

Zack Harris

Harris Ecological Consulting

2 Cassino Avenue, Guelph, ON

226-971-9810

zack@harriseco.ca

www.harriseco.ca

Profile

Zack Harris is an ecologist/botanist with 15 years of experience in Ontario. He has extensive skills in plant identification, restoration ecology, GIS mapping using ESRI software, ecological monitoring, data analysis, and technical reporting. He has experience conducting surveys for Ecological Land Classification (ELC), wetland evaluation and delineation (OWES), Marsh Monitoring Program (MMP) surveys and Ecological Monitoring and Assessment Network (EMAN) protocols. Zack regularly conducts vegetation surveys throughout Ontario in various natural and cultural environments and advises on restoration projects ranging from urban forests to tallgrass prairies.

Zack is involved with projects including botanical inventories, wetland delineation, Species at Risk and invasive species monitoring and management, monitoring wetland and riparian vegetation communities, and peer-review. He completed a master's degree at the University of Guelph in 2015, where he investigated remnant tallgrass prairies in Ontario to determine the effects of population size and density on pollination and reproduction in small populations of the tallgrass prairie species, Big Bluestem (*Andropogon gerardii*).

Zack is also a co-founder of Origin Native Plants, a native plant nursery in Guelph. His passion and knowledge as well as personal interest in growing native plants sparked his desire to start a nursery, and to bring under-appreciated native species to market.

Qualifications and Certifications

- Ecologist with 16 years of experience in the inventory, monitoring, and assessment of terrestrial and wetland ecosystems across Southern Ontario
- Eight years of experience in managing a variety of environmental projects including environmental impact studies, arborist assessment and tree preservation plans, and ecological monitoring studies
- Master of Science (MSc) in Integrative Biology, University of Guelph
- International Society of Arboriculture (ISA) Certified Arborist
- Ecological Classification (ELC)
- Ontario Wetland Evaluation System (OWES)
- Butternut Health Assessor (BHA)
- Introduction to Geographical Info. Systems Programming Certificate, Conestoga College
- Certified Seed Collector with five years of experience in collecting seed and propagating woody and herbaceous native species

Skills

- Botanical inventories and targeted surveys for rare species and Species at Risk in Ontario
- Ecological Land Classification (ELC), wetland boundary delineations (OWES), tree inventory and arborist assessments, Butternut Health Assessments (BHA), and site assessments for ecological restoration
- Extensive skills and experience in plant identification, including complex genera (e.g. *Carex*, *Crataegus*, *Poaceae*, *Salix*)
- Skilled at the interpretation of ecological communities, including their site history, and hydrologic and edaphic characteristics
- Interpretation of aerial/satellite imagery, as well as mapping and analysis using Geographic Information Systems in ArcGIS software
- Site assessment and design input for ecological restoration
- Conducts wildlife surveys including amphibian call surveys, active hand search and basking surveys for reptiles, and lepidoptera
- Project management, including budgets and staffing, and timely completion of deliverables
- Proficient at using Microsoft Office software (e.g. Office, Excel, Access), R, and JMP statistical packages, and ESRI Software (ArcGIS and ArcGIS online)
- Experienced in plant propagation, including woody species and herbaceous perennials (e.g. forbs, grasses, sedges).

Experience

2023 – PRESENT

Owner/Ecologist / Harris Ecological Consulting, Guelph, ON

Ecological Land Classification (ELC) and Wetland evaluation/delineation (OWES)

Botanical inventory, including surveys for Species at Risk

Tree Inventory and Arborist Assessments

2019 – PRESENT

Co-owner/Ecologist / Origin Native Plants, Guelph, ON

Business development and management

Seed collection, processing, and management

Plant propagation and nursery stock management
Sales and customer service

2008 – 2022

Ecologist / Dougan & Associates, Guelph, ON

Coordinates and conducts fieldwork and data collection, data analysis, and reporting for a variety of ecological inventory and long-term monitoring programs

Conducted 300+ Butternut Health Assessments in Ontario Parks and private lands

Extensive experience conducting vegetation and wildlife inventories and habitat assessments throughout southern Ontario for Species at Risk such as Butternut, Eastern Flowering Dogwood, American Columbo, White Wood Aster, Snapping Turtle, and Blanding's Turtle

Manages and conducts Environmental/Ecological Impact Studies, Natural Heritage Assessment, Arborist Surveys and Tree Preservation Plans

Provides input to the design team on site preparation, plant selection, and habitat creation for ecological restoration and design projects

2013 – 2014

Teaching Assistant / University of Guelph, Guelph, ON

Conducted laboratory and field seminars with students, prepared lesson plans, and graded assignments and examinations in a timely manner for courses including Discovering Biodiversity (BIOL*1070) and Plants, Biology, and People (BOT*2000)

2007

Gardener / Lost Horizons, Acton, ON

Maintained nursery grounds and plants for sale, and provided customer service and sales

Residential landscaping and installations, including site preparation and planting perennials and shrubs

Education

SEPTEMBER 2018 -PRESENT

Certificate in Ecological Restoration / University of Minnesota (online)

Completed 4 of 5 courses towards certificate in ecological restoration, including:

- Site Assessment and Setting Restoration Goals (Fall 2018)
- Designing, Installing, and Managing Native Plantings (Fall 2018)
- Designing and Using Native Seed Mixes (Winter 2022)
- Monitoring Ecological Restorations (Winter 2022)

MAY 2015

Master of Science / University of Guelph, Guelph, ON

Thesis: [Components of Pollen Limitation in Relation to Reproductive Success in Small Populations of Big Bluestem \(*Andropogon gerardii*\)](#)

FEBRUARY 2009

Bachelor of Science, Environmental Science/ University of Guelph, Guelph, ON

JUNE 2006

Ontario Advanced Diploma, Environmental Technology / University of Guelph, Guelph, ON

Professional Development

2010

Hamilton Harbour Watershed Monitoring and Research Workshop, Burlington, ON 2011: Hamilton Harbour Watershed Monitoring and Research Workshop, Ancaster, ON

Hawthorn I.D. Workshop, Field Botanists of Ontario

2011

Graminoids Identification Workshop, Royal Botanical Gardens

Mushrooms and Other Fungi field trip with the Field Botanists of Ontario

2012

International Society of Arboriculture (ISA) Tree Risk Assessment Certification (TRAQ)

Certified Seed Collector Workshop, Trees Ontario

2013

Society for Ecological Restoration (SER) World Conference, Madison, WI (Presenter)

2014

Genomes to Biomes, CSEE, CSZ, CSL Joint Conference, Montreal, QC (Poster Presentation)

Butternut Health Assessors update course, Ministry of Natural Resources

2015

Biodiversity Offsetting Law and Policy Workshop, Ontario Nature

Modelling Patterns and Dynamics of Species Occurrence Course, Proteus Wildlife Research Consultants

2016

International Society of Arboriculture (ISA) Arborists Recertification

Ferns and Fern Allies Identification Workshop, Royal Botanical Gardens

2017

International Society of Arboriculture (ISA) Tree Risk Assessment Recertification (TRAQ)

International Society of Arboriculture (ISA) Tree Valuation Workshop

2018

Willow Identification Workshop, Royal Botanical Gardens

Eco Canada BEAHR Trainer Certification (select courses)

Online Course in Restoration Ecology through the University of Minnesota:

- Site Assessment
- Designing, Installing, and Managing Native Plantings

2022

Online Course in Restoration Ecology through the University of Minnesota:

- Monitoring Ecological Restorations
- Designing and Using Native Seed Mixes

2024

International Society of Arboriculture (ISA) Arborists Recertification (CERT ID: ON-1419A)

Certified Seed Collector Course, Forest Gene Conservation Association

Personal Interest

My passions involve hiking, canoeing, camping, mountain biking, and collecting seed from and propagating native species. I am especially interested in restoring landscapes through planting native species and I do so at home. I frequently post to iNaturalist and curate the Flora of Wellington County project. I also enjoy playing guitar and spending time with my family.

References

Available upon request.