

Exploring the Ecology of Florida Waters - Aquatic & Outdoor Skills

A Winterim College Outdoors Program - Lewis & Clark College
Instructors: Ken Clifton (Biology), and Joe Yuska /College Outdoors staff

January 10-19, 2019 (note: locations and dates may change depending on weather)

Overview: This program explores various aquatic habitats in Central Florida. Students gain insights into aspects of sub-tropical ecology, geology, and hydrology while developing skills in canoeing, kayaking, stand-up paddle boarding, and snorkeling. The goal is to combine science and conservation with outdoor-related activities to create a fun and educational experience.

Topics to be covered include:

I. Exploring terrestrial ecology and diversity

Intro to Geologic History of Florida

Ocala National Forest: planned visit to one or more of these locations: Silver Glen Springs, Salt Springs, Alexander Springs, Juniper Springs

Freshwater lakes, ancient sand dunes

Intro to Hydrology of Central Florida (<http://www.floridasprings.org/expedition/videos/>)

Visit Wekiwa Springs boil, Rock Springs at Kelly Park..

Possible Float of Wekiva River from Rock Springs to Wekiva Island (~10 miles)

Intro to Florida Flora and terrestrial ecosystems

Native and invasive understory plants

Native and invasive trees

Regional ecosystems: wetland, prairie and forest (field trip via trails to the diverse ecosystems found in Wekiwa Springs State Park)

Fire ecology

Vertebrate diversity of central FL and Everglades ecosystems

Fish, Reptiles, Mammals, Birds with sunrise and sunset hikes or river floats to observe and identify vertebrates, especially birds)

II. Exploring coastal and marine ecology and diversity (including ID of common vertebrates)

mangrove habitats

upland island habitats

coral reefs & patch reefs (a bit farther south)

seagrass flats

biogenic sediment-derived beaches (possible field trip to Canaveral National Seashore, and/or Volusia County Marine Science Center)

III. Human history in Florida, human impacts and climate change (ocean acidification, sea level rise, reef health, land use, human impacts on sub-tropical ecosystems)

Possible visit to west coast of FL: Chassahowitzka River and estuary canoeing/kayaking, or Crystal River National Wildlife refuge

IV. Aquatic Skills (utilizing Wekiwa Springs State Park, Wekiva River, and Rock Springs Run. In South FL: Jonathan Dickinson State Park and the Loxahatchee River.)

Canoe (and possibly Kayak) skills:

- J stroke and other paddle strokes (solo and tandem)
- Capsized canoe rescue
- Trip planning
- Risk Management

Stand Up Paddleboard Skills

- Introduction to equipment & care
- Managing wind & waves
- Paddle strokes
- Risk management

Snorkeling skills- at Wekiwa Springs Headspring, and in South Florida, (depending on water clarity/visibility underwater) Phil Foster Park Snorkel trail:

<http://discover.pbcgov.org/parks/Locations/Phil-Foster.aspx#philfostersnorkeling>

- Clearing mask, snorkel
- Effective use of fins
- Risk management
- Clearing ears/nose/ Eustachian tubes

Reference texts:

Florida's Uplands (Florida's Natural Ecosystems and Native Species) by E. White & D. B. Means

Florida's Waters (Florida's Natural Ecosystems and Native Species) by E. White & D. B. Means

Florida's Wetlands (Florida's Natural Ecosystems and Native Species) by E. White & D. B. Means

Florida wildlife and habitats (<http://myfwc.com/wildlifehabitats/>)

Sibley Guide to Birds (<http://www.sibleyguides.com/about/the-sibley-guide-to-birds/>)