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Sternophorid Pseudoscorpions, Chiefly from Florida

BY C. CLAYTON HOFF¹

The present paper is the first of a proposed series on the pseudoscorpions of Florida, an area in which the pseudoscorpion fauna is poorly known. Banks in 1904 listed 16 species of pseudoscorpions, and at the present time only 20 species are known from the state. These are the species listed by Hoff (1958). From preliminary studies of currently available material, it is clear that the 20 species constitute but a small part of the pseudoscorpion fauna of Florida. The present study is concerned with the three species of sternophorid pseudoscorpions now known to occur in the state.

Collections used in this study were obtained from several sources. A large number of the collections were obtained by Hoff in Highlands County during April, 1956, while he was in residence at the Archbold Biological Station. Unless otherwise indicated, all records are based on these collections. The taking of large numbers of pseudoscorpions by the writer during his stay at the Archbold Biological Station was possible only because of the kindness and assistance of Mr. Richard Archbold, Director of the Station. The writer owes Mr. Archbold a deep personal debt. In addition to the writer's collections, material was obtained on loan from the Museum of Comparative Zoölogy, the United States National Museum of the Smithsonian Institution, and the Entomology

¹ Research Associate, Department of Entomology, the American Museum of Natural History; Department of Biology, University of New Mexico, Albuquerque, New Mexico.

Section, Division of Plant Industry, State of Florida (through the courtesy of Dr. Howard V. Weems, Jr.). In general, representatives (including the holotype of a new species) of the writer's collections have been deposited in the American Museum of Natural History. Other collections have been returned to the lending agency or institution.

In connection with my collecting in Florida in 1956, transportation to and from the Archbold Biological Station was supported by Grant No. 148 from the Johnson Fund of the American Philosophical Society. Preparation of the manuscript was aided by National Science Foundation Grant GB-43. Mr. Bruce Malmont, a student in the Ford Foundation M-3 Program at the University of New Mexico, aided materially in the preparation of illustrations.

FAMILY STERNOPHORIDAE CHAMBERLIN

Sternophorinae CHAMBERLIN, 1923, p. 370.

Sternophoridae CHAMBERLIN, 1931, p. 238; 1932, p. 140. BEIER, 1932, p. 15. HOFF, 1956, p. 3.

At the present time there appears to be no need to emend the diagnosis given by Chamberlin. Pseudoscorpions of the family can be recognized by the extensive pseudosternal or intercoxal area enclosed by the pedal coxae. A peculiarity, which may be a family characteristic and which is apparently not mentioned in the literature, is the occurrence in at least some species of a row of heavy setae along each chelal finger, the row running parallel to and on the inside of or immediately mesial to the row of marginal teeth. Each row consists of as many as 10 or 12 heavy, regularly spaced, and terminally spatulate setae. These are sometimes broken, so are not always observed. They are known to occur in Florida species of *Garyops* and in the single species of the new genus *Idiogaryops*, but they have not been reported for species of *Sternophorus*.

Previously only two genera, *Sternophorus* and *Garyops*, were assigned to the family. A third genus, *Idiogaryops*, is described below. The six described species of *Sternophorus* occur in the western part of Mexico, in Australia, and in southeastern Asia. Of the three species of *Garyops*, one occurs in Central America and the other two (one of which is new to the literature) are reported only from Florida. From currently unstudied material available to the writer, it is clear that *Garyops* is well represented in the West Indies. The single known species of *Idiogaryops* is widely distributed in central and southern United States.

GENUS *GARYOPS* BANKS

Garyops BANKS, 1909, p. 305. CHAMBERLIN, 1931, p. 238. BEIER, 1932, p. 18.

In 1909 Banks described the genus *Garyops* and the single included species, *G. depressa*. Because certain unique aspects of the genus were mentioned by Banks, Chamberlin (1931) was able to associate the genus *Garyops* with his family Sternophoridae. Beier (1953) assigned a second species, *G. centralis* from El Salvador, to the genus. Material now available makes possible a redescription of *G. depressa* and the description of a third and new species in the genus.

EMENDED DIAGNOSIS: Carapace narrowed, pigmented, and usually sclerotic in anterior one-third; posterior two-thirds of carapace much wider, weakly pigmented, and not strongly sclerotic; anterior narrow portion and posterior widened portion of carapace uniting to form abrupt and distinct shoulder; base of hand of chelicera with four setae, *sb* being probably the missing seta; galea with three or more rami in the female, with rami frequently reduced and even vestigial in male; movable chelal finger with three tactile setae, *t* apparently being the missing seta; fixed chelal finger with seven setae, the missing seta *it*; median cirriform plates of female variable, with or without spurs.

TYPE SPECIES: *Garyops depressa* Banks.

REMARKS: An important characteristic of species of *Garyops* is the anteriorly constricted carapace, which appears to offer the only practical basis for separation of *Garyops* and *Sternophorus*. When other species, especially the type species, of *Sternophorus* become well known, it may be possible to employ other characters in the separation of the two genera. At least one species of *Sternophorus* is reported to have eight tactile setae on the fixed chelal finger. If this number of tactile setae occurs in all species of *Sternophorus*, separation of *Garyops* and *Sternophorus* will be facilitated.

In the following descriptions two ratios heretofore not applied to species of *Garyops* are used. One is the ratio obtained by dividing the length of the heel of the trochanter by the width of the trochanter. For the length of the heel, I have followed Chamberlin (1932) who defines the length of the heel as the distance "from the pedicel at the point where the swelling of the heel begins to the trochantero-femoral condyle." I have defined the width of the trochanter as the maximum width taken along a line perpendicular to the margin of the heel. The second introduced ratio is the length/width ratio of the third coxa. The length of the coxa is the distance from the extreme medial end to and including the sclerotic anterolateral corner. The width of the third coxa is the maximum width measured along a line perpendicular to the posterior margin and extending from the posterior margin to the sclerotic anterolateral corner of the coxa.

Garyops depressa Banks

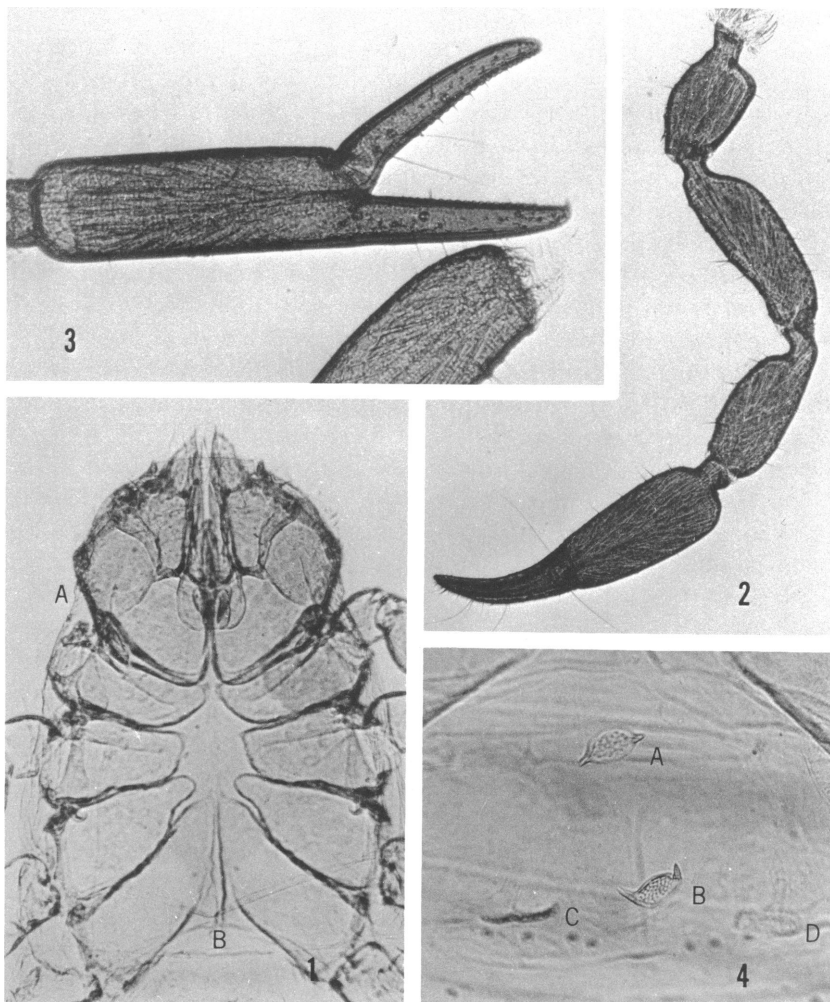
Figures 1-4

Garyops depressa BANKS, 1909, p. 305. BEIER, 1932, p. 18.

For more than 50 years *G. depressa* has been known only from Banks's original description based on several specimens from Punta Gorda, Florida. Through the kindness of Dr. Herbert W. Levi, I was able to study in detail three of the six syntypes at the Museum of Comparative Zoölogy. Two of the syntypes were found to be conspecific, and one of these has been designated the lectotype of *G. depressa*. The third syntype studied has been assigned to *G. pumila*, a species described below.

DIAGNOSIS: The much smaller size of body and palpal segments, especially in the female, serves to separate *G. depressa* from *G. centralis*, the only other previously described species of *Garyops*. *Garyops depressa* is known only from Florida.

FEMALE: The abbreviated description is based on 11 females, including the lectotype and one syntype. Measurements for the lectotype are followed in parentheses by ranges based on all 11 females. Body 2.9 (2.65-3.7) mm. in length; abdomen light yellow, not strongly sclerotic; carapace lightly pigmented, except that more strongly sclerotic anterior third a deeper brownish yellow; carapace 1.00 (0.93-1.05) mm. in length. Intercoxal or pseudosternal area conspicuous and extensive [Banks's (1909) statement that "coxae i and ii do not meet on the middle line" is clearly an error and Banks undoubtedly referred to the widely separated coxae of the second and third legs]. Coxa of third leg 0.345 (0.335-0.390) mm. in length, 0.190 (0.190-0.220) mm. in width, with length 1.82 (1.65-1.86) times width. Chelicera with exterior surface of base of hand marked by net-like lines; serrula exterior of 12 (11 in one specimen) plates; galea stout, relatively short, with three (in one specimen four) stout rami formed by branching near middle of galea; movable finger 0.148 (0.139-0.155) mm. in length. Palpus of fairly deep, uniform, golden color, sometimes with reddish tinge [Banks's (1909) statement that the fingers are darker than the hand is true only when the chela is observed in dorsal or ventral view]; setae of palpal segments simple, not especially numerous. Trochanter 0.515 (0.485-0.56) mm. long, 0.255 (0.235-0.293) mm. wide, length 2.02 (1.84-2.17) times width; heel of trochanter 0.37 (0.345-0.41) mm. long, 1.45 (1.32-1.49) times width of trochanter; femur 0.76 (0.74-0.83) mm. long, 0.250 (0.235-0.28) mm. wide, length 3.04 (2.95-3.24) times width; one tibia of lectotype 0.650 mm. long and 0.245 mm. wide, other tibia 0.655 mm. long and 0.255 mm. wide; for all 11 females, length of tibia 0.62-0.69 mm., width 0.225-0.275 mm., length 2.51-2.85 times width; chela without pedicel



FIGS. 1-4. *Garyops depressa* Banks. 1. Carapace and coxal area, female, by transmitted light; A, point of abrupt narrowing of carapace; B, posterior tip of carapace. 2. Dorsal view of palp, female lectotype. 3. Lateral view of chela, female. 4. Cribri-form plates, female; A and B, median plates with spurs; C, right lateral plate in side view; D, left lateral plate, somewhat out of focus.

1.08 (1.03-1.14) mm. long, 0.285 (0.265-0.315) mm. wide, length 3.80 (3.54-3.96) times width; chelal hand in strict lateral view cylindrical in outline, with rounded base, 0.61 (0.58-0.65) mm. long without pedicel, 0.235 (0.21-0.255) mm. deep, length 2.60 (2.53-3.03) times depth;

movable finger 0.515 (0.49–0.54) mm. long. Marginal teeth of chelal fingers extending along nearly entire margin of each finger; teeth triangular and cuspidate in distal part of row, but becoming flattened and acusate in basal part of row, with a few of very basal teeth strongly flattened and sometimes difficult to observe; fixed finger with 21–26 teeth, movable finger with 21–24 teeth. Fourth leg with entire femur 0.62 (0.60–0.67) mm. long, 0.24 (0.23–0.265) mm. deep, length 2.58 (2.53–2.73) times depth; tibia 0.45 (0.425–0.475) mm. long, 0.135 (0.131–0.151) mm. deep, length 3.34 (3.08–3.34) times depth. Each of medial cribriform plates with well-formed spur or spinous projection at each end; lateral cribriform plates without spurs; greater diameter of median plates (not including spurs) 0.042 (0.036–0.060) mm.

MALE: The description and measurements, expressed as ranges, are based on 12 specimens. Besides being on the average slightly smaller than the female, the male differs from the female in the genitalia and in the degree of development of the rami of the cheliceral galea. Body length, 2.5–3.15 mm.; carapace 0.87–1.04 mm. in length. Coxa of third leg 0.300–0.360 (usually 0.310–0.345) mm. in length, 0.190–0.225 mm. in width, length 1.54–1.73 times width. Chelicera with galea more slender than that of female, with rami greatly reduced in length and in some appearing as spinules on side of main stalk of galea; the two reduced rami may be near center of stalk or one may be subbasal and other subterminal in position; serrula exterior with 12 plates, except that 11 plates occur on each chelicera of one male and 13 plates occur on one chelicera of another male; movable finger of chelicera 0.127–0.147 mm. in length. Palpus with trochanter 0.435–0.535 mm. long, 0.225–0.293 mm. wide, length 1.85–2.04 times width; heel of trochanter 0.32–0.405 mm. in length, 1.36–1.43 times width of trochanter; femur 0.655–0.81 mm. long, 0.215–0.265 mm. wide, length 3.00–3.31 times width; tibia with length of 0.56–0.68 mm., width of 0.210–0.255 mm., length 2.54–2.83 times width; chela without pedicel 0.90–1.13 mm. long, 0.235–0.29 mm. wide, length 3.64–4.11 times width; hand without pedicel 0.52–0.64 mm. in length, 0.195–0.23 mm. in depth, length 2.54–3.00 times depth; movable finger 0.44–0.53 mm. long. Marginal teeth of chelal fingers essentially like those of female, with 21–25 teeth on fixed finger and 19–24 teeth on movable finger. Fourth leg with entire femur 0.515–0.64 mm. long, 0.203–0.25 mm. deep, length 2.43–2.65 times depth; tibia 0.365–0.455 mm. long, 0.115–0.139 mm. deep, length 3.12–3.36 times depth.

ECOLOGY: Of the 15 available collections, the 13 collections from Highlands County were taken in association with slash pine (*Pinus elliotii*). Individuals occur in such numbers beneath the flakes and loose

plates of bark on boles of living trees that several collections contain between 25 and 50 specimens. Individuals are much more frequent on old than on young trees, probably because the bark adheres more tightly to the trunk in young trees. While 10 collections were taken from the bark of living trees, a few specimens were obtained beneath flakes of bark of a cut stump and of a dead tree, and one individual was found in the well-rotted wood of a slash-pine branch buried in pine needles. Extensive collecting from the bark of a wide variety of trees in Highlands County failed to disclose a single specimen of *G. depressa* associated with any tree except slash pine.

TYPE LOCALITY: Punta Gorda, Charlotte County, Florida. The type locality is the only previous record for the species. No ecological data accompany the type collection.

NEW RECORDS: *Highlands County:* Thirteen collections, all taken in the general area of the Archbold Biological Station (the ecology is discussed above). *Sarasota County:* From bark of pine tree, collected by C. E. Bingaman at Osprey, May 23, 1960, in the Division of Plant Industry, Florida.

***Garyops pumila*, new species**

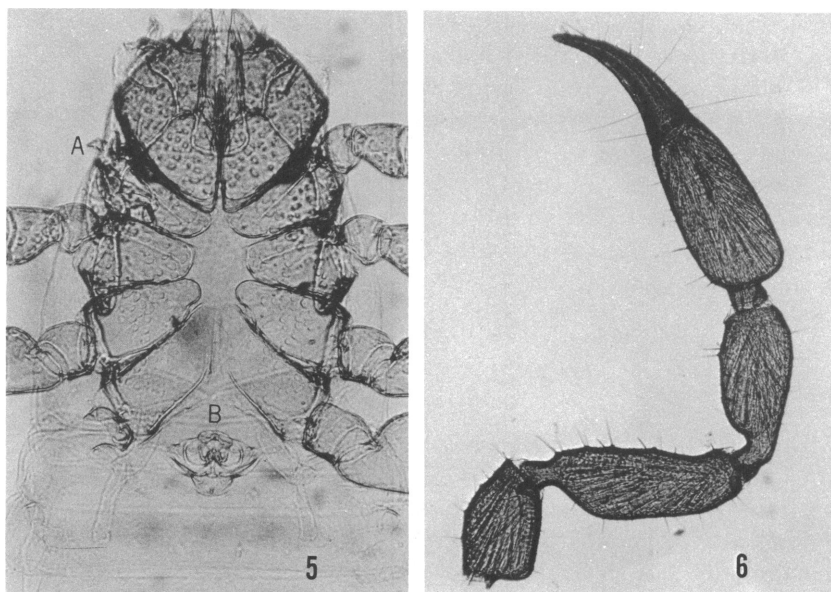
Figures 5, 6

DIAGNOSIS: Palpal segments in general smaller and stouter than those of the other two species of *Garyops*. As an overlap of ranges for some measurements and ratios occurs between *G. pumila* and *G. depressa*, other differences are helpful in separating the two species. For example, in females of *G. pumila* the main stalk and the rami of the cheliceral galea are more slender and the median cribriform plates are without spurs. The species is not known outside Florida.

MALE: A male was selected as holotype because a series from one locality is available, whereas the available females are scattered among several localities. The description of the male is based on the holotype and three paratypes. Measurements given for the holotype are followed in parentheses by ranges based on all four males. Body length, 2.6 (2.25–2.6) mm.; color chiefly golden yellow, with abdomen light in color and weakly sclerotic. Carapace distinctly narrowed at about anterior third; anterior part of carapace never more than moderately well pigmented; wider posterior part lighter in color and less sclerotic; carapace about 0.86 (0.80–0.88) mm. long. Pseudosternal or intercoxal area extensive; third coxa 0.285 (0.260–0.285) mm. long, 0.185 (0.175–0.185) mm. wide, length 1.54 (1.48–1.54) times width. Chelicera of moderately deep golden color; with weakly developed, net-like lines on exterior of hand; serrula

exterior composed of 12 plates; galea relatively slender, usually either simple or with one or two medial or subterminal spinules that no doubt are vestigial rami; in one chelicera of one paratype there is both a minute spinule and a very short lateral ramus; movable cheliceral finger 0.137 (0.125–0.137) mm. long.

Palpus fairly stout; surface granules conspicuous on trochanter and on flexor surface of femur and tibia; fine granules on flexor surface of



FIGS. 5, 6. *Garyops pumila*, new species. 5. Carapace and coxal area, male paratype, by transmitted light; A, point of abrupt narrowing of carapace; B, posterior tip of carapace. 6. Dorsal view of palp, male holotype.

chelal hand; investing setae not numerous, but conspicuous, long, acuminate, and fairly heavy; a few especially long setae of flexor surface of femur and tibia originating from small surface nodules; palpal segments of moderately deep, rich golden color. Shape of palpal segments of holotype shown in figure 6. Palpal segments of paratypes agreeing closely with those of holotype except that chelal hand may appear a little stouter and more oval in shape and fingers may be more curved in some specimens; apparent intraspecific variation may result in part from orientation on slide. Hand in lateral view having dorsal and ventral margins very weakly convex and almost parallel, so that hand appears nearly

cylindrical in outline. However, a strict lateral view is seldom obtained in mounted specimens as the chela frequently rotates after mounting until a sublateral view is obtained. Because of difficulties in orientation, measurements of the depth of hand may be inaccurate. Palpal trochanter 0.455 (0.395–0.455) mm. long, 0.23 (0.215–0.24) mm. wide, length 1.98 (1.84–1.98) times width; length of heel of trochanter 0.300 (0.27–0.305) mm., length of heel 1.30 (1.26–1.30) times width of trochanter; femur 0.62 (0.52–0.62) mm. long, 0.218 (0.205–0.225) mm. wide, length 2.84 (2.53–2.84) times width; tibia 0.53 (0.485–0.55) mm. long, 0.220 (0.200–0.225) mm. wide, length 2.41 (2.39–2.44) times width; chela without pedicel 0.95 (0.865–0.95) mm. long, 0.260 (0.235–0.260) mm. wide, length 3.66 (3.56–3.80) times width; chelal hand without pedicel 0.520 (0.47–0.52) mm. long, 0.210 (0.203–0.217, for three specimens only) mm. deep, length 2.47 (2.31–2.47) times depth; movable finger 0.450 (0.425–0.465) mm. long. Teeth along nearly entire margin of each finger, with teeth varying from acute, retroconical, and cuspidate in distal and middle thirds of row to shallow, rounded, and without cusps in basal part of row; fixed finger with 24 (22–25) teeth, movable finger with probably 22 (19–25) teeth. Legs of yellow to light golden yellow color; segments apparently without surface sculpture; investing setae fine, acuminate, and somewhat sparse. Fourth leg relatively stout; femur 0.505 (0.44–0.505) mm. long, 0.21 (0.190–0.215) mm. deep, length 2.40 (2.26–2.40) times depth; tibia 0.370 (0.32–0.37) mm. long, 0.120 (0.109–0.120) mm. deep, length 3.08 (2.87–3.08) times depth.

FEMALE: The description and ranges of measurements of the female are based on five paratypes, including one syntype of Banks's *G. depressa*. The female is essentially like the male except that the female is on the average a little larger and the rami of the galea are strongly developed; length/width ratios of palpal and pedal segments are virtually the same in the male and female. Body 2.6–3.1 mm. long; carapace 0.90–0.98 mm. long. Coxa of third leg 0.285–0.330 mm. long, 0.180–0.210 mm. wide, length 1.55–1.59 times width. Chelicera much like that of male; galea usually divided near midpoint or basal to midpoint to form three fairly long, slender, and widely divergent rami; serrula exterior of 12 plates; movable finger 0.135–0.151 mm. long. Palpus much like that of male in surface sculpture, chaetotaxy, and color except that in female palpi may have somewhat reddish golden color, distinct reddish tinge of palpus not being observed in male. Palpal trochanter 0.43–0.485 mm. long, 0.235–0.265 mm. wide, length 1.77–1.88 times width; heel of trochanter 0.285–0.330 mm. long, this being 1.20–1.27 times width of trochanter; femur 0.62–0.72 mm. long, 0.222–0.255 mm. wide, length 2.70–2.86

times width; tibia 0.52–0.605 mm. in length, 0.223–0.255 mm. in width, length 2.27–2.45 times width; chela without pedicel 0.95–1.07 mm. long, 0.250–0.295 mm. wide, length 3.56–3.80 times width; hand without pedicel 0.52–0.59 mm. long; depth of hand obtained for only two individuals, 0.215 mm. for one and 0.240 mm. for other, with respective length/depth ratios 2.53 and 2.43; movable finger 0.45–0.51 mm. long. Marginal teeth of chelal fingers like those of male; fixed finger with 22–26 teeth, movable finger with 21–23 teeth. Fourth leg with entire femur 0.505–0.57 mm. long, 0.210–0.240 mm. in depth, length 2.29–2.41 times depth; tibia 0.363–0.390 mm. long, 0.120–0.145 mm. deep, length 2.62–3.04 times depth. Cribriform plates simple; median plates without spurs, greater diameter (as obtained from three specimens) 0.037–0.056 mm.

ECOLOGY: Although detailed ecological data are not available for all collections, evidently *G. pumila* is subcortical in habitat and is associated with broad-leaved trees, in contrast to *G. depressa*, which is reported only in association with slash pine. *Garyops pumila* and *G. depressa* have not been found in the same collection except for the type collection of *G. depressa*. Probably the type collection consisted of specimens taken from more than one microhabitat.

TYPE LOCALITY AND LOCALITY RECORDS: *Charlotte County*: One paratype female, a syntype of *G. depressa*, Punta Gorda, in the Museum of Comparative Zoölogy. *Dade County*: One paratype female from Paradise Key, collected by H. S. Barber, March 13, 1919, in the United States National Museum; two paratype females from beneath the bark of poisonwood (*Metopium toxiferum*), Mahogany Hammock, Everglades National Park, collected by F. C. Craighead, February 8, 1958, in the Division of Plant Industry, Florida. *Highlands County*: The holotype male and two paratype males from beneath flakes of bark of live oak (*Quercus virginiana*) and one paratype male from moss and rotted wood at base of cabbage palmetto (*Sabal palmetto*), Parker Islands (hammock), about 10 miles south of southeast from Lake Placid and 4 or 5 miles northeast of the Archbold Biological Station. *Monroe County*: One paratype female from West Lake, Cape Sable, by A. Wetmore, February 26, 1919, in the United States National Museum.

IDIOGARYOPS, NEW GENUS

DIAGNOSIS: Carapace with anterior portion sometimes weakly to moderately constricted or narrowed; hand of chelicera with four setae, *sb* apparently the missing seta; galea of female trifold near middle to form three nearly equal rami, each ramus usually gently curved and acute;

in male, galea less strongly developed, rami reduced to one or two spine-like projections along main stalk; movable chelal finger with two, fixed finger with seven, tactile setae; median cribriform plates of female without spurs. The genus contains only the type species.

It seems advisable to segregate *S. paludis* as the type of a new genus because of the occurrence of only two tactile setae on the movable chelal finger and the lack of spurs on the median cribriform plates of the female. In *Sternophorus*, as far as known for the several species, there are at least three tactile setae on the movable chelal finger, and each of the median cribriform plates has a pair of spines or spurs. As species of *Sternophorus* become adequately known, it is possible that one or more may be assigned to *Idiogaryops*. The presence of three tactile setae on the movable chelal finger and the stronger narrowing of the anterior third of the carapace serve to distinguish *Garyops* from *Idiogaryops*.

TYPE SPECIES: *Sternophorus paludis* Chamberlin.

Idiogaryops paludis (Chamberlin), new combination

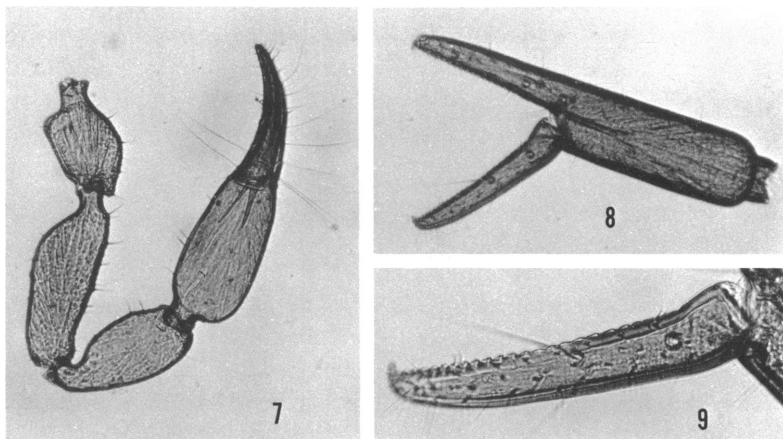
Figures 7-9

Sternophorus paludis CHAMBERLIN, 1932, p. 142. HOFF AND BOLSTERLI, 1956, p. 164.

REMARKS: Chamberlin based his description of this species on two specimens, the male holotype from Alachua County, Florida, and the female allotype from Billy's Island, Okefenokee Swamp, Georgia. More recently, Hoff and Bolsterli (1956) published records from Arkansas and Illinois and mentioned the occurrence of the species in Mississippi. While Hoff and Bolsterli gave a series of measurements for both male and female, they failed to include a number of previously unknown, but relatively important, traits. Some of these are given in the generic diagnosis. In both male and female the serrula exterior consists of 11 (10 in one chelicera of one male) plates, and there are 18-22 teeth on each chelal finger. In the female, the median cribriform plates do not have spurs, and in a few individuals a small third plate accompanies the pair of median plates. Hoff and Bolsterli overlooked the narrowing of the anterior third of the carapace, a condition that can be observed in about one-half of the mounted specimens. The constriction of the carapace is by no means as marked as in species of *Garyops* and is more conspicuous on examination of specimens in alcohol than in examination of specimens mounted on slides. Probably mounting tends to distort the shape of the carapace and, as a result, the narrowing of the carapace may be overlooked.

From present studies, it is clear that the species is more variable than heretofore reported. Variations occur in the size and shape of palpal

segments, especially of the palpal femur and chela. To show the intra-species variation in a sampling from one locality and to supplement measurements given in the literature, the following are given as ranges for nine females taken from a number of collections made in the vicinity of the Archbold Biological Station in Highlands County, Florida. Body length, 1.95–2.20 mm. Palpus with trochanter 0.270–0.320 mm. long, 0.143–0.165 mm. wide, length 1.87–2.06 times width; heel of trochanter 0.175–0.210 mm. long, this being 1.21–1.35 times width of trochanter; femur 0.390–0.480 mm. long, 0.151–0.168 mm. wide, length 2.47–2.96 times width; tibia 0.335–0.395 mm. long, 0.151–0.170 mm. wide, length



FIGS. 7–9. *Idiogaryops paludis* (Chamberlin), female. 7. Dorsal view of palp. 8. Lateral view of chela. 9. Lateral view of movable chelal finger.

2.06–2.42 times width; chela without pedicel 0.610–0.695 mm. long, 0.183–0.196 mm. wide, length 3.30–3.66 times width; hand without pedicel 0.320–0.368 mm. long; movable chelal finger 0.305–0.350 mm. in length. Coxa of third leg 0.185–0.215 mm. in length, 0.123–0.140 mm. in width, length 1.36–1.54 times width.

Measurements of three males from Florida indicate that palpal segments of the male are much like those of the female, except that segments, especially chela, hand, and finger, are a little smaller. Measurements for Florida and for Illinois and Arkansas specimens are very similar, except that the Florida male on the average is a little smaller than the Illinois male. The two Mississippi specimens examined are somewhat larger than the Highlands County specimens, and palpal segments for the Texas specimens are sometimes stouter than reported for specimens from other areas.

ECOLOGY: This subcortical species is common on both broad-leaved and needle-leaved trees. Specimens have not been taken in association with other sternophorid species, except for two specimens that occurred in a large collection of *G. depressa* from beneath the bark of slash pine near the Archbold Biological Station.

FLORIDA RECORDS: *Baker County:* From beneath bark of living pine, collected by E. W. Holder, Jr., at Glen St. Mary, April 8, 1960, in the Division of Plant Industry, Florida. *Citrus County:* No definite locality given, Nathan Banks collection, Museum of Comparative Zoölogy. *Highlands County:* Seven collections taken near the Archbold Biological Station and one from Parker Islands (hammock), about 10 miles south of southeast from Lake Placid; from beneath bark flakes of living slash pines (*Pinus elliottii*), from dead slash pines and logs, from bark of dahoon (*Ilex cassine*), and from the under side of a damp oak (*Quercus virginiana*) log.

OTHER LOCALITY RECORDS: A male and a female in a collection taken by R. C. Graves near Ludlow, Leake County, Mississippi, December 24, 1957. Three males and three females from beneath the bark of a dead sycamore (*Platanus occidentalis*), Camp Maxey, Lamar County, Texas, by C. L. Remington, January 22, 1944, in the Museum of Comparative Zoölogy.

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