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*@ORC is a weekly publication by the IL Department of Natural Resources Office of Resource Conservation about exciting and wonderful things ORC staff are doing throughout Illinois.*

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# Innovative Solutions for Learning: A Guide for Illinois Native Plant Species

*By Beth Weber, Division of Natural Heritage*

When you think of learning a new skill, the phrase most often used is “practice makes perfect”. But what about when you think of learning a new skill and that practice suddenly seems like studying for exams back during the school years? For some, this may be a welcome challenge, for others, a terrible flashback, yet the phrase holds. To learn and get better you have to practice, even if practicing doesn’t seem practical.

For most, learning common species just happens as life progresses – a cardinal (*Cardinalis cardinalis*), a squirrel (*Sciurus* spp.), an oak tree (*Quercus* spp.). These all required practice to learn, but they are now so second nature that remembering the practice is probably a faint flicker of a memory at most. The challenge comes when setting a goal to learn new species, and in this case, the species are of the floral variety.

Many field jobs within the Illinois Department of Natural Resources includes the required knowledge of plant species – mostly of the exotic or invasive type for knowing what must be treated and for understanding the needs of the habitat. While learning how to distinguish honeysuckle across seasons may now seem like second nature, can the same be said for Illinois horse gentian (*Triosteum aurantiacum illinoense*)? For nannyberry (*Viburnum lentago*)? For butternut (*Juglans cinerea*)? If not, don’t fret! There are ways to learn these plants that are easier than one may think.

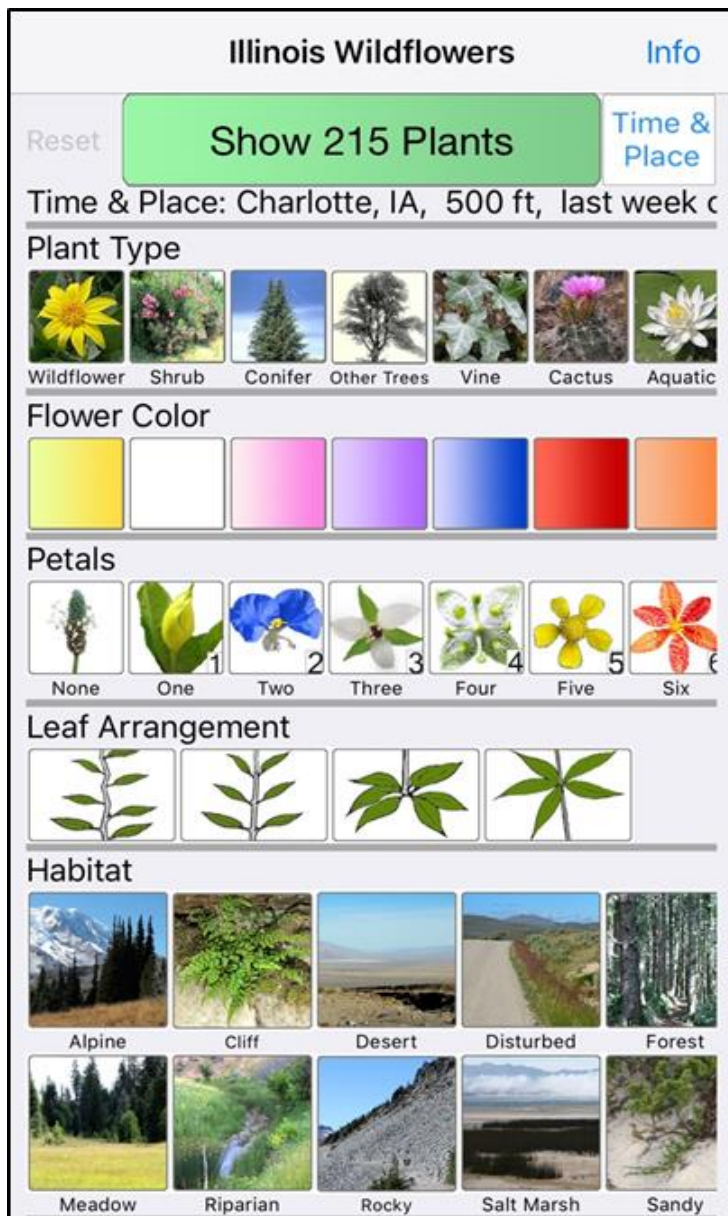
Why learn the common plants of Illinois? Well, for many reasons is the short answer. The longer answer is to make one feel more connected to nature, to make one a better biologist, to know what kind of habitat an area is/should be, to better understand the habitat interactions occurring at a site, to know how to manage a site properly, to determine if there is a threatened/endangered plant in an area, and the list goes on. One of the more



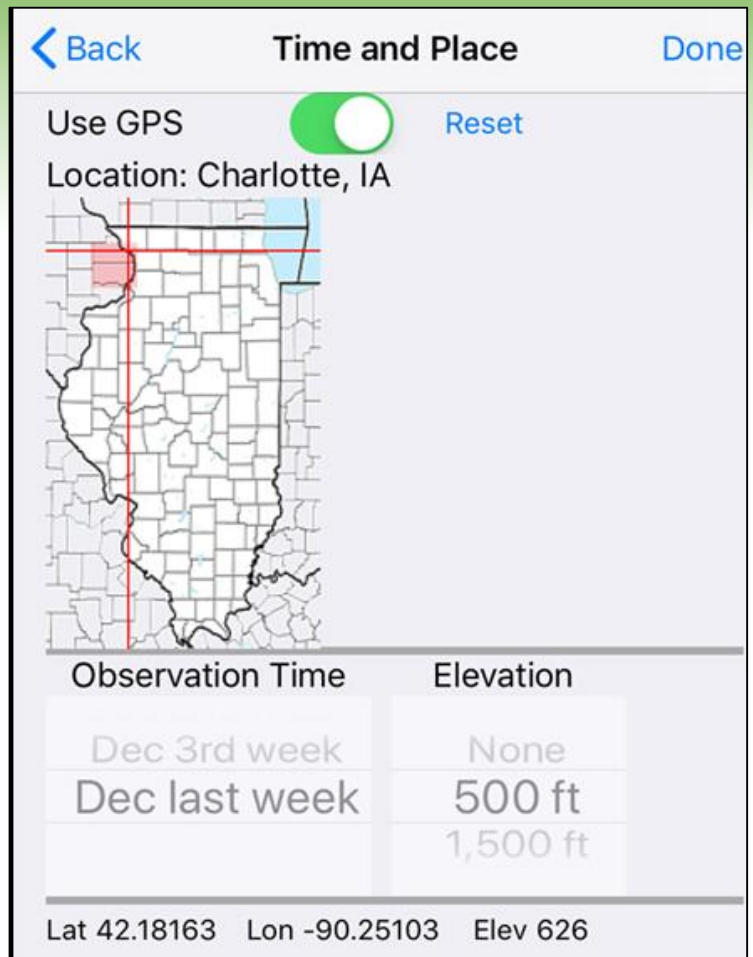


crucial reasons to learn plant species is to determine the natural quality of sites and their vegetative communities. These determinations are integral in whether a location is included in the INAI (Illinois Natural Areas Inventory). Knowledge of these species also allows for updates of INAIs and observing if the quality of the vegetative communities is changing due to management practices at a site. Maybe you've tried to learn plants before and didn't have the best results. Maybe you know some plants but want to know more. Maybe you're new to the plant world and don't know where to start. No matter your level of experience, there are always ways to gain more insight and knowledge into the floral world.

One of the main ways to learn any species is through field guides. Looking at a plant, comparing it to the description in the manual, trying to distinguish if that is, in fact, the species you are confronted with. While this method can seem intimidating without the proper field



The homepage of the Illinois Wildflowers app



Using GPS on different apps can limit your search to only local plant species.

guide, it is a tried and true method. For this method, it can be easiest to utilize the field guide with the plant present, allowing adequate time to scrutinize. The most challenging issue a novice may face is understanding the botanical terms used to describe structures. With time, these will become easier. For those interested in only learning a set type of plants, this may be the ideal route. One can study just the goldenrod species to learn the characteristic differences, or solely aquatic species, or even a taxonomic order of species. There are field guides for most any specific need you may have.

For the lightweight traveler, there are apps (many of which are free) that can be used. These can link to the GPS on your phone and triangulate to plants that are known to happen in your area. Some apps will even use the altitude and calendar date data to give a smaller set of options of the plant you may be seeing. The largest drawback to this method is the limited availability of the app being used. The app may only list the most common species of the area, or the plant may be found in a habitat type the app doesn't normally classify the plant as being in. Possibly the largest plus of this method is that most





apps won't return just one possible plant. A few species may be listed that have similar characteristics, allowing the app user to compare the possible species to the yet-to-be-identified plant and to each other, leading to more information than expected.

Ask any app user what their favorite for plant identification is, and different answers are sure to be given. Play around and learn what your favorite is. An app that is user-friendly for this state, especially during the bloom season of a plant, is Illinois Wildflowers. (There is also a website by the same name that has even more information listed than can be found on the app.) This app may be slightly misleading with its name however, as it also includes trees, vines, lichens, and more. The app user is prompted to put in the plant information they can decipher; habitat, number of petals, leaf arrangement, etc. From there, the app narrows down the search to

the plants matching the selected descriptions. Another nice feature of the app is the ability to see plants in the geographic region by using GPS. For those that need a refresher on botanical terms, the app also includes definitions below the description of each species. If perusing plants at leisure is more your cup of tea, select the region of interest in the state and the time of year and active plants will be listed. Each plant has photographs, descriptions, a range map and more.

Another method is asking an expert, or better yet, a day or two spent with someone with deeper knowledge of plants. This allows time in the field to get the hands on information that goes beyond what a general book may say. It is also a great way to learn what key characteristics the specialist uses and any tips or tricks they may have for the non-expert. The largest drawback to this is finding such a person with time to spare.



*Tapping into someone else's expertise can be fruitful for learning plant facts not always shared in common field guides*





An additional learning strategy, one that I have relied heavily on this year, is one that can be implemented if you only have a short amount of time and many species around. For this method, the state-issued iPhone (if you have a generation 6 or higher) is your best tool. For the species you want to learn, first take two photos. This allows one to create a ‘flashcard’ type system. The first photo of the plant serves as the photo to quiz yourself off of.

For the second photo, it can be edited (either immediately, or at a later time after plant identity has been confirmed) and the plant name/genus/etc. written over the photograph. The drawback to this method is that there is no text box option, so editing must be written by finger on the screen.

To go about the editing process:

- 1) select the photo to be edited and tap the ‘edit’ button in the upper right hand corner.
- 2) Along the bottom of the screen, tap the icon with three dots inside a circle and then the icon named ‘Markup’ (if the phone asks to turn off live photos, select OK).
- 3) Mark up the photo as desired. There are a variety of pen types, thicknesses, and colors available to tailor the editing to what is desired.



*The initial “quizzing” photo taken*



*Photo after editing for “checking” your plant knowledge*

Don’t limit yourself to just the species name; this method can be used for learning native/non-native species, quizzing on a species habitat type, and more. Whatever you want to write on the photo is what you can use this method to learn.

As with all things, some of these methods will work for some and not others. While practice does makes perfect, hopefully one of these methods makes practicing a bit easier and less daunting than it seemed before. Whatever the case, find what works best for you and enjoy getting out there and learning the wonder of plants in this state.

