DOES THE
“GREAT PACIFIC GARBAGE PATCH”
REALLY EXIST?
Is it “twice the size of Texas” as environmentalists allege?

Or is it a
Great Pacific Garbage Myth?

ARE 100,000 MARINE MAMMALS
AND A MILLION SEABIRDS
BEING KILLED EACH YEAR BY PLASTIC
BAGS, AS ENVIRONMENTALISTS
ALLEGED?

Or are they being killed
by something else?

FIND OUT THE ANSWERS HERE – WITH
PHOTOGRAPHIC EVIDENCE!
THE PURPOSE OF THE COALITION

Save The Plastic Bag Coalition was formed in 2008 to respond to the myths, misinformation, and exaggerations about plastic bags created and disseminated by environmental groups and their overzealous supporters.

An editorial in the London Times on March 8, 2008 stated:

“Many of those who have demonized plastic bags have enlisted scientific study to their cause. By exaggerating a grain of truth into a larger falsehood, they spread misinformation and abuse the trust of their unwitting audiences.”

David Laist, a senior policy and program analyst with the federal Marine Mammal Commission, has stated:

“In their eagerness to make their case, some of the environmental groups make up claims that are really not supportable.”

The chief scientist on the Scripps Seaplex expedition, which went out to the Pacific to survey marine debris, states as follows regarding the “Great Pacific Garbage Patch”:

“Misinformation on this issue is rampant.”

The Algalita Marine Research Foundation created the idea of a “Great Pacific Garbage Patch.” In December 2011, Dr. Marcus Eriksen of Algalita admitted:

“The idea of a single, Texas-size garbage patch is the myth of media sensationalism.”
ARE 100,000 MARINE MAMMALS
AND A MILLION SEABIRDS
BEING KILLED EACH YEAR BY PLASTIC BAGS?

The following statement was contained in editorials published in the Daily Breeze and the San Jose Mercury News:

“Plastic bags kill an estimated 1 million seabirds and 100,000 other animals every year, whether from eating the things or getting tangled in them.”

On January 22, 2008, the Los Angeles County Board of Supervisors considered adoption of a plastic bag reduction program. The following statements were made at that meeting:

Emily Utter of Chico Bag Company (reusable bag maker): “And as we've heard, plastic bags pose a huge environmental threat to our marine environment, 100,000 marine deaths per year due to plastic bags.”

Heal the Bay: “You've all heard the numbers 6 billion bags, which is a million bags a minute worldwide are used throughout the world. We have a global environmental crisis. You've heard the numbers on a million sea birds, 100,000 marine mammals annually.”

Supervisor/Chair Yvonne Burke: “We look to this body to protect the animals that are dying out there by the millions.”

In fact, the allegation that 100,000 marine mammals and a million seabirds die each year as a result of plastic bags is untrue. An article in the The Times of London on March 8, 2008 entitled “Series of blunders turned the plastic bag into global villain” states in part as follows:

“The central claim of campaigners is that the bags kill more than 100,000 marine mammals and one million seabirds every year. However, this figure is based on a misinterpretation of a 1987 Canadian study in Newfoundland, which found that, between 1981 and 1984, more than 100,000 marine mammals, including birds, were killed by discarded nets. The Canadian study did not mention plastic bags.”
Fifteen years later in 2002, when the Australian Government commissioned a report into the effects of plastic bags, its authors misquoted the Newfoundland study, mistakenly attributing the deaths to “plastic bags”.

The figure was latched on to by conservationists as proof that the bags were killers. For four years the “typo” remained uncorrected. It was only in 2006 that the authors altered the report, replacing “plastic bags” with “plastic debris”. But they admitted: “The actual numbers of animals killed annually by plastic bag litter is nearly impossible to determine.”

In a postscript to the correction they admitted that the original Canadian study had referred to fishing tackle, not plastic debris, as the threat to the marine environment.

Regardless, the erroneous claim has become the keystone of a widening campaign to demonise plastic bags.

David Santillo, a marine biologist at Greenpeace, told The Times that bad science was undermining the [British] Government’s case for banning the bags. “It’s very unlikely that many animals are killed by plastic bags,” he said. “The evidence shows just the opposite.”

The U.S. National Oceanic and Atmospheric Administration (“NOAA”) states as follows:

**Question:** “Is it true that 100,000 marine mammals and/or sea turtles die each year due to marine debris/plastics/plastic bags?”

**Answer:** “We were able to find no information to support this statement. An erroneous statement attributing these figures to plastic bags was published in a 2002 report published by the Australian Government; it was corrected in 2006.”

**Question:** “Is it true that marine debris kills a million seabirds each year?”

**Answer:** “This statement is currently unknown. We are so far unable to find a scientific reference for this figure. The closest we have found is “214,500 to 763,000 seabirds are killed annually incidental to driftnet fishing by Japanese fishermen in the North Pacific Ocean (US Department of Commerce, 1981)” from Laist, 1987.”
WHAT IS REALLY KILLING TURTLES? NOT PLASTIC BAGS!

Click here for an index of all sea turtles admitted to the Sea Turtle Rescue and Rehabilitation Center from 1996 to 2012. Many of the injuries or deaths are caused by fishing nets and hooks. Plastic bags and plastics are not even mentioned.

SURVEY OF 152 BIRD ENTANGLEMENTS OFF THE U.S. WEST COAST FROM 2001 TO 2005

Table 1. Entangled birds (n=152) recorded from 2001-2005.

<table>
<thead>
<tr>
<th>Common name</th>
<th>n</th>
<th>Entanglement material (where identified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black-footed Albatross</td>
<td>1</td>
<td>Rope</td>
</tr>
<tr>
<td>Brandt’s Cormorant</td>
<td>11</td>
<td>Fishing line, fishing hook, rope and metal</td>
</tr>
<tr>
<td>Brown Pelican</td>
<td>5</td>
<td>Fishing hook, hook and sinker</td>
</tr>
<tr>
<td>California Gull</td>
<td>4</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Common Merpanse</td>
<td>1</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Common Murre</td>
<td>42</td>
<td>Balloon, fishing line, fishing hook, fishing net, hook, line and sinker, plastic, salmon gear</td>
</tr>
<tr>
<td>Double-crested Cormorant</td>
<td>3</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Glaucous-winged Gull</td>
<td>5</td>
<td>Fishing line, fishing hook, fishing net</td>
</tr>
<tr>
<td>Heermann’s Gull</td>
<td>1</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Northern Fulmar</td>
<td>3</td>
<td>Balloon &amp; string, fishing line and sinker</td>
</tr>
<tr>
<td>Pelagic Cormorant</td>
<td>6</td>
<td>Fishing line, fishing hook, line and sinker</td>
</tr>
<tr>
<td>Short-tailed Shearwater</td>
<td>1</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Sooty Shearwater</td>
<td>11</td>
<td>Fishing line, fishing hook</td>
</tr>
<tr>
<td>Surf Scoter</td>
<td>1</td>
<td>Fishing line</td>
</tr>
<tr>
<td>Western Grebe</td>
<td>8</td>
<td>Fishing line, string</td>
</tr>
<tr>
<td>Western Gull</td>
<td>25</td>
<td>Fishing line, fishing hook, line and sinker</td>
</tr>
<tr>
<td>Unidentified spp.</td>
<td>24</td>
<td>Fishing line, fishing hook, plastic, rope and string</td>
</tr>
</tbody>
</table>

WHAT ARE ALBATROSSES INGESTING? NOT PLASTIC BAGS!

Anti-plastic bag activists claim that albatrosses are ingesting "plastic" and dying as a result. They say that this is a major justification for banning plastic bags.

You be the judge.

Click here for a BBC video and tell us what you think. Does the video justify the banning of plastic bags?

The image below is from the video. Lots of “plastic” was found in the albatrosses, but not plastic bags! Not one!
DOES THE “GREAT PACIFIC GARBAGE PATCH” EXIST?

On June 24, 2010, the Los Angeles Times stated in an editorial:

“The Great Pacific Garbage Patch is an area of the ocean larger than Texas and thick with floating plastic debris: bottles, bottle caps, bits of packaging and uncountable plastic bags.”

The statement is untrue. We challenge you to check Google Images and find a single photograph of it.

The chief scientist on the Scripps Seaplex expedition, which went to the Pacific to survey marine debris, states as follows regarding whether there is area of trash the size of Texas:

“There is no evidence for this. There certainly is a lot of trash, but there have been no measurements of either the trash’s total area or its growth rate.”

Dr. Marcus Eriksen of the Algalita Marine Research Foundation sailed from Long Beach to Hawaii to find the “Great Pacific Garbage Patch.” He states:

“There is no island of plastic trash.”

He says that there is a confetti of waste on the ocean surface.

The U.S. National Oceanic and Administration (NOAA) states as follows:

“The name “garbage patch” is a misnomer. There is no island of trash forming in the middle of the ocean nor a blanket of trash that can be seen with satellite or aerial photographs. This is likely because much of the debris found here is small bits of floating plastic not easily seen from a boat.”

“The reported size and mass of these "patches" have differed from media article to article. Due to the limited sample size, as well as a tendency for observing ships to explore only areas thought to concentrate debris, there is really no accurate estimate on the size or mass of the “garbage patch” or any other concentrations of marine debris in the open ocean.”
The Sea Education Association in Woods Hole, Massachusetts has surveyed plastic debris in the Atlantic Ocean for the past 22 years. They are now reporting that the concentration of plastic in the Atlantic Ocean has not increased over the past 22 years, despite the increased production of plastics during that period. They were surprised to find that there was no overall change in the amount of plastic snared from 1986 to 2008. Karen Lavender, an oceanographer at the Sea Education Association said:

“I expected to see the line go right up. It took us a good year to decide no, we have not seen an increase, no matter how you slice it.”

Each half-hour trawl in the area where the concentration was the highest typically turned up just 20 tiny pieces, equivalent to about 0.3 grams in all. By comparison, a U.S. nickel weighs 5 grams.

Karen Lavender says:

“If scientists sifted through 2,000 bathtubs’ worth of plastic-contaminated seawater, they’d find just enough micro particles to fill the palm of a person's hand.”
In 2008, the Algalita Marine Research Foundation sent a vessel called the JUNK from Long Beach to Hawaii to prove the existence of the “Great Pacific Garbage Patch.” The captain of the vessel was Dr. Marcus Eriksen. In this image, the JUNK drags the trawl device through the North Pacific Gyre. There are no visible plastic bags or any other trash.

http://www.youtube.com/watch?v=3d3_fLSjC8U
24 hours and 50 miles later, Dr. Eriksen pulls the trawl device aboard the boat. There are no visible plastic bags or any other trash.
Dr. Eriksen shows the inside of the trawl device containing debris.
Dr. Eriksen empties the contents of the trawl device into a pan, a tiny amount considering this is the result of a 24-hour 50-mile trawl.
Dr. Eriksen shows the results a jar. It appears that there are at least two fish. Based on a 24-hour 50-mile trawl through the Gyre, the amount of debris is tiny and insignificant.
Since returning from the JUNK voyage, Dr. Eriksen has stated:

“There is no island of plastic trash.”

Dr. Eriksen maintains that there is a “confetti of waste” spread across the entire ocean surface, but as we have seen from the YouTube video, the amount even in the Gyre is tiny.
THE RESULT OF A ONE-MILE TRAWL IN THE WORST AREA OF THE PACIFIC GYRE ACCUMULATION ZONE

This is the photograph that Los Angeles County claims is substantial evidence of a “Great Pacific Garbage Patch” that justifies banning plastic bags.

The sample in the photograph was collected from a one-mile trawl in an accumulation zone in the particular area of the Pacific Ocean that has the most concentrated debris. **This is not an instant scoop up from the ocean.** We cannot ascertain what exactly is in the jar. As suggested by the label on the jar, much of the contents may be zooplankton, which are tiny animals. This is apparently as bad as it gets. It is a tiny amount over a one-mile distance.
CORVALLIS, Ore. – There is a lot of plastic trash floating in the Pacific Ocean, but claims that the “Great Garbage Patch” between California and Japan is twice the size of Texas are grossly exaggerated, according to an analysis by an Oregon State University scientist.

Further claims that the oceans are filled with more plastic than plankton, and that the patch has been growing tenfold each decade since the 1950s are equally misleading, pointed out Angelique “Angel” White, an assistant professor of oceanography at Oregon State.

“There is no doubt that the amount of plastic in the world’s oceans is troubling, but this kind of exaggeration undermines the credibility of scientists,” White said. “We have data that allow us to make reasonable estimates; we don’t need the hyperbole. Given the observed concentration of plastic in the North Pacific, it is simply inaccurate to state that plastic outweighs plankton, or that we have observed an exponential increase in plastic.”

White has pored over published literature and participated in one of the few expeditions solely aimed at understanding the abundance of plastic debris and the associated impact of plastic on microbial communities. That expedition was part of research funded by the National Science Foundation through C-MORE, the Center for Microbial Oceanography: Research and Education.

The studies have shown is that if you look at the actual area of the plastic itself, rather than the entire North Pacific subtropical gyre, the hypothetically “cohesive” plastic patch is actually less than 1 percent of the geographic size of Texas.

“The amount of plastic out there isn’t trivial,” White said. “But using the highest concentrations ever reported by scientists produces a patch that is a small fraction of the state of Texas, not twice the size.”

Another way to look at it, White said, is to compare the amount of plastic found to the amount of water in which it was found. “If we were to filter the
surface area of the ocean equivalent to a football field in waters having the highest concentration (of plastic) ever recorded,” she said, “the amount of plastic recovered would not even extend to the 1-inch line.”

Recent research by scientists at the Woods Hole Oceanographic Institution found that the amount of plastic, at least in the Atlantic Ocean, hasn’t increased since the mid-1980s – despite greater production and consumption of materials made from plastic, she pointed out.

“Are we doing a better job of preventing plastics from getting into the ocean?” White said. “Is more plastic sinking out of the surface waters? Or is it being more efficiently broken down? We just don’t know. But the data on hand simply do not suggest that ‘plastic patches’ have increased in size. This is certainly an unexpected conclusion, but it may in part reflect the high spatial and temporal variability of plastic concentrations in the ocean and the limited number of samples that have been collected.”

The hyperbole about plastic patches saturating the media rankles White, who says such exaggeration can drive a wedge between the public and the scientific community. One recent claim that the garbage patch is as deep as the Golden Gate Bridge is tall is completely unfounded, she said.

To read the rest of the press release and for an article in the Oregonian about the findings, click on the following link:

http://www.savetheplasticbag.com/ReadContent717.aspx
Note the wording on this image of intact plastic bags floating in water: “GREAT PACIFIC GARBAGE PATCH”
These are images from a recent Heal the Bay video about plastic bags. In the image on the previous page, intact plastic bags are portrayed as floating in the ocean. The image morphs into the above map of the “Great Pacific Garbage Patch.”

Note that the image overlaying the “Great Pacific Garbage Patch” is a gigantic white plastic bag along with scattered images of small plastic bags.

The commentary on the video says that the Great Pacific Garbage Patch is “said to be twice the size of Texas.” The video misinforms and deceives the public. The “Great Pacific Garbage Patch” does not exist. The video has been viewed more than 1.2 million times.
This is an image from a children’s cartoon video falsely portraying the Great Pacific Garbage Patch as a massive island in the Pacific Ocean consisting of 1 billion plastic bags.

Californians Against Waste (“CAW”) publicized the video on its website.
This is the map of the “Pacific Garbage Patch” in the California textbook approved by the California State Board of Education. We have protested.
A MISINFORMED SENATOR

Senator Mark Leno stated as follows during the floor debate on AB 1998:

“There are plastic patches now in our oceans which are twice the size of Texas.”

Senator Leno was misinformed.