JENNIFER FULLER

Curriculum Vitae

jenful@umich.edu | 248-225-3155
Career Profile: https://seasumich-csm.symplicity.com/profiles/jennifer.fuller
Art Portfolio: http://innej94.wixsite.com/sciartporfolio

EDUCATION

University of Michigan School for Environment and Sustainability (SEAS) (Ann Arbor, MI)
Master of Science, Conservation Ecology, December 2020
Total to Date GPA: 4.0

Hope College (Holland, MI)
Bachelor of Arts, Biology | Geology | Minor, Studio Art, August 2017
Honors and Awards: *Bergstrom Award, Michigan Sea Grant Graduate Research Fellow, Magna Cum Laude, Tulip City Gem & Mineral Club Award, Geology Book Award, Distinguished Artist Award, Undergraduate Research Grant for the Environment (URGE), Michigan Space Grant Undergraduate Research Fellowship*

SKILLS SUMMARY

Technical: Microsoft Office Suite | ESRI ArcGIS | ERDAS Imagine | ArcCollector & ArcGIS Online | R | SPSS | Data Entry | Field GPS | Radio Telemetry | Photoshop, Lightroom | Familiarity with Python & ArcGIS Pro
Field: Avian Banding (shorebirds) | Avian Passive Trapping & Physical Assessment | Avian NanoTagging | Avian Point Counts | Field Camera Trap Set-up & Review | 4W Drive and ATV | Vegetation Sampling
Laboratory: Data entry | Vertebrate Dissection | Soil analysis | Biolog Microbial testing | Using & Maintaining Basic Biological Tools (ex; pipetting, microscopes, centrifuges) | PCR, CRISPR, and blotting

POST-UNDERGRDUATE & GRADUATE EXPERIENCE

University of Michigan, Master's Thesis (Ann Arbor, MI) September 2018 – Current

- Characterizing Black Tern (*Chlidonias* niger) nesting survival and preference at Lake St. Clair under increasing lake levels, *Phragmites australis* encroachment, and storm hazards. In collaboration with Audubon Great Lakes and Detroit Audubon's ongoing population monitoring (2013-2020)
- Classifying Black Tern habitat in Lake St. Clair using remote sensing. Atmospherically correcting and performing NDVI and NDWI classifications of Planet, NAIP, and high-res commercial imagery. Collaboratively comparing results with ground truth field data and Michigan Tech Research Institute lab's PALSAR and WorldView derived data products (Dr. Laura Chavez, *Great Lakes Coastal Wetland Mapping*).
- Defining spatial habitat suitability/survivability using remote sensing derived habitat preferences, NOAA HECWFS datasets, and nesting survival data in ArcMap spatial analysis and hazard models in R

Indiana University, Avian NanoTag Field Assistant (St. Clair Flats & Wigwam Bay, MI) July – August 2020

- Locating and attaching Lotek NanoTags (coded VHF) on juvenile Black Terns to assist Dr. Alex Jahn's research monitoring first-year migratory patterns through the Motus Network. Tracking and recording pre-migratory movements on breeding grounds using a handheld receiver. Certified and trained to attach NanoTags on Black Terns by Dr. Jahn under an authorized USFWS permit

Audubon Great Lakes, Marsh Bird Survey and Black Tern Monitoring Technician (Wigwam Bay, MI) May – July 2020

- Surveyed secretive marsh bird point counts at Wigwam Bay State Wildlife Area and coordinated data entry with Audubon Great Lakes and the Midwest Avian Data Center.
- Conducted weekly Black Tern nest monitoring surveys [See "Black Tern Research Intern"]. Set up and entered camera trap data for 15 nest locations

Great Lakes and Detroit Audubon, Black Tern Research Intern (St. Clair Flats & Wigwam Bay, MI) May – July 2019

- Performed point counts and monitored success of Black Tern (*Chlidonias niger*) nests, marked GPS coordinates and maintained online spatial datasets using ArcCollector and ArcGIS Online
- Trapped and banded (silver and color) adults and chicks. Trained by sub-permittees Erin Rowan (23481 – C), Stephanie Bielke (23481 – D), and Ava Landgraf (23481 – E) under Master Permit holder Joe Kaplan (#23481)
- Measured adults for wing length, head and bill length, body fat, flight feather wear, body and flight feather molt, and molt limits. Measured both adults and chicks for body mass.

The University of Michigan, Conservation Biology GSI (Ann Arbor, MI) August 2019 – December 2019

- Instructed 47 undergraduate students 3x per week for 2-hour discussions or computer labs covering the topic of conservation biology (i.e. reserve planning and metapopulation theory, conservation genetics, management)
- Responsible for updating lesson plans, presentations, labs, assisting with development of exams, and grading of labs, group papers, and group presentation assignments

The University of Michigan, Science Illustrator and Media Assistant (Ann Arbor, MI) August 2018 – December 2019

- Designed and ordered brochures, posters, and signs using InDesign for the Art & Environment Gallery at the School for the Environment and Sustainability (SEAS); assisted with gallery set-up and exhibition events
- Illustrated aquatic micro-invertebrate children's book in collaboration with the Huron River Watershed Council

The Ohio State University, Nesting Songbird Research Assistant (Cadiz, OH) May 2018 – July 2018

- Monitored, identified, and searched for early successional songbird nests in SE Ohio along forests fragmented by shale/gas pipeline installations; identified, measured, and entered woody vegetation data

The Archbold Biological Station, Plant Ecology Program Intern (Venus, FL) September 2017 – May 2018

- Assisted with long-term research of endemic and rare plant species in central Florida scrub habitat
- Maintained long-term demography and restoration data, and helped restore rare plant species
- Developed and implemented an independent research project that included mapping tortoise burrow distributions using GPS and ArcGIS, collecting and entering burrow apron size, tortoise activity, vegetation microhabitat community data, and analyzing results using SPSS

UNDERGRADUATE EXPERIENCE

Pierce Cedar Creek Institute, Undergraduate Researcher (Hastings, MI) May 2017 – August 2017

- Implemented EREN protocol forest plots, identified, tree-tagged, and catalogued species
- Gathered plot soil samples and analyzed for microbial diversity using Biolog™ EcoPlates, and performed statistical analysis of microbial functional diversity using R

Hope College and Hope University (Liverpool), Undergraduate Researcher (Holland, MI) May 2016 – May 2017

- Investigated historical sand dune loss and mobility on Lake Michigan's shoreline. Geo-rectified, classified, and quantified coastal open dune extent using aerial photography and ArcGIS.
- Cataloged and identified wetland plant species at in Saugatuck Natural Harbor's interdunal wetland site (SHNA). Measured topography with LiDAR scanners, measured well depths and rainfall data at SHNA field site and soil permeability, and cross-analyzed hydrological measurements at SHNA with historical seasonal rainfall and Lake Michigan depth data.
- Presented research findings at the Michigan Space Grant Consortium Meeting in Kalamazoo, MI

The Outdoor Discovery Center, Scientific Design Intern (Holland, MI) January – May 2017

- Researched, designed, and developed graphics, information, and layouts for ODC publications, signs, and education buildings
- Assisted with transporting and feeding birds of prey; trained in catching, attaching jesses, and properly holding various species (Kestrel, Redtail hawk, Great Horned owl, Peregrine, and Screech owl)

Kaikoura Ocean Research Institute, Student Researcher (Kaikoura, NZ) November 2016

- Assisted in boat-based surveys of Hector's and Dusky dolphins, identifying and recording behavior, pod size, and GPS location
- Conducted statistical and ArcGIS analysis of group size and distribution in correlation with coastal bathymetry

Hope College, Student Researcher (Holland, MI) September 2015 – December 2015

- Designed and carried out genomic editing and analysis of Flock House virus using PCR, CRISPR, and blotting techniques

Hope College, General Biology Laboratory TA (Holland, MI) September – October 2015

- Assisted students with biology lab and field methods in ecology (field transects, herbivory assessments, decomposition rate assessments, microorganism assessments, and plant respiration analyses)

Hope College, Undergraduate Researcher (Holland, MI) June 2015 – August 2015

- Collected and conducted chemical and physical analysis of soils, data collection, and SPSS analysis; maintained laboratory plants and analyzed growth (cutting, drying, and weighing).
- Co-created and presented poster at the GSA conference in Baltimore, MD.

Hope College and the University of Arizona, Student Researcher (Tucson, AZ) May 2015

- Surveyed cavity nesting preferences of avian populations in saguaros in the Sonoran Desert
- Analyzed avian nesting preferences using SPSS
- Created and presented poster of research findings at the Hope College Celebration of Undergraduate Research

VOLUNTEER EXPERIENCE

National Audubon, Virtual Seabird Week of Action Michigan Advocate (MI) July 2020

- Trained in policy advocacy through Audubon's "fly-in" program
- Spoke with Congresswoman Dingell and Senator Peters (MI) requesting support in improving the Magnuson-Stevens Act in terms of climate change, forage fish & bycatch protections

Pierce Cedar Creek Institute, Research Volunteer (Hastings, MI) May – August 2016

- Assisted with mist-netting and banding of Henslow's Sparrows
- Sampled stream wildlife population using electrofishing methods
- Identified and removed onsite invasive plant species

8th Day Farms, Farmhand (Holland, MI) June – July 2015

- Maintained, planted, harvested, and prepared organic produce at 8th Day Farms

Hope College and The University of Arizona, Ecological Survey Volunteer (Tucson, AZ) May 2015

- Utilized radio-telemetry to locate tagged Gila Monsters in Saguaro National Park
- Gathered behavioral data on nesting Barn Swallows at the Biosphere 2
- Trapped, handled, and identified the sex, weight, and species of rodents at Raven's Way Nature School

Hope College and the Island School, Queen Conch Census Volunteer (Eluethera Island, Bahamas) May 2014

- Assisted with annual Queen Conch (*Strombus gigas*) census
- Manually established underwater transects in the Atlantic Ocean, collected samples, and assessed weight, length, age, and gender

CONFERENCE PRESENTATIONS

ORAL PRESENTATIONS

Fuller, Jennifer L., VanGorp, Benjamin C.T., Peterson, Dane C., Watts, Alexandra M. (2017, March). *Loss of Open Dunes since 1938 along Lake Michigan: Evidence from Aerial Photographs*. Michigan Space Grant Consortium, Kalamazoo, Michigan.

POSTER PRESENTATIONS

Fuller, Jennifer L., Devries-Zimmerman, Suzanne J., VanGorp, Benjamin C.T., Peterson, Dane C., Watts, Alexandra M., Hansen, Edward C. (2016, October). *Wet and Dry Slacks: The Relationship between Lake Michigan Water Levels and the Hydrology/Ecology of an Interdunal Wetland/Slack on the Southeast Coast of Lake Michigan.* 2016 GSA Annual Meeting, Denver, Colorado. Abstract URL: https://gsa.confex.com/gsa/2016AM/webprogram/Paper287061.html

Fuller, Jennifer L., Gracie Curtis, Erin Alenciks, Jacob Bordeaux, Brittany Buchholz, Jennifer Buckingham, Chelsea Chase, Molly Gritt, Jessica Guillaume, Jacob Iceberg, Daniel Kosiba, Francesco Moen, Dimitrie Nastasa, Santiago Rios, Clara Schriemer, Ryan Skowronek, Glen Smith, Connor Smith, Julia Stock, Andrew Teahan, Samantha VanderYacht, Benjamin Kopek. *A Course-Based Research Experience Approach to Examining Host Factors Involved in Viral Replication.* 2016 Celebration of Undergraduate Research at Hope College, Holland, Michigan. Abstract URL: http://digitalcommons.hope.edu/curcp_15/57/

Fuller, Jennifer L., Winnett-Murray, Kathy**.** *Illustrating Ecology: Artwork for Visualizing Concepts in the General Biology Lab.* 2016 Celebration of Undergraduate Research at Hope College, Holland, Michigan. Abstract URL: http://digitalcommons.hope.edu/curcp_15/62/

Fuller, Jennifer L., Swiftbird, Kenneth R., VanEyl-Godin, Kelsey, and Bodenbender, Brian E. (2015, November). *Investigation of Biochar for Amendment of a Disturbed Urban Soil.* 2015 GSA Annual Meeting, Baltimore, Maryland. Abstract URL: https://gsa.confex.com/gsa/2015AM/webprogram/Paper268690.html

Fuller, Jennifer L., Winnett-Murray, Kathy, Murray, Greg K. (2015, May). *Nesting Cavity Preference in* Carnegiea gigantea. 2015 Celebration of Undergraduate Research at Hope College, Holland, Michigan. Abstract URL: http://digitalcommons.hope.edu/curcp_15/61/