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Conserving South Carolina's At-Risk Species:

Species facing threats to their survival

Appalachian snaketail (*Ophiogomphus incurvatus*)



Adult Appalachian snaketail

Description

The Appalachian snaketail is a dragonfly with a green thorax and deep yellow and black abdominal club. Snaketails are typically a bit more colorful than clubtails in other genera, especially with the bright lime-green or grass-green sides of the thorax. Breeding season is from mid-April to late June, both in the mountains/foothills and in the remainder of the Piedmont. Males typically perch on twigs or low vegetation near creeks, making short patrols over the water. Populations west of the Allegheny Mountains are the subspecies, *Ophiogomphus incurvatus alleghaniensis*.

Range

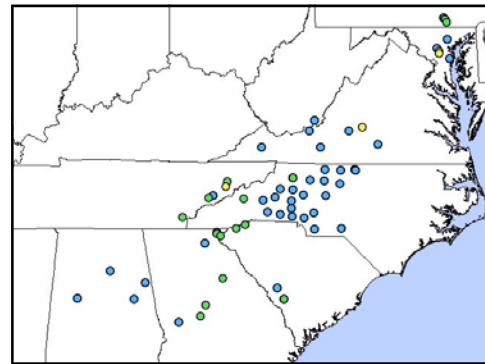
The species occurs in the piedmont/foothills on either side of the Appalachians from Alabama and Tennessee to Maryland. It is found in Alabama, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, and Pennsylvania. In South Carolina, the species has been recorded in Aiken, Allendale, Barnwell, Greenville, Oconee and Pickens Counties. Though the species has a wide range, it is restricted to only 20 streams in eight states with sparse distribution.

Habitat

Appalachian snaketails prefer clear streams with sand or gravel riffles. The species seems restricted to small or medium sized piedmont streams, especially where gravel overlies mud.

Status

The U.S. Fish and Wildlife Service was petitioned to list the species in April 2010 and published a substantial 90-day finding in September 2011 indicating listing may be warranted. The species is ranked as critically imperiled in Pennsylvania, imperiled in Virginia and Maryland, and vulnerable in North Carolina. It is not ranked in Alabama, Georgia, South Carolina, or West Virginia.



Appalachian snaketail occurrences - accepted and pending (yellow dots)

Threats

Siltation and contamination by pesticides, fertilizers, and other anthropogenic pollutants are primary threats to this species. It may also be threatened by limited gene flow as populations are increasingly isolated. Larvae are susceptible to alterations in stream flow due to clear-cutting, deforestation, agriculture, development and other practices that produce flood scouring and siltation. Larvae are also especially susceptible to pesticide use. Fragmentation or degradation of either aquatic or

forested habitat may threaten this species, which requires connectivity of healthy riparian and terrestrial habitats, due to the distinct habitat requirements of larvae and adults.

Management/Protection Needs

Incentive programs to help farmers implement best-management practices could improve instream habitat by decreasing sedimentation and runoff and increasing riparian forest cover. Forestry operations should follow best-management practices. Outreach and education to developers and local governments will assist with sharing information about minimizing the impacts from new home construction and commercial development. There is also a need for additional surveys to document new populations and for periodic monitoring of known populations.

References

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