



Rhexifolia

versus

Rhexiifolia

PLANT NOMENCLATURE
RUN AMOK?

| R Kasten Dumroese
| Mark W Skinner

ABSTRACT

The International Botanical Congress governs plant nomenclature worldwide through the International Code of Botanical Nomenclature. In the current code are very specific procedures for naming plants with novel compound epithets, and correcting compound epithets, like *rhexifolia*, that were incorrectly combined. We discuss why *rhexiifolia* is now preferred.

KEY WORDS

Castilleja, International Code of Botanical Nomenclature, ICBN, IBC

NOMENCLATURE

USDA NRCS (2004)

You may be surprised to see in the next article on propagation of Indian paintbrush (Luna 2005) the use of the name *Castilleja rhexiifolia* Rydb. (Scrophulariaceae). Isn't it supposed to be *rhexifolia*? Wasn't that the way Rydberg (1900) originally published it? Yes! And that's the way it is printed everywhere. So, why is it now *rhexiifolia*?

Ever since Linnaeus devised the system of naming species with binomials in the mid-1700s, nomenclaturists have debated the correct name for each plant. The International Botanical Congress, of which the 16th met in St Louis in 1999, is the recognized decision-making body for plant names. Each congress updates the International Code of Botanical Nomenclature—therefore, we are now using the latest or “Saint Louis Code” (see IAPT 2003). The objective of this code is to formulate sensible rules that provide more stability to plant nomenclature. The difficulty is that the code resembles the US tax code in complexity: it is self-referential to the extreme and therefore often internally conflicting, and the process of eliminating ambiguity through the layering of more provisions seems, at least to the non-nomenclatural world, self-defeating. But it does work, and in the hands of experts, quite well. The code sets procedures that enforce the correction of some mistakes and prohibit the correction of others, explains how to formulate nomenclature correctly to avoid mistakes in the first place, and conserves names that are known to be incorrect if correcting them would cause even more grief in the taxonomic world. For example, the genus *Carya* (Nuttall 1818), the hickories (Juglandaceae), has been conserved against an older name with nomenclatural priority, *Hicorius* (Rafinesque 1817), because *Carya* is in such widespread use that adoption of *Hicorius* would be disruptive.

With respect to orthography (that is, writing words with proper letters according to standard usage), chapter 7, article

60.1 specifies that—with a few exceptions—the original spelling of a name is to be retained. *Castilleja rhexiifolia*, however, presents one of these exceptions, since novel compound epithets (the part of a taxonomic name specifying a subordinate unit within a genus) must be correctly combined (recommendation 60.G.1), and existing incorrectly combined epithets must be corrected (article 60.8). For this Indian paintbrush, the epithet is formed from *Rhexia* (a genus in Melastomataceae), to which is appended *folia* to give us “leaves like *Rhexia*.” When correctly combining these elements in Latin, one must drop the “a” from *rhexia*, and use a connecting “i” to yield *rhexiifolia*. So *rhexiifolia*, not *rhexifolia*, is the correct orthographic variant for this epithet.

As Weakley (2005) points out in the previous article, nomenclatural changes are inevitable. The process of putting a continuously variable array of plant life into a stable, consistent, coherent system of nomenclature is complex, and at times, frustrating. Although the current system may sometimes seem arbitrary, capricious, and ambiguous, this work-in-progress helps us stay firmly rooted in our Linnaean tradition and better understand the diverse nature of the plants we work with.

REFERENCES

- [IAPT] International Association for Plant Taxonomy. 2003. International code of botanical nomenclature. URL: <http://www.bgbm.org/iapt/nomenclature/code/default.htm> (accessed 12 Jan 2005).
- Luna T. 2005. Propagation protocol for Indian paintbrush (*Castilleja* species). *Native Plants Journal* 6:62–68.
- Nuttall T. 1818. The genera of North American plants (2 volumes). Philadelphia (PA): printed for the author by D Heart.
- Rafinesque CS. 1817. *Flora ludoviciana*. New York (NY): C Wiley & Company.
- Rydberg PA. 1900. Catalogue of the flora of Montana and Yellowstone Park. *Memoirs of the New York Botanical Garden* 1:1–492.
- [USDA NRCS] USDA Natural Resources Con-

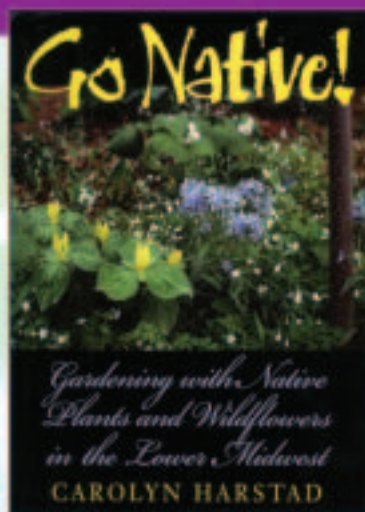
servation Service. 2004. The PLANTS database, version 3.5. URL: <http://plants.usda.gov> (accessed 12 Jan 2005). Baton Rouge (LA): National Plant Data Center.

Weakley AS. 2005. Why are plant names changing so much? *Native Plants Journal* 6:52–58.

AUTHOR INFORMATION

R Kasten Dumroese
National Nursery Specialist
USDA Forest Service, SRS
1221 South Main Street
Moscow, ID 83843
kdumroese@fs.fed.us

Mark W Skinner
National Botanist
USDA Natural Resources
Conservation Service
National Plant Data Center
PO Box 74490
Baton Rouge, LA 70874
mark.skinner@la.usda.gov



GOT SHADE?

A "Take It Easy" Approach for Today's Gardener
Text and Photographs by Carolyn Harstad.
Drawings by Jean Vietor.

If you've got shade, don't buy even one more plant—be it tree, shrub, perennial, or annual—until you buy this book.

paper \$24.95

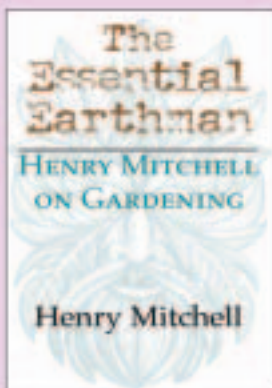
GO NATIVE!

Gardening with Native Plants and Wildflowers in the Lower Midwest

Carolyn Harstad

The only book on gardening with native plants for the Lower Midwest.

paper \$24.95



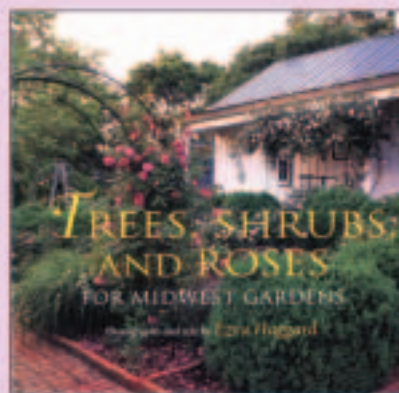
Now back in print at Indiana!

THE ESSENTIAL EARTHMAN

Henry Mitchell on Gardening
Henry Mitchell

A classic, full of wit and wisdom for gardeners.

paper \$16.95



TREES, SHRUBS, AND ROSES FOR MIDWEST GARDENS

Text and Photographs by Ezra Haggard

The only garden design book featuring shrubs, trees, and roses for the Midwest, with recommendations of the best species as well as tips for good plant combinations.

paper \$29.95



101 TREES OF INDIANA

A Fieldguide

Marion T. Jackson and Katherine Harrington

Photographs by Ron Rathfon

From American beech to yellowwood, Indiana's trees are presented in a brand new, beautiful field guide.

paper \$19.95

iupress.indiana.edu • 800-842-6796 • INDIANA UNIVERSITY PRESS