# PSEUDOSCORPIONS FROM FLORIDA. 4. THE GENUS *DINOCHERNES* (CHERNETIDAE)[1]

WILLIAM B. MUCHMORE[2]

Department of Biology, University of Rochester,
Rochester, New York 14627

ABSTRACT

The genus is redefined on the basis of a redescription of the type species, *Dinochernes vanduzeei* (Chamberlin). A new species from Florida, *D. wallacei,* is described.

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Several years ago I received a number of pseudoscorpions collected by Dr. H. K. Wallace in Florida. One of these has proved to be a representative of the genus *Dinochernes,* previously known only from Coronados Island, Gulf of California, Mexico. Because the original description of the type species, *Chelanops vanduzeei* Chamberlin (1923), is incomplete, I have redescribed that species from the holotype and have revised the generic diagnosis, in addition to describing the new species.

## Genus *Dinochernes* Beier

*Dinochernes* Beier, 1933:99.

Type species: *Chelanops vanduzeei* Chamberlin, 1923.

DIAGNOSIS (revised, based on females only): A genus of the family Chernetidae. Characterized especially by very heavy palpal chelae and restriction of all trichobothria except *t* and *et* to proximal halves of fingers. Body and appendages stout; carapace and palps fairly heavily sclerotized, brown, surfaces granulate; legs, especially femora, scaly. Carapace longer than broad; with a single, shallow transverse furrow just behind middle; 2 large, distinct eyespots present. Tergites 1-10 and sternites 3-10 divided. Posterior part of carapace, all tergites, and all sternites poorly sclerotized, such that some scuta are only small plaques in midst of extensive, scaly interscutal membranes; setae not confined to sclerotized areas; most dorsal setae terminally denticulate, most ventral ones acuminate; setae of spiracular plates acuminate; 11th tergite with 2 and 11th sternite with 4 long, tactile setae; setae of anal plates denticulate. Genital opercula not unusual; spermathecae comprising 2 smaller, proximal, cribrate, ovoid sacs and 2 larger, distal, thin-walled, spherical sacs. Chelicera with 3 setae in flagellum; hand with 5 setae, *b* and *sb* terminally denticulate, *es* long, acuminate. Palps quite robust, especially chela, where hand is nearly as deep as long, and fingers are shorter than hand. Chelal fingers with 35-50 contiguous marginal teeth, and 10-15 external and 0-1 internal accessory teeth. Movable finger with well developed venedens and venom duct reaching about to level of trichobothrium *t*; fixed finger with terminal tooth

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[1]Contribution No. 322, Bureau of Entomology, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Gainesville, Florida 32602.

[2]Research Associate, Florida State Collection of Arthropods, Florida Department of Agriculture and Consumer Services, Gainesville, Florida 32602.

much reduced and no apparent venom duct. Only trichobothrium *t* on movable finger and *et* on fixed finger in distal halves of fingers; *it, ist* and *est* grouped just proximad of middle of finger; all others located in basal thirds of fingers. Legs rather short and robust; each tarsus with elevated slit sensillum just proximad of middle; tarsus IV (and III) with long, prominent tactile seta just distad of middle.

REMARKS: Males of this genus are still unknown. It is hoped that continued collecting, especially in Florida, will turn up some specimens soon. Also, from the wide geographic separation of the 2 known species (Mexico and Florida), it appears likely that representatives of the genus will be found at various places along the Gulf of Mexico and perhaps into Central and South America.

### *Dinochernes vanduzeei* (Chamberlin)

*Chelanops vanduzeei* Chamberlin, 1923:378; 1931:fig. 69.
*Dinochernes vanduzeei*; Beier, 1933:99.

The holotype female (California Academy of Sciences, Type 1296) from Coronados Island, Gulf of California, Mexico, has been studied and compared with the specimen from Florida mentioned below. Because this species is the type of the genus, it deserves a more complete description than that given by Chamberlin.

DESCRIPTION OF FEMALE: Carapace and palps heavily sclerotized. Carapace about 1.25 times as long as broad; surface granulate; with 1 shallow, indistinct, transverse furrow about 0.7 length of carapace from anterior margin; 2 large, distinct eyespots. Abdomen elongate; tergites 1-10 and sternites 3-10 divided; tergal chaetotaxy 8:10:10:12:12:12:14:15:14:14:10:2; sternal chaetotaxy 15:(3)9(3):(1)5(1):14:16:16:16:15:19:T3T2T3T:2. Spermathecae not in best position for observation, but obviously similar to those of *D. wallacei* described below (see Fig. 2). Chelicera 0.28 as long as carapace; hand with 5 setae, *b* denticulate, *sb* broken, *es* long, acuminate; flagellum of 3 setae; galea broken; serrula with about 25 blades. Palp "extremely heavy; very striking is the great *depth* of the claw which is more than the length of fingers" (Chamberlin, 1923:378); trochanter 1.85, femur 2.6, and tibia 2.1 times as long as broad (chela in poor position for observation); hand (without pedicel) 0.95 as long as deep; movable finger about as long as hand. All surfaces granulate. Fixed chelal finger with 46 and movable finger with 51 contiguous, marginal teeth; each finger with 1 internal and 12 external accessory teeth. Movable finger alone with venedens and venom duct. Trichobothria as shown by Chamberlin (1923: plate II, Fig. 23); only *t* on movable finger and *et* on fixed finger definitely in distal halves of fingers. Legs rather stout; leg IV with femur 2.6, tibia 3.05 and tarsus 3.1 times as long as deep. Surfaces of femora scaly. Each tarsus with a prominent, slit sensillum just proximad of middle; tarsus IV with a prominent, long seta 0.6 length of segment from proximal end; subterminal tarsal setae curved, simple.

MALE: Unknown.

MEASUREMENTS (mm): Body length 4.20. Carapace length 1.07. Chelicera 0.37 by 0.16. Palpal trochanter 0.54 by 0.295; femur 0.94 by 0.36; tibia 0.89 by 0.42; chela (without pedicel) 1.42 by (indet.); hand (without pedicel) 0.76 by 0.80; movable finger 0.75 long. Leg IV: entire femur 0.86 by 0.33; tibia 0.615 by 0.20; tarsus 0.435 by 0.14.

*Dinochernes wallacei* Muchmore, new species
(Fig. 1-4)

DIAGNOSIS: Distinguishable from *D. vanduzeei*, the only other species in the genus, by the slightly smaller size (palpal femur 0.85 versus 0.94 mm long), fewer teeth on fingers of palpal chela (37 and 43 versus 46 and 51), and relatively shorter palpal tibia (0.89 versus 0.95 as long as femur).

DESCRIPTION OF FEMALE: Carapace and palps rather heavily sclerotized, brown; other parts lighter. Carapace 1.4 times as long as broad; surface granulate; with shallow, but distinct transverse furrow 0.6 length of carapace from anterior margin; posterior tenth of carapace (behind setae) poorly sclerotized, scaly and directly continuous with interscutal membrane; with 2 large, conspicuous eyespots; about 50 terminally denticulate vestitural setae, including 4 long ones at anterior and 7 near posterior margin. Tergites 1-10 and sternites 3-10 divided; sclerotized portions of tergites restricted, with extensive interscutal membranes; surfaces scaly; sclerotization of sternites poor, anteriorly restricted to small plaques in center of each sternal half; setae not confined to sclerotized areas; interscutal and pleural membranes scaly. Tergal chaetotaxy 9:9:9:11:11:13:14:14:15:15: T11T:2; sternal chaetotaxy 23:(3)9(3):(1)8(1):16:17:19:15:19:20:T2T4T2T: 2; dorsal setae terminally denticulate; ventral ones often acuminate; anterior genital operculum as shown in Fig. 1; setae of spiracular plates acuminate, those of anal plates denticulate. Spermathecae as shown in Fig. 2. Chelicera about 0.33 as long as carapace; hand with 5 setae, *b* and *sb* terminally denticulate, *es* long, acuminate; flagellum of 3 setae, anterior 1 serrate on distal quarter, posterior 1 short, straight; galea short, stout, with 8-9 terminal rami; serrula exterior with 24 blades. Palp quite robust (Fig. 3 and 4); trochanter 1.7, femur 2.6, tibia 1.95, and chela (without pedicel) 2.25 times as long as broad; hand (without pedicel) 1.1 times as long as deep; movable finger 0.88 as long as hand. All surfaces granulate except chelal fingers. Fixed finger with about 37 contiguous, marginal teeth, and 1 internal and 11 external accessory teeth; movable finger with 43 marginal teeth and no internal but 14 external accessory teeth. Movable finger with well developed venedens and venom duct, nodus ramosus distal to level of trichobothrium *t*; fixed finger with terminal tooth much reduced, no visible venom duct. Trichobothria positioned as shown in Fig. 4; only *t* on movable finger and *es* on fixed finger definitely in distal half of fingers; *it, ist* and *est* grouped just proximad of middle of finger; all others located in basal thirds of fingers. Legs generally typical of Chernétidae but rather stout; leg IV with entire femur 2.6, tibia 3.1, and tarsus 3.3 times as long as deep. Surfaces of femora scaly; each tarsus with an elevated slit sensillum just proximad of middle; tarsus IV (and III) with prominent, long seta 0.55 length of segment from proximal end; subterminal tarsal setae curved, simple.

MALE: Unknown.

MEASUREMENTS (mm): Body length 5.4. Carapace length 1.05. Chelicera 0.34 by 0.19. Palpal trochanter 0.50 by 0.29; femur 0.85 by 0.33; tibia 0.755 by 0.385; chela (without pedicel) 1.325 by 0.59; hand (without pedicel) 0.73 by 0.665; pedicel 0.12 long; movable finger 0.64 long. Leg IV: entire femur 0.805 by 0.31; tibia 0.57 by 0.185; tarsus 0.415 by 0.125.

MATERIAL: Female holotype (WM 593.01001), FLORIDA, Alachua County, 5 miles west Gainesville on Archer Road, 8-IV-1949, (H. K. Wal-

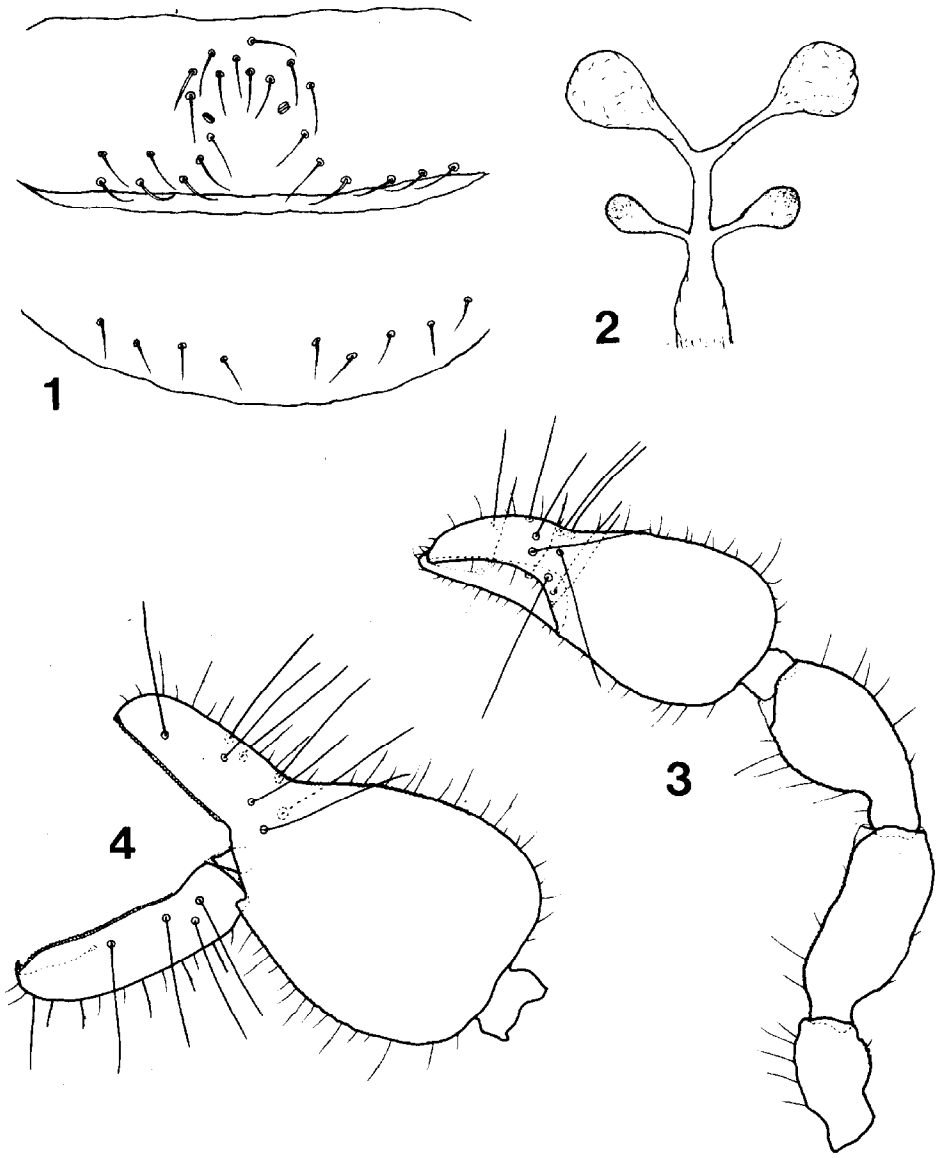


Fig. 1-4. *Dinochernes wallacei* new species, holotype female: 1) Genital opercula; 2) Spermathecae; 3) Dorsal view of right palp; 4) Lateral view of left chela.

lace), "mesophytic hammock west of Hogtown Sink on J. C. Dickinson Ranch on trunk of smooth-barked tree in hammock-hackberry?" The specimen is in the Florida State Collection of Arthropods, Gainesville.

ETYMOLOGY: The species is named in honor of Dr. H. K. Wallace, renowned entomologist of the University of Florida, who collected the type specimen.

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