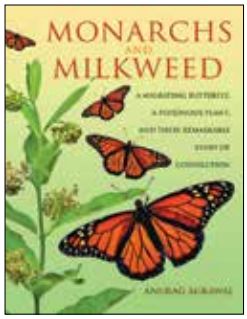
Recommendations for Your Gardening Library

Monarchs and Milkweed

Anurag Agrawal. Princeton University Press, Princeton, NJ, 2017. 283 pages. Publisher's price, hardcover: $29.95.

OBSERVING THE array of butterflies during a summer stroll through a wildflower garden is always a visual delight. Likely included in this winged assemblage is the beloved monarch butterfly *(Danaus plexippus)*, with its highly-recognizable vibrant wing coloration. We watch as a male monarch lightly lands on a fragrant blossom of common milkweed *(Asclepias syriaca)*, and begins sipping the sweet nectar. Next, a female monarch dips close to a milkweed leaf and lays an egg destined to become a voracious caterpillar. While this may appear like a perfect alliance between plant and butterfly, there is more than meets the eye.



In *Monarchs and Milkweed,* Anurag Agrawal, who is a biologist at Cornell University in Ithaca, New York, describes the "coevolutionary arms race" between monarchs and milkweeds. The reader learns that, while the monarch is dependent on milkweed as the sole food source for its caterpillars, the plant gains nothing from this association, not even the benefit of pollination. And, yet, milkweed persists. Its "one-two punch" is in the toxic steroids, called cardenolides, it produces. Contained in the milky liquid that oozes from wounds in the plant, cardenolides are deadly to most animals, but monarchs have evolved to tolerate much of this toxicity. Additionally, toxins that enter a monarch caterpillar's body are quickly "sequestered" and used to repel potential enemies. But don't think for a minute that milkweed is down for the count! Much more about this complex "tit-for-tat" relationship is revealed as pages are turned.

Agrawal addresses a wide range of related topics—from the monarch's life cycle, to historic research, other invertebrates that are part of the milkweed complex, taste aversion, and even mimicry of the monarch's coloration by other butterflies. The author's accessible writing style will appeal to both the scientist and lay person. Helpful illustrations and photographs assist in clarifying the narrative.

There is an informative chapter on monarch migration, offering facts and theories about their amazing journey. And, while the alarming fluctuation in monarch populations in recent years is addressed, I'm pleased to report that Agrawal expresses confidence that monarchs will be adorning our gardens for generations to come.

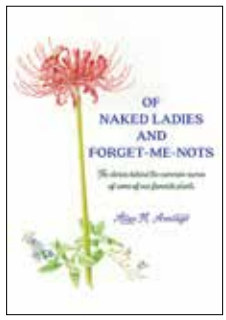
—Kathryn Lund Johnson

Kathryn Lund Johnson is a freelance writer and nature photographer who resides in Michigan's Upper Peninsula.

Of Naked Ladies and Forget-Me-Nots: The Stories Behind the Common Names of Some of Our Favorite Plants

Allan M. Armitage. Self-published, Athens, GA, 2017. 219 pages. Publisher's price, softcover: $20.

QUITE SIMPLY, Allan Armitage is an incredible yarn-spinner. And this is a delightful collection of stories behind common plant names, presented in his wildly humorous style. It's a book that will appeal even to those typically oblivious to the plant world.



Armitage notes in the preface that his original proposed title for the book had been "Of Naked Ladies and Sleepy Dicks," and it's hard not to get a kick out of the origins of some of the naughty names in the plant world, including naked ladies *(Lycoris radiata)*, hairy balls *(Gomphocarpus physocarpus)*, and horny goat weed *(Epimedium* sp.).

But the stories behind these titillating common names represent only a few of the dozens of fascinating anecdotes about plant names Armitage has researched. As a now-retired University of Georgia horticulture professor, he of course includes a liberal sprinkling of serious botany, history, and a few growing tips in each narrative.

Under the heading of "Raising the Nap," for example, Armitage romps through the history of teasel *(Dipsacus sativus)*, a weedy plant whose bristly seedheads "hurt when I touched them," he says. He chronicles the plant's long history of use for teasing or carding wool fiber, first in England and France, and later in the United States. Machines with teasel heads were used into the mid-20th century, he says, when they were finally replaced by units with metal teeth.

Then there's the eyeball plant, one of the common names for *Spilanthes acmella*. It is also known as the toothache plant because when the leaves and flowers—a source of spilanthol—are chewed, they cause significant salivation. Some dentists believe salivation is important for tooth health, and "a daily mouth rinse" of the extract has been recommended for gum health.

Even those with no interest in either growing these plants or learning about their sometimes astonishing lore are sure to enjoy this book for the many marvelous, personal, and invariably funny anecdotes Armitage recounts.

—Linda Yang

Linda Yang, former New York Times *garden writer, is author of four books, including* The City Gardener's Handbook *(Storey Publishing, 2002).*