

FROM: Ubick, D., P. Paquin, P.E. Cushing, and V. Roth (eds). 2005. *Spiders of North America: an identification manual*. American Arachnological Society. 377 pages.

## Chapter 21

## CTENIDAE

4 genera, 8 species

Darrell Ubick  
Diana Silva Dávila

## Similar families —

Lycosidae (p. 164), Pisauridae (p. 199), Tengellidae (p. 230), Zoridae (p. 256), Zorocratidae (p. 258), Zoropsidae (p. 259).

## Diagnosis —

Ctenids can be separated from all other spiders by the arrangement of eyes in three rows, with the small ALE positioned close to the PLE (Figs. 21.1-21.2). In addition, these 2-clawed lycosoid spiders have both cheliceral margins toothed, deeply notched trochanters, two to three rows of tarsal trichobothria, metatarsal-tarsal scopula, and claw tufts.

## Characters —

**body size:** 6-30 mm.

**color:** mottled brown to gray.

**carapace:** pyriform, with deep longitudinal fovea.

**sternum:** oval, posteriorly pointed; precoxal triangles absent.

**eyes:** eight in three rows; ALE close to PLE.

**chelicerae:** stout, geniculate, with toothed margins.

**mouthparts:** endites longer than wide; labium often longer than wide, occasionally as long as wide.

**legs:** generally stout, prograde; all trochanters deeply notched; anterior tibiae often with 5 pairs of ventral spines, sometimes with six or more ventral pairs; tarsi with 2 claws, light to dense scopula, and dense claw tufts

**abdomen:** mottled grayish, typically with median pale stripe.

**spinnerets:** anterior spinnerets conical and contiguous.

**respiratory system:** one pair of book lungs; tracheal spiracle slightly anterior to spinnerets.

**genitalia:** entelegyne; **female** epigynum lightly to strongly sclerotized, with swollen median lobe (flat in *Anahita*); **male** palpus often with RTA, bulb with tegulum and subtegulum forming interlocking lobes, and median apophysis hook-like or spatulate.

## Distribution —

Ctenids are primarily tropical spiders with few species ranging into the Nearctic. Native species occur in southeastern USA to Texas

## Natural history —

Ctenids are large nocturnal wandering hunters. Although some tropical species are arboreal and hunt on vegetation, all Nearctic species are strictly terrestrial. They may be collected at night using headlamps, under rocks and logs, and occasionally in caves. Egg sacs are either deposited on the substrate or carried with the chelicerae (Dippenaar-Schoeman & Jocqué 1997). Occasionally, some species of *Acanthoctenus*, *Cupiennius* SIMON 1891a and *Phoneutria* PERTY 1833 are introduced with tropical fruits.

## Taxonomic history and notes —

The family Ctenidae, as created by Keyserling (1877a), included both cribellate and ecribellate spiders and was considered closely related to Lycosidae and Oxyopidae.

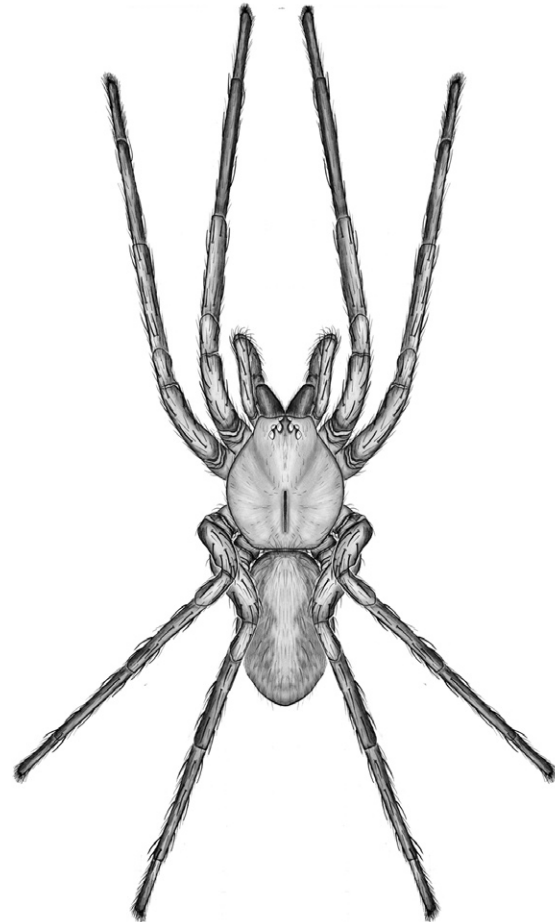


Fig. 21.1 *Ctenus exlinae* PECK 1981

Simon (1897a), on the other hand, moved the cribellate *Acanthoctenus* to Zoropsidae in his distantly related group, Cribellatae, and placed the ecribellate ctenids as a subfamily of Clubionidae. As Lehtinen (1967) observed, many subsequent workers noted their general similarity to the lycosoids but, because they have only two claws, generally included them in a separate group, the Dionycha. A recent hypothesis (Silva Dávila 2003) indicates ctenids belong to a group of their own. Within the Ctenoidea, they are most closely related to a clade formed by Miturgidae *sensu stricto* and Zoridae *sensu stricto*. However, the limits of this family are still controversial, especially regarding the position of *Acanthoctenus*.

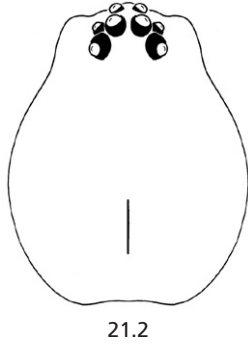
## Genera —

ACANTHOCTENINAE

*Acanthoctenus* KEYSERLING 1877a

HIGHER CTENIDS

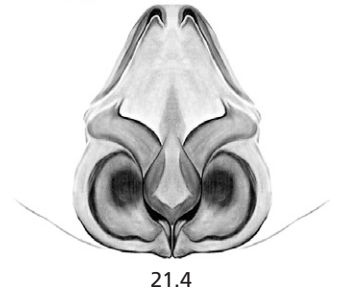
*Anahita* KARSCH 1879g, "*Ctenus*" WALCKENAER 1805, "*Lep-toctenus*" L. KOCH 1878a



21.2



21.3



21.4

### Key to genera — North America North of Mexico

- 1 Cribellum and calamistrum present .... ***Acanthoctenus***  
 Div. 2 species: *Acanthoctenus spiniger* KEYSERLING 1877a, *Acanthoctenus spinipes* KEYSERLING 1877a [Figs. 21.3-21.4] — **Dist.** CA, NY, WA — **Refs.** Lehtinen 1967, Silva Dávila 2003 — **Note** these Neotropical species have apparently become established in some urban areas

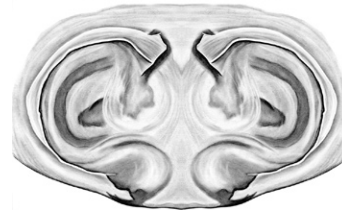
— Cribellum and calamistrum absent ..... 2

- 2(1) Small to medium sized spiders (6-9 mm); abdomen and legs yellow gray marked with numerous black spots; RTA absent (Fig. 21.5), instead with a retrodorsal modified spine; epigynum as in Fig. 21.6 ..... ***Anahita***  
 Div. 1 species: *Anahita punctulata* (HEINZ 1844) — **Dist.** se US to e TX — **Refs.** Peck 1981, Silva Dávila 2003.

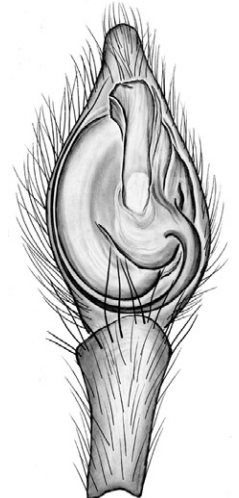
— Medium to large sized spiders (9-30 mm); abdomen and legs lacking black dots; RTA present; epigynum otherwise ..... 3

- 3(2) Cheliceral retromargin with 3 teeth and often 1-2 denticles; RTA medial to basal (Fig. 21.7); epigynum as in Fig. 21.8 ..... **"*Leptoctenus*"**  
 Div. 1 species: *Leptoctenus byrrhus* SIMON 1888b — **Dist.** s TX — **Ref.** Peck 1981 — **Note** this species and its relatives in northern MEX are misplaced in *Leptoctenus*, which is a genus apparently restricted to northeastern Australia (Raven, pers. comm).

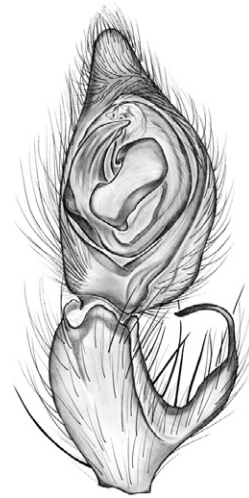
— Cheliceral retromargin with 4-5 teeth and 1-3 denticles; RTA apical (Fig. 21.9); epigynum as in Fig. 21.10 ..... **"*Ctenus*"**  
 Div. 4 species — **Dist.** se US to sw TX — **Refs.** Peck 1981, Sissom *et al.* 1999 — **Note** these species are not congeneric with the neotype of *Ctenus* (Brescovit pers. comm.)



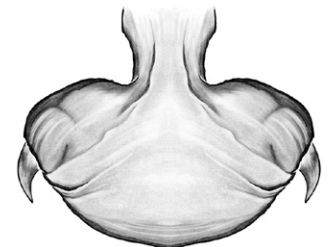
21.6



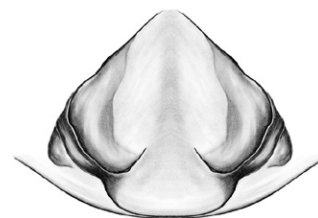
21.5



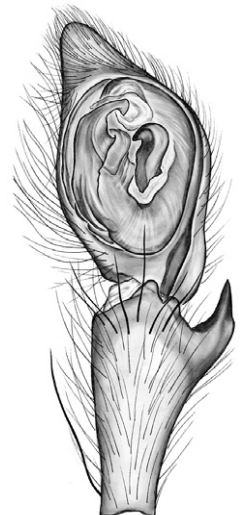
21.7



21.8



21.10



21.9