



# Virtual Reality Tour #1

## UF/IFAS Nature Coast Biological Station

### To implement this tour, you will need:

The tour link: <https://ths.li/0IDCb2>

A way for your students to view/interact with the tour:

- Option 1: smartphones with Google Cardboard or other viewers
- Option 2: students view the tours via desktop computers or tablets
- Option 3: project the tour on a screen at the front of the room for students to view together

### Background Information

This tour showcases the Nature Coast Biological Station (NCBS) Building located in Cedar Key, Florida.

To begin, show students/have them look up where Cedar Key, FL and the UF/IFAS Nature Coast Biological Station are located on Google Maps. Have them look up information about the area and station.

We hope that students learn more about the following objectives:

- What is the Nature Coast Biological Station (NCBS)?
- Some of the graduate level research taking place at NCBS.
- The names and roles of key members of the NCBS team.
- How the community can interact with NCBS and contribute to conservation.

UF/IFAS background information from their website:

“The Nature Coast spans the Big Bend of Florida on the Gulf of Mexico, ranging from Hernando to Wakulla County. The region contains one of North America’s most pristine coastlines, with extensive seagrass meadows, valuable recreational and commercial fisheries, and healthy wildlife populations including marine mammals (manatee, dolphin), diverse waterbirds, and sea turtles. The region also supports productive shellfish fisheries (shrimp, oyster) and a vibrant hard clam aquaculture industry” (NCBS).

“UF/IFAS has a long history of research, teaching and extension programs in the Nature Coast region, along with an extensive track record of working with agency cooperators to improve the conservation and management of natural resources and communities in the region. These previous efforts have built a foundation on which the Nature Coast Biological Station will further develop the UF/IFAS mission of research, teaching, and extension in the region” (NCBS).

“The mission of the NCBS is to enhance the conservation and sustainability of natural resources throughout the Nature Coast through collaborative research, enhanced public engagement, field-based courses, and hands-on training workshops” (NCBS).

## What You and Your Students Will See in the Tour

**This tour includes a series of five image scenes. You can click the image icon at the bottom of the screen to move between scenes on a desktop computer or tablet. Each scene includes information points that you can click on to read more information and view additional media about the area. You can use the following outline to guide students through the tour.**

### SCENE ONE – Discovery Center – first floor of the research station

- The Discovery Center, located at the bottom floor of the NCBS building in Cedar Key, Florida serves as an open-to-public facility to teach people about the mission and conservation goals of NCBS and the Nature Coast.
- Information Points
  - Alligator Snapping Turtle
    - Wilbur, the NCBS Alligator Snapping Turtle, is a distinct and important freshwater turtle located in Florida.
  - Main Tank
    - Contains red drum, spotted sea trout, cobia, snook, and pinfish.
  - Suwannee Valley Map
    - The Suwannee River basin is one of the largest undammed rivers in the eastern United States and our management of water resources in the basin strongly influences natural resources on the coast, including fish, wildlife, and coastal plants.
  - Touch Tank
    - Interactive touch tank for visitors of the Discovery Center.
  - Diamondback Terrapin
    - Terrapins found in coastal salt marshes of the northeastern United States.

### SCENE TWO – The Wet Lab – back side of the first floor of the station

- A multi-use research lab located at the bottom of the NCBS building. This lab can be used by NCBS faculty, staff, and students for research purposes and also provides ways to house both salt and freshwater experiments.
- Information Points
  - Kate Rose
    - Kate Rose is a graduate student with faculty advisor Dr. Don Behringer. Her project is looking at Stone Crab Ecology and what effects trap fishing has on the physiology of stone crabs and whether it poses any threat to the longevity of the stone crab fishery.

- Stone Crab Dissection
  - Crabs are dissected to determine if pathological issues in stone crabs when trapped occur.
- Settling Tank
  - Used to filter out the water and improve water quality to view the experiments.
- Stone Crab Blood
  - Extracted for further analysis of evidence of pathogens due to starvation trials.
- Water Quality Testing
  - Kate does water quality testing before running experiments.
- Stone Crab in Tank

### **SCENE 3 – Main Offices of NCBS – second floor of the station**

- This floor houses two main rooms. The one picture is the main office and secretarial space of the NCBS building. The other room, not pictured, is a conference room and work area.
- Information Points
  - Dr. Michael Allen's office
    - UF/IFAS NCBS Director
  - Savanna Barry's office
    - UF/IFAS Regional Specialized Extension Agent
  - Dr. Charlie Martin's office
    - Research Assistant Professor
  - Cassandra Key's desk
    - Administrative Specialist
  - Emily Colson's desk
    - Graphic Design and K-12 Coordinator
  - Pile of booklets on desk
    - Links externally to the NCBS 2019 and 2020 Annual Report page of their website

### **SCENE 4 – Outside Deck of NCBS – behind the station**

- The outside area of NCBS contains a small sitting area and miniature natural shoreline elements
- Information Points
  - Oyster Recruitment Dome
    - Also called "reef balls," they are used as a tool to increase habitat complexity. In the Living Shoreline VR tour, there will be more information about the role these play in conservation and there will be a VR tour looking inside of one.
  - NCBS Sign
  - Pile of Oyster Shells
    - Oyster shells are important tools in ecosystem restoration. Many seafood restaurants will donate the shells used to local environmental agencies, not just in Cedar Key, but in many places along the coastlines of Florida.
  - Crab Traps
    - Left outside to dry from Kate Rose's graduate research in the wet lab
    - VIDEO

- Links externally to an unlisted YouTube Video
- An octopus that climbed into a stone crab trap. When Kate Rose went to pull up her traps to bring crabs into the lab, they spotted this octopus trying to get an easy dinner!
- NCBS Building for reference point

## SCENE 5 – Dock Area – further behind the station

- The dock area is located outside of the NCBS building and is where loading and off loading boats occurs for faculty, staff, visitors, and students.
- Information Points
  - Captain Kenny McCain
    - Marine Operations Manager
  - Dolphin off the coast
  - Birds perching on structure
  - NCBS building for reference point

---

### VR UF/IFAS NCBS images & tour created by:

Caroline Barnett, graduate student – UF Agricultural Education and Communication

Dr. Jamie Loizzo, assistant professor – UF Agricultural Education and Communication

### Image and content contributions:

Dr. Savanna Barry, Dr. Micheal Allen, and Dr. Mark Clark – UF/IFAS NCBS

Kate Rose, graduate student – UF Fisheries and Aquatic Sciences

### Project funded by:

Florida Sea Grant (spring 2021)