

“The Socrates Project - Poisonous Plants in Virginia” is an effort by volunteers in the Old Rag Chapter of the Virginia Master Naturalist program to better inform the public of potential dangers to avoid while enjoying the natural world. The project involved developing a handbook describing toxic plants that grow in Virginia’s Piedmont as well as presentations to raise awareness about poisonous plants.

Alfred Goossens, a volunteer in the VMN-Old Rag Chapter, became aware that there are hundreds of poisonous plant-related incidents reported to the Blue Ridge Poison Center, which serves the central and western areas of Virginia, including the six county area where the Old Rag Chapter is active. Discussions with the center’s medical director indicated that there is a need for public outreach on this issue, and that there was no existing guide to common poisonous plants in Virginia.

Goossens began organizing a volunteer team to write a guide that would be user-friendly, include descriptions of the plants and where they grow, and describe the toxic nature and symptoms of exposure for each plant. A dozen other volunteers from the chapter joined the team and spent two years compiling photographs, researching the species they chose to include in the guide, and writing the descriptions for each species. More than half the photographs used were taken by VMN volunteers.

The team worked with a Virginia Cooperative Extension agent to prepare and publish the resulting guide as an online Extension publication. Reviewers included the director of the Division of Medical Toxicology at the University of Virginia, an expert on poison ivy from the Virginia Tech Department of Plant Pathology, Physiology, and Weed Science, the Lands Manager from the Virginia Department of Game and Inland Fisheries, and the VMN program director. The guide was published online in April 2018 at <https://pubs.ext.vt.edu/CNRE/CNRE-13/CNRE-13NP.html>.

The eleven plants described in the resulting booklet are responsible for many visits to emergency rooms by people who have had contact with them. The list includes poison hemlock (*Conium maculatum*), the plant used to kill the Greek philosopher Socrates. It also includes giant hogweed (*Heracleum mantegazzianum*), a rather dangerous invasive plant containing a strong phototoxin that causes severe skin reactions akin to burn wounds. At the time of publication, giant hogweed had not been identified in Virginia, but the team chose to include it in the guide anyway because of its future potential. Coincidentally, about two months after publication, the first record of giant hogweed was documented in Virginia, and that event was widely covered by the media across the state and even nationally. Since that discovery was made during the same time we were publicizing the new poisonous plant guide, we were able to get significant media coverage about the guide as well (e.g., <https://tinyurl.com/yctkd98g>.)

In just one demonstration of the need for this project, in November 2017, the medical director of the Blue Ridge Poison Center requested help from the Socrates project leader in identifying a plant associated with a potential poisoning case. Team members responded within the hour with an identification (pokeweed, *Phytolacca americana*), which assisted the medical team in successfully treating the patient.

The team also conducted a webinar on poisonous plants for the Virginia Master Naturalist continuing education series, and they have offered talks on the topic for local community groups. Going forward, work has already begun on a second edition, which will cover plants found in other parts of Virginia beyond the Piedmont.