

CHANGES

Conceptualizing Human Alteration and Natural Growth in Estuaries and Savannas



The Grand Bay National Estuarine Research Reserve (GNDNERR) is located in Moss Point, at the southeastern most part of Mississippi. It is home to amazing habitats!

CHANGES is a grant-funded science literacy program for high school students that is led by GNDNERR educators and scientists. The CHANGES program will use the GNDNERR's unique estuary and savanna habitats and current management practices as a platform to educate students about ecological processes and restoration science. Our staff will collaborate with local teachers and researchers to develop accurate, high quality lesson plans, curricula, and programming aligned with state (e.g. MS-CCRS) and national science education standards (e.g. NGSS) and be adaptable for informal education settings. CHANGES will also provide opportunities for students to explore career paths and options in environmental science.

Takeaway:

CHANGES will provide a meaningful experiential learning opportunity for participants in order to increase their understanding of restoration science in estuaries and savannas.

Program Modules

CHANGES will employ two modules: one focusing on the GNDNERR estuary and the other focusing on the GNDNERR savannas. Each participating class will complete one of these modules. We will work closely with teachers to determine which module best suits his/her class. The program will consist of two full field days at GNDNERR and three in-school class periods.



Estuary



Savanna

Day 1

In School

Intro to habitat, **function/structure, ecological processes**

Day 2

GNDNERR

Management and restoration, **impacts** (anthropogenic vs. natural)

Day 3

GNDNERR

In-the-field data collection, experience habitat

Day 4

In School

Analyze and compare data, **value** of ecosystem

Day 5

In School

Create and present a restoration plan, develop communication skills



Students will work together in small groups throughout the program to collect data, work through activities, and construct a final restoration/management plan based on the knowledge and skills they acquire.



Students will record observations, use real scientific sampling techniques, and explore different technologies.



Funding will be provided for participant transportation, lunch and snacks for students, and substitute teachers during the field days at GNDNERR.

CHANGES

Conceptualizing Human Alteration and Natural Growth in Estuaries and Savannas

How Teachers Can Be Involved!

A major part of the CHANGES program is our work with teachers. Teachers are crucial to the success of the CHANGES program, and we can't do this without you! We want to make sure what we produce will be the best it can be for your students and that the CHANGES program meets your classroom needs.

- Express interest in the program and help us provide feedback on curriculum development. All feedback is welcome.
- Help us recruit science teachers that may be interested in the program, even if you are not!
- Take part in our focus group for our curriculum development process. This is the most input you may be able to have in the lessons designed with your students in mind!
- Commit your science class to participating in the program.
- Participate by helping us pilot our lessons and activities through regular scheduled field trips, even if you cannot commit to the 5-day program.

Help us develop an awesome program, let your students learn from our scientists and educators, and join the fun!
For more information, please contact:



Project Coordinator:
Dennis McGrury, Outreach Specialist
dennis.mcgrury@dmr.ms.gov
228-523-4190
grandbaynerr.org



The National Academies of SCIENCES
ENGINEERING
MEDICINE
GULF RESEARCH PROGRAM

