

# JUSTINE WEBER

State University of New York || College of Environmental Science and Forestry  
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## EDUCATION

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### Ph.D. Candidate, Ecology

State University of New York College of Environmental Science and Forestry (ESF), 2021 (expected)  
Dissertation: Ecological drivers of marl fen vegetation: controls on the presence and abundance of rare species with a focus on Houghton's goldenrod (*Solidago houghtonii*)  
Advisor: Donald J. Leopold, Ph.D.

### B.S., Biology and Environmental Education

Messiah (College) University, *magna cum laude*, 2006  
Pennsylvania Teaching Certification: Biology 7-12  
Pennsylvania Teaching Certification: Environmental Science K-12

## PROFESSIONAL APPOINTMENTS

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### Visiting Assistant Professor

Utica College, Department of Biology

2019-2020

Utica, NY

## TEACHING

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### Visiting Assistant Professor

Utica College, Department of Biology

2019-2020

Utica, NY

100-level Ecology lecture for nonmajors, new course, 2 semesters  
100-level Ecology lab for nonmajors, new course, 2 semesters  
200-level Research Methods course, writing-intensive, 2 semesters  
400-level Senior Seminar for Biology program undergraduates, writing intensive, 1 semester  
\* All courses above taught online for seven weeks in Spring 2020 due to COVID-19

### Instructor and Coordinator

ESF, Department of Environmental and Forest Biology

200-level Biodiversity Survey lecture course, required, 11 semesters  
200-level Biodiversity Survey lab course, required, 11 semesters as secondary coordinator

2014-2019

Syracuse, NY

### Teaching Assistant

ESF, Department of Environmental and Forest Biology

200-level Biodiversity Survey lecture and lab course, 2 semesters  
300-level Ecology of Mosses lecture and lab course, 1 semester  
300-level Indigenous Issues and the Environment lecture course, 1 semester

2012-2013

Syracuse, NY

### High School Science Teacher

Lancaster Mennonite High School

9<sup>th</sup> grade Environmental Science, led curriculum redesign, 8 semesters  
10<sup>th</sup> grade Biology, 6 semesters  
11<sup>th</sup> and 12<sup>th</sup> grade Wildlife Science, elective, 2 semesters  
11<sup>th</sup> and 12<sup>th</sup> grade Advanced Environmental Science, elective, 1 semester

2006-2010

Lancaster, PA

## OUTREACH, ENVIRONMENTAL EDUCATION, and SERVICE

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<b>Participating Scientist, Skype a Scientist</b> Skype a Scientist program connects classrooms with scientists via video conference	<b>2020-present</b> online
<b>Invited Instructor, Ecological Monitoring and Biodiversity Assessment</b> ESF, Cranberry Lake Biological Station, <i>2020 season canceled due to COVID-19</i>	<b>Summer 2020 and 2021</b> Adirondack Park, NY
<b>Expert Interview, “New York’s Extinction”</b> Feature story on New York State’s endangered plants, appears in <i>The Earth Issue</i> and <i>Icarus Complex</i>	<b>published March 2021</b> online
<b>Striped Coralroot (<i>Corallorhiza striata</i>) Surveys</b> New York Natural Heritage Program, rare orchid surveys, Nelson Swamp Unique Area	<b>2020</b> Nelson, NY
<b>Invited Instructor: Living on the Wind, Migration and Monhegan II</b> National Audubon Society, Hog Island Audubon Camp; <i>invited in 2019, declined due to conflict</i>	<b>2017 and 2018</b> Bremen, ME
<b>Teaching Fellow: Graduate Assistant Colloquium on Teaching and Learning</b> ESF, Open Academy (Outreach Department); prepping new grad students for teaching tasks	<b>2017 and 2018</b> Syracuse, NY
<b>Ecolunch Departmental Seminar Coordinator</b> ESF, weekly ecology seminar with graduate students and faculty presentations	<b>2014-2017</b> Syracuse, NY
<b>Onondaga Lake Bioblitz</b> ESF, plant data collection and collation for bioblitz to honor incoming ESF president	<b>2014</b> Syracuse, NY
<b>Naturalist Program Leader</b> Millbrook Marsh Nature Center; tasks included school programs, summer camps, bird walks	<b>2010-2012</b> State College, PA
<b>Environmental Education Intern</b> Edwin B. Forsythe National Wildlife Refuge; tasks included public outreach, school programs	<b>Summer 2006</b> Oceanville, NJ
<b>Park Ranger Naturalist Intern</b> Glacier National Park, with 4 weeks of National Association of Interpretation (NAI) training	<b>Summer 2005</b> St. Mary, MT

## MENTORING

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### Student Research Mentor

Chelsea Radford, ESF undergraduate student (1 year, research credits, skills, and field training)

Morgan Couch, ESF undergraduate student (1 year, research credits, skills, and field training)

Luria Lee, ESF undergraduate student (1 year, research credits, skills, and greenhouse training)

Lindsay Windsor, ESF undergraduate student (1.5 years; research credits, skills, and field training)

Baylee Earl, ESF undergraduate student (4 months; research skills and field training)

### Student Internship Mentor

Gabrielle Sisson, ESF undergraduate student (1 semester, faculty sponsor for environmental education internship)

### Student Involvement

Head Coach, junior high field hockey, Lancaster Mennonite School

FFA Assistant Advisor, Lancaster Mennonite School

Envirothon Coach, Lancaster Mennonite School

Student Green Team faculty mentor, Lancaster Mennonite School

Student Support Team member (conflict resolution), Lancaster Mennonite School

## RESEARCH

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**ESF, Department of Environmental and Forest Biology** **2012-present**  
*Dissertation Research* Syracuse, NY  
Plant ecology and conservation of *Solidago houghtonii*, Dr. Donald Leopold

*Research Associate*

Plant ecology and conservation of *Trollius laxus*, Drs. Sara Scanga (Utica College) and Donald Leopold

**The Pennsylvania State University** **2010-2012**

*Research Technician* State College, PA

Forest songbird response to Marcellus shale-fracking infrastructure, Dr. Margaret Brittingham

*Research Technician*

Grassland songbird response to agricultural land management, Dr. Margaret Brittingham

*Lab Assistant*

Carabid beetle weed seed granivory in agricultural systems, Dr. Robert Gallagher and PhD candidate Jeffrey Law

*Research Technician*

Grassland bird response to agricultural conservation practices (CRP), Dr. Margaret Brittingham

## FUNDED GRANTS and AWARDS

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*Research awards:*

- \$10,000** **E.B. Sussman Fund Dissertation Fellowship**, competitive award for dissertation writing, **2021**  
Edna Bailey Sussman Fund
- \$2600** **Wilford A. Dence Fellowship**, for achievements in natural history and wild life, **2019**  
ESF Department of Environmental and Forest Biology, first botany student to receive award
- \$100** **Excellence in Applied Research Award**, nominated for rare plant conservation work, **2019**  
ESF Graduate Student Association
- \$2900** **Maurice Alexander Graduate Award**, competitive award for wetland research, **2017**  
ESF Department of Environmental and Forest Biology
- \$149,600** **Great Lakes Restoration Initiative, U.S. Fish and Wildlife Service, 2015**  
J. Weber – lead author/researcher, D.J. Leopold – principal investigator on record  
*Range-wide status assessment of Houghton's goldenrod, with special emphasis on niche limits, demographic transitions, and population stability*
- \$7370** **Edna Bailey Sussman Fund Fellowship**, competitive award for summer research, **2015**  
Edna Bailey Sussman Foundation

*Travel awards:*

- \$250** **Student Travel Grant** for attendance to Northeast Natural History Conference, **2019**  
ESF Graduate Student Association
- \$250** **Student Travel Grant** for attendance to Botany2017 (BSA annual meeting), **2017**  
ESF Graduate Student Association
- \$350** **Student Travel Grant** for attendance to National Native Seed Conference, **2017**  
ESF Graduate School

## PRESENTATIONS and GUEST LECTURES

\*undergraduate mentee

- July 2021 Weber, J and DJ Leopold. *Oral Presentation (accepted abstract)*. Conservation challenges due to ontogenetic niche shifts in Houghton's Goldenrod, a federally-listed species and Great Lakes endemic. *BOTANY21, BSA Annual Meeting, Virtual*.
- April 2019 Weber, J and DJ Leopold. *Poster*. Evaluating reproductive niche characteristics of federally-listed Houghton's goldenrod to approximate range wide stability. *ESF Student Spotlight on Research Symposium, Syracuse, NY*.
- April 2019 Crouch, M\*, J Weber, SE Scanga, and DJ Leopold. *Poster*. Effect of gap position on *Trollius laxus* vigor. *ESF Student Spotlight on Research Symposium, Syracuse, NY*.
- April 2019 Radford, C\*, J Weber, SE Scanga, and DJ Leopold. *Poster*. Canopy gap effects on fecundity to biomass ratios and herbivory of spreading globeflower (*Trollius laxus* ssp. *laxus*). *ESF Student Spotlight on Research Symposium, Syracuse, NY*.
- April 2019 Weber, J and DJ Leopold. *Poster*. Evaluating reproductive niche characteristics of federally-listed Houghton's goldenrod to approximate range wide stability. *Northeast Natural History Conference, Springfield, MA*.
- April 2019 Weber, J and DJ Leopold. *Oral Presentation*. Rediscovering our species sense: developing natural history appreciation and skill sets in undergraduate students. *Northeast Natural History Conference, Springfield, MA*.
- March 2019 Weber, J. *Guest Lecture*. Nature apps as conservation tools: thoughts from an old millennial. *ESF Senior Synthesis in Conservation Biology (EFB 414)*.
- March 2018 Weber, J. *Guest Lecture*. Nature apps as conservation tools. *ESF Senior Synthesis in Conservation Biology (EFB 414)*.
- June 2017 Weber, J, DJ Leopold, and JJ Wiley Jr., *Poster*. Greenhouse germination trials with federally-protected Houghton's goldenrod: evaluating factors associated with population persistence. *BOTANY17, BSA Annual Meeting, Fort Worth, TX*.
- April 2017 Lee, L\*, J Weber, and DJ Leopold. Preliminary analysis of germination rate in Houghton's goldenrod (*Oligoneuron houghtonii*) in various substrate types. *ESF Student Spotlight on Research Symposium, Syracuse, NY*.
- April 2017 Weber, J, DJ Leopold, and JJ Wiley Jr., *Poster*. Greenhouse germination trials with federally-protected Houghton's goldenrod: evaluating factors associated with population persistence. *ESF Student Spotlight on Research Symposium, Syracuse, NY*.
- Feb 2017 Weber, J, DJ Leopold, and JJ Wiley Jr., *Poster*. Greenhouse germination trials with federally-protected Houghton's goldenrod: evaluating factors associated with population persistence. *National Native Seed Conference, Washington, D.C.*
- Sept 2016 Weber, J. *Guest lab instructor*. Botanical lab exploration of Rand Tract, Syracuse, NY: identification of local angiosperms. *ESF Flowering Plants: Diversity, Evolution, and Systematics (EFB 435/635)*.
- Sept 2016 Weber, J. *Invited talk*. Houghton's goldenrod range wide status update. *US Fish and Wildlife Service New York Field Office, Cortland, NY*.
- Oct 2013 Weber, J. *Keynote speaker*. Potential impacts of deer herbivory and non-native *Phragmites australis* on marl fen rarities. *Bergen Swamp Preservation Society Annual Meeting, Bergen, NY*.
- March 2013 Weber, J. *Guest lecture*. Moss life history strategies. *ESF Ecology of Mosses (EFB 446/646)*.

## **PUBLICATIONS and TECHNICAL REPORTS**

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*Manuscripts in preparation:*

**Weber, J.** and D.J. Leopold. Germination factors may affect population persistence in the federally-listed Houghton's goldenrod. To be submitted to *Native Plants Journal* summer 2021.

*Technical reports:*

**Final Report to U.S. Fish and Wildlife Service**, with Dr. Donald Leopold, *April 2019*

Range wide status assessment of Houghton's goldenrod (*Oligoneuron* [=*Solidago*] *houghtonii*) with a special emphasis on niche limits, demographic transitions, and population stability

**Interim Reports:** 2017, 2018

**Final Report to U.S. Fish and Wildlife Service**, with Dr. Donald Leopold, *April 2016*

Restoring Critical Habitat, Mitigating Multiple Threats, and Evaluating Population Statuses for Bog Turtle, Eastern Massasauga Rattlesnake, and Houghton's Goldenrod Co-occurring in a Single, Exceptional Marl Fen Ecosystem, Bergen Swamp, Genesee County, New York

**Interim Reports:** 2014, 2015

**Final Report to Edna Bailey Sussman Foundation**, *December 2015*

Range-wide status assessment of Houghton's goldenrod (*Oligoneuron houghtonii*) with a special emphasis on niche limits, demographic transitions, and population stability

**Final Report to The Pennsylvania State University**, with Dr. Margaret Brittingham, *Fall 2012*

Recommendations for Rockview Property acquisitions as managed bird habitat

## **PROFESSIONAL SOCIETIES – CURRENT MEMBERSHIPS**

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Ecological Research as Education Network (EREN)

Ecological Society of America (sections: Education, Natural History, Researchers at Undergraduate Institutions)

Botanical Society of America (sections: Ecological, Teaching, Northeastern, Primarily Undergraduate Institution)

New York Flora Association

## **ACADEMIC AWARDS and HONORS**

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*ETS Recognition of Excellence for High Praxis Scores (Biology Content Knowledge)*

*Au Sable Institute of Environmental Studies Honors Scholarship and Fellowship*

*Messiah College Honors Program (Provost's and President's Scholarships)*

*Messiah College Dean's List, 8 semesters*

*National Merit Commended Scholar*

## **TECHNICAL SKILLS**

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Microsoft Office Suite

WordPress

Adobe products

Geographic Information Systems (GIS)

R programming language