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PSEUDOSCORPIONS FROM FLORIDA AND THE  
CARIBBEAN AREA. 12. *ANTILLOCHERNES*, A NEW  
GENUS WITH SETAE ON THE PLEURAL MEMBRANES  
(CHERNETIDAE)

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ABSTRACT

*Antillochernes* is described, with 5 new species from Florida and the Antilles. It is closely related to *Parachernes* Chamberlin from which it differs in the possession of setae on the pleural membranes of the abdomen. The new species are *A. bahamensis* from Grand Bahama Island and *A. biminiensis* from South Bimini Island, Bahamas, *A. floridensis* from Florida, *A. jamaicensis* from Jamaica, and *A. cruzensis* from St. Croix, U.S. Virgin Islands. *Parachernes muchmorei* Dumitresco and Orghidan from Cuba is transferred to *Antillochernes*.

RESUMEN

Se describe *Antillochernes*, con 5 especies nuevas de Florida y las Antillas. Se relaciona con *Parachernes* Chamberlin pero difiere por las setas sobre las membranas laterales del abdomen. Especies nuevas son *A. bahamensis* de Isla Grand Bahama y *A. biminiensis* de Isla South Bimini,

Bahamas, *A. floridensis* de Florida, E.U.A., *A. jamaicensis* de Jamaica, y *A. cruzensis* de Isla Santa Cruz, Islas Virgenes. *Parachernes muchmorei* Dumitresco y Orghidan de Cuba se transfiere a *Antillochernes* igualmente.

The genus *Parachernes* Chamberlin (1931a) has long been recognized as a heterogeneous group of pseudoscorpions (Beier 1932b, Muchmore and Alteri 1974, Mahnert 1979). Though the group as a whole has not yet been critically analyzed, some closely related genera have occasionally been recognized and described (e.g. Beier 1932b, 1953, 1954, 1964a, 1976; Muchmore 1969, Mahnert 1979).

In the course of recent studies of pseudoscorpions of the Caribbean area, it has become apparent that some forms with all of the attributes of *Parachernes* differ from typical members of that genus in the possession of setae on the pleural membranes of the abdomen. Because these forms are mutually similar and because they occupy a discrete geographical range, they are here considered to constitute a separate genus.

Types of new species are deposited in the American Museum of Natural History, New York (AMNH) and the Florida State Collection of Arthropods, Gainesville (FSCA).

#### *Antillochernes* Muchmore, NEW GENUS

TYPE SPECIES: *Antillochernes bahamensis* Muchmore, new species.

DIAGNOSIS: A genus of the family Chernetidae Chamberlin. Of medium size for the family. Males and females similar, though females a little larger. With distinctive color pattern (Fig. 1); heavily sclerotized parts brown. Vestitural setae mostly denticulate to clavo-dentate. Carapace with or without transverse furrows; surface heavily granulate; center of posterior margin more heavily sclerotized than sides to form a distinct "keel" similar to that found in *Parachernes* (see Muchmore and Alteri 1974); 2 smooth eyespots; with 50-70 setae. Tergites and sternites distinctly divided; heavy sclerotization confined to center of each half tergite or sternite; surfaces granulate to scaly; middle tergites with 10-15 and sternites with 15-20 setae; 11th tergite with 2 and 11th sternite with 4 long, tactile setae; setae of anal plates denticulate; pleural membranes irregularly longitudinally striate and with 1 or more setae per segment. Male anterior genital operculum with central crescent of 6-8 long setae surrounded by 25-30 shorter ones; internal genitalia (where known) large and heavily sclerotized. Female anterior operculum with central cluster of small setae on a separate sclerite flanked posteriorly by a few setae on either side; spermathecae in form of 2 recurved sacs. Cheliceral hand with 5 setae, *b* and *sb* at least slightly denticulate, others long, acuminate; flagellum of 3 setae, distal one denticulate; galea slender, smaller in male, with 4-5 distal rami. Palps robust, no obvious sexual dimorphism; surfaces granulate, except chelal fingers; fixed finger of chela with only trichobothrium *et* located in distal half; movable finger with only *t* in distal half, *st* closer to *sb* than to *t*; venom apparatus well developed in movable finger, vestigial in fixed finger; marginal teeth small but well developed; accessory teeth present on each finger. Legs robust; tarsus of leg IV with slit sensillum near middle of dorsal margin and long tactile seta about  $\frac{2}{3}$  distance from proximal end.

DISTRIBUTION: From the species treated below, *Antillochernes* is known

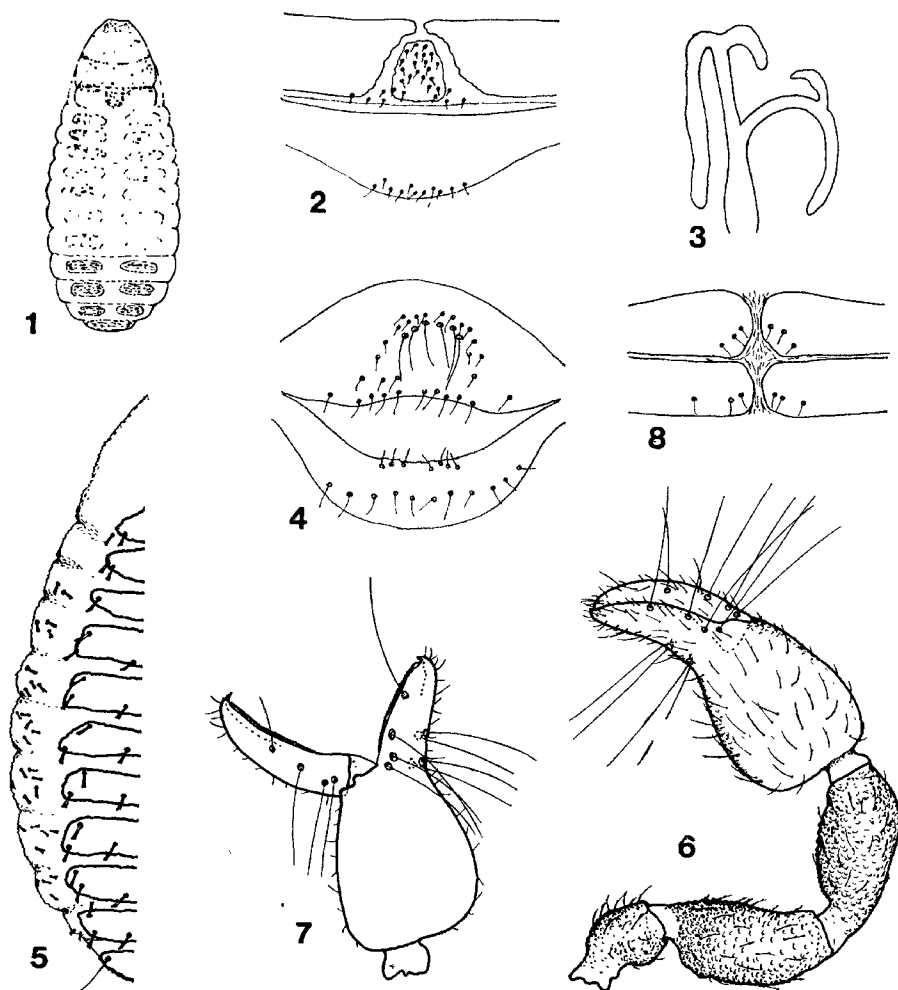


Fig. 1-8. *Antillochernes bahamensis* Muchmore, new species. 1) dorsal pattern of body, setae omitted; 2) genital opercula of female; 3) spermathecae of female; 4) genital opercula of male; 5) pleural membranes with setae; 6) dorsal view of right palp; 7) lateral view of left chela; 8) sternites 2 and 3 of tritonymph.

from the Bahamas, Florida, and the Greater Antilles, including Cuba, Cayman Islands, Jamaica, Puerto Rico, and St. Croix. Other representatives will certainly be found in other parts of the Caribbean area as more collecting is done.

**ETYMOLOGY:** The generic name is masculine and refers to the wide distribution of representatives in the Antilles.

**REMARKS:** *Antillochernes* is very similar to *Parachernes* in most respects, the obvious distinguishing difference being the presence of numerous setae on the abdominal pleural membranes of the former and their absence in the latter. The 2 genera are certainly closely related.

Only a few other genera of pseudoscorpions are known to include species with setae on the pleural membranes, namely *Garypus* L. Koch (see Lee

1979), *Anagarypus* Chamberlin (Muchmore 1982), *Elattogarypus* Beier (Beier 1964b), *Geogarypus* Chamberlin (Harvey 1981), and *Levichelifer* Hoff (Muchmore 1981). *Antillochernes* is the only known genus of the Chernetidae with this character. It is difficult to postulate a function for the pleural setae as the habits of these pseudoscorpions are so poorly known.

*Antillochernes bahamensis* Muchmore, NEW SPECIES

Fig. 1-8

**MATERIAL:** *Holotype* ♀ (WM 4117.01006) from golf course, west end of Grand Bahama Island, BAHAMAS, 3-4-III-1967, A.M. Nadler. *Paratypes*: 3 ♂, 2 ♀, 5 tritonymphs, same data as holotype; 1 ♂, Freeport, Grand Bahama Island, 27-II-1967, A.M. Nadler; 1 deutonymph, Lucaya, Grand Bahama Island, 7-III-1967, A.M. Nadler. All types in AMNH.

**DESCRIPTION OF ADULTS:** Males and females similar. Body with characteristic pattern (Fig. 1); heavily sclerotized parts brown, other parts shades of tan. Carapace mostly well sclerotized, but thin laterally along posterior margin so that central thickened part (keel) is distinct; with 2 shallow, but distinct, transverse furrows; 2 large, smooth eye spots; surface, except for posterolateral corners, covered with smoothly rounded granules; with 50-60 rather short, denticulate to clavodentate setae. Tergites and sternites distinctly divided, with heavy, dark sclerites surrounded by light, membranous areas; surfaces scaly. Tergal chaetotaxy of holotype ♀ 8:12:11:13:12:12:11:12:11:12:T8T:2; sternal chaetotaxy 28:(2)10(2):(1)8(1):14:13:14:14:14:12:T2TT2T:2. Tergal setae clavodentate, sternal setae acuminate to finely denticulate; 11th tergite with 2 and 11th sternite with 4 long, acuminate tactile setae; setae of anal plates denticulate. Anterior genital operculum of holotype ♀ with central cluster of about 15 small setae on a separate sclerite and 5-6 posteriorly on each side, posterior operculum with a marginal row of 10 small setae (Fig. 2); spermathecae of 2 narrow, recurved sacs, each with a shorter side branch (Fig. 3). Anterior operculum of ♂ with a central crescent of 5-6 long setae, surrounded by about 30 shorter ones; posterior operculum with 2 groups of 3-5 small setae at anterior margin and a row of about 10 longer setae behind (Fig. 4); internal genitalia typical for the family, large and heavily sclerotized. Pleural membranes longitudinally, irregularly striate and bearing short clavodentate setae (Fig. 5).

Chelicera 1/3 as long as carapace; hand with 5 setae, *b* and *sb* finely denticulate, *es* long, acuminate; flagellum of 3 setae, the distal one denticulate; galea slender, with 3 small rami, smaller in ♂ than in ♀.

Palp robust (Fig. 6); palpal femur 2.25-2.4, tibia 2.15-2.45, and chela (without pedicel) 2.1-2.45 times as long as broad; hand (without pedicel) 1.1-1.35 times as long as deep; movable finger 0.8-0.9 as long as hand. Trochanter, femur and tibia heavily granulate, chelal hand lightly granulate, fingers smooth; setae terminally denticulate to acuminate. Trichobothria as shown in Fig. 7; on fixed finger only *et* distad of middle of finger, others grouped near base, with *it* near level of *ist* and *isb* at level of *ib*; on movable finger only *t* distad of middle, *st* nearer to *sb* than to *t*. Fixed finger with 38-43 and movable finger with 42-48 well-developed, contiguous marginal teeth; each finger with 6-8 external and 2-3 internal accessory teeth; venom apparatus well developed in movable finger, vestigial in fixed finger.

Legs rather robust; leg IV with femur 2.6-2.85 and tibia 3.4-3.5 times as long as deep. Tarsus of leg IV with prominent slit sensillum at middle of dorsal margin and long tactile setae 2/3 distance from proximal end.

**NYMPHS:** 5 tritonymphs and 1 deutonymph available for study are much like the adults in general features. Pleural membranes have up to 4 setae in segments 3-10 on each side. The carapace, like that in many *Parachernes* nymphs, is striking in that the portion bearing the posterior row of setae and including the keel is separated from the anterior portion by a narrow, lightly sclerotized band (=posterior furrow?). Because of reduced sclerotization of this posterior part, the keel usually appears as an isolated round sclerite. In tritonymphs, the 2nd sternite (=anterior genital operculum of adult) is divided, each half bearing 3-4 small setae near the medial edge; 3rd sternite also divided and with 3 setae on each side (Fig. 8).

**MEASUREMENTS OF ADULTS (mm):** Figures given first for holotype, followed in parentheses by ranges for the 6 paratypes. Body length 2.65 (2.0-2.65). Carapace length 0.75 (0.635-0.72). Chelicera 0.25 (0.215-0.26) long. Palpal trochanter 0.33 (0.30-0.33) by 0.18 (0.18-0.20); femur 0.62 (0.53-0.59) by 0.265 (0.22-0.245); tibia 0.585 (0.53-0.585) by 0.27 (0.22-0.265); chela (without pedicel) 0.96 (0.85-0.96) by 0.39 (0.38-0.445); hand (without pedicel) 0.57 (0.465-0.53) by 0.43 (0.39-0.46); pedicel about 0.09 long; movable finger 0.45 (0.41-0.48) long. Leg IV: entire femur 0.55 (0.48-0.54) by 0.19 (0.17-0.20); tibia 0.40 (0.36-0.41) by 0.115 (0.105-0.12); tarsus 0.30 (0.295-0.31) by 0.08 (0.075-0.08).

**TRITONYMPHS:** Ranges for 5 mounted specimens. Body length 1.95-2.15. Carapace length 0.555-0.605. Palpal femur 0.39-0.445 by 0.19-0.20; tibia 0.385-0.42 by 0.195-0.21; chela (without pedicel) 0.67-0.725 by 0.29-0.31; hand (without pedicel) 0.37-0.43 by 0.30-0.325; pedicel about 0.06 long; movable finger 0.33-0.355 long. Leg IV: entire femur 0.38-0.42 by 0.15-0.16.

**REMARKS:** Diagnostic features of *Antillochernes bahamensis* have been presented above in the description of the genus. So far, this species has been found only on Grand Bahama Island, though other, distinct species of the genus are present on Bimini Island and in Florida.

The distinct separation of the posterior part of the carapace in nymphs of this species (and others in *Antillochernes* and *Parachernes*) suggests strongly that the portion of the carapace behind the posterior furrows of adults is derived from a single segmental sclerite, contrary to the opinions of Chamberlin (1931b:59) and Beier (1932a:2). Further study of this phenomenon in these and other pseudoscorpions should be very interesting.

*Antillochernes jamaicensis* Muchmore, NEW SPECIES

Fig. 9-11

**MATERIAL:** Holotype ♀ (Hoff: S-2605.2) from St. Ann's Bay, St. Ann Parish, JAMAICA, 24-26-XII-1953, G. R. Proctor [in AMNH]. Numerous paratypes from JAMAICA: Discovery Bay, near Falmouth, Montego Bay, Negril, Christiana, Mt. Diablo, Port Henderson, Long Mountain, Kingston, Morant Point, Holland Bay, St. Ann's Bay, Unity Valley, collected by C. C. Hoff, A. M. Nadler, P. and C. Vaurie, P. F. Bellinger, P. W. Hummelinck [in AMNH and FSCA].

**DIAGNOSIS:** Variable in size (carapace length 0.63-0.87 mm), with generally stouter appendages than other species in the genus (palpal femur

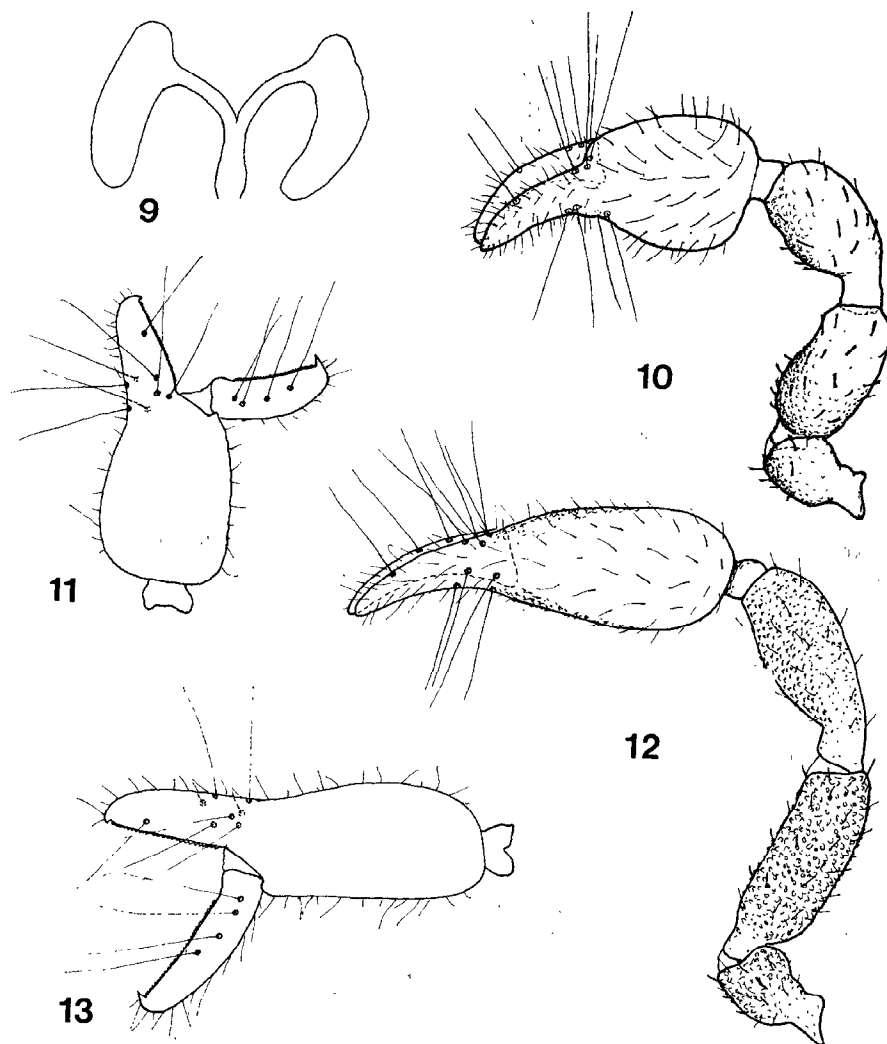


Fig. 9-11. *Antillochernes jamaicensis* Muchmore, new species. 9) spermathecae of female; 10) dorsal view of right palp; 11) lateral view of right chela.

Fig. 12-13. *Antillochernes biminiensis* Muchmore, new species. 12) dorsal view of right palp; 13) lateral view of left chela.

1/w = 2.0-2.3; femur of leg IV 1/d = 2.3-2.6), and with only 1 transverse furrow evident on carapace. Males have very distinctly clavate setae on dorsum of body and do not have long acuminate tactile setae on 11th tergite.

DESCRIPTION: Males and females similar in size and proportions. Body with characteristic pattern (see Fig. 1); with 1 shallow transverse furrow or none; 2 smooth eyespots; surface covered with smoothly rounded granules! with about 50 narrow clavodentate setae, shorter and heavier in ♂ than in ♀. Tergites and sternites distinctly divided, with lightly sclerotized borders; surfaces scaly to granulate; middle tergites with 11-14 narrowly clavodentate setae (shorter and heavier in ♂) and middle

sternites with 15-18 acuminate setae; 11th tergite of ♀ with 2 long, acuminate tactile setae, ♂ with long, clavodentate setae in corresponding positions; 11th sternite of both sexes with 4 long, acuminate setae. Pleural membranes longitudinally irregularly striate and bearing 2-7 clavodentate setae on each side in segments 3-10, and occasionally a seta in segment 2. Anterior genital operculum of ♀ with a central group of 12-15 small setae on a separate sclerite and 4-5 setae posterolateral to that; posterior operculum with a row of 8-10 setae near the middle of anterior margin; spermathecae of 2 recurved sacs expanded distally, as shown in Fig. 9. Anterior genital operculum of ♂ with a central crescent of about 8 long setae surrounded by 25-30 shorter ones; posterior operculum with 2 groups of 4-5 small setae at anterior margin and a row of 8 larger setae behind; genitalia of usual chernetid type, large and heavily sclerotized.

Chelicera 1/3 as long as carapace; hand with 5 setae, *b* and *sb* denticulate, *eb* long, acuminate; flagellum of 3 setae, the distal one dentate; galea of ♀ slender with 4-5 small rami, that of ♂ small with 1-2 tiny spinules.

Palp robust (Fig. 10); palpal femur 2.0-2.3, tibia 1.85-2.1, and chela 2.15-2.55 times as long as broad; hand 1.2-1.5 times as long as deep; movable finger 0.75-0.95 as long as hand. Surfaces except chelal fingers, distinctly but sometimes lightly granulate; setae short denticulate to acuminate. Disposition of trichobothria shown in Fig. 11. Fixed finger with 30-40 and movable finger with 35-45 contiguous teeth; each finger with 6-8 external and 1-2 internal accessory teeth; venom apparatus well developed in movable finger, vestigial in fixed finger.

Legs rather robust; leg IV with entire femur 2.3-2.6 and tibia 2.9-3.2 times as long as deep. Tarsus of leg IV with slit sensillum just proximad of middle and long tactile seta about 2/3 distance from proximal end.

NYMPHS: The few nymphs available are quite similar to corresponding stages of *A. bahamensis*. As in that species, the posterior part of the carapace appears separate from the anterior part. Pleural membranes with 1-5 setae on each side in segments 3 or 4-10.

MEASUREMENTS (mm): Figures given first for holotype ♀, followed in parentheses by ranges for 36 paratypes. Body length 2.55(1.8-3.45). Carapace length 0.695(0.63-0.87). Chelicera 0.235(0.20-0.27) long. Palpal femur 0.50(0.45-0.70) by 0.24(0.21-0.30); tibia 0.48(0.44-0.65) by 0.245(0.22-0.32); chela (without pedicel) 0.82(0.77-1.10) by 0.36(0.325-0.49); hand (without pedicel) 0.47(0.44-0.635) by 0.35(0.33-0.52); Pedicel 0.065(0.06-0.08) long; movable finger 0.39(0.355-0.54) long. Leg IV: entire femur 0.52(0.42-0.65) by 0.215(0.18-0.25); tibia 0.36(0.31-0.46) by 0.125(0.105-0.15).

REMARKS: At hand is a ♀ taken from shrubs on Grand Cayman, CAYMAN ISLANDS, 21-V-1973, by P. W. Hummelinck. It is slightly smaller than any of the Jamaican specimens, but otherwise is similar. Until further material should prove otherwise, it must be considered a representative of *A. jamaicensis*.

*Antillochernes biminiensis* Muchmore, NEW SPECIES

Fig. 12,13

MATERIAL: Holotype ♀ (WM 5374.01001) from South Bimini Island, BAHAMAS, VIII-1951, C. and P. Vaurie [in AMNH].

DIAGNOSIS: A medium sized species (carapace length 0.755 mm) with,

for the genus, very slender appendages (palpal femur 2.95 and chela 3.3 times as long as broad); palpal hand no deeper than broad.

DESCRIPTION OF FEMALE (MALE UNKNOWN): Body with characteristic pattern (cf. Fig. 1). Carapace well sclerotized but thinner at posterolateral margins and with distinct keel; both transverse furrows shallow; 2 smooth eyespots; surface covered with large rounded granules, except posterolaterally; with 45-50 narrow clavodentate setae. Tergites and sternites distinctly divided; (tergal sclerites 7 and 8 on left side abnormally fused together) surfaces scaly; dorsal setae narrow clavodentate, ventral setae mostly acuminate. Tergal chaetotaxy 10:10:11:12:11:12:10:12:11:10: T6T:1; sternal chaetotaxy 31:(2)8(2):(1)6(1):15:15:15:14:13:14:T6T:1; anterior genital operculum with a loose cluster of 25 small setae on a separate central sclerite and 3 setae on each side posterior to this; posterior operculum with close-set row of 8 small setae at middle of anterior margin. Spermathecae not apparent (lost during preparation?). Pleural membranes with 1-5 clavodentate setae on each side in segments 4-10.

Chelicera about 1/3 as long as carapace; hand with 5 setae, *b* and *sb* denticulate, *es* long, acuminate; flagellum of 3 setae, distal one finely denticulate; galea rather short, with 3-4 small rami.

Palp rather slender for the genus (Fig. 12); femur 2.95, tibia 2.65, and chela 3.3 times as long as broad; hand 1.95 times as long as deep; movable finger 0.78 as long as hand. The depth of the palpal hand is slightly less than the width. Surfaces of trochanter, femur, and tibia heavily granulate, chelal hand with low, inconspicuous granules, fingers smooth; setae long clavodentate to acuminate. Trichobothria positioned as in others of the genus (Fig. 13). Fixed finger with 41 and movable finger with 46 marginal teeth; each finger with 6 external and 1 internal accessory teeth; venom apparatus in movable finger only.

Legs relatively slender for the genus; leg IV with entire femur 3.15 and tibia 3.75 times as long as deep. Tarsus IV with slit sensillum proximad of middle and long tactile seta 2/3 distance from proximal end.

MEASUREMENTS (MM): Body length 2.53. Carapace length 0.755. Chelicera 0.265 long. Palpal femur 0.635 by 0.215; tibia 0.62 by 0.235; chela (without pedicel) 1.08 by 0.325; hand 0.73 by 0.32; pedicel 0.08 long; movable finger 0.49 long. Leg IV: entire femur 0.58 by 0.185; tibia 0.41 by 0.11; tarsus 0.32 by 0.08.

*Antillochernes floridensis* Muchmore, NEW SPECIES

Fig. 14-16

MATERIAL: Holotype ♀ (WM 4963.01001) in *Myrica* at the St. Marks Wildlife Refuge, Leon County, FLORIDA, 17-VI-1975, J. Rey and E. McCoy [in FSCA].

DIAGNOSIS: *A. floridensis* is a medium-sized species (carapace length 0.77 mm) which can be distinguished from others in the genus by the shape of the palpal chela, which is relatively slender when viewed from above ( $l/w = 2.75$ ) but has the depth noticeably greater than the width (0.41 vs. 0.35 mm).

DESCRIPTION OF FEMALE (MALE UNKNOWN): Body with characteristic pattern (cf. Fig. 1), though both tergal and sternal sclerites more extensive than in other species of the genus. Carapace well sclerotized but with



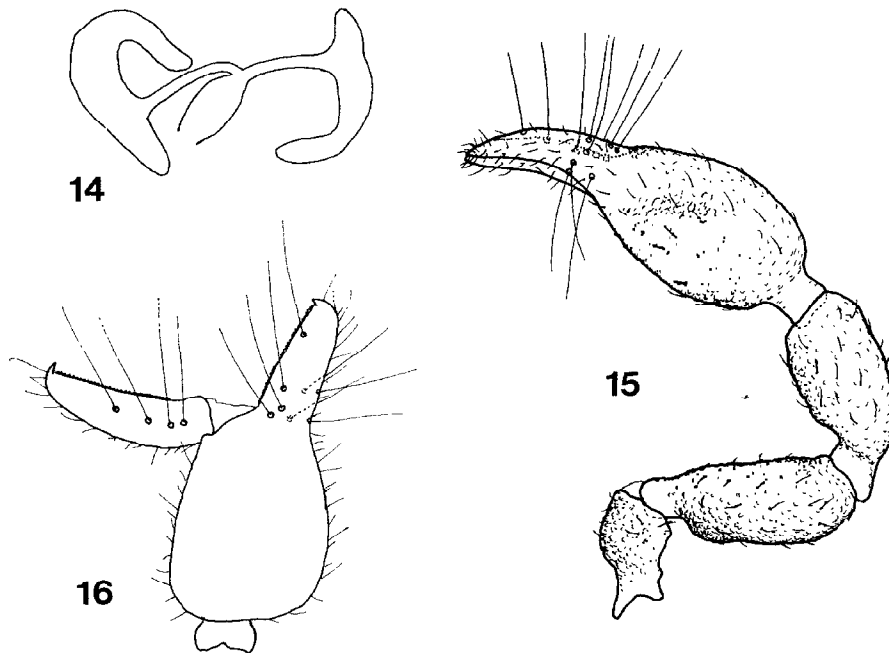


Fig. 14-16. *Antillochernes floridensis* Muchmore, new species. 14) spermathecae of female; 15) dorsal view of right palp; 16) lateral view of left chela.

distinct keel near middle of posterior margin; with distinct anterior furrow and faint posterior furrow; 2 smooth eyespots; in front of posterior furrow, surface covered with small rounded granules; behind posterior furrow, surface with low smooth elevations at center (on keel) but becoming smooth laterally; with about 50 narrow clavodentate setae. Tergites and sternites distinctly divided; surfaces scaly; dorsal setae narrow clavodentate, ventral seta mostly acuminate. Tergal chaetotaxy 9:12:11:12:14:12:13:12:12:12: T8T:2; sternal chaetotaxy 30:(2)12(3):(1)7(1):10:15:17:16:19:14: T3TT2T:2; anterior genital operculum with loose cluster of about 25 small setae at middle on indistinctly separate sclerite and 3-4 setae on each side posterolateral to this; posterior operculum with close set row of 12 small setae at middle of anterior margin. Spermathecae as shown in Fig. 14. Pleural membranes with 3-8 short clavodentate setae on each side in segments 3-10, and 1 on the right side in segment 2.

Chelicera about 1/3 as long as carapace; hand with 5 setae, *b* and *sb* denticulate, *es* long, acuminate; flagellum of 3 setae, distal one finely denticulate; galea slender, with 4-5 small rami.

Palp not as robust as in other species of the genus (Fig. 15); femur 2.45, tibia 2.25, and chela 2.75 times as long as broad; hand 1.25 times as long as deep; movable finger nearly as long (0.96) as hand. Trochanter, femur, tibia and chela covered with low, rounded granules, fingers smooth; setae denticulate to acuminate. Trichobothria positioned as in other members of the genus (Fig. 16). Fixed finger with 36 and movable finger with 41 marginal teeth; each finger with 9-10 external and 2 internal accessory teeth; venom apparatus in movable finger only.

Legs less robust than in other species of the genus; leg IV with entire femur 3.0 and tibia 3.5 times as long as deep. Tarsus IV with slit sensillum proximad of middle and long tactile seta 2/3 distance from proximal end.

MEASUREMENTS (MM): Body length 2.95. Carapace length 0.77. Chelicera 0.24 long. Palpal femur 0.59 by 0.24; tibia 0.56 by 0.25; chela (without pedicel) 0.96 by 0.35; hand (without pedicel) 0.51 by 0.41; pedicel 0.09 long; movable finger 0.49 long. Leg IV: entire femur 0.57 by 0.19; tibia 0.42 by 0.12.

*Antillochernes cruzensis* Muchmore, NEW SPECIES

Fig. 17-19

MATERIAL: Holotype ♀ (WM 5656.01001) in tunnel of wood borer in tree, Golden Grove, St. Croix, U. S. VIRGIN ISLANDS, 10-VI-1979, M. Ivie [in FSCA].

DIAGNOSIS: *A. cruzensis* is the largest known species in the genus (carapace length > 0.9 mm), and has both transverse furrows on the carapace distinct.

DESCRIPTION OF FEMALE (MALE UNKNOWN): Body with characteristic pattern (cf. Fig. 1). Carapace mostly well sclerotized, but with distinct keel

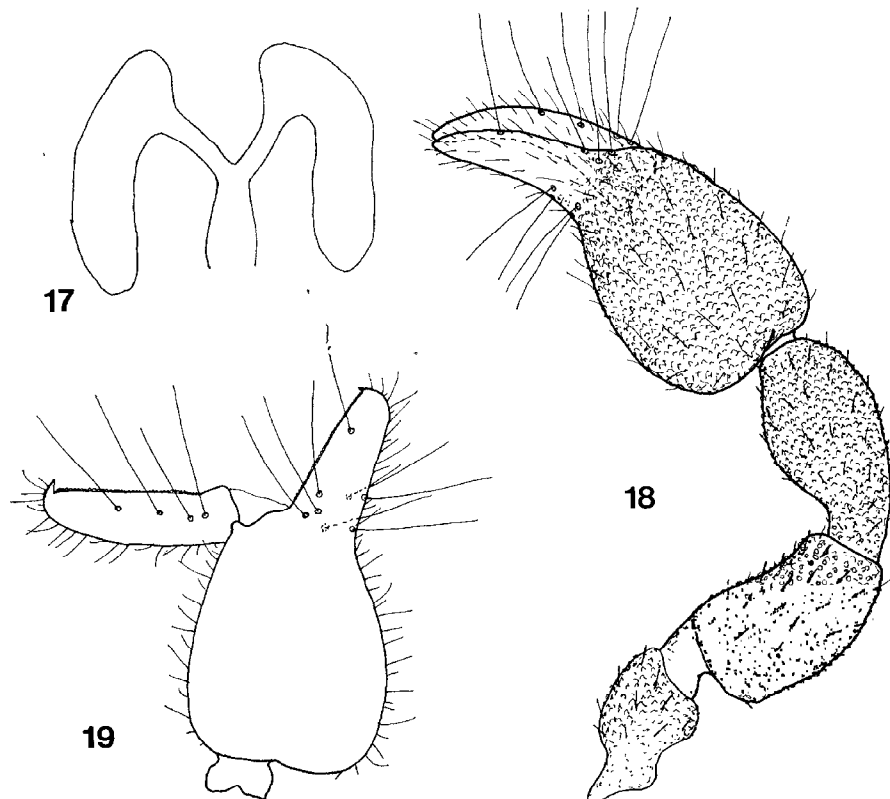


Fig. 17-19. *Antillochernes cruzensis* Muchmore, new species. 17) spermathecae of female; 18) dorsal view of right palp; 19) lateral view of left chela.

near middle of posterior margin; with 2 distinct transverse furrows; 2 smooth eyespots; surface covered with smoothly rounded granules; with about 65 short, clavodentate setae. Tergites and sternites distinctly divided, with heavily sclerotized area of each half tergite or sternite broadly bordered by thin membranes; surfaces scaly to granulate; setae of tergites clavodentate, those of sternites acuminate to denticulate. Tergal chaetotaxy 11:11:12:13:14:14:14:16:15:13:T10T:2; sternal chaetotaxy 30:(2)12(2):(1)9(1):14:13:16:19:22:16:T3TT4T:2; anterior genital operculum with 26 small setae clustered on a distinct central sclerite and 2 setae on each side of this; posterior operculum with a row of 12 small setae at the middle of the anterior margin. Spermathecae as shown in Fig. 17. Pleural membranes with 2-8 short, clavodentate setae on each side in segments 3-10.

Chelicera about 1/3 as long as carapace; hand with 5 setae, *b* and *sb* finely denticulate, *es* long, acuminate; flagellum of 3 setae, the distal one denticulate; galea slender, with 4-5 small rami.

Palp robust (Fig. 18); palpal femur 2.35, tibia 2.4, and chela 2.25 times as long as deep; movable finger 0.95 as long as hand. Trochanter, femur, tibia, and chelal hand heavily granulate, finger essentially smooth; setae clavodentate to acuminate. Trichobothria positioned as in other members of the genus (Fig. 19). Fixed finger with 44 and movable finger with 49 contiguous teeth; each with about 9 external and 3 internal accessory teeth; venom apparatus in movable finger only.

Legs rather robust; leg IV with femur 2.65 and tibia 3.3 times as long as deep. Tarsus IV with slit sensillum near middle and long tactile seta 2/3 distance from proximal end.

MEASUREMENTS (MM): Body length 3.65. Carapace length 0.925. Chelicera 0.29 long. Palpal femur 0.77 by 0.325; tibia 0.76 by 0.32; chela (without pedicel) 1.23 by 0.55; hand (without pedicel) 0.665 by 0.59; pedicel 0.11 long; movable finger 0.635 long. Leg IV: entire femur 0.72 by 0.27; tibia 0.53 by 0.16.

*Antillochernes muchmorei* (Dumitresco and Orghidan), NEW COMBINATION

*Parachernes muchmorei* Dumitresco and Orghidan 1977: 118-21, Fig. 16-9, 23, 24; types in the Institut de Spéologie "Emile Racovitza", Bucarest, Roumania.

Because it has all the characteristics of the genus *Antillochernes*, including, importantly, the possession of setae on the pleural membranes, this species must be considered a member of that genus.

DIAGNOSIS: Much like *A. floridensis* with relatively slender chela, as seen from above ( $l/w = 2.6$ ), but smaller (carapace length  $< 0.6$  mm) and with pleural setae apparently confined to segments 8-10.

REMARKS: According to Dumitresco and Orghidan (1977: 120), the holotype of *P. muchmorei* bears 2 or 3 setae on the pleural membranes of segments 8-10; presumably such setae do not occur farther anteriorly. While this situation is different from that in other species of *Antillochernes*, where setae occur opposite segments 3-10, the very presence of pleural setae here seems sufficient to remove this species from *Parachernes*. It should be noted that the statement of Dumitresco and Orghidan (loc. cit.) concerning the occurrence of setae in the pleural membranes of *Parachernes bisetus* (Muchmore and Alteri 1974) is incorrect; in fact, no such setae occur in *P. bisetus*.

Further, it appears that for part of their description of the female of *P. muchmorei*, Dumitresco and Orghidan were dealing with an abnormal individual or with a tritonymph misidentified as a female. The scanty sclerotization of the carapace (their Fig. 23), the small number of setae on the tergites (p. 121), and especially the chaetotaxy of the genital opercula (Fig. 19a) are all characteristic of tritonymphs, not adult females, of *Antillochernes* (and similarly for *Parachernes*). It is likely that the female is, in these characters, actually more like females of other species described above.

*Antillochernes* species

In the collection of the AMNH is a tritonymph belonging to this genus, taken at Lajas, southwestern PUERTO RICO, 13-III-1961, by A. M. Nadler. In view of our scanty information about nymphs in *Antillochernes*, no certain identification can be made; however, because of the large number of setae (up to 6 per segment) on the pleural membranes, it appears to represent an unnamed species.

KEY TO SPECIES OF *Antillochernes*

- 1. Setae on pleural membranes in abdominal segments 3-10 ..... 2
- 1'. Setae on pleural membranes in abdominal segments 8-10; from Cuba ..... *muchmorei* (Dumitresco and Orghidan)
- 2(1). Carapace length greater than 0.9 mm; from St. Croix, U. S. Virgin Islands ..... *cruzensis* Muchmore, n. sp.
- 2'. Carapace length less than 0.9 mm ..... 3
- 3(2'). Palpal chela with 1/w greater than 2.7 ..... 4
- 3'. Palpal chela with 1/w less than 2.7 ..... 5
- 4(3). Depth of chelal hand noticeably greater than width; from Florida ..... *floridensis* Muchmore, n. sp.
- 4'. Depth of chelal hand about equal to width; from Bimini Island, Bahamas ..... *biminiensis* Muchmore, n. sp.
- 5(3'). Carapace with 1 transverse furrow or none; from Jamaica ..... *jamaicensis* Muchmore, n. sp.
- 5'. Carapace with 2 distinct transverse furrows, from Grand Bahama Island, Bahamas ..... *bahamensis* Muchmore, n. sp.

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