

# Pholcidae: *Modisimus*

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*Modisimus* is largely restricted to Central America, Mexico, and the Caribbean. The genus currently counts 81 extant plus 5 Dominican amber species, but the actual number of extant species is probably above 150. About half of this diversity occurs on the Caribbean islands. The genus has never been revised. This means that a lot of basic taxonomic work will be necessary before any meaningful biogeographic analysis can be done.

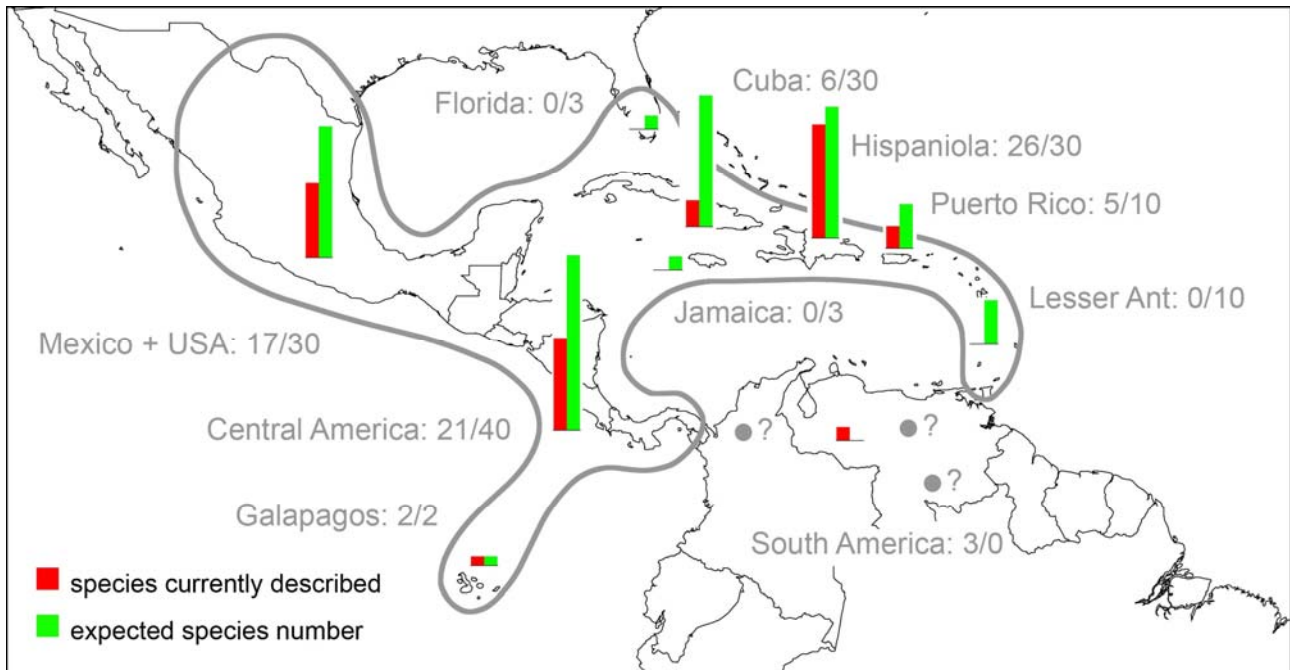


Fig. 1. Distribution of *Modisimus*, including unpublished records, with known and expected species numbers per area. The three South American records are dubious for various reasons.

**Monophyly.** Most species included do likely form a monophylum, but the limits need to be reconsidered. Some Puerto Rican species may not be part of *Modisimus*; the Cuban genus *Platnicknia* (2 species) may be nested within *Modisimus*; and the position of the tiny short-legged species (previously *Hedypsilus*, synonymized by myself in 1995) is unclear.

**Amber species and dispersal.** The five known amber species are all very similar and are all apparently part of a species group (*femoratus* group) that is still restricted to the northern Dominican Republic (where also the amber comes from). Likewise, two other groups are restricted to the southern part of Hispaniola (south of the Cul-de-Sac—Neiba line), suggesting that dispersal capabilities are low, at least in Hispaniolan *Modisimus*.

**Search strategy.** Most species are small (1-3 mm body length) but fairly easy to find by their dome-shaped webs. These webs are either built among the vegetation or close to the ground. Different levels above the ground often indicate different species. More difficult are species that live in the leaf litter or on the underside of green leaves, either with tiny webs or without visible webs. For these species, turning suitable leaves (i.e. those that have a shape that provides protection to the spider) is the most productive technique.

**Similar genera.** Some genera are difficult or impossible to distinguish from *Modisimus* in the field (e.g. *Psilochorus* and *Anopsicus* in Mexico and Central America; *Ciboneya* and *Pholcophora* in Cuba). The only way to avoid missing *Modisimus* is to collect them all.

**Needed collecting.** Fairly complete collections (including material in pure ethanol) exist only for Hispaniola. All other areas are more or less in need of new collecting, especially for DNA-ready material.

Top priorities: Cuba (entire island), Puerto Rico, Lesser Antilles

Should be included: Jamaica, Florida, Mexico (especially Yucatan peninsula), Panama

Would be nice: Galapagos

Not necessary: Hispaniola



Fig. 2. Some *Modisimus* species and *Modisimus* webs. Note that most species are cryptic (greenish species on green leaves, dark brown species in the leaf litter), and that some species do not make a visible web.

#### References

- Huber, B. A. 1998. Notes on the neotropical spider genus *Modisimus* (Pholcidae, Araneae), with descriptions of thirteen new species from Costa Rica and neighboring countries. *Journal of Arachnology* 26: 19-60.
- Huber, B. A., Fischer, N., Astrin, J. J. 2010. High level of endemism in Haiti's last remaining forests: a revision of *Modisimus* (Araneae: Pholcidae) on Hispaniola, using morphology and molecules. *Zoological Journal of the Linnean Society* 158: 244-299.