2022 Georgia Sea Grant State Fellowship Opportunity

jointly at the Sapelo Island National Estuarine Research Reserve (SINERR) and the Sapelo Island Cultural & Revitalization Society (SICARS) on Sapelo Island, GA

Work Location: SINERR, SICARS offices, Sapelo Island, GA *(Note: access is by daily passenger ferry)*
Mentors: Doug Samson (Reserve Manager, SINERR) and Ron Johnson (President, SICARS)

**FELLOWSHIP DESCRIPTION**

**Fellowship Goals:** One project goal is to significantly enhance the resilience of the Hog Hummock (aka, Hog Hammock) community on Sapelo Island to flooding and sea level rise impacts, by helping coordinate and implement projects and programs recommended by the 2021 SINERR/SICARS GA Sea Grant Fellow. Hog Hummock, the only private community on Sapelo Island, is widely known as the last “Saltwater Geechee” community on the East Coast. The objective will be to work to implement mitigation recommendations that address two forms of flooding impacts: 1) “regular” freshwater flooding as a result of high-precipitation events; 2) irregular saltwater flooding due to high tides, storm surge, or both, and taking into account expected increased impacts over time due to increasing rates of sea level rise. Recommendations for mitigation measures fall into three categories: 1) those involving modifications to the existing drainage ditch network and associated infrastructure within the community (administered by McIntosh County), and/or on adjacent State-owned lands, and; 2) those that would involve structural or engineered modifications to private homes in the community; 3) those that reduce the potential economic impact on residents of future flooding by expanding homeowner access to both low-cost flood insurance and disaster-relief funds. The 2022 Fellow would help implement the first recommendation by identifying potential sources of funding for projects (e.g., FEMA’s new Building Resilient Infrastructure & Communities program) and developing draft grant proposals with SINERR and SICARS. The Fellow would implement the second recommendation by providing assistance to individual homeowners interested in applying for federal financial and technical assistance. The Fellow would implement the third recommendation by working with partners, local decision-makers, and agency staff to try to effect policy changes and/or initiate new community-wide programs. Throughout, the Fellow would continue education and outreach efforts to community members and other stakeholders started during the 2021 Fellowship.

The second project goal is to work with SICARS to: 1) help coordinate ongoing projects and programs; 2) develop capacity-building grants; 3) develop new efforts that will increase economic and cultural well-being in the Geechee community. This goal would also encompass new efforts to increase the resilience of Hog Hummock to future global threats, in the context of changing socioeconomic and sociodemographic patterns and trends in the community. SICARS is a nonprofit founded in 1993 with the mission to “preserve and revitalize the Hog Hummock community.” It is managed by a Board of Directors drawn from the Geechee community.

**Preferred Qualifications of Fellow:**

- familiarity with federal and other (e.g., nonprofit) resilience-related funding sources
- ability to work with homeowners, landowners and small, especially rural, and/or disadvantaged, and/or traditionally underserved communities
- experience and/or skills to conduct education and outreach programs in underserved communities
- excellent communication & writing skills, self-motivating & ability to work independently
- familiarity with Georgia or Southeast coastal landscapes, both human and natural

**Project Context:** Sapelo Island is crisscrossed by an extensive network of drainage ditches constructed on the island over a period of more than 100 years, starting in the early 1800s and continuing into the 1940s and ‘50s. The earliest ditches were dug by the enslaved ancestors of the island’s current Geechee residents to drain freshwater wetlands and facilitate agriculture. Later, additional ditches were dug to facilitate road construction and road maintenance. The ditch network on State-owned lands (~10,000 acres) largely runs through natural habitats (managed for wildlife) while the ditches in Hog Hummock (434 ac) largely run alongside roads and property lines. The ditches drain excessive rainwater and surface water off the land, but they terminate at adjacent saltmarshes, where they also act as conduits for saltwater flow inland during higher-than-normal tides and storm surges. Mean sea levels in Georgia and along the East Coast are now predicted to rise 12 inches in
the next 30 years, so tidal flooding in Hog Hummock will become more frequent over time, with increasingly severe physical and economic impacts. A 2-3 foot storm surge during Tropical Storm Irma in 2017 damaged more than a dozen homes and properties in Hog Hummock, and flooding from future tropical storms and hurricanes could be even more destructive, given ongoing and expected sea level rise.

SICARS was reorganized and reestablished strong Board leadership in 2020, and is developing new programs and projects that will reinvigorate the economic and cultural vitality of Hog Hummock, while also assessing needs and opportunities for enhancing the resilience of the community into the future.

Roles & Responsibilities of 2022 Fellow: The 2021 SINERR/SICARS State Fellowship was focused on developing a better understanding of the types (i.e., precipitation vs tidal) of flooding in Hog Hummock, the causes and frequencies, and spatial patterns in the scope, magnitude and extent of impacts. Information was collected and compiled through on-site observations and documentation, interviews with community residents, interviews with coastal managers, and consultations with local and regional experts. Project information was supplemented by data and information being actively collected by researchers and consultants. These results are being used to identify “solutions” that would involve modifying, managing or even removing portions of the ditch network both within and outside of, Hog Hummock (i.e., on adjacent State lands).

The 2021 Fellow also began to address the general question “What structural or engineering techniques might be used to directly minimize flooding impacts to private homes in Hog Hummock?” Associated questions included: What is the feasibility of different engineering methods, given the types and locations of vulnerable homes? What are the costs of different approaches? What federal and state financial and technical assistance is available for homeowners and how do homeowners apply for such assistance? The 2021 Fellow began to compile information and materials addressing these questions. The 2022 Fellow will help interested residents apply for financial and technical assistance and implement appropriate, feasible and effective solutions on individual private properties and/or over larger portions of the community.

The 2022 Fellow will produce a factsheet summarizing the goals, objectives and methods of the Fellowship to distribute to the Hog Hummock community at the start of the project, and conduct an introductory presentation. The Fellow will offer periodic update presentations to the community subsequently, as appropriate. The Fellow will provide SINERR and SICARS with brief quarterly reports and consult regularly with the Mentors on the development of all materials and products produced during the Fellowship.

The 2022 Fellow will assist SICARS with developing new programs and projects that will enhance economic opportunities and the sociocultural vitality of Hog Hummock, as well as efforts that will increase the resilience of the community to future threats like climate change and sea level rise.

Roles & Responsibilities of Mentors: SINERR and SICARS will jointly mentor the Fellow, collaboratively providing relevant information, guidance, reference materials, and so on. SINERR and SICARS will both provide workspace and associated facilities, as the Fellow will spend equal time (more or less) working at each location (SICARS office is in Hog Hummock). SINERR will provide a laptop computer and associated office supplies and accessories. SINERR will also be responsible for the Fellows’ on-island transportation. If overnight or short-term stays on the island are necessary or desirable, SINERR will provide housing (but not food).

SICARS will facilitate the Fellow’s orientation to SICARS’s mission, goals and objectives, and current projects and priorities, and will provide a comprehensive orientation to Hog Hummock. SICARS will have lead responsibility for introducing the Fellow to community residents, especially Geechee “descendants,” and will assist with other community engagement activities, as capacity allows. SICARS will also facilitate the Fellow’s participation in community events and activities, as appropriate and desirable.

SINERR will facilitate introductions to, and communications with, relevant coastal researchers and managers. SINERR will also invite the Fellow to participate in monthly Reserve staff meetings, and to observe programs, projects and activities being carried out by the Reserve’s Research, Stewardship, Education, and Coastal Training sectors. As appropriate, SINERR will also facilitate the Fellow’s participation in relevant professional development opportunities (e.g., meetings, conferences, workshops) in coastal Georgia and the Southeast region during the Fellowship period.

SINERR and SICARS are fully committed to diversity and inclusion in the workplace, and do not discriminate on the basis of race, religion, age, gender identification, abilities or any other factor.