

Botany Beginners: Exploring Iowa's Native Plants

Summer 2020

Instructors

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Course Information:

- We will use *Newcomb's Wildflower Guide (1989)* by Lawrence Newcomb and Gordon Morrison. Please purchase a new or used paperback copy; \$14.27 on Amazon. From the publisher: "An ingenious key system for quick, positive field identification of wildflowers, flowering shrubs and vines in Northeastern and North-central North America. Amateur and expert alike can quickly and accurately identify almost any wildflower using Lawrence Newcomb's system, which is based on natural structural features that are easily visible even to the untrained eye. ... Beautiful illustrations make confirmation easy."
- You will need to find *at least one good site for practicing plant ID* throughout the summer.
- Highly recommended: any 7x to 10x magnifying lens. Can be a folding pocket loupe such as [this one](#) for \$8.99, or a magnifying glass.
- You may need PPE for sunburn, ticks, chiggers and poison ivy
- There are five introductory webinars, four practice assignments, two quizzes, and four virtual field events. Attendance and participation are encouraged but optional.
- A dedicated Facebook Group will help you connect with other Botany Beginners, compare your plant photos, and collaborate

About this Course:

At the University of Northern Iowa's Tallgrass Prairie Center, we identify plants in order to monitor and troubleshoot prairie plantings and evaluate the results of experiments. Plant identification also allows us to more fully appreciate and understand the beauty and complexity of remnant (original) tallgrass prairies. In recent years, we have trained undergraduate research students and AmeriCorps service members during a 3-week "Botany Boot Camp." However, with the advent of the COVID19 pandemic, we found it necessary to provide their initial training some other way. In the process we realized that others across the region might also want an introductory plant ID course and the opportunity to practice with some expert guidance. We have tried to create a worthwhile learning experience using a combination of remote teaching strategies and individualized instruction.

Purpose

This course is designed for anyone who wants to learn how to identify native plants of the tallgrass prairie region, including a few common weeds and woodland species. This course is for beginners, and the emphasis is on learning *how* to learn the plants, and becoming more self sufficient through guided practice. Once students can learn the names of the plants they are interested in, it can open up a whole new world to explore. Please join us!

Goals. We would like to help you to...

1. Be able to use plant ID guides, species lists, habitat context and other tools to help you learn the plants you want to learn. Become more self-sufficient in identifying plants in your area.
2. Make effective use of plant terminology, names, and plant family characteristics so that plant identification is quick and painless.
3. Meet your personal learning goals, whether it is to recognize the top five common wildflowers and weeds in a CRP field, or some of the plant species in a local remnant. We will explore Iowa's native herbaceous (non-woody) plants in road ditches, CRP fields, remnant prairies and maybe a woodland or wetland. We will learn a few important native and non-native weeds along the way.
4. Adopt the habit of practicing plant ID for long lasting results and continuous learning, such as by creating your own personal plant list.
5. Find one or more plant ID buddies to make the process more fun.

Acknowledgements

The [Tallgrass Prairie Center](#) wishes to acknowledge the support of [Practical Farmers of Iowa](#), [Green Iowa AmeriCorps - Land and Water Stewards Program](#), the [University of Northern Iowa College of Humanities, Arts and Science](#), and the [Friends of the Tallgrass Prairie Center](#).

Course Elements

I. Six, 1-hour webinar lectures -- Webinars will introduce you to a few common native plant species, and cover the most important information you need to correctly identify plants, or at least get pretty close. All webinars will be recorded and archived online so that attendees can view the material at their convenience, although we recommend that individuals interested in making the most of the course attend each webinar live in order to ask questions and participate in discussion.

Webinars will be held on Zoom from 6-7 PM -

Monday, June 8, Thursday, June 11, Wednesday, June 17, Wednesday, June 24, Wednesday, July 1 and Wednesday, July 8. See page 4 of the Syllabus for topics.

II. Weekly homework – Weekly homework is a chance for you to practice your botany skills and receive feedback on your identification methodology. Each week we will simply ask you to go out to natural areas around you and work through the worksheet or form provided. Practice is the best way to truly become proficient in plant identification. There is no ‘grade’ or consequence for not completing the homework, but in order for us to give you feedback we do ask that you do complete the assignments by the due date.

Homework topics -

- 1: Implementing botanical terminology and practice keying out species
- 2: Weedy species worksheet and weekly local identification
- 3: Identify 10 species around you

III. Optional quizzes and personal plant list- These quizzes are a way for you to see your botanical progress and to test your retention of the material that was presented previously. Quizzes are also a great way for the instructors to see if there is a certain area that we need to cover again. There is no grade associated with the quiz, but we ask that you try to complete it without using your notes by the due date provided.

Quiz topics

- 1: Botanical terminology, plant families and common weed identification
- 2: Common weed identification, plant identification of target species

IV. Four Field Events - Streaming on Facebook Live, 30 minutes each.

Take a virtual walk, with expert commentary. A moderator will field questions from the audience, and the sessions will be recorded. Find out how each of our hosts uses plant ID to inform their land management questions. *Dates and times to be determined; these will be recorded to watch anytime.* Topics are detailed on page 5 of this Syllabus.

V. Post-course support: We strongly encourage students to continue practicing after the webinars and quizzes are over. To this end, we have established a Facebook Group called Botany Beginners: Exploring Iowa’s Native Plants (Request to join [here](#)). You can use this forum to ask questions, post photos of plants you are trying to ID, and share the latest addition to your personal plant list. Also, we will offer optional office hours that allow you to chat with some of the instructors if you have follow-up questions or just want to share your progress.

Webinar Topics (Tentative)
All Webinars are from 6:00 - 7:00 PM

June 8: Introduction; Botany Fundamentals Part 1

Paige Shafer

Introduction; participant goals

Feature: Plants of the day

Botany Vocabulary

Plant parts – flowers

Plant parts – leaves and stems

How to take useful photos of plants for later ID

Safety Tips/PPE

June 11: Botany Fundamentals Part 2

Laura Jackson

Plants of the day

Review of plant vocabulary and a few new ones

Using the tools of Plant ID –

Newcomb's Guide, habitat and season, good guesswork

Three top plant families and how to recognize them

June 17: Botany Fundamentals Part 3

Laura Walter

Plants of the day

Three more plant families and how to know them

Practicing with Newcomb's Guide

Troubleshooting ID - What if I don't see flowers, leaves etc.

June 24: Focus on CRP and Roadside plants

Kristine Nemeč with Justin Meissen

Plants of the day

Common CRP plants and early prairie restoration

Common weeds -- noxious and invasives

July 1: Remnant Prairie and TBD

Justin Meissen with Laura Walter

Plants of the day

Remnant prairie plant ID

Other topics TBD according to student feedback (tentative)

July 8: Recap and Continuing your Botanical Journey

Paige Shafer

Recap of the plants and techniques covered

Botany Beginners Facebook Group

More botanical resources

Virtual Field Events - Streaming on Facebook Live

Thirty minutes each. Events will feature a walk-through with expert commentary, and some key plant identification. A moderator will field questions from the audience in real time, and the sessions will be recorded. Find out how each of our hosts uses plant ID to inform their land management questions. *Precise dates and times to be determined.*

Appreciating pasture and field border plants - Practical Farmers of Iowa *July*

- You can see how well-managed, rotationally grazed pastures (and field borders) can support a great diversity of native and non-native flora if you know how to look
- Host Mary Damm with neighbor Phil Specht, PFI members and farm owners
- Near McGregor, in Clayton County

In-field Prairie strips - Practical Farmers of Iowa *mid- July (?)*

- Design, establishment and management of in-field prairie strips; how to work with land tenants to achieve conservation goals
- Host PFI farmer Eric Hoiem, with the Iowa Natural Heritage Foundation and Tim Youngquist, ISU STRIPS
- Near Big Spirit Lake, Dickinson County

Stop and Smell the Roadside Roses - Tallgrass Prairie Center *late July (?)*

- Slow down to notice the many native plants in the county road right-of-way, thanks to the [Iowa Roadside Management program](#) and your local county roadside manager
- Host Kristine Nemec, statewide coordinator for Iowa's county roadside programs, and TPC plant expert Justin Meissen
- Where: Still deciding. Do you have a favorite road ditch within about 60 miles of UNI? We'll consider it.

Time Lapse Prairie Reconstruction - Tallgrass Prairie Center *early August (?)*

- Learn to recognize dynamic change, and troubleshoot problems, in diverse prairie plantings that are 1, 2 and 3 years old; see the effects of first-year mowing, and see how useful it is to be able to ID plants before they flower.
- Host Justin Meissen, TPC's Research and Restoration Program Manager, with Laura Walter, TPC Plant Materials Program
- [Irvine Prairie](#) is a 77-acre prairie-in-progress [near Dysart, Iowa](#) (Benton County) in the third year of a 5-year planting plan by the Tallgrass Prairie Center