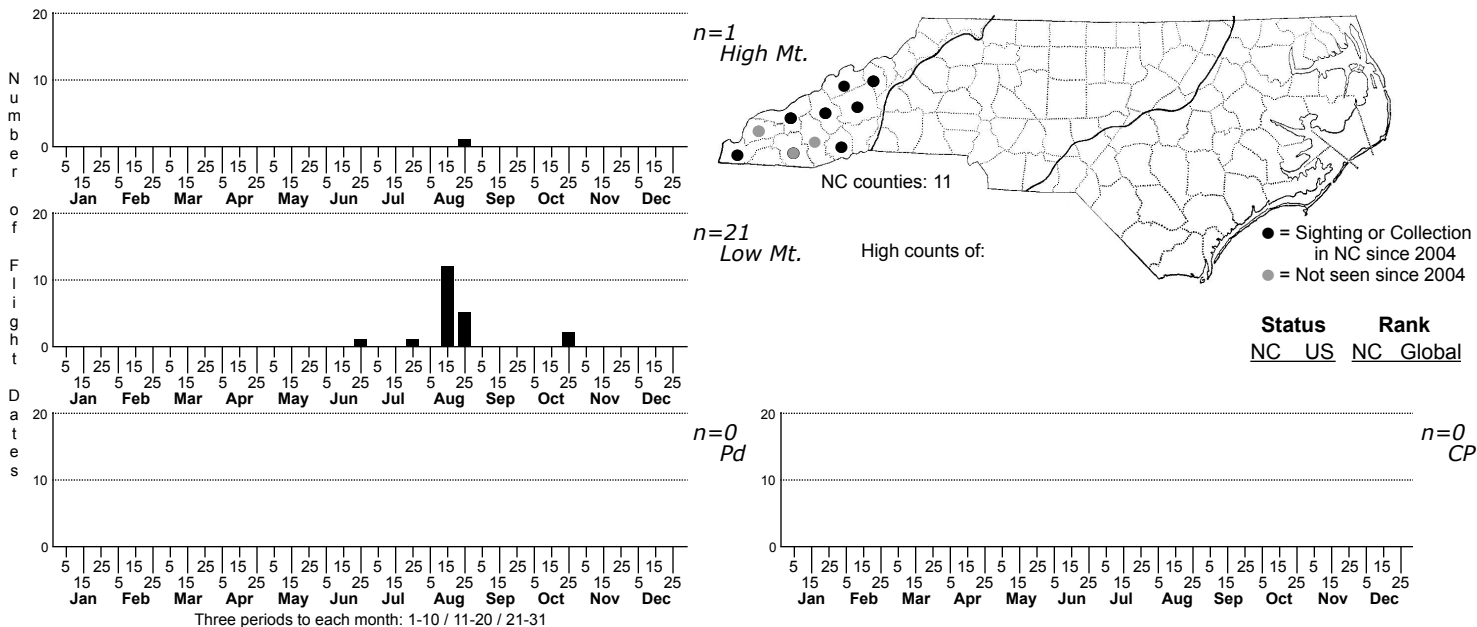


Fumontana deprehendor No common name



ORDER:OPILIONES SUBORDER:Laniatores
 SUPERFAMILY:Travunioidea FAMILY:Triaenonychidae

TAXONOMIC_COMMENTS: The sole member of this genus, which is endemic to the Southern Appalachians (Kury, 2003). This is also the only member of the Triaenonychidae in eastern North America, with its closest relatives occurring in western North America and the Southern Hemisphere (Shear, 1977). Based on its isolated range and unique structural features, Shear speculated that *Fumontana* is an ancient relict, originating when its taxonomic line was much more widespread prior to the splitting apart of the continents. This hypothesis was further supported by the DNA analysis conducted by Thomas and Hedin (2008), who showed a closer link to the South African and Australian members of this group than to those in western North America (in agreement with Shear, 1977).

ONLINE_PHOTOS: BugGuide

DISTRIBUTION_COMMENTS: The distribution of the five genealogical and geographically separate lineages identified by Thomas and Hedin (2008) is similar to those described for other cryophilic arthropod taxa as well as Plethodontid salamanders for which the Southern Appalachians is a region of high endemism. As in those groups, lineages in *Fumontana* are divided by the major rivers of this region, including the Little Tennessee, Tuckaseegee, Pigeon, and French Broad. These breaks represent not only water barriers but also major drops in elevation, with broad, low basins, such as the Asheville Basin, also representing major gaps in habitat.

HABITAT: The populations originally discovered by Shear (1977, 1978) were located in mature stands of cove forest, the one in Joyce Kilmer Memorial Forest a virgin stand. Thomas and Hedin (2006) concentrated their searches -- which were very productive -- in hemlock-dominated stands, probably also mainly cove forests.

OBSERVATION_METHODS: Thomas and Hedin (2006) found most of their specimens by tearing apart wet, rotten logs, especially of hemlocks. They also found at least some in other situations, including under rocks.

NHP_RANKS: [G2G3] [S2S3]

NHP_STATUS: W3->[SR]

STATE_PROTECTION: Arachnids are not protected under state law, although permits are needed to collect them in State Parks and other public and private nature preserves

STATUS_COMMENTS: Following Shear's (1977, 1978) original discovery of this species, it was considered to be quite rare, as reflected in the NatureServe rank of G1G2. However, the survey conducted by Thomas and Hedin (2006) greatly expanded the number of known sites as well as increased the overall range of this species. While this expansion in its range and area of occupancy increases its apparent viability, it still has a very small global range and appears to be vulnerable to the impacts of global climate change, including both warming and drying. Alteration of cove forests due to the impacts of the Hemlock Woolly Adelgid are also likely to have significant impacts on this species (Thomas and Hedin, 2008). Given the very low vagility of this species, local extirpation events will take a long time to recover, if ever. Even temporary disturbances to its habitat -- e.g., clear-cuts, fires, local droughts -- can therefore have a strong cumulative effect over time. This low vagility is also reflected in the strong genomic separation between several of the mountain ranges and river valleys: loss of these populations means the loss of entire clades (or perhaps cryptic species) (Thomas and Hedin, 2008). In considering all of these factors, we recommend that this species be considered of high conservation concern at both the global and state level and managed and/or monitored accordingly. Individual attention should be given to each of the five clades identified so far, whether they are considered as "evolutionarily significant units" or full, if cryptic, species.