

Columnists

Originally published October 21, 2011 at 6:14 AM | Page modified October 22, 2011 at 8:47 AM

EcoConsumer

Bathroom shelf may be source of microplastics in Sound

Even if we don't all agree that tiny pieces of plastic in Puget Sound are a problem, at least we should be made aware when they come from our own bathroom.

By Tom Watson

Special to The Seattle Times

Even if we don't all agree that tiny pieces of plastic in Puget Sound are a problem, at least we should be made aware when they come from our own bathroom.

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Many cosmetics contain particles known as microplastics, so when you use a facial-scrub product, for example, you send them down the drain. These particles are so minuscule they don't easily get captured at wastewater-treatment plants and may end up in the Sound, along with tiny plastic fragments from other sources.

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Q: That seems outrageous. Can't companies be stopped from putting microplastics in their products?

A: Companies that use these plastic particles, often called microbeads, say they perform effectively in cosmetic products and haven't been shown to harm consumers or wildlife. The presence of microplastics in cosmetics has been reported since at least 2007, but hasn't caught on with the public as a pressing environmental issue.

Q: Is it possible microplastics do not harm marine life?

A: Researchers say that even though no fish kills or other major problems have been directly linked to microplastics, they worry about the buildup of these plastics and the effects on aquatic creatures.

Warning signs abound. For example, mussels can ingest microplastics and the plastic can be incorporated into their tissue, according to professor Joel Baker of the University of Washington, Tacoma. An internationally known expert on microplastics, Baker is science director at the Center for Urban Waters in Tacoma.

Q: Do we really need microplastics in our cosmetics?

A: Baker doesn't think so and says his family tries not to use those products. Not that long ago, facial and body washes contained natural materials such as finely ground walnut shells, seeds or oatmeal as exfoliants, and many still do.

Q: How can I find which products contain microplastics?

A: It's not easy, but start by searching a product's ingredients list for "polyethylene," one main form of plastic microbeads. The federal government's Household Products Database lists more than 90 personal-care products containing polyethylene (seati.ms/nx3jzk), including toothpaste.

Major brands with products containing microplastics include Olay, Dove, Avon, Revlon, Secret, Cover Girl, Colgate and Crest, but that database may not be all-inclusive.

Q: Are cosmetics the main source of microplastics?

A: Probably not, although it's impossible to tell for sure. Baker says many microplastics that researchers find in and around Puget Sound are created when larger items such as plastic bags, boat cushions and coolers break down into tiny bits.

Microplastics also turn up on beaches and in soil, and in other bodies of water besides oceans. To reduce the proliferation of microplastics, Baker recommends consumers avoid unnecessary use of plastics, including certain single-use packaging.

He advises against using "biodegradable" plastic bags unless they are an approved type going to a composting facility, such as specified bags for food scraps. Many so-called biodegradable bags generate microplastics, says Baker.

Industrial operations also send microplastics into the oceans, although this appears to be less of a problem in North America than it used to be. New research also points to fibers of synthetic fabrics, which go down the drain during clothes washing, as a significant portion of microplastics in oceans.

Q: Don't plastics eventually break down?

A: Plastics get brittle and break into tiny pieces but do not totally degrade in the ocean, Baker says.

Q: What other implications does microplastics waste have for us humans?

A: Research indicates that certain microplastics act like magnets or sponges, "sopping up toxic chemicals that are widely present in the oceans," writes California-based science journalist Susan Freinkel in her 2011 book, "Plastic: A Toxic Love Story." Species all the way up the food chain could ingest these microplastics and toxins.

Although other plastic waste, especially bags, has attracted attention lately, this tiny but prolific manifestation of plastic debris has largely been ignored. Microplastics need to rise to the surface as a potential problem, and we can help by carefully considering our everyday purchasing decisions.

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