

**Recommendation for the Designation of
Michaux's Sumac
Rhus michauxii Sargent
as a Virginia Species of Greatest Conservation Need**

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The Virginia Department of Wildlife Resources, with support from the Virginia Department of Conservation and Recreation-Division of Natural Heritage, recommends the addition of Michaux's sumac (*Rhus michauxii*, Sargent) to Virginia's list of Species of Greatest Conservation Need as a tier II-A species (Appendix 1).

Justification

Species Summary

Rhus michauxii (Michaux's sumac; G2G3/S1, Fed LE/State LT) (Appendix 2) was listed as Federally Endangered by the U.S. Fish and Wildlife Service in September 1989 (USFWS, 1989). In addition to its federal status, *Rhus michauxii* is ranked as G2G3 (imperiled to vulnerable) on a global scale (NatureServe, 2022). This shrub in the cashew family (Anacardiaceae) is endemic to the coastal plain and piedmont of Virginia, North Carolina, South Carolina, Georgia, and Florida. The largest known population occurs at Fort Pickett in Virginia and adjacent conserved lands, but most populations are in the North Carolina piedmont and sand hills (USFWS, 2022). Michaux's sumac is a shade-intolerant species that declines without disturbances such as prescribed fire and vegetation removal. Since the early part of the 20th century, natural fire regimes have been virtually eliminated within its range because of landscape fragmentation and active fire suppression (NatureServe, 2022).

Trends

There are 6 populations of *Rhus michauxii* in Virginia, all on or within 10 km of Fort Pickett. Within the Fort and adjacent base-managed lands, active management of vegetation is used to improve habitat for the species, so the meta-population there is likely stable (VA DCR, 2022). Monitoring schemes are also in place on Fort Pickett that will allow the extent and density of populations to be evaluated, but the data is not currently available (USFWS, 2021). Trends are unknown for the two unmanaged populations but are presumed to be downward due to likely

issues with plant succession. The species has been in decline range-wide: in the 100 years following its discovery in 1895, half of all the historic occurrences were extirpated, largely due to habitat conversion to agriculture and other uses (NatureServe, 2022).

Conservation Action

Conservation actions for *Rhus michauxii* include land management, additional survey work on private and Department of Defense land, and population monitoring.

Management for *Rhus michauxii* is active on Fort Pickett property and will continue. The key management tools to employ on or off base include prescribed fire, mowing, and thinning of timber. The use of disking and other mechanical disturbances in the vicinity of *Rhus* colonies has been tried, and the reintroduction of male or female plants to single-sex populations has been attempted to increase sexual reproduction.

Additional surveys are needed for new populations of *Rhus michauxii*, particularly outside Fort Pickett. The single largest concentration of *Rhus* was discovered outside of the base boundary and two smaller populations have been found opportunistically. A more thorough inventory and subsequent management efforts are needed.

Monitoring should be conducted on a regular basis as management efforts continue. It is necessary to understand how population size and vigor are related to disturbance types and plant succession. Population reproduction and persistence also need research attention.

Summary

Rhus michauxii (Michaux's sumac) is proposed for inclusion in the Virginia State Wildlife Action Plan as a tier II-A species due to its low number of element occurrences, restricted range, and specific habitat requirements. Land protection is also very important but without intensive management, the species is vulnerable to extirpation regardless of land ownership type.

This species is found in the Southside and Crater Planning District Commissions and in the Commonwealth Regional Commission areas.

References

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