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Coastlines

GEORGIA

April 2024 • Vol. 7, Iss. 2

Georgia's changing beaches

Shaped by wind and water,
the Peach State's barrier islands
are always on the move

Also inside:

Champney boat ramp revamp ready to go
Two new state saltwater records set • DNR, Army Corps partner for habitat
Retired marine biologist still looks to future • Fishing for flounder with CRD

Coastlines GEORGIA

April 2024 • Volume 7, Issue 2

Coastlines Georgia is a quarterly publication of the Coastal Resources Division, Georgia Department of Natural Resources.

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Karl Burgess, B.J. Hilton,
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and Sean Tarpley

Common Acronyms

Throughout Coastlines Georgia, we have shortened the use of certain names of organizations to avoid repetition. The following acronyms are used for brevity:

CRD - Coastal Resources Division of DNR

DNR - Georgia Department of Natural Resources

NOAA - National Oceanic and Atmospheric Administration

WRD - Wildlife Resources Division of DNR

Cover photo by Tyler Jones

Beach erosion can be seen on Jekyll Island near Great Dunes beach access after Hurricane Irma in 2017.



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DNR/WRD File

A hatchling loggerhead sea turtle makes its way to the ocean in this DNR file photo.

OPINION EDITORIAL

Help keep our beaches clean

By TYLER JONES

PUBLIC INFORMATION OFFICER
COASTAL RESOURCES DIVISION

As the warm embrace of summer approaches, many Georgians are eagerly anticipating sun-soaked days spent on the picturesque beaches of our beloved state. However, amidst the excitement of seaside adventures, there lies a growing concern that threatens to mar the natural beauty of these coastal havens: littering.

The importance of not littering on Georgia's beaches cannot be overstated. It is not just a matter of aesthetics, but a fundamental responsibility we owe to our environment and future generations.

The pristine shores of Georgia are not just recreational spaces; they are fragile ecosystems teeming with diverse marine life and delicate habitats. When we thoughtlessly discard our waste on beaches, we not only reduce their splendor, but jeopardize the very balance of these ecosystems. Plastic bags, bottles, and other debris pose grave dangers to marine creatures, entangling them or being ingested, leading to suffering and death. Moreover, litter often comes from unsecured loads transported by vehicle. Just the other day on my way to work, a

large black trash bag was in the middle of U.S.-17. Thankfully, I was able to grab it before it was struck by a vehicle and blew its contents into the marsh.

Beyond the environmental consequences, littering tarnishes the reputation of Georgia's coastal communities and undermines their economic vitality. Tourists flock to our beaches seeking refuge in their natural beauty, but litter-strewn shores detract from their appeal, driving away visitors and hurting local businesses reliant on tourism revenue.

Preventing littering on Georgia's beaches demands collective action and individual accountability. We must cultivate a culture of environmental stewardship, educating ourselves and others about the importance of responsible waste disposal.

Additionally, robust enforcement of anti-littering laws coupled with community-led cleanup initiatives from groups like Keep Golden Isles Beautiful can help safeguard our beaches for generations to come.

In the spirit of conserving our natural heritage and safeguarding the well-being of our coastal ecosystems, let us pledge to cherish and protect Georgia's beaches by refraining from littering. ▀

Public info officer named Spring EOQ

By KARL BURGESS
ASSISTANT DIRECTOR
COASTAL RESOURCES DIVISION

CRD recognized Public Information Officer Tyler Jones as the recipient of the prestigious Employee of the Quarter award for Spring 2024.

His exceptional contributions include being the lead on such outreach and communication events as CoastFest and this Coastlines edition you are reading. Jones will be CRD's representative in this year's DNR Leadership Academy. He is always on the lookout for new and exciting opportunities to educate and communicate the work the division does to ensure current and future generations get to enjoy all the amazing resources the Georgia coast has to offer.

"Tyler is always willing and able to bring his passion, knowledge, and vision to many of the CRD initiatives he is involved in," said Karl Burgess, CRD assistant director and Jones' supervisor. "He has elevated our division's ability to communicate complex issues to our wide range of constituents in a clear, informative,



Screen grab from WTOC-TV

Tyler Jones, a public information officer with CRD, conducts an interview with Savannah's WTOC-TV about the opening of shrimp season in 2023 on the docks at DNR's Coastal Regional Headquarters

and concise manner. His passion for the conservation of our coastal resources, innovation, and dedication to serve the greater good of the public's interest is seen in all the projects he has been a part of."

Jones said he was appreciative of the honor and looks forward to continuing to serve CRD's constituents.

"There are a lot of other deserving,

hard-working people here at CRD, so I genuinely appreciate this recognition," Jones said. "It is a privilege to serve the people of Georgia every day at CRD, and I take the commitment to providing valuable resources to the people of our state seriously. I look forward to working with my colleagues and continuing to carry out our mission." ▀

DNR Real Estate Chief retires after 19-year career with agency

DNR's Chief of Real Estate, Steve Friedman, is retiring at the end of April after a 19-year career with the department.

Friedman joined DNR after a 7-year stint with The Nature Conservancy. In announcing the retirement, DNR Deputy Commissioner Trevor Santos noted Friedman is leaving the state a better place thanks to his hard work.

"Georgia's wildlife, habitat, and outdoor recreation are in a better place now thanks to Steve's efforts with our department," Santos said.

WRD Wildlife Conservation



Provided photo

Friedman with a red drum.

Section Program Manager Jason Lee, who worked with Friedman on countless projects to conserve coastal lands, echoed Santos.

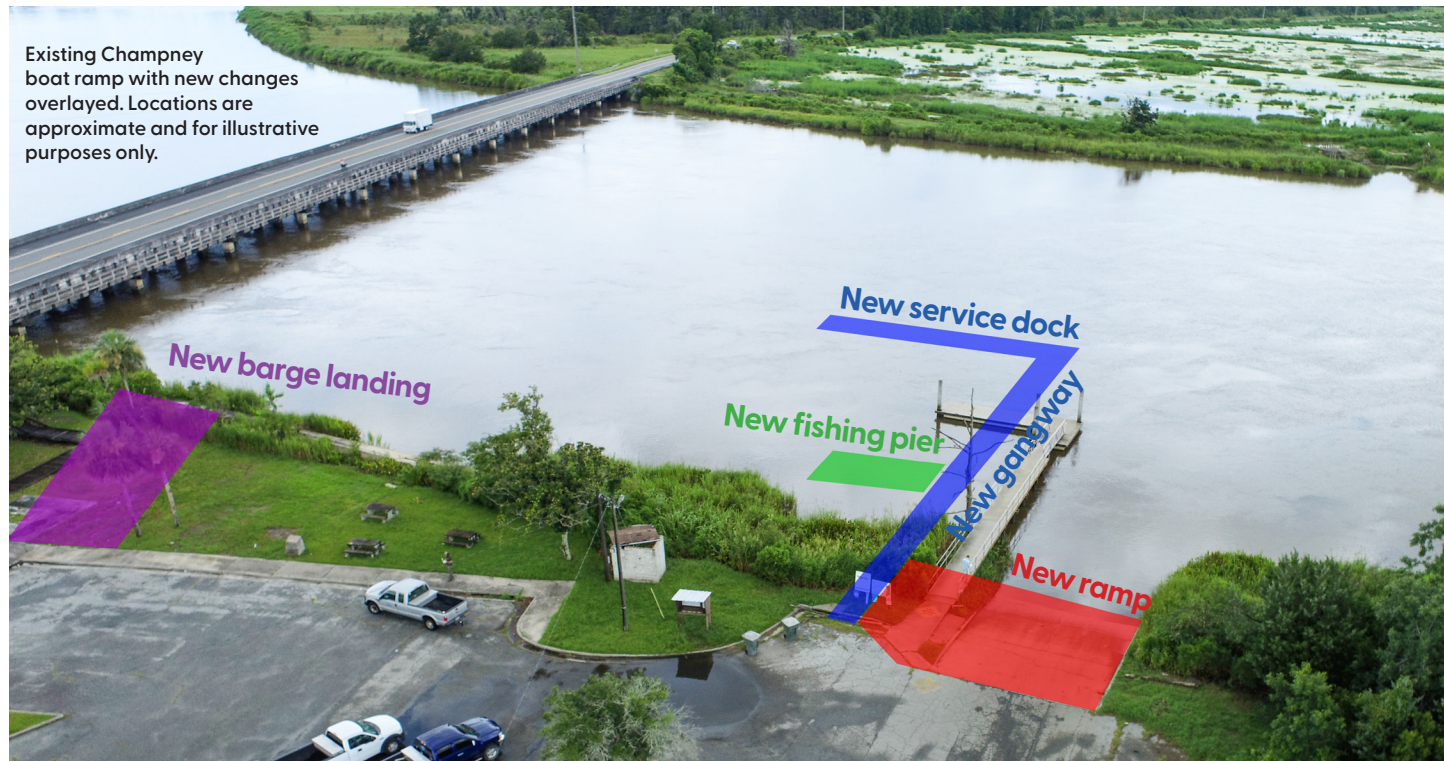
"He's arguably one of the most important figures in the State of Georgia for land conservation,"

Lee said. "He's directly or indirectly responsible for so, so much land conservation in his career. It's just incredible."

During his tenure, Friedman was responsible for the acquisition of about 100,000 acres of land along the Altamaha River corridor, 30,000 acres in the Ceylon and Cabin Bluff Wildlife Management areas, and more than 15,000 acres around U.S. Defense Department land near Fort Stewart.

Friedman will be succeeded by Brent Womack, who most recently served as Region I supervisor for WRD's Game Management Section, during which he oversaw 27 counties in Northwest Georgia.

— STAFF REPORT



Existing Champney boat ramp with new changes overlaid. Locations are approximate and for illustrative purposes only.

Cameron Brinton/CRD

The James Allen Williamson Champney River Park on Champney River in McIntosh County is seen in a photo taken using an unmanned aerial vehicle on July 21, 2020. The park soon get a facelift thanks in part to funds allocated by the Georgia Outdoor Stewardship Program.

Upgrades coming to Champney boat ramp

By TYLER JONES

PUBLIC INFORMATION OFFICER
COASTAL RESOURCES DIVISION

Yes, even CRD has to apply for Coastal Marshlands Protection Permits when our staff want to do something within the law's jurisdiction.

That happened recently as CRD's Habitat Enhancement and Public Access unit seeks to upgrade the James Allen Williamson Champney River Park south of downtown Darien off U.S.-17 in McIntosh County.

The Coastal Marshlands Protection Committee on April 5 approved a CRD permit request for work to overhaul the park, updating the boat ramp, service dock, and parking lot, along with adding a barge landing for DNR to use in future habitat restoration projects.

Originally permitted in 1981 and modified in 2003, the park under the recently approved permit will see changes throughout its 3.3 acres. CRD plans to expand the boat ramp to a 56-foot wide, two-lane concrete ramp with center divider and rip-rap on both



sides. Additionally, the service dock will be replaced with a new configuration that includes a 30-foot by 10-foot fishing pier near the shoreline, followed by a 60-foot wide service dock about 70 feet out into the river.

East of the service dock, the plans call for a 35-foot wide barge landing with timber dolphins on each side. WRD and CRD expect to use the barge landing to move shell and other materials for use in future

habitat projects, like the creation of bird islands.

Perhaps of most interest to anyone who's ever used the Champney boat ramp at high tide, the plans call for regrading the parking lot and dealing with rising sea levels and stormwater runoff. As part of the project, the existing parking lot will be torn up and fill dirt will be brought in to raise the elevation by about two or three feet. A new asphalt parking lot of about 100,000 square feet will be built on the northern half of the park with pervious grass parking lot on the southern half. The paved parking lot will also be restriped to accommodate larger trucks and trailers.

To handle stormwater, green infrastructure including a bioswale and native vegetation will be planted.

The project is being partially funded by a 2022 Georgia Outdoor Stewardship Program grant of \$1.1 million. Additional funds are being provided by WRD, Ducks Unlimited, local businesses, and individuals. ▀

DNR, Army Corps partner for habitat

CRD, WRD work together with feds to create bird island from dredge sediment

By JIM LONG

COASTAL MANAGEMENT SPECIALIST
COASTAL RESOURCES DIVISION

In a collaborative effort, members of CRD, WRD, and the U.S. Army Corps of Engineers on April 9 visited the site of a brand-new bird island located at Cumberland Dividings.

The Corps regularly dredges the Atlantic Intracoastal Waterway (AIWW) to maintain navigation channels. For the AIWW in Georgia, dredging is typically performed by a hydraulic cutterhead dredge. Sediment is excavated by a rotating cutterhead and then transported through a pipeline, that can be up to several thousand feet long to a placement location.

The duration of dredging project depends on many variables including the size of the dredging vessel, the amount of shoaled material to be dredged, the distance to the placement site, and the type of placement being performed.

Instead of placing the dredged material in an upland disposal area, using science-based evidence, the Corps and DNR teamed up to determine a beneficial use of the material – which in this case was the creation of a bird island.

Bird islands are an important nesting and foraging habitat for Georgia's shorebirds. The creation of bird islands is an important wildlife conservation practice, especially in Georgia where strong tides and coastal storms erode these islands making them unsuitable for shorebirds.

Each year, Georgia's coast hosts tens of thousands of transient migrating birds on their way between wintering grounds and the high



Max Kleinschans/CRD

These photos from an unmanned aerial vehicle shows dredge material being deposited onto a newly man-made bird island at Cumberland Dividings in Camden County. The beneficial use of sediment project will provide new habitat for migrating birds and horseshoe crabs.

arctic. The beneficial use of dredge material provides an intertidal habitat for foraging and roosting sites that will also benefit high priority species like whimbrel, red knot, and piping plover.

The island could also become an important spawning site for horseshoe crabs, which are a critical resource for migratory shore birds.

"Over the last decade we've seen a lot of deterioration of our offshore sand bars that serve as the productivity engines of our sea and shore bird populations along the Georgia coast," said Tim Keyes, a WRD wildlife biologist. "Creating this island will provide new nesting habitats that are high enough that the tide won't over wash them and far enough away from uplands where mammal predators could get to the nests."

Keyes also said "this project has been fantastic thanks to our partnership with the CRD and the Army Corps, who have taken the initiative and ran with this. With their



help we expect to create many great homes for several targeted species including American oyster catchers, Wilson's plovers, royal turns, sandwich turns, black skimmers, gull-billed terns, least turns, and maybe even brown pelicans." ▀

SALTWATER RECORDS



By TYLER JONES
PUBLIC INFORMATION OFFICER
COASTAL RESOURCES DIVISION

Back-to-back records set offshore

Georgia's coastal waters have recently witnessed remarkable achievements in sport fishing, with two anglers setting new state records in different categories. These outstanding catches not only highlight the abundance of marine life in Georgia's waters but also showcase the skill and dedication of local anglers.



Hayden Mundy, right, holds his record-setting almaco jack after he caught it offshore March 14. Provided photo

Hayden W. Mundy's Almaco Jack

On March 25, CRD announced a new state record for almaco jack (*Seriola rivoliana*), set by Hayden W. Mundy, 24, of Midway.

Mundy's record-shattering catch weighed in at 19 pounds, 10.53 ounces, eclipsing the previous record by nearly 180 percent. The previous record of 7 pounds, 0.7 ounces, was held by Sean Tarpley of Brunswick since October 2023.

Mundy's remarkable feat was achieved offshore on March 14, fishing in approximately 180 feet of water. Using a Diawa Saltiga rod and reel with a slow pitch jig on a tandem rig, Mundy landed the trophy fish aboard the private fishing vessel "Leegull Limit" with Capt. Jacob Lee.

Almaco jack, known for their stamina and strength, are pelagic fish found globally in tropical and subtropical seas. They frequent reefs and other underwater structures, feeding on small fishes, shrimp, and squid.

Ryan R. Simons' Queen Triggerfish

In another exciting development, Ryan R. Simons, 38, of Richmond Hill, GA, set a new state record for Queen Triggerfish (*Balistes vetula*) on April 7. This achievement marked the addition of the species to the Georgia Saltwater Game Fish Program, as no prior record existed. Simons' catch weighed in at 7 pounds, 0.58 ounces.

The record-setting Queen Triggerfish was caught offshore at the South Ledge while bottom fishing with a Shimano jigging rod and Shimano Speedmaster reel spooled with 65-pound braided line. Using dead ballyhoo as bait, Simons landed the fish aboard the vessel "Sweet Melissa" with Capt. Henry Williamson.

Queen Triggerfish, renowned for their striking appearance and formidable spines, are not only prized catches but also fascinating additions to Georgia's saltwater game fish records.



DNR photo

Ryan R. Simons, 38, of Richmond Hill, poses for a photo with his record-setting queen triggerfish at the DNR Richmond Hill Hatchery on April 8.

Recognition and Conservation Efforts

Both Mundy and Simons will be honored for their extraordinary achievements with certificates signed by Gov. Brian Kemp, DNR Commissioner Walter Rabon, and Doug Haymans, director of DNR's Coastal Resources Division. Their names will also be featured in the upcoming Georgia Sport Fishing Regulations Guide and online at CoastalGaDNR.org/SaltwaterRecords.

In addition to celebrating these record-breaking catches, the Georgia DNR emphasizes the importance of ethical and

responsible fishing practices.

Anglers are reminded to handle and release fish responsibly, especially those not intended for consumption. Tools like descending devices can help reduce barotrauma in deep-water fishes, enhancing their chances of survival after release. For information on descending devices and other best fishing practices, visit the South Atlantic Fishery Management Council's webpage at SAFMC.net/best-fishing-practices.

Furthermore, anglers in

Georgia are required to have valid recreational fishing licenses and comply with size and possession limits for various species. Detailed state saltwater record rules and regulations are available at CoastalGaDNR.org/SaltwaterRecords.

These record-breaking catches serve as a testament to the diverse and vibrant marine ecosystem of Georgia's coastal waters, offering anglers thrilling opportunities and unforgettable experiences on the open sea. 🐟

Georgia Saltwater Game Fish Records Program

The Georgia Saltwater Game Fish Records Program exists to recognize the outstanding and record-setting accomplishments of the state's saltwater anglers.

The program's full rules

and regulations, as well as an application for a new record, can be found online at CoastalGaDNR.org/SaltwaterRecords or by calling 912-264-7218. Individuals must

have a valid Georgia fishing license and Saltwater Information Program permit. Anyone with questions may contact the program's coordinator, Tyler Jones, at tyler.jones@dnr.ga.gov.

Ask a marine biologist

Finding flounder

As water temps rise, these elusive flatfish can be found in all the right places ... if you know where to look.



By B.J. HILTON
MARINE BIOLOGIST
SHELLFISH & WATER QUALITY UNIT

AND

SEAN TARPLEY
MARINE TECHNICIAN
MARINE SPORTFISH POPULATION
HEALTH SURVEY

Flounder fishing in coastal Georgia offers anglers a thrilling pursuit, with peak seasons from April through October. Understanding the behavior, habitat, and techniques for targeting this species can significantly enhance your success on the water.

Understanding Flounder Behavior and Habitat

Flounder, renowned ambush predators, can be found year-round in coastal Georgia waters. However, they become particularly abundant from early May through the fall months, favoring the warmer waters of summer. As the temperature rises, these flatfish move into shallow inland estuaries where food sources become plentiful.

These masters of camouflage rely on their ability to blend



Provided photo

Sean Tarpley has been a marine technician with CRD's Marine Sportfish Population Health Survey since October 2021. As part of his job, he gathers data that measure the health of coastal fish populations. He is an avid angler, and for a period, held the state record for Almaco Jack.

seamlessly with their surroundings, often lying motionless on the seabed awaiting passing prey. Their preferred habitats include areas with ample structure such as dock pilings, bridges, rocks, jetties, and shell beds.

These structures provide hiding places for baitfish, which flounder

patiently await to ambush.

Anglers may want to look for smaller creek mouths or shell beds that create water currents, pushing and funneling bait and prey down current of the structure being fished. Flounder can also be found on deep drop-offs and sharp sloping banks adjacent to man-made structures.



Provided photo

B.J. Hilton, a native of South Carolina, has worked for CRD since January 2013. He currently works with the Shellfish & Water Quality Unit, but previously worked on the Ecological Monitoring Trawl Survey, where he gathered data on the shrimp and blue crab populations.

Tides and Feeding Patterns

Tides play a crucial role in flounder feeding behavior. While they can be caught at any tide, experienced anglers often find success during mid-falling tides, which draw bait out into the open where flounder lie in wait. A mid-incoming tide is also productive for targeting these elusive fish.

Effective Techniques for Flounder Fishing

A variety of techniques and strategies can prove successful when targeting flounder, depending on the location and specific habitat being fished. However, two fundamental principles should guide your approach:

- 1. Bottom Dwelling Strategy:** Flounder are bottom-dwelling species, so presenting your bait close to or on the seabed is essential. Whether using live bait or artificial lures, keeping your presentation near the bottom increases your chances of enticing a strike.
- 1. Utilizing Structure:** Flounder are often found close to structure, so expect occasional snags. Equip yourself with ample tackle to re-rig as needed.

Tackle and Bait Selection

The choice of tackle and bait depends on various factors such as water depth, current, weather, and structure type. Here are some effective setups:

- 1. Live Bait Techniques:** Utilize a Carolina rig with a 1/4 to 1-ounce egg sinker, khale hook, and fluorocarbon leader around docks and bridges. For submerged structures like rocks and oyster beds, consider a slip cork or popping cork rig to keep your bait just off the bottom and avoid snags.
- 2. Artificial Lures:** Opt for soft plastic swim baits rigged with a 1/4 to 1-ounce jig head and fluorocarbon leader. Gulp Swimming Mullet in White and Chartreuse, along with

other soft plastic swim baits, are popular choices. Slowly dragging these lures over the seabed mimics natural movements and can trigger aggressive strikes.

Avoiding Common Mistakes

One common mistake anglers make when targeting flounder is failing to keep their bait on the bottom. Adequate weight to match the current conditions is essential for maintaining proper presentation and maximizing your success rate. Flounder are not typically found eating within the upper 2/3 of the water column and keeping your bait within the preferred strike zone will increase your chance of success. The *number one* mistake anglers make when fishing for flounder is not keeping their bait on the bottom. Make sure you have a enough weight for the current you are fishing in to keep the bait on the bottom and your success rate will be much higher.

Regulations and Conservation

When fishing for flounder in Georgia waters, anglers should adhere to size and limit regulations. The aggregate limit for all flounder species is 15 fish per day, with a minimum length of 12 inches.

By understanding flounder behavior, habitat preferences, and employing effective techniques, anglers can enhance their success and make the most of their coastal Georgia fishing adventures.

Whether using live bait or artificial lures, mastering the art of flounder fishing promises exciting opportunities for anglers of all skill levels throughout the extended fishing season. 🎣

Flounder Regulations

Anglers must possess a valid Georgia fishing license and free Saltwater Information Program permit. Anglers may keep up to 15 flounder species (Southern flounder, Summer flounder, etc.). Each fish must be at least 12 inches total length. Flounder are the only species that may taken using a gig (any handheld shalf with single or multiple points, barbed or barbless).



An aerial photograph of a coastal area in Georgia. The image shows a wide, sandy beach with several wooden boardwalks leading from the dunes to the water's edge. The dunes are covered in sparse vegetation. In the background, there are several buildings, including a large, multi-story structure with a balcony. The ocean is visible on the right side of the image, with waves breaking onto the shore. The sky is clear and blue.

Georgia's CHANGING BEACHES

By TYLER JONES
PUBLIC INFORMATION OFFICER
COASTAL RESOURCES DIVISION

The Georgia coastline, adorned with a necklace of barrier islands, is a dynamic tapestry woven by sand, wind, and water. An intricate system, known as the sand-sharing system, with its sand bars, beaches and dunes, is a marvel of natural engineering. It is constantly shifting and reshaping the islands to ensure their survival. Understanding this delicate dance between erosion and accretion is crucial, not only for the ecological health of the islands, but also for the communities that call them home.

The foundation of the sand-sharing system lies in the barrier islands themselves. Formed millennia ago by the relentless movement of sand and sediment, these islands act as the first line of defense for the mainland. They shield the coast from the fury of storms, dissipate wave energy, and provide critical habitat for a diverse range of flora and fauna. As Karl Burgess, CRD's assistant director, explains, "Barrier beaches protect uplands, lagoons, estuaries, and salt marsh from the direct impacts from the ocean."



Doug Haymans/CRD file

Sand bars, like the one seen at Goulds Inlet on St. Simons Island circa 2004, play an important role in reserving sand that will later be transported to new locations by waves and storm events.

The islands, from Tybee to Cumberland, are composed of sand originating from rivers like the Altamaha, which carry weathered rocks and minerals downstream. Upon reaching the coast, these sediments are caught in the grip of longshore currents, powerful currents that flow parallel to the shore. These currents, on the Georgia coast, driven by counter-clockwise eddies off the Gulf Stream, transport sand southward on Georgia's coast.

The Continuous Flow of Sand

This continuous movement of sand is the essence of the sand-sharing system. In some areas, waves erode the shoreline, removing sand and transporting elsewhere. This process, known as erosion, can be exacerbated by factors like rising sea levels and intense storms. However,

erosion is not solely destructive. As Burgess points out, "the sand eroded from one location becomes the building block for another."

Offshore sandbars and shoals act as temporary reservoirs, storing sand until currents or storms redistribute it. Eventually, the eroded sand reaches beaches further down the coast, replenishing shorelines and nourishing dunes. This dynamic exchange ensures a constant flow of sand, maintaining the health and integrity of the entire system.

The Vital Role of Dunes

Sand dunes play a critical role in the sand-sharing system. These vegetated mounds of sand act as a natural barrier against storm surges and high tides. Beach winds blow dry sand landward, where it accumulates to form dunes. Dune vegetation, like sea oats with their extensive root

systems, traps this sand, preventing it from being blown inland and stabilizing the dunes. Healthy dunes provide a crucial buffer zone, absorbing wave energy and protecting coastal communities and infrastructure from flooding and erosion.

Another important, but often misunderstood, component of dunes is the marsh wrack that helps form them.

"In Georgia, marsh wrack typically consists of decaying saltmarsh grasses that have drifted down rivers before washing ashore, especially after very high tides," Burgess said. "It may be unsightly, but it's extremely important."

That's because wrack is crucial to the formation of dunes by providing stabilization for windblown sand. The mixture of dead grass, sand, and moisture creates a suitable environment for the growth of plants like sea oats.



Tyler Jones/CRD photos

Above: Marsh wrack, seen here on Jekyll Island after Hurricane Irma in 2017, accumulates on beaches naturally and breaks down to provide nutrients to important dune stabilizers like sea oats. **Below:** During storm events, dunes absorb wave energy, which in turn causes erosion and transportation of sediment.



Threats to the Delicate Balance

Unfortunately, human activity can disrupt the delicate balance of the sand-sharing system. Coastal development, for instance, sometimes involves the construction of seawalls and revetments to protect beachfront property. While these structures may offer a sense of security, they disrupt the natural flow of sand. By preventing erosion at one point, they starve beaches down the coast of the sand they need to replenish themselves. This can lead to beach narrowing and increased

vulnerability to storm surges.

The impacts of climate change pose another significant threat to Georgia's barrier islands. Rising sea levels are causing increased erosion, inundating low-lying areas, and jeopardizing the future of the sand-sharing system. Additionally, more frequent and intense storms can accelerate erosion and damage dune systems.

Protecting a Vital System

Protecting this vital system requires a multi-pronged approach. Beach renourishment projects, which involve

strategically adding sand to eroded beaches, can help maintain shorelines and dunes. Tybee Island, in partnership with DNR and the U.S. Army Corps of Engineers, for example, has seen success over the years with repeated renourishment projects.

The Sea Island Co.'s privately funded sand management program, dating back to the early 1980s, has also seen similar successful outcomes.

However, these projects are expensive and require ongoing maintenance. Conserving and restoring dune vegetation is critical for stabilizing dunes and promoting natural sand accumulation.

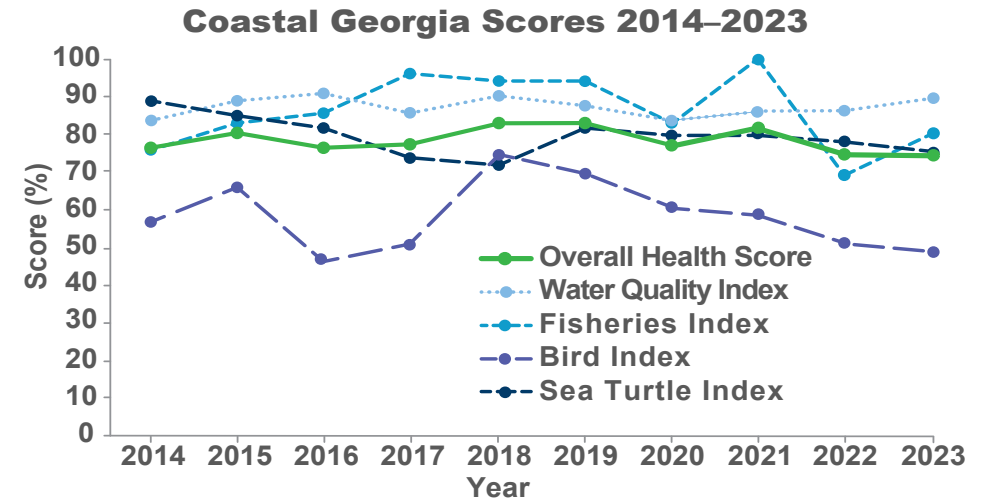
Georgia's Shore Protection Act, enacted in 1979, regulates activities and structures in the jurisdictional beach and shore areas. Projects that require an SPA permit include nourishment, rock revetments, landscaping, and dune crossovers. The permitting process, which includes a committee with four citizens and the DNR commissioner, helps ensure that necessary projects within the jurisdiction are in the public's interest.

A Look to the Future

The future of Georgia's barrier islands is intricately linked to the health of the sand-sharing system. By understanding this dynamic process and implementing responsible coastal management practices, we can ensure that these vital ecosystems continue to thrive for generations to come. As Burgess notes, "Georgia's Shore Protection Act highlights the balancing act between allowing development in the public interest, while maintaining a critical resource that both protects our communities, and provides a source of enjoyment to so many."

This combined perspective, incorporating the scientific understanding of the sand-sharing system and the practical applications of coastal management, paves the way for a sustainable future for Georgia's treasured barrier islands. ▀

10th annual ecosystem report card shows moderate improvements in key areas



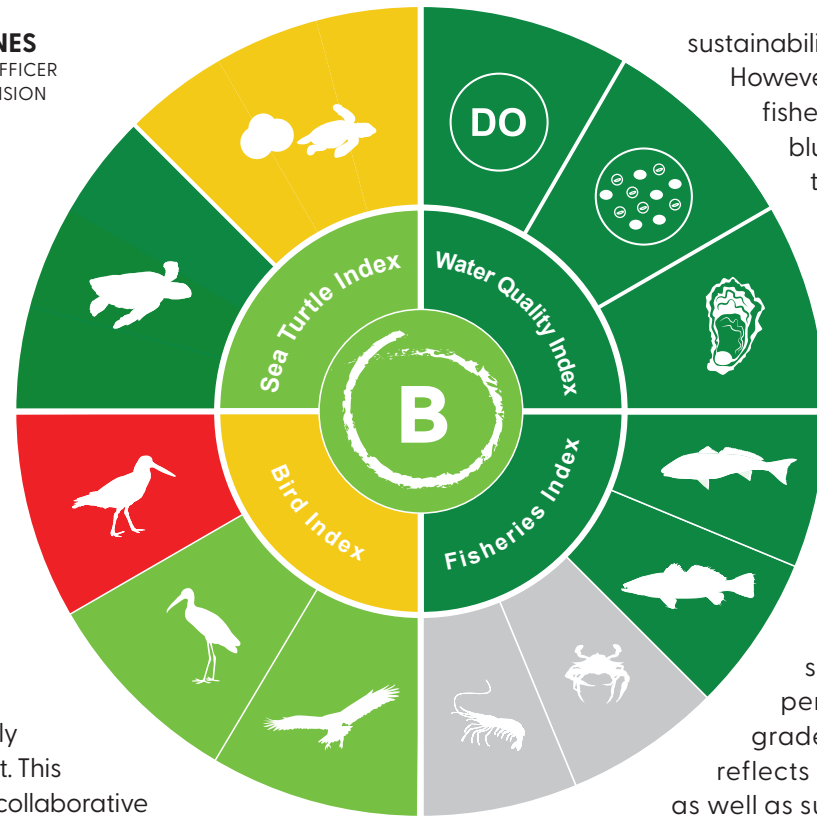
By TYLER JONES
PUBLIC INFORMATION OFFICER
COASTAL RESOURCES DIVISION

CRD on April 18 released the 10th annual Coastal Georgia Ecosystem Report Card. This comprehensive assessment evaluates the health of Coastal Georgia's ecosystems, examining water quality, fisheries, and wildlife through twelve key indicators.

Overall, Coastal Georgia received a commendable grade of B, signifying a moderately good score of 78 percent. This assessment reflects the collaborative efforts of biologists and technicians across DNR to protect and sustain the region's invaluable coastal resources.

Among the notable findings of the report, the highest scoring indicators were red drum, spotted seatrout, and sea turtle nesting, all achieving perfect scores of 100 percent. These positive results underscore the effectiveness of ongoing conservation initiatives in safeguarding critical species and habitats within Coastal Georgia.

The fisheries index scored 80 percent for 2023, indicating significant progress in the management and



sustainability of fish populations. However, it's worth noting that two fisheries indicators, shrimp and blue crabs, were influenced by the temporary unavailability of the Ecological Monitoring Trawl Survey aboard CRD's Research Vessel Reid W. Harris during the last quarter of 2023. Data from these metrics was not used to calculate the final overall score.

Water quality remains a highlight of Coastal Georgia's ecosystem health, with the water quality index scoring an impressive 89 percent in 2023, earning an A grade. This positive assessment reflects safe swimming conditions, as well as suitable environments for local shellfish and aquatic species. Notable components such as fecal coliform (98 percent), enterococcus (85 percent), and dissolved oxygen (84 percent) all achieved satisfactory scores.

The sea turtle index scored 75 percent in 2023, reflecting moderate decline in sea turtle metrics used to calculate the score. While sea turtle nesting maintained a perfect score for the 10th consecutive year, sea turtle hatching faced challenges with a score of 49 percent, primarily attributed to predation. Continued efforts in sea turtle management aim to bolster populations and ensure the long-term viability of

these iconic species.

In contrast, the bird index scored a 48 percent, indicating room for improvement in avian conservation efforts. While bald eagles showed moderate improvement, challenges such as mammalian depredation impacted the nesting success of American oystercatchers.

"Environmental report cards are powerful tools used around the world to highlight long-term survey data, increase public awareness of coastal resource statuses, and influence members of the public to act to improve the health of the coast through public support and restoration projects," said Jan Mackinnon, manager of CRD's Coastal and Ocean Management Program, which produced the Report Card.

The release of the 10th annual Coastal Georgia Ecosystem Report Card underscores the importance of collaborative conservation efforts in conserving Coastal Georgia's rich biodiversity and heritage. By leveraging scientific data and community engagement, stakeholders can work together to address the challenges and opportunities facing our coastal ecosystems.

For more information and to access the full report and previous reports, visit CoastalGaDNR.org/ReportCard.

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| fecal coliform | 92% | 92% | 92% | 80% | 90% | 98% | 90% | 95% | 99% | 98% |
| enterococcus | 82% | 91% | 94% | 94% | 96% | 78% | 72% | 78% | 83% | 85% |
| dissolved oxygen | 79% | 85% | 87% | 84% | 84% | 87% | 90% | 85% | 75% | 84% |
| shrimp | 100% | 100% | 96% | 84% | 84% | 75% | 92% | 100% | 86% | 89% |
| red drum | 83% | 69% | 100% | 100% | 91% | 100% | 40% | 100% | 100% | 100% |
| blue crabs | 22% | 62% | 47% | 100% | 100% | 100% | 100% | 100% | 18% | 32% |
| spotted seatrout | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 70% | 100% |
| American oystercatchers | 47% | 61% | 28% | 13% | 78% | 78% | 66% | 47% | 40% | 8% |
| wood storks | 67% | 70% | 64% | 84% | 81% | 78% | 59% | 68% | 70% | 66% |
| bald eagles | NA | 66% | 46% | 57% | 62% | 51% | 57% | 62% | 48% | 70% |
| sea turtle hatching | 77% | 69% | 64% | 47% | 44% | 64% | 60% | 59% | 73% | 49% |
| sea turtle nesting | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Provided photo Alan Cressler/USGS Shorebirds on Jekyll island.



Scoring Legend:

- A** 80-100% good
- B** 60-79% moderately good
- C** 40-59% moderate
- D** 20-39% poor
- F** 0-19% very poor

| | | | | | |
|--------------------|------------------|----------------------|------------|---------------|----------------|
| 98% fecal coliform | 85% enterococcus | 84% dissolved oxygen | 89% shrimp | 100% red drum | 32% blue crabs |
|--------------------|------------------|----------------------|------------|---------------|----------------|

| | | | | | |
|-----------------------|---------------------------|-----------------|-----------------|-------------------------|-------------------------|
| 100% spotted seatrout | 8% American oystercatcher | 66% wood storks | 70% bald eagles | 49% sea turtle hatching | 100% sea turtle nesting |
|-----------------------|---------------------------|-----------------|-----------------|-------------------------|-------------------------|

RETIREE SPOTLIGHT



CRD file photo
Jim Music, far right, helps pull in a gillnet with the late Capt. Pard Andrew (far left), and marine biologist Bobby Palmer as part of a total estuarine species inventory survey circa 1971.

Retired biologist still has eyes on future

Although he retired from Coastal Resources Division in 2002, former marine biologist Jim Music still keeps a keen eye on what's happening in Coastal Georgia. As part of our ongoing Retiree Spotlight segment, Coastlines asked Music to reflect on his achievements and how they continue to impact the coast today.

Coastlines Magazine: After spending a career working with Georgia's marine life, what were the greatest changes that stand out in your memory?

Jim Music: A couple of things: The Coastal Marshland Protection Act has done a lot of good in habitat protection, preventing habitat losses from channelization, filling wetlands, and prevention of hazardous effluents into coastal waters.

- There were basically no recreational creel and/or size limits from when I grew up until after I came to work with the then Game and Fish Commission in July 1970. Most regulatory measures came about after the 1970s. In the early 1980s, we studied recreational fish life histories and made recommendations to protect the spawning populations and enhance the yields-per-recruit through creel and size limits.

- My work in the Commercial Fisheries Section provided baseline documentation of the 1977 winter

shrimp kill, and ultimately resulted in then-President Jimmy Carter declaring a Shrimp Disaster Declaration to provide relief to the entire shrimping industry. We closed the fishery that entire spawning season to maximize spawning potential. Today, there is a cooperative Shrimp Fishery Management Plan for the South Atlantic states.

- An overall shrinking of the commercial shrimp fleet was a direct result of the subsequent closing of the sounds following the shrimp disaster. That closure basically eliminated the "Mosquito fleet" (small boats less than 30 feet).

- At one time there were 1,200 licensed trawlers coast wide, with a local fleet in Brunswick docking from the old Brunswick Marine site at Bay and Dartmouth streets down to and beyond K Street. There were also several small scale packing houses, a railway, and a processing plant at the end of Monck and Bay streets.

- New regulatory impacts to the fleet included requirements for TEDs (Turtle Excluder Devices) and BRDs (Bycatch Reduction Devices) in trawls greater than 16 feet, as well. Financial impacts included the influx of imports from other countries, which undercut domestic prices, and, of course, the costs of fuel and insurance if they could get it.

- At that time we also began the sea turtle stranding network to monitor annual mortalities through beach strandings.

CL: What's the most interesting or unexpected marine life you encountered during your career? (Co-workers don't count!)

JM: A couple of standouts: An albino blue crab, an albino blacktip shark, the documentation of an hermaphroditic spotted sea trout, and the fall/winter migration of Right whales during our off shore sampling.

CL: What conservation efforts are you most proud of being a part of during your time with the CRD?

JM: The recreational fish life history study that John Pafford and I did in the 1980s that helped in the efforts to regulate creel and size limits for that fishery; Drafting regulations for the Board of Natural Resources, including recommendations for limiting the number of crab license holders and the subsequent number of traps per crabber; Implementing gear restrictions, e.g. BRDs and TEDs; Drafting castnetting regulations; and my participation in the Atlantic States Marine Fisheries Commission developing fishery management plans; and coordinating with other state fishery managers—Sea Map studies, technical committees, and creating Fishery Management Plans.

My last state regulatory task was developing the "mud minnow" (mummichog) regulations for commercial and recreational limits, gear descriptions and numbers, and quantity limits. This required preparation of experimental contracts, drafting rules and regulations, and conducting public hearings.

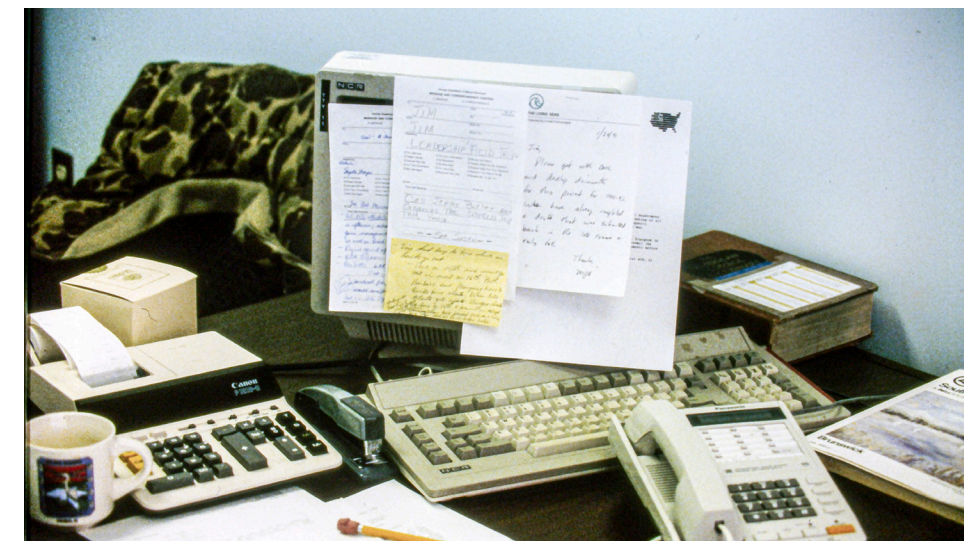
CL: What do you see as the biggest challenges facing Georgia's marine environment in the coming years?

JM: Maintaining Habitat Protection—The coastal population explosion and desire to build private and commercial developments on or near coastal waters is a never-ending pressure. We must not allow dilution of the current protections.

CL: Do you have any recommendations for how everyday citizens can help protect Georgia's marine life?

JM: We are all stewards of our environment. Everybody needs to be aware that every little piece of discarded debris and effluent into the ecosystem has an adverse impact—much the same as the straws which break the camel's back.

CL: Having explored the Georgia coast extensively, can you share a favorite hidden place or underwater location?



CRD file photos
Above, Jim Music's desk at CRD in the 1990s. He was known to prefer old-fashioned paper and pen over new-fangled computers. Below, the sign for the DNR office in Brunswick on Glynn Avenue until the 1991, when we moved into our new office. The old office is now occupied by Marshside Grill and Southeastern Adventures.

JM: Two places come to mind. First, Egg Island for recreational fishing for food fish, and St. Andrew Sound near Little Cumberland Island for heavy duty shark fishing for fun fishing.

CL: For someone interested in a career in marine biology, what advice would you give them?

JM: A Master's degree in marine science, preferably fisheries specific science. Computer skills and statistical skills are also very important. It's difficult today to initially get your foot in the door with a Bachelor's degree.

CL: Can you describe a particularly memorable or challenging DNR project you participated in?

JM: I'm proud of our recreational fishery work of the 1980s, and it was the most fun for all of us who participated in that work.

CL: Since your retirement, are there any specific ways you stay connected to the marine world?

JM: I retired in January 2002, and I still enjoy visiting the staff when I update licenses and such. However, I did help Carolyn Belcher (current CRD Chief of Fisheries) with her shark tagging study, and I also helped collect samples for the LCP Superfund Site study to be used to set seafood consumption guidelines for



Georgia waters.

Initially, I tried charter fishing and wanted to work two or three days per week, but I soon realized that it took up two additional days for preparations and clean up, so I settled on my current job as a role player at the Federal Law Enforcement Center (FLETC). I have been there since 2003, and I think I've found my niche.

CL: Is there a little-known fact about Georgia's marine life that most people wouldn't know?

JM: Many marine species are strongly habitat specific. Example: There are locally three common species of fiddler crabs and each have specific substrate and salinity preferences. Notice where you'll find them when you walk in and/or along the muddy marsh versus the sandy areas or salty versus brackish areas. Thus, the entire ecosystem needs our protection. 🐞

DNR prioritizes disabled access to outdoors

NEWS RELEASE

COMMISSIONER'S OFFICE
DEPARTMENT OF NATURAL RESOURCES

Under the leadership of Commissioner Walter Rabon, DNR on March 26 announced its renewed commitment to providing hunting, fishing, and other outdoor recreational opportunities for those with mobility impairments. More than 2.2 million Georgians have a disability, and of that, 14 percent of those are mobility related. Given the number of Georgians impacted, the Georgia DNR has put an increased focus on creating adaptive outdoor opportunities to people across the state.

As a space that has long been viewed as out of reach for those with mobility challenges, Georgia DNR's Outdoors Beyond Barriers adaptive program will provide tools, resources, and access points for all Georgians.

"Outdoors Beyond Barriers seeks to educate, encourage, and empower Georgians with mobility impairments to connect with nature," said Walter Rabon, Commissioner of Georgia DNR. "With March being National Disability Awareness Month, we want to ensure everyone is aware of the efforts being made by our department to remove obstacles associated with getting outdoors for those who are mobility impaired."

Georgia DNR's Outdoors Beyond Barriers program will provide gateways for mobility impaired Georgians to enjoy hunting and fishing, while learning the skills and tools needed to become independent users of Georgia's natural resources. Georgia DNR plans to grow the program by hosting hunting and fishing events in each of the department's six regions around the state on public lands and fishing areas, while also providing additional opportunities in partnership with private landowners throughout Georgia.

"We're dedicated to expanding our offerings, giving people different opportunities from one side of Georgia



File photo/CRD

CRD staff member Dawn Franco speaks to an angler at the Jekyll Island pier in this undated file photo. DNR recently announced an invigorated commitment to making the outdoors accessible to all, including those with disabilities. A list of ADA-accessible fishing locations can be found at CoastalGaDNR.org/ADAFishing.

to the other," said Rabon. "Public-private partnerships will be critical as we move forward, and we're thankful for the landowners who have already stepped up, volunteering to host events on their personal properties."

While the department looks to put a new emphasis on hunting and fishing, Georgia DNR will continue to offer free Action Trackchairs for those with mobility impairments thanks to the partnership with the Aimee Copeland Foundation's All Terrain Georgia initiative. This program has been a success, with over 250 reservations made in 2023 at 10 State Parks and Historic Sites Division locations, such as Sweetwater Creek, Fort Yargo, and Cloudland Canyon, with Skidaway Island State Park and Little Ocmulgee State Park to be added this spring. Those interested in reserving an Action Trackchair can visit GaStateParks.org/

Accessibility/TrackChairs.

Additionally, CRD has created an online resource for disabled anglers to find fishing access locations with ADA facilities. Interested anglers can find the resources at CoastalGaDNR.org/ADAFishing.

In the current fiscal year, Georgia DNR has invested over \$2.2 million in accessibility improvements for their infrastructure and outdoor opportunities. Future investments into this program will continue to be a priority for DNR Commissioner Rabon as more accessible hunting, fishing, and outdoor opportunities are added in Georgia.

Those wishing to get more information on adaptive hunting and fishing opportunities should contact the WRD office in their region. Region office contact information can be found at GeorgiaWildlife.com/About/Contact.

Et Cetera ...

NEWS BRIEFS

CRD, WRD pair up for charity chili cookoff

Staff from CRD and WRD represented DNR in the 2024 Red Hot Rotary Chili Cookoff on St. Simons Island on March 4. We used the opportunity as a recruiting event for future DNR employees, displaying a banner of current job openings, benefits, and divisions of DNR. More than 11 gallons of DNR chili were served to 2,200 people, the highest turnout in the 22 years of the competition, according to Rotary Club President Jim Turner. Although we did not win any awards, we spoke to several interested applicants and gave away plenty of educational materials. The ingredients were donated by DNR employees and our entry fee was sponsored by Rotary Club member Bruce Dixon of Brunswick.

Coastal Management Chief chairs national meeting in D.C.

CRD Chief of Coastal Management Jill Andrews and Program Manager Jan Mackinnon recently traveled to Washington, D.C., for meetings with the nation's coastal managers. The Coastal States Organization annual meeting, chaired by Andrews, highlighted federal funding scenarios for state coastal programs and highlighted federal climate strategies, including marine carbon dioxide removal. The NOAA Coastal Zone Program Managers meeting focused on the national strategic plan for coastal management, inclusive and equitable access and coastal land conservation.

Fisheries staff accept award from Foundation for CRD scholarships

Chief of Marine Fisheries Dr. Carolyn Belcher and Statistics Unit Leader Julie Califf the week of March



CRD photo

The DNR Chili Cookoff Team: WRD Wildlife Technician Memphis Sims, from left, CRD Marine Biologist Kaylan Collins, CRD Marine Tech Dillon Metz, CRD Public Info Officer Tyler Jones, CRD Compliance Specialist Hunter Jackson, and CRD Coastal Resources Specialist Jim Long.



Provided photo

Coastal Pines Technical College (CPTC) President Lonnie Roberts, from left, CRD Chief of Marine Fisheries Dr. Carolyn Belcher, CRD Statistics Unit Leader Julie Califf, and CPTC Foundation Trustees Chairman Larry Paulk.

8 attended the Inaugural Donor Recognition Dinner for the Coastal Pines Technical College Foundation. CRD was recognized as a Platinum Donor with \$50,000 going to the Foundation in the last two years. The Marine Fisheries Section of the Coastal Resource Division provided funds from U.S. Department of Commerce fishermen disaster relief funds to Coastal Pines to support a initiative to address the greying of the shrimp fleet. The Coastal Pines Foundation established the Georgia Commercial Fishing Sustainability

and Resilience Endowment and the Georgia Commercial Fishing Scholarship with the funds. The scholarship is designed to offset student expenses associated with the program.

R/V Harris returns to service, hosts visiting S.C. DNR biologist

The R/V Reid Harris has returned to sampling the week of April 5 after a long absence because of an engine issue. The Harris and its crew are currently conducting April sampling in the offshore and northern sounds of the state while collecting shrimp maturity data in cooperation with SCDNR. CRD biologists conduct visual assessment of reproductive stages for shrimp during their monthly cruises, but it is extremely difficult to determine a non-reproductive shrimp from one that has recently spawned. In addition to the visual assessment, SCDNR will be taking samples to microscopically assess the condition of female white shrimp. Results will be used to improve upon current field methods.

— STAFF REPORTS

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