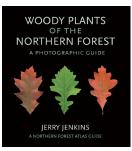
Woody Plants of the Northern Forest – A Photographic Guide

By Jerry Jenkins. 2018. Comstock Publishing Associates – An Imprint of Cornell University Press. 64 pages, 25.50 USD, Paper.

Woody Plants of the Northern Forest – Quick Guide

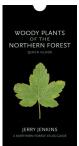
By Jerry Jenkins. 2018. Comstock Publishing Associates – An Imprint of Cornell University Press. Foldout Chart, 11.95 USD, Paper.

The Northern Forest Atlas (NFA) and its principle director, Jerry Jenkins, have produced a beautiful, easy-to-use, and innovative identification book, the Woody Plants of the Northern Forest – A Photographic Guide. The accompanying Quick Guide and



online material help to fulfill the aims of the NFA in producing ground-breaking resources, targetted at naturalists and ecologists, to aid in fostering conservation and stewardship of the Northern Forest Region. Lying between the oak forests of the eastern United States and the boreal forests of eastern Canada, the Northern Forest Region is one of the largest, most diverse, and contiguous of temperate forests and, as the author stresses, is of utmost ecological importance. With a focus on rapid identification, based on multi-image composite photos, these resources provide an accessible, modern approach to field guides.

The *Photographic Guide* (its $10 \times 11^{\circ}$ size is ideal for backpack or coffee table, but not pocket) is intended to help rapidly identify



twigs and leaves of woody plants through a series of quick photographic keys and more systematic sections. Nineteen 'quick guides' (not to be confused with the *Quick Guide* folding charts) at the front of the book help separate groups with distinctive features, for example thorns or lobed leaves. Not all of the 235 species photographed possess distinctive features and therefore not all appear in one of the quick guides. The rest of the book is divided into systematic sections arranged to rapidly arrive at species identification. These systematic sections divide the species into five groups: evergreens, opposite buds, alternate buds, opposite leaves, and alternate leaves. Species within each group are arranged alphabetically by family and genus.

The Photographic Guide is very user-friendly: its content is divided in a straightforward and accessible manner that lends itself to rapid orientation, in contrast to the frequently overwhelming nature of many woody plant identification guides. Similar species are easily comparable, with brief annotations to help guide towards identification suggestions; in fact, the author stresses that the guide serves to "suggest and eliminate, but not confirm" (p. 1). It is also noted in the introduction that not every woody plant encountered can be identified by leaves or twigs alone, with some groups requiring bark and sometimes flowers. This brings me to one of my only criticisms of the Photographic Guide: why not include photographs of bark or flowers for these trickier groups? In truth, this information is available via the Northern Forest Atlas website (http://nor thernforestatlas.org/), but I don't see why it could not be included here, unless the aim of basing these guides solely on leaves and twigs overrides the need to confirm a positive species identification for all specimens. There is definitely merit in stimulating the questioning process and to encourage utilizing a range of available resources.

The photographs themselves are integral to this modern field guide approach—with each studio photo taken from multi-image composites. Stacking technology and software produce a single image by combining the sharpest points from each of a series of frames. This results in beautifully fine detailed images, rich in depth and with even the finest twig bud details appearing crystal-clear. This technique also results in variation and imperfections in many of the specimens, with the author describing some to be "meaningful" and some "accidental" (p. 1)—the user is cautioned in the introduction that this variation mirrors what will be encountered in the field. The author goes on to assign the user the task of determining where "casual variation ends and species lines begin" (p. 1), implying the importance of individual exploration and continued learning. A visual glossary at the front of the *Guide*, and a gallery of photos of full tree photos at the end, round out this resource nicely. Although the gallery could easily have been expanded to include shrubs, it does a succinct job of identifying the tree species for which a profile or silhouette is a useful and viable approach to identification.

The companion *Quick Guide* folding charts provide a more pocket-friendly version of the *Photographic Guide*. The package comprises two charts, "winter" and "summer", each printed on durable, water-resistant paper. The winter chart focusses on the twigs and buds, whilst the summer chart concentrates on identification mostly from leaves, although much of the "evergreen" sections are duplicated. This results in highly practical field tools that are tailored to specific field seasons, and therefore aid in speeding up the identification process through making these resources as efficient as possible for the active field naturalist.

The affordable price tag for the *Quick Guide* and the Photographic Guide make either a welcome addition to any naturalist's library. The unique arrangement of the *Photographic Guide* and the versatility of the *Quick* Guide result in each having its functional role, and helps advocate for those who wish to invest in both resources. Online users are able to access a library of high-resolution images ranging from aerial to near microscopic photos, in addition to downloadable charts and other products. A forthcoming digital atlas and new guides to sedges of the Northern Forest are signs of more ground-breaking work in the pipeline. The reaffirmation from Jerry Jenkins across all of these physical and digital resources is that the purpose of the Northern Forest Atlas Project is to document the beauty and diversity of these vast forests, whilst providing tools for the next generation of conservationists looking to study and protect them. These two offerings on the Woody Plants of the Northern Forest certainly do an innovative job in meeting these goals.

> MATTHEW ILES Hillsburgh, ON, Canada