by 0.13-0.15; tibia 0.23-0.26 by 0.08-0.09; tarsus 0.18-0.185 by 0.06.

ETYMOLOGY: This species is named for Puerto Rico, where it has been found.

Americhernes ellipticus (Hoff), new combination

Fig. 21

Lamprochernes ellipticus Hoff, 1944:1; 1956:5; 1958:20.

DIAGNOSIS: A large species of the genus, with carapace longer than 0.95 mm, palpal femur longer than 0.75 mm, and chela longer than 0.25 mm.

The holotype female of this species (from Baja California, Mexico) has been examined and compared with other species of the genus *Americhernes*. Along with other features, the spermathecae (1 of which is illustrated in Fig. 21) conform well with the general pattern. On the other hand, the spermathecae differ conspicuously from those of the specimens from New Mexico mentioned by Hoff (1956:6), which were described as "hammer-shaped or, perhaps more appropriately, have an appearance resembling the median longitudinal section of a mushroom." I have also examined some of these specimens and quite agree with Hoff's description of their form. Such hammer-shaped spermathecae are commonly found in species of *Lustrochernes* or *Cordylochernes* (unpublished observations). It seems likely, therefore, that these New Mexican specimens do not really belong to *A. ellipticus* even though they resemble that species in many morphological characters. Further study of related forms in the southwestern United States and in Mexico is necessary before this problem can be resolved.

Americhernes levipalpus (Muchmore), new combination

Fig. 22

Lamprochernes levipalpus Muchmore, 1971:327.

DIAGNOSIS: Similar in many respects to *A. oblongus*, but with nearly smooth palps.

The spermathecae of the female paratype was not mentioned in the original description. To allow easy comparison with other species, the spermatheca is illustrated in Fig. 22. It is similar to that of *A. oblongus*, but the band of gland openings is around the base of the bulbous enlargement rather than on the tubule.

Despite extensive recent collection of pseudoscorpions in Utah by George F. Knowlton, no further representatives of this species have been found.

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