



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 “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 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!

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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.

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 microplastic.

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



In 2011, an accidental spill at the Hooksett Water Treatment Plant in Hooksett, NH released a bunch of these small plastic disks in to the marine environment. Look for them at your cleanup!

Photo by Rebeca Murillo

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.

How to Adopt-a-Beach

Adopt-a-Beach Group Leader Responsibilities

- Gather your group and clean the beach once per month. Please e-mail your cleanup schedule to nikki@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.



Max, left, with his group of friends at their adopted beach North Hampton State Beach.

Photo by Rebeca Murillo

At Each Cleanup

- Bring supplies (and refreshments if you want to)
- Bring information about your group. People walking by often look at information – it's a great way to get exposure! We also have brochures 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 Rebeca Murillo at 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 stranding hotline:
603-997-9448 (NH & MA) or 1-800-532-9551 (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 will 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!

Data Card

Below you will find a break down of the data card explained section by section. 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!



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.): _____

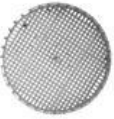
Other remarks: _____

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 first section of the data card gathers information about your cleanup. Please fill this out entirely; it's just as important to have this data as your cleanup totals.

It's important for all your cleanup participants to read and understand these instructions so every cleanup is safe, productive and accurate.

This section shows a few items participants are often confused about. Read over the section and familiarize yourself with the items to be sure you are properly documenting these items on the back of the data card.

This box gives us an overview of the cleanup. Total number of trash bags refers to the number of garbage bags (large-size, e.g., 30 gallon) filled. If it was only half, write in 1/2. Total pounds of trash can be rounded to the nearest pound. The volunteer information can be filled out with the information from the sign in sheet.

The back of the data card is where you will tally up the items you collect during your cleanup. On the right hand side be sure to total the tally of items on each data card. Always write as neatly as possible so we can accurately enter your data. Remember only numbers are useful, avoid using words and checkmarks.

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.

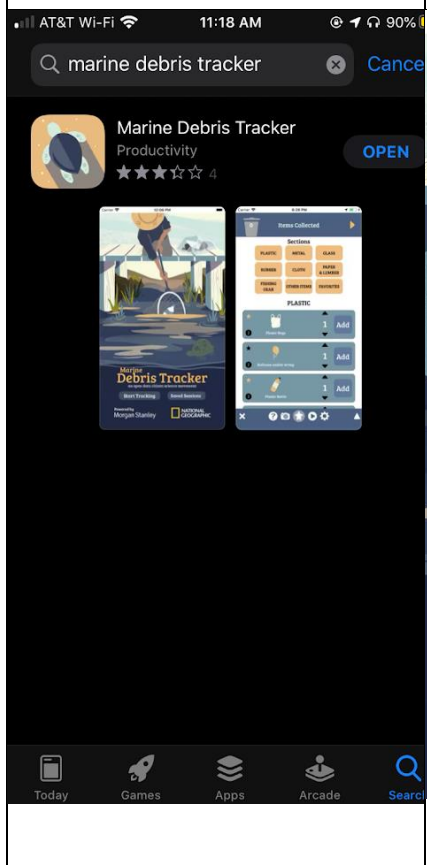
Items Collected					
	Item:	Tally: Example: IIII II = 7 (Avoid words, only numbers are useful!)			Total:
PLASTIC	Bag (Grocery)				
	Bag (Trash)				
	Bag (zip-lock, produce, other)				
	Beverage bottles				
	Bottle caps				
	Film (thin/flexible e.g. straw wrapper)				
	Fishing line				
	Food containers				
	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/yard.)				
	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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Glass Pieces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Plastic Pieces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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.

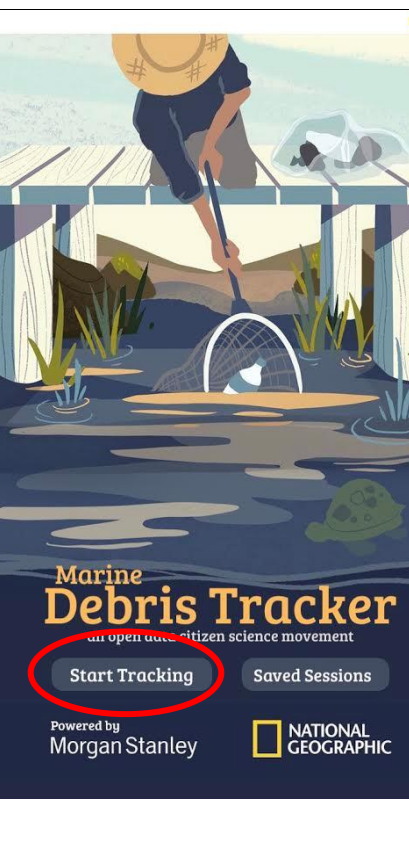
Collecting Data with the Marine Debris Tracker App:

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.

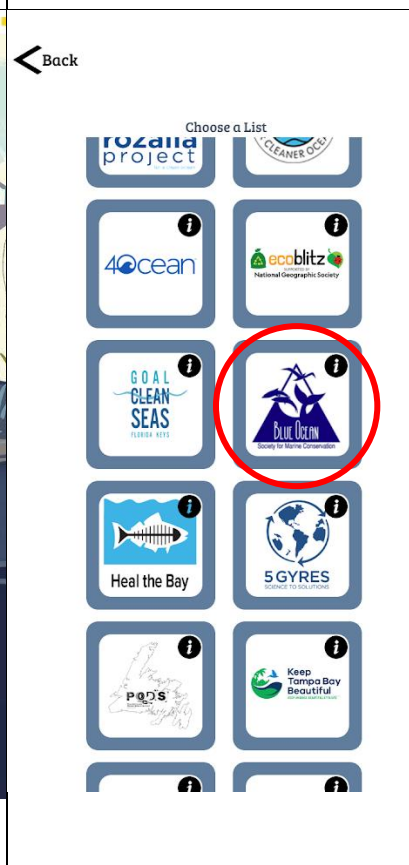
1. Download the app Marine Debris Tracker from the app store on your phone. Available on iPhone and Android phones.



2. Begin by clicking on "start tracking" to open all lists.



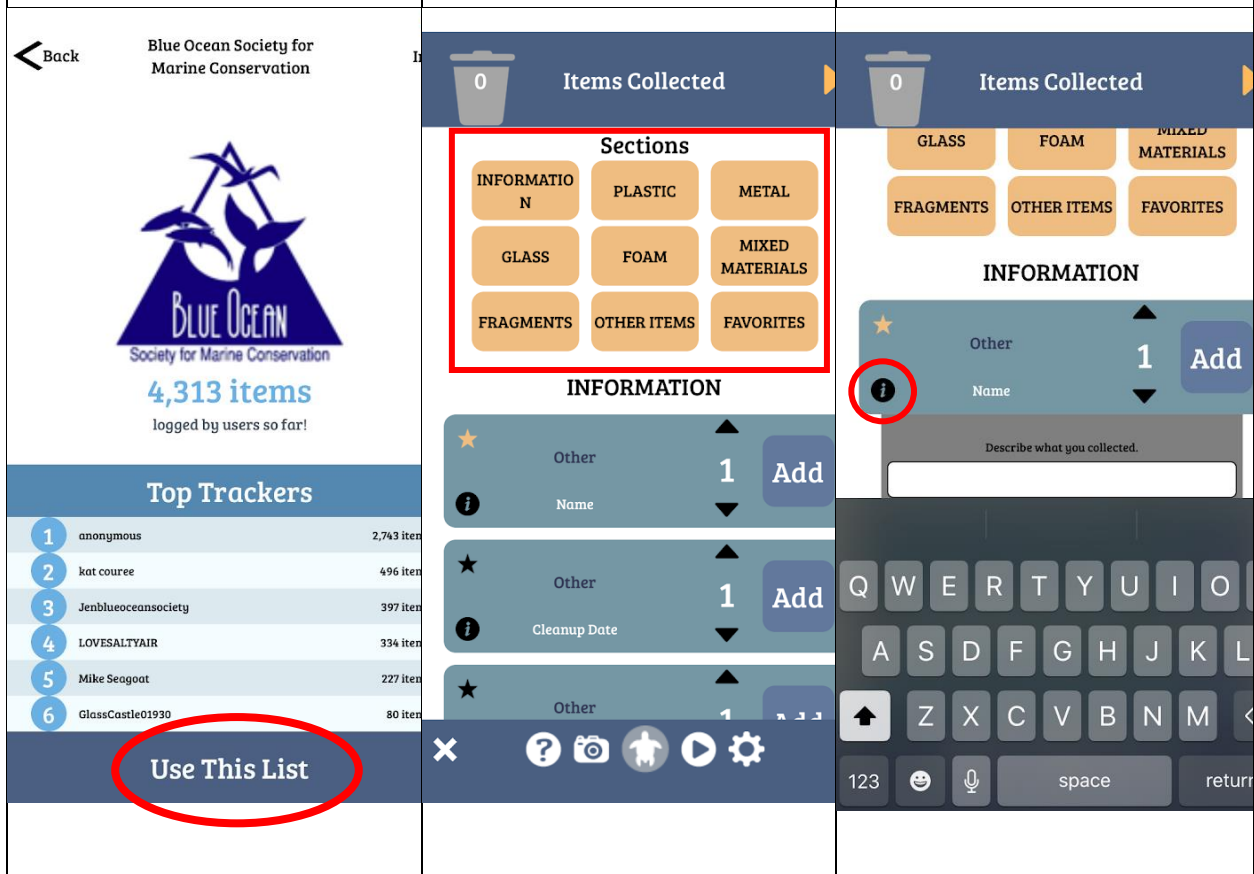
3. Scroll until you see Blue Ocean Society's logo, click on it to use our list.



4. After you click on our logo you will be brought to this screen, tap on “use this list”.

5. Tap on the category names to be brought to the different sections of your list.

6. To enter in your information tap on the information tap on the information category. Next, tap the small “i” located in the bottom left corner and type in your information (name, date, site, etc.) *Note: It will add your information to your trash can. That is okay, on our end they come in as their own categories*



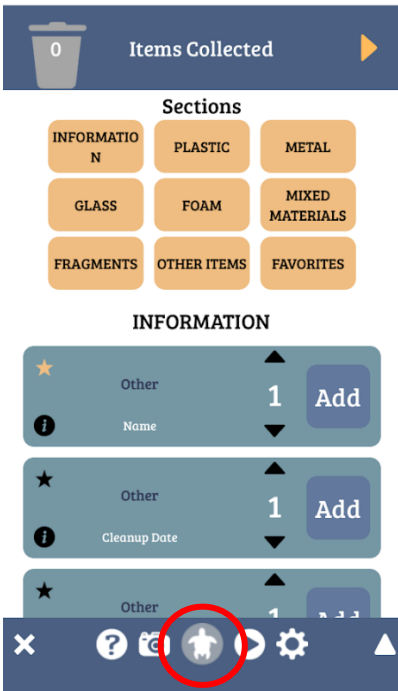
7. As you find debris on the beach, record each piece in the app by tapping on “add”.

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.

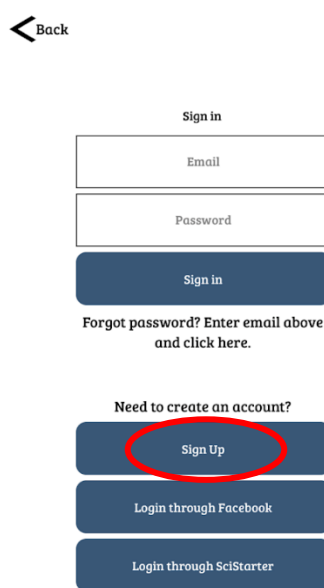
9. When your cleanup is complete, be sure to go back to the Information section to fill in the Total # of Bags of Trash and the Total Lbs. of Trash (estimated).



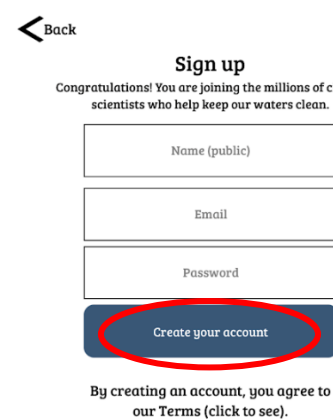
10. If it is your first time using this app you will need to make an account. Tap on the small turtle icon at the bottom of the screen to do so.



11. If you already have an account sign in. If you do not tap on “Sign Up” to create an account.



12. Enter in your name (this will be public), email and a password, then tap on “create your account”.



13. Once finished with your cleanup tap on the yellow arrow in the upper right-hand corner to submit your data. Be sure to dispose of your trash in the appropriate receptacle. That wraps up your cleanup – great work!

