



PHOTO: THOMAS BALSAMO
 April Anderson is a naturalist and freelance writer who can be contacted at team.nature.ed@gmail.com.

The Last Straw

SOLUTIONS TO PLASTIC POLLUTION BEGIN AT HOME

IN A SOCIETY WHERE convenience is king, plastic straws, bags, spoons, wrappers, and single-use water bottles seem indispensable. Plastic is here to stay. For at least the next 450 years or until the last single-use plastic water bottle disappears, plastic will continue to peacefully float, bob, flutter, and break into bits so tiny it will be indistinguishable.

According to the Center for Disease Control (CDC), approximately 60–80% of all marine litter is some form of plastic. “More than an eyesore, this debris harms marine biota and allows invasive species to hitchhike around the globe,” states the CDC. The United Nations concurs: “communities of microbes have been discovered thriving on microplastics at multiple locations in the North

Atlantic [and] this ‘plastisphere’ can facilitate the transport of harmful microbes, pathogens, and algal species.”

Why is plastic pollution suddenly an issue?

In 2013, the Chinese Green Fence campaign reduced the quantity of plastic waste accepted at the border. By 2015, roughly 9% of the plastic waste generated in the U.S. was recycled. Five years later, the National Sword policy was implemented to discontinue all imports of plastic waste to China. Poor waste management practices and stormwater runoff whisk away all grades of plastic not properly recycled or sent to a landfill.

“We’ve found plastics throughout the water cycle, pretty much everywhere we’ve looked for it,”

explains Illinois State Water Survey Groundwater Science Section Head Walton Kelly. “I was recently part of a group that found microplastics in karst aquifers in Illinois, so they’re even found in some groundwater environments.”

“Based on the limited information we have, microplastics in drinking water don’t appear to pose a health risk at current levels,” says Dr. Maria Neira, World Health Organization Director, Department of Public Health, Environment and Social Determinants of Health. “But we need to find out more. We also need to stop the rise in plastic pollution worldwide.”

Rotating ocean currents (gyres) pull debris to central locations in the Indian, Atlantic, and Pacific Oceans creating “garbage patches” extending from the water’s surface to the ocean floor. The Great Pacific Garbage Patch—the larger of two in the Pacific Ocean—is located between Hawaii and California. Even though the Great Lakes don’t harbor discernable garbage patches, the problem of plastic pollution persists.

Of the 22 million pounds of plastic that enter the Great Lakes each year, 11 million pounds ends up in Lake Michigan and 50% of those plastics are from single-use products. Three years ago, Illinois was the first state to ban plastic microbeads in personal care products, however California has been the first state to set water quality standards for microplastics.

#SheddTheStraw

Ranking among the “top 10 types of plastic debris” found during coastal clean ups, straws were targeted by the Shedd Aquarium along with 22 other institutions that are part of the Aquarium Conservation Partnership to create an awareness campaign dubbed, “Shedd the Straw.”

Since its launch on Earth Day 2017, “Shedd the Straw” has had over 300 businesses publicly

commit to reducing their use of plastics starting with plastic straws. “The Chicago White Sox, Lettuce Entertain You restaurants, the Chicago Marathon, United Airlines, and hundreds of restaurants and bars have joined us in the movement to prevent plastic pollution,” says Jaclyn Wegner, Director of Conservation Action, Shedd Aquarium. “Collectively, these businesses avoid the use of several hundred thousand plastic straws every year. On top of that, we’ve been able to increase public awareness about the problem of plastic pollution and contribute to a cultural shift away from single-use plastics.”

Go Green Barrington’s website, GoGreenBarrington.org provides a list of local restaurants striving to reduce plastic waste by either eliminating the use of straws or dispensing straws by request for individuals with special needs. While there are still plastic straws in the Barrington High School (BHS) cafeteria, the BHS Earth Council has been gathering data to propose a way to limit their availability. Refillable water stations added to BHS thanks to support from a 2016 PTO grant encourage the use of reusable water bottles.

Biggest misconceptions

The issue of plastic pollution has been part of the environmental science curriculum at Barrington High School for over 15 years. “Many students believe that as long as it gets recycled, it isn’t much of a problem when the reality is that plastic is not very recyclable,” says BHS Biology Teacher Erin Tantillo. “[Plastic] may be recycled once or twice, but the end product isn’t something that can be recycled again.”

“They also misunderstand biodegradable plastic and photodegradable plastic,” adds Tantillo, explaining that instead of degrading like organic products, these plastics simply break into smaller bits. Go Green Barrington Founder Jennifer Lucas emphasizes “wishcycling” (the inclusion of non-recyclable items in a recycling bin) can lead to an entire batch of recyclable items being thrown away.

A 2018 presentation delivered by BHS alumnus Dr. Wallace J. Nichols and hosted by the BHS Earth Council further highlighted the connection between plastic pollution, human well-being, and water. In “Plastic Pollution: An Ocean Emergency” (2010), Nichols together with Colette Wabnitz conveys, “personal actions can advance social


change, yet policy actions are oft where the most significant advances are found.”

Hope for the future

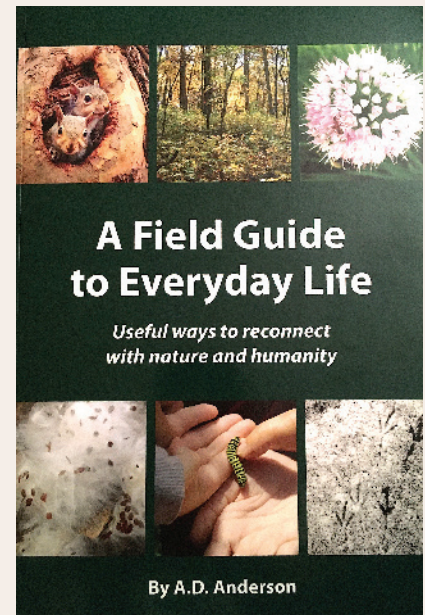
In 2017, the City of Chicago imposed a 7-cent tax on disposable grocery bags (both paper and plastic) to offset local environmental costs. Disposable bag use dropped 46%. Statewide legislation to tax plastic grocery bags in non-home rule communities such as Barrington, North Barrington, Cuba Township, Deer Park, and Tower Lakes has yet to pass. Fortunately, Barrington’s Jewel-Osco and Heinen’s offers recycling for plastic grocery bags. To further reduce the local need for plastic grocery bags, Go Green Barrington partnered with Barrington Breakfast Rotary to host a “bag share” at the Barrington Farmers Market this year, collecting and donating at least 500 reusable canvas bags since June. “We educated people as we did it [and] heard many encouraging comments,” reports Lucas. “We began to see customers bringing us bags from their homes or bringing a bag they had received from us on their prior visit to the market. The circular system started working.”

Representing nearly 100 organizations across Illinois, the Illinois Environmental Council is working with state legislators to address the threat of plastic pollution. “This past spring, we passed a bill that prohibits communities from restricting the ability to bring your own containers,” states Colleen Smith, Legislative Director, Illinois Environmental Council. Progress is being made in developing compostable plastic derived from renewable potatoes, soy, tapioca, cellulose, and corn, but some compostable plastics are still rooted in petroleum. Innovative companies such as Renewlogy are striving to convert plastic waste to fuel.

According to Friends of the Fox River (FOFR) President Gary Swick, “the solution lies in awareness, will, and design.” Citing the European Union’s Circular Economy Action Plan goal of 75% plastic recovery by 2030, Swick says, “we can do this, but it [will] take [a] conscious and collective action.” While petroleum-based plastics have made life comfortable, future generations are depending on us to reduce our collective carbon footprint by finding and supporting ecologically-minded alternatives.

To learn more about practical ways to reduce plastic waste, visit gogreenbarrington.org, and sheddquarium.org/care-and-conservation. 

April Anderson Authors Book with Barrington Influences



“A Field Guide to Everyday Life: Useful Ways to Reconnect with Nature & Humanity” invites busy adults to be and do more than they ever thought possible, while nurturing incremental changes that will ultimately transform the world.

Each page contains a short reading and activities. Activities include reflecting and journaling and taking an active role in caring for fellow humans and the natural world. The book is divided into three sections: Unraveling the Nature of Humanity, Practicing Harmonious Living, and Seasonal Ponderings.

Contributing writers are a mix of experts from various fields: “Last Child of the Woods” author Richard Louv; “Bringing Nature Home” by Doug Tallamy; Climate Scientist Dr. Benjamin Santer; Conservationist Wendy Paulson; Mary Schweinsberg, owner/president of PrairieLand Disposal & Recycling; Rev. Dr. Zina Jacque, Pastor of the Community Church of Barrington; former President of Judson University Dr. Jerry Cain; Conservationist Stephen Packard; Friends of the Fox River President Gary Swick, and more.

“A Field Guide to Everyday Life: Useful Ways to Reconnect with Nature & Humanity”, by A.D. Anderson, is available at Amazon.