

# A RISING TIDE OF OCEAN DEBRIS AND WHAT WE CAN DO ABOUT IT

# EMBARGOED FOR RELEASE ON MARCH 10, 2009

#### **PLEASE NOTE:**

Ocean Conservancy's report, A Rising Tide of Ocean Debris and What We Can Do About It, is embargoed for release until Tuesday, March 10 at noon EDT (5pm GMT) for broadcast and publication.

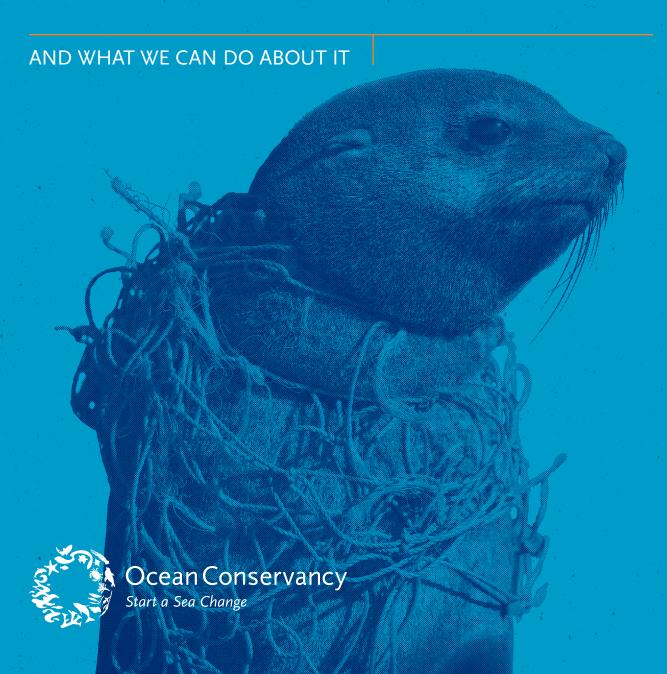
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# ARISING TIDE OF OCEAN DEBRIS



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#### **OCEAN CONSERVANCY**

Ocean Conservancy promotes healthy and diverse ocean ecosystems and opposes practices that threaten ocean life and human life.

#### **COVER PHOTOGRAPH**

#### THE INTERNATIONAL COASTAL CLEANUP

In partnership with volunteer organizations and individuals across the globe, Ocean Conservancy's International Coastal Cleanup

WE ARE ALL CONNECTED TO THE OCEAN. The disheartening amount of trash afloat in the sea, littering beaches, and piling up on the sea floor affects the health of Earth's life support system, the ocean, and all the living things in it. Marine debris is more than a blemish on Nature, it is a potential threat to our food supply, to tourism and economic activity, to marine wildlife and ecosystems, and to our personal health. It even relates to the impacts of climate change. But there's good news: Marine debris is a problem we can readily solve.



# THE CIRCLE OF LIFE



t's time we realize that all of uswhether we are among the large portion of the world population inhabiting the coast, or those living thousands of miles inland—are intimately connected to the ocean. The ocean is Earth's life support system. It drives and moderates our climate. It creates the weather (both good and bad). It is the ultimate source of the water we drink

and much of the oxygen we breathe. It directly feeds millions of people. It also absorbs much of the air and water pollution generated by a world population approaching seven billion. But our ocean is sick, and our actions have made it so. We must recognize that the ocean is inextricably connected to us; when we allow trash to get into the ocean, we directly affect its health. And that, as you'll learn in this report, may affect our own health and well-being.

In spite of all of the wonderful life-giving benefits provided by the ocean, most people don't yet understand what's really at stake. All of these ocean benefits—indeed, the future of life on Earth—are threatened by climate change and its direct impact on the ocean, the land, and humanity. As we work to reduce greenhouse gas emissions, we must also find ways to improve ocean health. We must make the ocean more resilient to the negative impacts already set in motion by excess carbon dioxide in the atmosphere and seawater. Tackling the major pollution problem of marine debris is a sure-fire way to make an immediate change for the better.

I'm happy to report that awareness of ocean connections is growing, as shown by exploding participation in Ocean Conservancy's International Coastal Cleanup. In September 2008, from the landlocked state of Nebraska in the United States to countries with long ocean borders like Mozambique, 390,000 people in 104 countries and locations—each concerned about the fate of our planet—walked riverbanks, lake shores, and beaches picking up trash. Among them were more than 10,600 divers and more than 1,200 boaters. These volunteers not only cleaned up trash, but logged data about

what they found. This information, amassed over the 23-year history of the Cleanup, has been integral both to raising awareness about this global problem and implementing policy changes to address it.

The ocean covers more than two-thirds of our planet. It provides 99 percent of the living space on Earth. Since the beginning of human history, we have believed it to be infinite, but it is not. We simply cannot continue to put our trash in the ocean. The evidence turns up every day in dead and injured marine life, littered beaches that discourage tourists, and choked ocean ecosystems.

To keep the circle of life intact and healthy, we must act now. This special report highlights the ways in which trash impacts ocean health, and offers solutions based on that information that every one of us can implement every day to ensure a healthy ocean for the future. The report is a global snapshot that shows how we are part of the marine debris picture—and key to the solution.

Please read the Take Action section in this report, and visit www.oceanconservancy.org on a regular basis, to find out what you can do to make a difference, including joining us on September 19, 2009, at the 24th annual International Coastal Cleanup.

For the ocean,

President and CEO, Ocean Conservancy

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# PHILIPPE COUSTEAU



grew up with the ocean. Sitting with my grandfather and listening to his life's stories—hearing the urgency in his voice—being inspired by the passion that he had for taking action for our water planet. The oceans are the life support system of this planet. They are in peril, and it is critical that we all know we have a responsibility to protect and restore the oceans because everything

we do makes a difference, all of our choices have consequences.

The preservationist John Muir said it best, I believe: "When one tugs at a single thing in nature, he finds it attached to the rest of the world."

Building on my grandfather's and father's legacy, I dedicate my work to the ocean as CEO of EarthEcho International and as an Ocean Conservancy board member. Empowering every individual to take action for a healthy and abundant planet, especially the ocean, is at the heart of what I do.

Make no mistake; we live in a time of crisis for our oceans and the challenges facing them are myriad and daunting. Climate change, the greatest environmental challenge we face, starts with the ocean. Melting sea ice, seawater that is growing more acidic, rising sea levels, and extreme weather events are affecting marine life and coastal communities right now as you read this, not tomorrow or next year or decades from now.

Removing marine debris is one way we can all take action to help the ocean adapt and become stronger in the face of climate change. But the problem of marine debris goes deeper still. While climate change and other stressors are taking a toll, trash layers the ocean floor, floats in our waterways, and harms and kills ocean wildlife, further weakening the system.

This report is a reminder that our own carelessness and indifference is proving deadly for our ocean's inhabitants. Offered here on these pages are more than mere facts and figures. The time for action is now, and true change will require taking a bold and courageous stand. There are solutions that everyone, everywhere in the world, can adopt and join in. Most of them are quite simple: throw your trash in the proper receptacles; opt for reusable bags at the grocery store; eat only sustainably caught fish; recycle. Regardless, whatever you choose to do to help the ocean, the most important thing is to do *something*, to not only be ardent advocates of conservation but also its most active participants.

The time for sea change has come. Each of us has a personal responsibility when it comes to the health of the ocean. While the challenges we face may seem overwhelming, I am a firm believer that together we can build the sustainable future of our dreams. Each of us alone. All of us together. Making a positive difference.

PHILIPPE COUSTEAU

President and CEO, EarthEcho International Board Member, Ocean Conservancy

# **EXECUTIVE SUMMARY**

#### ACCORDING TO THE UNITED NATIONS ENVIRONMENT PROGRAMME,

"Marine litter is one of the most pervasive and solvable pollution problems plaguing the world's ocean and waterways."

Litter can travel to the ocean from many miles inland, blown on the wind or carried along by rivers and streams. We are all responsible, from beachgoers to oil-rig workers and fishermen, for cigarette butts, food wrappers, bottles, and bags in the water. Overflowing sewage systems and storm drains add to the burden by ferrying trash from rural roads and city streets to the sea. And, despite national and international regulations against dumping, some people on boats still drop trash directly into the ocean. In recent years, organic materials that were once the most prevalent component of marine debris have been supplanted by synthetics. Not only do items like packing straps, tarps, nets, and containers last for years, but also they are often highly buoyant, traveling thousands of miles on ocean currents.

Each year, Ocean Conservancy provides a compelling global snapshot of marine debris collected at sites all over the world at the International Coastal Cleanup held the third Saturday of every September. This year's report, A Rising Tide of Ocean Debris, presents data recorded by nearly 400,000 volunteers in 104 countries and locations and 42 US states at the 23rd annual Cleanup.

This report reveals the types and sources of debris and zeroes in on the startling impacts of ocean trash on wildlife and its connection to the challenge of global climate change. Its recommendations provide a roadmap for eliminating marine debris altogether by reducing it at the source, changing the behaviors that cause it, and supporting better policy.

The comprehensive body of data compiled each year at the Cleanup—the Marine Debris Index—has informed major legislation like the Marine Debris Research, Prevention, and Reduction Act of 2006, and inspired improvements

in packaging and other technologies as well as expanded recycling efforts in communities large and small.

## **KEY FINDINGS**

A tidal wave of ocean debris is a major pollution problem of the 21<sup>st</sup> century. During the 2008 International Coastal Cleanup in September, nearly 400,000 volunteers picked up an astounding 6.8 million pounds of trash, trash that has a major impact on ocean health. Toxic materials enter the food chain, sharp items injure beachgoers, and accident-causing debris snarls boat propellers. Trash weakens economies, sapping precious dollars from tourism and our seafood industries. And it harms individual species as well as entire ecosystems, like coral reefs, that are essential for the survival of marine life.

Certain categories of debris show up more often in certain places. The Marine Debris Index is the only state-by-state, country-by-country measure of trash in our waterways and ocean. During the 2008 Cleanup, volunteers collected 11,077 diapers in the Philippines, 19,504 fishing nets in the United Kingdom, and 1,362,741 cigarette butts in the US. That's the kind of information that helps planners at the local, regional, national, and international levels tackle marine debris effectively.

Of the 43 items tracked during the Cleanup, the top three items of trash found in 2008 were cigarette butts, plastic bags, and food wrappers/containers.

All readily fall from human hands, and can be easily contained if people dispose of them carefully.

04

Marine debris kills. Every year, thousands of marine mammals, sea turtles, seabirds, and other animals are sickened, injured, or killed because of trash in the ocean. Animals choke or become poisoned when they eat trash, and drown when they become entangled in bags, ropes, and old fishing gear. The majority of entangled animals found during the Cleanup were bound up by old fishing line. The loss of wildlife affects not only the beauty and health of the planet, but also countless local economies based on the bounty of the sea.

Marine debris degrades ocean health and compromises its ability to adapt to climate change. Marine debris is yet another stress on an ocean already facing transformation due to global climate change in the guise of rising sea levels, warming water, and changing ocean chemistry. As marine organisms and ecosystems struggle to adapt to climate change, we can improve their resilience and help to give them a fighting chance by eliminating the stresses caused by human impacts like trash in the ocean.

## RECOMMENDATIONS

Humans have created the marine debris problem, and humans must take responsibility for it. How big is the challenge? In 2008, a major report from the National Research Council titled *Tackling Marine Debris in the 21st Century* recommended a goal of discharging zero waste into marine environments.

The Cleanup data tells us that we are putting huge quantities of dangerous items into the ocean. Based on the accumulated evidence put forth in this report and over the past 23 years, Ocean Conservancy recommends the following actions to end marine debris:

Expand public and private partnerships to monitor and reduce marine debris. Ending marine debris requires everyone's participation. More corporations and private citizens have joined government, foundations, and non-governmental organizations in the environmental arena and helped shape change as never before. We must find every opportunity to pull all stakeholders into solution scenarios.

Fund increased research on the sources and impacts of marine debris. We need science-based solutions. Armed with knowledge, we can focus our attention on particular areas of greatest vulnerability and target sources and types of marine debris that are proving the most harmful. Bolstered by information about what these things are, where they originate, and their quantities, we can work more efficiently and effectively to reduce litter at the source in addition to cleaning up what's already out there.

THE NATIONAL RESEARCH COUNCIL
RECOMMENDED A GOAL OF DISCHARGING
ZERO WASTE INTO MARINE ENVIRONMENTS.

Reduce, reuse, recycle. Much of what winds up in the ocean wasn't truly necessary in the first place.

We can produce less packaging up front and cut back on debris through programs that encourage positive changes in behavior such as recycling and the routine use of cloth grocery bags.

Seek better technological solutions. Human ingenuity has already closed in on some of the breakthroughs we need to reduce marine litter, such as bottle designs that use less plastic and environmentally friendly materials.

Support the inclusion of comprehensive ocean management in all climate change initiatives. Citizens must vote for and actively support climate change policies that protect the ocean. Government, for its part, must lead with policy changes that include strategies to minimize the negative impacts climate change has on the ocean and policies that reduce sources of marine debris.

Engage in community efforts like the International
Coastal Cleanup. Events like the Cleanup really do
make a difference, whether making the local beach
or shoreline free of debris or raising awareness
and empowering individuals to support a healthier, more
resilient ocean.

# 

THE MARINE DEBRIS INDEX



he International Coastal Cleanup is the world's largest volunteer effort of its kind for the ocean. On one day in September 2008 during the 23rd annual Cleanup, 390,881 volunteers in 104 countries and locations around the world, as well as in 42 US states and the District of Columbia, collected an astonishing 6.8 million pounds of debris, the equivalent of 17 pounds for every participant.



INTERNATIONAL COASTAL CLEANUP

# PARTICIPATING COUNTRIES

#### AND LOCATIONS

Argentina
Aruba
Australia
Austria
Bahamas
Bahrain
Bangladesh
Barbados
Belgium
Belize
Bermuda
Brazil
British Virgin Islands
Canada
Cayman Islands
Chile
China
Colombia
Cook Islands
Costa Rica

Cyprus Denmark Dominica Dominican Republic **East Timor Ecuador** Egypt Estonia Fiji Finland France French Polynesia Germany Ghana Greece Grenada Guam Guatemala Guyana Honduras Hong Kong

India Indonesia Iran Ireland Israel Italy Jamaica Japan Jordan Kenya Kuwait Malaysia Maldives Malta Marshall Islands Mauritius Mexico Mozambique **Netherlands Antilles** Netherlands

Hungary

**New Zealand** Nicaragua Nigeria Northern Mariana Islands **Oman** Palau Paraguay Philippines Poland Portugal Puerto Rico Qatar Republic of Korea Russia Saudi Arabia Seychelles Singapore Slovakia Slovenia Solomon Islands South Africa

Spain Sri Lanka St. Kitts and Nevis St. Vincent and the Grenadines Sweden Switzerland Taiwan Tanzania Thailand Trinidad and Tobago Turkey Ukraine **United Arab Emirates United Kingdom United States US Virgin Islands** Uruguay Vanuatu Venezuela Vietnam

Croatia





#### TOP TEN MARINE DEBRIS ITEMS

RANK	DEBRIS ITEM	NUMBER OF Debris Items	PERCENTAGE OF TOTAL DEBRIS ITEMS
611 <u>61</u>	Cigarettes/Cigarette Filters	3,216,991	28%
2	Bags (Plastic)	1,377,141	12%
3	Food Wrappers/Containers	942,620	8%
4	Caps, Lids	937,804	8%
5	Beverage Bottles (Plastic)	714,892	6%
6	Bags (Paper)	530,607	5%
7	Straws, Stirrers	509,593	4%
8	Cups, Plates, Forks, Knives, Spoons	441,053	4%
9	Beverage Bottles (Glass)	434,990	4%
10	Beverage Cans	401,412	4%
	Top 10 Total Debris Items	9,507,103	83%
	Total Debris Items Worldwide	11,439,086	100%

Slogging through sand and mud along an estimated 17,000 miles of coastline, Gleanup volunteers bagged up 11,439,086 million pieces of trash, from cigarette butts to grocery bags to fast-food wrappers. They removed more than 400 pounds of debris for every mile of beach cleaned.

From families and friends to students and scout troops, devoted volunteers banded together and got down to work. They energetically scooped up trash along lakes, rivers, streams, and ocean beaches, leaving debris-free shorelines in their wake. Aboard boats, 1,236 people collected 38,224 pounds of debris that could not be reached from land, and 10,600 divers (organized by the Project AWARE Foundation), dove below the water's surface to haul out 219,528 pounds. During the course of the Cleanup, a total of 6,485 sites, from beaches in South Korea to rivers and waterways in Kansas, were made pristine.

Sadly, people everywhere keep dropping trash where it can reach the ocean, continuing their contributions to the tide of marine debris. That's why the Cleanup is organized to generate data helpful in preventing the trash that pollutes the ocean. Each year, Cleanup volunteers tally every single item they recover, from drink-stirrers and light bulbs to

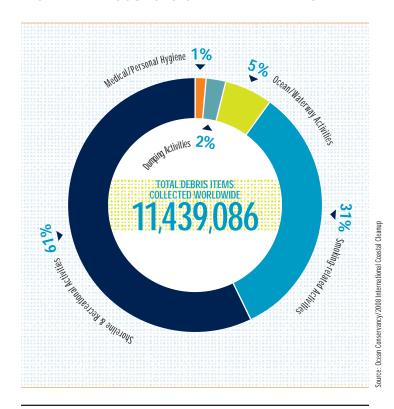
55-gallon industrial drums and household appliances. They log each item on standardized data cards by item and source (see definitions on page 10), then submit the data to Ocean Conservancy for compilation and analysis. The resulting Marine Debris Index helps identify the sources of marine debris so it can be prevented in the first place. (For the complete Index and methodology, including state by state and country by country breakdowns, see pages 34 through 47; visit www.oceanconservancy.org to view additional information.)

#### Better Data Means Better Decision-making

Trash in the ocean is more than an eyesore—it impacts everything from ocean health (and potentially human health) to local economies, especially those based on tourism and fisheries. As this report helps to demonstrate, marine debris also directly threatens wildlife and reduces the resilience of the ocean in the face of climate change impacts. The ocean, far from limitless in its ability to absorb our refuse, now suffers from clogged shorelines, huge amounts of trash floating thousands of miles out at sea, and accumulations that smother life on the sea floor. To combat the unsightly and dangerous debris in our ocean, we need knowledge about exactly what we are putting out there. The Marine Debris Index paints that picture, item by item.

Of the *individual items* tracked, cigarettes and cigarette filters were the most prevalent found during the Cleanup, with 3,216,991 removed from beaches and inland waterways; they accounted for more than twice the number of any of the other 43 debris items tracked. Second on the list are plastic bags (1,377,141), which accounted for one in ten items collected. The largest overall *source of debris* was Shoreline and Recreational

#### **WORLDWIDE SOURCES OF MARINE DEBRIS**



Activities, which accounted for 61 percent of all debris items and includes beverage bottles and cans along with food wrappers and containers. Clearly, the ways in which we dispose of these items after eating and drinking often lead to trash in the ocean. And while items from Dumping may be fewer in number than others, 55-gallon drums (2,144) containing toxic liquids like pesticides (or their residue) and medical syringes (10,817) contribute significantly to ocean pollution as well. A look back at the past five years of data shows that the top ten debris items have remained the same over time,

CONSIDERING THAT THE AVERAGE PERSON IN THE US GENERATES MORE THAN FOUR POUNDS OF TRASH EVERY DAY, THE TOTAL AMOUNT OF MARINE DEBRIS COLLECTED IN THE CLEANUP COULD BE EQUATED TO THE DAILY TRASH OF 1.5 MILLION AMERICANS.

#### SOURCES OF MARINE DEBRIS BY REGION

stal Cle	SOURCE	AFRICA	NORTH AMERICA	CENTRAL AMERICA	SOUTH AMERICA	CARIBBEAN		WESTERN ASIA	EUROPE	OCEANIA
tional Co	Shoreline & Recreational Activities	85.1%	53.1%	23.7%		81.5%	79.6%	47.4%	57.3%	72.4%
008 Intern	Ocean/Waterway Activities	1.6%	4.9%			5.3%		2.20/	29.0%	4.4%
ervancy/2	Smoking-related Activities	9.0%	35.2%	74.0%	19.1%	9.8%	11.1%	47.0%	9.1%	19.7%
ean Cons	Dumping Activities	2.3%	2.10/	0.20/	2 40/	2.20/	110/	1.5%	2.7%	2.7%
ource: Oc	Medical/Personal Hygiene	1.9%		0.4%		1.2%	0.9%	0.8%	2.0%	0.9%

and Shoreline and Recreational Activities held their position as the top source of marine debris.

The marine debris problem is solvable, and often through relatively simple or existing measures. Armed with knowledge about the most prevalent components of marine debris, elected officials can make informed policy decisions, community leaders can tailor and expand recycling and other trash-reduction programs, corporate decision makers can improve technology and reduce packaging, and individuals can recycle, reuse, or properly dispose of trash to keep these items out of the ocean in the first place.

THE TOTAL WEIGHT OF GARBAGE COLLECTED (3,402 TONS) MATCHES THE WEIGHT OF 18 BLUE WHALES. THE LARGEST WHALE IN THE WORLD.

#### **Sources of Marine Debris**

Where does all the trash in the ocean originate? Knowing the answer to that question leads to better management plans and policies to stop it. To gain a more complete and useful picture of marine debris, this report defines several sources to help identify how specific items enter the ocean:

 Shoreline and Recreational Activities. The majority of marine debris comes from land-based activities like eating fast food and discarding the wrappers, beach trips, picnics, sports and recreation, and festivals. Litter washes into the ocean from streets, parking lots, and storm drains.

- Ocean/Waterway Activities. People engaged in recreational fishing and boating, commercial fishing, cargo/military/cruise ship operations, and offshore industries such as oil drilling contribute to marine debris.
- Smoking-related Activities. Careless disposal of cigarette filters, cigar tips, lighters, and tobacco product packaging is common on both land and sea.
- Dumping. Legal and illegal dumping of domestic and industrial garbage, construction materials, or large household appliances puts big quantities of harmful items into the ocean.
- Medical/Personal Hygiene. Items ranging from tampons and disposable diapers to syringes enter the water most often through sewer systems.

Regional trends are yet another useful tool for local planners working to identify and manage sources of specific debris items. As the chart on this page shows, in Africa, Shoreline and Recreational Activities was the largest category, whereas in Central America, Smoking-related Activities dominated. Europe had a greater share of Ocean/Waterway Activities than other regions. North America had the largest portion of Medical/Personal Hygiene items, like tampons and syringes, for a total of five percent,

<del>10</del>



compared to less than two percent for other parts of the world. Differences in individual items could help target specific actions. For instance, in the Philippines volunteers found 11,077 disposable diapers.

#### **Participation**

In a remarkable act of solidarity and community, individuals working at the same time and with a shared sense of urgency bagged and recorded debris. The number of participating countries and locations jumped by more than 30 percent in 2008 over 2007, to 104—a powerful demonstration that awareness of the marine debris problem is surging around the globe. About half of the volunteers were outside of the US, where the Philippines, Canada, and Japan had the greatest volunteer turnout. Volunteers came from countries as large as India and Brazil as well as one of the world's smallest nations, the island of Palau.

The greatest turnout came from the US, where 183,194 volunteers collected 3,661,455 pounds of trash along an estimated 9,000 miles of shoreline. They worked in 42 states and the District of Columbia. California had the largest cleanup in the US, with one out of five volunteers nationally.

# TOP TEN PARICIPATING COUNTRIES AND LOCATIONS

RANK	COUNTRY AND LOCATION	NUMBER OF VOLUNTEERS
112	United States	183,194
2	Philippines	37,728
3	Canada	34,320
4	Japan	13,887
5	Brazil	11,731
6	Mexico	9,543
7	Puerto Rico	8,637
8	Ecuador	8,379
9	South Africa	11,731 9,543 8,637 8,379 7,003 6,147 390,881
10	India	6,147
	104 Countries and Locations	390,881

#### TOP TEN PARICIPATING **US STATES**

RANK	US STATE	NUMBER OF VOLUNTEERS
1	California	73,691
2	Florida	32,696
3	North Carolina	18,330
4	New York	6,494
5	New Jersey	5,872
6	Virginia	5,710
7	Alabama	3,925
8	Texas	3,573
9	Illinois	3,227
10	Massachusetts	3,077
	42 US States and District of Columbia	183,194

MARK YOU CALENDAR FOR THE NEXT INTERNATIONAL COASTAL CLEANUP ON SEPTEMBER 19, 2009. VISIT WWW.COASTALCLEANUP.ORG TO SIGN UP.

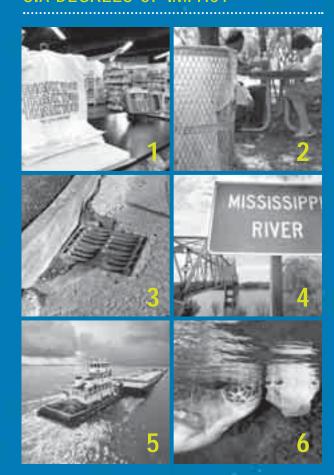
# TRASH MOVES FROM LAND TO SEA

rash travels. A plastic bag carried from a store in Memphis, Tennessee, blows from a picnic table, washes down a storm drain to the river, and winds up being eaten by a sea turtle in the Gulf of Mexico (see photos at right). That's why the International Coastal Cleanup takes place on lakes and inland waterways as well as the ocean's shores.

Data from the Cleanup confirms that the same items that litter the landscape show up on the ocean's shores. Cigarettes/ cigarette filters were the number-one debris item removed from both coastal (2,447,482 butts) and inland (769,509 butts) cleanups. With 73 percent of volunteers in coastal areas, compared to just 27 percent inland, the International Coastal Cleanup hopes to enlist more volunteers to help clean up lakes and inland waterways.

The Environmental Protection Agency, a key Cleanup partner since the start, understands the land-to-sea connection. The EPA-funded report National Marine Debris Monitoring Program: Final Program Report, Data Analysis and Summary estimates that in the US more than half of all marine debris originates from land-based activities.

## SIX DEGREES OF IMPACT



#### COASTAL VS. INLAND SOURCES OF MARINE DEBRIS

9000	SOURCE	NUMBER OF COASTAL DEBRIS ITEMS	NUMBER OF INLAND DEBRIS ITEMS	TOTAL NUMBER OF DEBRIS ITEMS
Il Cleanup	Shoreline & Recreational Activities	4,974,667	2,014,605	6,989,272
onal Coasta	Smoking-related Activities	2,653,844	882,057	3,535,901
<u></u>		506,276	92,440	598,716
vancy/2008	Dumping Activities	133,183	73,975	207,158
ean Conser	Medical/Personal Hygiene	68,476	39,563	108,039
ource: Oce		8,336,446	3,102,640	11,439,086

A RISING TIDE OF OCEAN DEBRIS

#### MARINE WILDLIFE FOUND ENTANGLED IN MARINE DEBRIS

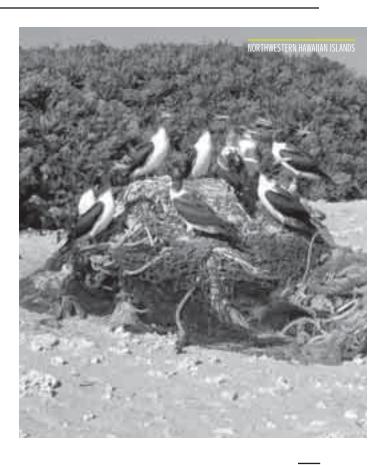
			<b>1</b> 5	BE BOTTLES	EF CAN'S	E MATERIALS	NASTER FER	HOWS C	lint.	i MES PLASTIC	A.K.S	STHINGS	cd	AIMGS		
		 BALLO	BEHER	REVER!	BUILDI	CRAB.	FISHIN	FISHIN	FISHIN	PLASTIL	RIBBO	RIPE	SIX-PAD	TIRES	WIRE	TOTA
	Amphibians	0	1	0	0	0	0	0	2	1	0	1	1	1	0	7
	Birds	1	4	1	0	0	3	57	4	9	5	13	1	0	1	99
	Fish	0	16	10	0	21	4	70	33	24	2	9	4	1	3	197
	Invertebrates									11						122
	Mammals	0	2	0	0	0	0	2	2	0	1	1	0	0	0	8
	Reptiles	0	0	0	0	0	0	2	2	2	0	3	1	0	0	10
X	T			15						47						

#### **Dangers to Wildlife**

The trash collected during the 2008 Cleanup illustrates the scope of the hazards faced every single day by wildlife in the ocean. Marine debris not only entangles marine life, but injures and kills animals that eat it.

Volunteers discovered 443 animals and birds entangled or trapped by marine debris, of which 268 were found alive and released. Fish, including sharks, stingrays, and seahorses, were the most prevalent (44 percent); volunteers found abandoned traps stuffed to the gills with doomed fish, and sharks tangled in rope or old nets. Invertebrates like octopuses, crabs, lobsters, and jellyfish were the second largest category, and birds came in third. Fishing-related items, including line, nets, rope, hooks, and crab/lobster/fish traps, accounted for the most entanglements: 69 percent, or three of every five animals found.

FOR THE COMPLETE MARINE DEBRIS INDEX GO TO PAGE 34.



# 



arine debris sickens, injures, and kills wildlife in and around waterways everywhere as ocean winds and currents circulate dangerous trash all across the world. Leaking chemical drums, cast-off motor-oil bottles and paint cans, rusting cars and household appliances, and many other items we dump into the sea affect not only wildlife but also the ecosystems they depend on for food, shelter, and the rearing of young. And when toxic materials from marine debris get into the seafood supply they may compromise human health.

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Trash travels thousands of miles in the ocean, touching the most remote places. To protect wildlife and ourselves, we have to stop marine debris at its source.

Every year, thousands of marine mammals, sea turtles, seabirds, and other animals are injured or killed by encounters with dangerous items we've carelessly allowed to reach the ocean. A fatal attraction to items like plastic bags, cigarette butts, and discarded fishing line and gear poses great hazards to the health of marine life throughout the ocean. Many species, like Hawaiian monk seals (see photo on page 16) that number just 1,200 today, are already critically endangered, raising the stakes when it comes to the impacts of marine debris.

# Ingesting Marine Debris: The Unhealthiest Diet

Many birds, dolphins, seals, turtles, and fish eat things they shouldn't—like bottle caps and toothbrushes. Few can regurgitate unhealthy items, resulting in a false sense of fullness that causes them to stop eating and slowly starve to death. Ingested trash can also cause choking, blockage of the digestive system, or toxic poisoning.

THOUSANDS OF MARINE MAMMALS, SEA TURTLES, AND SEABIRDS ARE INJURED OR KILLED BECAUSE OF ENCOUNTERS WITH DANGEROUS ITEMS.

Mounting Evidence: Every day, animals in the ocean suffer because of marine debris. A growing body of research has raised the alarm, from studies of the tiniest phytoplankton that have absorbed toxic materials from plastic to surveys of porpoises and whales drowned when discarded or abandoned ropes or fishing nets entangle them underwater. Sea turtles, of which six out of seven species are threatened or endangered, may mistake waterborne plastic bags and balloons for jellyfish (a favorite food) and die when the plastic chokes them or clogs their digestive systems. Seabirds, attracted to any small bits of trash, commonly consume plastic pellets, bottle caps, string, and cigarette butts.



- Scientists recently found a dead sperm whale with 440 pounds of fishing gear in its stomach.
- A study of northern fulmar seabirds found dead on Dutch beaches revealed that 98 percent had plastic in their stomachs.
- In Florida, 12 stranded dolphins had fishing gear in their stomachs, mouths, or throats, and some had line tangled from their stomachs to their mouths.

Plastic, the most prevalent component of marine debris, poses hazards because it persists so long in the ocean, degrading into tinier and tinier bits that can be consumed by the smallest marine life at the base of the food web. The National Research Council's 2008 report *Tackling Marine Debris in the 21*st *Century* states that plastics collect toxic compounds that then get into the bodies of organisms that eat the plastic. These compounds may travel through the food web, though the evidence on human health effects thus far is inconclusive. Research is needed to determine just how this process might impact not only wildlife but also our food supply.



Plastic in the ocean includes not only whole or fragmented consumer items, but also the pellets that are used to manufacture them. Plastic fragments and pellets can be found on beaches worldwide. Measureable amounts of small plastic debris have been found on each of the remote Northwestern Hawaiian Islands, home to the critically endangered Hawaiian monk seal and more than a million seabirds. In one study, 87 percent of the plastic collected was plastic fragments and 11 percent consisted of pre-production plastic pellets. The pellets spill and travel to the ocean through sewer systems, rivers and streams, and even on the wind.

#### Entanglement: A Treacherous Web We Weave

Every item we allow into the ocean adds to the dangerous marine debris obstacle course confronting wildlife. Curious seals poke their noses into food containers, yogurt cups, or bottles, and then get stuck, which prevents them from eating or even breathing. Playful dolphins swirl around discarded fishing nets and rope, becoming entangled. Even mighty whales are no match for marine debris; they, too, get wrapped up in abandoned fishing lines, nets, and ropes floating in the water. Victims of lost fishing gear may drown immediately, or drag the debris around until they weaken and die.

Debris doesn't just affect animals on the move; those living anchored to the sea floor are also vulnerable. Tarps, nets, tires, and other dangerous items, moved around by ocean currents, scrape, smother, and break delicate sea fans, sponges, coral, and other life on the ocean floor or reefs. In one study of recovered derelict nets and the sea life they had collected, a fifth of the total weight of debris found in nets was attributed to pieces of coral the nets had broken off and scooped up.

Fishing nets abandoned in the water can travel the sea over many years, trapping significant numbers of fish through a phenomenon known as "ghost fishing."



Researchers off the coast of Newfoundland, for instance, retrieved ten lost nets that in six months had accumulated 20,000 cod, a species already on the brink of collapse because of overfishing. Lost fishing traps used to catch crabs, lobsters, and octopuses become fatal prisons. Traps in one Japanese bay caught and killed twice as many octopuses as commercial fishermen caught. In the Chesapeake Bay and its tributaries, where the blue crab population has crashed, every crab lost means one step further away from recovery for a species that provides economic support for entire communities.

Lost or cast-off fishing gear also has indirect impacts on wildlife when it transports species to ecosystems where they don't belong. In 2004, scientists reported the first known case of the Asian sea anemone colonizing the Hawaiian Islands; abandoned fishing gear likely gave the anemone a ride. The impacts of these particular hitch-hikers are yet to be discovered, but unwelcome transplants like them can destroy habitat and introduce diseases. The arrival of a new

# **CHANGING BEHAVIORS** THAT CAUSE MARINE DEBRIS

topping the flow of trash in the ocean

is difficult in part because changing human behavior is so difficult. But the right a difference: On a Florida fishing pier, a program launched by Ocean Conservancy and its partners is successfully changing

actions that cause great harm to wildlife: Fishers are now recycling used fishing

**CHANGING** 

REHAVIORS

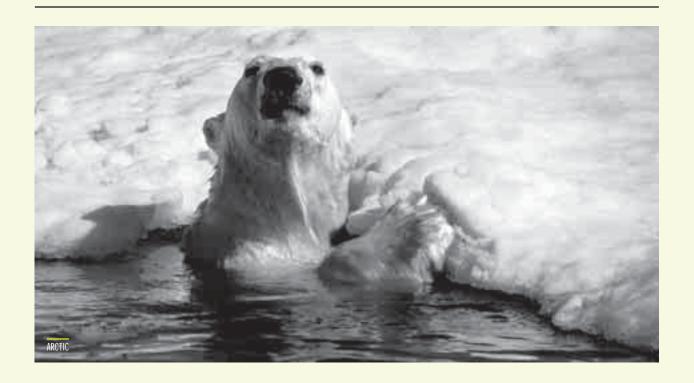
line instead of discarding it where it can get into the water and kill marine animals. Volunteers talk directly with them to explain collection bins on the pier make recycling marine debris problem, but programs like this one offer hope. They can be replicated in many locations, rippling out across the globe to change the behaviors that put trash in the water.

species in an ecosystem can critically affect the food supply and interactions between predators and prey.

While these impacts may seem daunting, the fact remains that marine debris is a problem we can manage if we all take part in the solutions. Eliminating marine debris would save the lives of countless ocean animals and countless dollars lost in our tourism and fishing industries.

# 

AND MARINE DEBRIS



arine debris is yet another stress on an ocean already beleaguered by many other human-caused stresses including coastal development, pollution, overfishing, and now climate change. As the engine that drives our planet's climate, the ocean is on the front lines of climate change. It absorbs half of the carbon dioxide (CO<sub>2</sub>) we've pumped into the sky from the burning of fossil fuels and most of the extra heat produced by the greenhouse effect. Indeed, the ocean is the unsung hero in this battle. But it's also a most vulnerable victim.

We are already seeing the effects of climate change: Melting ice, the acidification of ocean water, rising sea levels, and extreme weather events are affecting marine life and coastal communities right now. Even if we were to stop all CO2 emissions today, we would not escape climate change impacts set in motion from excess CO2 already in the atmosphere—and in the ocean. The reality is that the concentration of CO<sub>2</sub> in the atmosphere has risen by 35 percent in the last 175 years, and the increase is accelerating.

The added burden of climate change on top of other escalating stressors is creating a perfect storm of impacts that threatens the future of ocean ecosystems and life. Marine debris is one of the straws that together could break the camel's back—in this case, the ocean's health.

#### A Sick, Stressed-out Ocean **Needs to be Fully Resilient** to Better Adapt to Climate Change

By eliminating stresses including marine debris that degrade the integrity and health of ocean ecosystems, we can help give the ocean a fighting chance to adapt to the impacts of ocean climate change. A healthier ocean will be a more resilient ocean.

Think of the human body. When attacked by disease, its resistance and ability to recover from other stresses and diseases is diminished. Just as a person with emphysema or pneumonia would be less likely than a healthy person to survive working in a coal mine, an ocean compromised by many ills is less likely to survive the challenges of climate change.

In some places, reducing marine debris could be part of the cure, increasing the odds that some ocean animals and ecosystems can adapt. Human activities such as the dumping of trash and debris, the discharge of pollutants or excess fertilizers, overfishing, and destruction of habitats by coastal development all reduce the ocean's resilience—its ability to resist and recover from stresses. From wildlife like endangered sea turtles and the Hawaiian monk seal to biologically-rich ecosystems like coral reefs, life in the ocean will be healthier, more resilient, and better able to adapt to climate change in the absence of debris-related impacts.

# **CLIMATE CHANGE POLICY:** ADVANCING ADAPTATION

cientists tell us that to avoid severe impacts from climate change, we need to keep the concentration of CO<sub>2</sub> in the atmosphere below 350 parts per million (ppm)—but the level is already more than 385 ppm and rising rapidly. Therefore, energy policy reform that leads to the immediate and substantial reduction of greenhouse gas emissions must be the cornerstone of legislative efforts by the Congress and the Obama administration.

But reducing emissions is only SAFE LEVELS OF CO2 part of the solution for an ocean that must adapt to changes already set in motion. As Ocean Conservancy President and CEO Vikki Spruill testified at the first-ever hearing on Capitol Hill about the ocean's role in climate change, many species will be

unable to adapt fully because of the unprecedented magnitude and speed of change. But we can make a difference. We need strong, solid laws in place to support ocean management that builds the resilience of ocean systems and increases adaptation success. And that includes laws to eliminate marine debris, which so severely taxes the ocean and all the life in it. Adaptation requires funding; that cost could be met through the sale of carbon credits within the cap-and-trade system.

Climate change, the greatest environmental challenge of our time, requires an enormous—and immediateresponse. Fortunately, the new administration and Congress count climate change among their top priorities, and awareness of the critical ocean-climate change connection is growing in the halls of government. Climate change knows no boundaries, and the United States has an unequaled opportunity to lead global climate change policy, including at the United Nations Climate Change Conference in Copenhagen in December 2009, where we can boost the odds that we will all be able to adapt to a world made vastly different from the one we have known. For more information, including the Congressional testimony noted above, visit www.oceanconservancy.org.

Hawaiian monk seals—one of the most critically endangered marine animals in the world—inhabit the remote Northwestern Hawaiian Islands. These animals already face what could be life-and-death threats from climate change. Warming water may affect the fish, eels, and other life the seals rely on for food, and rising sea levels will ultimately inundate the beaches where they rest, give birth, and raise young. With only about 1,200 Hawaiian monk seals alive today and global climate change already closing in on their environment, it is critical that we address threats from marine debris to help protect this fragile population.

## TERMS TO KNOW

#### **GLOBAL CLIMATE CHANGE**

The increase in carbon dioxide (CO<sub>2</sub>) and other greenhouse gases collecting in the atmosphere like a thickening blanket traps the sun's heat and causes the planet to warm. Most of us have a pretty good understanding of CO<sub>2</sub>'s impact on the atmosphere and land, but many don't yet realize that there are serious connections to the ocean, too, from warming water to changing ocean chemistry.

#### **MITIGATION**

Any human intervention that attempts to reduce the amount of greenhouse gases in the atmosphere or ocean.

#### **ACIDIFICATION**

An increase in the acidity of the ocean caused by the increased absorption of carbon dioxide (CO<sub>2</sub>) from the atmosphere. Atmospheric CO<sub>2</sub> comes from

the fossil fuels we burn and changes in land management.

#### ADAPTATION (NATURAL)

The response of a biological or ecological system to environmental changes brought about by climate change.

#### ADAPTATION (SOCIAL)

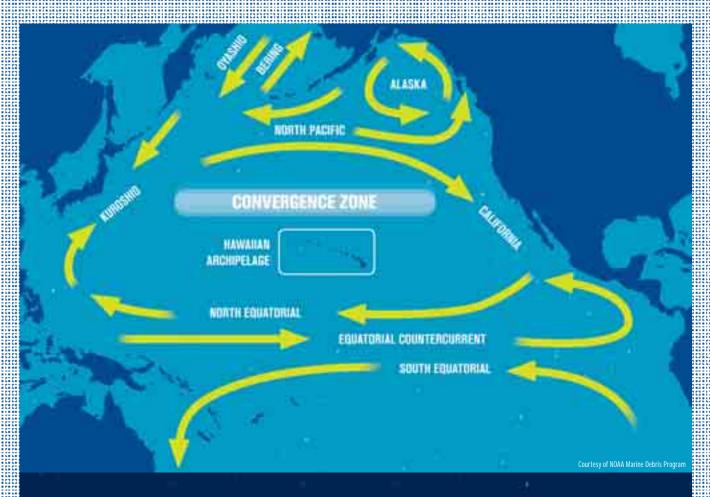
Any response by humans to climate change in order to reduce the negative impacts on communities, society, and economies.

#### **ECOLOGICAL RESILIENCE**

A measure of how much stress an ecosystem can stand from pressures natural or manmade without undergoing fundamental changes that may be permanent and, from a human perspective, highly undesirable. Major ocean currents deposit more than 52 metric tons of debris in the Northwestern Hawaiian Islands every year, most of it lost or abandoned fishing gear. These playful monk seals encounter discarded cups or other containers in the water, or on the beach, and wind up with trash stuck on their snouts, trash that keeps them from feeding or even breathing. They explore old nets or cast-off fishing line, become entangled, and drown. Since 1998, the National Oceanic and Atmospheric Administration (NOAA) and partners have worked together to remove more than 100 metric tons of fishing gear and other marine debris from the Northwestern Hawaiian Islands. Getting rid of dangerous debris helps keep this endangered species healthier in the face of climate impacts.

Ecosystems need help, too. Coral reefs have been called the rainforests of the sea. These extraordinary living systems cover just two-tenths of one percent of the ocean floor, yet are home to a quarter of all the ocean's fish species. Coral reefs offer recreation to humans as well as food and shelter to fish. They also provide a buffer that protects many tropical coastlines during severe storms. But climate change has already exacted a toll: In the Caribbean, 80 percent of coral reefs have died because of changes brought about by warming water, excess nutrients washed into the ocean from land, and overfishing. Scientists predict that if carbon emissions continue unabated, temperature rise and ocean acidification may lead to the death of most coral reefs worldwide during this century. If any reefs do survive, they will be the most resilient ones. It is our responsibility to ensure they are as healthy as possible to face the future.

Marine debris compromises coral reef resilience by inflicting physical injury. Nets, plastic sheets, and other large forms of debris snag on coral reefs, breaking off living coral branches. Studies have revealed significant damage to delicate reefs by old fishing nets in the Northwestern Hawaiian Islands and Australia. Piles of trash block sunlight essential to the health of living coral. And toxic materials leaching from trash in the water poison these ecosystems. By removing and preventing marine debris, we are giving reefs a fighting chance at survival and they, in return, will continue to provide us with physical and spiritual nourishment that are critical to our health and well-being.



# THE GREAT PACIFIC GARBAGE PATCH Will Climate Change Create More Trash Dumps at Sea?

magine the open ocean, emblematic of Nature's wild and spectacular beauty, dominated by trash. Unbelievable, right? Guess again. That ugly picture is actually the reality in a significant portion of the North Pacific Ocean, where four major currents define a large area known as the North Pacific Subtropical Gyre, a giant eddy of sorts. In one particular hot spot north of the Hawaiian Islands, floating debris concentrates where ocean currents and wind meet (see convergence zone on map). This dynamic area of floating trash—everything from toys, boots, and balloons to tiny plastic particles—shifts location seasonally.

Though many people call this area the "Great Pacific Garbage Patch," that's something of a misnomer; while not a solid patch of trash, it does encompass a huge amount of debris over a wide swath of ocean.

Birds and animals across the region become entangled in this debris; their digestive tracts can become fatally clogged when they eat it. One researcher found that every one of 10,000 Laysan albatross chicks hatched in a year on nearby Kure Atoll had ingested plastic and other marine debris.

The more trash we allow into the ocean, the more the concentration here grows year after year. The "Garbage Patch" is just one of several big accumulations of trash in the ocean. We don't know how global climate change may affect them, but one possibility is that this one may shift closer to the Northwestern Hawaiian Islands, carrying more debris towards their beaches. And that could mean more entanglements of marine life like the endangered Hawaiian monk seal.

# 

#### START A SEA CHANGE



arine debris doesn't fall from the sky, it falls from human hands—and human hands have the power to stop it. Picking up trash at the Cleanup on one day each year is not the whole answer, because trash in the ocean is an on-going, year-round problem. Working together, we can change behaviors that lead to trash in the ocean, we can change laws to better govern litter and ocean dumping, and we can change to more ocean-friendly products through new technologies. Working together, we can solve the marine debris problem.

### RECOMMENDATIONS

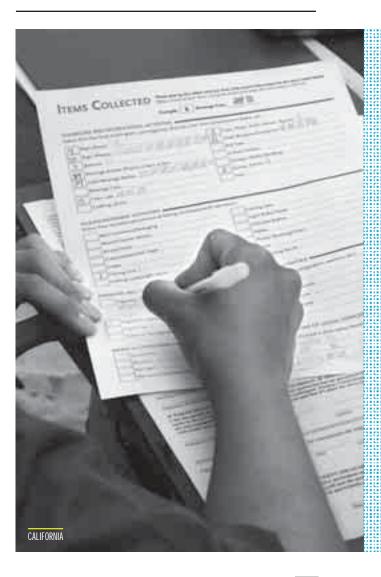
Expand public and private partnerships to monitor and reduce marine debris. No longer are conservation coalitions drawn just from the rolls of government, foundations, and nongovernmental organizations. Citizens and especially corporations are demanding change as never before. The mandate for corporate sustainability is being driven directly from the boardroom, and progressive corporations are key to success. We must look for new and broader opportunities to pull them into solution scenarios.

For instance, the National Oceanic and Atmospheric Administration, Schnitzer Steel Hawaii Corporation, Covanta Energy, and other public and private organizations all support the "Nets-to-Energy" program in Hawaii, which collects and burns lost fishing gear to get it out of the ocean and turn it into electricity. The program has been replicated in New England, where every ton of gear collected provides enough electricity to heat a home for 25 days.

CITIZENS AND CORPORATIONS
ARE DEMANDING CHANGE
AS NEVER BEFORE.

The Keep America Beautiful Cigarette Litter
Prevention Program, supported by funding from
Philip Morris USA, an Altria Company, encourages
smokers to change their behaviors and properly
dispose of cigarette butts, cigar tips, and packaging
—items that commonly wind up in the ocean now.
And the Disney Vero Beach Resort in Florida
stopped using plastic drinking straws (a top item
found during the state's Cleanups) to make beaches
safer for nesting sea turtles and other wildlife.

Fund increased research on the sources and impacts of marine debris. Understanding the sources and impacts of marine debris is integral to finding solutions that work on a permanent basis. While data from volunteer events like the Cleanup are helpful, they represent only a snapshot of the debris problem. We need science-based solutions, and therefore more funding for scientific research that can help us focus our attention on areas of greatest vulnerability and target types of marine debris that are proving most harmful. Research can also help us identify debris-reduction techniques that provide solutions for the long term.



Reduce, reuse, recycle. The concept of going green starts with living blue—making daily decisions with the ocean's health in mind. Behavioral changes like choosing products that use less packaging or taking reusable bags to the grocery store are critical to keeping trash out of the ocean. Just one small step repeated by everyone can make a world of difference for ocean habitats and wildlife ranging from the largest whales to the smallest sea snails.

Consider recycling. As much as we hear about it, not nearly enough people have dedicated themselves to sorting their recyclables. A significant portion of trash picked up on beaches during the Cleanup could have been kept out of waterways and the ocean through recycling. The EPA says the United States generates the equivalent of 4.5 pounds of solid waste per person per day, yet we recycle just 33.4 percent of it.

REDUCE, REUSE, RECYCLE: THE CONCEPT OF GOING GREEN STARTS WITH LIVING BLUE.

The EPA also estimates that Americans use more than 90 billion plastic bags a year, with just a fraction reaching recycling facilities. Many bags end up in the ocean as marine debris. When Ireland levied a fee on each plastic bag used by consumers, single-use disposal bag consumption dropped by more than 90 percent.

Especially effective in encouraging recycling and waste reduction are "pay-as-you-throw" trash pick-up programs that charge based on the amount of trash thrown away. People are motivated to reduce what they put out for collection at the curb when their wallets are directly impacted. As of 2006, more than 7,000 communities in 47 states have

instituted pay-as-you-throw programs; a number of these communities have a recycling rate of 60 percent, as compared to just over 30 percent from non-pay-as-you-throw communities. The system has economic rewards as well: In Fort Worth, Texas, 92 percent of residents pay less for garbage disposal than they did under the old system. The city also cut its waste management costs by 25 percent.

Then there is the old-fashioned solution—use less stuff. People must be made aware of just how much waste material—all of it potential marine debris—we create in the wake of our daily existence. Simply learning to cut back on the amount of synthetic packaging we use by refusing that plastic bag at the grocery store or the foam sandwich carton at the take-out counter can greatly reduce the sheer amount of stuff in our world.

Seek better technological solutions to debris management and reduction. Human ingenuity is an incredible thing. It has already led to some of the breakthroughs we need to reduce dangerous marine litter. The ITW Hi-Cone company has not only reduced the amount of plastic used in their six-pack holders by 30 percent, but in the 1970s developed a photodegradable version; the rings float on the water, and within days sunlight reduces their strength by up to 75 percent so that if an animal gets entangled, it can break away. Depending on the season and intensity of the UV sunlight, within weeks these rings will become completely brittle and crumble in a strong wind or upon contact. It took time, but by 1988 they were used throughout the United States, and worldwide by 1990. More recently, innovations like new bottle designs that use less material than traditional shapes have entered the scene.

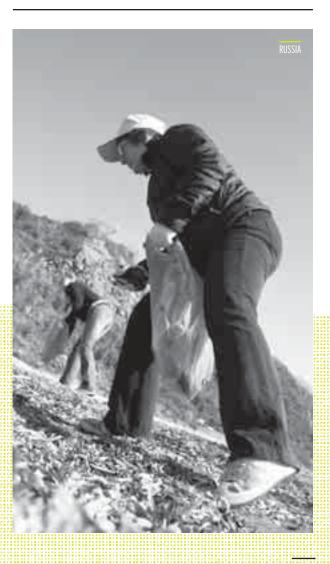
Biodegradable plastics under development include those made from soy and corn. Polylactic acid (PLA) can be processed on existing plastics equipment. which is certainly attractive to industries with billions invested in infrastructure. These plastics biodegrade in water and soil, and compost readily. Currently, bioplastics cost more and may have physical characteristics that don't quite match those of synthetics, but better versions that are stronger, more durable, and more versatile are under development. Where new technologies seem too expensive on first glance, we must weigh aspects like price against hidden costs like waste management, dead and injured animals, and greenhouse gas emissions.

SEEK BETTER TECHNOLOGICAL SOLUTIONS TO DEBRIS MANAGEMENT AND REDUCTION.

Support the inclusion of comprehensive ocean management in all climate change **initiatives.** The ocean is the engine that drives climate, and must be included in all work to lessen climate change impacts. The reduction of greenhouse gas emissions is not enough to protect the ocean; we need to reduce other human-caused stressors like marine debris, so ocean life has a better chance of adapting to climate change. People want to do the right thing, and policy, a powerful embodiment of public will, is an important tool for success. Let your elected officials know you want them to support legislation that will protect our ocean for the long term. Encourage legislators to put in place efforts to reduce marine debris. From hometown regulations on waste management to international laws on ocean dumping, the ocean needs protection.

Citizens can actively support climate change policies that protect the ocean. Government, for its part, must lead with policy changes that include strategies to minimize the negative impacts climate change has on the ocean. See www.oceanconservancy.org/climatechange for more information.

Engage in community efforts like the
International Coastal Cleanup. Events like
the Cleanup really do make a difference,
whether making the local beach or coastline
free of debris or raising awareness and empowering
employees or individuals to take action and support
a healthier, more resilient ocean. For more information and to sign up as a volunteer for the next
International Coastal Cleanup on September 19,
2009, visit www.coastalcleanup.org.



# SPONSORING PARTNERS



us strengthen our online campaigns, expand our media reach, and increase awareness about the Cleanup and the problem of marine debris. Coca-Cola also has developed a campaign within the company to encourage participation in the Cleanup. In 2008, Coca-Cola engaged over 50,000 people in 35 countries across their worldwide system—company associates, bottling partners, customers, and consumers—to help clear beaches and waterways of debris.

# The Coca-Cola Company WALKING THE TALK

he Coca-Cola Company has a vision: a world where their packaging is no longer seen as waste, but as a valuable resource for future use. The international giant is hard at work finding ways to improve the sustainability of its packaging across the entire lifecycle. Partnering with the Cleanup fits within their plan to encourage collection efforts that bring used packaging back into the recycling loop. This forward-thinking company recognizes that cleanups are only part of the solution; like Ocean Conservancy, Coca-Cola is dedicated to keeping litter out of the world's waterways all year long.

A Cleanup sponsor since 1995 and the lead sponsor since 2005, Coca-Cola has not only stepped up its direct support, but also provides a number of in-kind contributions, including arranging for its strategic thinkers to consult with Ocean Conservancy, helping

THE COCA-COLA COMPANY IS A DRIVING FORCE AND A STRONG PARTNER IN STARTING A SEA CHANGE.

The Coca-Cola Company sets an excellent example for the kinds of holistic solutions we need to battle marine debris. The company invests millions of dollars annually to support the collection and recovery of beverage packaging materials around the world, and they use the recycled packaging materials to produce more sustainable bottles and cans. In 1991, Coca-Cola was the first beverage company to use recycled plastic in their packaging. Since that time, they've led the industry in the global use of recycled PET content. The company will soon open the world's largest bottle-to-bottle recycling plant in South Carolina to recycle even more bottles. They also have launched a line of clothing crafted from recycled bottles; five recycled bottles go into each t-shirt, and the shirts help get out the recycling word by sporting clever slogans like "I'm wearing post-consumer waste." All of this work sets a great example for the kinds of solutions we need to fight marine debris.

## Bank of America

## **INVESTING IN CLIMATE CHANGE SOLUTIONS**

ank of America, which has supported the International Coastal Cleanup since 1991, fully understands the ocean-climate change connection. A leader in sustainable business practices, Bank of America's \$20 billion, ten-year climate change initiative champions green economic growth through lending, investment, products and services, and operations. In addition to contributing funds to the Cleanup, the bank has embraced the chance to educate its associates about climate change and its impacts on the ocean; the volunteers of "Team Bank of America" pitch in at Cleanup events across the United States and draw in members of the larger local community.

Bank of America also supports Ocean Conservancy's Ocean Industries Initiative, which will help businesses whose operations impact the ocean reduce their greenhouse gas emissions; the bank provided seed money for a pilot program aimed at improving the carbon footprint of the Gulf of Mexico shrimp fishery. The success of the Cleanup is magnified by the significant contributions of business partners like Bank of America who provide not only critical funding but also the leadership and know-how to help get the job done. And that's an investment in ocean health that will pay dividends for years to come.

## HERE'S WHAT OUR SPONSORS SAY ABOUT THE CLEANUP

#### THE COCA-COLA COMPANY

"The Coca-Cola Company seeks out partners that not only address critical environmental issues but also look to develop solutions. This year, we mobilized over 50,000 volunteers from within our network to provide hands-on support in 35 countries as an active sponsor of the International Costal Cleanup."

#### **BANK OF AMERICA**

"Bank of America is proud to partner with Ocean Conservancy to restore the vitality of our ocean and waterways. This year's International Coastal Cleanup provided a tangible way to fight for a thriving ocean and address climate change for our associates, who volunteer in Cleanups around the country.

#### PHILIP MORRIS USA, AN ALTRIA COMPANY

"Philip Morris USA, an Altria Company, is committed to reducing the environmental impact of its business. We are proud to support Ocean Conservancy's Cleanup through grants and volunteer activities that help reduce the amount of cigarette-butt litter in waterways."

# BRUNSWICK PUBLIC FOUNDATION

"Boaters long have been at the forefront of keeping our ocean and waterways healthy, valuing such a precious resource.

It is the Brunswick Foundation's honor to support Ocean Conservancy's efforts to encourage environmentally responsible behavior on the water."

#### DOW

"Dow is proud to have sponsored the Cleanup efforts for more than 20 years. We value our partnership with an organization like Ocean Conservancy that is dedicated to developing the global solutions and public education needed to change the behaviors that cause marine debris."

#### **GLAD**

"The Glad Products Company, a subsidiary of the Clorox Company, is proud to supply Cleanup volunteers with its trash bags to remove marine debris from their local communities and support the important work being done by Ocean Conservancy."

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

"The National Oceanic and Atmospheric Administration Marine Debris Program is proud to partner with Ocean Conservancy on the Cleanup. Our partnership goes beyond the Cleanup with our shared goal of eliminating marine debris that continues to have devastating impacts on marine life and habitat in the global environment."

#### **ORACLE**

"Oracle is proud to support the Cleanup to help preserve our beaches across the globe. Our partnership connects hundreds of Oracle employees with Cleanup projects that truly make a difference in the local community and reinforce our commitment to protecting the environment."

# **VOLUNTEER COORDINATORS**

AND SPONSORS

COORDINATORS ARE THE TRUE "SEA STARS" OF THE CLEANUP. They give their time and energy all year long, scouting out Cleanup sites, rallying volunteers, lining up sponsors, and organizing data collection. Their work is at the heart of this international movement.

## 2008 CLEANUP COUNTRY COORDINATORS

#### **AMERICAN SAMOA**

Pelema Kolise

American Samoa Environmental Protection Agency

#### **ARGENTINA**

Daniel Rolleri

Asociación ReCrear

#### BAHAMAS

Anita Knowles (Abaco)
Friends of the Environment

Renamae Symonette, Erika Gates

(Grand Bahama Island) Bahamas Ministry of Tourism

Tanya Moss (Nassau)

Dolphin Encounters

#### **BANGLADESH**

S. M. Muntasir Mamun

Kewkradong

#### **BARBADOS**

Michael Thompson

National Conservation Commission

Osmond Harewood

Caribbean Youth Environmental Network

#### BELIZI

Hilberto Riverol

The Scout Association of Belize

#### BERMUDA

Robyn Larkin

Dolphin Quest

#### BRAZIL

Leonardo Viana

Laboratório de Mastozoologia e Manejo de Fauna

#### **BRITISH VIRGIN ISLANDS**

Jasmine Bannis

Conservation & Fisheries Department

#### CAMBODIA

**Koch Savath** 

Ministry of Environment

#### CANADA

Carla Schuk (British Columbia)

Vancouver Aquarium Marine Science Centre

Gay Wittrien (New Brunswick)

The Green Network - ACAP Saint John

David Boyce (Prince Edward Island)
Southeast Environmental Association

#### **CAYMAN ISLANDS**

Kim Pisano

Cayman Islands Tourism Association

#### CHILI

Christian Cid, Héctor Huerta

DIRECTEMAR

#### COLOMBIA

Enriqueta Hawkins

CORALINA

#### **COSTA RICA**

Giovanna Longhi

#### CYPRUS

Andreas Demetropoulos

Cyprus Wildlife Society

#### **DOMINICA**

Terry Raymond

Dominica Youth Environment Organisation

#### DOMINICAN REPUBLIC

Hector Mota, Carolina Guisande

A RISING TIDE OF OCEAN DEBRIS

Fundación Vida Azul

#### **ECUADOR**

Jaime Paredes

Programa de Manejo de Recursos Costeros

Capt. Miguel Mosquera B., Sergio Bazan (Galapagos)

Fundacion Ecologica Albatros

#### **FGYPT**

Maha Youssry, Emad Adly

Ghazala Hotels

#### **GREECE**

Constantinos Triantafillou

HELMEPA

#### **GRENADA**

Dr. Clare Morrall

St. George's University

#### **GUAM**

Tom Quinata

Guam Coastal Management Program

#### **GUATEMALA**

Milthon Cárdenas, Marlon Lopez

Eco Prodiver

#### **GUYANA**

Trevor Benn

GuyberNet

#### **HONG KONG**

Lisa Christensen

**Ecovision Asia** 

Thierry Chan

Green Council

INDIA

Captain Rajan Vir

Indian Maritime Foundation

#### **INDONESIA**

Hani Taufik

avasan JAR

#### **ISRAEL**

Ronen Alkalay

Marine and Coastal Division - Ministry of the Environment

#### JAMAICA

Carlette Falloon

Jamaica Environmental Trust

#### JAPAN

Yoshiko Ohkura, Azusa Kojima

Japan Environmental Action Network

Edo Heinrich-Sanchez,

Naoko Kiyan (Ryukyu Islands, Okinawa)

Okinawa O.C.E.A.N.

#### **KENYA**

Fred Sewe

Nairobi Keen Kleeners, Ltd.

#### **MALAYSIA**

Jesse Siew, Maizura Mazlan

The Body Shop West Malaysia

#### **MALTA**

Vince Attard

Nature Trust (Malta)

#### MEXICO

Alejandra López de Román (Tamaulipas)

Club Regatas Corona, A.C.

Brady Wheatley (Baja)

School for Field Studies

Kenia Castaneda Nevarez (Sonora)

Intercultural Center for the Study of Deserts and Oceans

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#### **Volunteer Spotlight**

## JANE POLSON, NEBRASKA

Jane Polson, executive director of Keep Nebraska Beautiful, has served as her state's Cleanup coordinator for nine years. Like many coordinators, she came to the Cleanup by way of her full-time job, which includes working to eliminate marine debris. She admits that she has to educate people constantly about how the Cleanup isn't just for coastlines, but for all waterways, and has a ready answer when asked why a landlocked state would participate: "You have recreational waters in every state, whether you're in California or Nebraska. We have a lot of rivers and lakes we want to protect, and since we know that more than 50 percent of debris in ocean waters comes from inland states, we're just as protective as coastal states."

Polson's organization is a state affiliate of Keep America Beautiful; local affiliates across Nebraska serve as site coordinators and help recruit volunteers and run individual events. Polson downplays her role, and says the site coordinators and volunteers make the Cleanup happen: "I'm amazed that people continue year after year; it is such hard work. And people lead such busy lives that they are truly giving precious time. It says a lot about how much they care for the environment." Polson says the international aspect has a powerful draw. "They know that people all around the world are doing the very same thing, and that's a neat feeling, to know people everywhere are working for the same cause: the ocean."

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#### **Volunteer Spotlight**

# JOHN KIESER, SOUTH AFRICA

John Kieser logged more than 18,000 miles driving across South Africa last year for Cleanup-related meetings, from the Orange River to the province of Kwazulu-Natal. His dedication to the job of Cleanup Coordinator began while he was working for the South African government. When John left the Department of Environmental Affairs and Tourism three years ago, the plastics and waste industries along with retail grocery chain Pick n Pay asked if he would make sure the Cleanup continued, both on the coast and inland—and so he has, with boundless enthusiasm needed for such a big job. Cape Town alone produces more that 3.5 million tons of waste annually, he says, and recycling is not yet widespread. "The beaches are in terrible shape from litter," he observes.

John enjoys the fact that the Cleanup revolves around a very positive atmosphere of community involvement. Restaurant owners who observed hard-working volunteers invited them in at day's end for refreshments. When the ferry to Robben Island broke down, a local charter company stepped up to offer a large boat to transport volunteers, and they're already onboard for next year. School children—for whom water pollution is part of the curriculum—flock to Cleanup sites every year. Companies sign up their entire staffs. And John points out that the Cleanup has influenced other exciting programs. Thirty-eight schools on the western Cape are involved in beach monitoring through an Adopt-a-Beach program, and John helps raise litter awareness at major sporting events like the annual Argus-Cape Town cycle tour. A government anti-poverty program pays poor people to clean up litter. But none of this progress could happen without the energy and ideas of coordinators like John.

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A RISING TIDE OF OCEAN DEBRIS

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# THE MARINE DEBRIS INDEX

THE MARINE DEBRIS INDEX presents state-by-state and country-by-country data about marine debris collected and tallied by volunteers around the world on one day each September at the International Coastal Cleanup.

# **Methodology and Research Notes**

Ocean Conservancy, in conjunction with its US and international volunteer coordinators, has collected data during the International Coastal Cleanup since 1986 within the US, and since 1989 internationally. From 1986 through 2000, Cleanup volunteers tallied debris items on standardized data cards developed and provided by Ocean Conservancy. During this time, debris was categorized by the type of material. In 2001, Ocean Conservancy revised and simplified the data card to include 42 specific debris items and groupings related to five debris-producing activities and sources. The new groupings identify the behavior associated with the debris' presence. In 2008, Ocean Conservancy decided to tally paper and plastic bags separately for a total of 43 items listed. Totals for each site are mailed, emailed, and faxed to Ocean Conservancy, or are entered into Ocean Conservancy's secure Online Data Collection and Reporting Tool by the Cleanup coordinator for the country, location, or US state. All data sent to Ocean Conservancy and not entered online by the coordinator are entered into the online tool by Ocean Conservancy staff. The result is a unique global, online database of debris information collected from Cleanup sites around the world.

# **DATA ANALYSIS**

Ocean Conservancy staff analyzes data in-house. Data are broken down by country, location (including islands), and US states using reports generated by the Online Data Collection and Reporting Tool. Country, location, and US state geographic designations are made using the *CIA World Factbook*, https://www.cia.gov/library/publications/the-world-factbook/geos/uk.html. Data are also analyzed by regions, which are determined according to the United Nations Statistical Division, http://unstats.un.org/unsd/methods/m49/m49regin.htm. A location identified in the Marine Debris Index is a geographic area that is governed by a country

but is located in a different geographic area than the governing country (for example, the Netherlands Antilles are governed by the Netherlands, but are located in a different geographic area than the governing country). These geographic designations do not imply Ocean Conservancy's opinion of the legal status of any country, territory, or location (including islands), or concern the delimitation of its boundaries.

# LIMITATIONS OF THE DATA

Data are collected on a single day by volunteers—not by paid staff or researchers—in more than 6,485 sites and locations around the world. Ocean Conservancy produces data cards in six languages; there could be a language barrier for some volunteers. Data for pounds and miles are sometimes estimated by volunteers (see terminology). The data represented in this report are only what was shared with Ocean Conservancy, and totals could be higher if all locations reported in. Weather events can impact planned events and may decrease data return for a certain country, location, or US state.

# INTERPRETATION OF THE DATA

The collected data is a snapshot of what was removed from a certain location, on a certain day, by volunteers. The data provide the most comprehensive and measurable global snapshot of the world's marine debris, as well as a breakdown of sources and debris items found in US states, countries, locations, and regions of the world. Due to the large sample and nature of the collection, the data provide a base for other studies. This valuable information is an effective tool for educating the public, business, industry, and government officials about the presence of marine debris and how and where to take specific actions.

FOR TERMINOLOGY SEE PAGE 47

COUNTRY AND LOCATION	ARGENTINA	ARUBA	AUSTRALIA	AUSTRIA	BAHAMAS	BAHRAIN	BANGLADESH
ISLAND (IF AVAILABLE)					NASSAU		
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	50	88	396	9	1,245	77	604
Bags (Plastic)	180	79	1,158	31	2,630	126	407
Balloons	5	5	82	0	281	11	44
Beverage Bottles (Plastic)	30	234	766	32	2,433	79	397
Beverage Bottles (Glass)	57	140	1,268	34	3,802	53	221
Beverage Cans	15	264	801	35	5,054	87	543
Caps, Lids	5	199	1,334	20	2,438	64	841
Clothing, Shoes	10	42	231	11	1,259	4	159
Cups, Plates, Forks, Knives, Spoons	27	379	417	9	3,621	52	2,513
Food Wrappers/Containers	24	212	1,172	11	3,297	55	9,643
Pull Tabs	0	5	113	2	222	14	298
6-Pack Holders	4	10	45	3	161	0	0
Shotgun Shells/Wadding	0	0	22	0	116	0	0
Straws, Stirrers	71	91	847	1	1,768	85	1,587
Toys	0	10	48	11	864	0	53
Total	478	1,758	8,700	209	29,191	707	17,310
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	0	0	295	1	160	34	23
Bleach/Cleaner Bottles	0	14	11	2	303	29	9
Buoys/Floats	0	5	31	1	55	0	42
Crab/Lobster/Fish Traps	0	0	10	0	150	1	68
Crates	0	2	3	0	80	0	0
Fishing Line	0	22	917	3	167	6	53
Fishing Lures/Light Sticks	0	5	234	0	76	0	4
Fishing Nets	0	1	30	1	121	8	107
Light Bulbs/Tubes	0	0	7	0	63	0	12
Oil/Lube Bottles	0	6	3	0	329	16	17
Pallets	0	2	0	1	99	0	0
Plastic Sheeting/Tarps	0	0	18	0	673	3	172
Rope	0	15	177	3	424	17	118
Strapping Bands	0	6	22	10	140	3	16
Total	0	78	1,758	22	2,840	117	641
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	734	231	2,314	3	1,273	90	10,338
Cigarette Lighters	2	3	70	0	333	7	62
Cigar Tips	0	16	59	11	404	0	4
Tobacco Packaging/Wrappers	51	10	302	0	447	0	487
Total	787	260	2,745	14	2,457	97	10,891
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	1	0	15	0	219	0	0
Batteries	0	8	22	0	267	14	102
Building Materials	39	19	160	43	3,611	76	23
Cars/Car Parts	2	0	38	1	213	0	0
55-Gallon Drums	0	0	0	0	36	0	0
Tires	1	3	9	1	250	0	11
Total	43	30	244	45	4,596	90	136
MEDICAL/PERSONAL HYGIENE							
Condoms	3	24	38	0	388	0	38
Diapers	15	24	11	0	316	0	6
Syringes	0	2	10	0	51	0	31
Tampons/Tampon Applicators	4	2	27	0	137	0	0
Total	22	52	86	0	892	0	75
MARINE DEBRIS ITEM TOTALS	1,330	2,178	13,533	290	39,976	1,011	29,053

BARBADOS	BELGIUM	BELIZE	BERMUDA	BRAZIL	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS
					COOPER ISLAND	TORTOLA	VIRGIN GORDA	TOTAL
102	0	2,411	257	11,444	0	160	0	160
434	67	7,118	397	24,373	10	871	0	881
12	25	456	17	786	0	6	0	6
414	248	6,364	339	11,486	10	3,384	24	3,418
189	120	2,278	829	6,429	30	1,628	24	1,682
78	116	1,167	283	10,243	20	1,109	0	1,129
1,234	25	4,612	854	16,391	10	995	2,000	3,005
139	69	1,628	121	2,296	10	249	40	299
244	54	3,156	392	9,911	0	1,233	202	1,435
300	122	1,838	554	10,023	0	1,048	60	1,108
8	67	369	27	1,747	0	98	0	98
77	204	147	50	2,940	10	50	60	120
0	0	19	3	60	0	0	0	0
219	107	1,233	441	9,347	0	396	30	426
60	28	841	45	1,223	0	40	0	40
3,510	1,252	33,637	4,609	118,699	100	11,267	2,440	13,807
31	6	47	13	138	0	28	24	52
109	29	140	20	1,316	0	29	0	29
119	2	298	28	526	5	56	20	81
2	1	29	0	104	0	0	4	4
56	8	35	12	105	0	16	0	16
49	25	48	76	402	0	12	202	214
7	3	157	5	276	0	10	42	52
149	2	17	5	151	0	6	60	66
13	8	69	5	207	0	11	0	11
50	15	343	25	634	0	115	18	133
112	11	19	3	2,071	0	6	50	56
13	10	73	41	412	0	4	80	84
520	31	110	163	800	0	263	40	303
66	11	110	36	245	0	66	120	186
1,296	162	1,495	432	7,387	5	622	660	1,287
30	219	669	6,109	17,565	0	994	0	994
16	46	113	63	379	0	13	50	63
81	98	170	51	645	0	0	0	0
11	224	195	190	1,348	0	19	0	19
138	587	1,147	6,413	19,937	0	1,026	50	1,076
10	1	39	5	282	0	19	10	29
18	51	77	16	446	0	8	2	10
168	105	142	101	1,997	0	380	0	380
38	22	85	19	311	0	54	0	54
5	0	1	0	42	0	2	0	2
35	48	118	4	255	0	12	2	14
274	227	462	145	3,333	0	475	14	489
36	3	86	12	597	0	21	0	21
14	6	215	24	539	0	11	8	19
17	0	117	2	153	0	2	12	14
3	24	25	8	182	0	2	8	10
70	33	443	46	1,471	0	36	28	64
5,288	2,261	37,184	11,645	150,827	105	13,426	3,192	16,723





COUNTRY AND LOCATION	CANADA	CAYMAN ISLANDS	CHILE	CHINA	COLOMBIA	COOK ISLANDS	COSTA RICA
ISLAND (IF AVAILABLE)							
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	24,439	0	3,612	714	104	48	495
Bags (Plastic)	1,764	24	12,499	897	141	468	1,595
Balloons	5,758	0	231	24	2	0	39
Beverage Bottles (Plastic)	37,503	30	6,522	834	147	654	2,679
Beverage Bottles (Glass)	32,061	15	3,966	311	124	256	355
Beverage Cans	44,092	37	3,702	19	134	688	605
Caps, Lids	65,749	29	7,675	431	200	208	1,589
Clothing, Shoes	11,124	6	904	256	296	126	835
Cups, Plates, Forks, Knives, Spoons	42,219	41	1,835	145	48	612	1,657
Food Wrappers/Containers	106,911	17	7,243	1,412	614	1,312	1,552
Pull Tabs	10,800	0	399	189	1	0	120
6-Pack Holders	3,609	0	374	14	4	18	231
Shotgun Shells/Wadding	4,660	0	119	0	2	0	43
Straws, Stirrers	27,100	16	1,658	212	136	214	543
Toys	7,029	0	644	38	32	2	606
Total	424,818	215	51,383	5,496	1,985	4,606	12,944
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	3,562	2	70	253	122	0	25
Bleach/Cleaner Bottles	1,118	0	300	19	11	2	42
Buoys/Floats	3,276	0	416	104	2	0	26
Crab/Lobster/Fish Traps	1,597	0	61	10	0	2	3
Crates	303	0	121	15	0	0	1
Fishing Line	3,267	14	248	26	102	2	25
Fishing Lures/Light Sticks	1,065	5	129	0	56	0	3
Fishing Nets	1,112	0	194	229	21	2	20
Light Bulbs/Tubes	576	0	122	31	0	0	7
Oil/Lube Bottles	1,432	0	458	36	5	2	59
Pallets	342	0	187	64	0	0	8
Plastic Sheeting/Tarps	4,376	0	624	64	8	0	14
Rope	21,742	2	2,279	137	102	20	58
Strapping Bands	4,546	0	290	26	0	6	6
Total	48,314	23	5,499	1,014	429	36	297
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	323,706	0	18,048	10,872	5	226	1,001,337
Cigarette Lighters	3,863	0	804	118	0	26	1,057
Cigar Tips	15,405	0	5,415	12	0	0	23
Tobacco Packaging/Wrappers	16,568	0	3,249	112	15	64	1,336
Total	359,542	0	27,516	11,114	20	316	1,003,753
DUMPING ACTIVITIES	007/012		27/010	,	20	0.0	1,000,700
Appliances (Refrigerators, Washers, etc.)	494	0	51	2	2	16	41
Batteries	1,431	0	1,069	31	7	4	262
Building Materials	16,595	0	1,069	44	13	20	31
Cars/Car Parts	4,054	0	70	1	2	20	50
55-Gallon Drums	136	0	14	0	0	0	4
Tires	1,272	0	172	6	91	10	14
Total	23,982	0	2,553	84	115	52	402
	23,762	U	2,555	04	115	52	402
MEDICAL/PERSONAL HYGIENE	0.000	0					0.5
Condoms	2,939	0	660	9	4	2	85
Diapers	1,026	0	1,027	10	4	12	62
Syringes Tampage (Tampage Applications	898	0	35	28	0	0	13
Tampons/Tampon Applicators	3,765	0	180	27	5	16	65
Total	8,628	0	1,902	74	13	30	225

MARINE DEBRIS ITEM TOTALS

865,284

238

88,853

17,782

2,562

5,040

1,017,621

All			
70         1.175         1         2.198         10.754         38           3         6         0         67         1.096         0           156         520         1         9.461         31.473         62           87         280         7         1.116         6.631         18           199         468         4         2.017         4.056         18           3         1.034         0         560         36.931         68           2         62         1         2.688         7.650         37           0         84         6         2.585         27.632         80           177         558         0         1.582         6.674         168           31         67         0         175         1.320         2           31         67         0         175         1.320         2           31         67         0         175         1.320         2           4         31         6         27         395         2           4         43         5.452         26         24.627         150.26         519			
70         1.175         1         2.198         10.754         38           3         6         0         67         1.096         0           156         520         1         9.461         31.473         62           87         280         7         1.116         6.631         18           19         468         4         2.017         4.056         18           3         1.034         0         560         36.931         68           2         62         1         2.688         7.650         37           0         84         6         2.585         27.632         80           17         558         0         1.582         6.674         108           0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7.547         4           8         56         0         490         2.089         2           4433         5.45			
3	414	142	0
156	3 1,354	1,409	10
87         280         7         1.116         6.631         18           19         468         4         2,017         4,056         18           3         1,034         0         560         36,931         68           2         62         1         2,688         7,650         37           0         84         6         2,585         27,632         80           17         558         0         1,582         6,674         168           0         17         0         50         631         6           31         67         0         176         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2089         2           443         5,452         26         24,627         150,206         519           4         43         5,452         26         24,627         150,206         519           4         43         5,452         26         24,627         150,206         519 </td <td>53</td> <td>12</td> <td>0</td>	53	12	0
19         468         4         2,017         4,056         18           3         1,034         0         560         36,931         68           2         62         1         2,688         7,650         37           0         84         6         2,585         27,632         80           17         558         0         1,582         6,674         108           0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         20         0         162         755         12           0         20         0         162         755         12           0         40	850	1,389	30
3         1,034         0         560         36,931         68           2         62         1         2,688         7,650         37           0         84         6         2,585         27,632         80           17         558         0         1,582         6,674         168           0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1	358	661	10
2         62         1         2688         7,650         37           0         84         6         2,585         27,632         80           17         558         0         1,582         6,674         168           0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         42         0         46         400         0           1         26         0         6         400         0           59         50         0		786	20
0         84         6         2,585         27,632         80           17         558         0         1,582         6,674         168           0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         866         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0		681	0
17         558         0         1.582         6.674         168           0         17         0         50         631         6           31         67         0         175         1.320         2           0         31         6         27         395         2           7         970         0         856         7.547         4           8         56         0         490         2.089         2           443         5.452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         1		153	2
0         17         0         50         631         6           31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33		314	10
31         67         0         175         1,320         2           0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531		189	0
0         31         6         27         395         2           7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29		0	2
7         970         0         856         7,547         4           8         56         0         490         2,089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         255         0         531         1,888         4           1         1         1         0         29         166         2           11         7         2		0	0
8         56         0         490         2.089         2           443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         531         1.888         4           1         1         0         29         166         2           11         7         2         348         1.113         4           13         83         4         261         652         12           5         24         0         71		203	2
443         5,452         26         24,627         150,206         519           0         20         0         162         755         12           0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0		15	4
0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149		6,218	90
0         82         0         4,278         2,510         2           5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149			
5         15         0         196         452         2           0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149         4,927         152           9         89         0         33	2 4	41	0
0         1         0         60         371         0           1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1.888         4           1         1         0         29         166         2           11         7         2         348         1.113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10.841         56           400         1,777         0         149         4,927         152           9         89         0         33         681         14           50         4         0         48	2 64	251	0
1         26         0         6         400         0           59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1.888         4           1         1         0         29         166         2           11         7         2         348         1.113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10.841         56           400         1,777         0         149         4,927         152           9         89         0         33         681         14           50         4         0         48         1,063         20           87         357         0         79	2 32	51	0
59         50         0         406         344         2           6         264         0         129         486         0           3         32         0         189         385         8           1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149         4,927         152           9         89         0         33         681         14           50         4         0         48         1,063         20           87         357         0         79         695         2           546         2,227         0         309<	) 1	5	0
6       264       0       129       486       0         3       32       0       189       385       8         1       2       0       33       799       0         2       25       0       531       1,888       4         1       1       0       29       166       2         11       7       2       348       1,113       4         13       83       4       261       652       12         5       24       0       71       520       8         107       632       6       6,699       10,841       56         400       1,777       0       149       4,927       152         9       89       0       33       681       14         50       4       0       48       1,063       20         87       357       0       79       695       2         546       2,227       0       309       7,366       188         1       2       0       158       320       0         7       56       2       116       468       2 <td>7</td> <td>7</td> <td>0</td>	7	7	0
3       32       0       189       385       8         1       2       0       33       799       0         2       25       0       531       1,888       4         1       1       0       29       166       2         11       7       2       348       1,113       4         13       83       4       261       652       12         5       24       0       71       520       8         107       632       6       6,699       10,841       56         400       1,777       0       149       4,927       152         9       89       0       33       681       14         50       4       0       48       1,063       20         87       357       0       79       695       2         546       2,227       0       309       7,366       188         1       2       0       158       320       0         7       56       2       116       468       2         3       159       0       1,377       808       6<	2 112	914	2
1         2         0         33         799         0           2         25         0         531         1,888         4           1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149         4,927         152           9         89         0         33         681         14           50         4         0         48         1,063         20           87         357         0         79         695         2           546         2,227         0         309         7,366         188           1         2         0         158         320         0           7         56         2         116         468         2           3         159         0         1,		4	0
2       25       0       531       1,888       4         1       1       0       29       166       2         11       7       2       348       1,113       4         13       83       4       261       652       12         5       24       0       71       520       8         107       632       6       6,699       10,841       56         400       1,777       0       149       4,927       152         9       89       0       33       681       14         50       4       0       48       1,063       20         87       357       0       79       695       2         546       2,227       0       309       7,366       188         1       2       0       158       320       0         7       56       2       116       468       2         3       159       0       1,377       808       6         0       0       2       428       478       2         0       1       0       24       191       2 </td <td></td> <td>208</td> <td>0</td>		208	0
1         1         1         0         29         166         2           11         7         2         348         1,113         4           13         83         4         261         652         12           5         24         0         71         520         8           107         632         6         6,699         10,841         56           400         1,777         0         149         4,927         152           9         89         0         33         681         14           50         4         0         48         1,063         20           87         357         0         79         695         2           546         2,227         0         309         7,366         188           1         2         0         158         320         0           7         56         2         116         468         2           3         159         0         1,377         808         6           0         0         2         428         478         2           0         1         0<		30	0
11       7       2       348       1,113       4         13       83       4       261       652       12         5       24       0       71       520       8         107       632       6       6,699       10,841       56         400       1,777       0       149       4,927       152         9       89       0       33       681       14         50       4       0       48       1,063       20         87       357       0       79       695       2         546       2,227       0       309       7,366       188         1       2       0       158       320       0         7       56       2       116       468       2         3       159       0       1,377       808       6         0       0       2       428       478       2         0       1       0       24       191       2         5       17       0       165       330       2		33	0
13     83     4     261     652     12       5     24     0     71     520     8       107     632     6     6,699     10,841     56       400     1,777     0     149     4,927     152       9     89     0     33     681     14       50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		52	0
5     24     0     71     520     8       107     632     6     6,699     10,841     56       400     1,777     0     149     4,927     152       9     89     0     33     681     14       50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		95	0
107     632     6     6,699     10,841     56       400     1,777     0     149     4,927     152       9     89     0     33     681     14       50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		26	0
9     89     0     33     681     14       50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       8     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		1,717	2
9     89     0     33     681     14       50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2			
50     4     0     48     1,063     20       87     357     0     79     695     2       546     2,227     0     309     7,366     188       88       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2	95	1,274	10
87     357     0     79     695     2       546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2	21	57	0
546     2,227     0     309     7,366     188       1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2	1,035	134	0
1     2     0     158     320     0       7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2	318	176	4
7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2	1,469	1,641	14
7     56     2     116     468     2       3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2			
3     159     0     1,377     808     6       0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		2	0
0     0     2     428     478     2       0     1     0     24     191     2       5     17     0     165     330     2		33	0
0         1         0         24         191         2           5         17         0         165         330         2		249	20
5 17 0 165 330 2		22	0
		2 25	0 2
.5 200 7 2,200 2,373 14		333	22
	103	333	22
4 33 0 297 844 0	) 61	3	0
21 72 0 214 1,000 0		12	0
1 111 0 52 571 0		4	0
5 32 0 194 343 0		8	0
31 248 0 757 2,758 0	138	27	0
1,143 8,794 36 34,660 173,766 777	7,522	9,936	128

COUNTRY AND LOCATION	FIJI	FINLAND	FRANCE	FRENCH Polynesia	GERMANY	GHANA	GREECE
ISLAND (IF AVAILABLE)				. 0211120111			
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	102	45	0	18	0	2,290	2,859
Bags (Plastic)	890	67	43	13	245	3,047	2,430
Balloons	5	43	0	0	78	15	419
Beverage Bottles (Plastic)	2,166	232	124	37	982	360	4,661
Beverage Bottles (Glass)	344	540	233	4	1,089	257	2,035
Beverage Cans	596	310	91	15	505	296	5,189
Caps, Lids	216	198	14	0	1,467	146	10,185
Clothing, Shoes	202	7	15	3	259	294	825
Cups, Plates, Forks, Knives, Spoons	217	13	17	13	494	102	1,413
Food Wrappers/Containers	112	18	22	28	874	580	1,998
Pull Tabs	5	0	22	0	164	7	2,518
6-Pack Holders	0	0	0	0	91	1	401
Shotgun Shells/Wadding	5	0	10	0	105	0	357
Straws, Stirrers	91	0	14	0	264	510	5,896
Toys	2	1	5	7	131	31	491
Total	4,953	1,474	610	138	6,748	7,936	41,677
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	12	0	10	7	188	0	289
Bleach/Cleaner Bottles	23	84	0	0	81	0	308
Buoys/Floats	14	182	2	3	71	33	171
Crab/Lobster/Fish Traps	9	3	9	0	16	0	62
Crates	2	0	2	0	36	0	326
Fishing Line	76	0	34	15	337	8	1,061
Fishing Lures/Light Sticks	4	0	3	0	204	49	240
Fishing Nets	13	0	10	2	8	32	599
Light Bulbs/Tubes	11	0	0	0	36	15	190
Oil/Lube Bottles	5	30	2	11	31	17	250
Pallets	2	0	1	2	16	0	219
Plastic Sheeting/Tarps	5	0	51	0	206	0	3,858
Rope	29	46	28	21	105	65	2,277
Strapping Bands	27	30	0	0	26	18	199
Total	232	375	152	61	1,361	237	10,049
MOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	64	465	83	0	4,100	1	35,180
Cigarette Lighters	29	7	12	2	179	0	865
Cigar Tips	4	0	0	9	113	0	28
Tobacco Packaging/Wrappers	22	30	17	0	1,164	0	1,026
Total	119	502	112	11	5,556	1	37,099
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	20	4	2	0	8	5	79
Batteries	59	25	0	2	127	24	704
Building Materials	369	478	5	9	151	0	1,385
Cars/Car Parts	25	2	3	0	26	0	111
55-Gallon Drums	0	0	2	0	3	0	103
Tires	30	2	7	16	70	6	383
Total	503	511	19	27	385	35	2,765
MEDICAL/PERSONAL HYGIENE							
Condoms	2	81	4	2	86	30	15
Diapers	8	0	1	0	63	10	197
Syringes	5	79	0	0	15	19	117
Tampons/Tampon Applicators	0	0	8	4	78	0	1
Total	15	160	13	6	242	59	330
MARINE DEBRIS ITEM TOTALS	5,822	3,022	906	243	14,292	8,268	91,920

GRENADA	GUAM	GUATEMALA	GUYANA	HONDURAS	HONG KONG	HUNGARY	INDIA	INDONESIA
92	3,811	382	641	45	688	0	18,780	799
604	3,843	383	641	547	7,907	100	15,016	1,994
6	426	0	99	0	1,129	0	4,131	6
420	7,655	742	1,298	1,664	4,050	500	4,731	681
290	9,712	878	33	142	1,232	350	3,454	110
263	17,920	345	351	86	622	50	1,290	209
236	6,655	0	1,461	1,145	3,745	0	5,591	326
112	2,377	46	266	58	1,307	31	7,560	289
184	6,450	128	967	97	2,980	4	5,363	182
549	6,260	0	719	480	4,872	0	10,638	367
13	1,744	0	42	0	514	0	379	0
3	984	0	49	0	303	0	183	0
0	152	0	14	0	49	0	1,255	0
86	1,788	0	1,471	286	3,041	0	4,405	164
7	690	0	139	19	640	3	1,792	5
2,865	70,467	2,904	8,191	4,569	33,079	1,038	84,568	5,132
25	135	0	27	5	2,452	3	552	20
37	377	0	92	0	355	30	604	10
8	174	5	10	0	268	0	1,382	0
7	87	0	10	0	163	0	254	1
2	54	0	21	2	189	0	197	2
23	356	0	38	0	692	0	310	74
1	106	0	33	0	652	0	313	4
5	139	3	37	1	521	0	686	7
4	135	0	21	0	324	0	581	0
34	200	0	78	17	188	0	582	16
1	63	0	9	0	128	0	218	0
54	623	0	131	0	1,034	0	1,916	79
53	530	0	119	3	1,213	0	3,998	21
27	225	0	105	0	792	0	530	0
281	3,204	8	731	28	8,971	33	12,123	234
453	47.574	45	004	1.000	4.600	1.000	0.100	0.70
157	17,574	15	231	1,000	4,689	1,000	9,193	370
7	366	0	123	0	878	20	2,750	14
19	1,542	0	101	227	274 895	800	1,214 9,742	134
229	20,729	15	568	1,227	6,736	1,820	22,899	518
227	20,727	13	300	1,227	0,730	1,020	22,077	310
1	211	2	9	1	57	0	121	0
3	978	2	38	0	168	0	651	106
51	766	0	68	3	1,774	150	1,747	1
9	447	26	15	4	128	80	166	0
0	26	0	3	0	58	0	11	2
0	257	0	11	2	71	0	402	2
64	2,685	30	144	10	2,256	230	3,098	111
6	130	7	152	14	105	5	626	0
3	815	0	18	18	32	2	492	22
0	25	0	22	6	167	10	1,227	0
3	89	0	28	0	107	30	65	30
12	1,059	7	220	38	411	47	2,410	52
3,451	98,144	2,964	9,854	5,872	51,453	3,168	125,098	6,047





COUNTRY AND LOCATION	IRELAND	ISRAEL	ITALY	JAMAICA	JAPAN	JORDAN	KENYA
ISLAND (IF AVAILABLE)							
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	118	0	50	4,544	4,764	17	17,066
Bags (Plastic)	67	10	797	15,153	5,424	287	6,867
Balloons	25	0	30	227	661	2	1,956
Beverage Bottles (Plastic)	1,059	12	886	56,370	8,835	217	3,995
Beverage Bottles (Glass)	505	3	663	7,801	6,803	76	1,980
Beverage Cans	749	0	610	5,731	7,934	435	1,065
Caps, Lids	2,078	0	783	18,534	12.739	39	7,112
Clothing, Shoes	67	3	105	5,468	1,857	6	5,215
Cups, Plates, Forks, Knives, Spoons	624	15	568	10,335	2,746	54	8,294
Food Wrappers/Containers	3,114	6	430	8,862	18,834	28	5,041
Pull Tabs	49	0	172	162	850	0	2,409
6-Pack Holders	66	0	60	60	78	2	605
Shotgun Shells/Wadding	11	0	69	17	137	0	1,004
Straws, Stirrers	323	30	238	3,492	3,256	16	1,095
Toys	36	8	171	651	1,152	4	1,613
Total	8,891	87	5,632	137,407	76,070	1,183	65,317
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	8	0	31	231	448	3	1,075
Bleach/Cleaner Bottles	118	0	149	1,501	992	5	891
Buoys/Floats	9	0	19	72	10,632	1	1,037
Crab/Lobster/Fish Traps	0	0	24	95	456	5	576
Crates	1	0	70	93	340	2	313
Fishing Line	15	1	117	190	1,999	156	767
Fishing Lures/Light Sticks	3	0	5	36	626	130	689
Fishing Nets	39	1	36	150	337	2	858
Light Bulbs/Tubes	5	0	12	165	165	0	823
Oil/Lube Bottles	11	0	40	1,003	60	15	740
Pallets	7	0	3	15	78	1	364
Plastic Sheeting/Tarps	46	10	491	523	592	3	723
Rope	318	1	78	236	11,510	4	2,487
Strapping Bands	39	0	102	61	1,856	5	377
Total	619	13	1,177	4,371	30,091	332	11,720
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	257	20	7,884	979	49,913	0	3,679
Cigarette Lighters	44	3	107	1,076	2,671	10	890
Cigar Tips	1	12	186	289	6,159	0	938
Tobacco Packaging/Wrappers	113	0	242	170	1,915	47	1,541
Total	415	35	8,419	2,514	60,658	57	7,048
DUMPING ACTIVITIES				,			
Appliances (Refrigerators, Washers, etc.)	6	0	173	102	315	0	370
Batteries	5	1	96	133	237	12	576
Building Materials	148	0	153	265	1,422	1	875
Cars/Car Parts	2	0	55	348	68	0	484
55-Gallon Drums	2	0		15	66	2	182
Tires	8	6	108	315	292	13	594
Total	171	7	596	1,178	2,400	28	3,081
MEDICAL/PERSONAL HYGIENE		•		1,110	27.00		0,00.
Condoms	10	0	49	723	76	0	2,176
Diapers	7	0	10	681	69	34	618
Syringes Tampons/Tampon Applicators	15	0	44	101 56	137	27	426 707
	46	0	150		386		
Total	40	U	150	1,561	380	61	3,927

MARINE DEBRIS ITEM TOTALS

10,142

142

15,974

147,031

169,605

1,661

KUWAIT	MALAYSIA	MALDIVES	MALTA	MARSHALL ISLANDS	MAURITIUS	MEXICO	MOZAMBIQUE	NETHERLANDS ANTILLES
								BONAIRE
120	856	0	75	10	5	4,929	274	121
40	3,727	163	77	31	20	44,438	207	391
0	844	11	6	0	0	1,470	0	16
32	2,046	245	275	290	0	54,011	262	223
16	880	159	306	92	50	22,614	193	363
7	504	207	427	311	90	7,664	241	92
11	794	243	84	88	0	48,785	287	263
2	579	85	30	240	0	7,606	113	52
1	688	131	182	31	10	25,265	44	433
7	1,343	169	84	21	10	18,381	82	272
0	68	0	17	1	0	4,088	36	29
0	21	2	6	1	0	4,209	47	10
0	15	0	0	0	0	135	0	2
0	704	97	61	1	0	10,952	2	235
2 <b>39</b>	121 13,190	10 1,522	45 1,6 <b>75</b>	15 1,132	5 <b>190</b>	2,256 <b>256,803</b>	20 1,808	2,533
237	13,170	1,522	1,075	1,132	170	230,803	1,808	2,555
0	71	37	25	1	0	413	7	6
0	149	49	10	12	0	3,831	28	32
0	561	13	2	11	0	615	1	9
2	40	0	6	0	0	186	0	2
0	18	0	18	4	0	342	12	7
1	132	237	60	7	20	1,351	17	34
0	27	24	45	3	2	243	0	12
0	95	16	0	0	3	736	18	6
2	141	19	36	0	1	326	1	21
0	158	50	49	0	0	2,420	40	29
0	15	4	4	0	0	494	0	21
0	342	140	16	0	0	1,282	1	45
1	761	144	20	30	0	4,186	145	42
0	89	169	12	5	0	697	0	7
6	2,599	902	303	73	26	17,122	270	273
11	3,333	125	1,100	1,004	5,000	30,747	321	57
5	319	7	0	0	1	1,163	16	88
0	675	19	3	44	0	5,369	10	204
0	390	34	15	57	0	2,322	50	5
16	4,717	185	1,118	1,105	5,001	39,601	397	354
0	36	53	3	0	0	191	3	0
1	53	76	16	0	0	492	8	1
0	308	586	97	4	0	1,865	9	30
0	36	0 4	11	0	0	524 80	3	9
0	21	19	38	1	5	413	0	19
1	456	738	166	5	5	3,565	23	61
	-100	, 50	.00			5,505	23	
0	25	0	0	0	15	867	13	2
1	89	20	3	0	0	2,468	18	18
0	20	6	0	0	5	586	0	12
0	11	3	0	0	0	421	11	4
1	145	29	3	0	20	4,342	42	36
263	21,107	3,376	3,265	2,315	5,242	321,433	2,540	3,257
	,	,		,	, -			,

COUNTRY AND LOCATION	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS	NEW ZEALAND	NICARAGUA
ISLAND (IF AVAILABLE)	CURACAO	ST. EUSTATIUS	ST. MAARTEN	TOTAL			
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	19	27	1,345	1,512	79	103	5,218
Bags (Plastic)	25	28	2,703	3,147	217	365	8,764
Balloons	2	4	115	137	4	19	420
Beverage Bottles (Plastic)	47	76	3,111	3,457	429	243	11,971
Beverage Bottles (Glass)	211	11	4,840	5,425	244	501	4,532
Beverage Cans	80	2	2,447	2,621	465	282	1,072
Caps, Lids	40	443	3,744	4,490	150	824	10,136
Clothing, Shoes	40	18	755	865	28	89	2,248
Cups, Plates, Forks, Knives, Spoons	97	135	3,676	4,341	180	164	3,835
Food Wrappers/Containers	15	104	1,998	2,389	779	769	3,455
Pull Tabs	26	4	190	249	90	126	145
6-Pack Holders	15	0	190	215	36	2	289
Shotgun Shells/Wadding	0	8	3	13	0	18	47
Straws, Stirrers	13	113	1,536	1,897	55	163	5,910
Toys	3	11	156	201	86	28	1,023
Total	633	984	26,809	30,959	2,842	3,696	59,065
OCEAN/WATERWAY ACTIVITIES						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,
Bait Containers/Packaging	5	0	42	53	4	9	177
Bleach/Cleaner Bottles	0	1	190	223	14	2	2,910
Buoys/Floats	0	11	37	57	3	1	518
3	0	0	11	13	4	4	4
Crab/Lobster/Fish Traps	0	0	15	22	1	1	14
Crates  Eiching Line	357	16	15	422	23	119	224
Fishing Line	14	2	17	422	3	38	0
Fishing Lures/Light Sticks	4	9	36	55	2	3	100
Fishing Nets	<del>4</del> 1	0	29	51	2	0	66
Light Bulbs/Tubes	2	10	101	142	3	2	685
Oil/Lube Bottles Pallets	0	0	64	85	4	0	0000
Plastic Sheeting/Tarps	2	80	244	371	1	24	126
<u> </u>	9	257	283	591	23	16	926
Rope Stropping Ronds	12	8	44	71	32	13	141
Strapping Bands  Total	406	394	1,128		119	232	5,891
	406	394	1,128	2,201	119	232	5,691
SMOKING-RELATED ACTIVITIES	400	-	0.100	0.040	440	1101	0.000
Cigarettes/Cigarette Filters	123	5	2,183	2,368	418	1,194	2,098
Cigarette Lighters	0	9	118	215	34	14	779
Cigar Tips  Tabassa Paskaging (Wrappers	0	1	581	786	115	94	1,632
Tobacco Packaging/Wrappers	10	0	111	126	115	36	290
Total	133	15	2,993	3,495	571	1,338	4,799
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	0	0	14	14	3	2	43
Batteries	1	2	39	43	13	15	18
Building Materials	5	8	275	318	139	57	229
Cars/Car Parts	1	2	49	61	14	4	101
55-Gallon Drums	0	0	3	5	4	0	1
Tires	8	3	10	40	12	5	73
Total	15	15	390	481	185	83	465
MEDICAL/PERSONAL HYGIENE							
Condoms	2	1	240	245	11	12	176
Diapers	0	1	139	158	1	0	97
Syringes	0	1	3	16	3	2	183
Tampons/Tampon Applicators	0	1	94	99	1	1	131
Total	2	4	476	518	16	15	587
MARINE DEBRIS ITEM TOTALS	1,189	1,412	31,796	37,654	3,733	5,364	70,807

NIGERIA	NORTHERN MARIANA ISLANDS	OMAN	PALAU	PARAGUAY	PHILIPPINES	POLAND	PORTUGAL	PUERTO RICO
44,141	193	30	850	111	253,013	242	0	10,968
155,274	280	619	80	1,255	679,957	254	198	24,641
3,810	10	0	80	10	8,756	38	0	1,756
85,262	339	292	100	72	20,238	347	249	33,744
33,188	438	94	500	46	12,553	279	424	41,452
53,854	792	333	500	16	8,619	213	198	14,332
137,489	175	192	1,000	360	12,930	106	99	33,126
11,394	32	8	50	144	38,394	45	63	8,019
8,237	329	74	300	78	18,614	79	82	37,411
84,006	115	38	1,000	45	103,226	146	112	16,043
192,244	78	0	40	0	1,027	53	16	3,368
579	58	0	200	0	998	5	2	2,446
0	0	0	0	0	843	2	0	400
130,814	54	0	0	117	68,421	4	0	15,281
5,142	13	4	10	9	7,574	14	5	2,677
945,434	2,906	1,684	4,710	2,263	1,235,163	1,827	1,448	245,664
0	3	83	0	18	1,915	7	10	410
0	6	3	10	1	3,515	2	17	1,656
0	2	3	5	0	2,563	1	3	699
0	3	20	0	0	1,837	0	154	134
0	0	9	1	9	570	1	10	553
0	15	60	1	0	3,142	8	254	795
0	2	19	0	0	1,701	7	17	204
0	0	11	0	0	2,660	4	226	504
0	13	2	0	5	1,413	2	0	387
0	6	4	5	2	1,874	8	26	1,588
0	1	0	1	1	384	2	10	282
0	7	3	5	139	13,883	4	85	2,682
0	36	16	1	21	6,854	6	128	2,028
0	9	23	0	107	1,499	33	26	360
0	103	256	29	303	43,810	85	966	12,282
65,467	698	15	500	110	34,154	97	333	56,888
4,098	19	28	20	3	5,025	12	30	1,284
7,593 14,902	76	0 40	150	64	8,011	19 68	100	4,791 1,913
92,060			670		8,624	196	603	
92,060	802	83	670	206	55,814	196	603	64,876
0		0	4		221	1		407
9	5	0	1	0	231	1	0	496
7,479 1,704	22	1	0	2	1,906	13	46	616
6,774	76	88	4	256 13	2,055 561	7	18	3,302 1,183
0,774	0	1	0	0	221	0	1	94
8,287	6	3	20	2	1,054	22	58	1,045
24,253	126	93	<b>2</b> 0	273	6,028	76	124	6,736
24,200	120	70	2,	270	0,020	7.0	12-4	0,700
5,575	9	0	0	58	650	27	2	671
13,498	6	0	20	8	11,077	2	0	1,457
748	0	0	0	11	835	0	3	850
23	1	0	0	2	1,859	0	1	497
19,844	16	0	20	79	14,421	29	6	3,475
1,081,591	3,953	2,116	5,456	3,124	1,355,236	2,213	3,147	333,033
1,001,071	0,700	2,110	3,430	0,124	1,000,200	2,210	5,147	555,033





COUNTRY AND LOCATION	QATAR	REPUBLIC OF KOREA	RUSSIA	SAUDI ARABIA	SINGAPORE	SLOVENIA	SOLOMON ISLANDS
ISLAND (IF AVAILABLE)							
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	1,147	5	85	83	1,177	0	18
Bags (Plastic)	1,647	7,927	92	254	26,006	59	166
Balloons	146	174	2	0	340	0	0
Beverage Bottles (Plastic)	1,145	4,410	58	242	4,932	25	130
Beverage Bottles (Glass)	676	3,652	26	346	2,726	8	79
Beverage Cans	1,264	3,012	37	900	930	19	629
Caps, Lids	1,075	3,765	187	180	3,557	0	145
Clothing, Shoes	348	1,057	31	41	1,991	8	18
Cups, Plates, Forks, Knives, Spoons	1,080	1,887	75	398	3,319	20	0
Food Wrappers/Containers	611	3,257	93	118	12,932	30	112
Pull Tabs	299	129	0	112	286	10	0
6-Pack Holders	40	927	0	0	36	0	0
Shotgun Shells/Wadding	75	45	0	0	229	0	0
Straws, Stirrers	463	1,579	11	21	9,428	5	0
Toys	124	405	9	45	1,037	5	0
Total	10,140	32,231	706	2,740	68,926	189	1,297
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	56	999	4	3	241	0	0
Bleach/Cleaner Bottles	93	170	0	4	244	3	3
Buoys/Floats	28	6,107	4	2	117	0	0
Crab/Lobster/Fish Traps	37	476	0	1	213	0	0
Crates	5	309	22	1	54	1	0
Fishing Line	83	1,245	1	19	276	1	0
Fishing Lures/Light Sticks	37	1,091	0	11	285	2	0
Fishing Nets	46	1,060	0	1	305	3	0
Light Bulbs/Tubes	23	149	2	0	267	0	0
Oil/Lube Bottles	55	325	0	5	123	2	0
Pallets	15	1,180	0	2	54	0	0
Plastic Sheeting/Tarps	50	1,598	35	0	4,275	3	6
Rope	129	2,891	84	4	1,688	2	5
Strapping Bands	28	2,127	2	6	846	4	0
Total	685	19,727	154	59	8,988	21	14
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	1,107	15,703	828	238	18,304	0	26
Cigarette Lighters	91	855	17	19	704	2	13
Cigar Tips	202	298	14	0	1,360	17	0
Tobacco Packaging/Wrappers	201	1,159	36	89	355	6	52
Total	1,601	18,015	895	346	20,723	25	91
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	10	164	1	0	114	0	0
Batteries	57	361	0	3	455	2	23
Building Materials	100	917	23	12	1,263	20	0
Cars/Car Parts	36	95	0	0	134	4	0
55-Gallon Drums	4	90	0	5	21	0	0
Tires	20	243	0	18	95	1	0
Total	227	1,870	24	38	2,082	27	23
MEDICAL/PERSONAL HYGIENE							
Condoms	26	31	1	3	101	0	0
Diapers	151	49	1	19	57	0	11
Syringes	32	27	3	0	36	0	1
Tampons/Tampon Applicators	8	11	0	0	83	0	0
Total	217	118	5	22	277	0	12
MADINE DEDDIS ITEM TOTALS	12 970	71 041	1 701	2 205	100 006	242	1 /27

MARINE DEBRIS ITEM TOTALS

12,870

71,961

1,784

3,205

100,996

262

1,437

			ST. VINCENT AND				_	TRINIDAD
SOUTH AFRICA	SPAIN	SRI LANKA	THE GRENADINES	SWEDEN	SWITZERLAND	TANZANIA	THAILAND	AND TOBAGO
			GRENADINES					
400		4.115	575		0	0	1.014	0.421
488	0	4,115	575	5	0	0	1,914	2,431
2,859	2,722	10,270 352	2,605	39 1	134	2,300	3,198	6,549
6,035	1,221	5,649	2,185	18	775	575	3,216	15,129
2,948	463	2,091	2,483	23	663	78	3,310	7,604
1,464	824	520	2,143	44	246	245	2,555	2,504
10,564	898	3,103	889	25	218	880	5,074	12,822
638	171	3,346	465	11	50	56	9,054	2,075
1,058	188	491	910	82	186	0	2,018	10,448
2,651	1,108	4,830	990	36	312	1,250	16,763	7,573
96	579	116	55	2	13	20	270	333
61	216	183	34	0	3	0	9	119
83	5	153	7	1	6	0	8	13
2,224	233	4,211	177	0	40	1,727	2,484	1,921
330	58	685	58	15	35	0	235	402
31,559	8,780	40,115	13,620	302	2,696	7,131	50,487	69,997
240	135	318	32	0	30	0	509	287
170	163	453	62	0	11	0	849	327
68	69	1,602	113	4	6	20	814	164
68	14	114	29	1	1	0	622	53
149	134	72	5	0	7	0	15	46
1,822	215	249	21	22	63	0	622	140
160	91	89	14	0	22	0	22	41
97	282	300	21	4	5	0	700	156
116	17	306	137	0	7	0	145	105
122	91	327	338	1	10	0	279	529
25	36	103	23	0	2	0	22	34
164	135	341	22	11	63	0	426	140
2,356	268	408	247	36	40	15	11,411	707
477	112	184	13	7	24	0	701	64
6,034	1,762	4,866	1,077	86	291	35	17,137	2,793
2.450	1.010	14.600	271	70	1.020	2.450	2.120	1 117
2,450	1,919	14,609 879	271	70	1,830	3,450	2,128 1,228	1,117
13	446	485	14	0	37	0	359	424
370	237	999	86	0	99	44	209	671
3,053	2,694	16,972	398	70	2,035	3,520	3,924	2,708
3,555		13,772				3,023	377.2.1	2,110
28	12	90	19	1	22	0	907	42
18	29	324	21	1	123	0	421	51
797	342	297	74	27	224	35	813	263
130	21	194	22	17	8	10	316	106
30	8	38	4	0	1	0	0	11
125	41	130	15	31	63	0	157	84
1,128	453	1,073	155	77	441	45	2,614	557
308	82	265	46	0	38	30	22	159
29	50	194	33	3	11	0	48	289
6	2	167	6	0	6	0	16	70
82	181	231	5	17	20	0	10	77
425	315	857	90	20	75	30	96	595
42,199	14,004	63,883	15,340	555	5,538	10,761	74,258	76,650

COUNTRY AND LOCATION	TURKEY	UKRAINE	UNITED KINGDOM	UNITED STATES	US VIRGIN ISLANDS	US VIRGIN ISLANDS	US VIRGIN ISLANDS
ISLAND (IF AVAILABLE)					ST. CROIX	ST. JOHN	ST. THOMAS
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	1,384	6	699	78,417	778	32	1,822
Bags (Plastic)	2,430	31	8,440	229,758	1,902	274	3,965
Balloons	68	0	1,744	38,181	308	4	67
Beverage Bottles (Plastic)	1,540	22	12,819	210,568	2,228	547	3,571
Beverage Bottles (Glass)	464	14	2,092	168,849	2,629	287	3,111
Beverage Cans	749	0	670	163,441	1,903	271	2,212
Caps, Lids	1,732	0	26,751	379,589	3,850	787	4,293
Clothing, Shoes	152	2	3,723	46,634	788	124	876
Cups, Plates, Forks, Knives, Spoons	103	24	4,267	167,108	2,267	201	2,671
Food Wrappers/Containers	516	0	32,170	397,231	1,961	443	2,902
Pull Tabs	757	0	103	36,538	364	46	241
6-Pack Holders	323	0	478	10,995	84	7	90
Shotgun Shells/Wadding	6	0	1,692	19,060	381	5	30
Straws, Stirrers	320	0	6,963	155,659	848	267	2,968
Toys	78	2	1,656	41,278	306	26	254
Total	10,622	101	104,267	2,143,306	20,597	3,321	29,073
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	14	0	689	19,880	93	10	33
Bleach/Cleaner Bottles	132	0	1,180	7,152	162	67	190
Buoys/Floats	16	0	621	12,844	77	79	109
Crab/Lobster/Fish Traps	11	0	44	5,285	45	3	31
Crates	13	0	616	2,347	37	8	46
Fishing Line	13	4	9,902	36,910	206	53	186
Fishing Lures/Light Sticks	6	0	326	11,059	54	2	18
Fishing Nets	16	0	19,504	5,539	238	43	114
Light Bulbs/Tubes	23	0	162	4,589	80	3	22
Oil/Lube Bottles	49	0	456	7,478	194	42	121
Pallets	1	0	108	1,637	56	5	83
Plastic Sheeting/Tarps	38	0	8	25,889	261	72	248
Rope	27	0	22,507	44,409	863	382	365
Strapping Bands	11	0	2,691	15,737	88	56	42
Total	370	4	58,814	200,755	2,454	825	1,608
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	26,455	700	11,485	1,362,741	627	1,575	2,196
Cigarette Lighters	172	5	1,444	18,555	210	41	227
Cigar Tips	8	0	9	74,399	281	59	433
Tobacco Packaging/Wrappers	357	6	1,282	36,397	125	22	371
Total	26,992	711	14,220	1,492,092	1,243	1,697	3,227
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	14	0	1,088	1,523	37	0	59
Batteries	98	0	8	5,715	45	1	33
Building Materials	112	0	2,713	58,448	306	28	339
Cars/Car Parts	54	0	280	8,258	196	6	246
55-Gallon Drums	2	0	52	499	9	0	2
Tires	48	0	322	8,243	216	45	62
Total	328	0	4,463	82,686	809	80	741
MEDICAL/PERSONAL HYGIENE							
Condoms	10	0	240	7,136	174	18	328
Diapers	20	0	184	4,965	145	1	127
Syringes	12	0	241	2,387	14	0	8
Tampons/Tampon Applicators	11	0	3,079	12,528	8	3	42
Total	53	0	3,744	27,016	341	22	505
MARINE DEBRIS ITEM TOTALS	38,365	816	185,508	3,945,855	25,444	5,945	35,154

US VIRGIN	VANUATU	VENEZUELA	VIETNAM	COUNTRY AND
ISLANDS TOTAL				LOCATION TOTALS
TOTAL				
2,632	15	2,500	0	530,607
6,141	5	702	400	1,377,141
379	0	18	0	77,721
6,346	0	3,715	5	714,892
6,027	15	4,475	0	434,990
4,386	5	731	10	401,412
8,930	0	6,746	0	937,804
1,788	0	187	20	198,807
5,139	0	1,273	0	441,053
5,306	0	1,121	500	942,620
651	0	481	0	266,986
181	0	115	0	35,461
416	0	12	0	31,974
4,083	0	1,237	35	509,593
586 <b>52,991</b>	40	23,378	970	88,211 <b>6,989,272</b>
32,771	40	25,570	770	0,707,272
136	0	414	0	38,579
419	400	64	0	40,684
265	0	28	0	47,808
79	0	0	0	13,712
91	0	23	0	8,351
445	100	46	30	72,941
74	0	3	0	21,797
395	0	5	0	39,576
105	0	4	15	13,125
357	0	99	0	27,214
144	0	27	0	9,096
581	0	19	0	71,406
1,610	0	28	500	157,066
186	0	2	0	37,361
4,887	500	762	545	598,716
4,398	0	780	0	3,216,991
478	0	107	10	56,491
773	0	0	0	143,790
518	0	222	20	118,629
6,167	0	1,109	30	3,535,901
96	0	3	0	8,408
79	0	16	0	27,099
673	0	42	0	115,549
448	0	12	0	27,373
11	0	1	0	2,144
323	0	8	0	26,585
1,630	0	82	0	207,158
520	0	2	0	27,862
273	25	220	0	43,389
22 53	0	15	0	10,817 25,971
53 <b>868</b>	0 <b>25</b>	37 <b>274</b>	0	25,971 <b>108,039</b>
66,543	565	25,605	1,545	11,439,086
30,043	000	20,000	1,040	11,107,000





			LAND		UNDERWATER			TOTAL		
COUNTRY AND LOCATION	ISLAND	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES
Argentina		1,243	11,968.9	7.0	-	-	-	1,243	11,968.9	7.0
Aruba		112	1,432.3	1.6	32	224.5	0.3	144	1,656.8	1.9
Australia		426	6,920.3	23.8	310	4,762.0	8.4	736	11,682.3	32.2
Austria		3	2.2	2.4	40	1,060.4	4.1	43	1,062.6	6.5
Bahamas	Abaco	519	6,450.0	28.5	3	20.0	0.3	522	6,470.0	28.8
	Nassau	859	38,900.0	6.3	150	9,000.0	2.0	1,009	47,900.0	8.3
	Total	1,378	45,350.0	34.8	153	9,020.0	2.3	1,531	54,370.0	37.1
Bahrain		11	13.2	0.9	21	94.8	0.4	32	108.0	1.3
Bangladesh		391	1,049.8	72.6	-	-	-	391	1,049.8	72.6
Barbados		60	3,991.5	1.8	16	230.0	0.1	76	4,221.5	1.9
Belgium		33	152.1	11.6	139	4,105.0	6.7	172	4,257.1	18.3
Belize		992	28,699.0	26.6	-	-	-	992	28,699.0	26.6
Bermuda		194	1,998.0	4.0	6	200.0	0.1	200	2,198.0	4.1
Brazil		11,534	122,601.3	2,937.6	197	1,175.1	1.2	11,731	123,776.4	2,938.8
British Virgin Islands	Cooper Island	7	20.0	-	16	30.0	-	23	50.0	-
	Tortola	223	5,706.0	5.6	-	-	-	223	5,706.0	5.6
	Virgin Gorda	22	1,000.0	1.0	-	-	-	22	1,000.0	1.0
	Total	252	6,726.0	6.6	16	30.0	-	268	6,756.0	6.6
Canada		33,919	306,648.9	1,734.5	401	8,776.7	6.0	34,320	315,425.6	1,740.5
Cayman Islands	Grand Cayman	6	500.0	0.1	22	200.0	0.1	28	700.0	0.2
Chile		3,279	138,655.7	68.3	17	628.3	0.6	3,296	139,284.0	68.9
China		1,134	2,775.8	1.7	29	50.7	0.1	1,163	2,826.5	1.8
Colombia		362	2,848.4	1.9	62	1,378.1	37.9	424	4,226.5	39.8
Cook Islands		60	1,102.3	0.9	21	440.9	0.3	81	1,543.2	1.2
Costa Rica		426	5,608.4	6.6	4	44.1	0.3	430	5,652.5	6.9
Croatia		56	2,050.3	2.8	-	-	-	56	2,050.3	2.8
Cyprus		380	4,362.8	4.7	130	1,744.3	5.8	510	6,107.1	10.5
Denmark		-	-	0	19	152.1	1.8	19	152.1	1.8
Dominica		561	18,933.0	23.8	-	-	-	561	18,933.0	23.8
Dominican Republic		2,220	56,845.7	16.6	54	3,527.4	0.5	2,274	60,373.1	17.1
East Timor		38	440.9	0.2	15	55.1	0.2	53	496.0	0.4
Ecuador		8,313	52,806.2	83.3	66	3,222.3	0.8	8,379	56,028.5	84.1
Egypt		433	4,280.7	12.8	388	3,319.5	7.8	821	7,600.2	20.6
Estonia		55	3,720.5	2.6	50	3,704.6	0.6	105	7,425.1	3.2
Fiji		145	5,426.2	4.3	17	176.4	2.6	162	5,602.6	6.9
Finland		104	1,609.4	0.9	50	1,388.9	0.8	154	2,998.3	1.7
France		49	557.8	4.0	61	1,907.0	1.6	110	2,464.8	5.6
French Polynesia		20	440.9	2.5	12	661.4	0.6	32	1,102.3	3.1
Germany		291	4,290.2	51.7	377	18,466.3	39.7	668	22,756.5	91.4
Ghana		200	200.0	0.5	-	-	-	200	200.0	0.5
Greece		2,155	28,761.9	33.7	165	6,541.9	4.1	2,320	35,303.8	37.8
Grenada		45	790.0	15.9	14	179.4	1.0	59	969.4	16.9
Guam		3,366	32,171.0	2.1	85	340.0	0.3	3,451	32,511.0	2.4
Guatemala		146	1,716.0	0.4	40	1,716.0	0.4	186	3,432.0	0.8
Guyana		104	1,485.0	2.0	-	-	-	104	1,485.0	2.0
Honduras		41	1,525.0	0.7	10	200.0	0.2	51	1,725.0	0.9
Hong Kong		2,892	28,735.3	34.5	7	44.1	1.9	2,899	28,779.4	36.4
Hungary		45	1,763.7	0.2	20	220.5	0.1	65	1,984.2	0.3
India		6,132	21,953.4	247.6	15	41.9	0.6	6,147	21,995.3	248.2
Indonesia		287	2,410.5	4.3	78	200.6	2.4	365	2,611.1	6.7
Iran		115	1,132.6	4.4	45	1,224.8	3.4	160	2,357.4	7.8
Ireland		96	639.3	0.6	-	-	-	96	639.3	0.6
Israel		1,627	47,178.9	15.1	54	1,278.7	2.4	1,681	48,457.6	17.5
Italy		543	8,115.2	18.3	365	5,584.3	11.1	908	13,699.5	29.4
Jamaica		1,787	23,207.1	23.3	25	1,379.2	0.7	1,812	24,586.3	24.0
Japan		13,516	68,387.5	44.5	371	17,727.5	5.8	13,887	86,115.0	50.3
Jordan		6	44.1	0.1	25	465.0	0.1	31	509.1	0.2
Kenya		5,959	30,911.0	219.3	-	-	-	5,959	30,911.0	219.3
Kuwait		22	39.7	0.1	12	15.4	-	34	55.1	0.1
Malaysia		1,278	23,922.5	10.0	261	895.1	3.7	1,539	24,817.6	13.7

			LAND		UI	NDERWATER			TOTAL	
COUNTRY AND LOCATION	ISLAND	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES
Maldives		142	1,388.9	10.8	247	4,455.5	10.7	389	5,844.4	21.
Malta		57	630.1	1.8	96	3,046.3	1.9	153	3,676.4	3.
Marshall Islands		21	80.0	_	18	20.0	_	39	100.0	
Mauritius		12	308.7	0.6	12	308.7	0.6	24	617.4	1.2
Mexico		9,235	138,765.7	87.4	308	3,648.1	12.1	9,543	142,413.8	99.5
Mozambique				4.4	7	11.0	0.3	102		
·		95	1,027.4						1,038.4	4.7
Netherlands Antilles	Bonaire	62	1,680.0	1.1	39	150.0	0.2	101	1,830.0	1.3
	Curacao	21	68.3	0.4	101	2,700.7	0.8	122	2,769.0	1.2
	St. Eustatius	20	455.5	0.9	-	-	-	20	455.5	0.9
	St. Maarten	826	3,351.1	0.3	-	-	-	826	3,351.1	0.3
	Total	929	5,555.0	2.7	140	2,850.7	1.0	1,069	8,405.7	3.7
Netherlands		43	1,479.3	11.6	170	2,918.9	11.0	213	4,398.2	22.6
New Zealand		138	888.5	5.5	109	1,728.4	2.2	247	2,616.9	7.7
Nicaragua		1,287	16,961.0	25.3	-	-	-	1,287	16,961.0	25.3
Nigeria		429	64,416.9	51.6	-	-	-	429	64,416.9	51.6
Northern Mariana Islands		312	559.0	0.5	-	-	-	312	559.0	0.5
Oman		86	1,455.1	7.9	47	1,422.0	5.4	133	2,877.1	13.3
Palau		85	2,000.0	3.0	-		-	85	2,000.0	3.0
Paraguay		60	4,257.1	0.1	_	_	_	60	4,257.1	0.1
Philippines		37,238	616,050.8	311.3	490	5,891.6	6.6	37,728	621,942.4	317.9
Poland		37,236	11,367.0	9.0	141	4,541.5	622.6	477	15,908.5	631.6
Portugal		45	2,491.2	4.0	108	3,507.6	3.4	153	5,998.8	7.4
Puerto Rico		8,521	197,330.5	170.7	116	3,405.0	4.9	8,637	200,735.5	175.6
Qatar		560	3,086.5	0.6	80	176.4	0.1	640	3,262.9	0.7
Republic of Korea		5,954	527,200.2	27.3	135	6,721.9	0.2	6,089	533,922.1	27.5
Russia		192	96.9	0.2	-	-	-	192	96.9	0.2
Saudi Arabia		40	1,212.5	1.1	50	1,000.0	0.5	90	2,212.5	1.6
Seychelles		40	297.6	0.1	-	-	-	40	297.6	0.1
Singapore		2,448	21,119.0	10.4	-	-	-	2,448	21,119.0	10.4
Slovakia		5	66.1	0.1	12	44.1	0.1	17	110.2	0.2
Slovenia		14	110.2	0.2	44	1,190.5	0.3	58	1,300.7	0.5
Solomon Islands		23	275.6	1.7	-	-	-	23	275.6	1.7
South Africa		6,772	20,771.5	55.4	231	1,550.7	1.3	7,003	22,322.2	56.7
Spain		341	4,014.6	32.3	276	4,929.0	16.3	617	8,943.6	48.6
Sri Lanka		632	6,787.4				-	632	6,787.4	
St. Kitts and Nevis	Novic	135	2,809.3	9.2	17	52.1	0.8	152	2,861.4	10.0
	Nevis				17	52.1	0.6			
St. Vincent and the Grenadines	Grenadines	289	4,636.5	9.6	-	700 /	-	289	4,636.5	9.6
Sweden		29	125.7	2.5	30	782.6	0.4	59	908.3	2.9
Switzerland		76	1,142.0	11.1	227	8,430.5	10.3	303	9,572.5	21.4
Taiwan		60	66.1	0.3	60	485.0	0.3	120	551.1	0.6
Tanzania		99	1,446.2	0.9	-	-	-	99	1,446.2	0.9
Thailand		2,406	21,845.6	18.6	716	9,122.7	6.6	3,122	30,968.3	25.2
Trinidad and Tobago	Trinidad	1,186	12,850.5	9.7	-	-	-	1,186	12,850.5	9.7
	Tobago	282	3,994.4	7.6	38	92.7	2.6	320	4,087.1	10.2
	Total	1,468	16,844.9	17.3	38	92.7	2.6	1,506	16,937.6	19.9
Turkey		1,710	8,096.1	20.6	42	3,886.1	1.0	1,752	11,982.2	21.6
Ukraine		7	123.5	0.1	10	94.8	0.1	17	218.3	0.2
United Arab Emirates		87	-	1.8	60	-	8.0	147	-	9.8
United Kingdom		5,684	44,413.7	114.3	146	765.9	1.2	5,830	45,179.6	115.5
United States		181,240	3,628,924.6	9,044.3	1,954	32,530.8	70.5	183,194	3,661,455.4	9,114.8
United States Virgin Islands	St. Croix	526	1,803.7	11.2	19	230.0	1.7	545	2,033.7	12.9
Zca Otatos virgin Islanas	St. John	143	4,292.0	10.1	17	230.0	1.7	143	4,292.0	10.1
					-	-	-			
	St. Thomas	706	12,272.0	19.9	-		-	706	12,272.0	19.9
	Total	1,375	18,367.7	41.2	19	230.0	1.7	1,394	18,597.7	42.9
Uruguay		-	-	-	31	13.2	-	31	13.2	
Vanuatu		300	1,763.7	-	26	440.9	0.2	326	2,204.6	0.2
Venezuela		355	11,561.0	5.6	76	432.1	0.5	431	11,993.1	6.1
Vietnam		21	250.0	-	-	-	-	21	250.0	
COUNTRY AND LOCATION TOTALS		380,275	6,584,365.3	15,968.1	10,606	219,527.6	975.6	390,881	6,803,892.9	16,943.7

COUNTRY AND LOCATION	ALABAMA	ALASKA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT
QUODELINE A DESPETATION OF THE PROPERTY OF THE							
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	2,968	0	338	3	24,194	7	1,124
Bags (Plastic)	5,987	7	717	46	52,544	69	5,187
Balloons	654	0	22	2	8,987	8	902
Beverage Bottles (Plastic)	9,343	0	1,272	15	24,282	34	5,598
Beverage Bottles (Glass)	6,990	32	1,088	23	31,774	39	3,161
Beverage Cans	8,359	32	1,509	148	23,090	18	3,413
Caps, Lids	8,000	0	1,116	20	83,069	53	7,869
Clothing, Shoes	1,413	9	187	13	12,185	22	1,082
Cups, Plates, Forks, Knives, Spoons	4,745	0	468	153	34,354	55	4,451
Food Wrappers/Containers	6,420	15	749	24	114,758	89	16,488
Pull Tabs	1,037	0	943	2	10,448	4	899
6-Pack Holders	750	0	31	2	1,780	2	123
Shotgun Shells/Wadding	437	0	23	0	5,590	17	287
Straws, Stirrers	2,162	0	330	2	33,170	17	3,316
Toys	1,384	14	50	14	10,558	4	1,091
Total	60,649	109	8,843	467	470,783	438	54,991
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	519	0	45	1	2,961	6	560
Bleach/Cleaner Bottles	422	0	31	0	811	2	69
Buoys/Floats	543	2	9	0	1,583	4	574
Crab/Lobster/Fish Traps	128	2	0	0	358	0	38
Crates	113	1	9	0	532	3	42
Fishing Line	947	0	167	85	6,466	9	893
Fishing Lures/Light Sticks	433	3	117	13	1,385	0	180
Fishing Nets	188	3	14	0	739	0	71
Light Bulbs/Tubes	282	0	8	0	1,037	0	72
Oil/Lube Bottles	511	6	21	0	866	0	65
Pallets	51	0	1	0	428	0	12
Plastic Sheeting/Tarps	894	0	15	1	5,715	5	395
Rope	1,484	8	38	3	5,968	7	450
Strapping Bands	506	0	22	2	3,838	2	189
Total	7,021	25	497	105	32,687	38	3,610
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	17,938	20	2,179	117	340,221	43	26,948
Cigarette Lighters	597	3	23	0	4,709	5	473
Cigar Tips	838	0	74	0	16,574	24	1,287
Tobacco Packaging/Wrappers	1,205	5	147	9	9,025	21	792
Total	20,578	28	2,423	126	370,529	93	29,500
DUMPING ACTIVITIES	20,010		27.25		3.3722		21,000
Appliances (Refrigerators, Washers, etc.)	68	0	0	0	313	0	12
	269	6	38	1	1,517	2	
Batteries  Ruilding Meterials		3	40	1			996
Building Materials	4,106				20,513	3	
Cars/Car Parts	333	1	158	0	1,824	0	145
55-Gallon Drums	23	0	0	0	1.400	1	2
Tires	292	3	10	8	1,402	2	59
Total	5,091	13	246	10	25,613	8	1,280
MEDICAL/PERSONAL HYGIENE							
Condoms	213	0	3	1	2,032	1	332
Diapers	171	0	155	1	893	0	95
Syringes	49	0	4	0	706	0	70
Tampons/Tampon Applicators	114	0	21	3	1,132	2	226
Total	547	0	183	5	4,763	3	723
MARINE DEBRIS ITEM TOTALS	93,886	175	12,192	713	904,375	580	90,104

DELAWARE	DISTRICT OF COLUMBIA	FLORIDA	GEORGIA	HAWAII	IDAH0	ILLINOIS	INDIANA	KANSAS
982	344	11,336	2	2,474	36	3,237	821	448
4,131	2,228	42,376	52	7,782	104	4,884	540	738
1,059	66	4,404	1	864	1	1,801	1,132	26
4,435	2,957	46,263	380	1,832	155	3,393	1,028	356
2,627	1,292	37,360	196	4,203	101	5,735	1,193	51
2,588	896	33,212	418	2,165	183	4,421	875	235
10,220	2,042	82,314	73	15,919	135	14,086	4,042	117
567	173	8,110	8	1,584	56	1,146	335	37
2,705	1,594	31,033	52	3,820	21	4,945	1,278	130
5,434	3,459	49,403	149	11,376	223	13,160	2,196	403
583	227	7,340	1	1,847	7	1,089	227	25
148	63	2,752	2	214	1	232	55	7
713	2	1,181	2	194	5	137	118	0
2,608	745	35,207	0	2,337	37	5,550	2,416	84
1,297	226	6,078	442	827	53	1,285	322	30
40,097	16,314	398,369	1,778	57,438	1,118	65,101	16,578	2,687
1,260	276	3,534	41	422	30	124	202	0
102	60	1,310	3	211	0	48	27	2
295	38	2,457	1	450	4	34	21	1
41	3	577	0	1,636	0	23	3	0
66	4	397	0	106	1	31	3	0
710	316	6,745	0	3,167	32	139	23	0
603	100	2,513	0	322	4	137	40	0
76	15	1,145	0	615	1	63	7	1
50	9	1,382	0	167	6	42	7	0
150	92	1,480	0	93	2	63	39	8
26	2	251	0	27	0	22	0	0
273	157	6,405	0	416	14	1,131	33	26
639	30	8,661	0	4,278	9	311	151	6
262	19	3,213	0	524	3	291	63	17
4,553	1,121	40,070	45	12,434	106	2,459	619	61
					. = -			
23,178	175,499	197,389	15	68,115	678	49,987	13,191	206
406	108	3,675	8	736	3	402	163	5
1,219	597	16,561	0	1,105	0	3,738	1,600	10
511 <b>25,314</b>	256	6,152 <b>223,777</b>	57 <b>80</b>	1,292	30 <b>711</b>	768 <b>54,895</b>	215	254
25,314	176,460	223,777	80	71,248	711	54,695	15,169	254
-		251		01	0	20	,	2
7	2	251	0	21	0	20	6	0
24	20	972	0	512	2	178	77	0
962	75	7,688	10	775	35	711	106	163
143	31	1,187	1	282	13	173 5	22	12
145	8	887	0	126	2	73	27	0
1,290	136	11,039		1,722	52	1,160	239	179
1,290	130	11,039	- ''	1,722	52	1,100	237	179
447	/3	1040	^	011	4	200	/0	
116	63	1,348	0	211	1 17	208	60	4
60	36	780	0	192	17	95	34	4
56 299	23 83	499 934	0	37 86	0	20	13	0
531	205	3,561	1	526	19	563	399	9
71,785	194,236	676,816	1,915	143,368	2,006	124,178	33,004	3,190
	174,250							





COUNTRY AND LOCATION	LUUISIANA	IVIAIIVE	IVIAICI LAIND	WASSACHUSETTS	WIGHIGAN	WIIWINESUTA	WII 3313311 T T
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	1,577	800	903	1,425	1,995	702	2,175
Bags (Plastic)	2,308	2,023	1,568	9,391	5,601	1,373	6,174
Balloons	171	313	833	1,990	3,010	180	464
Beverage Bottles (Plastic)	4,100	1,350	4,538	5,588	1,985	596	5,605
Beverage Bottles (Glass)	2,214	1,047	1,181	2,946	1,434	567	5,164
Beverage Cans	2,121	702	1,939	3,969	1,298	841	4,752
Caps, Lids	4,279	1,602	3,344	11,194	10,389	838	4,717
Clothing, Shoes	758	318	388	1,186	868	334	1,288
Cups, Plates, Forks, Knives, Spoons	2,501	1,128	1,504	4,594	3,754	638	2,815
Food Wrappers/Containers	3,396	3,482	2,659	13,292	14,087	3,698	5,412
Pull Tabs	673	208	255	599	769	94	495
6-Pack Holders	239	40	54	133	155	23	338
Shotgun Shells/Wadding	127	326	427	619	762	72	144
Straws, Stirrers	2,022	525	1,016	4,720	5,162	487	1,452
Toys	443	318	352	1,605	1,140	157	547
Total	26,929	14,182	20,961	63,251	52,409	10,600	41,542
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	286	229	211	492	487	40	324
Bleach/Cleaner Bottles	179	161	101	376	70	14	344
Buoys/Floats	263	1,021	131	976	134	16	316
Crab/Lobster/Fish Traps	48	492	44	351	3	0	115
Crates	36	54	14	77	14	0	109
Fishing Line	261	157	467	1,285	641	45	534
Fishing Lures/Light Sticks	131	66	169	397	216	22	165
Fishing Nets	74	136	14	802	39	10	168
Light Bulbs/Tubes	154	20	41	53	52	6	202
Oil/Lube Bottles	180	159	220	149	58	20	374
Pallets	132	12	6	34	16	2	112
Plastic Sheeting/Tarps	302	505	110	606	812	480	657
Rope	466	2,966	302	4,388	565	41	826
Strapping Bands	191	712	137	942	360	51	287
Total	2,703	6,690	1,967	10,928	3,467	747	4,533
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	3,953	10,466	3,264	37,683	60,624	11,479	13,432
Cigarette Lighters	226	102	249	545	334	138	269
Cigar Tips	727	199	547	1,231	5,436	767	1,052
Tobacco Packaging/Wrappers	363	272	246	802	857	422	1,071
Total	5,269	11,039	4,306	40,261	67,251	12,806	15,824
DUMPING ACTIVITIES							
Appliances (Refrigerators, Washers, etc.)	27	5	5	6	9	5	73
Batteries	131	45	41	83	45	23	105
Building Materials	2,638	1,471	203	907	870	493	3,454
Cars/Car Parts	194	124	25	172	103	84	358
55-Gallon Drums	18	8	7	3	8	1	38
Tires	49	72	62	65	32	25	235
Total	3,057	1,725	343	1,236	1,067	631	4,263
MEDICAL/PERSONAL HYGIENE							
Condoms	76	32	12	160	125	54	117
Diapers	27	33	48	107	137	27	89
- q= = - =	<i>L</i> /		10	,	107		
Syringes	43	Я	43	75	40	19	15
Syringes Tampons/Tampon Applicators	43 79	8	43 114	75 1,063	40	19 54	15
Syringes Tampons/Tampon Applicators Total	43 79 <b>225</b>	8 60 <b>133</b>	43 114 <b>217</b>	75 1,063 <b>1,405</b>	40 480 <b>782</b>	19 54 <b>154</b>	66

MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE	NEW JERSEY	NEW YORK	NORTH CAROLINA	OHIO
50	0	254	7	713	1,402	6,584	1,912	714
70	26	1,154	33	2,427	7,101	22,424	5,574	2,580
0	1	22	16	376	1,918	4,062	932	116
158	21	1,267	28	1,163	7,315	21,419	13,909	3,011
246	82	1,391	31	1,709	3,150	15,402	10,385	1,947
346	310	2,122	34	1,836	3,233	13,944	11,408	3,073
11	40	1,166	121	2,901	25,486	33,551	9,439	1,908
16	20	166 727	27	496	1,156	4,681 18,074	1,579	386
12	28 85	1,667	240	1,773 4,907	8,676 14,170	30,957	7,711	2,083 4,814
1	10	155	54	377	628	2,596	1,242	224
0	0	35	1	38	310	1,270	617	42
0	0	568	0	191	418	2,189	566	325
11	6	179	41	1,524	10,263	18,740	3,126	900
9	12	68	13	450	2,044	3,631	1,669	270
938	641	10,941	690	20,881	87,270	199,524	87,520	22,393
				·			·	·
9	2	627	2	122	360	1,515	2,286	39
1	0	3		36	189	518	189	38
0	2	49	6	267	334	1,096	306	55
0	0	0	0	434	38	383	70	1
0	0	1	0	42	215	174	27	8
6	505	824	0	363	1,829	2,870	1,993	28
3	32	103	0	54	746	940	444	38
0	0	7	0	133	111	293	154	17
0	0	7	1	27	95	253	103	25
2	2	26	3	33	274	627	277	79
0	0	0	0	19	52	82	60	28
0	2	52	1	579	95	2,488	888	116
3	4	26	12	2,629	755	2,554	848	60
3	2	13	15	539	474	838	251	57
27	551	1,738	41	5,277	5,567	14,631	7,896	589
45	15	2,192	637	58,664	34,871	60,033	23,256	2,807
0	0	51	4	95	679	1,778	602	207
0	0	222	53	576	4,350	4,738	1,196	1,074
8	0	379	15	446	1,021	2,843	1,615	546
53	15	2,844	709	59,781	40,921	69,392	26,669	4,634
4				10	9	110	252	2.4
1	0	0	3	12		110	253	26
3	0 2	100	2	320	672	475 3,441	195 2,504	58 377
3	0	17	0	99	79	804	376	283
0	10	5	0	0	11	43	41	4
9	2	5	1	35	92	342	1,574	147
19	14	186	6	532	960	5,215	4,943	895
		755		302		-/=.0	-,	2.0
0	0	9	0	45	240	683	133	133
0	2	35	4	43	62	526	593	20
-	0	0	0	10	124	268	19	12
1	1							357
1 0	0	31	6	62	1,966	2,805	94	337
	0 <b>2</b>	31 <b>75</b>	10	62 <b>160</b>	1,966 <b>2,392</b>	4,282	839	522

COUNTRY AND LOCATION	OKLAHOMA	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	TENNESSEE	TEXAS
CHORELINE & DECREATIONAL ACTIVITIES							
SHORELINE & RECREATIONAL ACTIVITIES							
Bags (Paper)	0	11	1,890	1,704	316	12	2,092
Bags (Plastic)	0	172	6,242	8,354	878	9	6,668
Balloons	1	22	691	1,629	44	0	620
Beverage Bottles (Plastic)	27	183	6,836	7,206	1,291	8	7,030
Beverage Bottles (Glass)	120	53	4,521	4,650	978	20	2,320
Beverage Cans	263	226	5,268	5,542	1,747	15	4,029
Caps, Lids	3	150	6,829	13,138	1,312	39	9,845
Clothing, Shoes	18	36	1,072	1,663	190	1	1,326
Cups, Plates, Forks, Knives, Spoons	6	67	3,400	5,428	1,578	8	3,993
Food Wrappers/Containers	0	109	15,207	14,490	1,244	28	3,790
Pull Tabs	1	26	574	787	176	17	1,106
6-Pack Holders	2	4	146	219	27	2	662
Shotgun Shells/Wadding	0	12	624	1,344	55	0	699
Straws, Stirrers	1	59	3,678	7,103	340	17	2,254
Total	3	151	821	1,427	225	0	915
Total	445	1,281	57,799	74,684	10,401	176	47,349
OCEAN/WATERWAY ACTIVITIES							
Bait Containers/Packaging	0	28	740	741	73	8	478
Bleach/Cleaner Bottles	0	4	143	416	23	0	1,086
Buoys/Floats	1	12	101	699	178	0	532
Crab/Lobster/Fish Traps	0	1	8	341	2	0	85
Crates	0	1	38	51	14	0	129
Fishing Line	2	51	524	2,718	104	6	1,122
Fishing Lures/Light Sticks	7	2	216	594	93	0	546
Fishing Nets	0	1	67	198	10	0	285
Light Bulbs/Tubes	0	1	59	57	52	0	228
Oil/Lube Bottles	0	2	130	169	58	2	696
Pallets	0	1	28	59	10	0	140
Plastic Sheeting/Tarps	0	3	944	561	148	0	605
Rope	0	81	331	2,489	74	0	2,478
Strapping Bands	0	13	199	875	233	0	313
Total	10	201	3,528	9,968	1,072	16	8,723
SMOKING-RELATED ACTIVITIES							
Cigarettes/Cigarette Filters	0	869	31,784	47,905	6,320	47	3,316
Cigarette Lighters	0	9	307	605	49	2	552
Cigar Tips	0	9	3,632	2,142	107	0	370
Tobacco Packaging/Wrappers	0	42	1,107	1,214	67	18	399
Total	0	929	36,830	51,866	6,543	67	4,637
DUMPING ACTIVITIES				l			
Appliances (Refrigerators, Washers, etc.)	0	0	46	24	3	0	63
Batteries	0	10	184	77	27	0	98
Building Materials	0	34	839	1,186	195	0	1,345
Cars/Car Parts	0	0	421	180	31	0	184
55-Gallon Drums	0	0	31	8	5	0	42
Tires	0	6	946	90	94	0	129
Total	0	50	2,467	1,565	355	0	1,861
MEDICAL/PERSONAL HYGIENE							
Condoms	0	0	137	175	7	0	222
Diapers	0	2	103	144	6	2	124
Syringes	0	0	29	79	4	0	73
Tampons/Tampon Applicators	0	6	384	848	20	0	336
Total	0	8	653	1,246	37	2	755
MARINE DEBRIS ITEM TOTALS	455	2,469	101,277	139,329	18,408	261	63,325

UTAH	VIRGINIA	WASHINGTON	WISCONSIN	TOTALS
0	2,332	106	427	78,417
6	9,273	239	698	229,758
0	590	2	249	38,181
32	13,499	240	820	210,568
35	10,571	276	544	168,849
60	11,838	204	759	163,441
20	5,695	135	2,362	379,589
20	1,476	33	205	46,634
3	5,966	91	702	167,108
20	15,231	99	2,342	397,231
1	675	6	110	36,538
1	434	0	41	10,995
0	279	10	597	19,060
2	2,603	19	1,428	155,659
0	975	110	248	41,278
200	81,437	1,570	11,532	2,143,306
2	742	6	50	19,880
0	156	0	6	7,152
0	239	7	87	12,844
0	48	8	4	5,285
0	28	2	5	2,347
11	811	1	53	36,910
1	187	3	34	11,059
0	68	2	12	5,539
0	86	3	2	4,589
0	531	4	7	7,478
0	18	5	1 72	1,637
0	360	22	73	25,889
0	359	58	51	44,409
14	237 <b>3,870</b>	5 <b>126</b>	39 <b>424</b>	15,737 <b>200,755</b>
14	3,070	120	727	200,733
19	17,607	271	15,458	1,362,741
0	336	12	88	18,555
0	1,117	4	1,223	74,399
0	1,728	47	351	36,397
19	20,788	334	17,120	1,492,092
0	140	1	2	1,523
0	166	21	22	5,715
0	1,036	107	62	58,448
0	365	9	23	8,258
0	65	0	1	499
0	1,156	3	28	8,243
0	2,928	141	138	82,686
0	118	2	63	7,136
0	271	0	27	4,965
0	39	0	9	2,387
0	163	8	91	12,528
0	591	10	190	27,016
233	109,614	2,181	29,404	3,945,855





	LAND			UNDERWATER		TOTAL			
US STATES	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES
Alabama	3,925	80,374.7	287.8	-	-	-	3,925	80,374.7	287.8
Alaska	2	40.0	1.0	6	60.0	-	8	100.0	1.0
Arizona	231	5,025.0	28.2	321	1,585.0	3.4	552	6,610.0	31.6
Arkansas	8	30.0	1.4	35	170.0	1.5	43	200.0	2.9
California	73,553	1,664,501.2	2,860.0	138	1,605.0	4.3	73,691	1,666,106.2	2,864.3
Colorado	94	1,144.0	-	2	10.0	-	96	1,154.0	-
Connecticut	1,654	13,143.0	58.7	54	544.0	2.2	1,708	13,687.0	60.9
Delaware	1,357	21,736.5	64.0	-	-	-	1,357	21,736.5	64.0
District of Columbia	308	6,678.0	8.5	-	-	-	308	6,678.0	8.5
Florida	32,437	409,116.2	1,928.9	259	7,163.0	37.4	32,696	416,279.2	1,966.3
Georgia	28	56.0	3.3	-	-	-	28	56.0	3.3
Hawaii	2,392	22,481.1	79.1	109	3,655.0	2.3	2,501	26,136.1	81.4
Idaho	705	1,630.0	40.3	58	650.0	0.8	763	2,280.0	41.1
Illinois	3,094	10,403.0	38.2	133	1,032.0	1.1	3,227	11,435.0	39.3
Indiana	611	6,927.0	15.2	24	20.0	0.2	635	6,947.0	15.4
Kansas	42	1,310.0	1.0	-	-	-	42	1,310.0	1.0
Louisiana	1,637	22,900.0	71.1	-	-	-	1,637	22,900.0	71.1
Maine	1,638	13,559.5	105.2	-	-	-	1,638	13,559.5	105.2
Maryland	535	7,454.0	20.4	-	-	-	535	7,454.0	20.4
Massachusetts	3,066	22,299.5	139.2	11	60.0	0.5	3,077	22,359.5	139.7
Michigan	2,445	7,878.9	116.4	27	415.8	0.7	2,472	8,294.7	117.1
Minnesota	510	3,784.1	24.1	30	306.0	0.7	540	4,090.1	24.8

US STATES  Mississippi  Missouri	<b>PEOPLE</b> 2,328	POUNDS 45,855.0	MILES	PEOPLE	POUNDS	MILES	PEOPLE	POUNDS	MILES
	2,328	45,855.0							
Missouri			169.0	-	-	-	2,328	45,855.0	169.0
	24	501.0	0.2	36	360.0	-	60	861.0	0.2
Montana	10	70.0	0.0	30	410.0	0.1	40	480.0	0.1
Nebraska	526	7,156.0	89.8	10	500.0	0.2	536	7,656.0	90.0
Nevada	29	540.0	7.6	15	150.0	0.1	44	690.0	7.7
New Hampshire	1,547	6,635.3	23.9	10	1,000.0	0.5	1,557	7,635.3	24.4
New Jersey	5,821	39,988.5	147.2	51	801.0	0.6	5,872	40,789.5	147.8
New York	6,428	81,876.9	302.4	66	1,090.0	2.1	6,494	82,966.9	304.5
North Carolina	18,256	527,278.0	1,560.0	74	748.0	1.1	18,330	528,026.0	1,561.1
Ohio	908	11,576.0	54.0	136	1,872.0	1.0	1,044	13,448.0	55.0
Oklahoma	5	200.0	2.0	5	800.0	1.0	10	1,000.0	3.0
Oregon	94	1,402.0	107.1	23	114.0	0.1	117	1,516.0	107.2
Pennsylvania	2,562	91,388.0	107.3	100	4,940.0	3.8	2,662	96,328.0	111.1
Rhode Island	1,799	12,796.0	83.5	70	825.0	0.5	1,869	13,621.0	84.0
South Carolina	598	8,453.0	34.7	7	8.0	-	605	8,461.0	34.7
Tennessee	111	5,038.0	0.3	4	50.0	0.1	115	5,088.0	0.4
Texas	3,558	208,795.0	77.2	15	230.0	0.8	3,573	209,025.0	78.0
Utah	9	175.2	1.2	15	235.0	1.0	24	410.2	2.2
Virginia	5,710	254,046.0	364.9	-	-	-	5,710	254,046.0	364.9
Washington	81	810.0	11.2	27	675.0	0.8	108	1,485.0	12.0
Wisconsin	564	1,873.0	8.8	53	447.0	1.6	617	2,320.0	10.4
US STATE AND DISTRICT OF COLUMBIA TOTALS	181,240	3,628,924.6	9,044.3	1,954	32,530.8	70.5	183,194	3,661,455.4	9,114.8
TOTAL NUMBER OF US STATES AND	D DISTRICT OF C	OLUMBIA: 43							

# **TERMINOLOGY**

Below are the definition of terms used throughout the report:

# THE SYMBOL (-) IN A CHART

This data was not collected.

### THE NUMBER O IN A CHART

The quantity of the data collected was equal to zero.

# **COASTAL CLEANUP**

This type of Cleanup site borders the ocean.

# **INLAND CLEANUP**

This type of Cleanup site borders waterways that are located inland such as rivers, lakes, streams, and ponds. It is not located on the ocean.

# LAND CLEANUP

A Cleanup that was conducted on a beach or waterway.

# **UNDERWATER CLEANUP**

A Cleanup that was conducted underwater by certified divers.

# WATERCRAFT CLEANUP

A Cleanup that was conducted offshore by watercraft which includes kayaks, canoes, sail boats, and motor boats.

## PEOPLE OR VOLUNTEERS

The number of people or volunteers at a Cleanup site are counted by the coordinator, totaled for each country, location, or US state, and sent to Ocean Conservancy.

# **POUNDS**

Volunteers weigh trash collected when possible. On average, a bag of trash weighs 15 pounds, an estimate which is used by coordinators and Ocean Conservancy staff to estimate weight if scales are not available.

## **MILES**

The number of miles cleaned is estimated from the starting point to the end point at each Cleanup site. The distance for a Cleanup site is not the sum of all distances covered by each individual volunteer.

# TEN THINGS YOU CAN DO TO STOP MARINE DEBRIS

- Volunteer for Ocean Conservancy's International Coastal Cleanup held every September. Go to www.coastalcleanup.org.
- Put trash in a secure, lidded receptacle—most marine debris starts out on land.
- Properly recycle everything you can: batteries, cans, bottles and food containers, newspapers, cell phones, computers, bags, packaging materials, fishing line. Contact your local waste hauler or county solid waste office to discover your recycling options.
- When boating, bring your oil cans, food wrappers, and cigarette butts back to shore, and be sure to ask your marina to handle waste properly (check out Ocean Conservancy's *Good Mate* manual for helpful tips at www.coastalcleanup.org).
- Less is more: Don't buy stuff you don't need that will just end up as trash. When you do make purchases, choose items that use less packaging.
- 6 Start conversations that inform and inspire your friends and co-workers to help stop marine debris at the source.
- Bring along your own permanent food containers for picnics instead of using disposables. Remember to take your own reusable bags whenever you go shopping.
- Write to companies or visit local shops and restaurants and encourage them to reuse, recycle, and generate less packaging.
- Put cigarette butts in ashtrays, not on streets, sidewalks, or beaches.
- Write to your elected officials and encourage them to support policies that protect our ocean.

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**Project AWARE** 

FOR MORE INFORMATION OR TO SIGN UP AS A VOLUNTEER FOR THE NEXT INTERNATIONAL COASTAL CLEANUP VISIT WWW.COASTALCLEANUP.ORG.

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Fach year, Ocean Conservancy—in partnership with a network of volunteer organizations and individuals—provides a compelling global snapshot of marine debris collected in and around the ocean and inland waterways all over the world on the third Saturday in September. This year's report, A Rising Tide of Ocean Debris, presents data recorded by nearly 400,000 volunteers in 104 countries and locations and 42 states and the District of Columbia in the US who rolled up their sleeves and got to work during Ocean Conservancy's 23rd annual International Coastal Cleanup.

In addition to providing the Marine Debris Index—state-by-state and country-by-country data about the 6.8 million pounds of trash picked up—this report reveals the sources of debris, from cigarette butts and fast-food wrappers to syringes and old fishing line, and zeroes in on the deadly effects of marine debris on marine wildlife. It also identifies the connection between the stress caused by marine debris and the ability of the ocean and its critical-life support systems to adapt to the onset of global climate change. Recommendations provide a roadmap for eliminating marine debris altogether by reducing it at the source, changing the behaviors that cause it, and supporting better policy.

Humans have created the marine debris problem, and humans must take responsibility for it. The comprehensive body of data compiled during the Cleanup in the course of its 23-year history continues to inform and inspire action. Working together, citizens and environmentalists, our top corporations, and government leaders can take effective action to eliminate the scourge of trash in the ocean. The future of the planet and the well-being of present and future generations are counting on it.

