



Adopt-a-Beach Handbook



Blue Ocean Society for Marine Conservation
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Blue Ocean Society for Marine Conservation*



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Items found during microplastic sampling at Seabrook Beach in 2017. *Photo by Jen Kennedy*

Introduction

Marine debris, or garbage in or near coastal waterways, is one of the biggest problems facing marine life. Marine debris comes from both land-based and water-based sources. On land, rivers and streams can carry debris far from its source and out to the ocean. Beachgoers often leave picnic supplies behind.

On the ocean, boaters may throw trash in the water, thinking that it will just “go away”, when in fact, many types of debris can linger for several years or possibly several hundred. Debris that ends up on the coast can wash into the ocean and affect marine life and habitat.

Marine life may accidentally swallow litter such as cigarettes, food wrappers, straws and bottle caps. Balloons and bags, which are frequently found at our cleanups, can be eaten by whales and sea turtles, where they can clog the animal’s digestive tracts, making it impossible for them to eat normally. Fishing line and rope can entangle marine life and harm humans and boats.

Debris can also cause economic losses through its effect on commercially valuable marine species and important tourist areas.

Pollution prevention through education and outreach is Blue Ocean Society’s ultimate goal, but while there’s still litter on the beach, we’ll be out there to clean it up. Data

collection is one of the most important aspects of our beach cleanups. During the cleanup, you’ll use the provided data card to record what you find. This information allows us to illustrate the marine debris problem in our educational programs, and is an important tool in helping us determine focus areas for our pollution prevention programs.

Your adoption of this beach will help not only clean the beach and ocean for animals and humans, but offer the opportunity to educate cleanup participants and all the bystanders that wonder what you’re doing and why you’re doing it. We thank you for your commitment to the oceans and look forward to making this a fun, educational experience for everyone!

Jen Kennedy

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Why Should you Adopt a Beach?

- The Adopt-a-Beach Program offers the opportunity to build morale within your group, and provides your group with a visible presence in the community.
- Cleaning up a beach provides immediate results – you can literally see the impact you are making as the garbage bags pile up!
- Participating in a cleanup will not only help marine life and your fellow humans, but also give you the opportunity to participate in a scientific study. This study helps expand our knowledge of threats to the ocean, develop appropriate educational programs and work with citizens and lawmakers to implement effective anti-pollution and ocean protection legislation.
- With your help, we will reduce and hopefully eventually eliminate the threat of marine debris!

The Effects of Marine Debris

On Animals: Debris affects marine life in two ways: through ingestion or entanglement. Sea turtles can mistake plastic bags for jellyfish and ingest them—blocking their digestive system and potentially killing them. Fishing line and nets, rope and other trash can wrap around fins, flippers and limbs of fish, seals, whales, crustaceans, seabirds and other animals. This can affect their ability to eat, move and care for their young.

On People: Nobody wants to visit a beach where trash is prevalent. Debris on a beach can be unsightly and unsafe. Debris in waterways can hurt swimmers and boaters. If we eat seafood contaminated with plastics, we are putting those toxins in to our bodies. Research has shown that many plastic toxins cause adverse health effects.



Tiny trash and wrappers surround a foam fish on Hampton Beach in September of 2016.
Photo by Rebeca Murillo

How long does it take to go away?

Some trash takes a very long time to go away, if it ever does. Plastics or items containing plastic will last forever in the environment. Below are

Debris item	Decomposition Rate
Glass bottle	1 million years
Monofilament fishing line	600 years*
Plastic bottle	450 years*
Aluminum can	200 years
Foamed plastic buoy	80 years*
Nylon fabric	30-40 years*
Plastic bag	10-20 years*
Cigarette butt & filter	1-50 years*
Apple core	2 months
Newspaper	6 weeks

*These items contain plastics. Plastics do not disappear from our environment. These estimates are how long it will take them to break down into smaller pieces called microplastics.

Sources: NOAA Marine Debris; U.S. National Park Service & Mote Marine Lab, Sarasota, FL.

Ways to Help Stop the Threat of Marine Pollution

Our Adopt-a-Beach Program is a GREAT way to work toward preventing marine pollution. Not only are you physically acting to help the environment, but by talking to people about the program and your monthly cleanups, you are also helping to spread awareness of the problem and inspiring others to help.

There's even more ways to help! Be sure to share these with your volunteers, family and friends:

- **Donate, Volunteer, or Adopt a Whale:** Support organizations like Blue Ocean Society to enable us to educate thousands of people about the importance of the marine environment, monitor and protect whale populations in the Gulf of Maine and beyond, and clean beaches to make them safer for wildlife and people.
- **Join a Beach Cleanup:** Encourage others to come help you clean your adopted beach, adopt their own beach or even join a public cleanup with Blue Ocean Society!

- **Recycle Your Fishing Line:** Discarded fishing line can last in the marine environment for hundreds of years, and although it may break into smaller pieces, it never really breaks down entirely. Along the way, it can entangle marine life such as whales, fish and sea birds. The best way to prevent entanglement is by disposing of your fishing line responsibly at a fishing line recycling bin or in a (covered) trash bin if no recycling is available.
- **Avoid Balloons:** If you release a balloon into the air, chances are it will end up in the ocean or another water body. There, wildlife can mistake it for food or get entangled in balloon string. Please pop your balloon when you are finished with it, and throw it in the trash. Or better yet, use other items to decorate!
- **Skip the Straw & other single use plastics:** Plastics are everywhere you look. They are not just in the Great Pacific Garbage Patch, but in local “garbage patches” where currents come together and along our roadways and in our local parks. Reduce use of plastic by buying items with less packaging, not using plastic bags, asking for no straw at restaurants and buying items made of recycled or non-plastic materials whenever possible.

Adopt a Beach Group Leader Responsibilities

Your Responsibilities:

- Gather your group and clean the beach once per month. Please e-mail your cleanup schedule to info@blueoceansociety.org
- Write down participant names on a sign-in list at each cleanup.
- Collect trash - remember even to pick up the small stuff!
- While you're picking up litter, fill out data cards. Make sure data cards are filled out as accurately as possible!
- Weigh trash
- Bring trash to a local dumpster or dump (pick-up may be available in some locations; check with us).
- Send data cards to Blue Ocean Society each month in the envelopes we provide. Data cards may also be dropped off at our office in Portsmouth.
- Keep in touch with Blue Ocean Society regarding supply needs, volunteer training needs, and questions.



Blue Ocean Society's Responsibilities:

- Provide orientation to the group leader and volunteers before you begin your first cleanup, attend first cleanup, and be available for consultation throughout your service time.
- Provide all supplies, including gloves, data cards and trash bags.
- Provide background information for you to give your volunteers.
- Recognize your efforts on our website, media releases, newsletters and social media platforms. Please send us photos and tag us on social media posts!

At Each Cleanup

- Bring supplies (and refreshments if you want to... please strive for zero waste on these and use reusable containers instead of single-use packaging)
- Bring information about your group. People walking by often look at information – it's a great way to get exposure! We also have stickers and flyers you can hand out to participants and bystanders.
- Have participants **sign in** as they arrive.
- If you have new participants, give a brief overview before the cleanup. Make sure they understand the data card, what information to collect, and items they should and should not pick up. **Data accuracy is very important to ensure the success of our study!**
- Hand out supplies
 - Tell participants not to pick up driftwood or anything that appears to be biodegradable or unsafe (wood pieces, shells, seaweed, dead birds and fish, etc. should stay on the beach).
 - Due to state law, **do not pick up whole lobster traps or fishing gear**. If you do see a lobster trap, just drag it up above the waterline so it won't wash back out.
 - Tell participants to be safe – make sure people realize the hazards so you are not responsible!
 - Some trash is at your discretion. If there are certain items you don't want in a trash bag in your car (such as dog poop), tell people not to pick it up. Likewise with large lawn chairs and other items. If you can't bring them with you, just pull them up above the high tide line and make a pile.
 - Conduct the cleanup. Make sure everyone is spread out uniformly from the water line to the highest point of the beach. Start at the far end of the beach and work your way back so you don't have to carry the trash so far.
 - At the end of the cleanup, gather everyone for a wrap-up (if you want to). It can be interesting to talk about the strangest things people found and what surprised them about the cleanup.
 - Combine all the trash into as few trash bags as possible. **Weigh all the trash and mark the total pounds on the data card.**
 - Make sure the front side of each data card is filled out completely and each debris item is totaled on the back. Enter the total # of full bags of trash, total # of cleanup participants (adults & children), and total pounds of trash on the data card.
 - Take the trash to a local dumpster/dump or leave it in the designated spot for pick-up.
 - Send your data cards to Blue Ocean Society, 143 Pleasant Street, Portsmouth, NH 03801 in the pre-stamped envelopes.

If you see a stranded marine mammal (e.g. whale, seal), dead or alive, do not touch it and please call the local stranding hotline: 603-997-9448 in NH and northern MA / 1-800-532-9551 in ME

Cleanup Supply Checklist

- Data Cards
- Sign-in sheets
- Reusable bags for picking up trash
- Trash bags
- Gloves
- Scale
- Flyers
- Pencils/pens

Cleanup Dates

You will establish your own cleanup schedule (as opposed to following a set schedule that we dictate). Cleanups should be 28-30 days apart. It is helpful if you pick a designated day (e.g. 1st Saturday of each month) and stick to it each month. If you need help establishing a schedule, let us know. Please list your intended cleanup dates in your application or let us know as you make a schedule. If you think you may miss a month for any reason, let us know ASAP so that we can find a group to fill in for you.

Staying in Contact

We'll contact you periodically to make sure everything's going well, but feel free to contact us if you have questions or need supplies. As you conduct your cleanups, be sure to send us photos and updates so we can give you recognition on our website and social media, as well as get more groups involved in the program.

We sincerely appreciate your help and hope your adoption will last a long time. We ask for a one year commitment, but many of our groups continue much longer than that. **If you decide you would like to stop cleaning your site for some reason, please contact us as soon as you make this decision as data consistency is important.**

The sooner you let us know, the sooner we can find a replacement and collect your supplies. If possible, try and find a replacement to coordinate beach cleanups for your site.



Robyn Sealock, her family and friends adopted Bass Beach over 10 years ago!
Photo courtesy of Robyn Sealock

Data Collection

You can use paper data cards or the Marine Debris Tracker app to collect and report your data. In the following pages, you'll find instructions for each of these.

It's important that your data is accurate and consistent so if you ever have any questions or concerns please let us know. It's better to address an issue early on than after months of data collection!

Collecting Data with our Data Cards:

If you choose to collect data on our paper data cards to submit to Blue Ocean Society via mail, please use one card per every 3-5 people in your cleanup group. Items on the list below should be tallied as you find them when cleaning the beach. Review this data card with participants prior to the cleanup and answer any questions.



Blue Ocean Society for Marine Conservation Coastal Debris Monitoring Project Data Card

Please answer the following questions and record your data on the back of this card. Return the card to your cleanup director. Completed cards can be dropped off or mailed to: Blue Ocean Society, 143 Pleasant St. Portsmouth, NH 03801

Name: _____

Group/Affiliation: _____

Cleanup Date: ____/____/____ Cleanup start time: _____ AM/PM

Cleanup Site: _____ Cleanup end time: _____ AM/PM

Current weather: _____

Notable weather in previous week (storms, winds, etc.): _____

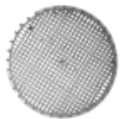
Other remarks: _____

Dead/Live/Entangled Animals: _____

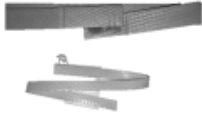
Instructions:

- Pick up all the trash and record all items you find. Keep track of the items by making tick marks (### II). Only numbers are useful, avoid using words or check marks.
- If you can tell where a fragment is from, record it as that item (e.g., Record a foam piece clearly from a cup, as a cup.)
- Lobster traps and buoys are the private property of the fisherman and we are NOT allowed to remove them. Please tally these items, although you are not removing them.
- Don't pick up dead animals or anything hazardous. Bring these items to the attention of a BOS staff member.
- If you see a marine mammal (e.g. a seal), tell BOS staff or call the local marine mammal hotline (1-800-532-9551 in ME, 603-997-9448 in NH).

Field Guide to (tricky) Marine Debris:



Hooksett disk:
Plastic round filter with grid. About 1.5 inches diameter.



Strapping band:
Top: closed- band still circular
Bottom: open- band has been cut



Zip-tie/cable tie:
Plastic fastener; may be open or closed



Latex vs. Mylar balloons:
Latex: rubber material
Mylar: foil material



Lobster bands:
Thick, small rubber bands

SUMMARY

Total Volunteers at Cleanup:	Total Trash:
____ Adults	Total # Full Bags of Trash: _____
____ Children (under 12)	Total lbs. of Trash: _____
____ Total Volunteers	

The top portion of your data cards can be filled out before or after your cleanup.

Be sure to go back to this section to add in "Other Remarks" and "Dead/Live/Entangled Animals" notes after your cleanup, if relevant.

Cleanup weather and previous weather are particularly important for our database, so don't forget these!

The "Summary" section should be filled out after your cleanup and should include all indicated fields. Approximate weight is acceptable if a scale is unavailable.

Items are categorized by composition to make them easier to find on the data card.

If you aren't sure what the item is, but know it's made of metal, for example, you can write it in under "other metal". If you can tell a fragment is part of an item on the list, write it under that item (e.g., write a piece of styrofoam cup as a styrofoam cup).

If you find an item and you know what it is but it's not on the list, add it to this area, tally up how many you have and total it at the end.

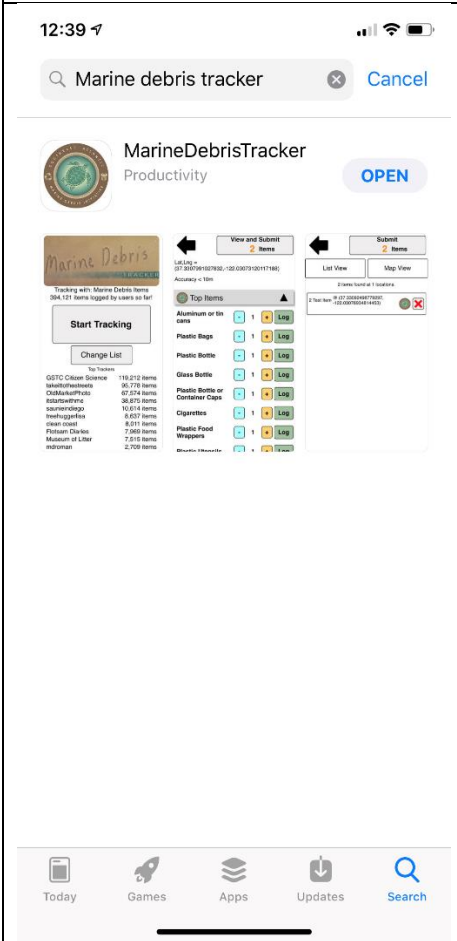
Items Collected						
Item:	Tally:	Example: IIII II = 7 (Avoid words, only numbers are useful!)			Total:	
PLASTIC	Bag (Grocery)					
	Bag (Trash)					
	Bag (zip-lock, produce, other)					
	Beverage bottles					
	Bottle caps					
	Film (thin/flexible e.g. straw wrapper)					
	Fishing line					
	Food containers					
	Hooksett disks					
	Nets (incl. bait bags)					
	Strapping bands	Open: <input type="checkbox"/>		Closed: <input type="checkbox"/>		
	Straws					
	Wrappers					
	Zip ties (cable ties)					
	Non-beverage containers/bottles					
Other unk. plastic (larger than 10 cm)						
METAL	Beverage cans					
	Bottle caps					
	Other metal					
GLASS	Beverage bottles					
	Other glass					
FOAM	Cups					
	Floats/Buoys					
	Food containers					
	Packaging material					
MIXED MATERIALS	Balloons	Mylar: <input type="checkbox"/>		Latex: <input type="checkbox"/>		
	Cigarette butts/filters					
	Dog Poop	Bagged: <input type="checkbox"/>		Un-bagged: <input type="checkbox"/>		
	Lobster bands					
	Personal hygiene items					
	Rope (larger than 1 meter/yard)					
	Rope scraps (smaller than 1 m/yd.)					
	Syringes					
Traps/pot pieces (do NOT remove)						
OTHER (Add items not on the list)						
Item:	Tally:	Total:	Item:	Tally:	Total:	
FRAGMENTS						
	Smaller than 5 mm		5 mm – 2.5 cm		2.5 cm – 10 cm	
Foam Pieces						
Glass Pieces						
Plastic Pieces						

In this fragment section you can document tiny trash made of foam, glass or plastic. Use the ruler at the bottom of the page to determine in what section the trash should go. If it's larger than 10 cm and you aren't sure what it is, write it in the "other" section.

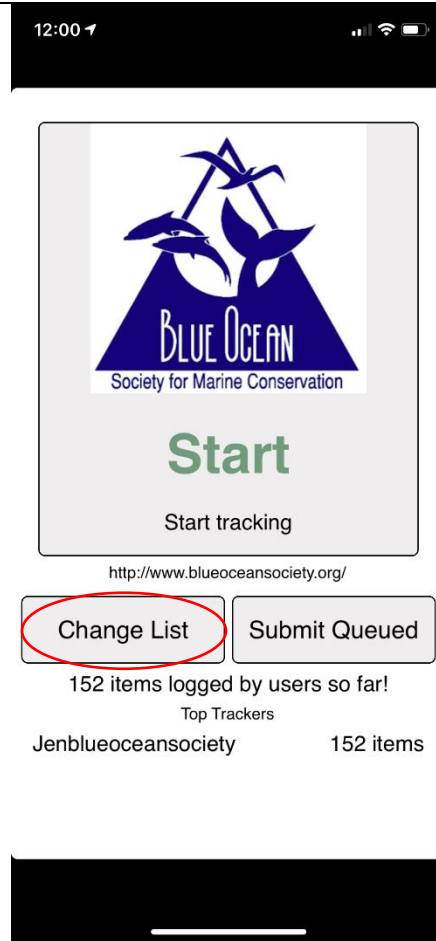
Collecting Data with the Marine Debris Tracker App:

If you have access to a smartphone or tablet that you can use during your cleanup, you may choose to download and submit data through the Marine Debris Tracker app rather than collecting data on our paper data cards. Please see the instructions below to learn how to use the app.

1. Download the app Marine Debris Tracker from your app store on your phone. This is available for both iPhone and Android.



2. Open the app and tap "Change List".



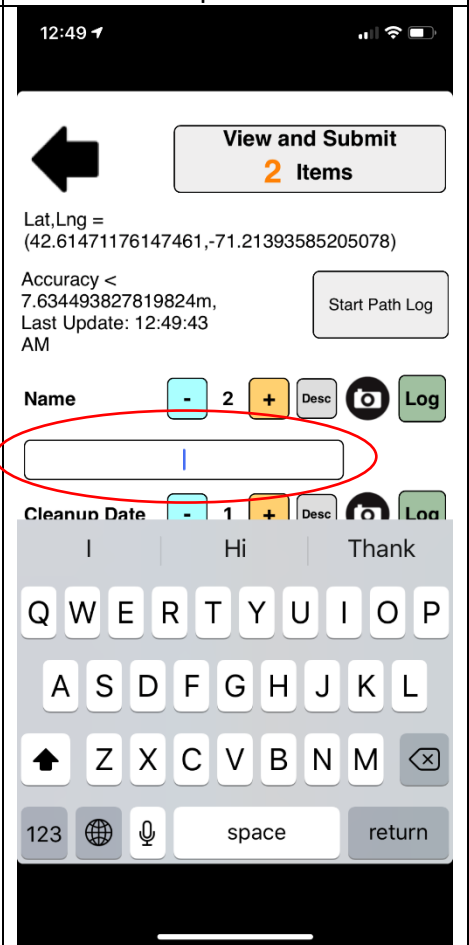
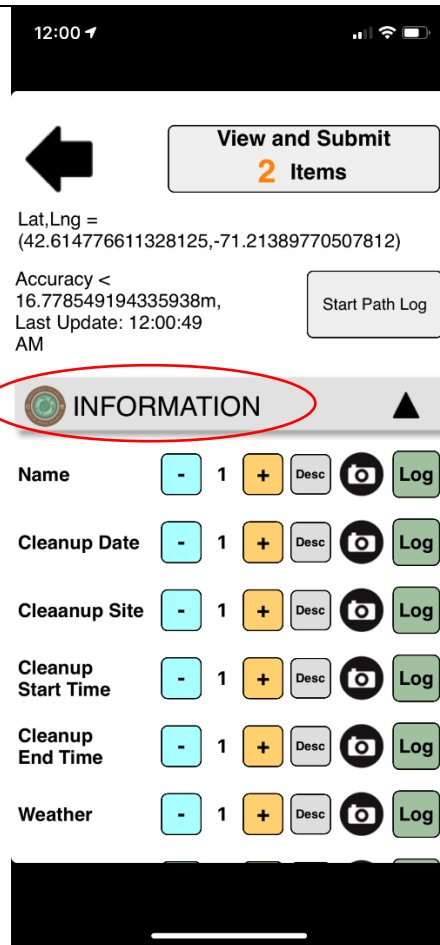
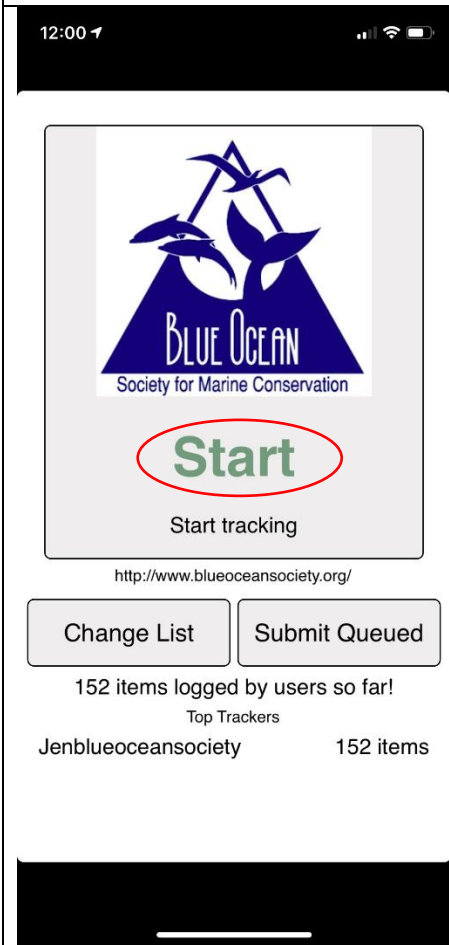
3. Find the Blue Ocean Society logo in the next menu and tap it to open the list.



4. When you are ready to start your cleanup, tap the Start button.

5. Tap the category names to open sections of your list.

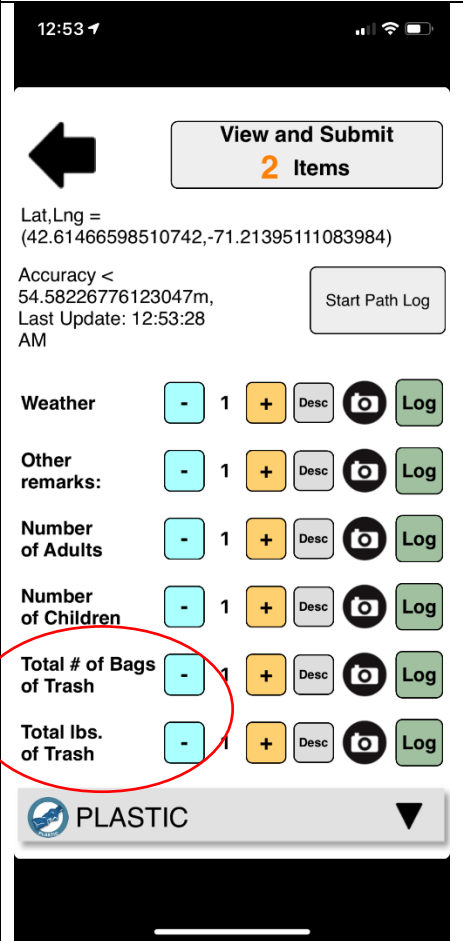
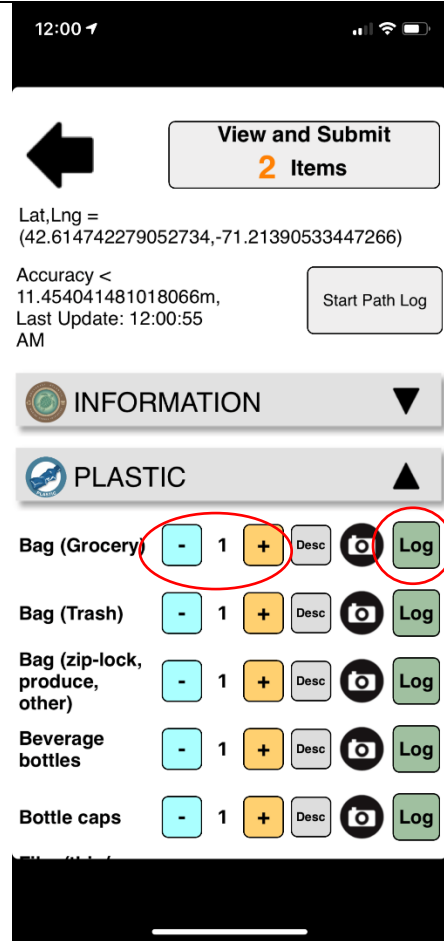
6. Tap Information to enter information about your cleanup before starting. Tap on each of the fields (for example, Name) to open the type field below, and enter your name, cleanup date, site, etc. The app will automatically record the GPS location for you. Save Total Bags and Total Lbs. until the end of the cleanup.



7. As you find debris on the beach, record each piece in the app within the appropriate category. Change the number of pieces of a specific item by tapping the + or – buttons, then tap Log to add it to your submission queue. Photos are optional but welcome if you have the time!

8. Note that there is a Fragments category to log tiny pieces of plastic, foam and glass, and there is also an Other category to type in interesting or unusual items you find.

9. When your cleanup is complete, be sure to go back to the Information section to fill in the Total # of Bags of Trash and the Total Lbs. of Trash (estimated).



10. Submit your queued list when finished by tapping View and Submit at the top right corner, then Submit on the next screen. Be sure to dispose of your trash in the appropriate receptacle. That wraps up your cleanup – great work!

