

NEW CAVE PSEUDOSCORPIONS OF THE GENUS
APOCHTHONIUS
(ARACHNIDA: CHELONETHIDA)¹

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ABSTRACT

Six new cavernicolous species of the pseudoscorpion genus *Apochthonius* are described. These are *A. colecampi* and *A. typhlus* from Missouri, *A. diabolus* from Arkansas, *A. indianensis* from Indiana, *A. holsingeri* from Virginia, and *A. paucispinosus* from West Virginia.

The genus *Apochthonius* has previously been known to include only three species east of the continental divide in North America. Of these, two are epigean species, *A. moestus* (Banks) and *A. magnanimus* Hoff (Hoff, 1956), and the third is a blind, cavernicolous form, *A. coecus* (Packard) (Muchmore, 1963). Recently, through the efforts of several speleologists, a number of new forms from caves in central and eastern United States have come to light. I wish particularly to thank Drs. T. C. Barr, Jr., O. Hawksley, and J. R. Holsinger for the specimens reported on here. Types of the new species will be deposited in the collection of the American Museum of Natural History.

Suborder HETEROSPHYRONIDA Chamberlin
Family **Chthoniidae** Hansen
Tribe CHTHONIINI Chamberlin
Genus *Apochthonius* Chamberlin

***Apochthonius colecampi* sp. n.**
(fig. 1)

Material: A single specimen, the holotype female (WM 743.01001), collected by K. Eck in Cole Camp Cave, southeast of Lincoln, Benton County, Missouri, on 1 April 1964.

Female: Generally similar to the epigean *A. moestus*, but much larger and with only six setae on the cheliceral palm. Carapace a little longer than the ocular breadth and narrowed posteriorly. Epistome small, rounded, with four spinules. Four well-developed corneate eyes present, the anterior eyes a little larger than the posterior eyes and about one diameter from the carapacial margin and one-half diameter from the posterior eyes. Carapacial setae 8-4-4-2-4=22. Coxal area typical; left coxa I with three spines, right coxa I with four spines.

Abdomen typical. Tergal chaetotaxy 4:6:6:7:8:9:9:9:9:8:6:0. Genital area typical. Ster-
nal chaetotaxy $\frac{2}{6}:(4)4(4):(4)6(4):14:13:15:15:13:11:0:m$.

Chelicera shorter than carapace; 2.05 times as long as broad. Palm with six setae; fixed finger with about 15 pointed teeth decreasing gradually in size toward the base; movable finger with eight similar teeth and an isolated tooth between the end of the row and the finger tip. Galea represented by a very small elevation on the margin of the finger; serrula exterior with 17 plates; serrula interior with 13 plates; flagellum of eight unilaterally branched setae.

Palps generally similar in proportions to those of epigean species (fig. 1). Placement of tactile setae typical. Fixed finger with a row of 77 teeth and movable finger with 62 teeth. Distal teeth on both fingers triangular or retroconical in shape, with occasional teeth distinctly larger than the rest. Trochanter 1.8, femur 4.7, tibia 1.9, chela 4.5, and hand 1.7 times as long as broad; movable finger 1.75 times as long as hand.

Legs typical. Leg I with basifemur 4.5 times as long as broad. Leg IV with entire femur

¹Manuscript received April 14, 1966.

²This work was supported in part by a grant, GB5299, from the National Science Foundation.

2.7 and tibia 4.4 times as long as broad; tactile setae on tibia 0.49, on metatarsus 0.24, and on telotarsus 0.28 the length of the segment from the proximal end.

Male: Unknown.

Measurements (mm): Body length 2.06. Carapace 0.58; ocular breadth 0.53; posterior breadth 0.47. Diameter of anterior eye 0.056. Chelicera 0.53 long and 0.26 broad; movable finger 0.27 long. Palpal trochanter 0.25 by 0.14; femur 0.64 by 0.135; tibia 0.32 by 0.17; chela 0.98 by 0.22; hand 0.37 by 0.21; movable finger 0.65 long. Leg I: basifemur 0.36 by 0.08; telofemur 0.17 by 0.07; tibia 0.22 by 0.06; tarsus 0.42 by 0.05. Leg IV: entire femur 0.56 long; basifemur 0.26 by 0.21; telofemur 0.37 by 0.20; tibia 0.42 by 0.095; metatarsus 0.21 by 0.07; telotarsus 0.35 by 0.05.

As in *A. magnanimus* and *A. diabolus* sp.n., the tooth rows of the chelal fingers of this species differ from those of *A. moestus* in having occasional teeth that are larger and more triangular than the majority of the teeth in the row. The single known specimen of this species is peculiar in having four coxal spines on the right coxa I, an apparent anomaly never before encountered by the author in any specimen belonging to the genus *Apochthonius*. While this may be only an individual variation, the possibility exists that there is a tendency in the species to have an increased number of coxal spines, just as cavernicolous species of *Kleptochthonius*, subgenus *Chamberlinochthonius*, usually have more coxal spines than do epigean species of the genus. The reduction of the number of setae on the cheliceral palm to six is another adaptation to cave life seen also in species of *Chamberlinochthonius*. The occurrence of only one microseta on the anal plate is undoubtedly an individual variation.

***Apochthonius paucispinosus* sp. n.**
(fig. 2)

Material: A single specimen, the holotype female (WM 481.01001), collected by J. R. Holsinger in Bennett Cave, about 2 miles north of Dryfork, Tucker County, West Virginia, on 8 April 1962.

Female: Generally similar to epigean species but much larger, appendages more slender, and with fewer setae on the carapace, first tergum, and chelicera. Carapace about as long as the ocular breadth and narrowing posteriorly. Epistome a tiny elevation bearing three spinules. Four weak eyes present, of equal size, the anterior slightly corneate, the posterior non-corneate; anterior eyes about two diameters from the carapacial margin and about $\frac{2}{3}$ diameter from the posterior eyes. Carapacial setae 6-4-4-2-4=20. Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 2:3:6:6:8:9:9:9:9:7:6:0. Genital area typical. Sternal chaetotaxy $\frac{2}{6}$:(3)8(3):(4)5(4):14:13:13:13:11:0:mm.

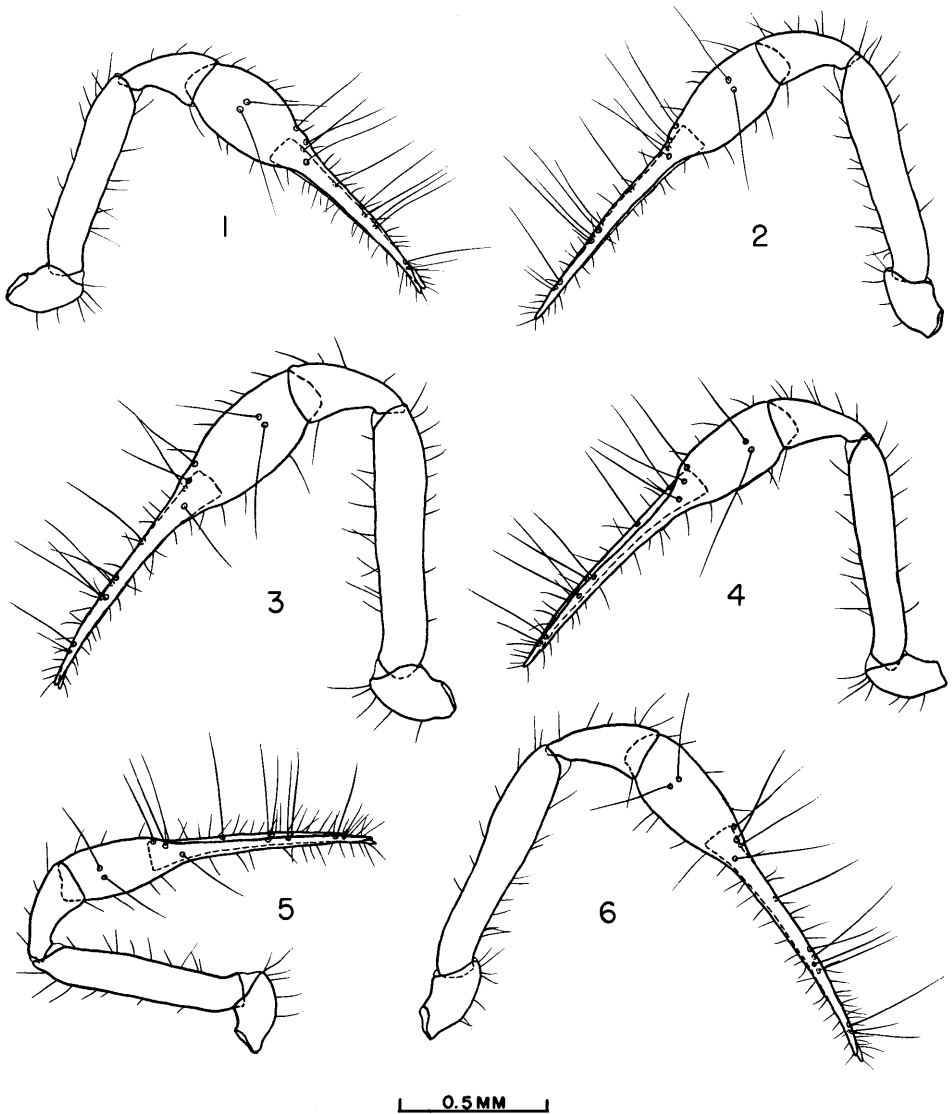
Chelicera shorter than carapace; 2.09 times as long as broad. Palm with six setae; fixed finger distally with a row of five medium-sized, blunt teeth, preceded basally by about 13 small ones; movable finger with a row of eight small, blunt teeth, and two small isolated teeth midway between the end of the row and the finger tip; galea represented by a distinct bump on the finger margin; serrula exterior with 16 plates; serrula interior with 13 plates; flagellum of eight unilaterally branched setae.

Palps generally similar to those of epigean species, but more slender (fig. 2). Placement of tactile setae typical. Fixed finger with a row of 100 teeth and movable finger with 91 teeth. Distal teeth of both fingers, like those *A. moestus*, tall and quadrangular, proximal teeth lower and rounded. Trochanter 1.9, femur 5.8, tibia 2.1, chela 5.6, and hand 1.85 times as long as broad; movable finger 2.08 times as long as hand.

Legs typical, but more slender than those of epigean species. Leg I with basifemur 4.9 times as long as broad. Leg IV with entire femur 2.8 and tibia 4.5 times as long as broad. Tactile setae on metatarsus 0.23, and on telotarsus 0.32 the length of the segment from the proximal end. Tibia with an unspecialized seta at the position occupied by a tactile seta in other species of the genus, 0.43 the length of the segment from the proximal end.

Male: Unknown.

Measurements (mm): Body length 1.77. Carapace 0.59; ocular breadth 0.60; posterior breadth 0.51. Diameter of eyes 0.037. Chelicera 0.55 long by 0.26 broad; movable finger 0.27 long. Palpal trochanter 0.26 by 0.14; femur 0.69 by 0.12; tibia 0.33 by 0.16; chela 1.15 by 0.205; hand 0.38 by 0.205; movable finger 0.79 long. Leg I: basifemur 0.39 by 0.08; telofemur 0.19 by 0.07; tibia 0.22 by 0.06; tarsus 0.39 by 0.05. Leg IV: entire femur 0.58 long; basifemur 0.26 by 0.21; telofemur 0.38 by 0.19; tibia 0.41 by 0.09; metatarsus 0.19 by 0.07; telotarsus 0.37 by 0.06.



- FIGURE 1. *Apoththonius colecampi* sp. n. Holotype female; dorsal view of left palp.
 FIGURE 2. *Apoththonius paucispinosus* sp. n. Holotype female; dorsal view of right palp.
 FIGURE 3. *Apoththonius diabolus* sp. n. Holotype male; dorsal view of right palp.
 FIGURE 4. *Apoththonius indianensis* sp. n. Holotype male; dorsal view of right palp.
 FIGURE 5. *Apoththonius holsingeri* sp. n. Holotype male; dorsal view of left palp.
 FIGURE 6. *Apoththonius typhlus* sp. n. Holotype male; dorsal view of left palp.

This species is adapted to cavernicolous living notably by the reduction of the number of setae on several areas of the body; there are only six setae on the anterior margin and a total of 20 on the carapace rather than the usual eight and a total of 22; there are only two setae on the first tergum rather than the usual four; there are only six setae on the cheliceral palm rather than the usual seven; and an investing seta occupies the position on the tibia of the fourth leg usually occupied by a tactile seta.

***Apochthonius diabolus* sp. n.**
(fig. 3)

Material: A single specimen, the holotype male (WM 307.01001), collected by T. C. Barr, Jr., in Devil's Den, Devil's Den State Park, Washington County, Arkansas, on 24 January 1958.

Male: Generally similar to the epigean *A. moestus*, but much larger, more heavily sclerotized, and with more slender appendages. Carapacial length about equal to the ocular breadth, narrowing posteriorly. Epistome only a tiny point. Carapacial surface smooth dorsally, becoming strongly reticulated on the sides. Four well-developed corneate eyes of equal size. Anterior eyes about $1\frac{1}{2}$ ocular diameters from the anterior carapacial margin and about $\frac{3}{4}$ diameter from the posterior eyes. Carapacial setae 8-4-4-2-4=22. Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 4:4:6:6:8:9:10:9:10:7:6:0. Genital area typical. Sternal chaetotaxy $\frac{5}{6}$:[4-4]: $\frac{13-14}{(4)6(4)}$:(4)6(4):12:11:12:13:14:12:0:mm.

Chelicera nearly as long as carapace; 2.10 times as long as broad. Palm with seven setae; fixed finger with 12-13 pointed teeth, decreasing gradually in size from distal to proximal; movable finger with eight small, blunt teeth; galea represented by a barely perceptible elevation of the finger margin; serrula exterior with 18 plates; serrula interior with 13 plates; flagellum of eight unilaterally branched setae.

Palps generally similar to those of epigean species, but more slender (fig. 3). Placement of tactile setae typical. Fixed finger with a row of 85 teeth and movable finger with 65-70 teeth. Teeth of the distal ends of both fingers triangular or retroconical; with some teeth distinctly larger than the majority. Trochanter 1.65, femur 5.1, tibia 1.95, chela 5.45, and hand 2.0 times as long as broad; movable finger 1.75 times as long as hand.

Legs typical, but the fourth legs more slender than those of epigean species. Leg I with basifemur 4.5 times as long as broad. Leg IV with entire femur 2.7 and tibia 4.8 times as long as broad; tactile setae on tibia 0.42, on metatarsus 0.24, and on telotarsus 0.31 the length of the segment from the proximal end.

Female: Unknown.

Measurements (mm): Body length 2.19. Carapace 0.61; ocular breadth 0.66; posterior breadth 0.62. Diameter of eyes 0.058. Chelicera 0.58 long by 0.28 broad; movable finger 0.31 long. Palpal trochanter 0.28 by 0.17; femur 0.82 by 0.16; tibia 0.37 by 0.19; chela 1.23 by 0.225; hand 0.46 by 0.23; movable finger 0.80 long. Leg I: basifemur 0.45 by 0.10; telofemur 0.23 by 0.09; tibia 0.28 by 0.07; tarsus 0.49 by 0.06. Leg IV: entire femur 0.71 long; basifemur 0.32 by 0.26; telofemur 0.48 by 0.25; tibia 0.53 by 0.11; metatarsus 0.24 by 0.09; telotarsus 0.45 by 0.05.

The teeth on the chelal fingers resemble those found in *A. magnanimus* and *A. colecampi* and thus differ from those of *A. moestus* and the other forms described here. Teeth of similar form and arrangement have been seen on a few specimens of *Apochthonius* from eastern states, but these have not been carefully studied.

***Apochthonius indianensis* sp. n.**
(fig. 4)

Material: A single specimen, the holotype male (WM 275.01001), taken by the author in Donaldson's Cave, Spring Mill State Park, Lawrence County, Indiana, on 29 August 1958.

Male: Generally similar to the epigean *A. moestus*, but larger, with more slender ap-

pendages and with the eyes slightly reduced. Length of the carapace about equal to the breadth across the eyes and narrowed posteriorly. Epistome very low and smooth; surface of carapace smooth dorsally, finely reticulated on the sides. Four eyes present; the anterior eyes large, well-developed, corneate, and about one ocular diameter from the anterior carapacial margin; posterior eyes about the same size as the anterior eyes, but with the cornea only slightly raised above the carapacial surface, located about one-half diameter from the anterior eyes. Carapacial setae 8-4-4-2-4=22. Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 3:4:4:7:7:7:7:9:9:6:6:0. Genital area typical. Sternal chaetotaxy $\frac{6}{8}:[4-4];\frac{9-8}{(4)6(4)}:(3)6(4):11:10:10:11:12:8:0$:mm.

Chelicera nearly as long as carapace; 2.06 times as long as broad. Palm with seven setae; fixed finger with 12-13 blunt teeth, decreasing gradually in size from distal to proximal; movable finger with eight or nine small, blunt teeth; galea represented only by a very slight elevation of the finger margin; serrula exterior with 16 plates; serrula interior with 13 plates; flagellum of eight unilaterally branched setae.

Palps generally similar to those of epigean species but more slender (fig. 4). Placement of tactile setae typical. Fixed finger with a row of 96 teeth, movable finger with 86 teeth. As in *A. moestus*, distal teeth are tall and quadrangular, with the more proximal teeth lower and more rounded. Trochanter 1.9, femur 5.7, tibia 2.0, chela 5.7 and hand 1.75 times as long as broad; movable finger 2.3 times as long as hand.

Legs typical but rather slender. Leg I with basifemur 4.4 times as long as broad. Leg IV with entire femur 2.7 and tibia 4.5 as long as broad; tactile setae on tibia 0.44, on metatarsus 0.28, and on telotarsus 0.27 the length of the segment from the proximal end.

Female: Unknown.

Measurements (mm): Body length 1.81. Carapace 0.53; ocular breadth 0.57; posterior breadth 0.49. Diameter of eyes 0.058. Chelicera 0.53 long by 0.26 broad; movable finger 0.28 long. Palpal trochanter 0.25 by 0.13; femur 0.71 by 0.125; tibia 0.33 by 0.16; chela 1.14 by 0.20; hand 0.35 by 0.20; movable finger 0.81 long. Leg I: basifemur 0.39 by 0.09; telofemur 0.19 by 0.07; tibia 0.22 by 0.06; tarsus 0.45 by 0.05. Leg IV: entire femur 0.58 long; basifemur 0.27 by 0.21; telofemur 0.38 by 0.20; tibia 0.43 by 0.095; metatarsus 0.21 by 0.07; telotarsus 0.40 by 0.05.

Hoff and Bolsterli (1956, p. 158) reported a large female specimen of *Apochthonius* from McCormick's Creek Canyon State Park, Indiana, which is about 40 miles distant from the type locality of *A. indianensis*. Their specimen approaches, but does not match the present species in size, having the palpal femur 0.63 mm. long and the chela 0.93 mm. long. Because the specimen was presumably found in an epigean situation and because females are generally larger than males in species of this genus, it is probably not referable to *A. indianensis*. From my observation of a number of epigean specimens of *Apochthonius* from scattered localities in the eastern states, it seems likely that critical study of large numbers of specimens will reveal the presence of several new species in the area.

***Apochthonius holsingeri* sp. n.**
(fig. 5)

Material: A single specimen, the holotype male (WM 466.01001), collected by J. R. Holsinger in Cave Run Pit Cave, about 8 miles north of Warm Springs, Bath County, Virginia, in February 1962.

Male: Generally similar to epigean species but larger, more slender, without eyes, and with a smaller number of setae on the chelicera. Carapace about as long as broad, slightly narrowed posteriorly. No epistome present, anterior carapacial margin straight and smooth. No eyes or eye spots evident. Carapacial setae 8-4-4-2-5=23. Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 3:4:5:6:7:9:9:10:9:7:6:0. Genital area typical. Sternal chaetotaxy $\frac{6}{6}:[4-4];\frac{8-9}{(3)8(3)}:(4)6(4):12:11:13:13:13:10:0$:mm.

Chelicera slightly shorter than carapace; 2.03 times as long as broad. Palm with six setae;

fixed finger with a distal row of five medium-sized, pointed teeth, preceded proximally by about nine small, pointed ones. Movable finger with a row of nine small, pointed teeth, and an isolated tooth located about $\frac{1}{3}$ the distance from the end of the row to the finger tip; galea represented by a very small elevation on the finger margin; serrula exterior with 17 plates; flagellum of eight unilaterally branched setae.

Palps generally similar to those of epigeal species, but more slender (fig. 5). Placement of tactile setae typical. Fixed finger with a row of 84 teeth, movable finger with 85 teeth. As in *A. moestus*, distal teeth tall and quadrangular, the more proximal ones lower and rounded. Trochanter 1.9, femur 5.5, tibia 2.2, chela 5.9 and hand 1.9 times as long as broad; movable finger 2.15 times as long as hand.

Legs typical, but more slender than those of epigeal species. Leg I with basifemur 5.1 times as long as broad. Leg IV with entire femur 2.6 and tibia 4.1 times as long as broad. Tactile setae on tibia 0.45, on metatarsus 0.21, and on telotarsus 0.25 the length of the segment from the proximal end.

Female: Unknown.

Measurements (mm): Body length 1.72. Carapace 0.48; ocular breadth 0.50; posterior breadth 0.48. Chelicera 0.45 long by 0.22 broad; movable finger 0.24 long. Palpal trochanter 0.25 by 0.13; femur 0.68 by 0.125; tibia 0.33 by 0.15; chela 1.02 by 0.175; hand 0.33 by 0.175; movable finger 0.71 long. Leg I: basifemur 0.38 by 0.075; telofemur 0.18 by 0.07; tibia 0.20 by 0.06; tarsus 0.41 by 0.04. Leg IV: entire femur 0.53 long; basifemur 0.25 by 0.20; telofemur 0.34 by 0.19; tibia 0.37 by 0.09; metatarsus 0.18 by 0.07; telotarsus 0.37 by 0.05.

Like *A. coecus*, which also occurs in Virginia, this species has no eyes. However, it is easily distinguished from *A. coecus* by its larger size, more attenuated appendages, and six, rather than seven, setae on the cheliceral palm. This species is named for John Holsinger, who has done much to promote biospeleology in Virginia.

***Apochthonius typhlus* sp. n.**

(fig. 6)

Material: Holotype male (WM 305.01003), allotype female, and a paratype female taken 26 January 1958 in Old Spanish Cave, Stone County, Missouri; a paratype male and two paratype females from Hooten Cave, 0.5 mile from Hootentown Bridge across James River, Stone County, Missouri, on 25 January 1958; all collected by T. C. Barr, Jr.

Male: (Figures given for the holotype are followed in parentheses by figures relating to the paratype.) Generally similar in form to *A. moestus*, but larger and more slender. Carapacial length about equal to the "ocular" breadth, carapace narrowing posteriorly. Surface with fine reticulations on the sides. Epistome triangular and with a few serrations at the tip. No eyes or eye spots evident. Carapacial setae 7-4-4-2-4=21 (6-4-4-2-4=20). Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 4:5:6:7:9:9:10:8:7:6:6:0 (only 4 setae on tergite 2 of the paratype). Sternal chaetotaxy $\frac{8}{6}$: [4-4]: $\frac{10-11}{(3)10(3)}$: (3)8(3):14:13:13:14:14:10:0:mm.

Chelicera about as long as carapace, 2.29 times as long as broad. Palm with seven setae; fixed finger with 14-15 pointed teeth decreasing gradually in size from distal to proximal; movable finger with eight small, blunt teeth; galea represented by an extremely small elevation of the finger margin; serrula exterior with 18-19 plates; serrula interior with 13 plates; flagellum of eight unilaterally branched setae.

Palps generally similar to those of epigeal species, but more slender (fig. 6). Placement of tactile setae typical. Fixed finger with a row of 111(114) teeth, movable finger with 85(85) teeth. Like those of *A. moestus*, distal teeth tall and quadrangular, the more proximal ones lower and rounded. Trochanter 2.0(1.9), femur 5.2(5.1), tibia 2.2(2.1), chela 6.0(6.2), and hand 1.9(2.0) times as long as broad; movable finger 2.16(2.12) times as long as hand.

Legs typical, but relatively slender. Leg I with basifemur 5.3(5.2) times as long as broad. Leg IV with entire femur 3.3(3.0) and tibia 5.0(5.0) times as long as broad; tactile setae on tibia 0.41(0.41), on metatarsus 0.25(0.24), and on telotarsus 0.29(0.26) the length of the segment from the proximal end.

Female: (Figures given for the allotype are followed in parentheses by ranges based on the three paratypes.) Similar to the male, but a little larger. No evidence of eyes. Carapacial chaetotaxy 8-4-4-2-4=22. Coxal area typical; each coxa I with three spines.

Abdomen typical. Tergal chaetotaxy 4:4:6:7:8:9:8:8:10:7:6:0. Genital area typical. Sternal chaetotaxy $\frac{2}{6}$:(3)9(3):(4)6(4):11:13:11:13:12:9:0:mm.

Chelicera slightly longer than carapace, 2.20 times as long as broad. Palm with seven setae, except only six setae on one chelicera of a paratype from Hooten Cave. Galea represented by a distinct bump on the finger margin.

Palps generally like those of male. Fixed finger with 96(106-114) teeth, movable finger with 83(84-92) teeth. Trochanter 2.0(1.9-2.1), femur 5.2(5.2-5.4), tibia 1.9(2.1-2.2), chela 5.5(5.5-5.8), and hand 1.9(1.9) times as long as broad; movable finger 2.07(2.09-2.18) times as long as hand.

Leg I with basifemur 5.0(5.0-5.3) times as long as broad. Leg IV with entire femur 3.1(3.2-3.3) and tibia 4.8(4.7-5.2) times as long as broad; tactile setae on tibia 0.40(0.40-0.43), on metatarsus 0.23(0.24-0.27), and on telotarsus 0.32(0.26-0.31) the length of the segment from the proximal end.

Measurements (mm): *Male*: Body length 2.11(1.94). Carapace 0.55(0.56) long, "ocular" breadth 0.56(0.51). Chelicera 0.57(0.53) long by 0.25(0.23) broad; movable finger 0.28(0.27) long. Palpal trochanter 0.28(0.25) by 0.14(0.13); femur 0.76(0.71) by 0.145(0.14); tibia 0.37(0.34) by 0.17(0.16); chela 1.20(1.12) by 0.19(0.18); hand 0.38(0.37) by 0.20(0.18); movable finger 0.82(0.78) long. Leg I: basifemur 0.42(0.39) by 0.08(0.075); telofemur 0.19(0.18) by 0.07(0.07); tibia 0.23(0.21) by 0.07(0.05); tarsus 0.46(0.39) by 0.05(0.04). Leg IV: entire femur 0.65(0.60) long; basifemur 0.31(0.26) by 0.20(0.20); telofemur 0.42(0.39) by 0.19(0.18); tibia 0.47(0.45) by 0.095(0.09); metatarsus 0.23(0.20) by 0.07(0.07); telotarsus 0.42(0.39) by 0.05(0.05).

Female: Body length 2.50(2.13-2.51). Carapace 0.59(0.58-0.72) long, "ocular" breadth 0.65(0.58-0.73). Chelicera 0.64(0.65-0.77) long by 0.29(0.29-0.37) broad; movable finger 0.31(0.31-0.41) long. Palpal trochanter 0.32(0.31-0.41) by 0.16(0.15-0.18); femur 0.83(0.83-0.93) by 0.16(0.16(0.15-0.18)); tibia 0.38(0.39-0.45) by 0.20(0.18-0.21); chela 1.31(1.27-1.45) by 0.24(0.22-0.26); hand 0.43(0.42-0.46) by 0.23(0.22-0.24); movable finger 0.89(0.88-1.00) long. Leg I: basifemur 0.45(0.44-0.50) by 0.09(0.09-0.10); telofemur 0.21(0.21-0.24) by 0.08(0.07-0.09); tibia 0.26(0.27-0.29) by 0.07(0.07); tarsus 0.47(0.48-0.49) by 0.05(0.05-0.06). Leg IV: entire femur 0.69(0.68-0.75) long; basifemur 0.31(0.31-0.35) by 0.22(0.21-0.23); telofemur 0.45(0.44-0.47) by 0.21(0.19-0.21); tibia 0.48(0.48-0.56) by 0.10(0.10-0.11); metatarsus 0.26(0.23-0.25) by 0.08(0.08-0.09); telotarsus 0.45(0.43-0.46) by 0.05(0.05-0.06).

A. typhlus is easily distinguished from other midwestern species of the genus because it is completely eyeless.

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