

# Recommended Plant Identification References for West Virginia

*Elizabeth Byers, WVDEP Senior Wetland Scientist, April 2023*

## Books

- Flora of Virginia (Weakley, Ludwig, Townsend 2015). This is an authoritative text which includes all but a handful of West Virginia species. It is available in book form and as a user-friendly Android/iOS app with graphical and text keys and photos.
- Flora of the Southeastern United States (Weakley 2022). Available as an electronic book (free pdf download) . Includes the entire flora of WV, with authoritative technical keys. This is currently being converted to the FloraQuest mobile app described below. <https://ncbg.unc.edu/2022/04/26/new-edition-released-flora-of-the-southeastern-u-s/>
- Flora of West Virginia (Strausbaugh and Core 1978). Book: outdated and incomplete but a good secondary reference, with West Virginia habitats and line drawings of most species.
- Aquatic and Wetland Plants of Northeastern North America Vols I-II. (Crow and Hellquist 2000 & 2006). Book: easy-to-use keys and detailed line drawings. Does not include all WV wetland species.
- Flora of North America (FNA 1993+). Book: excellent but not all families have been completed. Volumes 22-25 (grasses, sedges, rushes) are particularly helpful. Some volumes are on-line: [http://www.efloras.org/flora\\_page.aspx?flora\\_id=1](http://www.efloras.org/flora_page.aspx?flora_id=1)
- Field Guide to Grasses of the Mid-Atlantic (Chamberlain 2018). Easy-to-use heavily illustrated key.
- Common Mosses of the Northeast and the Appalachians (McKnight, Rohrer, Ward, Perdrizet 2013). Beautiful and easy to use with photos, drawings, and keys.

## Apps and Websites

- FloraQuest (High Country Apps)  
Anticipated release data May 1, 2023. This authoritative app is expected to be the primary mobile reference for West Virginia, with beginner-friendly graphical keys, dichotomous keys, photos, technical descriptions, and range maps. It includes much of the southeastern USA but can be geo-filtered to show only WV species. Cost will be about \$20, and it will be worth every penny.
- Flora of Virginia (High Country Apps)  
Android and iOS app, \$19.99. An authoritative reference with keys, photos, and descriptions. Includes most of WV species. <https://www.highcountryapps.com/FloraofVirginia.aspx>
- iNaturalist or its "lite" version Seek  
iOS / Android app or website  
Free. Upload photos and the image recognition software on this app or website may recognize your plant. If your photos are good quality, botanists in the iNaturalist community will likely confirm the identification. Be sure to check against one of the authoritative references above, as mis-identifications occur in this crowd-sourced knowledge base. It is nevertheless one of the best free identification tools available. <https://www.inaturalist.org/>

- PlantNet Plant Identification  
iOS / Android app or website  
Free. Upload photos and the image recognition software on this app or website may recognize your plant. Be sure to check against one of the authoritative references above, as mis-identifications occur in this crowd-sourced knowledge base. It is nevertheless an excellent way to get to genus and sometimes to species. It has fewer but better photos, better curation, and a clunkier interface compared to iNaturalist/Seek. In 2023 it was slightly out-performing iNaturalist.  
<https://plantnet.org/>
- GoBotany  
Excellent website, well-illustrated keys covering many, but not all, West Virginia species.  
<https://gobotany.nativeplanttrust.org/>
- Biota of North America Plant Atlas  
County distribution maps on website: check whether your species is in range.  
<http://bonap.net/Napa/Genus/Traditional/County>
- WV Planting Tool  
This website is designed to help people choose native species for planting projects in West Virginia. It is also a great way to discover the most common and abundant wetland species in a specific part of West Virginia, which will help you narrow down your list of choices. Having trouble distinguishing between smooth alder and speckled alder? Check your location with this tool and see which one is adapted to that particular area. Then be sure to use an authoritative reference such as the Flora of Virginia or Flora of the Southeastern USA to confirm. <https://tagis.dep.wv.gov/seeds/>

## For Beginners

(the apps and websites listed above are also good beginner references)

- Newcomb's Wildflower Guide (Newcomb 1977). Field guide with easy-to-use non-technical keys. This book will help you find the right genus.
- Tree Finder & Winter Tree Finder (Watts 1991). Booklets with graphical keys, non-technical language.
- West Virginia Wildflowers  
Android, iOS app  
Free – this app is okay to get an idea of the family or genus, but should NOT be used to identify plants to species. It is designed for casual wildflower enjoyment and contains many mis-identified species or species that are not in West Virginia. Still, it is a useful tool to get started and doesn't require any botanical expertise.