

# Sedges of Minnesota

## Three Day Identification Workshop

- Instructed by:** Mr. Jason Husveth, MS, Botanist/Ecologist
- Dates:** Wednesday, June 14, Thursday, June 15, and Friday, June 16, 2023
- Location:** University of Minnesota Plant Growth Facilities, Lab 136, St. Paul Campus  
Sedge Diverse Native Habitats, William O'Brien State Park, Washington County, MN
- Cost:** \$600 per Student (Enrollment is Limited to 25 Students)
- Accreditation:** 18 Direct Hours of Continuing Education Units (CEUs) for the Minnesota's Wetland Professional Certification Program

Critical Connections Ecological Services, Inc. is pleased to offer a three day sedge identification workshop on Wednesday June 14 through Friday June 16, 2023. After a well received return to in person workshops in 2022, we are again offering an expanded three day workshop; two days in the lab and one full day in the field. The course will be taught by Jason Husveth and will focus on the Sedges (*Carex*) of Minnesota. Now in our 14th year, this three day workshop will be taught 2/3 in the lab/classroom, and 1/3 in the field. The workshop is taught within a modern plant laboratory at the University of Minnesota's St. Paul Campus Plant Growth Facility and in the field at William O'Brien State Park. The curriculum will include an introduction to all of the Minnesota sedge genera (*Cyperaceae*), with a focus on the identification of *Carex* species using live plant material. Over 80 *Carex* species (half of the MN native species) were provided as live material at the 2022 workshop, as well as more than 20 additional species representative of other Minnesota sedge genera. The Minnesota Sedge Identification Workshop will be useful to a wide array of students, including novice and experienced field botanists, wetland ecologists, and wetland professionals with an interest in identifying *Carex* taxa to species. This course is accredited as 18 direct hours of continuing education units (CEUs) by the Minnesota Board of Water and Soil Resource's (BWSR) Wetland Professional Certification Program (WPCP).

### Students can expect to complete the three day course with:

- 1) An introduction and basic knowledge of all sedge (*Cyperaceae*) genera occurring in Minnesota (15 genera as per The Flora of North America, Vol. 23, 2002 and Welby Smith, 2018),
- 2) The ability to recognize and identify common and unusual Minnesota native *Carex* species in the field and in the lab,
- 3) Knowledge of required specimen collection methods to enable proper *Carex* identification in the lab, (students can make a collection of pressed specimens from live material provided at the workshop),
- 4) The ability to use dichotomous keys to identify *Carex* to species in the field. Students will be taught useful *Carex* field-identification concepts and shortcuts, as described in Welby Smith's *Sedges and Rushes of Minnesota* (2018), Voss's Michigan Flora (Vol. 1.), Wheeler's Key to the *Carex* of MN, Husveth's revised Key to the *Carex* of East-Central Minnesota, Zager and Norris' *Carex* of Iowa, and the Flora of North America (Vol. 23: *Cyperaceae*),
- 5) Consistent with all of the past 11 years, students should expect to be successfully keying live *Carex* specimens to species by the noon lunch break on the first day of the workshop, and,
- 6) Experience applying two days of laboratory and key learning in the field at sedge-diverse natural areas.



**Jason Husveth** is a professional ecologist and botanist working throughout Minnesota and the Upper Midwestern United States. Jason has over twenty years of academic, professional, field, and herbarium experience identifying, collecting, photographing, and documenting sedge species in Minnesota and throughout the Upper Midwest. Jason has been trained in sedge identification by Dr. Anton Reznicek (Flora of North America, Michigan Flora), Dr. Robert H. Mohlenbrock (Flora of Illinois), Dr. Susan Galatowitsch (University of Minnesota), and Dr. William Norris (Sedges of Iowa). Mr. Husveth has taught sedge identification courses in the field and in lab settings, and has lead dozens of plant identification field trips within native wetland and upland plant communities throughout Minnesota. Jason not only knows and loves sedges; he knows how to teach others how to navigate through sedge diversity and taxonomy by understanding the key underlying concepts of how to identify, learn, and remember sedge species of Minnesota. Jason specializes in peatland restorations of the Anoka Sand Plain (MN), Floristic Quality Assessment, wetland mitigation banking, natural community classification, assessment, and mapping, and rare species survey and conservation throughout the Upper Midwestern United States.



### **Minnesota Board of Water and Soil Resource's (BWSR) Wetland Professional Certification Program (WPCP) Continuing Education Credits:**

From 2012-2022, the University of Minnesota Wetland Delineator Certification Program (WDPC) had recognized this workshop as eligible for wetland delineator continuing education credits. For the 2023 workshop, the Minnesota Wetland Professional Certification Program (MWPCP) has confirmed that successful completion of the entire three day sedge identification workshop will result in **18 direct hours of continuing education credits** applicable to maintaining MWPCP certification. If you have further questions about MWPCP continuing education credits, please contact Jason Husveth at [jhusveth@ccesinc.com](mailto:jhusveth@ccesinc.com). Additional details and updated information regarding this workshop can be found at: [www.ccesinc.com/workshops](http://www.ccesinc.com/workshops).

# Sedges of Minnesota

## Workshop Agenda:

**Day 1: Wednesday, June 14, 2023**

**Location: University of Minnesota Plant Growth Facilities, Lab 136, St. Paul Campus (St. Paul, MN)**

|                    |   |
|--------------------|---|
| 8:00 to 8:30AM     | Check In and Registration   |
| 8:30 to 9:00AM     | Introduction and Purpose  |
| 9:00 to 10:30AM    | <i>Cyperaceae</i> : Genera in Minnesota with Slides and Live Specimens  |
| 10:30 to 11:00AM   | Break with Refreshments, and Individual Instruction   |
| 11:00AM to 12:00PM | <i>Carex</i> Species: Introduction to Collecting, Keying, and Identifying <i>Carex</i> of MN<br>Concepts, Identification Tools, and Shortcuts |
| 12:00 to 1:15PM    | Lunch Break – Student Center Cafeteria or Local Restaurants   |
| 1:15 to 3:00PM     | Group Keying of <i>Carex</i> Live Specimens   |
| 3:00 to 3:30PM     | Break with Refreshments, and Individual Instruction   |
| 3:30 to 4:30PM     | Group and Individual Keying of <i>Carex</i> Live Specimens  |
| 4:30PM             | Adjourn   |

**Day 2: Thursday, June 15, 2023**

**Location: University of Minnesota Plant Growth Facilities, Lab 136, St. Paul Campus (St. Paul, MN)**

|                    |  |
|--------------------|--|
| 8:00 to 8:15AM     | Check In   |
| 8:15 to 10:30AM    | <i>Carex</i> diversity in Minnesota (Sub-Genera Groups, 160+ Species Recognized)<br>Sub-Genera Groups with Representative Live Specimens |
| 10:30 to 11:00AM   | Break with Refreshments, and Individual Instruction  |
| 11:00AM to 12:00PM | Introduction to <i>Ovales</i> Sedges: Key Concepts and Key Identification Characteristics  |
| 12:00 to 1:00PM    | Lunch Break – Student Center Cafeteria or Local Restaurants  |
| 1:00 to 4:00PM     | Key <i>Ovales</i> Sedges of Minnesota (and All Species) from Live and Pressed Specimens  |
| 4:00 to 4:30PM     | Review of Major Concepts and Identification Tools, Applying What You Have Learned, and Questions and Answers                             |
| 4:30PM             | Adjourn  |

**Day 3: Friday, June 16, 2023**

**Location: Sedge Diverse Plant Communities of William O'Brien State Park, Washington County, MN**

|                   |   |
|-------------------|---|
| 8:30AM to 12:00PM | Meet at William O'Brien State Park, Visit Plant Communities of St. Croix River Bottom |
| 12:00PM to 1:00PM | Lunch Break: Marine on St. Croix General Store or BYO Lunch in the Park               |
| 1:00PM to 4:00PM  | Meet at William O'Brien State Park, Visit Plant Communities of Upper Park Area        |
| 4:00PM            | Adjourn   |

## Registration Information

Registration for this three day workshop will be on a first come, first served basis. Registration will be open until filled. Registration is confirmed with full payment of registration fee. To maximize the instructors' time with each workshop participant, registration will be limited to 25 students. A waitlist will be maintained to allow for cancellations. Registration fees are non-refundable after May 15, 2023.

Once registration information and payments are received, all registration confirmations and workshop correspondence will be sent via email by Jason Husveth (jhusveth@ccesinc.com).

Registration fees will include refreshments and course materials. Other accommodations, such as lunch, campus parking, transportation, and lodging, will be at the registrants' own expense. If you cannot afford the full registration fee, please contact the instructor to discuss alternative arrangements.

**Registration Fee: \$600 per attendee**

Please make check payable to **Critical Connections Ecological Services, Inc.**

Special payment accommodations can be made via PayPal, upon request.

**Mail Registration Form and Payment to:**

Critical Connections Ecological Services, Inc.  
c/o Sedge Workshop  
450 Main Street North  
Suite 130  
Stillwater, MN 55082

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### Registration Form

#### Sedges of Minnesota – Three Day Identification Workshop

**Instructor:** Jason Husveth, Critical Connections Ecological Services, Inc.

**Dates:** Wednesday, June 14 to Friday, June 16, 2023

**Location:** University of Minnesota Plant Growth Facilities, Lab 136  
1908 Dudley Ave, St. Paul Campus,  
St. Paul, Minnesota

Student Name: \_\_\_\_\_

Organization /Company: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Cell Phone Number: \_\_\_\_\_ (for field day)

Email: \_\_\_\_\_

Questions?

Please contact Jason Husveth, Course Instructor at 651-433-4410 or jhusveth@ccesinc.com  
For more information, please visit: [www.ccesinc.com/workshops](http://www.ccesinc.com/workshops)