

THE AMERICAN BIOLOGY TEACHER



About Our Cover

The blue mistflower (*Conoclinium coelestinum*) belongs to the Asteraceae family, one of the largest known plant families (it includes over 32,000 species!). Many Asteraceae species are economically important, as this family includes many food crops such as lettuce, artichokes, and sunflowers, as well as several common ornamental plants such as daisies, dahlias, and asters giving this family of plants a near pan-continental distribution. This family possesses unique floral structures, such as the capitulum, ray, or disc flowers. Can you point out these structures in this species shown here? Even many people with formal biological training can't!

In the interactive game we created, *Forbidden Botany*, we aim to tackle complex botanical vocabulary through gamification, resulting in a fun and challenging way to develop a more comprehensive botanical lexicon in biology students. We designed *Forbidden Botany* to encourage students to categorize, compare, and contrast structures and anatomical features in plants. This game, modeled after *Taboo*, lets students think factually and conceptually about definitions and identify gaps in their botanical vocabulary while building on the knowledge they have already acquired. Giving students a fun opportunity to gain this experience while reinforcing plant terminology, *Forbidden Botany* engages students as active participants rather than passive recipients of botanical knowledge. This game can be used as a tool to integrate multiple modes of instruction in addition to the traditional lecture. Check out our paper on *Forbidden Botany* for more information: MacNeill, B. N., Branch, H. A., Motley, M. G., & Heinrich, K. K.; *Forbidden Botany: A Game to Develop Botanical Lexicon in Biological Science Courses*. *The American Biology Teacher* 86(1): 39–41. doi: <https://doi.org/10.1525/abt.2024.86.1.39>

This image was captured at the University of Alabama Arboretum on September 30, 2023, by Chandler Olson. The camera used was a Nikon d3400 with a Tokina atx-i 100mm f/2.8 FF Macro Lens and Nikon SB-R200 Speedlights. Chandler Olson is a PhD candidate at the University of Alabama in the Department of Biology studying mollusk phylogenetics and taxonomy. Chandler has a strong interest in invertebrate photography and using these skills to inspire science communication. You can see more of his photography here: <https://www.seahorseandco.com/>.

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