

# William Pierce Holloway

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## Education

### **The University of North Carolina - Asheville**

May 2017

B.S. Environmental Studies: Ecology and Environmental Biology. Minor in Mathematics.

In-Major GPA 3.60/4.00

Departmental distinction Cum Laude

Chosen as a UNC student representative

NC Department of Transportation Scholarship recipient, 2016

### **Asheville Buncombe Technical Community College - Asheville**

January - May 2019

Introduction GIS GPA 4.00/4.00

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## Research

**“Indoor Cultivation of *Piptoporus betulinus* (Bull. ex Fr.) (Birch Polypore) P. Karst. On Nitrogen Enriched *Betula sp.* Substrate”**

October 2016 – May 2017

Hours/Week: 20

- Developed and refined cultivation methodology
- Modified nitrogen supplementation in agar to improve biological efficiency
- Foray fungus in remote western North Carolina
- Created fungal cultures from wild-harvested specimens
- Experimented with hydrogen peroxide addition to reduce mold/bacterial growth
- Funded through undergraduate research grant
- Protocol developed for fungal cloning is now included in the University’s mycology class

## Supervisor/Reference

Dr. Jonathan Horton, Biology Professor

Phone: (828) 232-5152 Email: jhorton@unca.edu

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## Presentations

- Council of Public Liberal Arts Colleges (COPLAC) southeast regional Undergraduate Conference, Fungal Research Spring 2017
  - The University of North Carolina Asheville (UNCA) Spring Undergraduate Research & Community Engagement Symposium Spring 2017
  - Environmental Senior seminar, Urban Sprawl & The Future of Meat Spring 2017
  - Senior Mycology Lecture, The Magical *Piptoporus betulinus* (Birch Polypore) Fall 2016
  - UNC Board of Governors, Importance of UNCA Adopting Green Building Principles Fall 2015
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## Work Experience

### **Geospatial Analyst**

November 2019 - Present

Urban3

Asheville, North Carolina

Hours/Week: 15+

- Offer expertise on python coding for GIS tool development and optimization
- Learn alongside senior analyst’s on tax valuation and economic impacts of development
- Provide as needed assistance for project development and research insight

- Grow research goals from abstract ideas to defined objectives

#### **Supervisor/Reference**

Phillip Walters, Senior Planning Analyst  
Email: phillip@urban-three.com

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#### **Project Consultant**

February 2019 - Present

Roots First  
Asheville, NC

**Hours/Week:** 10+

- Develop research protocol to quantify habitat creation from Green Roofs in urban environments
- Use ArcGIS to map and analyze sites for optimal data collection points
- Identify and Geotag trees/landscaped area in 350 acre Innovation Corridor in Winston Salem
- Remotely collaborate with co-workers via Google Docs

#### **Supervisor/Reference**

Kathryn Ancaya, Partner + Director of Design  
Email: kate@rootsfirst.com

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#### **Green Roof Technician**

January 2019 - October 2019

Living Roofs  
Asheville, North Carolina

**Hours/Week:** 30+

- Install and maintain custom green (vegetated) roofs on commercial, residential, and governmental buildings
- Interpret construction blueprints and designs
- Travel across the state of North and South Carolina for projects
- Communicate sustainability principles and economic benefits to community members
- Record environmental data concerning health and growth of green roofs

#### **Supervisor/Reference**

Emilio Ancaya, Co-Founder  
Email: emilio@livingroofsinc.com

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#### **Head Trip Leader**

June 2019 - August 2019

The Road Less Traveled  
Chicago, IL

**Hours/Week:** 90+

- Led a seventeen day trip on the Hawaiian islands of Maui and Kauai with fifteen teenagers and two co-leaders
- Served as head of logistics for all travel arrangements
- Worked alongside local cultural non-profit to plan three service days for group
- Oversaw with my two co-leaders and local guides students Surfing, Snorkeling, and Ocean Canoeing
- Led a ten day trip traveling around central and eastern Costa Rica with nine teenagers and one co-leader
- Taught students the basics skills, techniques, and philosophy of outdoor travel and safety such as leave no trace principles
- Worked to teach students personal responsibility and leadership by way of processing activities and delegation of tasks

#### **Supervisor/Reference**

Hannah Laher, Logistics Director  
Email: hannah@theroadlesstraveled.com

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**Assistant Brewer**

December 2017 - March 2019

Asheville Brewing Company  
Asheville, NC

**Hours/Week:** 30+

- Operate and troubleshoot beer canning machine (approx. 5000 cans per day).
- Perform quality control on canning seams where tolerances consisted of  $\pm 0.05\text{mm}$
- Mill grain, weigh hops, mash out, rack beer from brite tanks
- Work daily with various chemicals including Leracid KMS-10 and concentrated Paracetic acid
- Record and alter temperature and pressure of fermentation and brite tanks
- Calculate gravities of fermenting beer and carbonate hundreds of gallons of beer at a time
- Represent Asheville Brewing Company at various events, festivals, and promotions
- Drive a forklift, and deliver beer to local distributors in a safe and efficient manner
- During my time at the brewery one of our beers, Ninja Porter, won a Bronze medal at the World Beer Cup.

**Supervisor/Reference**

Pete Langheinrich, Head Brewer/Owner  
Phone: (828) 246-5266, Email: petebrews@gmail.com

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**Assistant Trip Leader**

June 2018 - August 2018

The Road Less Traveled  
Chicago, IL

**Hours/Week:** 80+

- Lead teenagers aged thirteen to seventeen across two seventeen day sessions in central Colorado
- Served as chief medical staff non-stop during sessions
- Responsible for distributing prescription medication, treating minor injuries/aliments in the field, and driving students to the hospital
- Spent nine days at a Mission: Wolf, wolf sanctuary where I worked alongside staff to guide students cleaning pens, interacting with wolves, moving wood, mixing and pouring concrete, and processing cow & horse carcasses into wolf feed
- Taught students the basics skills, techniques, and philosophy of outdoor travel and safety such as leave no trace principles
- Worked to teach students personal responsibility and leadership by way of processing activities and delegation of tasks
- Oversaw with my two co-leaders and local guides students three days rock climbing, class two & three whitewater rafting, and exploring an Ariel course.

**Supervisor**

Jim Stein, Program Director  
Phone: 773-342-5200

**Reference**

Morgan Sanden, Lead Instructor  
Phone: (847) 445-5481, Email: mr.morgan.sanden@gmail.com

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**Field Technician**

May 2017- August 2017

Purdue University, West Lafayette, IN  
Department of Forestry and Natural Resources

**Hours/Week:** 40+

- Assisted in conducting long-term vegetation plot sampling in Great Smoky Mountains National Park (GSMNP)
- Examined forest community response to the hemlock wooly adelgid
- Navigated off-trail in dense understory and inclement weather
- Worked in close proximity to black bears
- Backpacked to remote plot locations and setup a multiday basecamp
- Extensive field identification of woody plants
- Set up quadrants within plot

- Navigation via GPS and compass
- Acted as team member with the foremost medical and backpacking knowledge
- Assisted in large data management
- Interacted alongside National Park Service Employees to identify various botanical specimens

#### **Supervisor/Reference**

Michael Jenkins, Associate Professor of Forest Ecology, Purdue University  
Phone: (765)494-3602, Email: jenkinsma@purdue.edu

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#### **Outdoor Programs Trip Leader**

August 2014 - May 2017

UNC Asheville, Asheville, NC

Outdoor Programs

**Hours/Week:** 10+

- Lead students in various outdoor activities such as multi-day backpacking, mountain biking, caving, and mindfulness exercises
- Responsible for participant's safety and well-being in the wilderness.
- Taught the principles of Leave no Trace, backpacking etiquette, and basic route finding.
- Assisted in planning trip logistics, marketing trips, and cleaning/organizing gear for trips.
- Became senior caving trip leader and worked to develop the program as well as be a mentor to my co-workers.

#### **Supervisor and Reference**

Leah Belt, Associate Director - Outdoor & Sport Programs, UNC Asheville  
Phone: (828) 250-2363, Email: lbelt@unca.edu

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#### **Co-Director of Student Environmental Center**

January 2016 - December 2016

UNC Asheville, Asheville, NC

Student Environmental Center

**Hours/Week:** 25+

- Directed and advised 3 Project Coordinators, 3 garden supervisors, and 1 eco-rep coordinator
- Oversaw and managed \$70,000 annual budget
- Collaborated with faculty, staff, and community members
- Oversaw the awarding of \$500 student grants
- Promoted sustainability and environmental awareness among students and community through various events and initiatives among departments
- Served as a member of the Residential Hall Development committee to oversee the inception of a multimillion dollar residence project
- Presented research on sustainability to UNC system board of governor's members
- Met with the newly elected UNC system president Margaret Spellings and spoke about environmental issues

#### **Supervisor/Reference**

Sonia Marcus, Director of Sustainability, UNC Asheville  
Phone: (828) 251-6627, Email: smarcus@unca.edu

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#### **Botanical Garden Assistant**

May 2016 - August 2016

Highlands Biological Station, Highlands, NC

**Hours/Week:** 40+

- Identified, labeled, and Maintained more than 450 native plant species on property
- Worked to maintain grounds, gardens, trails, and bridges within the 22-acre campus.
- Developed and led weekly garden tours
- Acted as outreach for the station, drove out to local resident's homes to teach identification of invasive/exotic species

- Designed and implemented a campus wide composting program which negated the need for purchasing artificial fertilizer for the grounds
- Assisted visiting researchers with their field work by scouting land for chestnut blight research and collecting firefly larva (*Phausis reticulate*).

#### **Supervisor/Reference**

Dr. Jim Costa, Executive Director, Highlands Biological Station  
Phone: (828) 787-1712, Email: costa@wcu.edu

#### **Volunteer and Extracurricular**

##### **Race Medic**

April 2019

Franklin Area, NC

Hours: 6

- Provided basic medic service during Smokey Mountain the Smoky Mountain Relay

##### **Reference**

Leslie Grotenhuis, Email: leslie@smokymountainrelay.com

##### **Project Assistant**

October 2018

North Carolina Forest Service, Asheville, NC

Hours: 10

- Worked alongside two NC Forest Service Botanist/Ecologists and one local partner to replant a total of 500 confiscated Ginseng (*Panax ginseng*) roots from a poacher
- Hiked off trail through rough terrain until a proper site was located

##### **Supervisor/Reference**

Gary Kauffman, Email: gkauffman@fs.fed.us

##### **Lead Food Coordinator**

January - May 2015 & January – May 2016

Mindfulness Music & Arts Festival, Asheville, NC

Hours: 70+

- Acted as the head food coordinator for a festival with 300+ attendees.
- Contacted and created contracts with local food tracks and restaurants.
- Met and collaborated with university staff to adhere to polices.
- Assisted in developing a festival layout to accommodate attendees and accommodate electrical needs

##### **Supervisor/Reference**

Jesse Goldman, Email: jgoldman@unca.edu

#### **Certifications**

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| - Wilderness First Responder   | November 2018 - November 2021 |
| - Adult/Child/Infant CPR & AED | November 2018 - November 2021 |
| - Epinephrine Auto-injector    | November 2018 - November 2021 |

#### **Additional References**

Undergraduate Academic Advisor, Dr. Irene Rossell, Chair and Professor of Environmental Studies  
Email: irossell@unca.edu