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Four more Trinidadian Spider (Arachnida: Araneida) Families

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Four more Trinidadian Spider (Arachnida: Araneida) Families

Sewlal and Cutler (2003) and Cutler (2005) record 42 spider families for Trinidad and Tobago. During a review of the spider collection at the Land Arthropod Collection, Natural Sciences, University of the West Indies, St. Augustine, between May to June 2006, we identified specimens belonging to the families Liocranidae and Barychelidae.

We came across two specimens which, although not identified to genus or species, both unambiguously belong to the family Liocranidae because of the characters mentioned below. Sewlal and Cutler (2003) inadvertently omitted Trechaleidae from the annotated list of spider families for Trinidad and Tobago. It should be noted that members of both families lack cribellum and calamistrum.

A recent phylogenetic study conducted by Kuntner (2006) removed the species *Nephila clavipes* (Linn.) along with a few others not found in Trinidad and Tobago from the family Tetragnathidae and places it into its own family Nephilidae. However, with the removal of *N. clavipes*, there remain many tetragnathids in Trinidad and Tobago.

Liocranidae

Minute to small araneomorph spiders, legs are short to medium length, but generally less than twice the body length. Most species have rows of large ventral macrosetae present on the tibiae and/or metatarsi of the anterior legs. Eyes in two horizontal rows of four. The eyes take up less than half the width of the carapace. These spiders have two tarsal claws and no tarsal claw tuft. The male palp is enclosed by the cymbium. Spinnerets are unsegmented or one pair with two segments. Anterior spinnerets are close together concealing the median spinnerets. These spiders are mainly nocturnal hunters, and do not build webs. They are mostly found on low vegetation, under stones or in leaf litter.

Trechaleidae

Large to small araneomorph spiders, legs long and slender, large macrosetae with curved tips on ventral surface of most segments. Legs III shortest relative to other pairs which vary in length, tarsi flexible and may appear curved in preserved specimens. Eye arrangement similar to lycosids. However, posterior median and lateral eyes are not as enlarged and the eye rows they form are not as strongly recurved as lycosids (Vink 2002). Oval abdomen, slightly flattened ventrally. Disc-shaped egg sac with frill at the seam between the two valves. It is carried only on the spinnerets. Empty egg sac also used to transport young. Female carries egg sac long after departure of spiderlings, but will abandon it if dislodged. Cursorial species. Margins of bodies of freshwater are preferred habitat. Aquatic species are adept at walking on the water surface and crawling under water (Carico 1993).

Nephilidae

Large araneomorph spiders that display size dimorphism where males are a fraction of the size of the females (Kuntner 2006). During mating the sperm transferring organs of the males are broken off and often remain lodged in the female genital openings. The only species of the family in Trinidad and Tobago (*N. clavipes*) constructs large orb webs made of golden silk. It exhibits a high degree of sexual dimorphism with adult females being as much as 20 times larger than the males. These large females construct huge orb webs made from golden silk which can reach up to 1 m or more in diameter.

Barychelidae

In Sewlal and Cutler (2003) a brief description was included and suggested that this family might occur in Trinidad. We confirm its presence in Trinidad.

With the addition of Liocranidae, Nephilidae, Trechaleidae and the confirmation of the presence of Barychelidae, the total number of spider families known from Trinidad and Tobago is 46.

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