Common Name: CHEROKEE CLUBTAIL

Scientific Name: *Gomphus consanguis* (Selys)

Other Commonly Used Names: none

Previously Used Scientific Names: *Gomphurus* and *Stenogomphurus*

Family: Gomphidae

Rarity Ranks: G2G3/S1S2

State Legal Status: Threatened

Federal Legal Status: none

Description: Adult Cherokee clubtails are typically 48 - 50 mm (2 inches) in total length. This species is sexually dichromatic. The adult male is a dark, slender clubtail, with a primarily gray-green thorax that is marked with split mid-dorsal, two shoulder, and two very thin black lateral stripes (male shown in photo above). The posterior lateral stripe is rarely incomplete. The eyes are blue-green, and the face has one thin, black crossline. The wings are narrow. The abdomen is mostly black, but segments 1 - 2 are gray-green, and there are very thin yellow to gray-green stripes on the dorsum of each segment; these stripes become shorter posteriorly. There are variable amounts of yellow on the lateral surface of the male's slender club, from almost lacking to as much as in females. Adult females have a green to gray-green thorax with the same black stripes as the male. The abdomen is thicker than in males with greenish dorsal stripes almost full-length and lateral yellow or green stripes which shorten to spots on the anterior edge of posterior segments (see photo below). The female's club has large yellow spots laterally and is black dorsally on segments 8 - 9. Immature individuals of both sexes are similar to adults but have

yellow coloration where the adults have gray-green or green. More pictures are available at Giff Beaton's website

Similar Species: The more widespread sable clubtail (*Gomphurus rogersi*) is similar, but the male has an almost totally black abdomen, and all ages and sexes have incomplete or absent anterior lateral thoracic stripes and two black crosslines on the face. The sable clubtail also has a black occiput. No other male clubtails have this thoracic color. The female is similar to other yellow/green clubtails but has a differing thoracic pattern as described above. No other dragonflies that perch horizontally and are similar in color have swollen segments 7 - 9 (the club). This applies to the modest club of the female as well.

Habitat: Larvae are usually found in small first- and second-order streams with silty pool bottoms; occupied streams are often spring-fed. Adults utilize these same habitats during the breeding season, but are also found in nearby fields and other areas of open habitat.

Diet: Adults eat almost any flying insect prey they can catch. Larvae eat a variety of aquatic invertebrates.

Life History: Adults are typically on the wing from the end of May to the end of June. Known flight dates in Georgia are 23 May to 23 June. Known flight dates for the species across its entire range are 23 May to 18 July. Adults emerge by crawling out on vegetation and then move away from the larval habitat into nearby fields and other areas of open habitat. After maturing for a week or two, they return to the breeding habitat and set up territories. Males perch low above water on leaves or roots facing the water, and are unwary. Favored perches are near the head of small runs, usually at the beginning of pools but sometimes at the tail end. Patrols are short and the flight speed is fairly slow. The typical patrol is a short sally up- or downstream, a loop that goes along the edge of a pool or short series of pools and back to the original perch or one nearby. Favored perches are used repeatedly. Females remain near but not at the stream once mature and only approach the water when ready to mate, at which time they are quickly captured by males. Mating takes place while perched. Once fertilized, the female returns to the stream and oviposits by dipping the end of her abdomen into the water in a series of taps on the water's surface near the same runs that males are guarding.

Survey Recommendations: Cherokee clubtails may be surveyed for as adults or as larvae, but are most easily surveyed for as adults. Adult surveys should focus on the correct habitat during June, on sunny or partly cloudy days with the temperature above 24ºC (75ºF). Immature adults are more difficult to find as they are spread out away from the stream in open habitat. Larvae are fairly easy to find in the small streams in which this species is found, and occur in silt and detritus along the edge of and at the bottom of slow pools.

Range: This species is restricted to the southern Appalachian region of Virginia, North Carolina, Tennessee, Georgia, and Alabama. As of 2008, this species is known from ten streams in six counties within northwest Georgia (Catoosa, Chattooga, Floyd, Gordon, Walker, and Whitfield counties). Occupied streams are within the Ridge and Valley physiographic province and occur within both the Coosa and Tennessee drainages.

Threats: This species is threatened by the many factors that degrade stream habitat quality in the region, including impoundments, destruction of riparian forests, and runoff of sediment, nutrients, and toxins associated with poor development and agricultural practices.

Georgia Conservation Status: There are no protected populations, but healthy populations occur within several streams in northwest Georgia. Surveys during 2006-2008 documented six new stream-level occurrences and the species is now known from at least 10 streams within the state.

Conservation and Management Recommendations: Conserving populations of the Cherokee clubtail will require general watershed-level protection and restoration measures. Incentive programs to help farmers implement best-management practices could improve instream habitat by decreasing sediment and nutrient runoff and increasing riparian forest cover. Conservation groups should work cooperatively with developers and local governments to minimize the impacts from new home construction and commercial development. Additional water withdrawals and impoundments should be minimized by promoting water conservation practices and utilizing existing water storage whenever possible. Although this species has been well surveyed compared to other dragonflies, there is a need to develop a long-term monitoring program for occupied streams.

Selected References:

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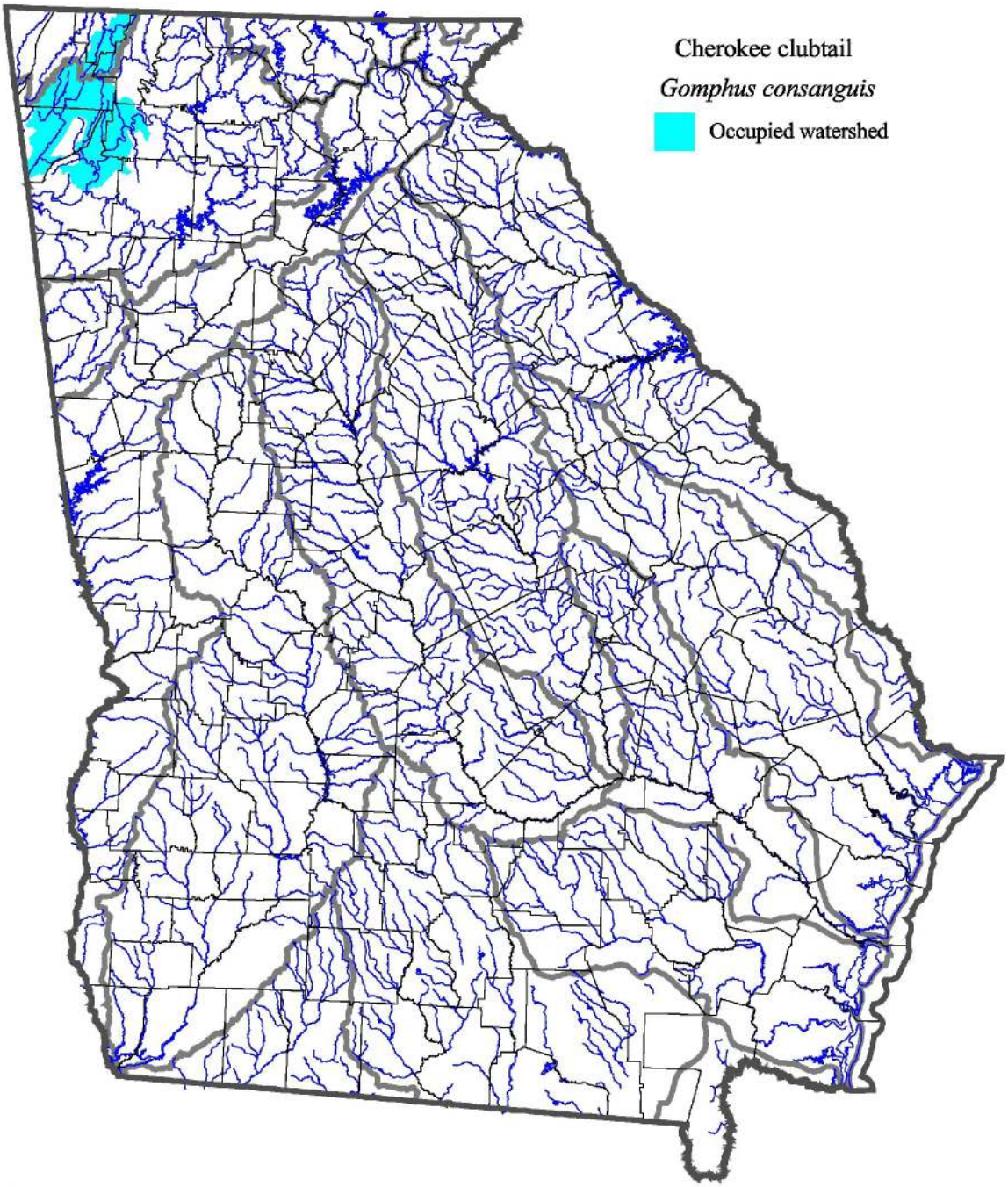
Date Compiled or Updated:

Giff Beaton, June 2008: original account

Female Cherokee clubtail



Watersheds (Huc 10) with known occurrences. Streams, county lines, and major river basin boundaries are also shown. Map generated from GADNR (Nongame Conservation Section) data March 2009.