



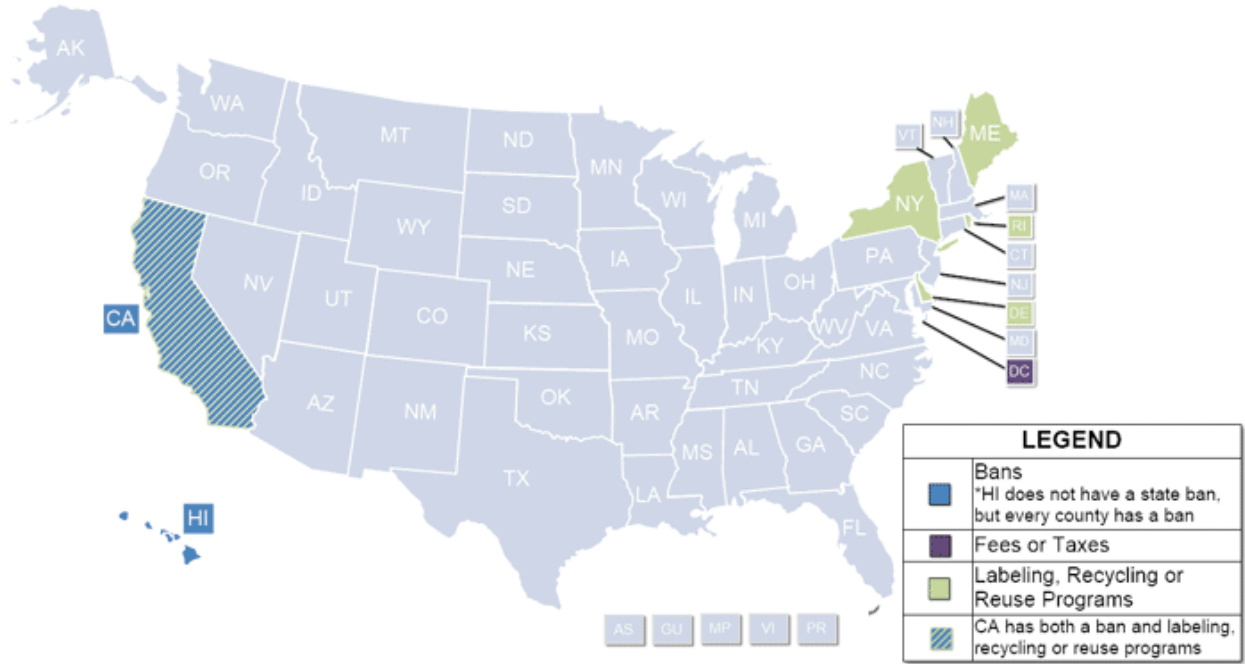
501-C-3 at Southwick's Zoo, 2 Southwick Street, Mendon, MA 01756

**PROTECTING MY EARTH:
PLASTIC POLLUTION
FACTS & FIGURES**

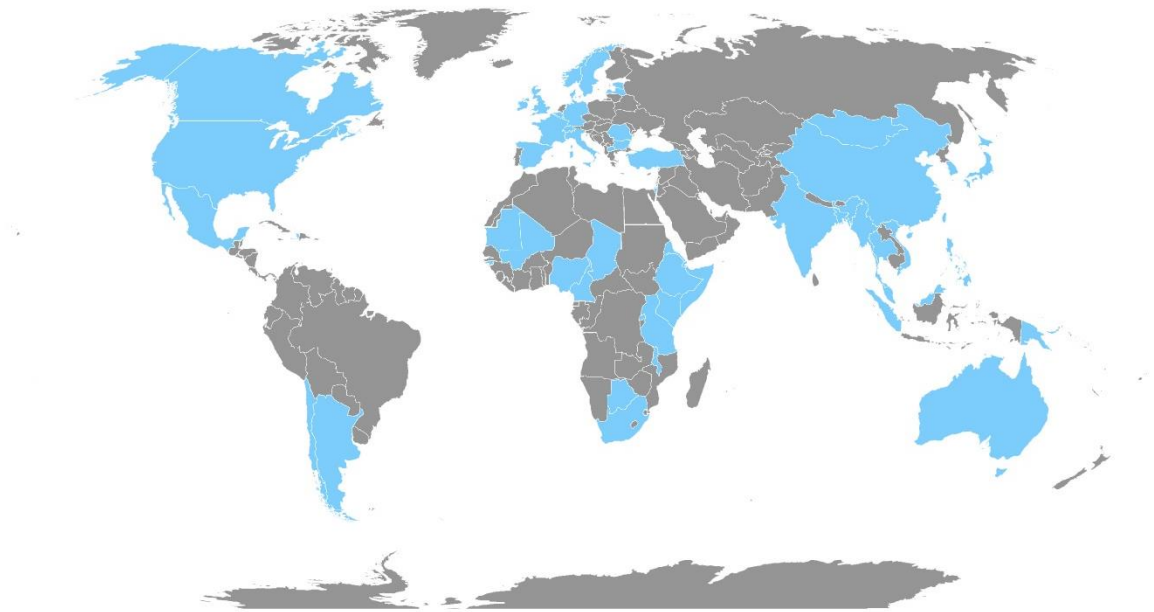


“Protecting My EARTH” is an environmental education program offered by EARTH Ltd. to help students learn how to take better care of their community and their planet.

BANS, FEES, AND TAXES ON PLASTIC BAGS IN THE US AND AROUND THE WORLD



Source: National Conference of State Legislatures, 2014



Data: from Earth Policy Institute & Reuseit.com

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UNITED STATES

- **Alaska:** No statewide ban, but a few cities have plastic bag bans
- **California:** Statewide ban on single-use carryout bags as of 2014; plastic products must be correctly labeled as of 2012; retail stores must adopt an at-store recycling program as of 2006
- **Colorado:** No statewide ban, but a few cities have plastic bag bans
- **Connecticut:** No statewide ban, but city of Westport has plastic bag ban
- **Delaware:** Requires at-store recycling program as of 2009
- **District of Columbia:** Fees on carryout bags as of 2010
- **Hawaii:** No statewide ban, but every county has a ban
- **Illinois:** No statewide ban; city of Chicago has ban for franchise and chain stores
- **Maine:** Stores may only provide plastic bags if there is a receptacle to collect those bags at the store as of 1991; city of Portland has fee for plastic and paper bags
- **Maryland:** No statewide ban, but a few cities have plastic bag bans
- **Massachusetts:** No statewide ban, but a few cities have plastic bag bans (Barnstable, Brookline, Cambridge, Concord, Falmouth, Great Barrington, Harwich, Manchester-by-the-Sea, Marblehead, Newburyport, Newton, Northampton, Provincetown, Truro, Wellfleet, Williamstown)
- **New Mexico:** No statewide ban, but city of Santa Fe has plastic bag ban
- **New Jersey:** Pending legislation for imposing fees for plastic bag usage and requirements for in-store recycling programs
- **New York:** In store recycling programs as of 2008; No statewide ban, but a few cities have plastic bag bans
- **North Carolina:** No statewide ban, but the Outer banks have plastic bag bans
- **Oregon:** No statewide ban, but a few cities have plastic bag bans
- **Rhode Island:** Promotion of paper bag usage as of 2008; No statewide ban, but city of Barrington has plastic bag ban
- **Texas:** No statewide ban, but a few cities have bans and/or fees for plastic bag usage
- **Washington:** No statewide ban, but a few cities have plastic bag bans

AROUND THE WORLD
(Data from Earth Policy Institute, May 2014)

AFRICA

- **Botswana:** Fee for plastic bags as of 2007
- **Cameroon:** Ban on plastic bags as of 2014
- **Chad:** Ban on the importation of plastic bags as of 2010
- **Eritrea:** Ban on plastic bags as of 2002
- **Ethiopia:** Ban on thin plastic bags as of 2008
- **Guinea-Bissau:** Ban on plastic bags as of 2014
- **Kenya:** Ban on manufacture and import of plastic bags as of 2011, but not well enforced
- **Malawi:** Ban on plastic bags as of 2013
- **Mali:** Ban on plastic bags as of 2013
- **Mauritania:** Ban on use, manufacture, and import of plastic bags as of 2013
- **Nigeria:** Ban on plastic bags as of 2014
- **Rwanda:** Ban on plastic bags as of 2008
- **Somaliland:** Ban on plastic bags as of 2005
- **South Africa:** Ban on thin plastic bags as of 2003; fee for thicker plastic bags as of 2004
- **Tanzania:** Ban on plastic bags as of 2006
- **Uganda:** Ban on lightweight plastic bags and taxes on heavier plastic bags as of 2007

ASIA

- **Bangladesh:** Ban on plastic bags as of 2002
- **China:** Ban on thin plastic bags and fee on others as of 2008
- **Hong Kong:** Levy on plastic bags as of 2009
- **India:** Ban on use as of 1999 and production as of 2002, but not strictly enforced
- **Israel:** Proposed bill to tax plastic bags in 2008, but did not pass into law
- **Malaysia:** Tax on plastic bags as of 2011
- **Mongolia:** Ban on plastic bags as of 2009
- **Myanmar:** Ban on production of plastic bags as of 2009
- **Papua New Guinea:** Ban on plastic bags as of 2009
- **Philippines:** Several cities have bans as of 2013
- **South Korea:** Tax on plastic bags
- **Taiwan:** Fee for plastic bags as of 2001
- **Thailand:** Fee for plastic bags as of 2009
- **Vietnam:** Tax on plastic bags

CENTRAL AND SOUTH AMERICA

- **Argentina:** Ban on plastic bags in Buenos Aires and Mendoza as of 2008
- **Chile:** A few major cities have plastic bag bans as of 2013
- **Haiti:** Ban on black plastic bags and polystyrene as of 2012

EUROPE

- **Belgium:** Tax on plastic bags as of 2003
- **Bulgaria:** Tax on plastic bags as of 2011
- **Channel Islands:** Fee for plastic bags as of 2008
- **Denmark:** Tax on plastic bags as of 1994
- **England:** Fee for plastic bags as of 2015
- **Estonia:** Fee for plastic bags
- **Germany:** Recycling tax on plastic bags as of 2001
- **Ireland:** Levy on plastic bags as of 2002
- **Italy:** Ban on plastic bags as of 2011
- **Latvia:** Tax on plastic bags
- **Luxembourg:** Fee for plastic bags as of 2009
- **Macedonia:** Fee for plastic bags as of 2009
- **Netherlands:** Fee for plastic bags as of mid-1990s
- **Northern Ireland:** Fee for plastic bags as of 2013
- **Romania:** Tax for plastic bag producers and importers as of 2009
- **Spain:** Fee for plastic bags in some regions as of 2011
- **Sweden:** Fee for plastic bags
- **Switzerland:** Ban on plastic bags as of 2012
- **Wales:** Fee for plastic bags as of 2011

NORTH AMERICA

- **Canada:** Fee for plastic bags as of 2011
- **United States:** Fees and/or bans in 132 cities and counties

OCEANIA

- **Australia:** Ban on plastic bags in several states as of 2009

BANS ON PLASTIC BOTTLES IN THE US AND AROUND THE WORLD

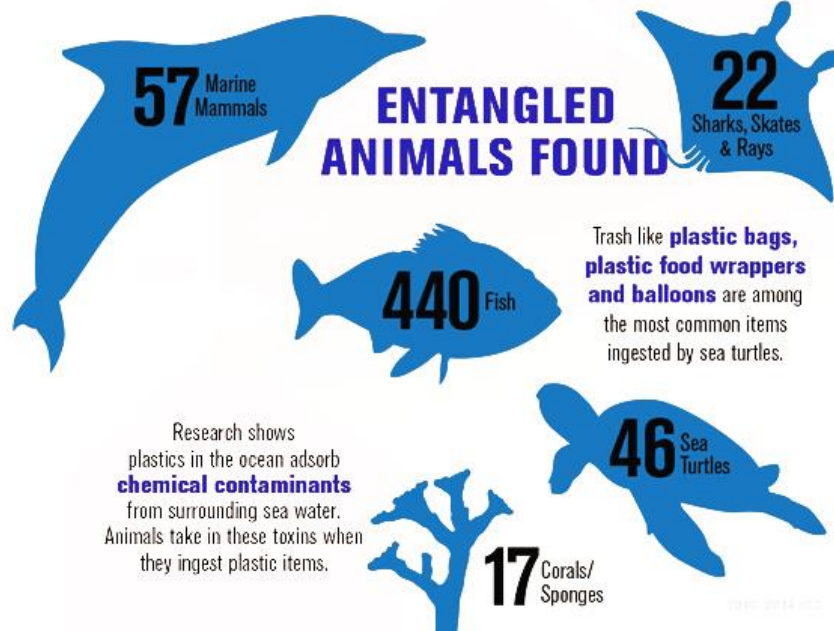
- In 2009, the **New South Wales** town of Bundanoon (**Australia**) voted to become the first town in the world to outlaw bottled water. (*NY Times*, 2009)
- Many **Canadian** municipalities have passed bans on municipal properties. These were followed in December 2008, by Toronto; the Toronto City Council approved a water bottle ban to take effect in January 2012. (City of Toronto, 2015)
- In 2011, **New Haven, Connecticut** passed a municipal spending ban including bulk bottled water dispensers. (*New Haven Independent*, 2011)
- At the Town Meeting of May 2015, **Brookline, Massachusetts** passed a by-law prohibiting the spending of Town funds on water in single-use plastic bottles in offices. The Town also instituted a requirement that restaurants serve tap water on request including take-out orders. (*Boston Globe*, 2015)
- Legislation banning the sale of single-serving plastic water bottles passed in **Concord, Massachusetts** on April 26, 2012 with the law taking effect on January 1, 2013. Polyethylene terephthalate (PET) bottles, which have the number 1 and/or PETE with the recycling symbol on the bottle, are no longer allowed to be sold if they are less than 1 liter (34 ounces) and contain water which is non-sparkling and non-flavored. The sale of water in bottles made of other types of plastic is allowed. Bottles of flavored water, regardless of size, may be sold. (City of Concord, 2012)
- **San Francisco, California** has passed a ban on the sale of plastic water bottles on city-owned properties as of 2014. (MSNBC, 2014)
- Many **national parks, colleges, and universities** across the United States have banned the sale of plastic water bottles. (Wilderness.org, National Park Services, Banthebottle.net)
 - **Arizona**: Grand Canyon National Park; Lake Mead National Recreational Area; Petrified Forest National Park; Saguaro National Park
 - **California**: Consumnes River College; De Anza College; Humboldt State University; Lake Tahoe Community College; Mount Shasta City; Sacramento City College; UC Berkley; UC Santa Cruz
 - **Colorado**: Dinosaur National Monument; Colorado National Monument
 - **Florida**: Biscayne National Park
 - **Georgia**: Mount de Sales Academy
 - **Hawaii**: Hawaii Volcanoes National Park
 - **Illinois**: Loyola University; Northwestern University
 - **Indiana**: DePauw University
 - **Iowa**: Drake University
 - **Massachusetts**: Brandeis University; Emerson College; Hampshire College; Harvard University
 - **Michigan**: Central Michigan University

- **Minnesota:** College of St. Benedict; Macalester College
- **Missouri:** Washington University
- **Montana:** Little Bighorn National Monument; Grant-Kohrs Ranch National Historic Site
- **Nevada:** University of Nevada
- **New Hampshire:** Dartmouth College
- **New Mexico:** El Malpais National Monument; Aztec Ruins National Monument; Pecos National Historical Park
- **New Jersey:** Princeton University
- **New York:** Cornell University; Fashion Institute of Technology; Skidmore College; SUNY New Paltz; University of Buffalo; Vassar College
- **North Carolina:** Fort Raleigh National Historic Site; Outer Banks Group; Wright Brothers National Memorial
- **Oklahoma:** Washita Battlefield National Historic Site
- **Oregon:** Portland Community College; University of Oregon
- **Pennsylvania:** Franklin & Marshall College; Muhlenberg College; University of Pennsylvania
- **Puerto Rico:** El Morro National Monument
- **Rhode Island:** Brown University
- **South Dakota:** Mount Rushmore; Wind Cave National Park
- **Tennessee:** Belmont University;
- **Texas:** Big Thicket National Preserve; San Antonio Missions National Historic Park
- **Utah:** Arches National Park; Bryce Canyon National Park; Canyonlands National Park; Zion National Park; Timpanogos Cave National Monument; Natural Bridges and Hovenweep National Monuments
- **Vermont:** Green Mountain College; St. Michael's College; University of Vermont
- **Washington:** Evergreen State College; Gonzaga University; Seattle Central Community College; Seattle University
- **Wisconsin:** St. Norbert College; University of Wisconsin at Stevens Point & Madison; Western Washington University

TOP 10 ITEMS COLLECTED



Plastics are now found **inside animals** throughout the ocean food chain - from mussels to fish to sea turtles to whales.



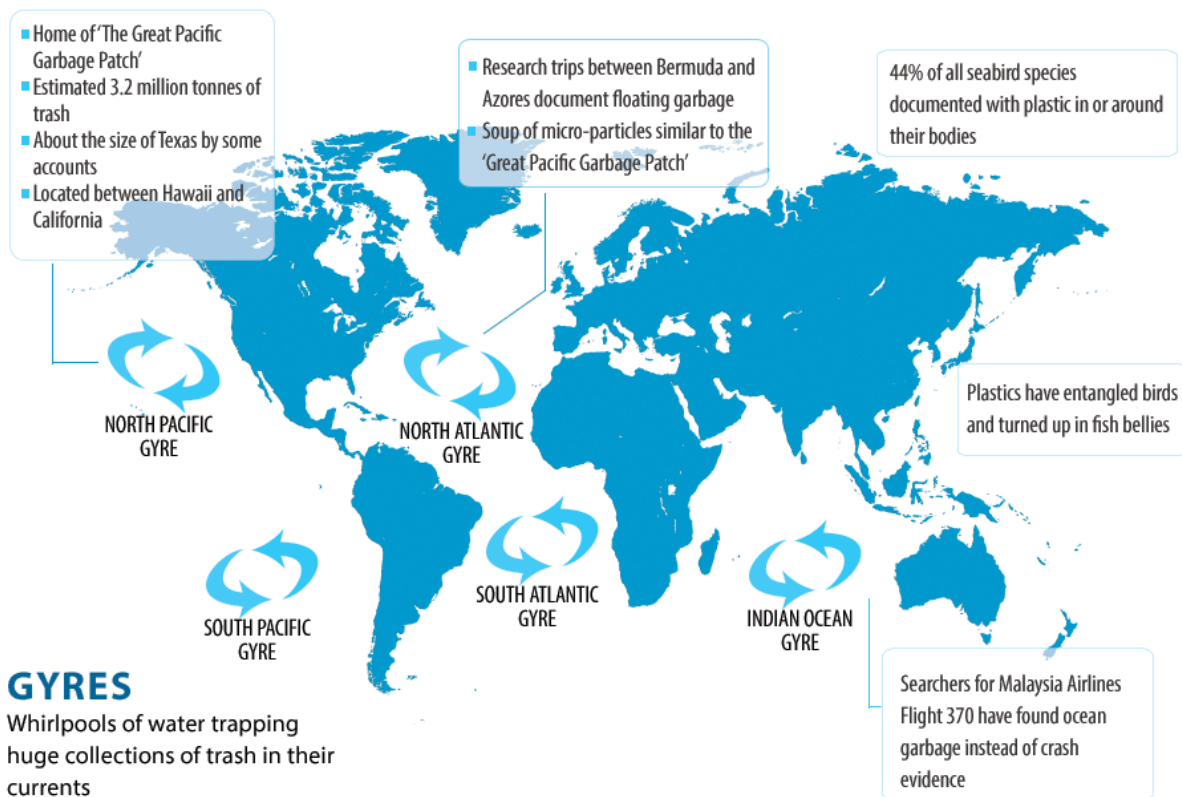
HOW LONG 'TIL IT'S GONE?

Estimated decomposition rates of common marine debris items

 AVERAGE LIFE EXPECTANCY



© Trash Travels, Ocean Conservancy



CBC News, 2014

REFERENCES AND ADDITIONAL RESOURCES

- www.5gyres.org
- <http://education.nationalgeographic.com/encyclopedia/great-pacific-garbage-patch/>
- www.banthebottle.net
- www.ncsl.org
- www.reuseit.com
- <http://newint.org/features/2008/09/01/plastic-is-forever/>
- <http://www.oceanconservancy.org/our-work/international-coastal-cleanup/>
- <http://washedashore.org/>
- <http://kids.niehs.nih.gov/explore/reduce/index.htm>
- <http://ecowatch.com/2014/04/07/22-facts-plastic-pollution-10-things-can-do-about-it/>
- http://www.theworldcounts.com/counters/waste_pollution_facts/plastic_bags_used_per_year
- <http://www.reusethisbag.com/reusable-bag-infographics/plastic-bag-bans-world.php>
- <http://marinedebris.noaa.gov/>
- <http://www.oneworldocean.com/>
- <http://www.plasticoceans.net/>
- <https://www.oceanchampions.org/>
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- <http://www.fauna-flora.org/>
- <http://www.mcsuk.org/>
- <http://www.plasticpollutioncoalition.org/>
- <http://www.nrdc.org/oceans/plastic-ocean/>
- http://www.earth-policy.org/press_room/C68/plastic_bags_fact_sheet