

# NATIONAL GEOGRAPHIC NEWS

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## Are Plastic Grocery Bags Sacking the Environment?

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for National Geographic News

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The "paper or plastic" conundrum that vexed earnest shoppers throughout the 1980s and 90s is largely moot today. Most grocery store baggers don't bother to ask anymore. They drop the bananas in one plastic bag as they reach for another to hold the six-pack of soda. The pasta sauce and noodles will get one too, as will the dish soap.

Plastic bags are so cheap to produce, sturdy, plentiful, easy to carry and store that they have captured at least 80 percent of the grocery and convenience store market since they were introduced a quarter century ago, according to the Arlington, Virginia-based American Plastics Council.

As a result, the totes are everywhere. They sit balled up and stuffed into the one that hangs from the pantry door. They line bathroom trash bins. They carry clothes to the gym. They clutter landfills. They flap from trees. They float in the breeze. They clog roadside drains. They drift on the high seas. They fill sea turtle bellies.

"The numbers are absolutely staggering," said Vincent Cobb, an entrepreneur in Chicago, Illinois, who recently launched the Web site <http://Reusablebags.com> to educate the public about what he terms the "true costs" associated with the spread of "free" bags. He sells reusable bags as a viable solution.

According to Cobb's calculations extrapolated from data released by the United States Environmental Protection Agency in 2001 on U.S. plastic bag, sack, and wrap consumption, somewhere between 500 billion and a trillion plastic bags are consumed worldwide each year. Of those, millions end up in the litter stream outside of landfills—estimates range from less than one to three percent of the bags.

Laurie Kusek, a spokeswoman for the American Plastics Council, said the industry works with its U.S. retail customers to encourage recycling of plastic bags, which are in high demand from companies such as Trex in Winchester, Virginia, for use in building materials.

"We also feel it is important to understand that plastic grocery bags are some of the most reused items around the house," she said. "Many, many bags are reused as book and lunch bags as kids head off to school, as trash can liners, and to pickup Fido's droppings off the lawn."

But like candy wrappers, chewing gum, cigarette butts, and thousands of other pieces of junk, millions of the plastic bags end up as litter. Once in the environment, it takes months to hundreds of years for plastic bags to breakdown. As they decompose, tiny toxic bits seep into soils, lakes, rivers, and the oceans, said Cobb.

### Plastic Fantastic

The Film and Bag Federation, a trade group within the Society of the Plastics Industry based in Washington, D.C., said the right choice between paper or plastic bags is clearly plastic.

Compared to paper grocery bags, plastic grocery bags consume 40 percent less energy, generate 80 percent

less solid waste, produce 70 percent fewer atmospheric emissions, and release up to 94 percent fewer waterborne wastes, according to the federation.

Robert Bateman, president of Roplast Industries, a manufacturer of plastic bags—including reusable ones—in Oroville, California, said the economic advantage of plastic bags over paper bags has become too significant for store owners to ignore. It costs one cent for a standard plastic grocery sack, whereas a paper bag costs four cents, he said.

"The plastic bags are so inexpensive that in the stores no one treats them as worth anything ... they use two, three, or four when one would do just as well," he said.

First introduced in the 1970s, plastic bags now account for four out of every five bags handed out at the grocery store. "When you look at it as a product, it is an unbelievable success story," said Cobb.

The success of the plastic bag has meant a dramatic increase in the amount of sacks found floating in the oceans where they choke, strangle, and starve wildlife and raft alien species around the world, according to David Barnes, a marine scientist with the British Antarctic Survey in Cambridge, England, who studies the impact of marine debris.

Barnes said that plastic bags have gone "from being rare in the late 80s and early 90s to being almost everywhere from Spitsbergen 78° North [latitude] to Falklands 51° South [latitude], but I'll bet they'll be washing up in Antarctica within the decade."

Bateman said that plastic bags are becoming a victim of their success. "The industry is at the stage where its success has caused concerns and these concerns need to be addressed responsibly," he said. Among other initiatives, Bateman supports the development of biodegradable plastic bags, a technology that has made strides in recent years.

### **Plastax to the Rescue?**

Plastic bag litter has become such an environmental nuisance and eyesore that Ireland, Taiwan, South Africa, Australia, and Bangladesh have heavily taxed the totes or banned their use outright. Several other regions, including England and some U.S. cities, are considering similar actions.

Tony Lowes, director of Friends of the Irish Environment in County Cork, said the 15 cent (about 20 cents U.S.) tax on plastic bags introduced there in March 2002 has resulted in a 95 percent reduction in their use. "It's been an extraordinary success," he said.

According to Lowes, just about everyone in Ireland carries around a reusable bag and the plastic bags that once blighted the verdant Irish countryside are now merely an occasional eyesore. Cobb believes a similar tax in the U.S. would have a similar effect on reducing consumption.

The American Plastics Council is wary of such a tax in the U.S. They say it would cost tens of thousands of jobs and result in an increase in energy consumption, pollution, landfill space, and grocery prices as store owners increase reliance on more expensive paper bags as an alternative.

Bateman said the Irish tax of about U.S. 20 cents per bag is too high, but that a tax of 3 to 5 cents could have a positive impact on reducing plastic bag consumption by changing people's behavior.

"Having bags charged has some merits because it gets them used more responsibly," he said. For example, instead of a bagger using six bags to package a person's dinner, the bagger might use just two.

As for Cobb, he hopes people will begin to realize that paper and plastic bags both come at great cost to the environment and instead of scratching their head when asked which type they prefer, they'll pull a tightly packed reusable bag from their pocket.

"We want to make it cool to carry reusable shopping bags," he said.

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