

*Pterosarus* (*sensu Timberlake*) known from eastern North America (east of 100<sup>th</sup> meridian)

Revised May 1, 2009

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**Females:**

1. Scutum largely dulled by dense punctation or sculpture.....2  
(*andrenoides*, *compositarum*, *Rob's Oct. 2 sp.*)

Scutum shiny; punctures present but interspaces shining, without microsculpture (*albitarsis*, *solidaginis*, *rudbeckiae*, *nebrascencis*, *labrosus*, *labrosiformis*, *OK sp.*) .....4

2. Scutum extremely finely and densely punctate, but not so dense as to appear rugose/reticulate (*andrenoides*, *Rob's Oct. 2 sp.*).....3

Scutum minutely rugoso-punctate; facial foveae narrow and elongate; tubercles and hind basitarsi dark; hind tibial scopal hairs minutely plumose (i.e., with extremely short barbs).....*compositarum*

3. Facial foveae narrow throughout, almost linear, and hind basitarsi orange-yellow, contrasting with dark tibia; hind tibial scopal hairs on external face of segment simple; so far known from one specimen from Osage Prairie, Vernon Co. ....*Rob's Oct. 2 sp.*

Facial foveae broadened above and hind basitarsi dark like tibia; hind tibial scopal hairs entirely plumose.....*andrenoides*

4. Hind basitarsi yellow to orange, contrasting with dark tibia; glossa as long as, or longer, than head.....5  
(*albitarsis*, *solidaginis*)

Hind basitarsi dark, weakly ferruginous at most; glossa variable in length.....6  
(*rudbeckiae*, *nebrascencis*, *labrosus*, *labrosiformis*, *OK sp.*)

5. Labral process narrowed apically, as long as broad or longer, and usually with striae or grooves basally; propodeum posteriorly partly shiny and distinctly punctate in part.....*albitarsis*

Labral process quadrate, broader than long, smooth and shiny basally; propodeum posteriorly dulled by roughened punctures and microsculpture .....*solidaginis*

6. Facial foveae long and narrow, narrowly elliptical to sublinear; glossa very narrow, as long as head or slightly longer; (labral process usually distinctly narrowed apically).....7
- Facial foveae broader, more elliptical; glossa elongate-triangular, halictine-like, shorter than head length, approximately as long as eye length; (labral process usually more squarrose or quadrate).....8
7. Posterior propodeum almost completely shiny with very little if any sculpture; tubercles yellow in part; pubescence of scutum extremely short and sparse, pale, visible only in oblique or lateral view.....*labrosus*
- Posterior propodeum dull (punctate and tessellate); tubercles dark; pubescence of scutum conspicuous, notably more dense than in *labrosus*.....*labrosiformis*
8. Hind tibial scopal hairs strongly plumose, scutal pubescence relatively long, erect, plumose, uniformly distributed over scutum, and tubercles yellow  
.....*OK sp.*
- Hind tibial scopal hairs simple or extremely weakly plumose with very short barbs, or very sparse; scutal pubescence variable; tubercles dark.....9
9. Scutal pubescence fairly dense, plumose, often appearing "woolly" or "clumped"; scutum very finely and uniformly punctate.....*rudbeckiae*
- Scutal pubescence sparse, short, simple, slightly more dense on anterior margin; scutal punctation not uniform, punctures of several sizes and increasingly finer and denser approaching anterior margin.....*nebrascencis*

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**Males:**

1. Gonostylus straight, not abruptly hooked at apex or bent near base; ST 5 apical hair fringe extremely weak, undivided, of uniform, simple, short appressed hairs; glossa longer than head length.....*albitarsis*

Gonostylus either abruptly bent at tip, or angled near base; ST 5 apical hair fringe conspicuous, divided medially by a hairless, shiny, often depressed area; glossa variable .....2

2. Gonostylus bent near base at a more-or-less 45 degree angle, apex simple and unmodified.....*andrenoides*

Gonostylus bent near apex at a 90 degree angle, usually with an erect tuft of hairs at angle.....3

3. Penis valves apically upturned and minutely apiculate, conspicuously broadened or winged medially; gonostylus ventrally entire all the way to its connection to gonobase; T1 relatively sparsely punctuate, shining .....*rudbeckiae*

Penis valves simple apically, narrowed but not apiculate, and not upturned; gonostylus ventrally angulate or expanded near base, not entire.....4

4. Labral process abruptly narrowed from base, about as long as broad or longer; T1 punctures relatively sparse .....5

Labral process only slightly narrowed from base, broader than long; T1 punctures closer.....6

5. *labrosus*: apparently differences in ST 8 (see Mitchell fig.)

*labrosiformis*: apparently differences in ST 8 (see Mitchell fig.)

(Note: *I have not seen males of labrosus*)

6. Punctures of scutum nearly contiguous, surface dulled and almost rugose on anterior 1/3; T1 punctures very close also but the very narrow interspaces shining; hind tibia mostly yellow with a central dark oval patch or blotch on external face which does not encircle segment.....***compositarum***

Punctures of scutum mostly separated by shining interspaces except along anterior margin, but never approaching a rugose condition; T1 shiny, punctures close but not so close as in *compositarum*; hind tibia color variable.....7

7. Gonostylus with an extremely narrow "neck" drawn out above a ventrally sharp-angled base; hind tibia mostly dark, yellow at base and apex; pronotal tubercles dark (*note: scape occ. yellow in part, yellow pattern on face also variable.....solidaginis*)

Neck of gonostylus shorter and broader above a more weakly angulate base; T7 with a distinct, almost linear pseudo-pygidial area, slightly broadening basally; hind tibia largely yellow (similar to *compositarum*, cplt. 6); pronotal tubercles yellow in part .....***nebrascensis***

**Note:** males of the "OK sp." (from Four Canyons Preserve, OK) will key to couplet 7, but are quite different from either *solidaginis* or *nebrascensis*. Males of the OK sp. have the penis valves short and relatively blunt, ST2-ST5 all have markedly long hair fringes and are overall hairier, and there's no pseudopygidial area on T7.