Conservation Practices at Cannon’s Point
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What is Conservation?
Conservation is a field of proactive study with the goal of maintaining biodiversity. Our area of research was Cannon’s Point Preserve (CPP). CPP is an area containing relatively undeveloped natural habitats located on the north end of St. Simons Island, GA. Because Conservation Biology is a Service-Learning course we have been involved with the community by working on a conservation project at CPP. Our community partners are St. Simons Land Trust and Georgia Department of Natural Resources.

Invasive Removal at CPP
An invasive species is an exotic that can outcompete natives. The Tree of Heaven is an example at CPP. We helped to identify and remove it by uprooting seedlings.

The Living Shoreline
A Living Shoreline is a design using a combination of oysters and intertidal vegetation to stabilize an eroding creek bank. The Living Shoreline at CPP will be the fourth experimental shoreline in Georgia. Living Shorelines are important for preventing erosion, increasing biodiversity, and improving the quality of salt marsh ecosystems. We monitored oyster spat recruitment, oyster densities, plant cover, and water quality at CPP prior to the construction of the Living Shoreline. In doing this, we can compare the conditions of the observed shoreline before and after the project is implemented, and gauge changes in the biological components.

Species of Special Interest:
Clapper Rails (Rallus crepitans)
- Not endangered but is declining; considered an indicator species.
- Threats: water contamination, habitat loss, predation, and sea-level rise
- Recommendations: call-back surveys, predator monitoring, water quality monitoring

Invasive Species:
Asian Green Mussel (Perna viridis)
- Impacts: displaces native oysters, biofouling
- Recommendations: monitoring, removal

Feral Hog (Sus scrofa)
- Impacts: degradation of vegetation structure, spread of disease, and consumption of native species
- Recommendations in this order: fencing, trapping, then hunting

Coyote (Canis latrans)
- Impacts: danger to endangered ground nesting birds and other small species, also spreads canine diseases.
- Recommendations: hunting, trapping

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Fig. 1. Plant Species Cover
The common plants found on the living shoreline site pre-construction. Quadrats were used to estimate plant species cover. Will be used to compare vegetation post-construction.

Fig. 2. Baseline Oyster/Spartina Abundance
Quadrats were used to count oyster and Spartina abundance pre-construction. Will be used to compare the oyster and Spartina abundance post-construction.

Fig. 3. Oyster Spat Recruitment
Objective: To determine if living shorelines increase oyster recruitment and to pre-monitor if recruitment availability is present.
Methods: Monthly spat counts were conducted using calcium carbonate-infused PVC sticks at three locations in the Lawrence River at the future living shoreline site.