

ENTOMOLOGY

Raising Butterflies in the Garden

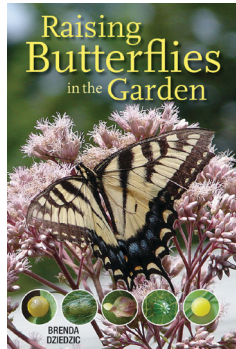
By Brenda Dziedzic. 2019. Firefly Books. 334 pages, 24.95 CAD, Paper.

When author Brenda Dziedzic noticed there were fewer butterflies around her than when she was younger, she immersed herself in learning about their life histories. Dziedzic is an Advanced Master Gardener, a member of several butterfly associations, and passionate about creating habitats in our yards to benefit pollinator species.

The book begins by concisely describing the differences between butterflies and moths and details their life cycles, anatomies, and taxonomy. For readers planning their own butterfly garden, section two delivers a helpful list of tips that are essential for successful butterfly gardens. Advice ranges from the more obvious (no pesticides, shelter from wind, planting arrangement for viewing, use native plants) to the more specialized, such as providing a place for the butterflies to puddle and stones to sun on. Most interesting of all, I learned that planting species in groups of three or more makes them easier for butterflies to find your garden. Dziedzic clearly has a wealth of gardening knowledge.

Section three deals with raising butterflies and moths indoors. As a biologist, I am reluctant to advocate the removal of anything from its natural habitat to raise indoors, unless it is already in harm's way or for an educational purpose. In light of recent research documenting how indoor-reared Monarch butterflies could not properly migrate (Tenger-Trolander *et al.* 2019), I am wary of this practice. While Dziedzic does a wonderful job explaining how to care for butterflies indoors, especially the importance of sanitization to ensure parasite and disease transmission does not occur, she skims over the 'why'. A discussion of conservation and education would be helpful here, especially as the purpose of the book is to create gardens that allow butterflies space to grow in their natural habitat through all parts of their life cycle.

The remainder of the book is a field guide to 40 of the most commonly seen butterflies and moths of North America, with pictures of each species at every stage of the life cycle: egg, caterpillar, chrysalis, and adult. The photos are clear, informative, and stunning, and mostly taken by Dziedzic herself. Her attention to detail is meticulous, and many photos contained a ruler to show relative size. There were even several pictures documenting the transition from



pre-chrysalis to emergence, a process many of us never see.

Each butterfly profile also includes a range map and lists of host plants for both the caterpillar and adult life cycle stages. In the introduction, Dziedzic writes about the importance of using native species, which can be found through your local plant nursery by using the Latin names. As this is not a regionally-specific book, I appreciate that the Latin name was included for caterpillar host plants, but they are not included for butterfly host plants. The inclusion of the Latin name is useful for finding these species in a seed catalogue or a local plant nursery as species often have multiple common names. Although Dziedzic mentions Butterfly Bush (*Buddleia davidii*) at the beginning of her book with a warning of its invasive potential, it is still listed as a host plant. It is important that gardeners do their own research of host plants when planning their gardens. If the reader is new to gardening and the selection of native species, they could accidentally plant species that are invasive to their region if they do not read the preface. This section was helpful for learning which native plant species would host the most pollinators in my garden. However, the book would have benefitted from having separate sections for eastern, western, and southern species. The book's two indices, one for host plants and one for butterfly and moth species, allow readers to easily look up both butterflies and plants that they are interested in while planning their own gardens.

In the section on butterfly pests, Gypsy Moth (*Lymantria dispar dispar*) was mentioned as an invasive species to avoid. However, I was surprised that Cabbage White Butterfly (*Pieris brassicae*), native to Europe and damaging to crops, was not. This would be helpful to know if you are trying to grow any of their host plants, including broccoli, cabbage, cauliflower, or radish, in your vegetable garden.

I recommend this book to people who would like to learn more about butterflies and are looking for a go-to guide for identification at all life stages. The photography makes this a fantastic book to identify what you are seeing outside or to simply learn more about each species. It is a great first book for readers interested in planning pollinator gardens, a launching pad for further exploration into local flora and fauna.

Literature Cited

Tenger-Trolander, A., W. Lu, M. Noyes, and M.R.

Kronforst. 2019. Contemporary loss of migration in monarch butterflies. *Proceedings of the National Academy of Sciences* 116: 14671–14676. <https://doi.org/10.1073/pnas.1904690116>

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