

# **COASTAL CLEANUP** ANNUAL PROGRAM SUMMARY











#### 02

ABOUT THE PROGRAM

*03* PROGRAM STATS

#### 05

MISSISSIPPI INLAND CLEANUP PROGRAM

#### *06*

SWAPS

#### 08

DERELICT VESSELS

#### *09*

DERELICT CRAB TRAPS

#### 11

WHAT TO LOOK FOR IN 2024 Mississippi Sound Estuary Program Barrier Island Cleanup Inititative Events

15 meet the team



#### ABOUT MISSISSIPPI COASTAL CLEANUP PROGRAM

MSU CVA

The Mississippi Coastal Cleanup Program (MSCCP) is a non-profit educational program that promotes the conservation of the local marine environment by facilitating active stewardship within coastal Mississippi. The MSCCP mission is to prevent and remove litter from the coastal environment through education, outreach, research, and cleanup events. The MSCCP organizes monthly beach cleanups, provides in-class presentations, and hosts outreach booths at multiple public events throughout the year. By integrating the latest research, the MSCCP trains community leaders and fellow stewards on ways to incorporate best littermanagement practices into their ongoing programs. This program not only promotes active stewardship but also enables long-lasting education and outreach and other toolkits that empower communities to make environmentally and economically sound decisions regarding litter and marine debris.

Marine debris is defined as any manmade material that is intentionally or unintentionally, directly or indirectly disposed of or abandoned into our marine environment, according to the NOAA Marine Debris Program. Marine debris includes everyday items we toss in the trash, litter on sidewalks, parking lots, and streets that is washed or blown away by gulf winds, and even larger objects, such as fishing nets, construction materials, and derelict boats. These items persist in the environment where they can be extremely harmful to wildlife on land, in the air, and in water.



TOP ITEMS

Single-use plastic was by far the most common material collected during cleanup events. Check out these top items!

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## **PROGRAM STATS**

In 2023, the MSCCP hosted and facilitated 58 cleanup events. During MSCCP events, volunteers are required to collect data on the different types and how much trash is collected. Unsurprisingly, single-use plastic items are the most common materials collected on the beaches. Some of the commonly found plastic trash items include cigarette butts, food wrappers, packaging, bottle caps, and beverage bottles. Plastic is a manmade material that our earth cannot naturally break down. Plastic items persist in the environment and eventually break up into smaller and smaller pieces becoming what we know as microplastics. Microplastics are plastic fiber, fragment, bead, and film pieces smaller than 5mm that wreak havoc on the environment as they are commonly mistaken for food by marine life and ingested. Toxins and pollutants in the water can bind to microplastics impacting the animals ingesting the pieces on a physiological level. Studies have shown that microplastics have entered our food chain posing not just detrimental impacts to animal health, but possibly to human health as well. Uh oh...

We know litter and plastic pollution is a problem, and providing actionable opportunities for the public to get involved with reducing plastic pollution is key. The MSCCP encompasses several programs that focus on prevention, removal, and research pertaining to marine debris and litter. The Derelict Trap Reward Program focuses on how abandoned crab traps impact local shrimpers in the water of the Mississippi Sound. The Mississippi Inland Cleanup Program (MSICP) is an expansion program of the MSCCP to extend litter awareness efforts inland. SWAPS is a new no-cost-to-you program that provides litter and waste prevention solutions and materials so the community can take an active part in preventing waste!

## Keep reading to see what these amazing programs were up to in 2023!

## **PROGRAM STATS**

Check out the different types & amounts of debris removed during 2023 by the volunteers of the Mississippi Coastal Cleanup Program!

### **COMMONLY FOUND ITEMS:**

Cigarette butts	33,576
Food wrappers	9,666
Take out containers (plastic)	801
Take out containers (foam)	464
Bottle caps (plastic)	5,588
Bottle caps (metal)	3,132
Lids (plastic)	1,417
Straws/stirrers	2,749
Forks, knives, spoons	852

## PACKAGING MATERIALS:

6-pack holders	50
Strapping bands	557
Tobacco packaging/wrap	1,128
Other plastic/foam packaging	2,248
Other plastic bottles (oil, bleach, etc.)	397

#### FISHING GEAR:

Fishing buoys, pots, and traps	950
Fishing nets & pieces	276
Fishing line (1 yard = 1 piece)	381.5
Rope (1 yard = 1 piece)	334
Boats	0

#### **TINY TRASH:**

Foam pieces	3,384
Glass pieces	4,660
Plastic pieces	15,152

Beverage bottles (plastic)	3,545
Beverage bottles (glass)	1,483
Beverage cans	2,324
Grocery bags (plastic)	1,617
Other plastic bags	2,087
Paper bags	1,268
Cups & plates (paper)	1,086
Cups & plates (plastic)	1,036
Cups & plates (foam)	1,226

#### **PERSONAL HYGIENE:**

Condoms	72
Diapers	70
Syringes	29
Tampons/tampon applicators	164
Gloves & masks (PPE)	137
Clothing & shoes	349

## OTHER TRASH:

Appliances (fridge, washer, etc.)	12
Balloons	551
Cigar Tips	2,580
Cigarette lighters	49
e-Cigarette waste	49
Construction materials	1,759
Fireworks	5,825
Tires	62
Other	2,796

#### **2023 CLEANUP SUMMARY:**

Number of bags filled	712
Weight of trash collected (pounds)	16,363
Distance cleaned (miles)	50 +
Number of volunteers	2,285

## MISSISSIPPI INLAND CLEANUP PROGRAM

Litter is an issue that impairs the environment, stormwater infrastructure, tourism, and industry along inland waterways, which eventually lead to coastal waters.

The Mississippi Inland Cleanup Program was formed with the mission of preventing and removing litter from the coastal environment through education, outreach, research, and cleanup events.

In 2023, the program organized or facilitated a total of 14 cleanup events which attracted 314 volunteers who contributed 480 volunteer hours to remove 1.504.48 lbs. of litter from the inland roads, waterways, wetlands, and metropolitan areas of southeastern Mississippi. Top litter items removed included individual cigarette butts (2,790), food wrappers (2,234), plastic beverage bottles (851), and small plastic pieces (1,316). During these events, volunteers also collected data on the specific types of litter removed, to identify sources and design targeted prevention methods. The value of this volunteer effort exceeds \$15,264.00.

Be on the lookout for cleanup events happening in Clarke, Newton, and Kemper counties in 2024.





## SWAPS

Sustainability With Awareness and Prevention Solutions (SWAPS) is focused on preventing and eliminating excessive waste and litter in our local communities. SWAPS is currently working in the lower 6 counties of Mississippi but hopes to bring the program to other coastal and inland communities in the region.

The SWAPS program provides hands-on education and sustainable incentives to support local communities in making eco-friendly choices in their everyday lives. The program has four learning modules that cover 1) microplastics in our watersheds, 2) eliminating single-use plastics, 3) rethinking food waste, and 4) ways to get involved and strengthen existing litter and waste prevention and removal programs. Each module taught includes a hands-on learning activity with an emphasis on sustainability. In 2023 SWAPS was part of 40 different educational endeavors and reached over 2,700 people. Here are some highlights.

- SWAPS worked directly with 3 Coastal Mississippi Public High Schools and reached over 200 students in their classrooms.
- Hosted Homeschool classes at the Coastal Research and Extension Center and The Crosby Arboretum reaching over 160 students and adults.
- Built 3 static compost piles with students to increase composting: St. Martin High School, The Crosby Arboretum, and the Pascagoula River Audubon Center
- Got over 1,000 reusable water bottles, tote bags, to-go cutlery, and beeswax wraps into the hands of participants and teachers.
- Provided water refill stations to SWAPS participating organizations across the coast including, St. Martin High School, Jackson County Parks and Recreation, The Crosby Arboretum, and the Pascagoula Audubon Center.



## RETHINKING TRASH

Not all of our "trash" or "waste" belongs in the Landfill but we rarely have options to dispose of things differently. In 2023 SWAPS in collaboration with Plastic Free Gulf Coast and MS Inland Cleanup brought the three-bin system to our campus. This is a simple way to change our understanding of waste and divert as much as possible from our landfills. If you're interested in SWAPS organizing a community workshop or teaching your students, contact Elizabeth Englebretson e.englebretson@msstate.edu

## OFFICES MAKING THE SWAP

In 2023 SWAPS launched our reusable tableware project in collaboration with Plastic Free Gulf Coast furthering our effort to support Zero-waste events and meetings at our campus and beyond. SWAPS provides access to a set of over 200 plates, bowls, cutlery, glasses, mugs, and more for organizations to borrow while at the CREC and for meetings and events outside of our campus. Through this program, SWAPS is providing a way for people to lower their waste footprint and enjoy a plastic-free meal.





Sustainability With Awareness and Prevention Solutions

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## DERELICT VESSELS

Mississippi State University Extension Service has partnered with the Gulf of Mexico Alliance for a new project that will involve the removal of abandoned and derelict vessels (ADVs) from waterways along the Gulf coast over the next four years. Through this project, supported by the NOAA Marine Debris program with funding from the Bipartisan Infrastructure Law, our team will work closely with GOMA and state agencies including the Texas General Land Office, the Mississippi Department of Marine Resources, and the Alabama Law Enforcement Agency, to remove nearly 100 vessels during Phase I. In the second phase of the project, additional vessels and other large marine debris items will be identified and removed from all Gulf states.



Locations of ADVs to be removed in Phase I

#### Follow the Coastal Conservation and Restoration socials for updates on the project!



CoastalConservationandRestoration

**O** msu coastalconservation

http:// Ccrlab.org/derelictvessels

For more information you can contact the project leads: Megan Chevis - megan.chevis@msstate.edu Sarah Harrison - sah288@msstate.edu





Abandoned and derelict vessels in Alabama.

## DERELICT CRAB TRAPS

In 2023, Mississippi State University **Extension Service and Mississippi** Commercial Fisheries United (MSCFU) continued their partnership to remove derelict crab traps for another successful year. Derelict crab traps, those that have been lost or abandoned by crabbers, create a variety of economic and environmental issues. The Derelict Trap Reward Program (DTRP) invites commercial shrimpers to enroll in the incentive program. The program has 30 active participants, and the project team continuously recruits new participants. As commercial shrimpers encounter derelict traps at sea, they remove entangled traps from their trawls and deposit them at 5 designated harbors across the Mississippi Coast. During 2023, shrimpers removed 688 derelict crab traps with an estimated weight of 4,000 pounds. Since its inception in 2019, 3,861 traps have been removed from the Mississippi Sound and the surrounding waters.



In addition to the Derelict Trap Reward Program, shrimpers were invited to participate in the pilot Marine Debris Removal Program. This program is designed for shrimpers to receive a reward for removing all types of marine debris from the north-central Gulf of Mexico. In 2023, 30 shrimpers removed 33 items including derelict fishing gear, single-use plastics, and unidentifiable metal pieces. These items weigh an estimated total of 1,926 pounds. The program will continue for another 2 years. Derelict Trap Reward Program

#### Deer Island debris removal

A developing commercial fishing industry along the northern Gulf of Mexico coast is off-bottom oyster aquaculture. Gear used in this industry is predominantly plastic with types of gear containing metal components. Given the nearshore location and off-bottom nature of this gear, it is susceptible to damage or displacement from storms. Many off-bottom farmers will "sink" their gear ahead of storms by either dropping their suspended containers to the floor or filling their floats with water so they will sink. While this practice is relatively successful at preventing mass loss of gear, it does not prevent all of it. As such, the areas surrounding off-bottom oyster farming locations can often be littered with derelict gear and other debris that is hard to find by farmers due to thick vegetation or distance traveled.

This gear is expensive, so farmers would like to recover it to redeploy it in their operations. A major barrier to farmers recovering their gear is the uncertainty of derelict gear locations; however, that can be addressed through frequent aerial mapping and sharing of maps and coordinates with oyster farmers.

To address these issues a team of commercial fishing, outreach, extension, and research professionals from Mississippi Commercial Fisheries United and Mississippi State University have continued the Derelict Trap Reward Program; built upon the Derelict Trap Reward Program to incentivize collection of plastics and other types of marine debris by shrimpers and other commercial fishing industries; and developed and pilot a derelict gear mapping and recovery program that incentivizes off-bottom oyster aquaculture farmers to recover and reuse gear. In 2023, we successfully mapped Deer Island 12 times, resulting in identifying over 1,100 pieces of debris each month across the island. With these results, the contracted oyster farmer was able to remove a total of 48 oyster aquaculture gear items with a total estimated weight of 2,794 pounds.



An additional estimated 132.4 pounds of debris was removed from the shoreline on Deer Island by MSU employees and student volunteers. These efforts will be continued for another 2 years with additional volunteer cleanup opportunities.

#### Pascagoula River monitoring

In 2023, we continued to monitor the sites of 8 derelict vessels, a refrigerator, a camper trailer, a houseboat, and a fishing shed. Additionally, 16 volunteers removed a total of 351.4 of debris in the lower Pascagoula River.

For more information you can contact the project lead: alyssa.rodolfich@msstate.edu



## WHAT TO LOOK FOR IN 2024:

Changes are afoot for the MSCCP! Our beloved leaders, Mandy Rigsby (Sartain) and Jessi James-Barry, are moving on from their MSCCP duties. After 6 years of coordinating the cleanup program, Mandy will be transitioning into new job roles at the MSU Coastal Research and Extension Center. Jessi has accepted a new position elsewhere and will be leaving in 2024.

#### Welcome our interim coordinator, Evelyn McQueen!

Along side the program leader, Dr. Eric Sparks, Evelyn will be assisting in the coordination of the Mississippi Coastal and Inland Cleanup Programs. Evelyn also serves as the Education Coordinator for the new Mississippi Sound Estuary Program.

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http:// Mscoastalcleanup.org



## INTRODUCING: MISSISSIPPI SOUND ESTUARY PROGAM

The Mississippi Sound Estuary Program (MSEP) is a non-regulatory program working closely with local organizations and community leaders to spearhead efforts to increase awareness and participation in the conservation and restoration of Mississippi Sound and its contributing watershed. By engaging with a diverse range of stakeholders, including residents, businesses, and visitors, MSEP will play a vital role in shaping the future of the Mississippi Sound and ensuring that it remains a vibrant and thriving ecosystem for generations to come. This program's mission is to facilitate community-driven conservation, restoration, and stewardship of Mississippi Sound.

In line with EPA guidance for National Estuary Programs, one of the primary goals of the MSEP is the development of a Comprehensive Conservation and Management Plan. The plan will serve as a guide in directing the efforts of stakeholders regarding preservation, restoration, resilience, and stewardship of our estuarine environments.





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## BARRIER ISLAND CLEANUPS

We would like to introduce a new sub-chapter starting in 2024, the Barrier Island Cleanup Initiative! Funded in partnership with the U.S. National Park Service, MSCCP will host volunteer-based cleanups on the Gulf Islands National Seashore barrier islands. Volunteers will have opportunities to help us remove marine debris in the Mississippi Sound on Ship, Cat, Horn, and Petit Bois barrier islands.

The goal of this new initiative is to remove marine debris along all 68 miles of the barrier island chain shorelines over the course of 3 years. The cleanup season will begin in the spring of 2024 and occur monthly until October each year. Volunteers will help by removing debris and collecting data on the debris types. Volunteers will be shuttled to the cleanup location on charter for-hire boats to spend 4-5 hours with our team before enjoying a cool ride back.

Are you willing to brave the Mississippi Sound to help our team? Registration will be required to participate, and space will be limited.

Contact Kristi Gay @ kg1595@msstate.edu for more information!







## **2024 EVENTS:**

#### STAR-SPANGLED CLEANUP

July 6th, 2024 @ multiple sites

ANNUAL MISSISSIPPI COASTAL CLEANUP October 19th, 2024 @ multiple sites

Please visit our website for event details.

http:// K mscoastalcleanup.org

## MEET the TEAM



Dr. Eric Sparks MSCCP Lead



Mandy Rigsby MSCCP Coordinator



Jessi James-Barry MSICP Coordinator



Evelyn McQueen MSCCP & MSICP Coordinator



Keith Chenier SWAPS Coordinator



Elizabeth Englebretson SWAPS Coordinator



Alyssa Rodolfich DTRP Coordinator



Megan Chevis DV Coordinator



Sarah Harrison DV Coordinator



## **THANK YOU 2024 SPONSORS!**

























We cannot undertake these activities without donations from our great sponsors. If you would like to support the MSCCP events and its associated educational programming, please consider donating to our cause.

For more information please visit the MSCCP website and click the "Donate" tab.







