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The spider genus Tayshaneta is revised based on results from a three gene phylogenetic analysis (Ledford et al. 2011) and a comprehensive morphological survey using scanning electron (SEM) and compound light microscopy. The morphology and relationships within Tayshaneta are discussed and five species-groups are supported by phylogenetic analyses: the anopica group, the coeca group, the myopica group, the microps group and the sandersi group. Short branch lengths within Tayshaneta contrast sharply with the remaining North American genera and are viewed as evidence for a relatively recent radiation of species. Variation in troglomorphic morphology is discussed and compared to patterns found in other Texas cave invertebrates. Several species previously known as single cave endemics have wider ranges than expected, suggesting that some caves are not isolated habitats but instead form part of interconnected karst networks. Distribution maps are compared with karst faunal regions (KFR's) in Central Texas and the implications for the conservation and recovery of Tayshaneta species are discussed. Ten new species are described: T. archambaulti sp. n., T. emeraldae sp. n., T. fawcetti sp. n., T. grubbsi sp. n., T. madla sp. n., T. oconnorae sp. n., T. sandersi sp. n., T. sprousei sp. n., T. vidrio sp. n. and T. whitei sp. n. The males for three species, T. anopica (Gertsch, 1974), T. devia (Gertsch, 1974) and T. microps (Gertsch, 1974) are described for the first time. Tayshaneta furtiva (Gertsch, 1974) and T. uvaldea (Gertsch, 1974) are declared nomina dubia as the female holotypes are not diagnosable and efforts to locate specimens at the type localities were unsuccessful. All Tayshaneta species are thoroughly illustrated, diagnosed and keyed. Distribution maps are also provided highlighting areas of taxonomic ambiguity in need of additional sampling.

SYSTEMATICS, CONSERVATION AND MORPHOLOGY OF THE SPIDER GENUS TAYSHANETA (ARANEAE, LEPTONETIDAE) IN CENTRAL TEXAS CAVES

JOEL LEDFORD, PIERRE PAQUIN,
JAMES COKENDOLPHER,
JOSH CAMPBELL, CHARLES GRISWOLD



Tayshaneta archambaulti sp. n

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