

THE GENUS *ATTIDOPS* (ARANEAE, SALTICIDAE)

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ABSTRACT. The genus *Attidops* is resurrected from *Ballus* based on its strongly excavate cymbial tip, transverse embolar groove, flatter carapace with extended postocular area, and single retromarginal cheliceral tooth, which indicate a closer relationship to the genus *Admestina*. The type species, *Ballus youngii* Peckham & Peckham 1888, again transferred, becomes *Attidops youngi* (Peckham & Peckham). Two new species, *Attidops nickersoni* (sister species to *A. youngi*) and *Attidops cutleri*, are described. *Icius cinctipes* Banks 1900, previously transferred to *Ballus*, becomes a new combination, *Attidops cinctipes* (Banks). Lectotypes and paralectotypes are designated for *Ballus youngii* and *Icius cinctipes*. The genus is recorded from south-central Canada, eastern U.S. and eastern Mexico.

Banks (1905) created the genus *Attidops* in a footnote, stating simply “*Attidops*, a new genus for *Ballus youngi* Peck.” The Peckhams (1909) refuted this genus, asserting that, “. . . *Youngii* is so close to the type of *Ballus* (*depressus*) that Mr. Emerton, in a letter to us, has suggested that it may be identical. We think that it [*youngi*] differs enough to be a good species, but it clearly belongs to the genus *Ballus*, and hence we treat *Attidops* as a synonym.” Unfortunately, none of these authors offered any morphological evidence supporting or refuting the placement of *B. youngi* in *Ballus*. Kaston (1948) later addressed this issue: “although *Ballus* is considered a pluridentate genus, all the specimens of *youngii* seen by me have only a single retromarginal tooth. There may be justification for removing *youngii* to the genus *Attidops* set up for it by Banks (1905).” Quotes are as originally published, except name in brackets is my insertion.

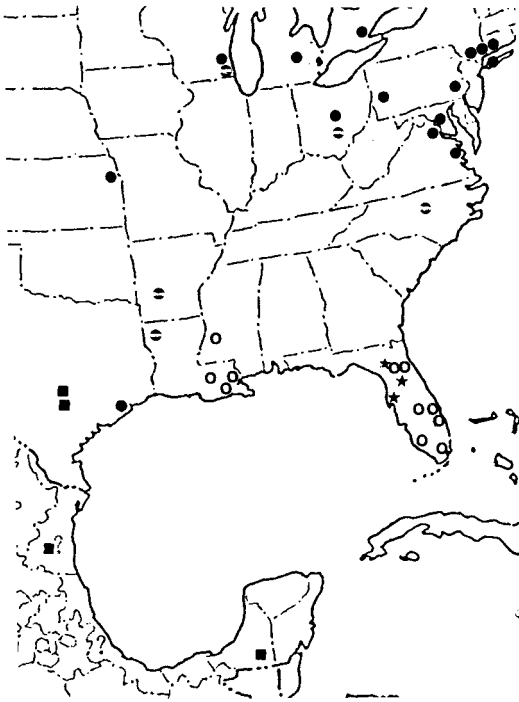
European species of *Ballus* C.L. Koch 1851 have been revised by Alicata & Cantarella (1987) with good illustrations of the genitalia, and Roberts (1985b: plate 59) illustrated in color the female dorsum of *Ballus chalybeius* (Walckenaer 1802) (as *Ballus depressus*). *Aranea depressa* Walckenaer 1802 (the type species of *Ballus*), which has page priority over *Aranea chalybeia* Walckenaer 1802, is pre-

occupied by *Aranea depressa* Razoumowsky 1789. *Admestina* Peckham & Peckham 1888, a genus consisting of three small, bark-dwelling species known from eastern North America, has also been revised (Piel 1991). In order to ascertain relationships, I compared specimens of the type species of all three putative genera: *Attidops youngi*, *Ballus chalybeius*, and *Admestina tibialis* Peckham & Peckham 1888. I concluded that *Attidops* is more closely related to *Admestina* than it is to *Ballus*, therefore I resurrect *Attidops*. *Icius cinctipes* Banks 1900, which I previously transferred to *Ballus* (Edwards 1980), also belongs in *Attidops*. In addition, two new species belonging to *Attidops* are described below.

METHODS

Measurements (in mm) of carapace length (CL), carapace width (CW), body length (BL), and legs were made with a calibrated ocular reticule in a Leica MS5 binocular microscope. If available, five specimens of each sex were measured; primary type measurements are given in parentheses within the range of variation of each species. A camera attachment was used to photograph dorsal views of specimens. Male and female genitalia were dissected, mounted in depression slides, and photographed through a Nikon Labophot compound microscope. All photographs were digitized, computer enhanced, printed, and retouched with black and white inks to produce most of the figures. Other abbreviations used are: anterior median eyes (AME), anterior lat-

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Map 1.—Distribution of *Attidops* species: ● = *A. youngi* (divided circles = literature records), ★ = *A. nickersoni* new species; ■ = *A. cutleri* new species, ○? = *A. cinctipes*. Québec literature record of *A. youngi* not shown.

eral eyes (ALE), posterior median eyes (PME), posterior lateral eyes (PLE), anterior eye row (AER), posterior eye row (PER), and ocular quadrangle (OQ; the area bounded by the ALE and PLE). Eyes are included in the measurements of eye row width and OQ length. All illustrations of male palpi are of the left palpus.

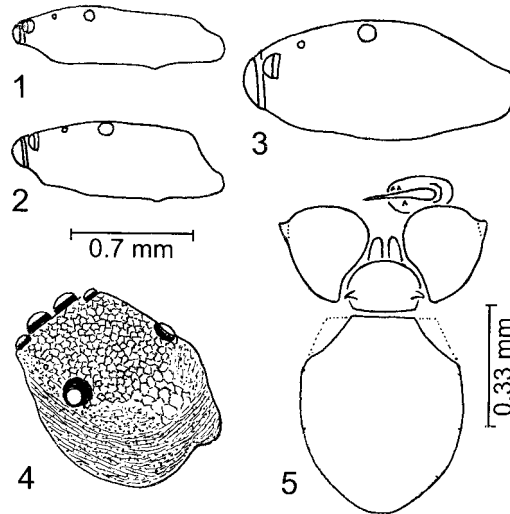
I follow Platnick (1989) in considering Bonnet's corrections of patronyms ending in *-ii* as valid emendations of incorrect original spellings. Possible sites of obscure localities were found with <http://mapping.usgs.gov/www/gnis/gnisform.html>.

TAXONOMY

Attidops Banks 1905 Map 1

Attidops Banks 1905: 321 in footnote
Attidops: Peckham & Peckham 1909: 586 (= *Ballus*)

Type species.—*Ballus youngii* Peckham & Peckham by monotypy.



Figures 1-5.—Prosomal views. 1-3, lateral view of female carapace. 1. *Admestina tibialis*; 2. *Attidops youngi*; 3. *Ballus chalybeius*; 4-5, Male *Attidops youngi*. 4. Posterolaterodorsal view of carapace showing surface reticulations; 5. Venter of prosoma minus legs, free segments of palpi, and one chelicera. Figures 1-4 to same scale.

Diagnosis.—Carapace flat as in *Admestina* (Fig. 1), but postocular dorsum (from PLE to top of thoracic slope) extended about equal to length of OQ (Fig. 2). The cymbium is strongly excavate distally on the retrolateral side, and the embolar groove is transverse. The embolus is situated distally and makes 1.5-3 spirals. The lateral portion of the tegular duct has a well-developed median bend. The gonopores of the epigynum are medial in transverse slits or a transverse depression. The epigynal plate is triangular, as in *Admestina*, although in *Attidops* the anterior epigynal edge is not well-defined. Tibia I not enlarged nor abdomen elongated as in *Admestina*. In *Admestina*, the postocular dorsum extends at least 1.25× length of OQ, the cymbium is only slightly excavate, the embolus is canted to the retrolateral side and is a single spiral, and the gonopores are anterior. In *Ballus*, the carapace is not as flat, the postocular dorsum extends only about 0.5× length of OQ (Fig. 3), the cymbium is not excavate, the embolar groove is longitudinal, the embolus has more than 3 spirals mostly fused together, and the gonopores are in submedian longitudinal slits.

Description.—Small spiders, 2.1-3.1 in length, carapace length 1.0-1.3, width 0.8-1.1

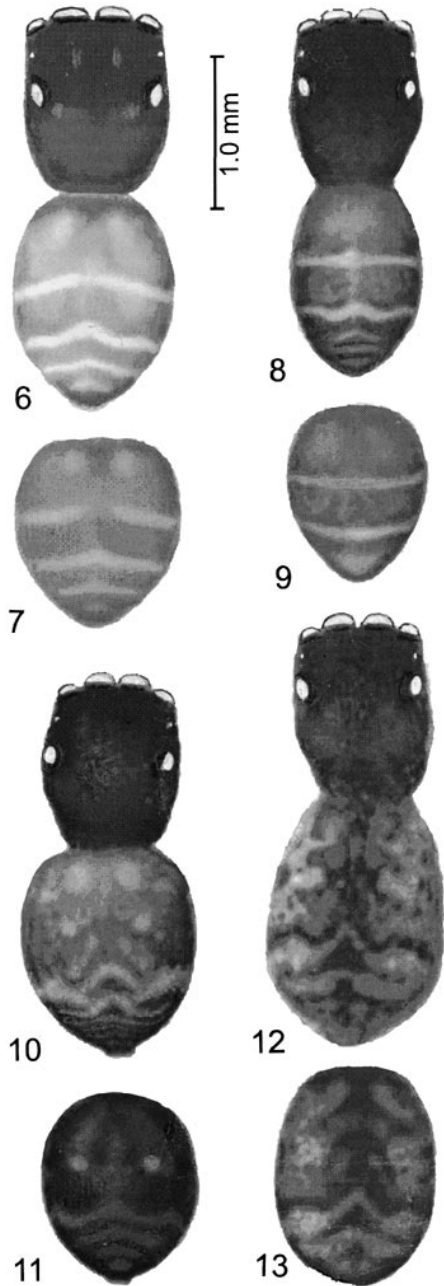
at widest point behind PLE and half as high as wide in middle, length of OQ plus AME almost half length of carapace; PME tiny, on line between dorsal edges of ALE and PLE, slightly closer to ALE (0.46 distance from ALE to PLE). Prosoma: carapace dark reddish-brown, darker around eyes; vertical laterally, flat dorsally with slight slant downward from PLE forward; postocular dorsum extends about the length of the OQ behind the PLE; thoracic slope is abruptly steep (but not vertical) and slightly concave; carapace integument (Fig. 4) entirely reticulate (reticulations polygonal on OQ, granular tending toward anastomosing striations laterally and posteriorly), polygonal reticulations extending posterior to PER medially to top of thoracic slope; chelicerae small, two adjacent promarginal teeth, one opposing retromarginal tooth; endites semitruncate distally with corners rounded, with a slight flange or incipient cusp in males on outer distal corners; labium slightly wider than anterior margin of sternum, with minute, transverse, sclerotized ridge each side posterolaterally (Fig. 5); venter and legs reddish- to yellowish-brown (pale yellow in *A. cinctipes*); legs IV, I, II, III in order of length, both sexes similar; legs I only slightly broader than legs II-IV, legs with brown maculations. All tarsi and metatarsi pale yellow with proximal brown annulae. Leg measurements given only for *A. youngi*, as all four species are similar, and legs are proportional to body size. The only macrosetae present (all ventral) are: leg I: metatarsus 2-2 (distal and median), tibia 2-1 or 1-0 (median and proximal); leg II:

metatarsus 1 (median), tibia 1 (median). Male palp with femur concave ventrally; sperm duct, upon traversing distal haematodocha, enters a membranous to sclerotized apparent embolus base which forms a core which is surrounded by a spiralled, flat, mostly membranous to mostly sclerotized embolus. Opisthosoma (abdomen): 0.8-1.4 wide; dorsum reddish brown with an anterior pair of submedian pale integumental spots, followed by two or three complete, narrow, pale transverse bands, followed by a few partial median transverse bands (all partially obscured in *A. cinctipes*); in males, dorsum completely covered with a translucent scutum (not obscuring pattern); venter pale to reddish-brown, without maculations (except *A. cinctipes*). Entire body with sparse covering of short white setae and translucent clear to white "scales" (flattened adpressed setae), especially laterally.

In addition to the above mentioned differences, *Ballus* has two or three teeth on a raised portion of the cheliceral retromargin ("serrated platelet"; Alicata & Cantarella 1987), the labium lacks modifications, anteriorly the carapace is inclined noticeably downward from the PME, the posterolateral areas of the carapace are concave, the thoracic slope is gradually inclined, the lateral portion of the tegular duct has the median bend barely noticeable, and the epigynum is rectangular with the anterior margin of the epigynum well-defined. In size, species of *Ballus* are mostly longer than (2.5-5.0: Roberts 1985a; Alicata & Cantarella 1987) and have more mass than (since they are not as flat) species of *Attidops*.

KEY TO THE SPECIES OF *ATTIDOPS*

1. Integument mostly pale (except carapace), with symmetrical dark maculations on legs and on abdomen (both dorsum and venter) (Figs. 12-13); embolus heavily sclerotized, 1.5 spirals (Figs. 24-25); gonopores in submedian transverse slits (Figs. 26-27); Gulf states of U.S. (and Mexico?)
 *cinctipes* (Banks)
- Integument mostly dark reddish brown, with narrow pale transverse bands on abdominal dorsum; abdominal venter immaculate; embolus with 2 or 3 spirals; gonopores in transverse depression 2
2. Embolus mostly sclerotized, 2 spirals (Figs. 22-23); gonopores in posterior depression (Figs. 29-30); abdominal transverse bands broken and/or fused (Figs. 10-11); Texas, Gulf states of Mexico *cutleri* Edwards
- Embolus mostly membranous, 3 spirals (Figs. 14-15, 18-19); gonopores in lobed median depression (Figs. 16-17, 19-20); abdominal transverse bands distinct 3
3. Three complete transverse abdominal bands, two pair small white spots on OQ (Figs. 6-7); south-central Canada, eastern U.S. except lower Southeast *youngi* (Peckham & Peckham)
- Two complete narrow transverse abdominal bands; no OQ spots (Figs. 8-9); central Florida ...
 *nickersoni* Edwards



Figures 6–13.—Female dorsum, male dorsal abdomen of species of *Attidops*. 6–7. *A. youngi*; 8–9. *A. nickersoni* new species; 10–11. *A. cutleri* new species; 12–13. *A. cinctipes*.

Attidops youngi (Peckham & Peckham 1888)
Figs. 2, 4–7, 14–17

Ballus youngii Peckham & Peckham 1888:87, Plate 1 Fig. 66 (♀ abdominal dorsum), Plate 6 Fig. 66,

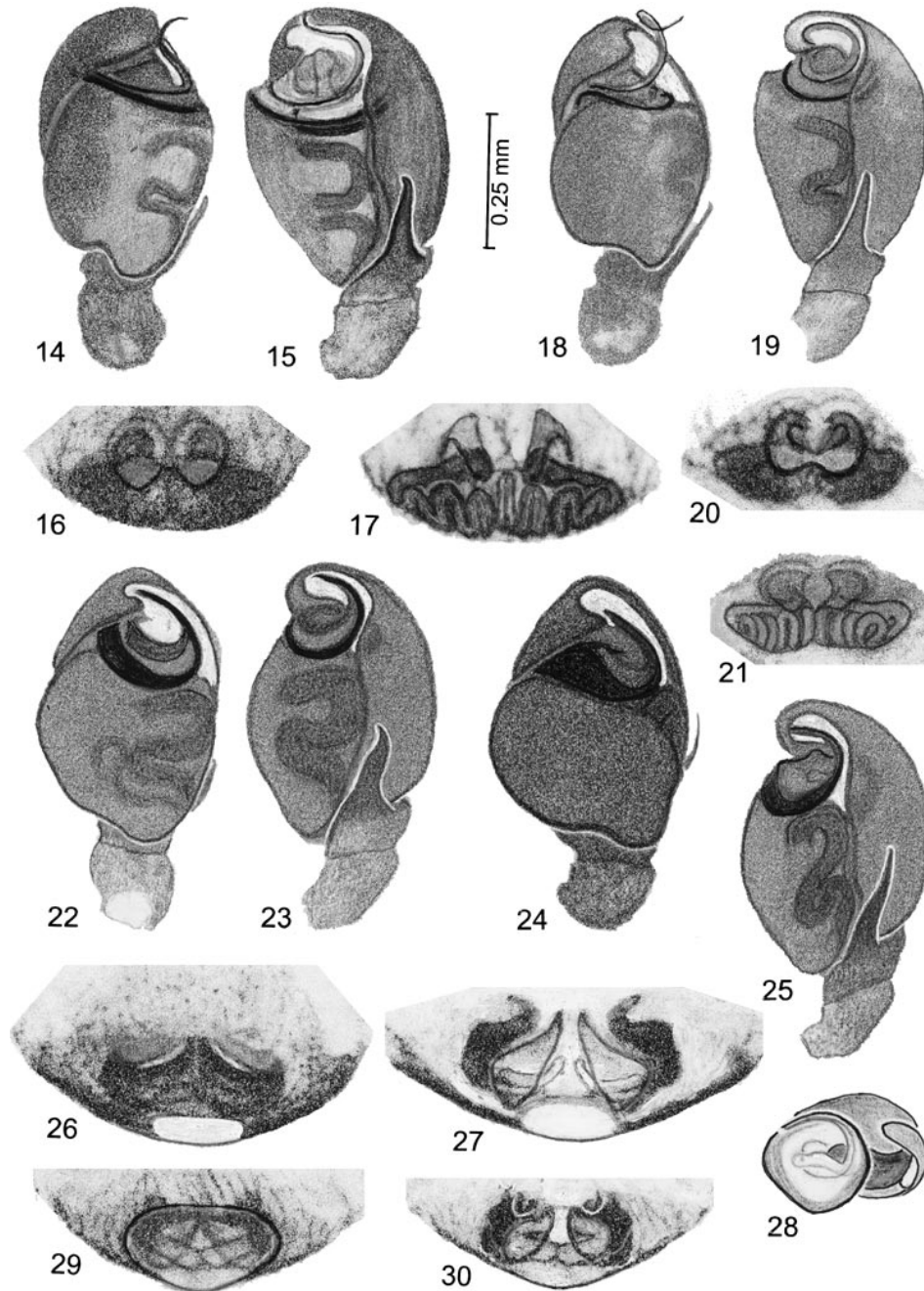
66a (♂ palp), 66b (epigynum); Cotypes (♂ palp; 3 ♀, one missing epigynum) from USA: *Pennsylvania*: Allegheny County, under bark (usually hickory and sycamore), November (J.J. Young, MCZ), examined [data from description]; ♀ lectotype, 3 paralectotypes designated

B. youngi: Marx 1890:576 (-ii); Banks 1895:92, 1899:190; Simon 1901:485; Peckham & Peckham 1909:586 (-ii), Plate 49: Figs. 9, 9a (♂ palp), Plate 51: Figs. 13, 13a (♀ abdomen, epigynum); Petrunkevitch 1911; Comstock 1913:671 (-ii); Crosby & Bishop 1928; Kaston 1938:195 (-ii), 1948:447 (-ii), Figs. 1621 (epigynum), 1622 (palp); Roewer 1954:973 (-ii); Bonnet 1955:848; Levi & Field 1954:462 (-ii); Dorris 1968:36 (-ii); Berry 1970:104; Richman & Cutler 1978:83; Stietenroth & Horner 1987:237; Bélanger & Hutchinson 1992:71 (-ii)
Attidops youngi: Banks 1905:321, 1910:74; Barrows 1918:315

Diagnosis.—Carapace with two pairs of white spots. Abdomen with three white, narrow, transverse abdominal bands, of which the second band is noticeably bent forward in the middle. Embolus mostly membranous and starts ventrally, with three spirals; embolus base membranous. Epigynum with a lobed, central, shallow pit containing the gonopores, which open near the center on the lateral edges of the lobe; ducts convoluted and diverted laterally.

Description.—Female CL 1.14 (1.15)–1.30, CW 0.89 (0.90)–1.00, BL 2.40 (2.65)–2.70; male CL 1.15–1.25, CW 0.87–0.98, BL 2.35–2.75. Embolus sclerotized on outer edge, sperm duct on inner edge. Carapace with two pair of small white spots (patches of scales), one pair about the middle of the OQ, the other pair posteromedial to the PLE; AER about 0.87 the width of the PER. Legs with femora, patellae, and tibiae brown laterally. Leg segment lengths of typical female (in order legs I–IV): femora (0.39, 0.32, 0.31, 0.42), patellae (0.23, 0.20, 0.16, 0.21), tibiae (0.19, 0.17, 0.17, 0.27), metatarsi (0.15, 0.15, 0.15, 0.24), tarsi (0.16, 0.16, 0.16, 0.17). First transverse abdominal band often broken in middle; rarely a nearly complete fourth transverse band present posteriorly.

Distribution.—South-central Canada and eastern United States from Connecticut to North Carolina, west to Wisconsin, and south to eastern Texas; under the bark of deciduous hardwoods (elm, shagbark hickory, sycamore) and hemlock. Literature records for which I



Figures 14–30.—*Attidops* genitalia. 14, 18, 22, 24. Palpi, ventral view; 15, 19, 23, 25. Palpi, retrolateral view; 28. Palpus, distal, slightly retrolateroventral view, cymbium removed; 16, 20, 26, 29. Epigyna, ventral view; 17, 21, 27, 30. Epigyna, dorsal view; 14–17. *A. youngi*; 18–21. *A. nickersoni* new species; 22–23, 29–30. *A. cutleri* new species; 24–28. *A. cincipes*.

have not seen specimens are those of Banks (1899) from Louisiana, Barrows (1918) from Ohio (Rockbridge), Bélanger & Hutchinson (1992) from Québec, Berry (1970) from North Carolina, Dorris (1968) from Arkansas, and Levi & Field (1954) from Wisconsin.

Material examined.—**CANADA:** *Ontario:* Halton County, Burlington, Lamb's Hollow, 1 August 1985, 1 ♀ (W. Maddison, MCZ); **USA:** *Connecticut:* Fairfield County, Shelton, 7 April 1935, 1 ♀ (B.J. Kaston, USNM); New Haven County, Mt. Carmel, 15 April 1935, 1 ♂ 1 ♀ (B.J. Kaston, USNM); South Meriden, 31 March 1935, 2 ♂ (H.L. Johnson, USNM); *Kansas:* Jefferson County, Nelson Environmental Area, 24 January 1994, 1 juv (H. Guarisco, HGC); *Maryland:* Montgomery County, Silver Spring, 28 September 1944, 1 ♀ (M.H. Muma, FSCA); *Michigan:* Livingston County, E.S. George Reserve, June–August 1951–1957, 13 ♂ 19 ♀ 4 juv (all H.K. Wallace, FSCA); *New York:* Nassau County, Sea Cliff, 1 ♂ 1 ♀ 2 juv (2 vials) (N. Banks, MCZ); Orange County, Harriman, Bear Mountain State Park, 25 April 1964, 1 ♂ (J. & W. Ivie, AMNH); Westchester County, Yonkers, 14 January 1935, 1 ♀ 6 juv (R. Woodbury, USNM); *Ohio:* Knox County, Brinkhaven, on sandstone cliffs, 15 September 1917, 4 ♂ 3 ♀ (W.M. Barrows, OSU); *Pennsylvania:* Bucks County, northeast of Jamison, Horseshoe Bend, January–June and October 1954–1958, 63 ♂ 77 ♀ 14 juv (all W. Ivie, AMNH); *Texas:* Brazoria County, Otey, February 1971, 1 ♂ (K. Stephan, FSCA); *Virginia:* Arlington County, Cherrydale, 20 April 1935, 1 ♂ 1 ♀; 30 April 1935, 1 ♂ 3 ♀ (all R. Woodbury, USNM); York County, Site 5, 5 January 1984, 1 juv (C. Stietenroth, MSU); *Wisconsin:* [? Waukesha County, Pine Lake], 1 ♂ (Peckham, MCZ); [? *Alabama:* Lawrence County or *Texas:* Anderson County]: Green's Bluff, phoebe's nest, 5 November 1949, 1 ♂ 2 ♀ (FSCA). Brackets indicate possible resolutions of missing data.

Attidops nickersoni new species

Figs. 8–9, 18–21

Types.—Holotype ♂, alloparatype ♀ together in one vial; 1 ♂ 6 ♀ paratypes in second vial, from **USA:** *Florida:* Marion County, Ocala National Forest, 1.8 miles west of FR 579 on FR 595 [older maps indicate as FR 79 and FR 95, respectively], under bark of living and dead longleaf pines, 13 November 1975 (G.B. Edwards and J.C.E. Nickerson, FSCA); 1 ♂ paratype, same locality, 6 November 1998 (P.E. Skelley, FSCA); 1 ♂ 3 ♀ paratypes, 2 miles west of FR 579 on FR 595, 29 September 1976 (G.B. Edwards, FSCA) [collected as penultimates, all matured October 1976].

Etymology.—Named after the late Dr. Everett Nickerson, fellow student of Dr. Willard H. Whitcomb, co-collector of the type series.

Diagnosis.—Proportionately narrower than *A. youngi*, and there are only two pale yellow, very narrow, transverse abdominal bands (the second sometimes has a slight median forward bend), followed (in preserved specimens) by a pale posterior triangular spot (which in females has 3–5 partial, median transverse bands). Embolus like *A. youngi*, but it starts retrolaterally. Epigynum like *A. youngi*, but proportionately smaller.

Description.—Female CL 1.13–1.20, CW 0.81–0.86, BL 2.17–2.40; male CL 1.10 (1.10)–1.15, CW 0.80 (0.80)–0.82, BL 2.25 (2.25)–2.30. Males with prolaterodorsal yellow stripe on all patellae and tibiae; otherwise legs marked as in *A. youngi*, but paler ventrally. The Gainesville specimen differs by having the most anterior band broken in the middle, and by having a third transverse band, also broken in the middle.

Distribution.—Central Florida, most records from under the bark of longleaf pine.

Material examined.—**USA:** *Florida:* Alachua County, Gainesville, under live oak bark, 30 November 1975, 1 ♀ (D.B. Richman, FSCA); Pinellas County, Dunedin, 1927, 1 ♀ (W.S. Blatchley, MCZ).

Attidops cutleri new species

Figs. 10–11, 22–23, 29–30

Types.—Holotype ♂ from **USA:** *Texas:* Travis County, Austin, 18 October 1967 (D. Simon, FSCA); paratype ♂ from Texas: Caldwell County, Lockhart State Park, W97.40: N29.50, 13 April 1963 (W.J. Gertsch & W. Ivie, AMNH).

Etymology.—Named for Dr. Bruce Cutler, who first identified the AMNH specimens to genus.

Diagnosis.—Shorter than *A. youngi*, and the first transverse band broken into two spots (making two pair of spots anteriorly), the second transverse band (apparent first band) bent forward not only in the middle but once on each side as well, and all following bands bent forward in the middle. Embolus more sclerotized than membranous with two complete spirals, embolus base sclerotized. Epigynum with gonopores located in anterior part of large posterior depression; ducts less complex than *A. youngi*.

Description.—Female CL 1.0–1.0, CW

0.80–0.85, BL 2.2–2.2; male CL (1.05)–1.05, CW (0.86)–0.92, BL (2.15)–2.15. Legs marked as in *A. youngi*. Dorsum of abdomen with scattered symmetrical lateral pale markings; second and third transverse bands (usually the only two complete bands present) may be fused together laterally and somewhat broken medially in females. Overall color pattern gives the impression of being intermediate between *A. youngi* and *A. cinctipes*. Males and females have not been collected together, but the size, shape and color pattern of the specimens leads me to match them. The Tamaulipas female has underdeveloped insemination ducts and may be immature, therefore I have illustrated the Campeche female.

Distribution.—Texas south into Mexico in states bordering the Gulf of Mexico.

Material examined.—**MEXICO:** *Tamaulipas:* Llera Mesa (near summit), W98.59:N23.23, 16 April 1963, 1♀(?) 2 juv (W.J. Gertsch & W. Ivie, AMNH); *Campeche:* Chicanna ruins, ca. 8 km w Xpujil, ca. 89°31'W, 18°32'N, dead branch in short tropical rainforest, 12–14 July 1983, 1♀ (W. Maddison, MCZ).

Attidops cinctipes (Banks 1900),

NEW COMBINATION

Figs. 12–13, 24–28

Scius cinctipes Banks 1900:101 [*Scius a lapsus calami* for *Icius*]; Cotypes (2♀) from **USA:** *Louisiana:* Baton Rouge Parish, Baton Rouge, May (H. Soltaw, MCZ), examined, lectotype and paralectotype designated (subadult specimen also present)

Icius cinctipes: Banks 1910:71; Petrunkevitch 1911: 661; Bryant 1933:193, Figs. 42 (epigynum), 47(♀ dorsum); Roewer 1954:1222; Bonnet 1957: 2279

Ballus cinctipes: Edwards 1980:12 (n. comb.); Platnick 1993:738

Diagnosis.—As large to slightly larger than *A. youngi*, and the abdomen, while retaining remnants of the typical *Attidops* pattern (e.g., evidence of anterior pale spots and posterior light transverse bands), is dominated by pale coloration with symmetrical median dark maculations. Embolus with one and a half spirals, heavily sclerotized; embolus base sclerotized and extended dorsally to create shield with curved rectangular projection which cradles part of distal embolus. Epigynum with gonopores in two submedial, transverse slits; ducts like *A. cutleri* but larger.

Description.—Female CL 1.11 (1.18)–

1.30, CW 0.90 (0.95)–0.95, BL 2.45 (3.00)–3.10; male CL 1.21–1.40, CW 0.94–1.06, BL 2.50–2.90. Carapace brown, but lighter reddish-brown dorsally behind eyes and onto thoracic slope. Legs pale, with dark brown maculations dorsal distally on patellae, dorsal proximally on tibiae (in addition to broken proximal rings on tarsi and metatarsi), and laterally (both sides) on femora and tibiae; the femora may have one or two maculations each side. Dorsal abdominal pattern may coalesce into median chevrons, especially posteriorly, and there are many small dark spots laterally, approaching the pattern found in *Admestina*. Abdominal venter pale with median gray stripe flanked by several pair of gray spots.

Like *A. cinctipes*, the color pattern of *Admestina* consists of pale integument (except for the dark carapace) with dark maculations on legs and abdominal venter, and the pale abdominal dorsum has a series of connected dark median chevrons or triangles (more restricted to the sagittal plane and sometimes totally coalesced into a black median stripe) and small dark lateral spots, although the body is much narrower.

Distribution.—Florida to Louisiana, possibly into eastern Mexico (where two penultimate males with the appropriate color pattern were found); most found on laurel and water oaks.

Material examined.—**USA:** *Florida:* Alachua County, Gainesville, 7 February 1927, 1♀ (OSU); Lochloosa Wildlife Management Area, September–March, 1976–1985, 3♂21♀ (2 eggsacs with 3 and 5 eggs respectively) (G.B. Edwards, D.B. Richman; FSCA); Collier County, Royal Palm Park, March 1929, 1♀ (W.S. Blatchley, MCZ); Dade County, Homestead, 1♀ (AMNH); Highlands County, Lake Placid, Archbold Biological Station, 24 November 1961, 1♀ (A.M. Nadler, AMNH); Indian River County, Vero Beach, on *Avicennia germinans*, 10 July 1990, 1 juv (K. Hibbard & K. Dady, FSCA); St. Lucie County, on *Ficus* sp., 1♀ (E. Thompson & K. Hibbard, FSCA); *Louisiana:* Jefferson Parish, Harahan, 15 November 1944, 1 juv (F.G. Werner, MCZ); Tammany Parish, Covington, 1♀ (N. Banks, MCZ); *Mississippi:* Claiborne County, on car, 13 April 1954, 1♂ (H.K. Wallace, FSCA); **MEXICO:** *Tamaulipas:* nr. Gomez Farias, woody plants, 6 June 1983, 1 juv♂ (W. Maddison, MCZ); *Veracruz:* Los Tuxtlas, dead palm fronds, 1 August 1983, 1 juv♂ (W. Maddison, MCZ).

DISCUSSION

Maddison (1996) mentions both *Ballus* and *Admestina* among a group of genera possibly

derived from the Dendryphantinae. *Attidops* can be included in this group. All three genera have the embolus a distal spiral set perpendicular to the tegulum, an unequally bilobed tegulum, and the carapace integument is entirely reticulate (with coarser reticulations in the OQ extending past the PLE), which may be characteristic of the group. *Admestina* and *Attidops* share a flattened carapace with a long postocular dorsum; cusp-like flange subdistally on the anterior outer corner of male endites; the excavate cymbial tip and the transverse embolar groove; a broadly triangular epigynal plate; and the males have a complete dorsal abdominal scutum. *Ballus* has a small, subdistal anterolateral cusp on the male endites. Both the cusp and the flanges in this position might support a relationship to the dendryphantines (which have cusps), although not necessarily supporting a close relationship between *Ballus* and the two other genera. *Marpissa* (Marpissinae) is the only other genus with male endite cusps of which I am aware (D. Logunov, pers. comm.); further study may demonstrate the character has phylogenetic value.

Attidops cinctipes is the most distinct species in the genus; its color pattern and heavily sclerotized embolus are similar to *Admestina*, although otherwise it is like the other *Attidops* species. The embolus of *A. cutleri* is less sclerotized and its color pattern is intermediate between *A. cinctipes* and the *A. youngi*-*A. nickersoni* pair. The emboli of *A. youngi* and *A. nickersoni* are mostly membranous, and the epigyna are barely distinct; *A. nickersoni* is likely a Florida isolate of *A. youngi* and the two are sister species.

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