Back to nature: UNCG installs wetlands on campus (Video)

By John Newsom john.newsom@greensboro.com  Mar 22, 2017  (0)

Andrew Krech/News & Record
Haley Bobbritt spreads straw inside the site of a future wetlands area on UNCG’s campus, Wednesday, March 22, 2017, in Greensboro, N.C.
History

Director John Byrd
The Clinch River Environmental Studies Organization
October 2014
RISE Networking Event

Tom Biebighauser
Wetlands Restoration and Training, Inc.
February 2016
Wetland Workshop and Design Assessment
MISSION AND GOALS STATEMENT

THE MISSION OF THE WETLANDS COMMITTEE IS TO PROMOTE THE CONSTRUCTION OF CAMPUS WETLANDS SUITABLE FOR AESTHETIC, ECOLOGICAL, EDUCATIONAL, AND RESEARCH PURPOSES.

- Develop wetlands to improve water quality of runoff delivered to receiving streams.
- Develop wetlands to increase biotic diversity with native wetland plants, followed by the succession of microorganism and animal populations.
- Develop wetlands to provide educational opportunities for undergraduate and graduate students across disciplines.
- Develop wetlands to provide research opportunities for students and faculty across disciplines and colleges.
- Develop wetlands to create a living laboratory for outreach in K-12 education projects, and community relation events.
- Develop wetlands to enhance the beauty of our Campus landscape.
ENVIRONMENTAL HEALTH SUSTAINABILITY

RESEARCH
Biology
Chemistry
Geography
Beyond STEM

COMMUNITY
UNCG
Triad
North Carolina

EDUCATION CUR
K-12
Aerial photo of UNCG Campus 1920 showing farmland in upper left. Relocated in 1924
UNCG Campus 1943. Creek was dammed in 1941 to create a lake, and then drained in 1954.
Mature wetland is rife with insects that consume mosquito larva.
We hypothesize that wetland installation will alter bat, frog, and other wildlife species richness.

**Prediction 1:** Bat species richness will increase after the wetland installation.

**Prediction 2:** Frog species richness will increase after the wetland installation.

**Prediction 3:** Overall species richness will change after the wetland installation.
Methods

- Four Sites: Woodland Wetland, Rec Wetland, Woodland Control, Rec Control
- Monitoring: long term and began December 2016 for bats, and January 2017 with camera traps
- At each site Wildlife Acoustics Song Meter SM4BAT FS Ultrasonic Bioacoustics Recorder, and SM4 Audible Bioacoustics Recorder were used to collect data for bats and frogs
- Bushnell Trophy Cam HD camera traps were used to capture images of mammals present at each site.
- Sound files were analyzed using Sonabat and Avisoft SASlabPro
Procyon lotor - Raccoon

Didelphis virginiana - Opossum

Terrapene carolina
Eastern Box Turtle

Marmota monax
Groundhog

Urocyon cinereoargenteus - Gray Fox

Lasiurus cinereus
Hoary Bat

Vulpes vulpes
Red Fox
EDUCATION
Courses in Undergraduate Research
K-12 Teacher Education

Dr. Sarah Heredia  Dr. Heidi Carlone
Teacher Ed. & Higher Ed.

Kristina Morales
Env. Health Sci.
Ph.D. Candidate

Dr. Dan Royal
Geography

Dr. Lee Phillips
Undergraduate Research, Scholarship and Creativity

Dr. Jerry Walsh
Chemistry

Dr. Terry Nile

Dr. Iglika Pavlova
Biology

Dr. Matina Kalcounis-Rüppell
Biology
David Row, Media Studies and Students
Wetlands Video Production
[Click here for youtube link]
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K-16 STEM EDUCATION

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