

2020 | PANDEMIC PRESSURE INSPIRES INNOVATION

Beach Cleanup Annual Report



Photo: Alexander Siegel



Released July 2021

Contents

03 Introduction

04 Beach Cleanups Overview

- 05 COVID-19 Pandemic
- 06 Database Updates
- 07 International Coastal Cleanup Month
- 08 Cleanup Collaboration
- 09 Program Results

11 Regional Stories

- 12 Regional Impacts
- 13 Hawai'i
- 14 California
- 16 Oregon
- 17 Washington
- 18 New Hampshire
- 19 Delaware
- 20 North Carolina
- 21 Florida
- 22 Student Clubs

23 Emerging Science

- 24 Bioplastics
- 25 Bioplastics & Cleanups
- 26 Cleanups & Policy: A Way Forward

27 Conclusion



Introduction

Clean beaches are essential to healthy coastal habitats and the wellbeing of people who visit them. With the significant increase in beach use and waterfront recreation in 2020, this statement is true now more than ever. As people relied on our beaches to find relief from the global pandemic, the Surfrider Foundation's dual goals of protection and enjoyment of the coasts became all the more important – the beach belongs to all of us and everyone is entitled to the benefits of clean beaches. Beach cleanups are a simple, yet effective way to reduce plastic pollution, raise awareness about the complexities of the plastic pollution crisis and provide crucial data to help pass plastic reduction legislation across the nation.

The Surfrider Foundation's Plastic Pollution Initiative aims to eliminate the impacts of plastics in the ocean by raising awareness about the dangers of plastic pollution and by advocating for the reduction of single-use plastics. This includes ensuring all existing plastic is reused or recycled rather than sent to the landfill, or worse, into the environment. The Plastic Pollution Initiative includes both programmatic and policy work. The policy arm focuses on campaign work, which has led to hundreds of successful plastic pollution reduction laws. The programmatic arm includes Surfrider's Ocean Friendly Restaurants program, which focuses on direct action against single-use plastics, in addition to the Better Beach Alliance cleanup program, which is the first step in reducing the amount of plastic ending up in the ocean.

Beach cleanups help to raise awareness around plastic pollution and the current impacts of plastic on our environment. In 2020, despite the many challenges due to the COVID-19 pandemic – from limits on group gatherings

and beach closures to increased amounts of hazardous waste – Surfrider's incredible network of volunteers and activists still managed to make meaningful impacts for our ocean and coasts. By finding creative ways to continue to show up and clean up their local beaches, lakes and neighborhoods, chapters and supporters were able to expand the positive impacts of beach cleanups to areas not previously reached. With more personal protective equipment (PPE) and takeout foodware trash on our beaches to pick up, Surfrider activists rose to meet the increased challenges of 2020.

The 2020 Beach Cleanup Report aims to highlight the successes of Surfrider's network, despite the challenges faced. This report will look at how plastic impacts various coastal regions and shine a light on the items most often collected during Surfrider beach cleanups. It also explores the complexities of plant-based plastics, known as bioplastics, and how the solution to plastic pollution requires an intersectional approach to the crisis.

Surfrider's Beach Cleanup program addresses the trash in our ocean and on our beaches, caused primarily by rampant plastic pollution, through organized citizen action. The program also supports public education efforts and provides underlying data to bolster our plastic pollution advocacy campaigns. For more information and to see past and current beach cleanup data, visit Surfrider's [beach cleanup database](#).

Clean beaches are essential to healthy coastal habitats and the wellbeing of people who visit them.

While the Beach Cleanup program faced many challenges during 2020, the program had an incredibly impactful and meaningful year.

927

Total Cleanups

414,037

Items Collected

8,895

Volunteers Engaged

80,360

Pounds Of Trash Collected

Beach Cleanups Overview



COVID-19 Pandemic

The COVID-19 pandemic undoubtedly impacted nearly every aspect of our daily lives. For Surfrider's Beach Cleanup program, the pandemic presented challenges to cleanup efforts, including beach closures, limits on gatherings and the addition of new commonly found items.

In an effort to better understand the impacts of COVID-19 on our beaches and waterways, Surfrider started collecting data on personal protective equipment (PPE), such as masks and gloves found at cleanups. In just six months, from June 2020 through December 2020, more than 2,270 single-use masks and gloves were removed from beaches and waterways, indicating that these items became a significant source of pollution. What's worse is that the vast majority of single-use masks and gloves on the market are made from plastic, meaning they will break apart over time and become microplastics, which are now ubiquitous in the environment and our bodies. While PPE is necessary and life-saving, we can all help to ensure that single-use PPE is properly disposed of after use and prioritize reusable items, such as washable cotton masks, whenever possible.

In response to the pandemic, Surfrider also switched away from large group cleanups and developed guidelines for Solo Beach Cleanups. We were able to safely encourage individuals or single households to hold their own cleanups. This led to an increase in the diversity of cleanup locations and empowered individuals to take action close to home. We opened Surfrider's Beach Cleanup Database, cleanups.surfrider.org, to the public so that everyone could participate in logging their cleanup data. Without the direct actions of our network of citizen scientists, the Surfrider Foundation would not have been able to have the success that we did in 2020. It is all thanks to the volunteers who were adaptable and resilient; they showed just how strong our network can be.



In an effort to better understand the impacts of COVID-19 on our beaches and waterways, Surfrider started collecting data on personal protective equipment (PPE).

2,270

Single-Use Masks and Gloves
Collected in the Last 6 Months of 2020

Database Updates

Outside of immediate responses to the COVID-19 pandemic, the Beach Cleanup program continued to grow and evolve in 2020. We added new digital resources to help aid solo cleanup data tracking and made the database more user-friendly to accommodate the growing number of individual users not affiliated with Surfrider chapters. We also added the ability to co-host beach cleanups between businesses, outside organizations and other Surfrider chapters or clubs. This feature allows each co-host to track their individual impact goals and inspire members of either group to work toward a collective goal. Surfrider hopes to use this feature to build relationships with partners and like-minded organizations in order to grow the Surfrider Foundation network.

In 2020 we added new digital resources to help aid solo cleanup data tracking and made the database more user-friendly.



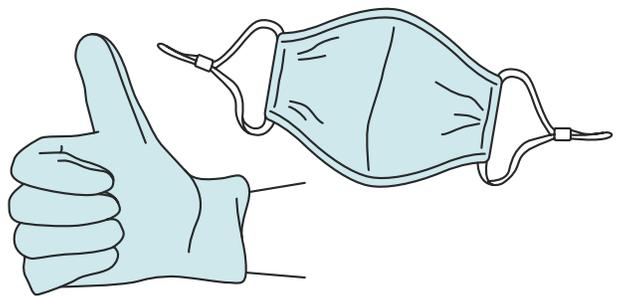
International Coastal Cleanup Month

Rather than limiting International Coastal Cleanup (ICC) Day to a single day, Surfrider pivoted to a month-long celebration of clean and healthy beaches throughout September. Many Surfrider chapters and clubs hosted solo cleanup challenges among their members to encourage everyone to get out safely and clean their local beaches, lakes and neighborhoods. These challenges resulted in 155 cleanups reported in our database in just one month!

To spread awareness about ICC month, we released new blog posts each week highlighting key elements of the Beach Cleanup program. We kicked things off by **educating around solo cleanups** and the importance of data collection to extend the life of your cleanup and maximize your impact. For the second week, Surfrider introduced our **PPE Awareness campaign** that drew attention to the increase of single-use PPE pollution and how to safely switch to reusable PPE to reduce your impacts while staying safe.

Our third ICC story looked at some of the incredible **efforts our chapters are making** to fight commonly found items. We highlighted the Net Patrol on Kaua'i, Nurdle Patrol in Texas and the Hold On To Your Butt program in Ventura. These specialized cleanup programs were created in response to the prevalence of specific items in their areas and are helping to push for targeted changes. To cap off ICC month, we wanted to inspire people and show them how beach cleanups can go **beyond the beach to policy**. Our network excels at passing legislation at the local, state and federal levels to protect our ocean and beach cleanup data can provide support for many plastic pollution policy efforts. Surfrider's first ever celebration of International Coastal Cleanup month was a huge success, and we plan to use these lessons learned to keep the stoke going around beach cleanups throughout the year!

Surfrider introduced our PPE Awareness campaign that drew attention to the increase of single-use PPE pollution and how to safely switch to reusable PPE to reduce your impacts while staying safe.



Cleanup Collaboration

THE BETTER BEACH ALLIANCE

Beach cleanups not only remove litter from the ocean and coasts, but they also provide an opportunity for volunteers to play a role in community-based science by collecting data to help Surfrider fight to reduce plastic pollution from the source.

In 2018, the Better Beach Alliance was founded by the Surfrider Foundation and surf lifestyle brand partner REEF to help grow the impacts of Surfrider's Beach Cleanup program through education and by inspiring new volunteers to take part in the program. Each year, the Better Beach Alliance seeks to bring together and empower businesses, communities and individuals to each play an important role in enacting meaningful change for our planet. Critical support from Better Beach Alliance title sponsor, **REEF**, and supporting sponsor, **Clif Bar**, helped to ensure the program's continued growth and innovation in 2020.

With support from the Better Beach Alliance, Surfrider was able to continue improving data reporting infrastructure in 2020 to rally volunteers in new geographies and empower them to report their own cleanup findings to Surfrider's database. With the valuable data that individual volunteers can now report independently, in addition to the data supplied by chapters, Surfrider's team of experts are able to glean more detailed information about the types of litter found not only on our coasts, but also in and around inland waterways as well.

COLLECTIVE STATS

In 2020, title sponsor REEF continued to support Surfrider Foundation Europe's Ocean Initiatives program success as well.

Surfrider Foundation Europe reported about 95,125 pounds of trash and recycling removed from beaches and waterways by at least 45,876 volunteers, at 1,522 cleanups.



SUPPORTED BY: **CLIF**

CONNECTED BY ONE OCEAN

The expansion of the Better Beach Alliance in 2019 marked the first time that Surfrider set collaborative, international beach cleanup goals with our affiliate, Surfrider Foundation Europe, through their **Ocean Initiatives** program. Along with Surfrider Europe and our partners at REEF, we were able to adapt our programs to embrace and encourage solo and small group cleanups in communities throughout North America and Europe to protect and raise awareness around the health of our world's one ocean.

With the help of our sponsors, both Surfrider Foundation and Surfrider Foundation Europe were able to keep trash off our beaches and out of our oceans.

175,485

Collective Pounds of Trash Removed

Program Results

Together, across 927 solo and small group cleanups, 8,895 volunteers removed over 80,000 pounds of trash and recycling to ultimately reduce the flow of plastic pollution into our ocean. Despite the challenges presented during 2020, Surfrider's network of activists proved to be resilient and dedicated to protecting our natural places from plastic.

927

Total Cleanups

414,037

Items Collected

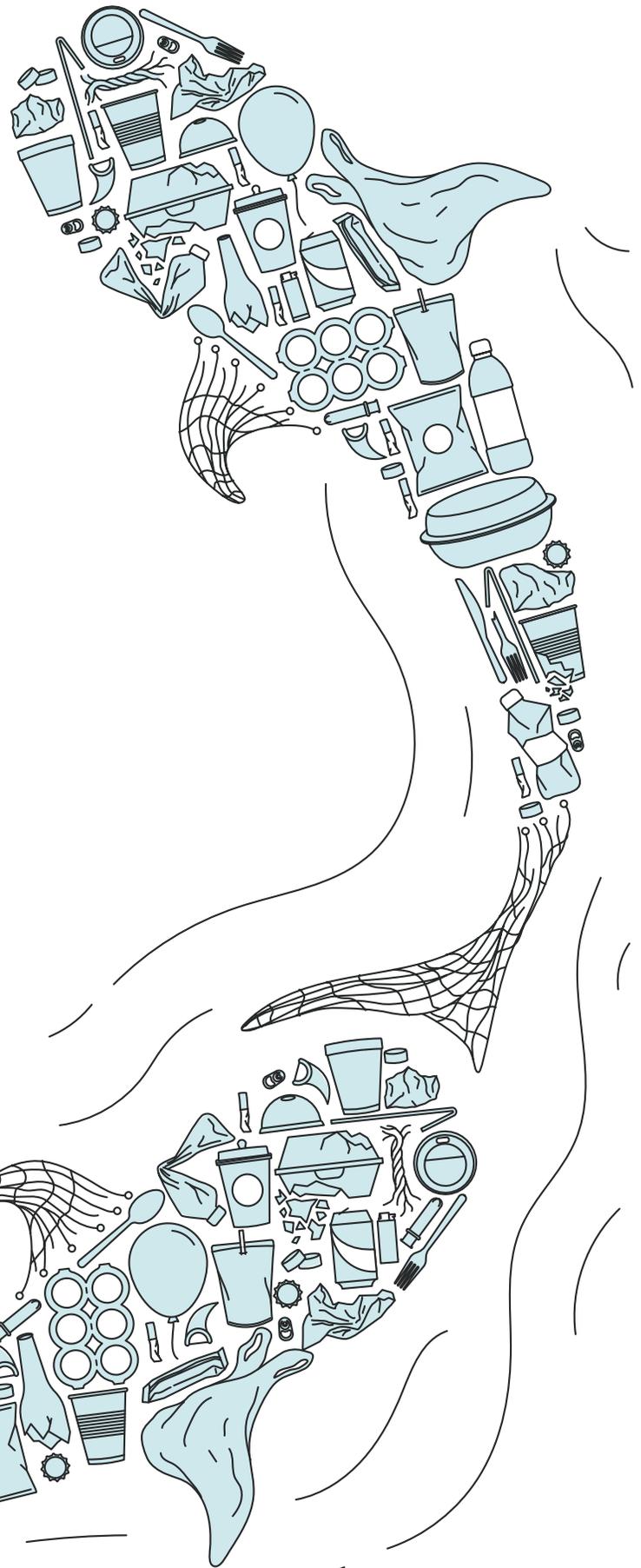
8,895

Volunteers Engaged

80,360

Pounds Of Trash Collected

The weight of trash collected was about equal to the weight of two adult whale sharks.



A Closer Look

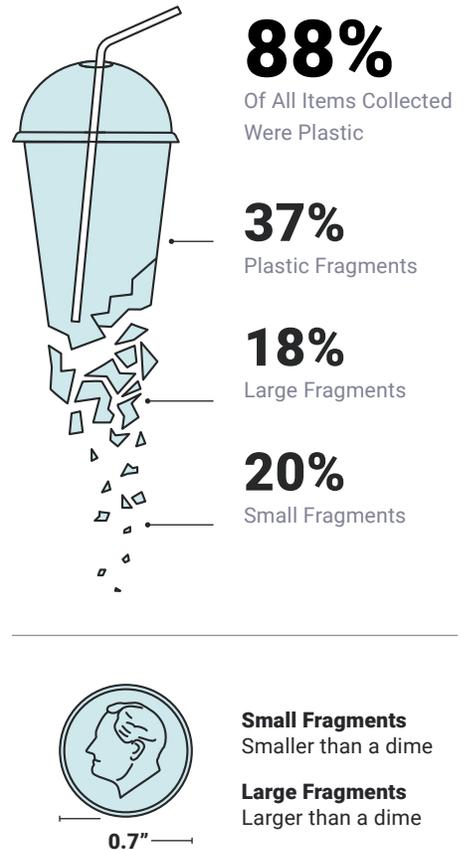
Every single one of the top 10 items found during cleanups were made of plastic. Nearly 90% of all items collected were plastic. These figures once again confirm that plastic is everywhere, and it isn't going anywhere without large-scale legislative change.

TOP ITEMS COLLECTED



**Small and large plastic fragments were combined but cigarette butts continue to be the most commonly collected singular item during beach cleanups.*

PLASTIC BREAKDOWN

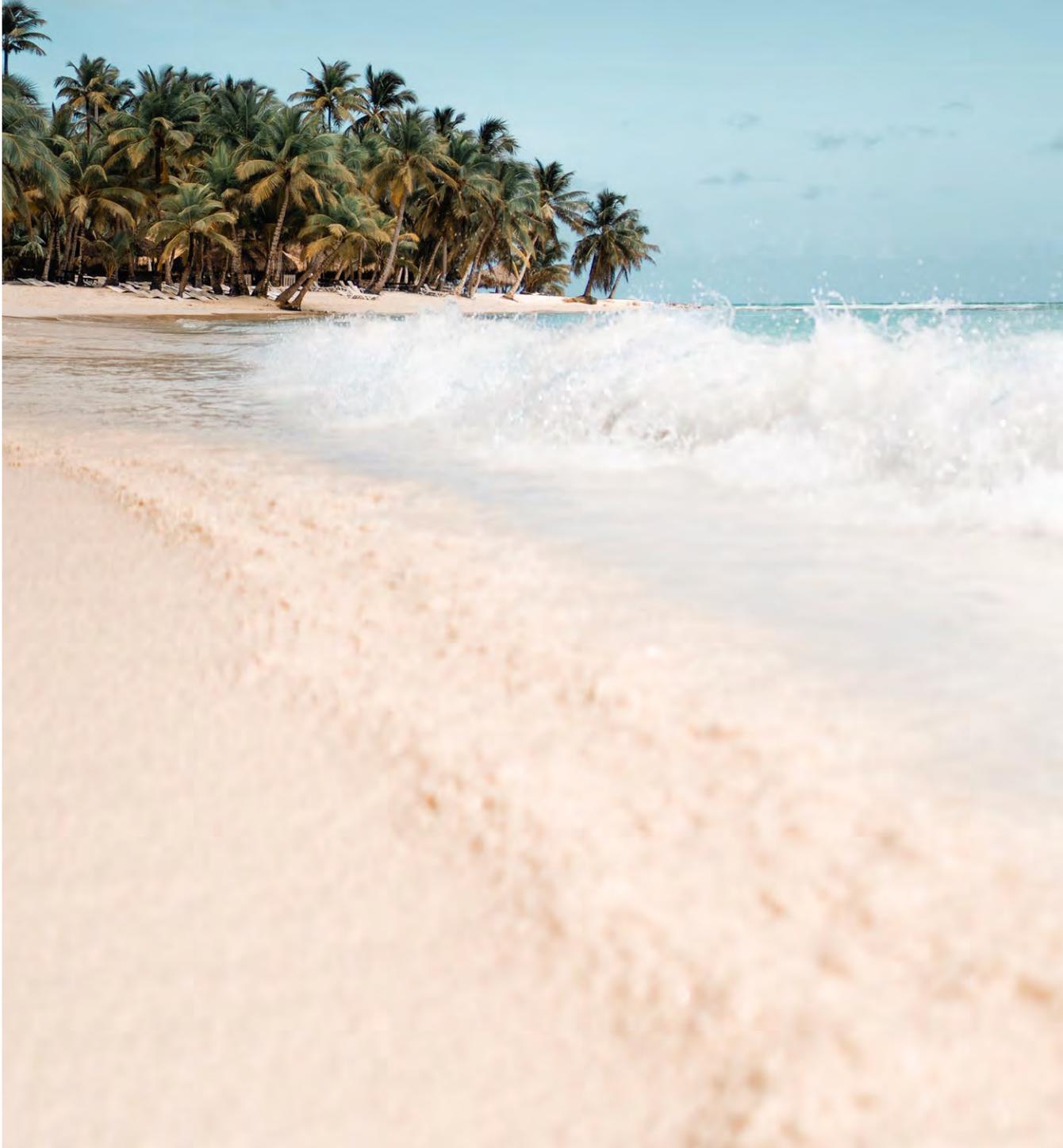


BROAD USAGE CATEGORIES



These figures once again confirm that plastic is everywhere and it isn't going anywhere without large-scale legislative change.

Regional Stories

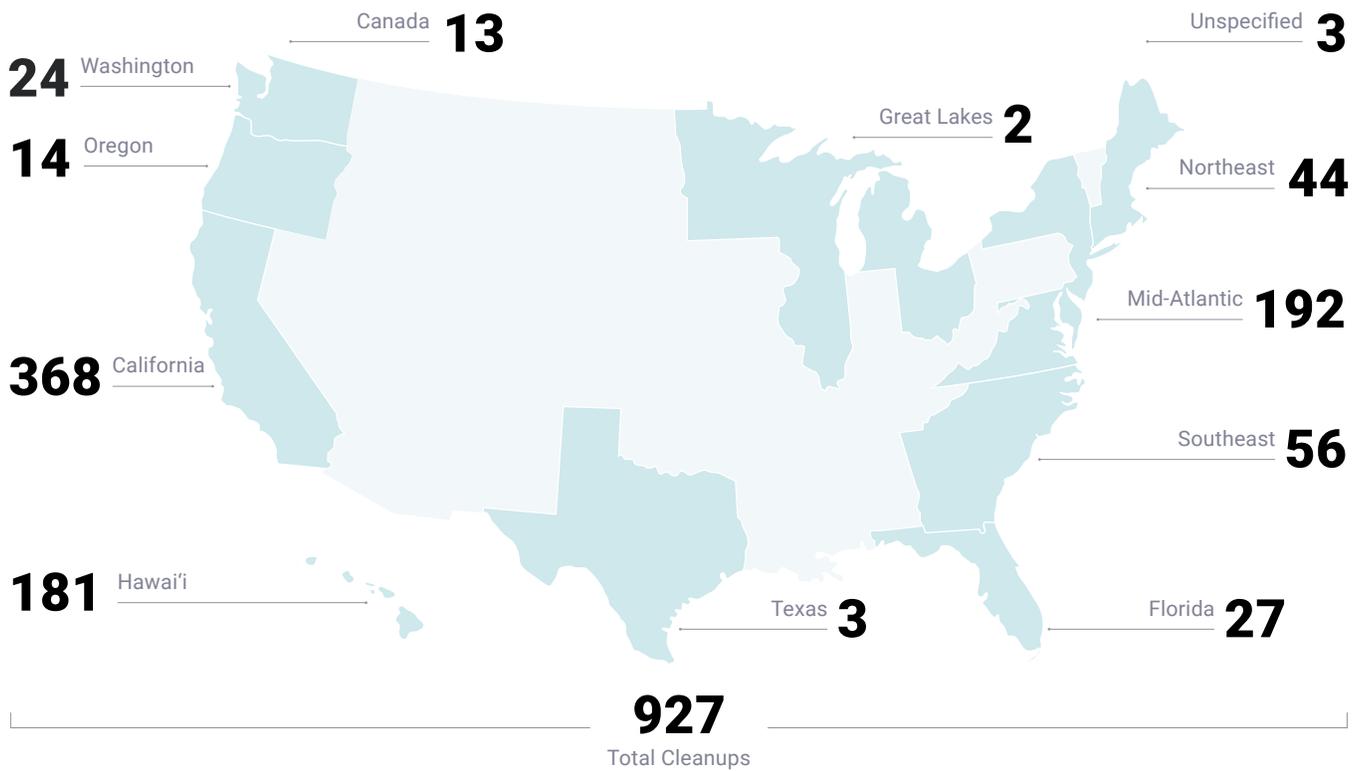


Regional Impacts

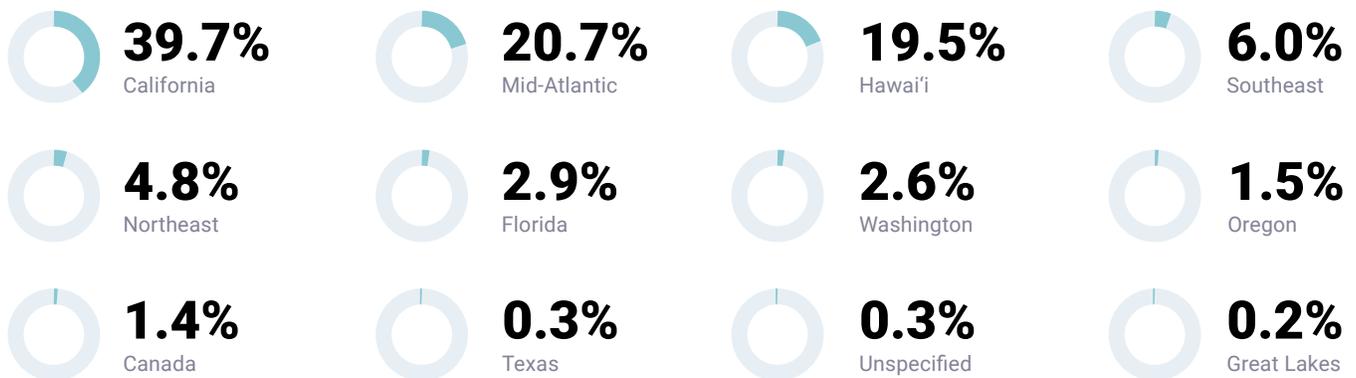
The Surfrider Foundation's grassroots network of chapters and student clubs serves as the first response to local threats in coastal communities across the U.S. With 80 chapters and more than 100 student clubs, Surfrider

volunteers across the U.S. and Canada are working within their communities to create change. We caught up with Surfrider leaders about their work in 2020 and the impacts they are having in their regions.

CLEANUPS BY REGION



PERCENT OF TOTAL CLEANUPS



Hawai'i

During the pandemic, the Kaua'i Chapter's Marine Debris Removal team, led by Scott McCubbins and Barbara Wiedner, has received welcome help from a local, family-run helicopter touring operation, Jack Harter Helicopters.

"We have a tremendous group of core volunteers that help us out on these Net Patrols and without their dedication each week, these cleanups would not be possible," said Scott McCubbins. Still, some of Kaua'i's locations are quite difficult for volunteers to haul debris from.

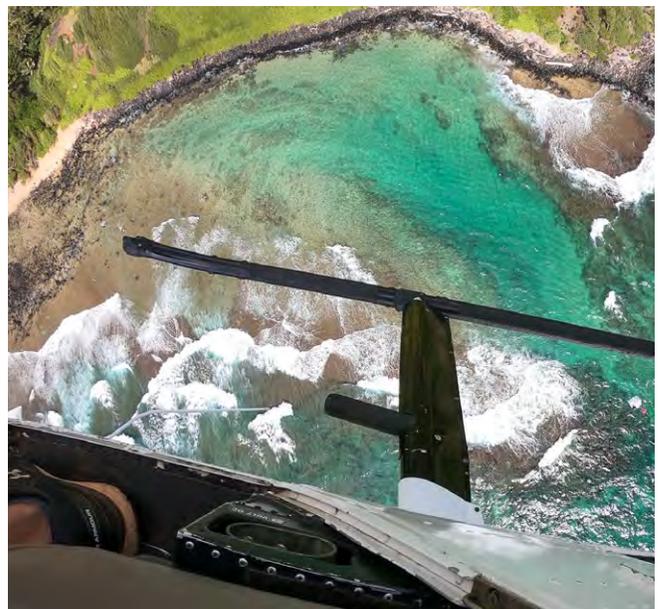
Last summer, Jack Harter contacted Scott, explaining that they had extra capacity and needed to keep their pilots flying to maintain their certification during the pandemic. This allowed the Surfrider team to plan a 3-month major cleanup of a remote rocky coastline with debris they had long wanted to collect.

In August, the helicopters airlifted out 74 super sacks of waste that Surfrider collected off of Kaua'i's remote coastline, just south of Moloaa Bay – removing over 28,000 pounds of marine debris. In September, the helicopter airlifted 19 super sacks out of Unalau Bay near Nawiliwili Harbor, with about 5,000 pounds of marine debris removed.

The Kaua'i Chapter has since **trained its core team** to assist the on-the-ground end of the operation. The local chapter continues to deal with an onslaught of marine debris coming in from the ocean. More than half of the pollution consists of fishing nets and over 75% of the total comes from discarded fishing gear. In 2020, the chapter removed over 43,000 pounds of debris off Kaua'i's shorelines.

– Cynthia Welti, Chair, Surfrider Foundation Kaua'i Chapter

In 2020, the chapter removed over 43,000 pounds of debris off Kaua'i's shorelines.



California

VENTURA

During the year that everything our community knew came to a screeching halt, the fight to restore Ormond Beach did not.

Nestled between the Port Hueneme Pier and the Point Mugu Navy Base, Ormond Beach is one of the largest and most important open-space wetland projects in California. Home to over 200 migrant bird species, the well-established dunes are also a fragile habitat to two endangered nesting shorebirds, the California Least Tern and Western Snowy Plover. Ormond lagoon is home to the endangered Tidewater Goby fish.

With the help of 774 volunteers and led by Surfrider Ventura's Chapter Chair, Laura Oergel, we removed thousands of pounds of trash from Ormond Beach in 2020 alone. During 2020, many cleanups were made up of 12 people or fewer due to COVID restrictions but that did not slow our groups down. As one of our volunteers coined, "It's amazing what a small group of caring people and a few trash bags can do." Thanks to journalist Jayrol San Jose @jayroi and Ben Camacho @bencamach0 for documenting our efforts in [this video](#).

The lack of foot traffic to Ormond Beach is largely due to inaccessibility as the beach and lagoon can only be accessed from three points – by walking a half mile east on the beach from the Port Hueneme Pier, by driving to the lagoon's island from Perkins Road, or by driving down Arnold Road (bordering Naval Base Ventura County Point Mugu) in Oxnard. While the chapter's efforts are making an impact, there is still a large amount of work to do to protect and restore Ormond Beach from turning back into a dump site.

– Cassie Rogers, Chapter Coordinator,
Surfrider Foundation Ventura County Chapter



With the help of 774 volunteers and led by Surfrider Ventura's Chapter Chair, Laura Oergel, we removed thousands of pounds of trash from Ormond Beach in 2020 alone.



California

SAN LUIS OBISPO

I got involved with microplastics when I was asked if I could help out with some sampling as a one-time effort to gather data that might give insight regarding the impacts of vehicular recreation on Central Coast beaches. I thought it would be a one-and-done kind of thing, but we quickly realized an ongoing sampling program would provide much more useful information regarding beach sand pollution. Plus, we did not know of anyone else sampling for microplastics in the area so why not broaden our perspective! With the help of the San Luis Obispo Chapter and Surfrider's Environmental Science and Policy Manager, Katie Day, I began constructing a procedure and goals for the new program. Now the program has been dubbed the Microplastics Task Force (MPTF) and we have an established methodology that is simple, scientific and doable by anyone! Starting this summer, volunteers will be collecting sand samples from various beaches along the central coast, primarily within San Luis Obispo County. These samples will help us to quantify microplastic pollution (plastic films, fibers, fragments or beads measuring 1-5 mm in length) and spread awareness about the prevalence of plastic in our environment, especially that which we often overlook.

Microplastics are a huge up-and-coming field of study but not a lot of studies have been conducted and methods are not standardized. It was important for this effort's procedure to be as repeatable and standardized as possible. We reviewed several scientific studies, including one that compared 44 microplastics studies from around the world. We also consulted with the Oahu Chapter Chair (who is ahead of the game and already doing his own microplastics study) to learn the most common and practical characteristics of existing methodologies. This helped us to create the best citizen science method that can easily be performed and repeated by volunteers and other Surfrider chapters. As MPTF grows, we hope to involve the Cal Poly Surfrider Club and other local organizations to assist with regular sample collection. We hope that by laying the groundwork and making our resources (i.e. standard



procedure, materials list, etc.) available, we will encourage other Surfrider chapters across the country to start their own microplastics sampling program so data can be collected all over. In the next year or so, we will compile microplastics size and quantity data in an interactive map on the Surfrider website, similar to Surfrider's Blue Water Task Force program. Ideally, further down the road, this information could be used to support anti-plastic policies or start a massive microplastic removal program.

MPTF is already fortunate enough to have a handful of spirited volunteers, including Noah, a high school environmental science teacher, and his daughter, Maia. Maia is required to fulfill community service hours for school and has always been interested in beach cleanups and beach pollution in particular. So when they reached out to Surfrider regarding volunteer opportunities, they were immediately directed to the MPTF. Noah and Maia have been to every sampling so far and have been essential to the development of the program. They literally built the sample squares that will be used for every sample collection in the future! It is both inspiring and honestly really cool to see Maia so stoked to find even the tiniest of microplastic pieces. Although we wish we never found any microplastics, the pieces we do find are removed from our beaches and provide information that will help us to prevent more from contaminating our ocean, polluting our beaches and harming wildlife.

– Taylor Gullikson, Surfrider Foundation
San Luis Obispo Chapter

Oregon

The Portland and North Coast Surfrider chapters got creative during the pandemic and hosted **Beach Cleanup Bingo** to incentivize solo cleanups. The chapters teamed up with Friends of Cape Falcon Marine Reserve to focus cleanups adjacent to the Marine Reserve and Marine Protected Area in one of the most visited locations on the Oregon coast. All completed Bingo cards were entered into a drawing for rad prizes donated by business partners. A **Facebook group** for the Bingo contest allowed participants to connect with one another and share what they were finding on the beach. A total of ten Bingo entries were submitted during the month-long contest held in October 2020.

– Briana Goodwin, Oregon Field Manager,
Surfrider Foundation



The chapters teamed up with Friends of Cape Falcon Marine Reserve to focus cleanups adjacent to the Marine Reserve and Marine Protected Area in one of the most visited locations on the Oregon coast.



Washington

If you've been to a beach cleanup on Washington's outer coast, you've probably seen them - small segments of braided rope, usually 6 - 12 inches long, and bright yellow. We call them... wait for it... yellow ropes. Or trims, if you want to mix it up.

Surfrider's Washington volunteers have been seeing these yellow ropes on our beach cleanups for years. And we're not the only ones - Washington CoastSavers, Twin Harbors Waterkeeper, the Westport Historical Society and other local groups all work to remove hundreds of tons of debris from Washington's beaches every year, collecting data along the way. This data is important for identifying solutions and driving policy. As the yellow ropes piled up, we realized that, unlike many global plastic pollution problems, this one has a local source and therefore a local solution.

So where do they come from? The yellow ropes are made of three-strand polypropylene line that is lightweight, durable and floats. This makes them particularly suitable for off-bottom oyster aquaculture, a method of growing oysters in which a 'mother-shell' (an old shell with seed oysters, or spat, attached to it) is woven into the line and suspended in shallow water, where it grows into a cluster of tasty shellfish. Eventually these long lines are cut as each cluster is pulled aboard then brought to a facility for processing. After being harvested, those shells are often spread back out into the environment to grow the next generation of oysters. Although shellfish farmers remove what they can, some trims are embedded in those clusters and end up back in the environment, where they wash up on our beaches and eventually break down into plastic microfibers.

In the past year alone, Surfrider volunteers, along with members of our partner organizations and shellfish industry leaders, have hosted numerous 'yellow rope roundups.' These targeted beach cleanups have removed tens of thousands of these brightly colored bits of rope from our coast. During one such cleanup, strategically timed after a king tide, we collectively removed 16,172 pieces of rope in a single day!

In addition to organizing collaborative cleanups to remove trash from our beaches, volunteers, shellfish industry representatives, and other community members are actively working on stopping the problem at its source. They met for the first time, virtually, in 2020, and continue to hold regular meetings, coming together to identify effective solutions. Some of those solutions include outreach and education, improving industry processes, such as segregating clean shells from contaminated shell piles, and finding novel ways to remove the ropes embedded in those shells. We are also working with local partners to recycle the ropes in an effort to close the loop.

The fight against plastic pollution can feel overwhelming and futile at times but if we come together, we can find data-driven solutions to these problems. Here in Washington, we already see fewer yellow ropes on our beaches, and we have our community to thank for it.

– Liz Schotman, Washington Regional Manager,
Surfrider Foundation



**These targeted beach cleanups
have removed tens of thousands
of these brightly colored bits
of rope from our coast.**

New Hampshire

The only constant is change and being able to adapt to change is key. The year 2020 was an interesting one for our New Hampshire Chapter beach cleanups. The 2020 cleanups did not start until July due to COVID-19 shutdowns.

Since we were in more or less a 'lockdown' situation, preventing us from organizing group beach cleanups, we got somewhat creative. Like any good agile organization would do in that situation, we decided to pivot and rather than run group cleanups, we pitched to our members and followers the idea of solo or DIY beach cleanups. Using our social channels, we messaged DIY and solo cleanups. We had some momentum but not as much as we had hoped. It is possible that our followers decided to 'bend, reach, snag and snap,' but did not input and 'tag' their finds so we do not have accurate data on how many individuals we influenced to do solo or DIY beach cleanups. Getting our members and followers to not only take solo action, but also record their finds is something we need to work on in 2021.



Even with the small number of cleanups, we had roughly the same number of pounds of trash collected per volunteer. But the average pounds of trash cleaned up per event was nearly double.

In July, we were finally able to organize and run an in-person group beach cleanup. Since this was the first one of the year, we wanted to make an impact and chose a very high trafficked area, Hampton Beach. We had never previously run a cleanup on the main beach of Hampton as we would generally focus our cleanups at Hampton's North Beach Wall or Rye's Jenness Beach, which are places frequently visited by surfers. The cleanup at Hampton Beach was very successful and highly appreciated by Hampton Chamber of Commerce and NH State Parks.

In 2020, we had:

- 4 cleanups compared to 13 in 2019
- 213 pounds of trash cleaned up compared to 412 in 2019
- 61 volunteers compared to 103 in 2019

Looking at just the data, we had roughly one third the number of cleanups in 2020, compared to 2019. Even with the small number of cleanups, we had roughly the same number of pounds of trash collected per volunteer. But the average pounds of trash cleaned up per event was nearly double. So, despite the shut downs, we were fairly productive in terms of beach cleanups in 2020.

Despite the challenges in 2020, we did have some interesting finds.

- We collected 2000 cigarette butts in one group beach cleanup (and if we had more time, we could have easily picked up several hundred more).
- 1 set of Volvo keys. (We were hoping it would come with a matching car to use as the NH Chapter vehicle, but that didn't happen.)

In summary, while COVID-19 certainly did have an impact, the chapter was fairly productive with those cleanups that did happen. A challenge that we will continue to work on is tracking individual or solo work. Overall, we kept up engagement and so we are well positioned for a productive 2021 cleanup season.

– Chris Grippo, Beach Cleanup Coordinator,
Surfrider Foundation New Hampshire Chapter

Delaware

The First State led the East Coast in total number of Surfrider cleanups, performing 53 solo and two group events during a year when gatherings were not easy to execute. How did we do it?

The chapter promoted solo cleanups via social media, including a short how-to-video. We planned an event, 'Apart but Together on the Same Day', where individuals and family groups picked up trash from their coastal beach town neighborhoods, canals, inland bays and beaches, and reported their findings and pictures from that rainy humid summer day back to us.

To ensure the 25-person limit, volunteers registered online, wore masks and stayed socially distant during our group cleanups. One event included three surf-related businesses that share a desire to keep the ocean and beaches clean. They teamed up with Surfrider's Delaware Chapter for a joint effort at Cape Henlopen State Park near the Biden Environmental Training Center in Lewes, Delaware. One of the businesses, Swell Joe Coffee, brought hot java to share and donated empty burlap bean bags to reuse as trash receptacles. A community newspaper covered the event, bringing media attention and encouraging beachgoers to take their trash home.

A memorial cleanup also took place in remembrance of a surfer, Grey Branson Baker, who picked up rubbish after every surf session. Seven family members and two Surfrider volunteers removed 13 pounds of trash from a 2-mile stretch along the North Inlet at the Delaware Seashore State Park.

The First State led the East Coast in total number of Surfrider cleanups, performing 53 solo and two group events during a year when gatherings were not easy to execute.

In addition, a donation drive was performed by a Surfrider college intern who collected and contributed buckets, litter picks, gloves and recycled grain bags from local breweries, as part of her environmental science project. Delaware also won a new scale during the Mid-Atlantic Chapters contest for most cleanups. With new supplies in hand and a win under our belts, Delaware is excited to clean up in 2021.

*– Jana Johnston, Cleanup Captain,
Surfrider Foundation Delaware Chapter*



North Carolina

When you hear about the Surfrider Foundation, Charlotte is probably not the first city you think of to have a chapter. With the nearest beach 175 miles away, people are surprised when they see us out in the community. Charlotte is one of the fastest growing cities in the country, bringing new residents from all over, and many who came from the coast are happy to see a local chapter thriving in the area. Over the past eight years, we have seen our chapter grow from five members to over 100, with much of that growth attributed to our monthly cleanups.

Charlotte sits in the piedmont region of North Carolina, surrounded by lakes, creeks and the Catawba River. These waters feed into a watershed that eventually leads to the North and South Carolina coasts. Sadly, trash we find on our roads, along our creek beds and in the river can and will often end up in the ocean. Our monthly cleanups remove thousands of pounds of litter annually, keeping single-use plastics, cigarette butts, foam and lately, a lot of masks and gloves, from ending up in our local waters and the ocean.

The best part of our cleanups is the community engagement. It is amazing to see just how many people want to get involved and do their part to make a difference. Our chapter has seen a majority of its growth in members and volunteers through our monthly cleanups. Often, people will stop us and ask who we are and when our next cleanup is so they can join. From the young to the young at heart, we love seeing new faces each time, as well as our monthly regulars. Our cleanups have been the backbone of our chapter, cleaning up our local waters, educating our community on the need to reduce and eliminate single-use plastics, polystyrene and other similar items, and engaging local businesses and city leaders to take better steps to protect our environment through their practices and policies. Every piece of litter we pick up and every person we talk to is a small step that compounds into lasting change.

– Tony Dobson, Vice Chair,
Surfrider Foundation Charlotte Chapter



Our monthly cleanups remove thousands of pounds of litter annually, keeping single-use plastics, cigarette butts, foam and lately, a lot of masks and gloves, from ending up in our local waters and the ocean.

Florida

For World Ocean Day in 2021, Surfrider's Florida Keys Chapter held a paddleboard and shoreline cleanup in Islamorada. While I was still setting things up, the first car pulled in. Our initial cleanup volunteers popped out – two blond little boys eager and ready to start. As the rest of the volunteers showed up, I could not help but notice the amount of families and children. Over the course of the event, one third of attendees were kids under the age of 15, who were, of course, the most excited to splash around in the mangroves and clean up trash. We even started having a contest for who found the weirdest item, with a dried up eel skeleton taking home the prize. The kids would bring me their full buckets to dump out and ask, "It's not over yet is it?! I still have more trash to clean up!" The amount of hope and pride this brought me to see so many of those from our future generation at the cleanup, with parents who were teaching them about plastic pollution at home, is something I will always remember.

– Whitney Wemett, Vice Chair,
Surfrider Foundation Florida Keys Chapter



Photo: Maritza Thibos



Photo: Maritza Thibos



Photo: Maritza Thibos

Student Clubs

Beach cleanups are the most popular activity for our student club network, which currently stands at 102 clubs around the nation. Cleanups accounted for 74% of service projects completed by clubs for the 2020 - 2021 school year. Despite this past year being an extraordinarily challenging time for students, our club network hit their beaches or local waterways when possible to help keep our coastlines clean, hosting over 90 safe and socially distant group cleanups with more than 2000 students.

In Fall 2020, we started piloting the use of the Marine Debris Tracker mobile app with a small group of clubs as a more efficient method for gathering cleanup data from younger volunteers. We currently have 10 active clubs using the app and students collected and logged 7,656 items over the course of the past year.

In addition to small group cleanups, we had 17 clubs engage in our #SmallActs4CleanShores partnership with Love Beauty and Planet, in which clubs encouraged at least 10 of their members to hold solo beach cleanups and raise awareness via social media on the impact one can create as an individual. Our Cal Poly Surfrider Club even created the Ciggy Butts Challenge as part of a solo beach cleanup series, where they encouraged clubs from across the network to help them collect more than 15,000 cigarettes which were then sent to the creators of [The Cigarette Surfboard](#) to be used in their future surfboards creations.

– Ryan Cruse, Student Club Manager,
Surfrider Foundation



Despite this past year being an extraordinarily challenging time for students, our club network hit their beaches or local waterways when possible to help keep our coastlines clean, hosting over 90 safe and socially distant group cleanups with more than 2,000 students.

Emerging Science



Bioplastics

COVID-19 shone a light on the immense amount of plastic waste people face daily. From dining restrictions resulting in an increase in takeout to a false narrative about the safety of single-use plastics to new sources of pollution, such as masks and gloves ending up on our beaches, the problem of single-use plastic became undeniable. All of these developments mean that there are more consumers seeking better alternatives to plastic. This has led to bioplastics taking on a dominating role as potential sustainable replacements for single-use items like straws, cups, utensils and bags. But despite the marketing hype claiming these products to be compostable or biodegradable, this type of single-use plastic is not the end-all solution they're cracked up to be and they may be distracting us from real solutions like reuse and refill. Meanwhile, bioplastics are piling up on our beaches, in waterways and in landfills, where they will continue to contribute to the plastic pollution problem.

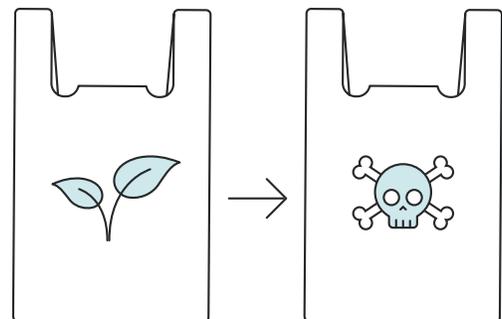
The term bioplastic has been used to describe a broad range of different types of single-use plastics, creating a lot of confusion around what exactly constitutes a bioplastic. The most common associations of bioplastics are plastic items that are made with plant material rather than petroleum products, such as corn, sugarcane, wheat, agave, etc., or any plastic item you've seen that looks like plastic but has a little green leaf on it. The umbrella term of "bioplastic" can include bio-based plastics derived from plant or other renewable materials, traditional petroleum-based plastic products with additives marketed as biodegradable or compostable, or a combination of the two.

Claims around the environmental benefits of bioplastics are equally vast, ranging from superiority because they are plant-based to claiming ease of decomposition in landfills or nature. Despite the lack of scientific evidence to prove these claims, bioplastics are being marketed as the cleaner alternative to traditional single-use plastics, leading consumers to believe that they are making a better purchasing decision. The reality is that bioplastics are often

just as toxic as traditional plastics. This phenomenon of greenwashing, whether intentional or not, is rampant in the realm of bioplastics, creates a lot of misconceptions about the sustainability of these products, and ultimately fuels the single-use mindset of today's fast-paced lifestyle.



Bioplastics are often marketed as the cleaner alternative to single-use plastics when in reality they are often just as toxic as traditional plastics.

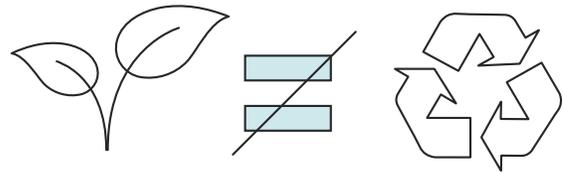


Bioplastics & Cleanups

So what does all of this have to do with beach cleanups? How materials behave during their end-of-life matters. Confusion surrounding the proper way to dispose of bioplastics leads consumers to place them in the trash, recycling, green bin, or compost if available. These products are not recyclable and will often jam recycling equipment, ruining otherwise recyclable material. They are also generally not home compostable and instead require specialized facilities to properly break them down. Since the vast majority of communities do not have access to these specialized industrial composting facilities, bioplastics should not be placed in green bins or traditional compost. Unfortunately bioplastics, more often than not, belong in the trash. Even with the good intentions of consumers, these items will most likely end up in landfills or in our environment where the majority of “compostable” plastics will not compost due to improper conditions. This means that these “green” single-use plastics end up behaving the same as traditional plastics. They will degrade, contribute to **greenhouse gas** pollution and break up into smaller pieces – ultimately adding to microplastic pollution.

This is a problem because almost 90% of all items found during Surfrider beach cleanups are plastic. Our findings show that around 40% of the items found were plastic fragments, providing evidence for the prevalence of microplastics in the environment. Furthermore, Surfrider’s cleanup database does not distinguish between traditional plastics and bioplastics since the end of life behavior is the same, and they are often indistinguishable. Regardless of their composition, these items will **break up into smaller and smaller pieces and last just as long**. Replacing single-use plastic with a different type of single-use plastics cannot be the answer. The bottom line is that as long as we continue to manufacture artificially cheap single-use products, we will continue to find plastics, including bioplastics, on our beaches.

Bioplastics are not recyclable and most communities lack the specialized facilities to properly break them down.



Similar to plastic, bio-based plastics degrade, contribute to greenhouse gas pollution and break up into smaller pieces in the environment.



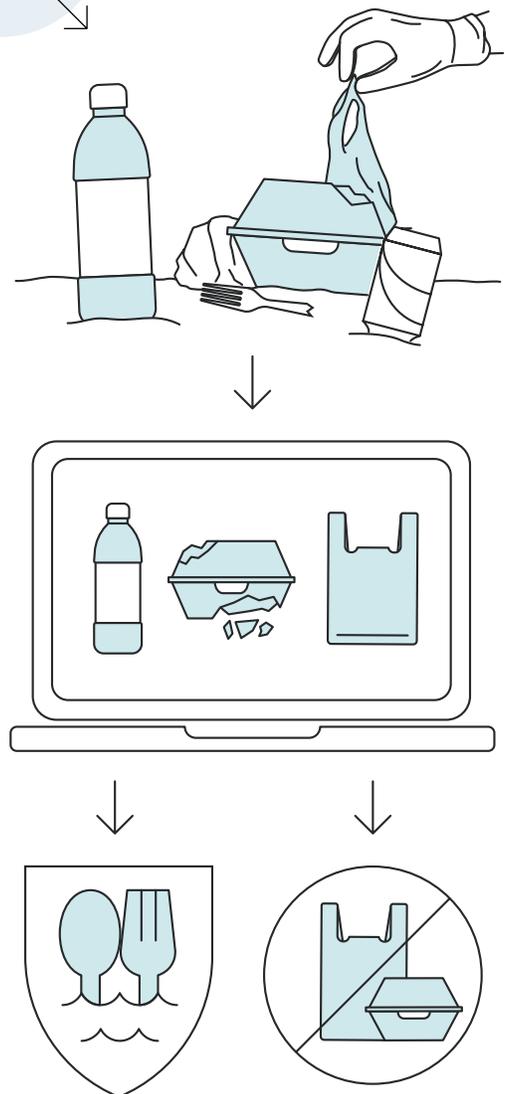
Nearly 40% of the items found at beach cleanups were plastic fragments, providing evidence for the prevalence of microplastics in the environment.

Cleanups & Policy: A Way Forward

This is where Surfrider's Plastic Pollution Initiative is creating change. The Beach Cleanup program has the data showing plastics and plastic fragments are the primary source of ocean pollution. The Ocean Friendly Restaurants program helps to guide consumers and the restaurant industry to be wary of greenwashing, avoid the pitfalls of bioplastics and strive to use reusables whenever possible. And the plastic policy work leverages the programmatic work to fight for far-reaching plastic legislation. This includes clearer laws on marketing claims, advocating for legislation that gets away from unnecessary single-use plastics and regrettable alternatives like bioplastics, and increasing infrastructure to promote systems of reuse. We must work in sync to change the single-use mindset, keep single-use plastics out of our ocean and work toward a reusable future.

With all that said, new science is constantly emerging around the subject of bioplastics and there is still more to discover. There may well be certain beneficial applications for this type of technology in the future, including medical and unavoidable packaging. Yet with the current science around bioplastics, the multitude of pathways that lead to the ocean due to lack of infrastructure and public education, and their production and end-of-life behavior, bioplastics are simply not a better alternative to traditional single-use plastics at this time. The fact is that all types of single-use plastics are ending up on our beaches and in our ocean at staggering rates and contributing to the plastic pollution crisis. Surfrider maintains our stance that reusables are always the best option and that we must stop plastic pollution at the source.

Data collected through beach cleanups allows us to create programs, improve infrastructure and advocate for better legislation to fight plastic pollution at the source.



Surfrider maintains our stance that reusables are always the best option and that we must stop plastic pollution at the source.

Conclusion

Plastic pollution is a global crisis and the Surfrider Foundation's Beach Cleanup program is one foundational way we are working to address it. The success of the Beach Cleanup program in 2020 is a tribute to our dedicated grassroots network. Across the nation, people came together and showed immense levels of commitment to the program. We continue to be inspired by the network of activists who push on and fight for a plastic-free future.

While the Beach Cleanup program faced many challenges during 2020, the program had an incredibly impactful and meaningful year. With the continued ability to evolve and adapt to changing circumstances and the constant support of partners and volunteers, Surfrider was able to persevere. Even with an 81% decrease in the number of

volunteers able to participate in cleanups, we still hosted 927 cleanups, removed over 80,000 pounds of trash from our beaches and waterways and covered nearly 55% more area during cleanups. The year 2020 also shone a light on the complexity of the plastic pollution crisis. As new technologies arise within single-use plastics, Surfrider's commitment to science and facts helps to grow our own knowledge and educate people around plastic pollution.

Thank you to all of our supporters of the Beach Cleanup program, including our Better Beach Alliance partners, chapter leaders and especially all of the volunteers who have taken part in beach cleanups. Only by working together can we win the fight against single-use plastics and continue working toward our collective vision of a more sustainable future.

Only by working together can we win the fight against single-use plastics and continue working toward our collective vision of a more sustainable future.



Photo: Alexander Siegel



SURFRIDER
FOUNDATION

surfrider.org