

The Woody *Artemisias*: An Introduction to the Species

By Jim Borland

This is part one in a multi-part series of articles on the Artemisia species. Common names include sagebrush, wormwood, and mugworts. In the next two issues (Winter and Spring 2021), we'll feature Artemisias native to Colorado, including botanical features and their ecological associations.

How many of us in the northern states are able to describe the ecological niche that our landscape plants occupied in their original and native habitat or even feel a need to know this information? In a way, the question is irrelevant since most of our landscape plants are capable of coexisting with the one plant most familiar to us all - bluegrass, the great equalizer plant. With relatively few exceptions, only those plants which are able to thrive under the same conditions provided bluegrass are seen in the landscape, and thus, in the nursery.

Unfortunately, this current state of affairs relegates many excellent plants to obscure status, especially in the west where most horticultural practices are mere adaptations of what somebody else has already done somewhere else, usually in the east.

Landscapes in the west are usually concepts and projects forced upon the land by virtue of the availability of water, which is generally distributed evenly over every square foot of planted space. Unlike their eastern brethren, landscape managers in the west have the almost unique ability to control all the water that their landscape receives, thus potentially expanding the range of plants which can be successfully grown. This, however, has happened in only a few places to any significant degree.

Too often utilized in western landscapes are only those plants first selected in the east and, of these, those which have gone through an additional selection process that tests their suitability to dry air, high intensity sunlight, infertile soils with a high pH and a dynamically changing climate. This culling process leaves significantly fewer plants than are described in most landscape plant texts and results in landscapes almost monochromatic in appearance and diversity.

Now, with the additional imposition of water shortages and the increasing difficulty in gaining the necessary approvals to build more water storage facilities, the high, dry and cold west has the potential of becoming a separate horticultural region not unlike that of the subtropical southeast and the warm desert southwest.

We may actually be witnessing the birth of a "gentler and kinder" horticulture as well.

We are about to learn that when we precisely match the right plant to the right place, there is no longer a need to continually beat the landscape into submission through constant attention to irrigation, fertilizer application, pruning and mowing. Yes, Virginia, there is a better way.

We will find, however, that we cannot conduct our horticultural business in the same manner as is currently the practice. No longer will we be able to put any plant in any place, regarding as we do now only that it grows so big and requires either sun or shade. Those wishing to restrict or deny the use of water in the landscape will find it necessary to reject most of ►



Big sagebrush (*Artemisia tridentata*) inflorescence, Dominguez Canyon, CO © Jim Pisarowicz

◀ the currently available plant materials and make their selections based on at least some information regarding the plant's native habitat. Fortunately, the native regions of the high, dry cold west are full of fine potential candidates.

One of the plant groups from this area gaining use today are the woody sagebrushes or *Artemisias*. Members of the Asteraceae, or sunflower family, they are the most widely distributed shrubs in the western United States, covering nearly 270 million acres from sea level to 11,500 feet in elevation and occupying soils receiving as little as 8 inches of annual precipitation. Here the woody members are nearly 100% endemic, growing nowhere else in the world, but represented as an herbaceous genus in nearly 300 combinations throughout the dry steppes of the United States and Eurasia, as well as north Africa and other more southern but mountainous regions.

The genus name was applied in honor to Artemisia, sister and wife of Mausolus who was king of Halicarnassus during the 4TH century B.C. A tomb erected in his honor became what it is known in modern times as the 7TH wonder of the ancient world. Queen Artemisia was undoubtedly named after Artemis, a Greek goddess of the moon, hunting and wild animals.

Members of the genus have a long-standing reputation in the home remedy and cooking arena where concoctions are prepared as teas, antiseptics, and tonics. Herbalists should be aware, however, that one of the common names applied to the group “sage” does not refer to the cooking sage, which is a member of the unrelated mint family. *A. absinthium* and *A. barrelieri* are still used in the distillation of the alcoholic beverage Absinthe.

Except for a handful of skilled and knowledgeable professional researchers dedicated to the management and research of western US shrubs, identification of the numerous species, subspecies, varieties, and forms of this shrub group can be frustratingly difficult. Speculations on the genetic origins of the species cover the field and are partially responsible for the multitude of nomenclature changes seen in the genus, changes that continue at this writing. Synonymy within the genus is rampant, resulting in one finding almost every taxonomic name variously assigned to species, subspecies, variety, or forma status. In addition to this confusion, some experts are now using very old names for the genus and aligning one species, *A. spinescens*, with its Asian counterpart *Picrothamnus desertorum*.

Most of the woody *Artemisia* species can be characterized as possessing small, dentate leaves covered with a lanate or wooly pubescence. The tips



Close-up of big sage small dentate leaf. © Mary Menz

of the often-bundled leaves commonly are variously lobed or divided into three portions or into fine, threadlike divisions. All have characteristic aromatic odors that fill the air after a rainstorm and when crushed, such that a good nose can tell the species apart by this character alone. Many have ephemeral leaves usually mixed with evergreen leaves and a few are deciduous in response to either drought conditions or the coming of winter. All are full sun plants.

Jim has been fooling around with native plants for more than 40 years in private, commercial, and public venues. His home garden contains 1000s of native plants, most grown from seed at home and now not supplementally watered for 20 years. Jim has written hundreds of articles, given talks too numerous to count, and continues to grow and plant the two or three native plants not yet in his garden. ☯

More About Artemisias in 2021 Issues

Jim Borland will share more of his knowledge about the *Artemisia* genus and species in the next two issues of *Aquilegia*. In Part 2 of this series of articles (to be featured in Winter 2021), Jim describes the inflorescences and leaf morphology of the woody *Artemisia* species. In Part 3 (to be featured in Spring 2021), Jim describes a few of the common species and subspecies, propagation techniques, landscape uses, and provides detailed references for readers wanting to delve further into the study of *Artemisias*.