

# The Green Team Gazette

Volume 2, Issue 2, page 1

October 2009: The Colossal Plastic Facts Edition

## Paper? Plastic? Or Polluter Tax?

Go to [www.droptheplasticbag.org](http://www.droptheplasticbag.org) and you'll find out:

- ☿ Globally, people use 500 billion plastic bags per year.
- ☿ It is estimated that 100 billion bags are used per year in *just the U.S.*
- ☿ Those 100 billion bags eat up 12 million barrels of oil.
- ☿ Each of those bags has approx. a 20 minute life span from store to drawer, and only 2% total are recycled.
- ☿ It's estimated plastic bags kill around one million marine critters per year.



Ireland was at the forefront of being on the "Bag Wagon"... in 2002 they voted to tax plastic shopping bags. Ireland isn't alone on this front. Since beginning the bag taxing, waste has decreased, turning people toward using eco-safe reusable bags. In June 2009, Washington, DC voted in favor of a 5¢/bag tax; San Francisco, Los Angeles, & London already have plastic tax plans in place; Seattle, WA and both Dallas & Austin, TX are also getting close to following suit. Similarly, Metro stores in Ontario and Quebec tax their patrons for plastic shopping bags, while IKEA and Whole Foods in the U.S. have stopped using plastic bags altogether. Several other cities and states are proposing either banning plastic bags or imposing similar taxes.

Change may be on the horizon—start stocking up now to build that "better bag habit" sooner versus later!

### The Green Team Gazette

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CynerGreen, CGKidz, and Gibson Island Country School, a Green School in Pasadena, Maryland. Our mission is to educate and share ways to "go green"—both big and small--and be environmentally-proactive at home, in school, and beyond. It is written by Vicki Dabrowka, and edited by Danelle Hoffer. Additional contributors include: G.I.C.S. Science Teacher Tim Decker; G.I.C.S. Head of School Laura Kang; CGKidz creator, twelve-year old Riley Hoffer. To learn more visit [www.cynergreen.com](http://www.cynergreen.com), [www.cgkidz.com](http://www.cgkidz.com), and [www.gics.org](http://www.gics.org).



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## Swirling Out At Sea



The Great Pacific Garbage Patch. The Pacific Trash Vortex. The World's Largest Dump. The Plastic Killing Fields. Toxic Soup. All synonymous to what lies amidst the currents of the Pacific Ocean. Depending on who you ask, "it" is twice the size of France, seven times the size of Ireland, or larger than the size of Texas. Regardless of "its" exact size, it's a large mass of mess in the Pacific Ocean. Ships tend to avoid "it." Due to "its" composition, Google Earth can't locate "it," but "it" is there. Akin to the Bermuda Triangle, "it" isn't a pleasant place. What exactly is "it?" The Great Pacific Garbage Patch is a cluster of litter bound for the landfills, yet litter that never quite made it there thanks to sea currents, wind and water power. Millions of square ocean miles are filled with millions of tons of plastic.

Charles Moore, an oceanic researcher/sailor, was the first to discover this plastic wasteland in 1997 while aiming for a shorter route home to California following the Trans-Pacific Yacht Race. This collection of waste between Hawaii and California came to be known as The Eastern Garbage Patch. Combined with a similar spot located between Hawaii and Japan, you have the Great Pacific Garbage Patch. But before being grossed out by this one "mucky mess," here's reality: there are one of these swirling dervishes out in the center of each of the major oceans. This one just happens to be the largest.

Thanks to our "throw-away society," all sorts of debris have found its way to this floating quagmire. Yet, it is not a solid mass. Whereas paper scraps will biodegrade, the plastic trash that finds its way there won't. What bags, bottles, and other packaging will do, however, is break apart eventually—though not 100%. Along with chemicals that leach into the water, it is estimated that billions of pieces of broken-down plastic pellets (also called "mermaid tears") are out there. In some places there is a 6 to 1 ratio of plastic pieces to plankton. Sea animals and birds can die from eating this. Fish also mistakenly eat these tiny toxic tidbits, which in turn makes its way up the food chain, and eventually to our tables. It circles round, connecting us all. What humans have created in turn comes back to haunt.

So the next time you see a plastic straw wrapper, a soda lid, a wayward plastic bag floating in the wind, or a flattened water bottle in a parking lot, ask yourself if you are going to allow the wind to carry this item into the sewer or nearest waterway (ultimately sending it ocean-bound). Or, are you going to pick it up, perhaps even recycle it? Second question: what do you hope the fish you plan to have for dinner had for dinner itself? The only way to improve any situation is if we all do something about it. For further investigation, go to:

<http://www.greatgarbagepatch.org/>.

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## Set Sail with Plastiki

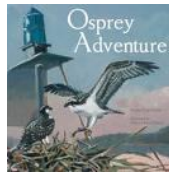
It's a bird...it's a plane... No....it is a boat! One made of plastic bottles—approx. 10,000 empty bottles—and constructed by David de Rothschild. A boat that plans to set sail in by the end of 2009, traveling from San Francisco, California to Sydney, Australia over 100 days & over 10,000 nautical miles. What is the mission of this founder of Adventure Ecology (an organization dedicated to getting school-age kids to take eco-action)? To cross the Great Pacific Garbage Patch to bring attention to the ocean's buoyant bilge in a 60-foot catamaran made from recycled plastic water bottles and other plastic waste. In doing so, he also plans to show just how plastic, if treated correctly & recycled, can turn into something downright fantastic.



Plastiki parallels Thor Heyerdahl's raft named KonTiki—in name, creation, and function. That 1947 sailing vessel was made using ancient Incan techniques and materials to sail the Pacific Ocean to prove a point. Rothschild intends to prove a point of his own. When it reaches its final destination in Sydney, Plastiki will be disassembled and recycled...thus illustrating the important point that plastics can (and should) be reused and recycled rather than contributing to the waste in our oceans. This is what happens when social commentary meets planetary responsibility! To learn more about this unique ship, its route, and its progress and some cool interactive, visit <http://www.theplastiki.com/>. Can't get enough? Go to [www.youtube.com](http://www.youtube.com) and search "the Plastiki" for some informative videos that have a fun, retro feel.

## Book Nook:

### Osprey Adventure



Looking for a good book to highlight plastic's impact on nature? Check out Osprey Adventure by Maryland author Jennifer Keats Curtis (Tidewater Publishers, 2008). In it, a young boy sees a plastic bag flapping from an osprey nest, causing the boy great alarm. He and his father help tidy the nest to save the bird. Get more book details and teaching activities from [www.opsreybook.com](http://www.opsreybook.com). Maybe it will inspire a classroom community clean-up to rid your local animals of dangerous and deadly debris!

#### Other books by Jennifer Keats Curtis:

Baby Owl's Rescue (2009)  
Turtles in My Sandbox (2006)  
Oshus and Shelly Save the Bay (1999)

## Flotsam, Nurdles, & Jetsam, Oh My!

No, it's not Swedish, Lithuanian, Mandarin Chinese, or toddler-babble. Instead, these three words are part of the environmental vocabulary that makes up the debris within the Great Pacific Garbage Patch. To save you a trip to the dictionary, here are these three terms defined:

- 🌐 **Flotsam:** floating ship parts/pieces found at sea or on the beach.
- 🌐 **Nurdles:** little plastic pellets (either specifically-made by the plastic industry, or accidentally-made when larger plastic items degrade); these are often mistaken by sea creatures as plankton & eaten.
- 🌐 **Jetsam:** Ship cargo that is purposely thrown overboard while out at sea; these items either sink, float out to sea, or are beached.

A great book detailing sea debris and much more is Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion



by Loree Griffin Burns (2007). Or, be sure to check out <http://www.oceanconservancy.org/> or <http://flotsametrics.com/>



## Ask Yourself...



What can I do, whether small or drastic, now that I am equipped with these facts about plastic?

## Re-Invent Halloween



With Plastiki, David de Rothschild made something new out of something old. He restyled the function and purpose. In a way, it is symbolic of Halloween--especially the Halloween of days gone by. There weren't the massive amounts of pre-fab, store-bought movie/TV character costumes, all encased in plastic wrap and yours for only \$19.99...or \$29.99...or worse. Creativity was king and homemade costumes were created. This year, especially given the economy, it might be a good time to turn retro, and invent something new. Raid the dress up closet...or get something gently-used from Goodwill.

Inspire your kids to use their imagination to rethink, reduce, reuse, and come up with something unique, not plastique!