

VOLUNTARY ARTICLE: PLASTICS IN TESTICLES? THAT'S RIGHT, GUYS!

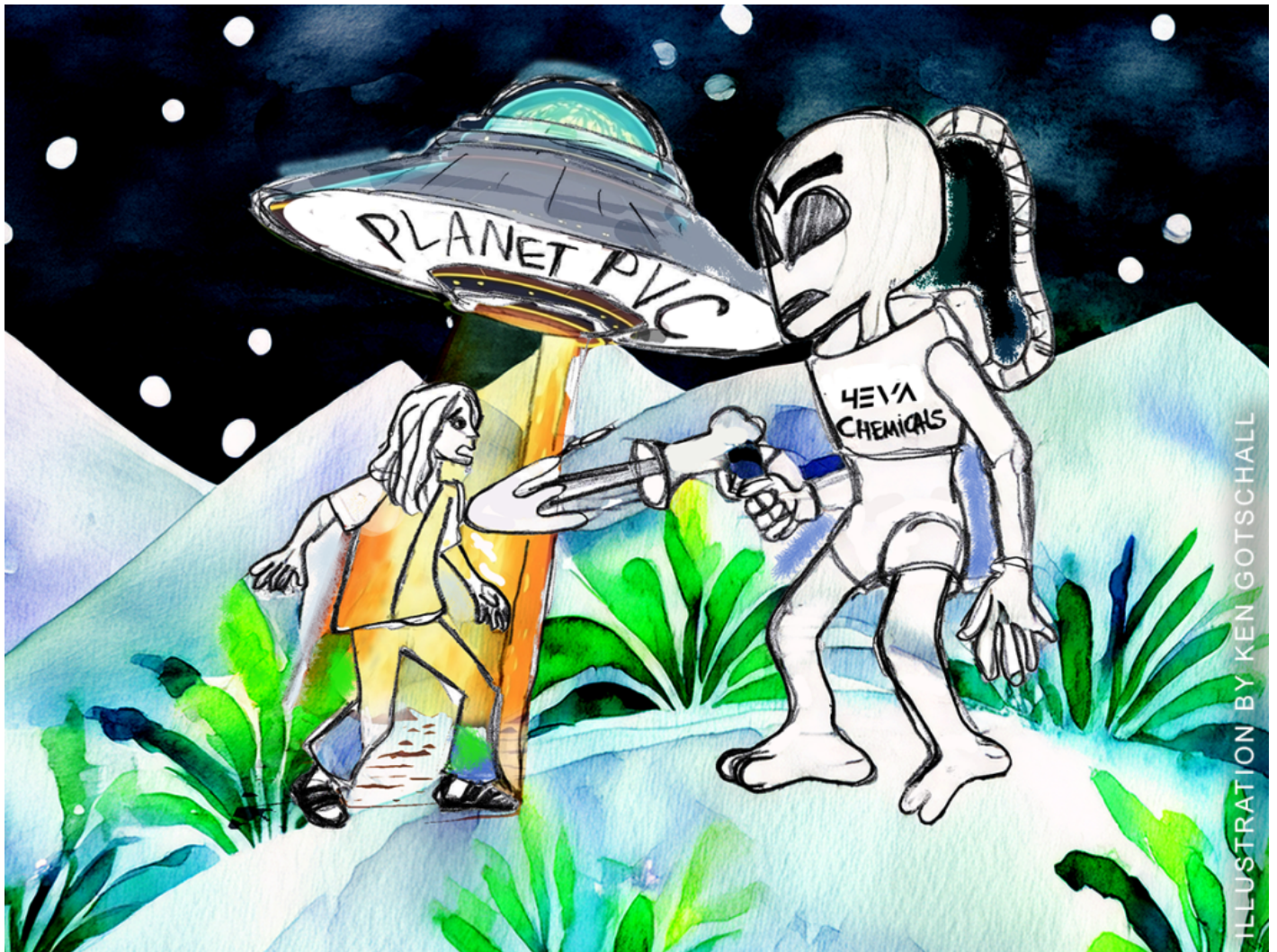
June 24, 2025



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By Lesley Broder, Ricki Jaeckel, Zoë Kaplan-Lewis, Jessica Roff, Anne Schoeneborn, Abigail Shelton, Matthew Spencer and Lois Wilcken

Just one year ago, NPR and several other media sources reported on a study conducted at the University of New Mexico and published in the May 15 issue of the peer-reviewed *Toxicological Sciences*. A team of researchers studying microplastics in both human and canine testicles did not expect the quantity that they found in humans—actually three times higher than in dogs. The study followed a smaller one in China, in 2023, that also found microplastics in testicles. The studies establish no firm causal connections with human health issues, such as the well-documented global decline in sperm count, but they make a powerful argument for further research, and a good dose of precaution.



You don't have testicles? That doesn't let you off the hook. In March 2024, *The New England Journal of Medicine* published the results of a three-year study that found a correlation between micro- and nanoplastics (MNP) in heart tissues and heightened risk of disease. Just last month, *Nature Medicine* published yet another study on MNPs in decedent human brains, and the scientists found a possible correlation with dementia.

A MICROPLASTIC, BY THE WAY, IS A SHARD OF PLASTIC MEASURING NO MORE THAN FIVE MILLIMETERS IN LENGTH, AND A NANOPLASTIC IS ONE BILLIONTH THE SIZE OF A MICROPLASTIC.

Interested now? A microplastic, by the way, is a shard of plastic measuring no more than five millimeters in length, and a nanoplastic is one billionth the size of a microplastic. The latter is capable of passing through a cell wall. Besides the polymer at the base of plastic (a chain of molecules made from fossil carbons), the industry adds up to 16,000 chemicals to impart properties like durability, flexibility, texture and color. These include known toxins. The New Mexico study found an abundance of polyethylene (PE) and the carcinogenic polyvinyl chloride (PVC). Even a nanoplastic carries the chemicals. They never go away. And we would be remiss for not mentioning that *plastic particles like to migrate from packaging into food*.

We are members of the Coop who have been meeting regularly since July 2024 to form a Plastics Reduction Committee. At the January General Meeting (GM), we delivered a warmly received presentation of our reasons for wanting to work with the Coop community to reduce our use of plastics (especially single-use), provide alternatives for shoppers, and educate members about the crisis and what we can do. We were on the agenda for a vote to establish the committee at the May GM, but other pressing issues postponed the vote. We are not on the agenda for the June GM, but we are optimistic we will soon come up for a vote.

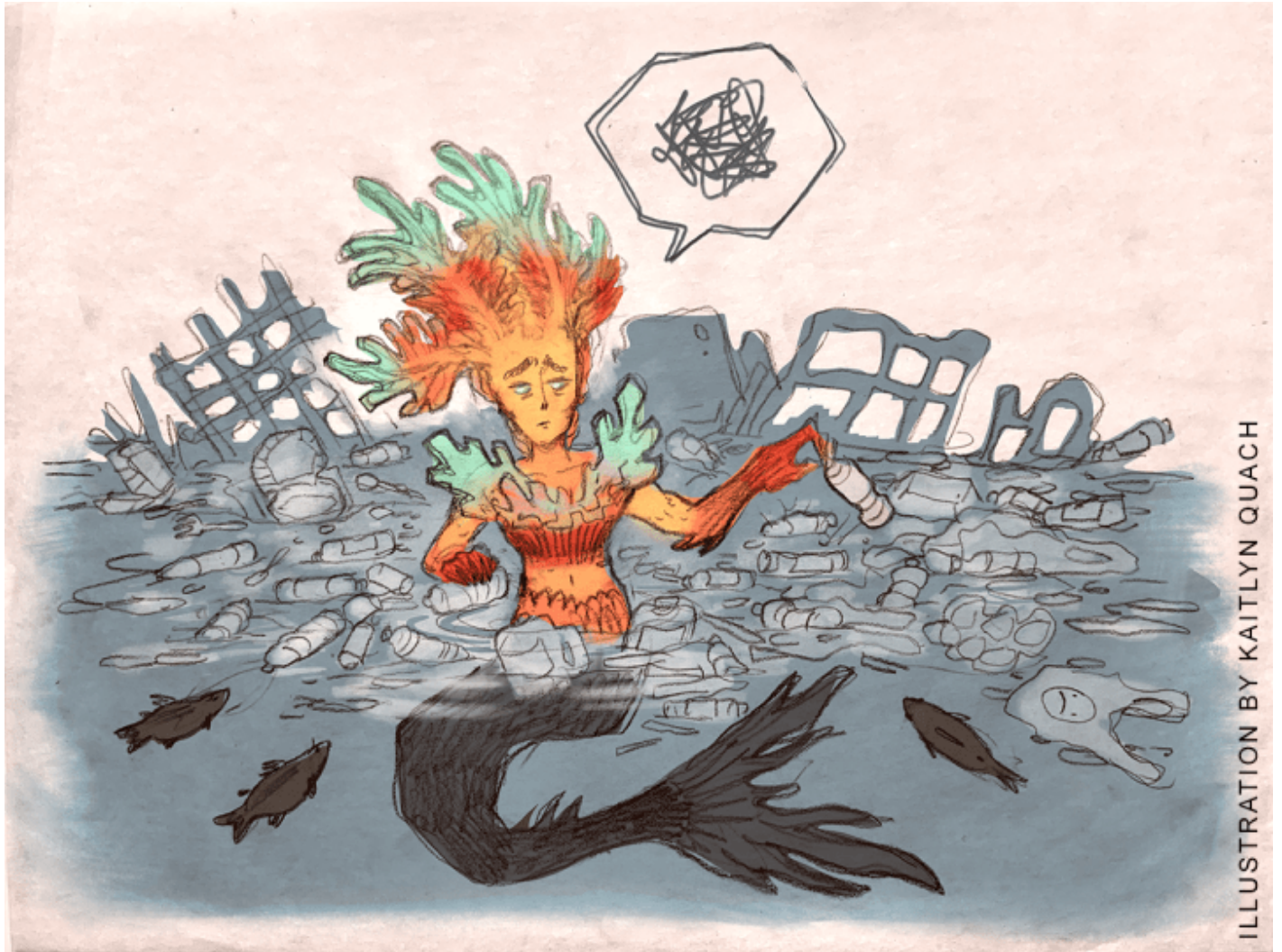
Meanwhile, we will continue meeting and learning. If you are interested in learning more, we can make the following recommendation (downloadable):

Landrigan et al. 2023. "The Mindaroo-Monaco Commission on Plastics and Human Health." *Annals of Global Health* 89(1): 23, 1-215. <https://annalsofglobalhealth.org/articles/10.5334/aogh.4056>.

Questions? You may reach us at reduceplasticpsfc@gmail.com

LOVE LETTER FROM A MERMAID: ON PLASTICS AND YOUR HEALTH

June 24, 2025



Member Submission by Lois Wilcken

Dear Coop Members,

Allow me to introduce myself. I go by many names: Atargatis, Ba, Liban, Little Mermaid, Lorelei, Mami Wata, Orehu, Seirēn. I bear many attributes: seduction, wealth, vanity, irresistible music. The reason for this diversity lies in the nature of my dwelling, the sea that girds our planet Earth. All nations know me. They love me, but they also use me as a receptacle for their waste, especially plastics. Words of caution: What goes around comes around. Just as plastics harm the marine life I see day by day, so they harm you and your family.

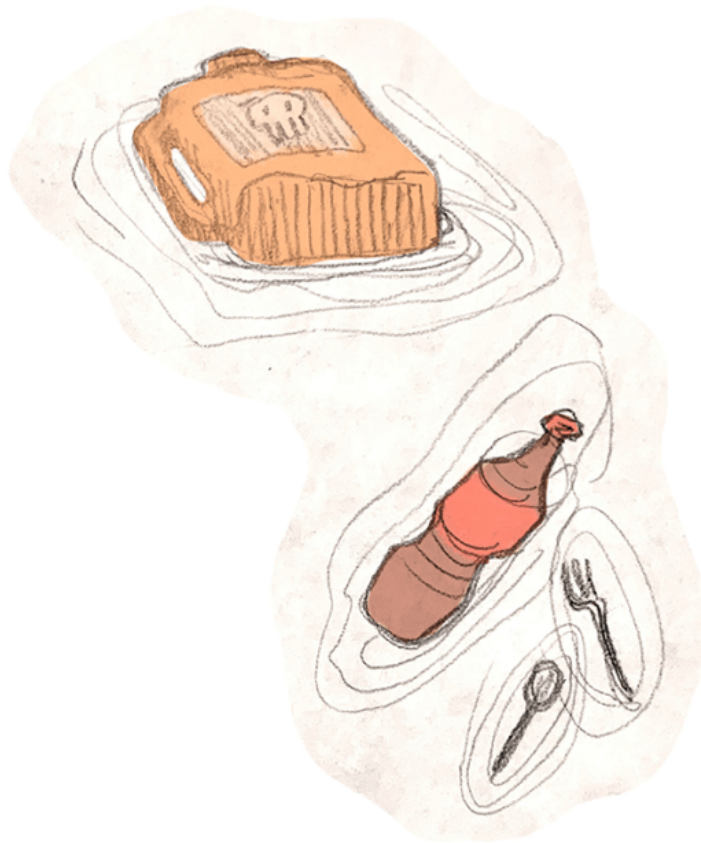


ILLUSTRATION BY KAITLYN QUACH

Life did not evolve with plastics. In planet-Earth time, the existence of plastics barely fills the blink of an eye. Scientists call it a novel entity, synthetically created from fossil carbons little more than a century ago. Pliable chains of large molecules called polymers form the foundations of plastics and host additional chemicals capable of imparting such properties as color, texture, durability, water resistance and more. Today's plastics bear 13,000 chemical additives; science associates about 2,300 of these with health impacts including cancer, birth defects and diminished cognitive function. Your vulnerability depends on your engagement in the basic phases of plastic's life cycle: production, use and disposal. Workers and people in communities close to production sites suffer most from the first phase, and disposal sites like myself (the sea) suffer most from the last. Everyone suffers from the second phase.

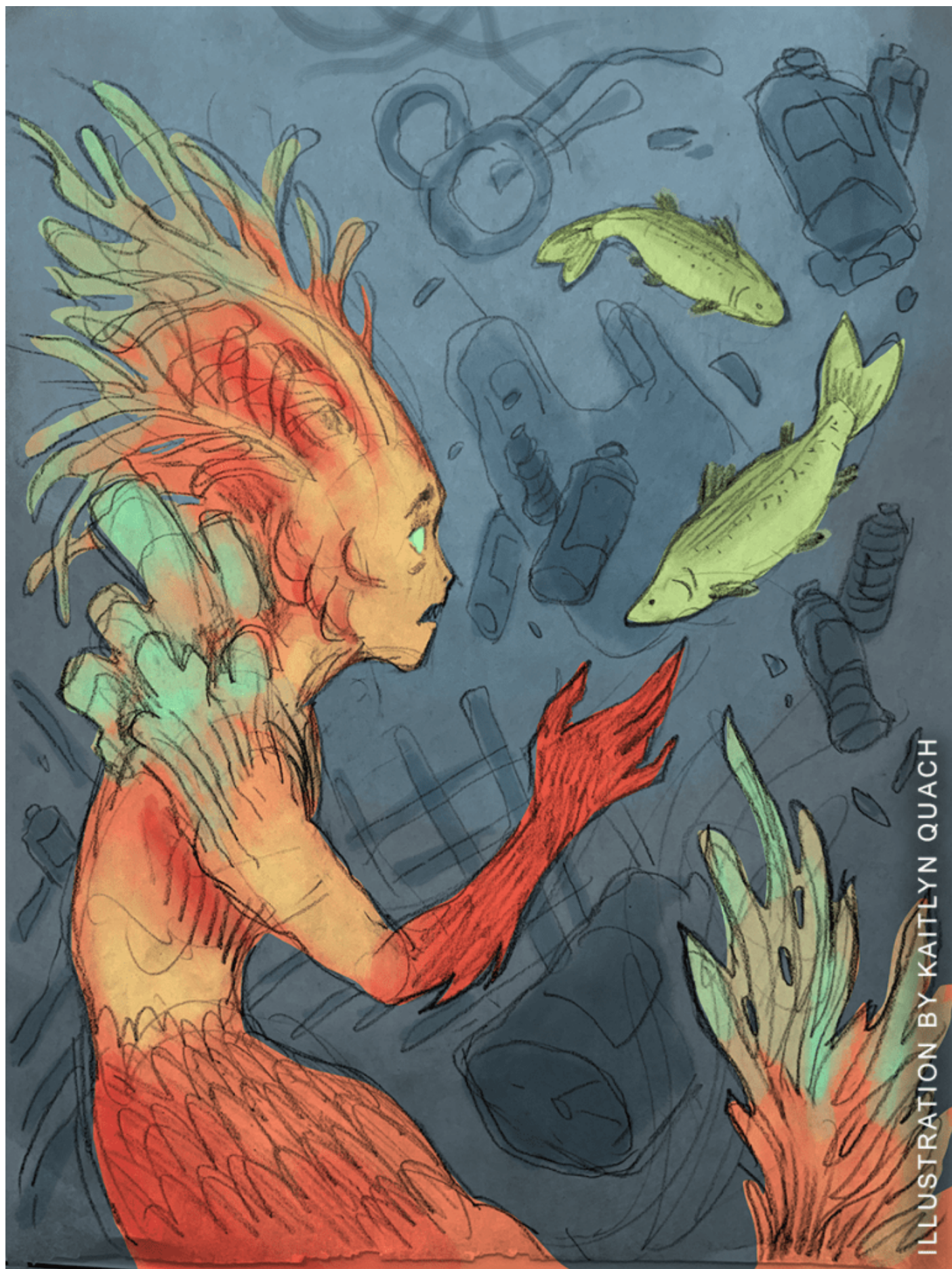


ILLUSTRATION BY KAITLYN QUACH

You might imagine that plastics are fixed in form, but they actually change over the course of their lifetime. If you could eat the kind of mushroom Alice ate in Wonderland, you might shrink to a size where you could witness the degradation of plastic. First, you would see macroplastics, fragments splintered off over time from the deceptively coherent original. With an additional mushroom or two, particles of microplastics and nanoplastics (MNPs, less than ten-millionths of a meter) would appear. We know MNPs best for their explosive population growth in aquatic ecosystems like my own; plastic polymers and their chemical additives have invaded every corner of the sea. Migration, you might say, occurs at the end of plastic's life cycle—in the disposal phase. It happens, however, during the use phase as well, mostly in your plastic packaging and storage.

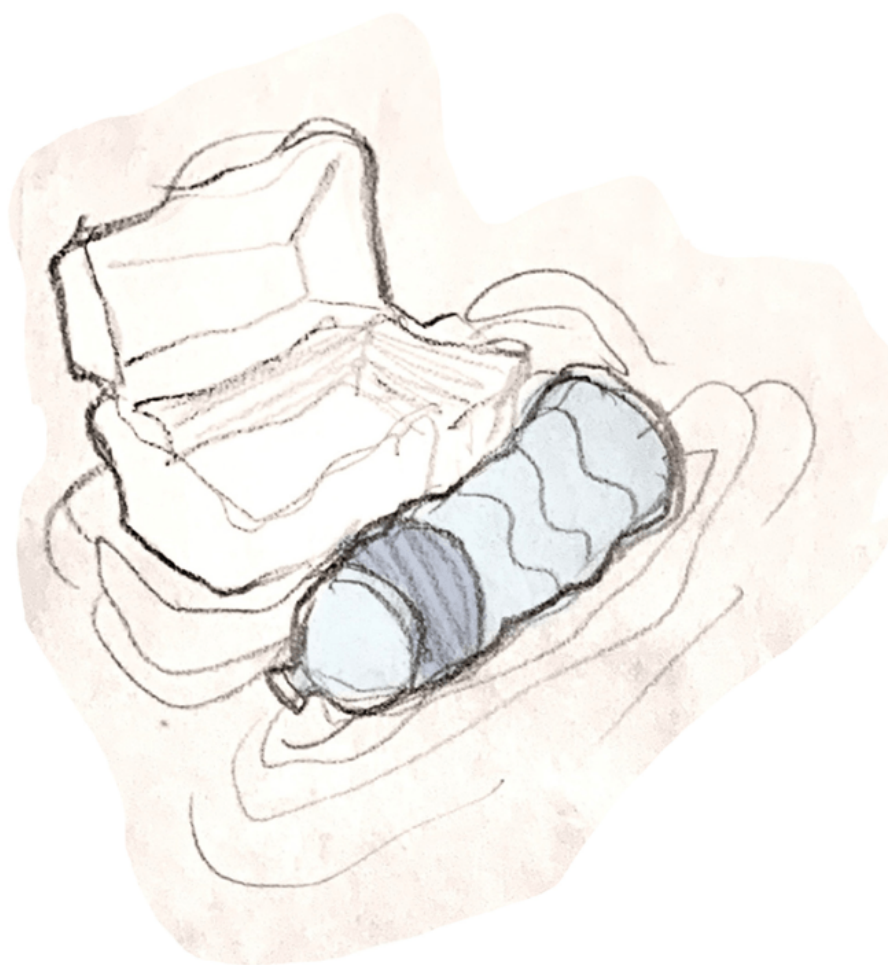


ILLUSTRATION BY KAITLYN QUACH

A peer-reviewed study published in *Environmental Science and Technology* in 2023

confirms the migration of MNPs during use. The scientists conducting the study measured MNP release from plastic containers and reusable food pouches under three scenarios: storage at room temperature, refrigerated storage and heating by microwave. By far, three minutes of microwave heating caused the highest release of MNPs (temperature factor), while refrigeration and room-temperature storage over six months came in a close second (time factor). The reusable food pouch released more particles than the plastic containers (physical properties factor). The Food Packaging Forum, based in Zurich, identifies surface-to-food ratio as an additional factor influencing extent of migration, identifying single-serving packages as most likely to contaminate food.

What exactly is the risk here? What happens when MNPs migrate from food into your bodies? The research is young, but evidence of health hazards due to the ingestion of MNPs is mounting. Fragmented plastics accumulate in tissues and cells, causing inflammation and oxidative stress, but they also act as vehicles for their toxic chemical additives. In its work toward a Global Plastics Treaty the Minderoo-Monaco Commission on Plastics and Human Health in 2023 named decreased fertility, premature births, neurodevelopmental disorders, cardiovascular disease, and renal disease as just a few hazards humans face. (Download the report [here](#) and see Figure 4.1 on page 71.) Tragically, infants in the womb and young children are at highest risk. The sensitivity of early development increases the odds of such conditions as low birth weight, impaired lung growth and childhood cancer. Some conditions manifesting in adults can have their roots in fetal and early childhood exposure.

Is waiting for yet more definitive research worth the risks? Should policy, on the other hand, follow a precautionary approach, placing the burden of proof that the product is safe on those companies profiting from the manufacture of plastics? What can you do meanwhile? Can you think of precautions that your Coop can take as the science moves forward? Although I live in the sea, I do encircle the planet, and I hear just about everything. Some of you have ideas about alternative (non-plastic) bags for produce and bulk; others would like to see the larger bins replace small packages in the bulk aisle as a reduction of surface-to-food ratio. I've heard one member talk about a

special section—with lots of visibility—for items that do not come in plastic packaging. I feel certain you, too, have ideas. A little sea bird tells me that you may get involved by contacting plasticfreefoodcoop@gmail.com.

*With love from the sea,
Your Mermaid*



ILLUSTRATION BY KAITLYN QUACH

Artwork by Kaitlyn Quach

Kaitlyn Quach is a cartoonist and activist who works part-time in food service. They love long walks, grape hyacinths and slightly scary-looking mermaids. It is now impossible for them to get lost inside the NY State Capitol/LOB because they've been lobbying for climate legislation so many times.

You can find Kaitlyn on Instagram @the.gauntlets

MEMBER CONTRIBUTION: PLASTIC-FREE ALTERNATIVES SHOW PROMISE

June 24, 2025



COOP MEMBERS WEIGH IN ON PLASTIC-FREE HEALTH AND BEAUTY PRODUCTS



Garbage piled on the sidewalk.

By Jasmine Chiu

We've all heard that plastic has become one of the most pressing environmental issues of our lifetime. How pressing? Research has shown that we ingest about a credit card's worth of plastic every week! In addition, we are seeing massive garbage patches twice the size of Texas in the ocean. And although recycling can give the material a second life, the reality is almost none of the plastic that you put in the recycling bin gets recycled. A recent report from Bennington College puts the percentage of plastic waste that's actually reused at 5 to 6 percent. Addressing the plastic crisis starts by putting less plastic into the system.

For this year's Earth Day, the PSFC Health & Beauty Department launched an awareness campaign for plastic-free options in Aisle 5, encouraging members to make plastic-free swaps to their daily routines. In addition to a social media series and an in-store featured endcap, we reached out to member volunteers to sample select health

and beauty products and write about their experiences.

Below are some highlights of plastic-free products you will surely grow to love as environmentally-friendly additions to your day-to-day!

HAIR



A shampoo bar is a plastic-free alternative to liquid shampoo.

J.R. Liggett's Original Formula Shampoo Bar: I chose this shampoo bar because it's completely sulfate-free with a very short ingredient list: saponified olive oil, coconut oil, castor oil, plus rose, lavender and spearmint essential oils. It builds a nice soapy lather that's slightly thinner than that of a traditional shampoo. One of the great things about this shampoo is that I've found I don't need conditioner (I have straight hair that's on the thin and fine side) and I can go longer between washes (with this shampoo bar, I wash 1-2 times per week). It does take your scalp some time to get used to it; I'd estimate a few weeks. —*Hannah Bae, Coop member*

FACE

Attitude Natural Care Sensitive Skin Mineral Sunscreen Face Stick: I was pleased to find that this zinc oxide sunscreen stick did not leave a chalky white cast behind on the skin. It blends easily and smoothly into the skin and wasn't irritating to me at all. It is a pretty heavy moisturizer that leaves a tactile residue on the face, so if you can't stand that, it's not the sunscreen for you. But I didn't mind, and I plan to use up this entire 1 oz. sunscreen stick. So far, I haven't experienced the bar melting, so this feels like a stable formula, but probably not one you want to accidentally leave in a car. —*HB*

Take Haven Rosehip Face Oil: This facial oil feels so nice on the skin. I use it after a shower, so the oil can reach the depths of my skin. It's a thicker liquid but it goes on easily, and I let it soak in overnight; when I wake up, my skin looks super refreshed and clear! —*JC*

BODY



These deodorant sticks come wrapped in cardboard rather than plastic.

Attitude Leave Bar Paper Packaged Deodorant Stick, Herbal Musk Scent: The earthy and fresh scent smells great and lasts all day long. Also, the packaging is beautiful and a durable cardboard material that can handle a lot of shuffling. My only warning: it's a little flaky when you first start, so you really want to let it warm up on your skin, and then it'll apply more easily. —JC

BAR SOAP



Body wash bars can replace liquid body wash.

Brixly Solid Body Wash, Mint Eucalyptus: The Brixly solid body wash foams nicely and has a great and mild fragrance. My bar lasted me about a month with regular showering. I think it was a very good deal. I was a little skeptical of labeling of bar soap as solid body wash, but overall really enjoyed the bar. —*Alex Walsh, Coop member*

ORAL CARE



Toothpaste tablets offer an alternative to toothpaste in a tube.

Hello Toothpaste Tablet: Loved this toothpaste! It foams just like conventional toothpaste and gives your mouth a nice minty flavor. The supply does run out faster, and they don't have refill packs, so you would accumulate a lot of metal tins. If you want a toothpaste tablet alternative, I'd recommend Huppy toothpaste—it's my favorite, and their refills come in compostable packs! —JC

HEALTH AND BEAUTY DEPARTMENT TARGETS PLASTIC WASTE

June 24, 2025



By Christopher Cox

First the bad news: Almost none of the plastic that you put in the recycling bin gets recycled. A recent report from Bennington College puts the percentage of plastic waste that's actually reused at five to six percent, a number that has declined steadily ever since China and other overseas markets announced that they would no longer accept plastic from the United States. Most of the plastic sent to recycling centers now ends up in landfills or is sent to kilns to be burned. Attempts to fix the problem bump against the hard reality that new plastic is too cheap to make recycling old plastic economical, and the small amount that is recycled is too toxic to be used for food containers. In the meantime, our consumption of plastic only increases, by roughly 15% a year. In 2018, according to the EPA, the average person produced 218 pounds of plastic waste.



Now the good news: Environmentally conscious companies are aware of the problem, and they are seeking to fix it by reducing the amount of plastic that winds up in our products in the first place. “Companies do know that long-term, the future is going to be not plastic-free, but hopefully a little less plastic,” said Alexander Walsh, the Coop’s health and beauty buyer. “They’re realizing that there’s a consumer base that is interested in that.”

IN 2018, ACCORDING TO THE EPA, THE AVERAGE PERSON PRODUCED 218 POUNDS OF PLASTIC WASTE.

Starting this April 22—Earth Day—the Coop will be building awareness about items in the health and beauty aisle that have minimal, if any, plastic. The idea was born out of a conversation between Walsh, Receiving Coordinator Karen Martin, and Jessica

Wey, a new member who works the six a.m. shift stocking health and beauty shelves. The goal, Wey said, is to “bring some more awareness to these plastic-free items and how you can swap things out in your routine to potentially make a difference.”

The campaign is still being formulated, but Wey, who works in healthcare advertising, said that some options include highlighting plastic-free products on social media and in testimonials in the *Linewaiters' Gazette*. There could be special end caps (as the shelves at the end of each aisle are known) with low-plastic products, and signs in aisle six to point to items with the smallest ecological footprint. The goal is to nudge shoppers toward reducing the amount of plastic they take home.

Wey underscored the importance and potential impact of this awareness campaign: “It’s so crowded on the shopping floor that sometimes the best user experience is to just go and get what you need and get in and out,” she said. “There’s not a lot of room for discovery. I think that a lot of members would be open to buying new products or going for an eco-friendly option, but they just don’t know about it.”

YOU MIGHT NOT THINK THAT IT’S A BIG DEAL HAVING A BAR SHAMPOO OR A CARDBOARD DEODORANT, BUT THERE ARE A NUMBER OF MEMBERS THAT HAVE WANTED TO HUG ME AND THINK IT’S A HUGE DEAL.

ALEXANDER WALSH, HEALTH AND BEAUTY BUYER FOR THE COOP

Health and beauty is one of the most plastic-dependent departments of the Coop, Walsh told me. He cited the example of Everyone 3-in-1 Soap. The Coop sells about 3,000 of the 32-ounce bottles a year, all most likely bound for a landfill even if they are initially shipped to a recycler. If the Coop could replace those bottles with bar soap, which usually comes wrapped in cardboard or paper, it would eliminate that much plastic waste.



Indeed, one of Walsh's biggest successes in cutting down the amount of plastic coming into the Coop involves shampoo. A few years ago, a member asked if the Coop could start carrying HiBAR products, including their "salon grade" shampoo and conditioner bars, which come in a cardboard package. The product wasn't available on the East Coast, so Walsh contacted the company and they began shipping bars directly to the Coop. Once the product began selling well here in Brooklyn, the company was able to show those numbers to United Natural Foods (also known as Unfi) one of the Coop's most important distributors. HiBAR was able to expand to the East Coast and is now distributed nationwide. "We helped them prove they had a viable product," Walsh said.



Walsh has continued to push for low-plastic and plastic-free options whenever he can find them. One example is Dr. Tung's dental floss. Walsh noticed that Dr. Tung's had a version of its floss that came in a cardboard rather than plastic dispenser, and he emailed the company to see if it sold its popular Smart Floss variety with that kind of packaging. The company didn't respond, but a few months later, Dr. Tung's began to send Smart Floss in a cardboard dispenser. Sales of the floss increased.



PHOTO BY CHRISTIAN DIAZ

The campaign will highlight these and other low-plastic items, including a new version of HiBAR deodorant—a Coop favorite—that comes in a cardboard tube that functions like a push-up popsicle. “You might not think that it’s a big deal having a bar shampoo or a cardboard deodorant,” Walsh said, “but there are a number of members that have wanted to hug me and think it’s a huge deal.” He and Wey expect to continue their efforts to raise awareness through July, to support the broader effort known as Plastic-Free July.

The message is clear: the best way to eliminate plastic waste is to produce less of it in the first place. That means worrying less about what goes in the blue bin and focusing your buying power instead on items packaged in cardboard, paper, metal, or glass. “I’m a huge fan of recycling,” Walsh said, “but it’s also fairly important for Coop members to have their eyes open and make decisions more based on reality than a hope or a dream.”

Christopher Cox’s book The Deadline Effect is out now in paperback.