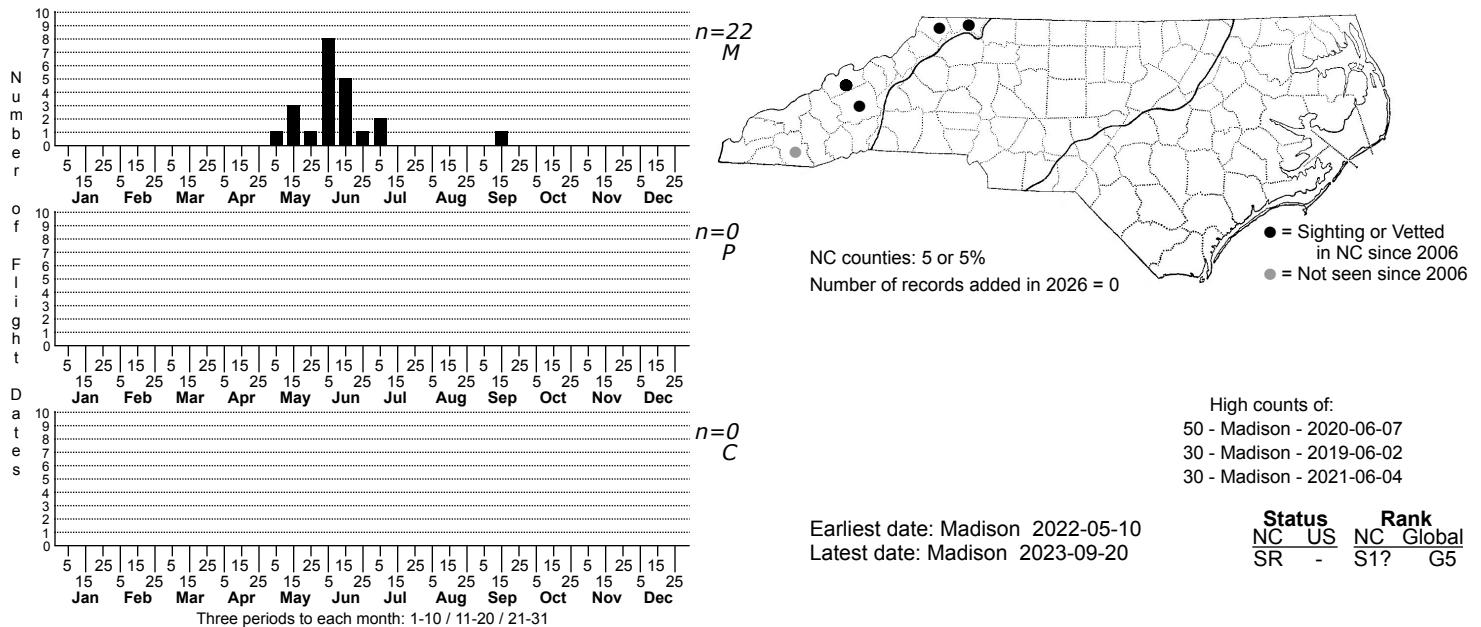


## *Neurocordulia yamaskanensis* Stygian Shadowdragon



**DISTRIBUTION:** A Northern species, ranging south to the mountains of NC and TN. So far, in NC known from just five counties, but thankfully ranging from the VA state line to the GA state line; however, it has not yet been recorded from the latter state.

**ABUNDANCE:** Rare to locally quite numerous, but as it is crepuscular, true relative abundance across the mountains is only speculative at the present time. Thankfully, Pete Dixon found large numbers in 2019-2021 along the French Broad River in Madison County, with an estimate of 30 individuals at dusk -- likely all or nearly all this species -- on one evening in 2019 and a remarkable estimate of 50 of them on one evening in 2020. He has documented the species there with excellent photos, including in the hand. Also notable were four were seen at a site in Ashe County in 2017, and another four at a site in neighboring Alleghany County in 2020.

**FLIGHT:** Mid-May to at least early July, but this is based on just 20 records with dates.

**HABITAT:** Larger rivers (and lakes elsewhere?), but only where there is much wave action.

**BEHAVIOR:** This shadowdragon flies even later in the day than the others, typically not flying until sunset, and continuing for another 30 minutes, often flying later on moonlit nights. Pete Dixon conducted a detailed study of the temporal and seasonal mating patterns of this species by counting mated pairs at dusk at a site along the French River in Madison County (Dixon, P. 2021).

During the day, all shadowdragons perch in the shade of forests on twigs and leaves, where nearly impossible to find.

**COMMENTS:** Not surprisingly, this Northern species has been recorded at just a handful of sites in NC, and it is the only one of the five shadowdragons in NC that occurs in the mountains. The Madison records are from the French Broad River and the Macon record is from the Little Tennessee River. We suspect that the Alleghany record is from the New River, especially as a 2017 record for neighboring Ashe County is from the South Fork New River. Another 2017 record, for Buncombe County, surprisingly turned up in Vin Stanton's yard, though located only 1/4-mile from the French Broad River, its suspected habitat. Pete Dixon provided much new information on its habits with his many 2019-2021 observations in Madison County.

The species has still been found recently only along two large rivers -- the French Broad and the New (several forks) -- and though not rare at all along these waters, the State Rank probably should stay at S1? (and on the N.C. Natural Heritage Program's Rare List) for now.