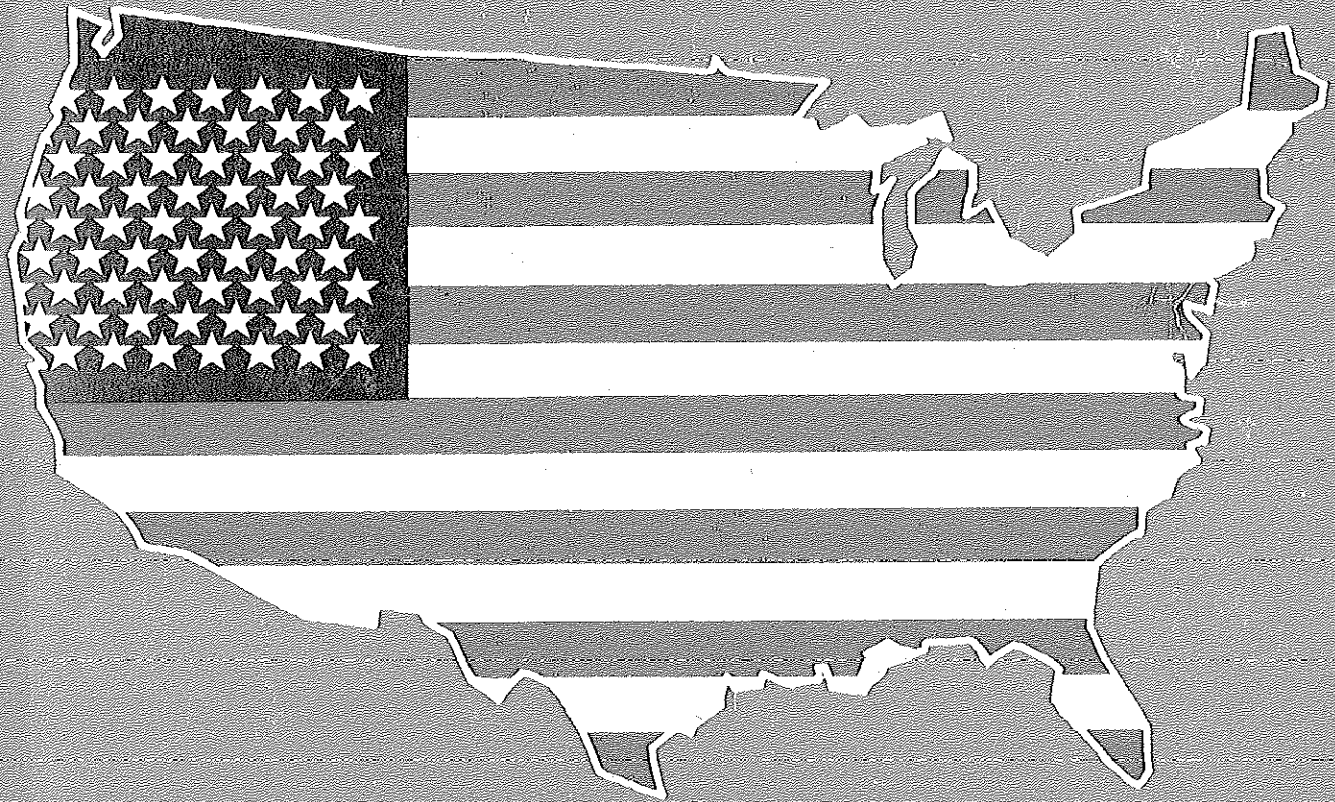


CLEANING AMERICA'S BEACHES:

1988 National Beach Cleanup Results



Center for Marine Conservation

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Center for Marine Conservation
Formerly Center for Environmental Education, Est. 1972

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The Center for Marine Conservation (CMC) established in 1972, is a marine conservation organization dedicated to protecting marine wildlife and conserving coastal and ocean resources. To further these conservation goals, CMC conducts policy-oriented research; promotes public awareness, education, and citizen involvement; supports domestic and international programs for marine wildlife and their habitats; and advocates sound policies concerning the marine environment. CMC serves it 100,000 members from a central office in Washington, D.C. and regional offices in California, Florida, Texas, and Virginia.

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Mississippi's 92-year-old Honorary Beach cleanup Captain, Margaret Bryant. Ms. Bryant is known throughout the community as "Auntie Litter."

PREFACE

Are we having fun yet? I can still remember the day five years ago when I sat at my desk reading an article in the Alaska Fish and Game Magazine entitled "The Plague of Plastic." Surprised to learn about wildlife eating plastic resin pellets and getting caught in strapping bands, I wanted to do something to alert the public to the problem of marine debris. A few ideas sifted through my brain, but nothing clicked until I thought about what it would be like to have people covering the entire 350 miles of Oregon coastline at the same time gathering marine debris. Only about 125 miles of our coast is accessible because of headlands, river mouths, and estuaries.

I organized a coastal cleanup and hoped for about 1,000 volunteers. And in my mind I was thinking how much "fun" it would be on the beach for a treasure hunt of plastic debris. Much to my surprise, 2,100 people turned out on October 13, 1984 and collected 26.3 tons of debris in just three hours!

My next wild thought was whether we could organize the cleanup of the entire coast of the United States, thinking it would probably take ten years to get the idea to catch on, and figure out how to do it. In 1988, during a month long period, it happened. More than 47,000 volunteers collected almost 1,000 tons of trash. It's pretty exciting when you look at the big picture.

It's an interesting exercise, this cleaning up beaches. I suspect folks picture us out there strolling along the beach, sun at our backs, beautiful sand and shells at our feet, birds soaring overhead. The reality is we are doing this work in September and October. Here in Oregon the wind is blowing, driving sand in our eyes or ears, and flapping the collection sacks closed. It's overcast and raining, dousing us good, and making it difficult to write. We are so cold we find it hard to hold a pencil and still make legible marks on our data cards. We stub our toes, turn our ankles, or bruise our knees and elbows as we crawl around in the rocks and driftwood. Unless we wear gloves we get sand under our fingernails as we dig out buried "treasure."

During the first four years, Oregonians had a very simple, 5x7 inch card which allowed volunteers to write in "some," "many," "a few," "lots," "numerous," instead of actual number of pieces. Although it did give us a general idea of the magnitude of certain types of debris, it yielded only soft information. I am delighted to have the data collection card and index to marine debris available from the Center for Marine Conservation. They are excellent tools for documenting the amount of debris in an organized fashion and can be used by both the scientific community and lay public.

Our nationwide volunteer corps has grown by leaps and bounds, and even though there were more than 47,000 of us in 1988, we weren't necessarily working elbow to elbow. But whether we work alone on a deserted beach or with a small group of our friends, we have the knowledge that we are part of a larger congregation. Our statistics join those of others in far off places we may never get to visit.

That's what volunteerism is all about. Yes, we are having fun, and more important, we are contributing valuable information to document the amount and probable source of marine debris. Every time we lean over to pick up plastic we remove it from the natural environment where it was never intended to be. When we record findings on our data card we fit the pieces in a large puzzle and help solve the marine debris problem. It's exciting to have our results published in one place where we can compare our trash and see our collective accomplishment.

Judie Neilson

Judie Neilson, Executive Assistant
Oregon Department of Fish and Wildlife



A U.S. Marine helped clean up Cat Island in Mississippi.

ACKNOWLEDGEMENTS

In 1988, thousands of volunteers participated in the the most extensive effort to date to categorize the types and quantities of debris found on our nation's coastline. This report details their findings. More importantly, this report demonstrates how individuals can make a difference. In each state there was a very special individual or group who spent countless hours organizing their state's beach cleanup. Within each state there was a network of individuals, referred to as "Zone Captains" or "Beach Captains" who helped to coordinate beach cleanups on the local level. Within each locality there were many individuals who donated supplies, refreshments, publicity, and encouragement. And then there were the 47,531 individuals who donated three hours of their weekend to remove dangerous marine debris from our nation's coastline and to record information on the types and quantities of debris collected to assist in the development of permanent solutions. To each and every one of these individuals, we extend our thanks and congratulations for a job well done!

But the National Beach Cleanup does not stop when the last volunteer leaves the beach. Completed data cards are sent to the Center for Marine Conservation where they are compiled and analyzed. In 1988 this was done by another group of very special individuals at the University of Massachusetts. Here, under the direction of Ms. Jerry Lile, the information from more than 800 data cards was archived in a national computer data base. The team of individuals who spent countless hours tallying, verifying, and entering this data, or "Jerry's Kids," deserve a very special thank you. Below are some of the folks who contributed to data entry:

Jason Alves, an engineering student and volunteer firefighter
 Lisa Biele and Lisa Cohen, students and roommates
 Kristen Kay, a student with interests in Spanish, Literature and Women's Studies
 Leslie Maerki, and Exercise Science graduate student and a national class runner
 Daniel Mages, a graduating senior who began work at the Stouffer Hotel in Washington, D.C.
 James Marsh, a computer Science major and a consultant for the University Computing Center
 Suzanne Pare, an English major who supplied "Jerry's Kids" with chewing gum
 Gayle Sulik and Jennifer Terrill, University students
 Sharon Sullivan, an Ada Compstock Scholar at Smith College studying theatre
 Linda Wight, who is studying Spanish Studies

While entering this data, "Jerry's Kids" kept a running list of what they thought were some VERY peculiar and sometimes funny items. Here are a few examples (and their own editorial comments):

"Sex Wax" (none of the data entry people knew what this was)
 "Cuban asthma inhaler"
 "Dog pacifier" (we still don't know what one looks like)
 "A pink ribbon tied around a condom"
 "A dog skull with teeth" (where were the teeth supposed to be on the dog?)
 "An air mattress complete with ladies panties and jockey shorts"
 "Sex Toy" (unspecified)
 Lots of money (surprisingly, everybody said that they were keeping the money)
 "French can of Jello pudding"
 "Underwear and ax head lying together" (Freddie was there)
 Devil worship and occult paraphernalia (Look out!)
 Briefcase and passports (Suppose they belong to a spy?)
 Bottle with note from a cruise ship quest (Help, Help! I'm stuck on the Love Boat!)
 "'Don't Mess with Texas' can holder"

"Limulus exoskeleton" (possible missing link?)

"plastic hippopotamus"

"Molotov cocktail" (a trap intended for beach polluters?)

"portable potty" (full, of course)

"Oh, I don't know what it is!"

Two young men wrote they found two half-naked women (we wondered if they collected them)

"A little brother" (we wonder if he was collected and disposed of properly)

INTRODUCTION

America's shorelines and coastal areas were once famous for their beauty and biological richness. In recent years, however, our coastal areas have been most widely publicized for their concentrations of trash. From the populated beaches of New York and New Jersey to the remote islands of Hawaii, our beaches are awash with debris, much of which arrives with each incoming tide.

Recent episodes have demonstrated that beach debris is not merely unsightly, but that it is dangerous to human health and safety, and expensive for coastal communities burdened with repeated cleanup costs. But the litter on our coasts is just an indication of even greater amounts in the oceans, where it is less visible but deadly. Thousands of marine mammals, sea turtles, seabirds, and fish die every year that become entangled in debris items such as rope, nets, and monofilament fishing line, or from ingesting items like plastic bags and sheeting, mistaking them for food. This floating debris can also be a hazard to navigation by fouling propellers causing vessel damage and endangering human safety. Plastic debris items, because of their buoyancy, strength, and longlasting nature, pose the greatest threat to the marine environment.

Fortunately, steps have been taken to stem the tide of marine debris. On December 31, 1988 an international treaty took effect that put a halt to the dumping of plastic garbage from ships at sea. Known as Annex V of the International Convention for the Prevention of Pollution from Ships (or the MARPOL Treaty), the treaty prohibits at-sea dumping of plastic materials and regulates the distance from shore that all other solid waste materials may be dumped. The Marine Plastic Pollution Research and Control Act of 1987 (Public Law 100-220, Title II) is the U.S. implementing legislation for Annex V. While ocean disposal of garbage produced on land has been prohibited by the Marine Protection, Research, and Sanctuaries Act and the Clean Water Act since the early 1970s, two additional U.S. measures, the Medical Waste Tracking Act of 1988 and the Ocean Dumping Ban Act of 1988, aim to reduce that portion of marine debris that is generated on land and continues to be illegally dumped at sea.

Will legislation reduce the marine debris problem? Moreover, how will we know? Because of the efforts of more than 47,500 U.S. citizens, we now know the most prevalent types of marine debris and where it comes from. These people participated in the most extensive effort to date to categorize the types and quantities of marine debris found in U.S. coastal areas. The data collected by these volunteers established a baseline of information from which we can now monitor the effectiveness of the MARPOL Treaty and other measures to reduce the marine debris problem.

Information from this citizen monitoring effort was compiled by the Center for Marine Conservation (formerly the Center for Environmental Education) as part of the first National Marine Debris Data Base. The Data Base was established in 1988 for beach cleanups conducted during COASTWEEKS '88 (September 17-October 10). Sponsored in cooperation with the U.S. Environmental Protection Agency, the National Oceanic and Atmospheric Administration, and the U.S. Coast Guard, the Center's Data Base involves citizens in the identification of debris problems in different parts of the country.

It should be noted that while the Data Base was organized by the Center for Marine Conservation (CMC), the valuable information that was collected was the result of the hard work and dedication of a national network of beach cleanup coordinators and volunteers.



"All Hands On Deck" at Biscayne National Park, Florida.

RESULTS

In total, more than 47,500 volunteers participated in beach cleanups in 1988 in 25 U.S. states and territories including Alabama, Alaska, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Texas, Virginia, the U.S. Virgin Islands, and Washington (Figure 1).

What is the most prevalent type of debris found on U.S. beaches?

To determine the types and quantities of debris found nationwide volunteers used a standardized data card that was developed by CMC with input from state beach cleanup coordinators. The data card was divided into eight major category types—plastic, glass, styrofoam, rubber, metal, paper, wood, and cloth (Figure 2). The term "styrofoam" was used on the data card instead of the more technical term "foamed plastic" because it was believed that volunteers would more readily recognize this term. In total, the data card listed 65 types of debris items. For all major material types, a category for "other" was included to insure that items not specifically listed on the data card would be recorded. Data cards also requested specific information on the sources of foreign debris items as indicated by product labels or other markings, observations of entangled or stranded marine wildlife, observations of peculiar debris items, comments, and the name and address of volunteers. Volunteers were also given a one-page guide which gives information on how to use the data card, identifies (by photo) certain debris items listed on the card that may not be familiar to volunteers, and explains how their data would be used to compile a national assessment of beach debris (Figure 3).

In total, volunteers reported finding 1,973,995 debris items (Table 1)/1. The amount of plastic reported surpasses all other categories, accounting for 1,222,708 of the debris items, or approximately 62 percent (Figure 4). The predominance of plastic can be attributed not only to its increasing usage in society, but also to its physical characteristics: it is lightweight and buoyant, enabling it to be brought ashore by winds and currents. Since most plastics are manufactured to be durable and not degradable, they have the potential to last much longer than any other material in the marine environment. The remaining debris items consist of approximately 11.8 percent paper, 11.4 percent metal, 9.5 percent glass, 2.3 percent wood, 1.8 percent rubber, and 1.3 percent cloth.

The abundance of plastic debris is also apparent in analysis of debris on the state level; all 25 states reported that plastics were the most prevalent type of debris ranging from 43.4 percent in Puerto Rico to a high of 94.5 percent in New Jersey (Figure 5). Eight states reported higher amounts of plastics than the overall national figure with seventeen states below the national figure. Those states with more plastics than the national percentage included Alabama (61.48), Connecticut (65.99), Louisiana (74.42), Mississippi (66.29), New Jersey (94.53), New York (77.63), Oregon (70.16), Texas (76.54).

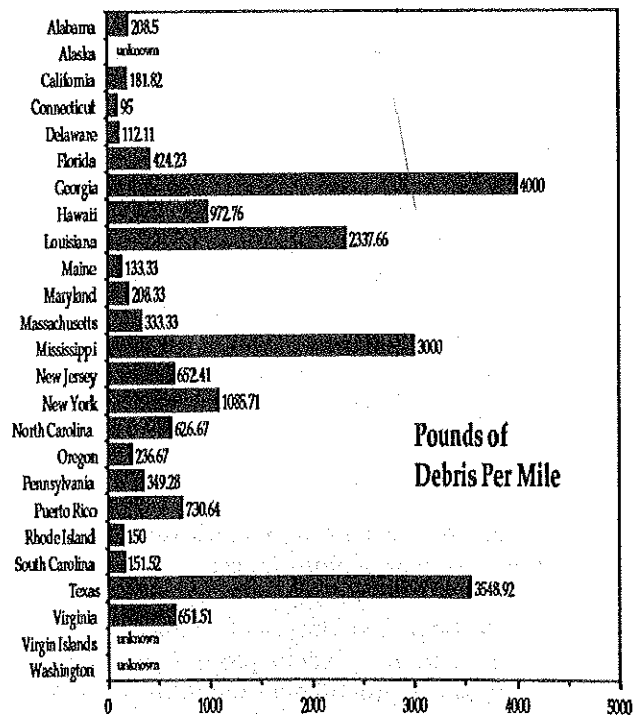
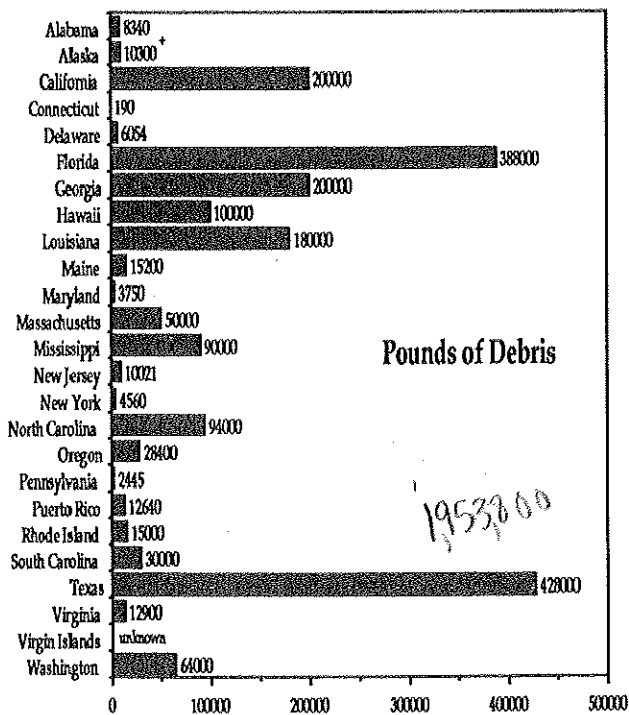
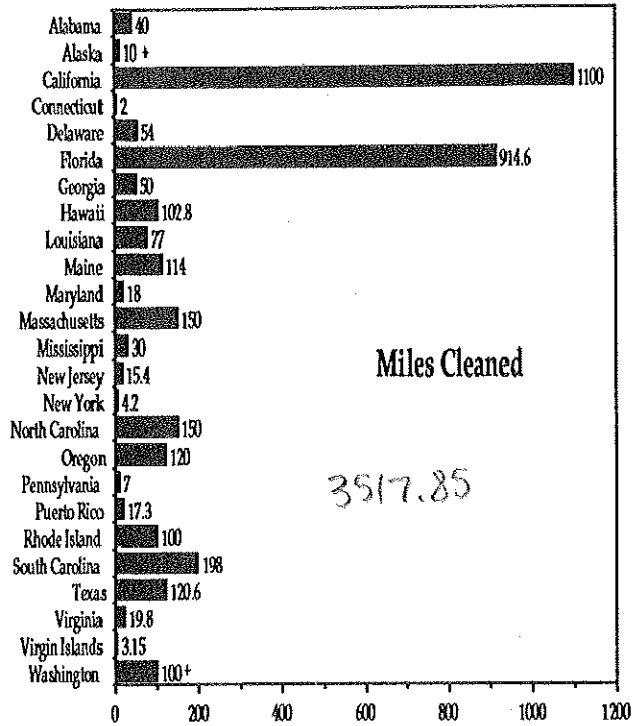
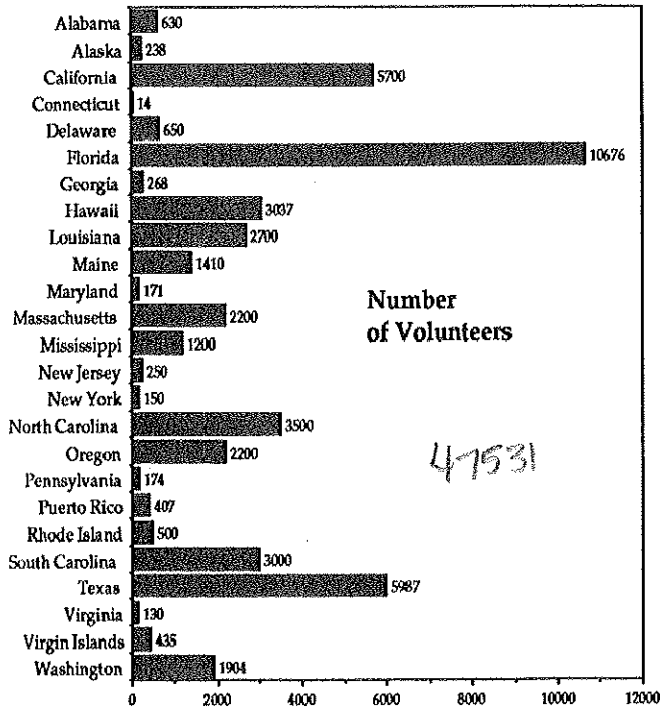
The Dirty Dozen

The twelve most common debris items reported on our nation's coastline, or the Dirty Dozen of 1988, are as follows in order of abundance:

1. plastic pieces (fragments of larger plastic items)
2. small foamed plastic pieces (styrofoam-like)
3. plastic eating utensils including cups, spoons, forks and straws

/1. Information on the types and quantities of debris items includes data collected in 23 states that used the standardized national data card excluding the cleanups conducted in Alaska and the U.S. Virgin Islands which used an earlier version of a data card developed by CMC.

Figure 1. Results From 1988 National Beach Cleanup



"+" indicates complete information not available.

4. metal beverage cans
5. foamed plastic cups (styrofoam-like)
6. glass beverage bottles
7. plastic caps and lids
8. paper pieces (fragments of larger paper items)
9. plastic trash bags
10. miscellaneous types of plastic bags (other than trash or salt bags)
11. glass pieces (fragments of larger glass items)
12. plastic soda bottles

Collectively, these twelve debris items constituted more than 56 percent of all debris items recorded (Table 2). If these items were eliminated from our beaches, our beaches would be at least 50 percent cleaner.

Other debris items reported in abundance included metal bottle caps (42,671 reported), plastic six-pack connector rings for beverage cans (30,808), plastic rope measuring two feet or shorter (29,897), plastic milk and water jugs (26,148), paper cups (25,214), short pieces of plastic sheeting (27,633), and foamed plastic fast-food containers (22,517).

Besides those items specifically listed on the data card, volunteers reported finding just about everything imaginable on our nation's beaches including bedsprings, boats, cars, mattresses, munitions, and several kitchen sinks. Many noted numerous pieces of men's and women's underwear to be "peculiar" and thousands of cigarette filters as "disgusting." But not all the debris collected was trash. Several volunteers were rewarded for their efforts by finding treasure--a total of 350 dollars in all. The most valuable finds were a one hundred dollar bill in Texas, an uncashed bank check for sixty dollars in Delaware, and a diamond and amethyst necklace found by a girl scout in Florida. And for those who wonder if anyone ever finds those bottles with notes inside, volunteers reported finding eleven such messages including one note found in Connecticut from an author in France.

Figure 4. Composition of Debris Collected During 1988 Beach Cleanups

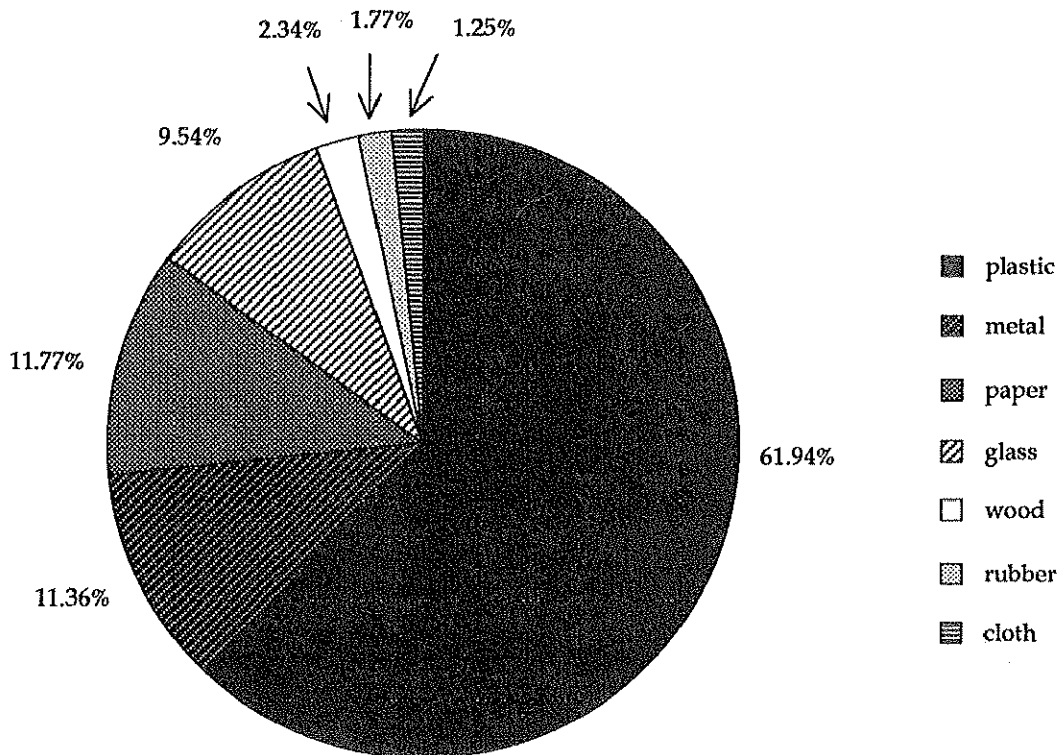


Figure 2. Data Card Used by 1988 Beach Cleanup Volunteers (front).

BEACH CLEANUP DATA CARD

Thank you for completing this data card. Answer the questions and return to your area coordinator or to the address at the bottom of this card. This information will be used in the Center for Environmental Education's National Marine Debris Data Base and Report to help develop solutions to stopping marine debris.

Name _____ Affiliation _____
 Address _____ Occupation _____ Phone (_____) _____
 City _____ State _____ Zip _____ M _____ F _____ Age: _____
 Today's Date: Month _____ Day _____ Year _____ Name of Coordinator _____
 Location of beach cleaned _____ Nearest city _____
 How did you hear about the cleanup? _____

SAFETY TIPS

1. Do not go near any large drums.
2. Be careful with sharp objects.
3. Wear gloves.
4. Stay out of the dune areas.
5. Watch out for snakes.
6. Don't lift anything too heavy.

WE WANT YOU TO BE SAFE

Number of people working together on this data card _____ Estimated distance of beach cleaned _____ Number of bags filled _____

SOURCES OF FOREIGN DEBRIS. Please list all items that have foreign labels.

Country	Item Found
Example: <i>Mexico</i>	<i>plastic bottle - "Clacisol"</i>

STRANDED AND/OR ENTANGLED ANIMALS (Please describe type of animal and type of entangling debris. Be as specific as you can.)

What was the most peculiar item you collected? _____

Comments _____

Thank you!

**PLEASE RETURN THIS CARD TO
 YOUR AREA COORDINATOR
 OR MAIL IT TO:**
Center for Environmental Education
 1725 DeSales Street, NW
 Washington, DC 20036
 A Membership Organization

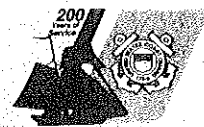


Figure 2 (cont.). Data Card Used by 1988 Beach Cleanup Volunteers (back).

ITEMS COLLECTED

You may find it helpful to work with a buddy as you clean the beach, one of you picking up trash and the other taking notes. An easy way to keep track of the items you find is by making tick marks. The box is for total items; see sample below.

egg cartons ||||| Total 16 cups ||||| Total 22

PLASTIC

Total number of items

- bags:
 - trash
 - salt
 - other
- bottles:
 - beverage, soda
 - bleach, cleaner
 - oil, lube
 - other
- buckets
- caps, lids
- cups, spoons, forks, straws
- diapers
- disposable lighters
- fishing line
- fishing net:
 - longer than 2 feet
 - 2 feet or shorter
- floats & lures
- hardhats
- light sticks
- milk, water gallon jugs
- pieces
- pipe thread protector
- rope:
 - longer than 2 feet
 - 2 feet or shorter
- sheeting:
 - longer than 2 feet
 - 2 feet or shorter
- 6-pack holders
- strapping bands
- syringes
- tampon applicators
- toys
- vegetable sacks
- "write protection" rings
- other (specify)
- GLASS**
 - bottles:
 - beverage
 - food
 - other (specify)
 - fluorescent light tubes
 - light bulbs
 - pieces
 - other (specify)

STYROFOAM® (or other plastic foam)

Total number of items

- buoys
- cups
- egg cartons
- fast-food containers
- meat trays
- pieces:
 - larger than a baseball
 - smaller than a baseball
 - other (specify)
- RUBBER**
 - balloons
 - gloves
 - tires
 - other (specify)
- METAL**
 - bottle caps
 - cans:
 - aerosol
 - beverage
 - food
 - other
 - crab/fish traps
 - 55 gallon drums
 - rusty
 - new
 - pieces
 - pull tabs
 - wire
 - other (specify)
- PAPER**
 - bags
 - cardboard
 - cartons
 - cups
 - newspaper
 - pieces
 - other (specify)
- WOOD (leave driftwood on the beach)**
 - crab/lobster traps
 - crates
 - pallets
 - pieces
 - other (specify)
- CLOTH**
 - clothing/pieces

[OVER]

Figure 3 (cont).
Guide to Good Data Collection Distributed to 1988 Beach Cleanup Volunteers (back).

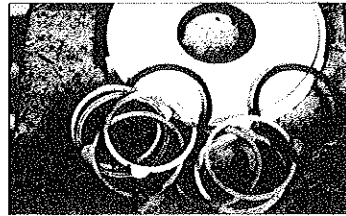
GUIDE TO MARINE DEBRIS

The best data recording can be done if you know what the items listed on your cards look like.

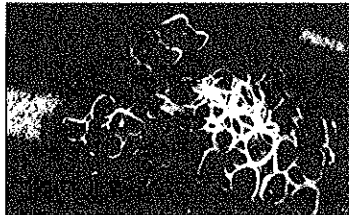
Here are some examples of unusual items you may find.



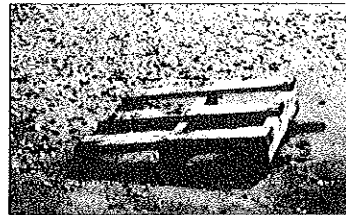
Light Sticks. Listed under plastic, these clear plastic tubes about 6 inches long are mostly used by fishermen. When new, the liquid will glow in the dark and attract fish to baited hooks.



Write Protection Rings. Listed under plastic, these are used on computer tapes on ships doing seismic testing.



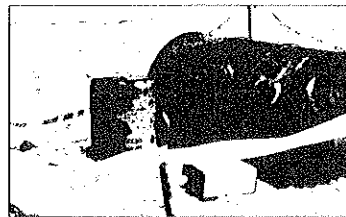
6-Pack Rings. Listed under plastic, these items are used to hold cans.



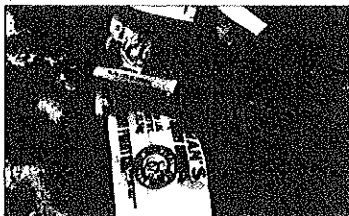
Wooden Pallets. Listed under wood, these items are used to help stack and transport cargo.



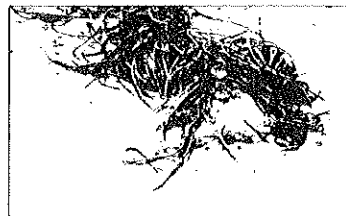
Strapping Bands. Listed under plastic, these strong, narrow, light-weight plastic bands are used to bind materials and boxes.



55 Gallon Drums. Listed under metal, these drums could contain dangerous chemicals. **Do not go near a drum** because the vapor or liquid could hurt you.



Vegetable Sacks. Listed under plastic, these large mesh bags are used to hold bulk quantities of onions, potatoes, or fruit.



Sea Whip. This yellow, orange or purple colony of animals is long, thin and has a dark string-like core. This may look like wire or rope, but it is a natural item found from North Carolina to the Gulf of Mexico. Please leave this on the beach.

FOR YOUR SAFETY

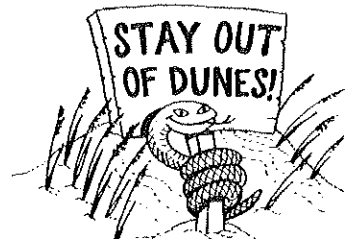
Do not approach any 55 gallon drums. They may contain dangerous liquids. Even the vapor could harm you. Leave the drum, but record it on your card.

Do not go into the dunes: snakes may be there.

Be very careful of broken glass and other sharp objects.

Wear gloves.

Don't lift anything heavy.



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THANK YOU for your help and interest in keeping the coast and ocean safe for all of us and for marine wildlife!

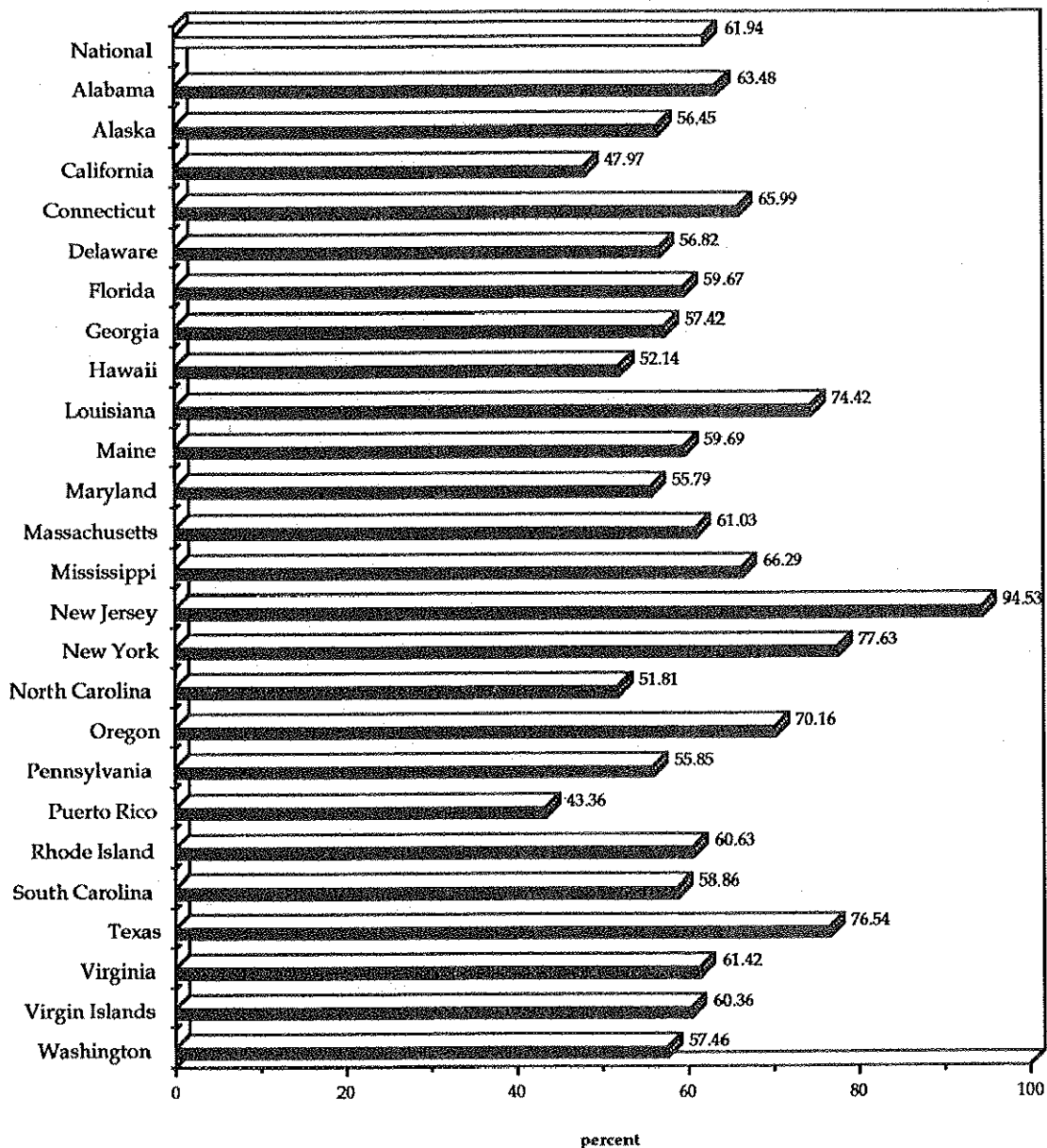
FACI, 1988 WESTOAL BENCH CLEANUP

RAW DATA SUMMARY		AL	CA	CT	DE	FL	GA	IL	IA	IN	MD	MA	MS	MI	MO	NC	ND	PA	RI	SC	TX	VA	WA	TOTAL	
PLASTIC																									
BAGS	TRASH	1502	1555	41	1670	16540	459	7679	3806	1521	325	2579	1051	104	440	5476	2715	26	401	2643	2605	24435	378	352	78035
	SLIP	96	61	0	78	765	18	227	376	73	33	136	58	0	28	409	41	0	279	59	128	199	16	135	3787
	OTHER	1228	1073	134	2232	15092	499	8272	2276	2129	1052	3633	1574	65	455	7392	3821	155	379	4587	4261	14941	463	649	74612
BOTTLES	SODA	1625	1231	20	1645	12473	1045	3055	2970	1082	425	1800	4143	437	959	8094	481	0	1000	2300	1265	8039	589	314	58116
	BURRACH	419	108	1	360	3823	290	1112	2122	483	259	647	943	66	240	846	409	12	242	451	665	5315	310	195	19300
	OTL	240	151	3	229	2811	135	409	730	601	100	472	1454	153	214	506	210	1	186	796	497	1869	166	89	12092
	OTHER	520	330	4	486	4817	291	1310	1483	374	186	597	2421	81	578	1081	302	17	309	333	1052	4533	282	139	21537
BUCKETS		91	48	1	143	1568	137	440	352	114	41	174	335	81	36	461	251	3	49	110	336	1200	78	52	6151
CAPS/LIDS		1995	3188	61	1973	23173	1280	7395	3498	1618	457	3919	3443	529	480	4907	2930	111	1039	2282	4591	21267	599	720	90998
CUPS/STONES		1178	2632	65	3369	40572	1190	11450	1326	2020	834	5408	1834	751	1320	8426	1339	213	1144	4631	3527	12230	925	281	112465
DIAPHERS		69	174	4	144	1397	50	1445	130	95	14	201	72	7	32	517	120	13	376	153	143	612	28	30	5906
LICHTERS		236	211	3	255	3158	125	537	342	162	97	341	343	81	242	693	174	10	95	198	466	2086	77	33	9306
FISH LIND		199	339	12	495	5051	78	2592	253	174	62	608	562	20	89	1483	339	28	49	495	522	2762	99	108	16563
NEW	LONG	52	38	0	104	804	27	682	180	242	19	270	88	1	2	211	106	0	1	104	82	549	107	25	3650
	SHORT	83	79	0	124	452	24	847	167	116	25	689	150	1	1	203	181	0	8	93	100	637	41	49	4486
PIZZATS/WARDS		109	34	1	325	1481	98	838	330	110	101	173	242	27	17	406	250	5	56	121	265	524	50	17	5980
HARD HATS		35	7	0	3	114	3	54	44	5	0	3	11	0	0	40	18	0	242	0	48	326	1	0	857
LIGHT STICKS		238	35	0	78	2425	101	260	514	46	21	64	142	2	8	335	129	0	17	158	807	3896	32	9	9787
MEK JUGS		452	107	4	628	4367	431	668	4016	562	190	1009	1655	193	93	918	353	4	387	624	835	8198	230	104	26148
PICKERS		1792	3836	231	2045	27821	935	14526	4923	4064	1091	2221	1986	264	694	10475	5695	14	1219	3741	5415	34592	894	745	134685
PIPS TARBORD		40	31	0	18	711	30	181	359	104	2	615	42	9	1	427	130	0	WA	484	74	1658	102	4	5084
ROPE	LONG	290	151	0	278	3621	241	760	1356	1045	216	1241	462	19	25	849	717	4	22	479	601	5068	261	135	17889
	SHORT	404	296	15	573	5356	169	1765	1395	1671	307	2822	782	29	36	1490	1789	37	47	870	936	7137	271	434	29897
SHOETING	LONG	43	8	0	38	854	30	162	527	207	55	144	38	14	18	290	165	0	59	160	140	4208	84	96	7383
	SHORT	117	48	0	107	1969	72	396	887	474	45	734	231	55	159	865	407	0	113	196	202	20463	64	533	27633
SIX-PACK		414	911	15	548	8104	209	2530	1210	375	89	674	1164	130	163	1192	146	15	353	887	558	10119	149	356	30488
STRAP BANDS		131	156	2	245	2198	40	1189	341	379	133	654	275	31	25	614	561	17	48	380	306	2886	103	299	11645
STRINGS		23	14	0	24	489	3	141	57	8	2	59	57	11	30	79	37	0	31	11	109	482	19	29	1718
TAMPON APP.		83	86	6	280	1158	67	484	103	354	105	1839	98	147	444	260	115	56	57	780	150	443	54	55	7584
TOYS		115	122	4	371	2017	61	622	142	282	113	467	487	70	91	597	280	14	115	228	630	3099	83	24	7934
VEGIE		42	107	4	101	1164	28	629	213	201	25	357	137	5	19	368	510	1	15	431	406	1638	78	159	6770
WETS PROTECTOR		28	39	0	79	712	14	143	104	64	73	49	64	11	22	166	45	8	82	74	143	1002	16	35	3054
OTHER		403	658	59	683	7295	182	2927	1185	1175	176	1848	664	81	221	4833	1111	21	268	775	4630	3303	430	210	32948
GLASS																									
BOTTLES:	BEVERAGE	1646	4486	17	1274	29389	1116	14452	4005	1533	662	1904	2470	3	342	6440	949	94	3863	2224	3961	12819	465	394	95028
	FOOD	77	161	2	241	1619	177	588	947	106	170	351	502	0	8	681	98	3	445	140	328	1749	178	57	8822
	MISC	67	266	0	70	970	74	588	178	37	30	84	169	3	16	245	57	0	WA	140	316	725	33	13	4061
FLURO TONES		79	8	0	21	544	30	130	260	20	11	13	151	0	2	119	14	0	8	0	74	662	41	2	2209
LIGHT BULBS		250	22	0	93	1631	282	136	1050	43	42	81	787	0	5	304	47	0	37	26	276	1630	120	14	6905
PICKERS		1042	4157	122	1118	15035	187	11435	1431	3028	390	3446	1345	0	103	3769	1369	20	1735	1832	1638	13442	130	823	65819
OTHER GLASS		110	373	0	75	1234	94	902	306	109	8	506	251	0	49	589	71	0	16	177	158	518	6	22	5529
STEROFOAM																									
BOOTS		92	134	8	103	2140	331	698	683	482	11	481	484	1	11	361	172	0	146	270	398	1032	44	25	7876
CUPS		2076	2082	47	1916	27194	1477	6401	6707	2409	319	2972	3049	258	508	8103	2101	120	131	3601	6615	12557	547	595	95807
EGG CARTONS		273	132	0	77	1353	266	283	1218	69	26	67	662	10	14	409	219	0	46	126	359	3887	40	61	9526
FAST FOOD		309	931	5	302	4852	278	3945	288	426	78	602	636	132	136	1117	560	54	295	826	1048	2909	106	102	22517
HEAT TRAYS		129	952	2	142	2159	273	1616	2017	144	37	256	742	13	57	456	852	2	296	130	931	2876	51	188	14731
STYRO:	LARGE	926	1361	14	430	11144	648	2459	2219	1278	198	1172	1604	119	442	2330	841	3	71	1289	2857	7549	342	351	39463
	SMALL	1895	5139	108	1919	11816	871	9432	8104	3563	711	3539	3532	230	1199	7856	7029	253	315	3324	10927	19496	834	1549	125725
OTHER		255	180	5	96	6131	133	2118	5644	372	11	1545	2294	9	81	1055	682	21	147	311	1739	1374	24	25	22255
RUBBER																									
BALLOONS		125	682	21	410	1687	316	755	22	305	225	794	305	22	26	1125	239	21	17	1293	807	704	378	52	10444
GLOVES		121	107	0	49	523	91	90	573	569	5	170	224	3	9	142	111	0	39	93	143	2394	31	34	5522
TIRES		60	57	1	130	749	26	340	363	136	67	125	81	5	21	225	142	3	36	406	150	509	217	25	3894
OTHER RUBBER		103																							

Table 2. Top Twelve Items Collected During 1988 Beach Cleanups ("Dirty Dozen").

Debris Item	Total Number Reported	Percent Of Total Debris Collected
plastic pieces (or fragments)	134,685	6.82
small foamed plastic (styrofoam) pieces	125,725	6.37
plastic cups, spoons, forks, and straws	112,465	5.70
metal beverage cans	99,847	5.06
foamed plastic (styrofoam) cups	95,807	4.85
glass beverage bottles	95,028	4.81
plastic caps and lids	90,998	4.61
paper pieces	85,864	4.35
plastic trash bags	78,025	3.95
miscellaneous types of plastic bags	74,672	3.78
glass pieces	65,819	3.33
plastic soda bottles	58,116	2.94
TOTAL	1,117,051	56.59

Figure 5. Plastic Debris Collected During 1988 Beach Cleanups.



A word about bottle bills

A large portion of the debris found on our nation's coastline is beverage bottles and other goods associated with the packaging of beverages. This includes plastic, glass, and metal beverage cans and bottles, in addition to plastic six-pack rings, metal bottle caps, and metal pull tabs. Nationally, bottles and associated goods constituted approximately 17 percent of all debris items reported (Figure 6). The highest amount of bottles and associated goods were found in Puerto Rico with approximately 35 percent, or two times greater than the national figure. High amounts were also reported in Georgia (28.52 percent). In contrast, Oregon and Connecticut had the lowest amount of these wastes with 6.42 and 8.82 percent respectively. It is of interest to note that both Oregon and Connecticut have enacted "bottle bills" in which a deposit of a few cents is added to the price of the beverage. This deposit is refunded when the container is returned by the consumer. The amount of bottles and associated goods was also comparatively lower in Maine and Massachusetts which have also enacted bottle bills. However, Delaware and New York have similar legislation, but the amount of

these goods in these states was higher than the national figure. It is not possible, however, to determine whether these higher numbers were caused by disposal of bottles and associated goods by Delaware and New York residents, Or if they were generated by offshore sources.

A word about degradable plastics

Recently, there has been increasing attention to degradable plastics technology. Both "biodegradable" (degradation caused by microbial action) and "photodegradable" (degradation caused by exposure to ultra-violet light) plastics are commercially available. However, degradable plastic technology is not a solution to the marine debris problem.

As previously described, volunteers recorded information on the size of certain debris items. Of the 165,188 foamed plastic fragments recorded (including both large and small pieces), more than 75 percent were small pieces four inches in diameter. Of the 35,016 large and small pieces of plastic sheeting reported, approximately 80 percent were small pieces measuring two feet in length or shorter. Degradable plastic technology will not help to eliminate these items because degradable plastics do not just disappear--they merely break down into smaller and smaller plastic pieces. Moreover, while items such as degradable plastic six-pack rings may help to reduce the time during which a marine animal may become entangled, it does nothing to mitigate the problem of ingestion of plastic pieces by marine wildlife. In fact, increased use of degradable plastics may compound the problem of ingestion.

Although plastic pieces or fragments are among the most common debris items reported, the number represented by beach cleanup data is undoubtedly an underestimate of the true amounts. Many volunteers commented on the prevalence of fragmented plastic by indicating the terms "lots," "millions," and "too many to count." While these comments provide insight into the pervasiveness of plastic fragments, they could not be used for data analysis.

Sources of Beach Debris

Beach cleanup data indicates that the majority of debris items found on U.S. shorelines are packaging and disposable plastic products. Since these wastes may be generated by a diversity of ocean and land-based sources many items cannot be traced to a single source. Certain debris items listed on the data card, however, could be used as "indicator items" traceable to specific debris sources. These indicator items were first identified by CMC in 1986 with the assistance of the Texas Coastal Cleanup Steering Committee which included representatives of marine industry groups who were familiar with the types of debris that could potentially be generated by industry members. For instance, representatives of the fishing industry noted that cyalume light sticks listed on the data card are used by longline fisheries, and petroleum industry representatives identified that write-enable protection rings from computer tapes are used by vessels conducting seismic activities.

Using this information, CMC has identified 28 indicator items which fall under four categories: 1) galley-type wastes generated by vessels, 2) fishing and boating gear, 3) operational wastes generated by vessels and offshore petroleum operations, and 4) sewage-associated wastes indicative of inadequate sewage treatment practices. In addition, a fifth category of medical wastes which includes plastic syringes was established due to the recent publicity these items have received. It is important to recognize that there is variability in the sources of some indicator items in different parts of the country. For instance, plastic trash bags, which are used as an indicator of galley wastes from vessels at sea, may also be generated by people who have illegally dumped household wastes on a beach, or from other sources. Therefore, while preliminary information can be used to provide a means of comparison on a national level, it will be important for government, industry, and other groups in each state and locality to assess the data reported from their area in terms of potential sources of debris items.

Data analysis indicates that these 28 indicator items account for more than 16 percent of the debris reported nationwide (Table 3). This information should not be interpreted to mean that these are the only wastes generated by offshore sources. Rather, the presence of indicator items may show that some of the untraceable debris items, such as disposable plastic products and packaging, may also be generated by these sources.

Galley Wastes

Why were 78,025 plastic trash bags, 26,148 plastic milk and water jugs, 19,300 plastic bleach cleaner bottles, 14,721 foamed plastic meat trays, 9,526 egg cartons, and 6,770 plastic vegetable sacks found on our nation's shoreline? These are items that are commonly used in the galleys of ships at sea and when it comes to taking out the trash, over the rail it all goes.

Galley wastes were the most prevalent category of indicator items reported, accounting for approximately 7.8 percent of the trash collected nationwide (Figure 7). If these galley wastes were evenly distributed along the 3,518 miles of coastline that was cleaned nationwide, then at least 22 plastic garbage bags, 7 milk and water gallon jugs, 4 foamed plastic meat trays, 5 plastic bleach and cleaner bottles, 2 egg cartons, and approximately 2 plastic vegetable sacks would be found on every mile of beach.

Louisiana appears to be the best state to find these items since it had the highest amount of galley wastes with 15.31 percent--nearly two times greater than the national figure (Figure 8). Plastic milk and water jugs were the most common galley type waste reported in this state.

Other states with comparatively high amounts of galley-type wastes included Alabama, Mississippi, New Jersey, and Texas. Once again, this information indicates that states that border the Gulf of Mexico (with the exception of Florida) appear to be the most negatively affected by offshore dumping of debris. The high number of galley wastes reported in New Jersey is also noteworthy, yet the area covered in this state was fairly small and therefore it is difficult to determine whether this is a state or local problem. It is hoped that a larger data collection effort will take place in New Jersey in the future so that more information for this state can be obtained and analyzed.

Wastes Attributable to Recreational and Commercial Fishing and Boating

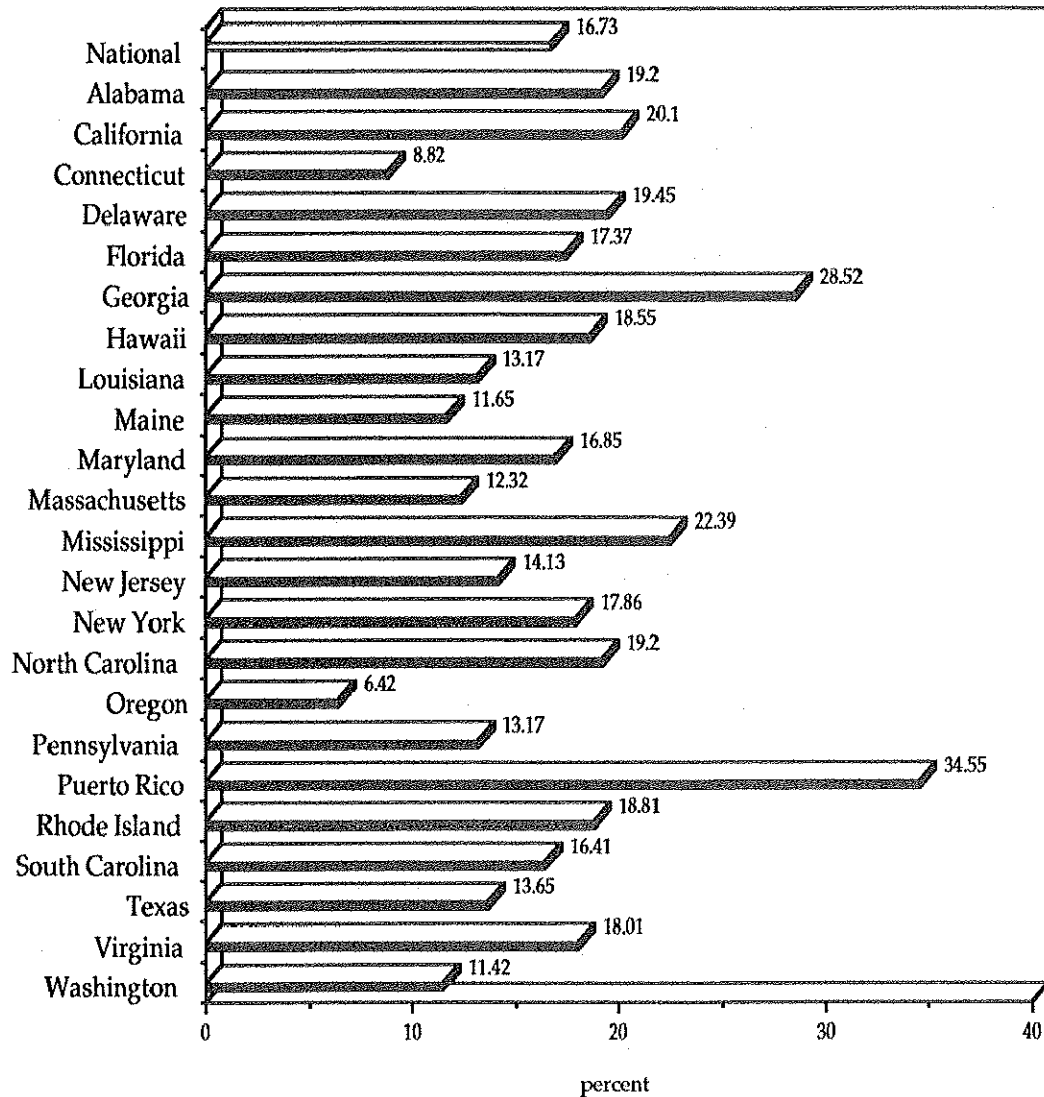
Wastes generated by commercial and recreational fishermen are perhaps the most readily identifiable to their source. This includes plastic salt bags used by commercial fishermen in preparing their catch, plastic fishing nets, light sticks, floats and lures, fishing line, buoys, and metal and wooden traps. Other items commonly used by fishermen are rubber gloves. Plastic rope and oil and lube bottles are also included in this group although these items may be generated by both commercial and recreational boating activities.

In total, 6.1 percent of the debris items recorded nationwide is attributable to recreational and commercial fishing and boating. The most commonly reported debris items in this category were both large and small pieces of plastic rope, followed by pieces of plastic fishing line. Both of these items are known to pose a threat to marine wildlife through entanglement and ingestion. In fact, volunteers reported 40 cases of birds impacted by marine debris, of which 50 percent involved entanglement in plastic fishing line. During the Florida beach cleanup, volunteers collected fishing line separately so that it could be weighed and measured; a total of 305 miles of fishing line was collected from 915 miles of beach.

Information recorded on the length of plastic fishing nets and rope indicates that the distinction between the size of these debris items was not significant, although pieces two feet in length or shorter are slightly more common than longer pieces. In many cases, shorter pieces of rope and net may actually indicate intentional discard of these items as waste materials, while larger pieces may indicate accidental losses. However, smaller pieces may also result from breakage of larger pieces due to weathering, or from accidental losses due to collisions with boat propellers. In any case, it is unfortunate to note that larger pieces of these materials, which are more likely to pose a threat to marine wildlife in terms of entanglement, are nearly equal in abundance to smaller pieces.

Maine had the highest concentration of boating and fishing wastes compared to all other states (Figure 9). Rope pieces were the most common debris item found in Maine and were probably attributable to the large lobster trap fishery in this state which uses rope for connecting buoys and traps. Neighboring Massachusetts also had a relatively large amount of boating and fishing wastes with rope also being the most common item reported in this group.

Figure 6. Bottles and Associated Goods Collected During 1988 Beach Cleanups.



Several states in the Gulf of Mexico, namely Louisiana, Mississippi, and Texas, also had high amounts of fishing and boating wastes compared to other areas of the country. While rope was the most common of these items found in Louisiana and Texas, Mississippi had a large amount of plastic oil and lube bottles. Recreational and commercial fishing and boating wastes appear to be less abundant in California, Connecticut, and Pennsylvania.

Operational Wastes

Another grouping of debris items found on our nation's coastline are those wastes generated during offshore operations, such as petroleum industry activities, or gear and equipment used on cargo vessels. These items included 11,665 plastic strapping bands, 7,383 large pieces of plastic sheeting used to bind boxes and crates, 1,075 wooden crates, and 1,737 wooden pallets used to transport materials and packages. Other items attributable in part to offshore operations and vessels included the 6,905 glass light bulbs and 2,209 fluorescent light tubes. Items specifically traceable to petroleum industry operations included the 5,084 plastic pipe thread protectors and 3,054 plastic write-enable protection rings. In addition, many of the 857 plastic hard hats were probably generated by petroleum operations conducted offshore.

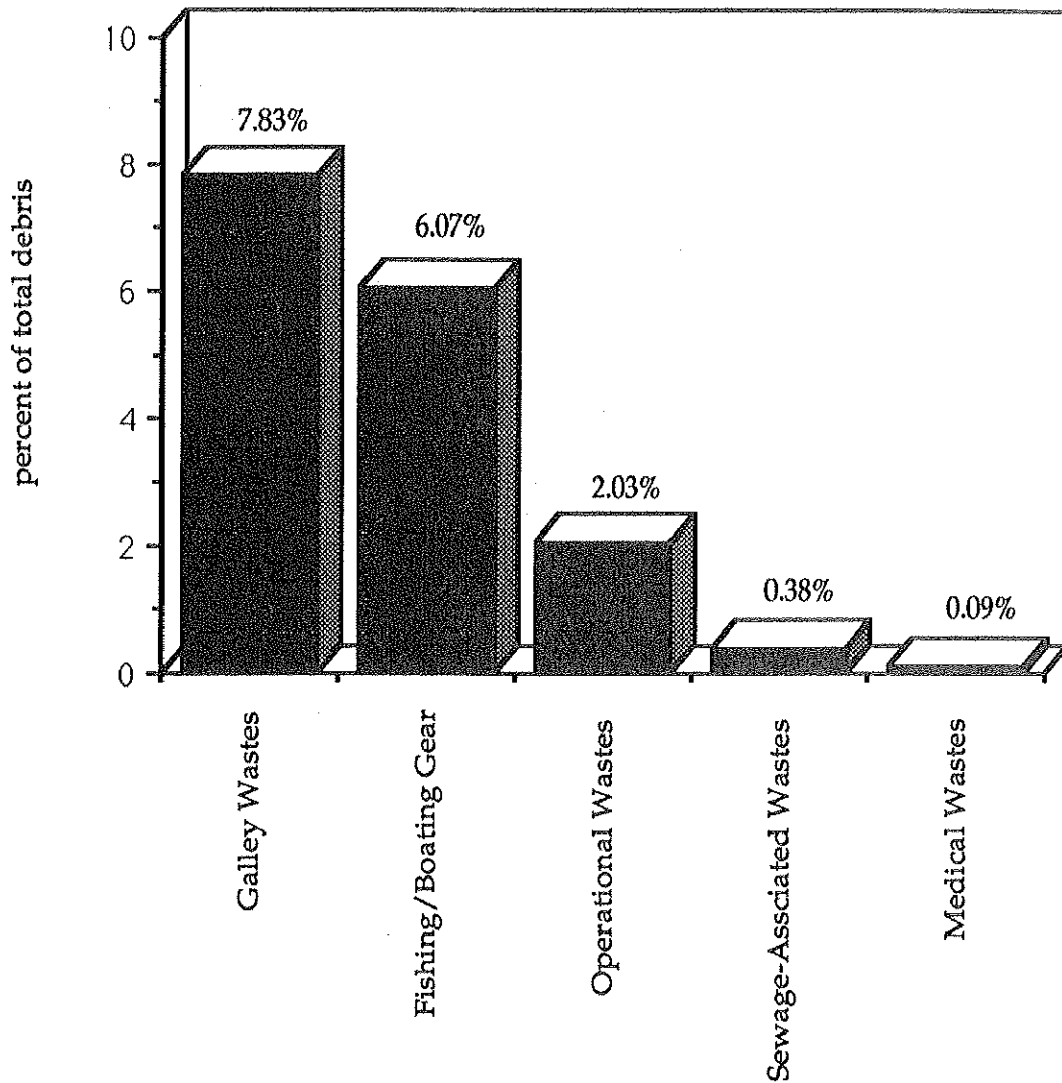
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**Table 3. Categories and Quantities of Indicator Items Reported
During 1988 Beach Cleanups¹.**

Category	Indicator Items	Total Number Reported
Galley Wastes	plastic trash bags	78,025
	plastic milk and water gallon jugs	26,148
	plastic bleach, cleaner bottles	19,300
	foamed plastic meat trays	14,721
	foamed plastic egg cartons	9,526
	plastic vegetable sacks	6,770
Subtotal		154,490 (7.83%)
Fishing/Boating Gear	plastic rope	47,786
	plastic fishing line	16,563
	plastic oil and lubricant bottles	12,002
	plastic light sticks	9,307
	plastic fishing nets	8,136
	foamed plastic buoys	7,876
	plastic floats and lures	5,980
	rubber gloves	5,748
	plastic salt bags	3,797
	wooden fish and crab traps	1,309
metal fish and crab traps	1,281	
Subtotal		119,785 (6.07%)
Operational Wastes	plastic strapping bands	11,665
	plastic sheeting longer than 2 feet	7,383
	glass light bulbs	6,905
	plastic pipe thread protectors	5,084
	write-enable protection rings	3,054
	fluorescent light tubes	2,209
	wooden pallets	1,737
	wooden crates	1,075
plastic hardhats	857	
Subtotal		39,969(2.03%)
Sewage-Associated Wastes	plastic tampon applicators	7,584 (0.38%)
Medical Waste	plastic syringes	1,718 (0.09%)
Total Number of Indicator Items		343,546 (16.39%)

¹ Number in parentheses indicates percent of total debris items collected nationwide.

Figure 7. Indicator Items Reported from 1988 Beach Cleanups.



In total, 2 percent of all wastes collected nationwide were operational type wastes. Texas appears to be the best place to go to look for operational type wastes, specifically if you are interested in finding large pieces of plastic sheeting (Figure 10). Other states with relatively high concentrations of operational type wastes included Georgia, Louisiana, Mississippi, Virginia, and Washington. Operational type wastes appear to be less abundant in California, Connecticut, and New York.

Sewage-Associated Wastes

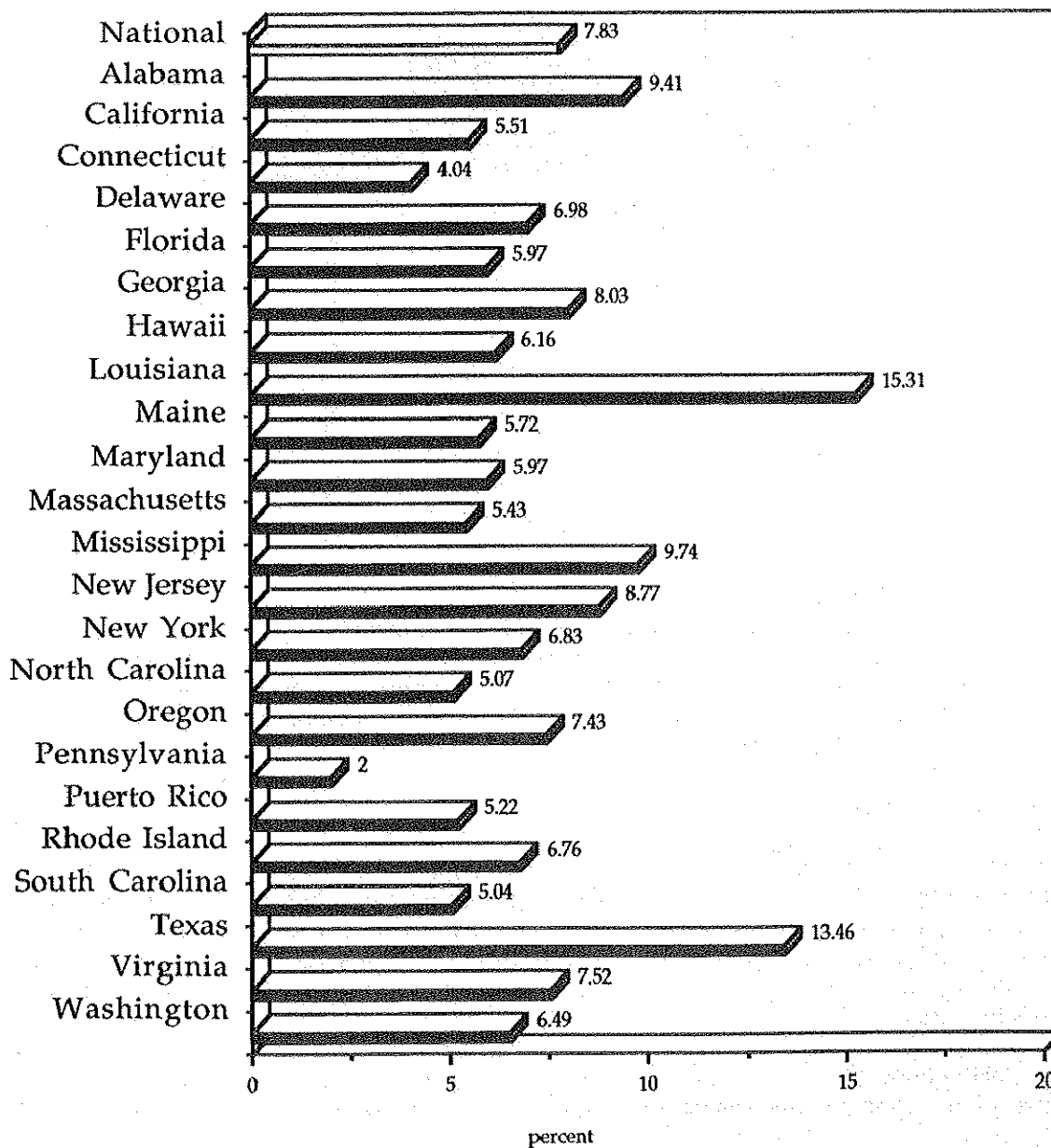
With U.S. ratification of Annex V of the MARPOL Treaty, regulations are now in place to control offshore sources of debris. However, these regulation do not address the problem of plastic dumping of debris. However, these regulations do not address the problem of plastic debris generated by land-based sources. Untold quantities of plastic enter the ocean via rivers, drainage systems, and estuaries. In some cases plastic debris generated by land-based sources is easily traced. In other cases the sources of certain debris items are not as clearly identified.

One of the better known land-based sources of plastic is sewage systems located along coastal waterways. In some areas of the country, sewer systems discharge plastic items directly into marine areas. For instance,

many of New York City's sewage treatment systems are combined with storm water systems, termed combined sewer overflows (CSO). In these systems, raw sewage mixes with rainwater. Under normal operating conditions these combined sewer overflows trap tens of thousands of pieces of solid waste materials each year. However, during times of heavy rainfall, the capacities of these systems are exceeded and the overflow-untreated sewage and accompanying solid waste materials--is diverted directly into local waterways. Plastic tampon applicators were used as an indicator of inadequate sewage systems. In some parts of the country tampon applicators are found commonly enough that people have jokingly named them "beach whistles" and "New Jersey sea shells."

Nationwide, 7,584 plastic tampon applicators were reported during beach cleanups, accounting for less than one percent of all debris items reported. However, the amount of plastic tampon applicators reported in New York was more than nine times greater than the national percentage (Figure 11). The amount in New

Figure 8. Galley Wastes Collected During 1988 Beach Cleanups.



Jersey was more than eight times greater than the national percentage. In fact, this problem appears to be concentrated in the northeast region of the United States since Massachusetts and Rhode Island also had comparatively high amounts of plastic tampon applicators.

Inadequate sewer systems also appear to be a problem in Lake Erie. Based on the data collected during the beach cleanup conducted at Presque Isle State Park in Pennsylvania, the amount of plastic tampon applicators reported was more than six times greater than the national average.

Medical Wastes

Plastic syringes were used to indicate medical wastes since they have been a major problem in some areas of the United States, principally in the New York-New Jersey area during the summers of 1987 and 1988.

Figure 9. Fishing and Boating Gear Collected During 1988 Beach Cleanups.

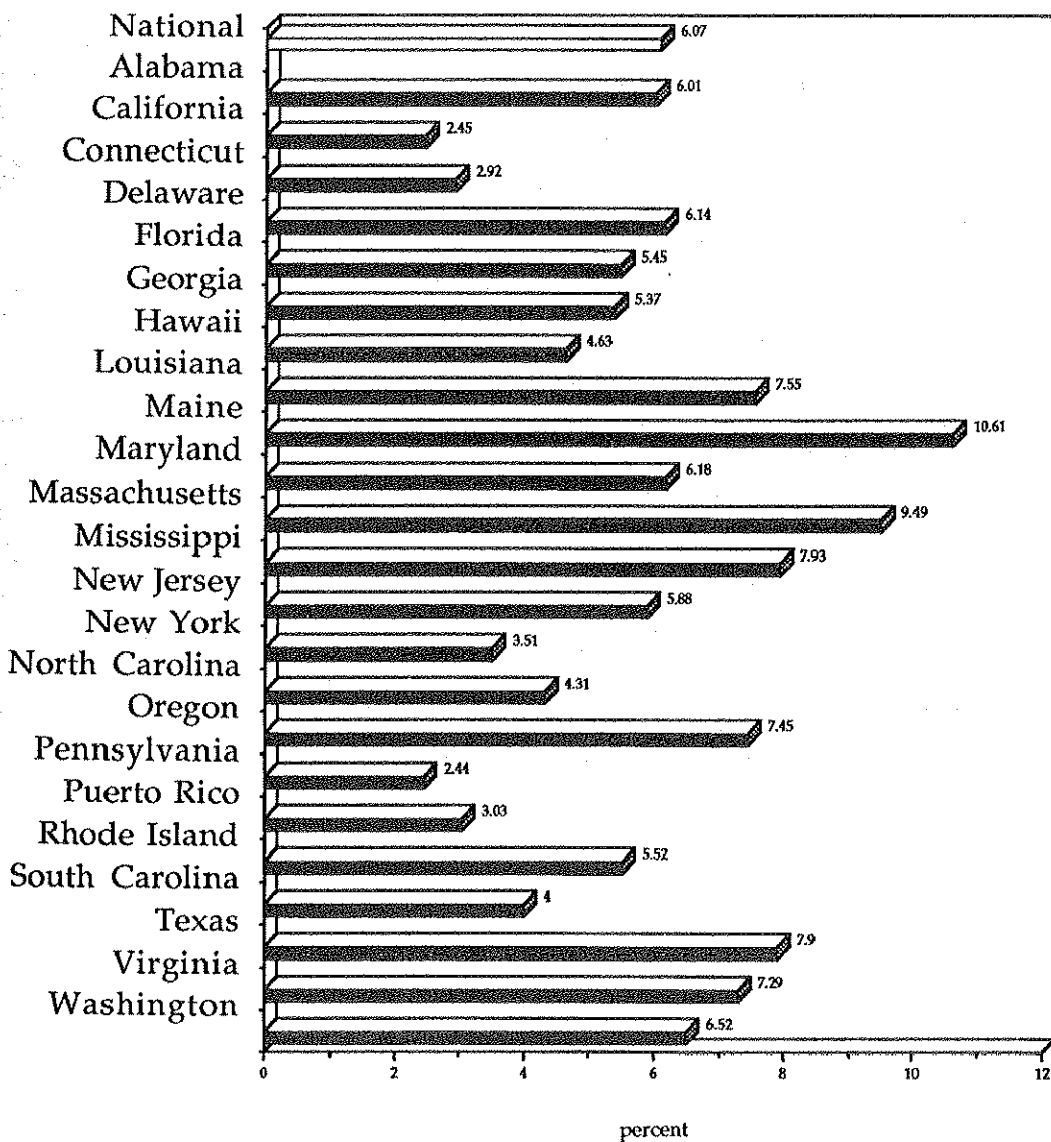


Figure 10. Operational Wastes Collected During 1988 Beach Cleanups.

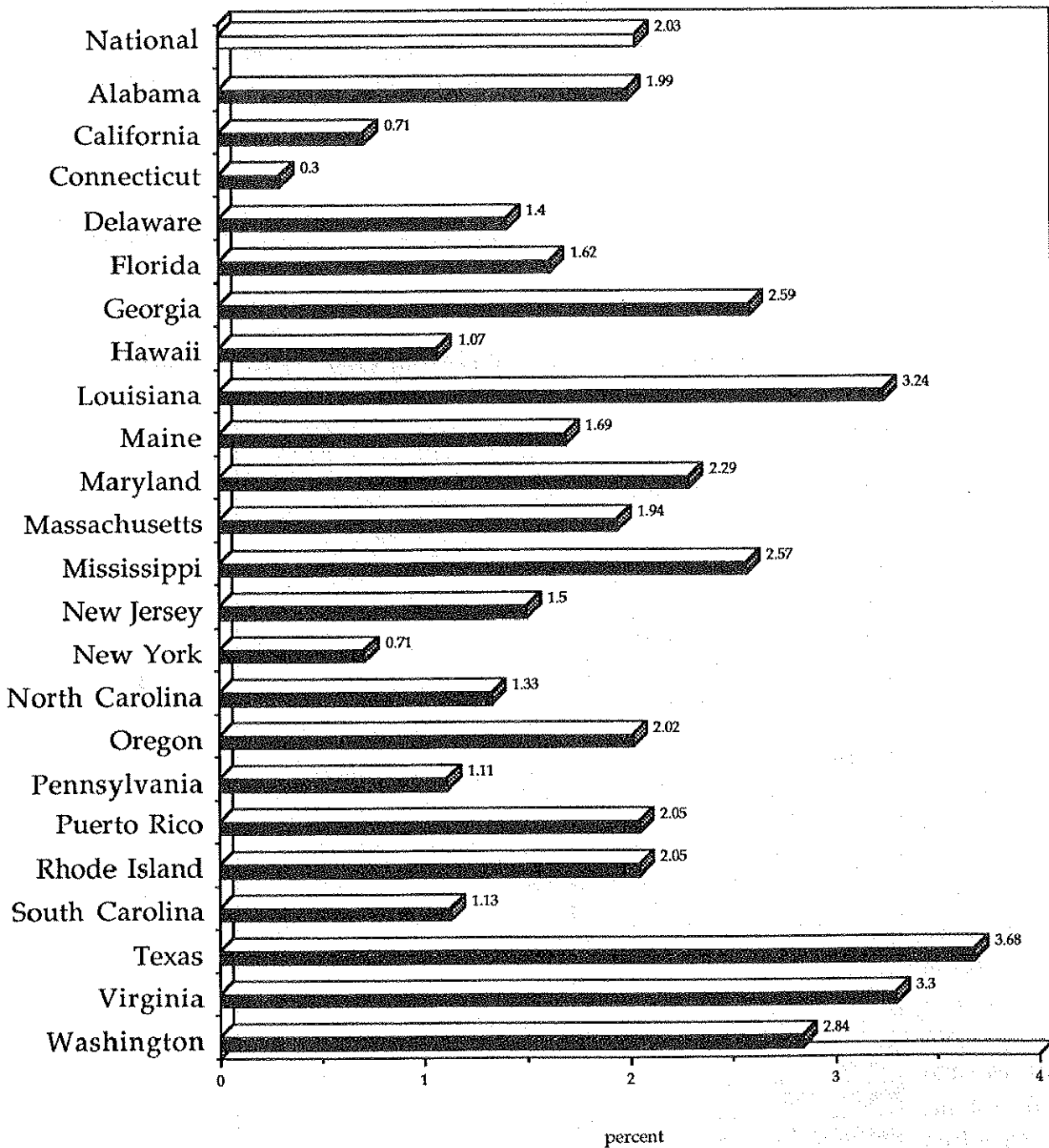
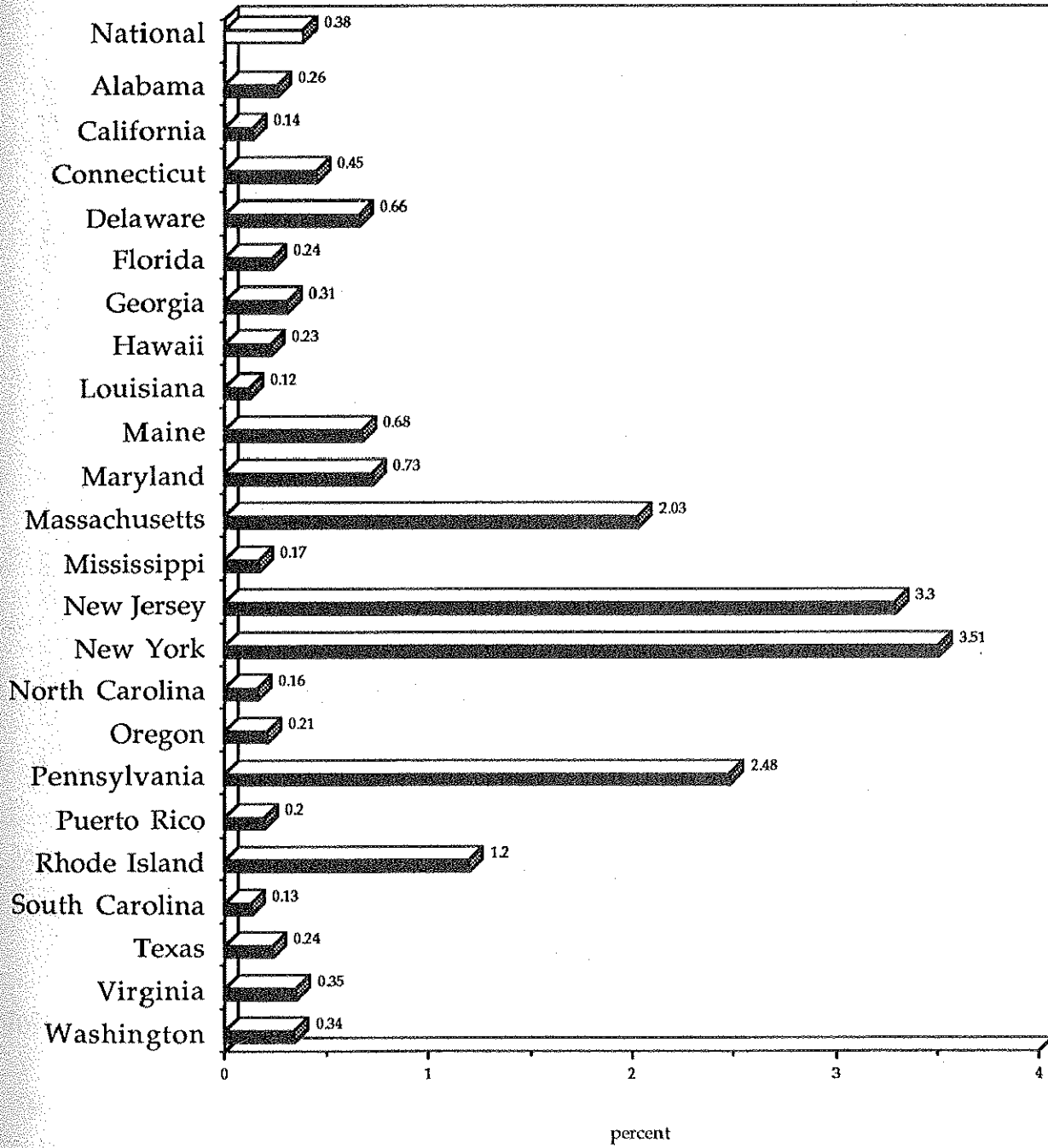


Figure 11. Sewage Associated Wastes Collected During 1988 Beach Cleanups.





Beach cleanup volunteers clean the uninhabited island of Kahoolawe.

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Syringes were reported in all but two of the 23 states. However, in view of all the debris on our nation's coastlines, syringes appear to be a very small percentage; the 1,718 syringes reported amount to less than 0.1 percent of the total debris. Yet in the New York and New Jersey areas, the amount of plastic syringes reported was approximately three times greater than this national figure (Figure 12). Florida, Mississippi, Puerto Rico, South Carolina, Texas, Virginia, and Washington also had higher levels of plastic syringes as compared to the national figure. Florida, Mississippi, Puerto Rico, Texas, Virginia, and Washington also had higher levels of plastic syringes as compared to the national figure.

In general, during the 1988 beach cleanup season, volunteers appeared to be sensitized to the problem of medical wastes on beaches nationwide based on comments on the data cards. Many noted items other than syringes that appeared to be medical related, including surgical gloves, masks and gowns, tubing and trans-

Figure 12. Medical Waste Collected During 1988 Beach Cleanups.

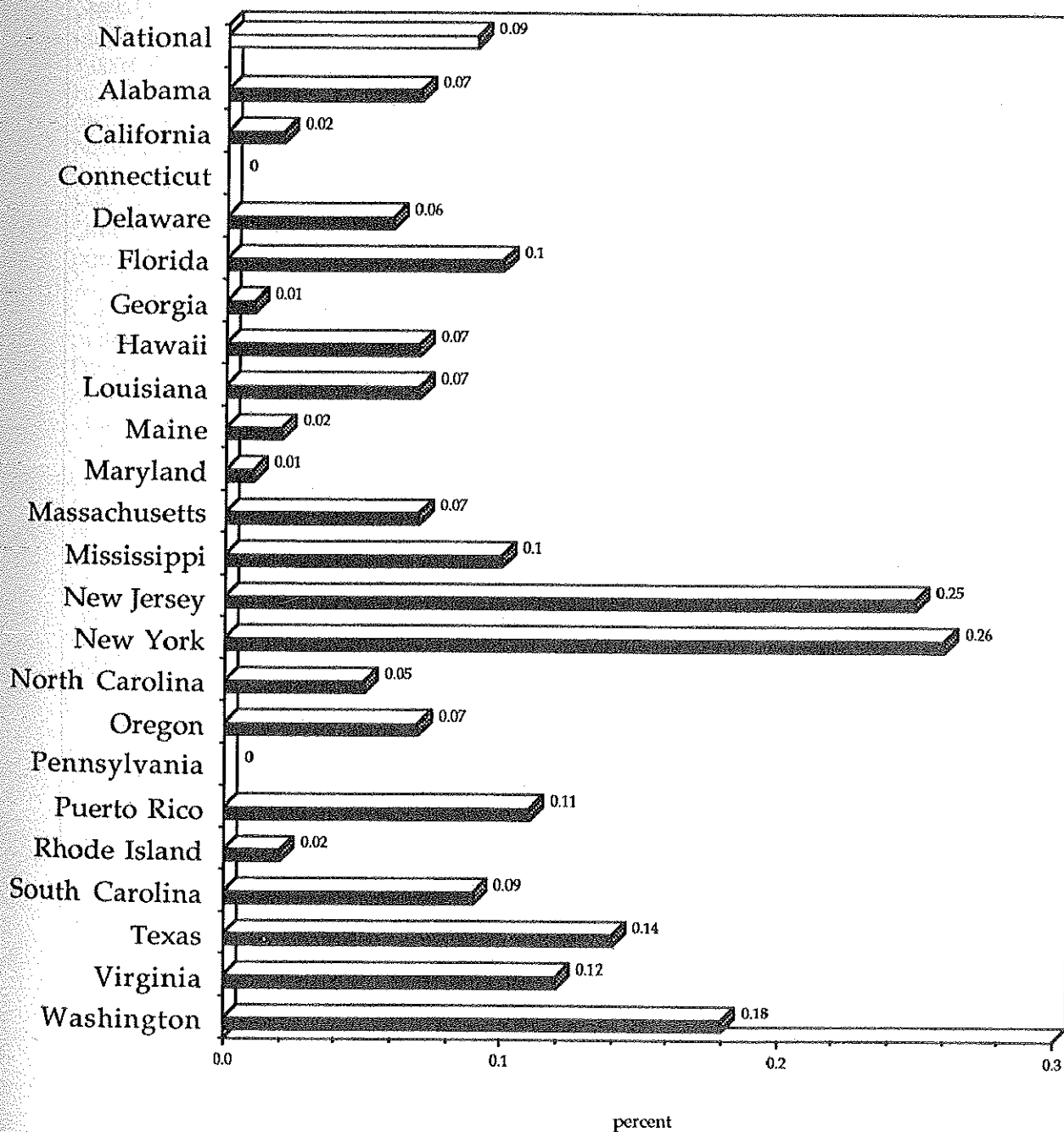


Table 4. Debris from Passenger Cruise Lines Reported during 1988 Beach Cleanups.

Location Found	Type of Debris	Cruise Ship Indicated
Alaska	bottle with note	<u>Noordam</u>
Florida		
Hobe Sound	jelly containers	Carnival Cruise Lines
Walton Rocks	plastic cups and napkins	Carnival Cruise Lines
Biscayne National Park	plastic shampoo bottle	Holland America Lines
Fort Walton Beach	plastic shampoo bottle	Holland America Lines
St. George Island	plastic shampoo bottle	Holland America Lines
St. John's County	plastic shampoo bottle	Holland America Lines
Key Biscayne	small plastic food packet	Norwegian Cruise Lines
Daytona Beach	plastic shampoo bottle	Premier Cruise Lines
Cocoa	plastic shampoo bottle	Premier Cruise Lines
St. John's County	plastic shampoo bottle	Premier Cruise Lines
Biscayne National Park	plastic cup	Royal Caribbean
Miami	plastic cups	Sitmar Cruise Lines- <u>Amerikanis & Britanis</u>
Miami	plastic cups	unidentified
Sunrise City	plastic bag	<u>Star of Norway</u>
Sunrise City	plastic cup	<u>Caribe I, MS Boheme</u>
Jupiter	shampoo bottle	Holland Steamship
Louisiana	plastic bottle, hand lotion	Costa Cruises
Maryland	candy wrapper	Norwegian Cruise Lines
New York	sugar packet	Home Lines
North Carolina	shampoo bottle	unidentified
Puerto Rico	plastic bag	Commodore Cruise Lines
	many bottles and glasses	Royal Caribbean Lines
South Carolina	4 plastic toiletry bottles	Premier Cruise Lines
Virgin Islands	plastic cups from casino	Carnival Cruise Lines
	plastic cap	Norwegian Cruise Lines
	shampoo bottle	Royal Caribbean Lines
	bottle with note	unidentified

fusion bags, blood vials, test tubes, and bandages. However, it is important to note that the nation's beaches, contrary to what recent reports may have suggested, are not awash in medical wastes.

Recent findings into the cases of medical debris wash-ups on the beaches of New York and New Jersey suggest that the majority of syringes found during the summer of 1988 were actually insulin-type disposable syringes used by diabetics and often disposed in toilets or trash. According to a recent article in the New York Daily News magazine, of the 4,369 medical items that washed onto New York's 13 city beaches between the period of July 9 through August 12, 1988, 55.5 percent of these items, or 2,426, were syringes. The fact that sewage-associated wastes were also prevalent in New York and New Jersey could suggest that there is a direct correlation between sewage systems and medical debris in this area.

Foreign Sources of Beach Debris

In 1975 the National Academy of Sciences estimated that the United States could be the source of approximately one-third of all the garbage in the marine environment. However, marine debris is an international problem. In fact, a portion of the debris found in U.S. coastal areas is generated by foreign ships. In order to identify foreign sources of debris, volunteers were asked to note all items that had foreign labels. More than 1,000 foreign label items were recorded from 45 countries including: Argentina, Bahamas, Barbados, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Cuba, Denmark, Dominican Republic, Federal Republic of Germany, Finland, France, Greece, India, Ireland, Israel, Italy, Jamaica, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Panama, China, Peru, Portugal, Phillipines, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, Trinidad, Turkey, Union of Soviet Socialist Republics, United Kingdom, Venezuela, and Vietnam. In addition, many volunteers reported items as being from "Germany," "Korea," "Arabia," or being "Latin," "Scandinavian," or "oriental" in origin. A listing of all foreign debris items reported in each state is given in Appendix 1.

Foreign debris was found in 22 of the 25 states; no foreign debris was reported in New Jersey, New York, or Pennsylvania. Texas has the largest international assortment of debris where more than 500 foreign debris items were reported from 39 countries with Mexico being the most commonly reported foreign source of debris.

Much of the foreign debris found on U.S. beaches can be attributed to dumping by the international fleet of commercial ships. Ironically, the majority of these foreign items were empty bottles of cleaning agents. However, as previously reported, Annex V of the MARPOL Treaty now prohibits the discharge of plastic wastes from ships at sea. The treaty applies to all ships of nations signatory to this treaty. In the United States, no vessel from any country and of any size (ranging from super tankers to rubber rafts) may discharge plastics within 200 miles of our coastline. This should reduce the amount of debris that is dumped and subsequently washed onto our beaches. Among the foreign sources reported, the following countries are signatory to the MARPOL Treaty: Belgium, Colombia, German Democratic Republic, Denmark, Federal Republic of Germany, Finland, France, Greece, Italy, Japan, Netherlands, Norway, Panama, Peoples Republic of China, Peru, Portugal, Sweden, Union of Soviet Socialist Republics, and the United Kingdom.

In addition to recording information on foreign labels, some volunteers noted debris items traceable to passenger cruise ships (Table 4). For instance, napkins, a jelly container, and plastic casino cups from Carnival Cruise Lines were reported in Florida and the Virgin Islands. Plastic shampoo bottles from Holland America Lines and Premier Cruise Lines were found in South Carolina and several areas of Florida. A Maryland cleanup volunteer reported finding a candy wrapper from Norwegian Cruise Lines while a plastic cap found in St. Thomas and a small plastic food packet found in Florida were also traceable to this company. And trash from Royal Caribbean Lines was reported in Florida, Puerto Rico, and the Virgin Islands. Other debris traceable to cruise lines included a plastic bottle of hand lotion from Costa Cruises found in Louisiana, plastic cups from Sitmar Cruises reported from Florida, a sugar packet from Home Lines reported from New York, and a plastic bag from Commodore Cruise Lines found in Puerto Rico that was not only inscribed with the name of the vessel, the MS Caribe I, but also gave the address and telephone number of the cruise line's office in Miami, Florida.

At the time that the above debris was reported Annex V of the MARPOL Treaty was not in effect. However, in the future this type of information will be very useful in identifying cruise lines that may violate the new international treaty.

Table 5. Wildlife Impacted by Debris Reported During 1988 Beach Cleanups.

State	Type of Animal	Type of Debris	Other Comments
Alaska	gull	fishing line	entangled
	2 shore birds	fishing line	entangled
California	gull	plastic	in mouth
	gull	fishing line	entangled
Florida	pelican	fishing line	entangled (approx. 50 yds/ 30-lb. test fishing line)
	2 gulls	unidentified	entangled
	1 skimmer (bird)	fishing line	entangled
	pelican	fishing line	(15 feet)-hanging from mouth with bait and hook attached--animal had been there for many days
	brown pelican	fishing line	entangled
	dead bird	plastic six-pack ring	entangled
	pelican (wing only)	fishing line	entangled
	seabird (leg only)	fishing line	entangled
	green sea turtle	fishing line	entangled
Louisiana	seagull	fishing hook	--
Maine	leatherback sea turtle	plastic garbage bag	ingested
	herring gull	wire lobster trap mesh	caught
	3 crabs, 2 lobsters	lobster trap	released from trap that had washed ashore
Maryland	red fox	plastic gill net	found alive and released
Mississippi	dolphin	rope	dead with rope looped around tail
North Carolina	bird	fishing line	entangled
	2 birds	fishing line	entangled
	Dowitcher (bird)	fishing line	entangled, released
	sandpiper type bird	rubber band material	with one leg wrapped, no use of leg
	herring gull	plastic six-pack ring	leg entangled, looked as if it may come off on its own
Oregon	bird part	fishing line	--
	1 dead bird	fishing line	around legs
	baby seagull	plastic vegetable sack	entangled
	bird	cassette tape	entangled
	bird	kite string	entangled
	many dead birds	fishing line	--
	seagull	plastic	in mouth, dead
	gull	rope	entangled
Rhode Island	seagull	balloon string	one leg twisted in string
	seagull	fishing line	wrapped around leg
	seagull	fishing line	--
South Carolina	seagull	fishing line	entangled
Texas	entangled bones (bird ?)	string	--
	gull	wire ring	entangled
	seagull	fishing line	entangled (approx. 40 inches)
	bird	debris	entangled
	seagull	trash bag	entangled
	seagull	plastic six-pack ring	entangled
	fish	rope	entangled

In two cases debris was attributed to individual cruise line passengers. In Alaska, one volunteer reported finding a bottle with a note from a passenger on the cruise ship *Noordam* which was tossed overboard off Skagaway, Alaska on June 17, 1986. The note was found by this volunteer on June 25, 1988. Students who participated in the cleanup in the Virgin Islands also found a bottle and note from cruise line passengers. In both cases, the volunteers who reported these items commented that they intended to write back to the authors of the notes to inform them of the new law, Annex V of the MARPOL Treaty!

Wildlife Entanglement

Finally, volunteers were asked to note any cases of wildlife entanglement or strandings found during the beach cleanups. In total, volunteers reported more than 45 cases of entanglement or ingestion (Table 5). Of these, more than 40 were birds, most of which were entangled in plastic fishing line. In addition, a dead green sea turtle was found in Florida entangled in fishing line, a dead leatherback sea turtle was found in Maine that had ingested a plastic garbage bag, a dead dolphin was reported from Mississippi with a rope looped around its tail, and in Maryland a red fox was released alive from entanglement in a plastic fishing net. The numbers of these animals is alarming considering that these reports were noted on just a fraction of our nation's coastline and within just three hours.

CONCLUSION

Citizen beach cleanups are an effective tool to help increase public awareness of the marine debris problem and create a sense of stewardship and public support to solve this problem. Based on the results of the National Marine Data Base 1988 data collection effort it has now been demonstrated that citizens who participate in beach cleanup efforts are willing and able to assist in the development and evaluation of strategies to reduce the problem.

Realistically, due to the diversity of debris items and multiple uses of plastic items, data collected during beach cleanups cannot be used to estimate total amounts of debris found in marine areas nor the precise sources of debris items. However, comparison of relative amounts of debris can reveal important national, state, and local trends in the types and distribution of beach debris. In particular, citizen beach cleanups have demonstrated the predominance of plastic waste on our nation's shorelines. In the future, beach cleanups can help to monitor legislative and other efforts to control the discharge of plastic wastes into marine areas.

Recognizing that it is difficult to use beach cleanup data to determine the major sources of debris on a national level it will be important for groups on the state and local level to use beach cleanup data to determine regional sources. Moreover, since the majority of this debris consists of items that are used and subsequently disposed of by the general public, citizen monitoring of this debris contributes greatly to the underlying theme of a beach cleanup—increased awareness. By recording information on these debris items, those who participate in beach cleanups learn that marine industries are not the only sources of marine debris and that the solution lies with us all. Others who do not participate in beach cleanups hear about data results in the press and media and may consider proper disposal of their next six-pack ring or foamed plastic cup knowing that someone is keeping count. Finally, it is hoped that those who manufacture or distribute products that are reported as debris will realize the need to initiate and support efforts that encourage proper disposal and prevent these items from becoming marine debris.



DELAWARE STATE NEWS

Lisa Coverdale, left, and Janet Wilkens, both 6, of Benjamin Bannecker Elementary School in Milford, Delaware, join their classmates in patrolling Slaughter Beach.

STATE ANALYSES

Following is an analysis of the data collected in each state. For each state a description of the cleanup was provided by state coordinators or others involved in the organization of the state cleanup. Included for each state is percent composition of debris, the dirty dozen, sources of debris, major characteristics of debris in each zone, stranded and/or entangled wildlife reported, most peculiar debris items reported, and information on 1989 beach cleanups.



ALABAMA

September 24, 1988
 630 Volunteers
 40 Miles Cleaned
 8,340 Pounds of Debris Collected
 32,038 Debris Items Reported

Coordinated By: John Marshall
 Alabama Department of Environmental
 Management
 2204 Perimeter Road
 Mobile, AL 36615
 (205) 479-2336

This first statewide beach cleanup in Alabama was initiated by the Alabama Department of Environmental Management (ADEM) Mobile Field Office in cooperation with the U.S. Minerals Management Service, Alabama Department of Economic and Community Affairs (ADECA), and the Alabama Department of Conservation and Natural Resources (ADCNR). The primary purpose of this project was to emphasize the problem of trash in the marine environment and to obtain information on the nature of the trash and its sources. Luther Holt of the ADECA assisted greatly in providing publicity and funding for promotional posters, pamphlets, and trash bags in addition to volunteers. The ADCNR provided assistance through their personnel in the Marine Resources Division and through the Gulf State Park. Foster Anderson of Gulf State Park served as one of the zone captains and the Park Superintendent, Hugh Branyon, provided the use of the park pavilion as a coordinating center for the Baldwin County zones. Gulf State Park also provided a 4-wheel drive vehicle to pick up trash bags. Numerous private groups and businesses provided support for the coastal cleanup in the form of food, refreshments, trash bags, pencils, etc. Mobil Exploration and Producing provided 1,000 t-shirts for volunteers and over 200 volunteers for the cleanup. The slogan for the cleanup, "Get the Trash Out of the Splash" is credited to Jenny Cook, a graduate student at Dauphin Island Sea Lab.

Instrumental in making this project a success were the five zone captains who were in charge of promoting and organizing the cleanup in each of the five zones: Dauphin Island, Ft. Morgan Peninsula, Gulf Shores, Gulf State Park, and Orange Beach. Other governmental agencies that provided assistance within these zones included the cities of Gulf Shores and Orange Beach, the town of Dauphin Island, and Mobile and Baldwin Counties. Baldwin County provided trash bags, bus transportation for Dauphin Island volunteers from Ft. Morgan to Gulf State Parks for the post-cleanup celebration, and a zone captain. Both counties provided free disposal of the trash. Volunteers from the U.S. Coast Guard were also instrumental in the collection of trash from Dauphin Island.

The beach cleanup volunteers represented a wide variety of ages and organizations. There were boy and girl scout troops, oil company employees, members of the Mobile Bay Audubon Society, and state employees. Along with the expected aluminum cans, plastic six-pack rings, and glass and plastic bottles, volunteers also reported finding some unusual items such as an aerosol can from Germany, a dead sea turtle, a baby dolphin entangled in a net, and several syringes.

After the cleanup, a celebration on behalf of the volunteers was held at Gulf State Park pavilion. The festivities were coordinated by Spencer Ryan of People Against a Littered State (P.A.L.S.). Shell Offshore provided hot dogs and potato chips and Buffalo Bottling Company (Pepsi) provided soft drinks. Speakers representing ADEM, ADECA, and ADCNR were present and the zone captains were all presented with certificates of appreciation signed by Governor Hunt.

Those who participated in the cleanup considered it to be rewarding and successful. They considered this type of program, which emphasizes public involvement, to be an excellent way of increasing awareness of the problem of trash in the marine environment.

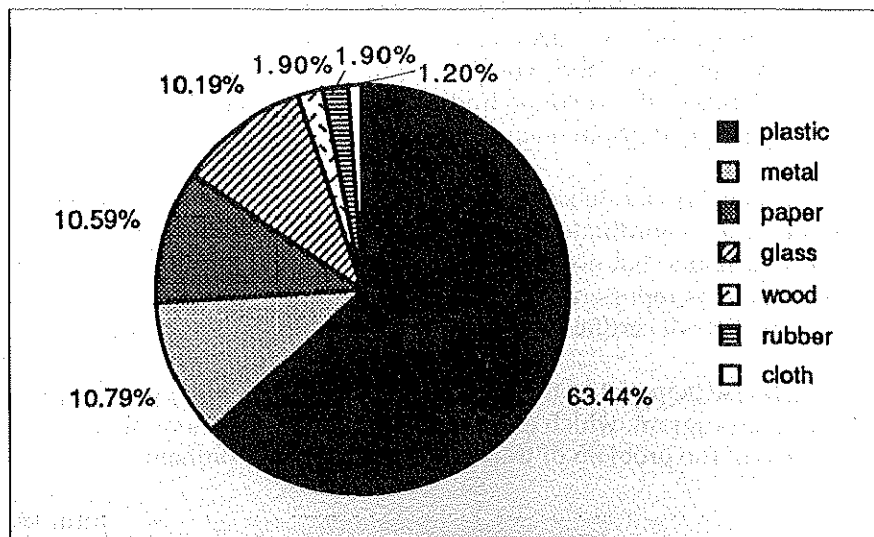
John Marshall

FALL, 1988 NATIONAL BEACH CLEANUP

ALABAMA

RAW DATA SUMMARY		ZONE 001	ZONE 002	ZONE 003	ZONE 004	ZONE 005	STATE TOTAL		
PLASTIC									
BAGS	TRASH	855	97	210	174	166	1502	BAGS	TRASH
	SALT	23	3	29	30	11	96		SALT
	OTHER	556	104	236	211	121	1228		OTHER
BOTTLES	SODA	783	343	129	101	269	1625	BOTTLES	SODA
	BLEACH	219	108	33	34	25	419		BLEACH
	OIL	133	63	26	3	15	240		OIL
	OTHER	193	129	81	65	52	520		OTHER
BUCKETS		40	24	14	5	8	91	BUCKETS	
CAPS/LIDS		763	187	349	374	322	1995	CAPS/LIDS	
CUPS/SPOONS		416	104	234	221	203	1178	CUPS/SPOONS	
DIAPERS		46	5	6	5	7	69	DIAPERS	
LIGHTERS		82	24	33	42	45	226	LIGHTERS	
FISH LINE		86	11	31	35	36	199	FISH LINE	
NET	LONG	18	5	7	5	17	52	NET	LONG
	SHORT	28	1	20	5	29	83		SHORT
FLOATS/LURES		48	11	14	12	24	109	FLOATS/LURES	
HARD HATS		11	8	1	14	1	35	HARD HATS	
LIGHT STICKS		90	31	52	37	18	228	LIGHT STICKS	
MILK JUGS		243	75	57	28	49	452	MILK JUGS	
PIECES		860	282	126	395	129	1792	PIECES	
PIPE THREAD		15	9	11	5	0	40	PIPE THREAD	
ROPE	LONG	143	49	41	28	29	290	ROPE	LONG
	SHORT	215	54	44	55	36	404		SHORT
SHEETING	LONG	12	7	16	4	4	43	SHEETING	LONG
	SHORT	45	22	47	3	0	117		SHORT
SIX-PACK		173	68	36	57	80	414	SIX-PACK	
STRAP BANDS		59	22	21	20	11	133	STRAP BANDS	
SYRINGES		15	0	3	4	1	23	SYRINGES	
TAMPON APP.		23	7	29	17	7	83	TAMPON APP.	
TOYS		37	14	26	21	17	115	TOYS	
VEGGIE		13	2	21	4	2	42	VEGGIE	
WRITE PROTECTOR		11	0	11	6	1	29	WRITE PROTECTOR	
OTHER		179	101	35	49	39	403	OTHER	
GLASS									
BOTTLES:	BEVERAGE	798	235	253	195	165	1646	BOTTLES:	BEVERAGE
	FOOD	35	17	18	7	0	77		FOOD
	MISC	37	5	19	4	2	67		MISC
FLUORO TUBES		26	16	23	9	5	79	FLUORO TUBES	
LIGHT BULBS		79	101	29	26	15	250	LIGHT BULBS	
PIECES		441	1	21	577	2	1042	PIECES	
OTHER GLASS		76	0	9	25	0	110	OTHER GLASS	
STYROFOAM									
BUOYS		45	21	15	4	7	92	BUOYS	
CUPS		948	280	280	382	186	2076	CUPS	
EGG CARTONS		121	55	47	27	21	271	EGG CARTONS	
FAST FOOD		109	56	62	67	15	309	FAST FOOD	
MEAT TRAYS		160	60	50	35	24	329	MEAT TRAYS	
STYRO:	LARGE	307	329	136	90	64	926	STYRO:	LARGE
	SMALL	601	389	278	360	177	1805		SMALL
OTHER		98	41	84	30	2	255	OTHER	

PERCENT COMPOSITION OF ALABAMA'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		ALABAMA					
RAW DATA SUMMARY		ZONE 001	ZONE 002	ZONE 003	ZONE 004	ZONE 005	STATE TOTAL
RUBBER							
BALLONS		43	17	29	29	7	125
GLOVES		87	11	10	6	7	121
TIRES		28	6	10	12	4	60
OTHER RUBBER		113	51	31	94	14	303
METAL							
BOTTLE CAPS		208	8	153	217	175	761
CANS: AEROSOL BEVERAGE		75	98	41	22	40	276
FOOD CANS		511	143	274	280	148	1356
CRAB/FISH DRUMS: RUSTY NEW		50	17	8	13	2	90
PIECES		65	27	12	13	4	121
PULL TABS		3	0	0	1	0	4
WIRE		6	3	8	4	2	23
OTHER		3	0	0	1	0	4
PAPER BAGS		92	15	32	80	1	220
CARDBOARD		84	0	42	191	33	350
CARTONS		35	3	6	76	6	126
CUPS		66	17	10	34	7	134
NEWSPAPER							
PIECES							
OTHER							
PAPER							
PAPER BAGS		145	9	57	193	65	469
CARDBOARD		63	18	79	38	50	248
CARTONS		58	15	48	35	80	236
CUPS		173	12	72	47	40	344
NEWSPAPER		37	1	12	85	5	140
PIECES		391	59	188	313	132	1083
OTHER		130	2	37	531	169	869
WOOD							
CRAB/LOBSTER		4	0	1	1	1	7
CRATES		7	3	0	1	0	11
PALLETS		8	4	0	6	0	18
PIECES		214	34	75	112	60	495
OTHER		14	8	1	37	7	67
CLOTH							
		207	18	27	55	61	368
TOTAL ITEMS/ZONE		13234	4175	4616	6434	3579	32038
TOTAL ITEMS/ZONE							

ALABAMA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. foamed plastic cups	2,076	6.48
2. plastic caps and lids	1,995	6.23
3. small pieces of foamed plastic	1,805	5.63
4. plastic pieces	1,792	5.59
5. glass beverage bottles	1,646	5.14
6. plastic beverage, soda bottles	1,625	5.07
7. plastic trash bags	1,502	4.69
8. metal beverage cans	1,356	4.23
9. miscellaneous (other) plastic bags	1,228	3.83
10. plastic cups, spoons, forks, straws	1,178	3.68
11. paper pieces	1,083	3.38
12. glass pieces	1,042	3.25
Total	18,328	57.21

SOURCES OF ALABAMA'S BEACH DEBRIS:¹

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	19.20
Galley Wastes	9.41
Fishing/Boating Gear	6.01
Operational Wastes	1.99
Sewage Wastes	0.26
Medical Wastes	0.07

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Dauphin Island	66.66	foamed plastic cups
2. Fort Morgan Peninsula	76.67	small foamed plastic piecea
3. Gulf Shores Public Beach	64.58	plastic caps and lids
4. Gulf State Park	47.62	glass pieces
5. Orange Beach	63.43	plastic caps and lids

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
1 baby dolphin entangled in net	2 birds 3 sea turtles (1 Kemp's ridley recovered by stranding network)

MOST PECULIAR DEBRIS ITEMS REPORTED:

animal skull, broken watch, cocaine vials, dead dog, 14-pound plastic weight, glass bottle with a note inside, half buried power cable, half of a catamaran hull, insulin syringe, lumber, men's underwear, muffler, "nice" ice scraper, plastic oil can from China, refrigerator, roofing shingle, shovel, sink, stick of dynamite, television, toothbrush, turtle rib, Vietnamese clothes pin, women's apparel.

FOR INFORMATION ON ALABAMA'S 1989 BEACH CLEANUP CONTACT:

John Marshall
Alabama Department of Environmental Management
2204 Perimeter Road
Mobile, AL 36615
(205) 479-2336

1989 CLEANUP DATE: Saturday, September 23, 1989

- The indicator items used for data collected in all states except Alaska and the Virgin Islands included: (Bottles and Associated Goods—plastic soda bottles, plastic six-pack rings, glass bottles, metal beverage cans, metal bottle caps, metal pull tabs); (Galley Wastes—plastic trash bags, plastic milk and water gallon jugs, plastic bleach, cleaner bottles, plastic vegetable sacks, foamed egg cartons, foamed meat trays); (Fishing and Boating Gear—plastic fishing nets, plastic oil and lubricant bottles, plastic light sticks, plastic rope, plastic floats and lures, plastic fishing line, plastic salt bags, foamed plastic buoys, rubber gloves, metal traps, wooden fish and crab traps); (Operational Wastes: plastic strapping bands, plastic sheeting, plastic hardhats, plastic write enable protection rings, wood crates, wood pallets, plastic pipe thread protectors, glass light bulbs, glass fluorescent light tubes); (Sewage Wastes: plastic tampon applicators); (Medical Waste: plastic syringes).

ALASKA

June 25-26 and August 14, 1988
 130 Volunteers
 10+ Miles Cleaned
 10,300 + Pounds of Debris Collected
 17,853 Debris Items Reported

Coordinated By: Nancy Holguin
 Coastal Management Program
 Division of Governmental Coordination
 Committee
 P.O. Box AW
 Juneau, AK 99811
 (907) 465-3562

Tonia Henderson
 USDA Forest Service
 Ketchikan Rangers Station
 3031 Tongass Avenue
 Ketchikan, AK 99901
 (907) 225-2148

Marine debris has become an increasingly serious problem in Alaska in recent years, despite our seemingly remote location. Marine mammals such as fur seals, sea lions, and large whales have been caught in drifting fishing gear and other debris. Each year, numerous waterfowl and fish are killed by ingestion or are trapped in marine debris and die. The problem is particularly important in Alaska because so many residents depend on the sea and its resources for their livelihood: including commercial fishermen, the tourism industry, and individuals who depend on fish and other sea life for food.

The Southeast Alaska Marine Litter Task Force was formed in early 1988 from a group of concerned Alaska residents and local, state, and federal government agencies. The committee was formed to develop an educational program and activities to increase public understanding of the marine litter problem. Beach cleanups were seen as one of the best ways to focus public attention on the problem and possible solutions.

Beach cleanups were held for the first time in 1988 in the communities of Juneau, Ketchikan and Petersburg. The second annual cleanup of Admiralty Island National Monument was also held this year. Several thousand pounds of trash were collected and properly disposed of through the assistance of local sanitation companies. Unusual items collected included a Chinese laundry basket, ping-pong balls on Admiralty Island, a political campaign sign, and two bottles with messages inside.

Local organizers got the word out about the cleanups through newspaper articles, radio shows, banners, and information booths at community events (the Juneau Boat Show, Petersburg Salmon Derby, and Ketchikan Blueberry Festival). Trash bags were donated by local merchants, and were distributed along with data cards at a variety of locations (libraries, Harbormaster's office, convention center, and small boat harbors). Each of the cleanups concluded with a celebration picnic at a local beach.

Residents of Seward, Homer, and Kodiak in Southcentral Alaska have contacted the committee for information on organizing beach cleanups in their communities. The committee plans to assemble a beach cleanup information packet and sponsor a statewide cleanup in May 1989.

Nancy Holguin

SPRING, 1988 NATIONAL BEACH CLEANUP

ALASKA

RAW DATA SUMMARY

JUNEAU

KETCHIKAN

STATE TOTAL

PLASTIC				PLASTIC			
BAGS		569	949	1518	BAGS		
BOTTLES	GREEN	112	159	271	BOTTLES	GREEN	
	SODA	34	68	102		SODA	
	OTHER	392	219	611		OTHER	
CAPS/LIDS		476	373	849	CAPS/LIDS		
CUPS, STRAWS		157	139	296	CUPS, STRAWS		
DIAPERS		7	4	11	DIAPERS		
LIGHTERS		21	31	52	LIGHTERS		
FISH LINE		540	80	620	FISH LINE		
FISHING NET		14	67	81	FISHING NET		
FLOATS/LURES		37	94	131	FLOATS/LURES		
HARDHATS		5	31	36	HARDHATS		
LIGHT STICKS		8	11	19	LIGHT STICKS		
MILK JUGS		92	109	201	MILK JUGS		
ROPE		250	349	599	ROPE		
SHEETING		441	60	501	SHEETING		
SIX-PACK		45	176	221	SIX-PACK		
STRAP BANDS		76	72	148	STRAP BANDS		
TAMPON APP.		19	28	47	TAMPON APP.		
TOYS		36	197	233	TOYS		
VEGGIE		26	42	68	VEGGIE		
WRITE PROTECTOR		1	99	100	WRITE PROTECTOR		
OTHER		288	264	552	OTHER		
GLASS				GLASS			
BOTTLES		533	219	752	BOTTLES		
FLOURO TUBES		5	0	5	FLOURO TUBES		
LIGHT BULBS		42	3	45	LIGHT BULBS		
PIECES		539	1442	1981	PIECES		
OTHER		23	13	36	OTHER		
STYROFOAM				STYROFOAM			
BUOYS		99	102	201	BUOYS		
CUPS		152	156	308	CUPS		
EGG CARTONS		60	37	97	EGG CARTONS		
FAST FOOD		86	108	194	FAST FOOD		
MEAT TRAYS		123	115	238	MEAT TRAYS		
PIECES		477	668	1145	PIECES		
OTHER		574	54	628	OTHER		
RUBBER				RUBBER			
BALLOONS		7	16	23	BALLOONS		
GLOVES		22	37	59	GLOVES		
TIRES		30	18	48	TIRES		
OTHER		137	49	186	OTHER		

SPRING, 1988 NATIONAL BEACH CLEANUP

ALASKA

RAW DATA SUMMARY

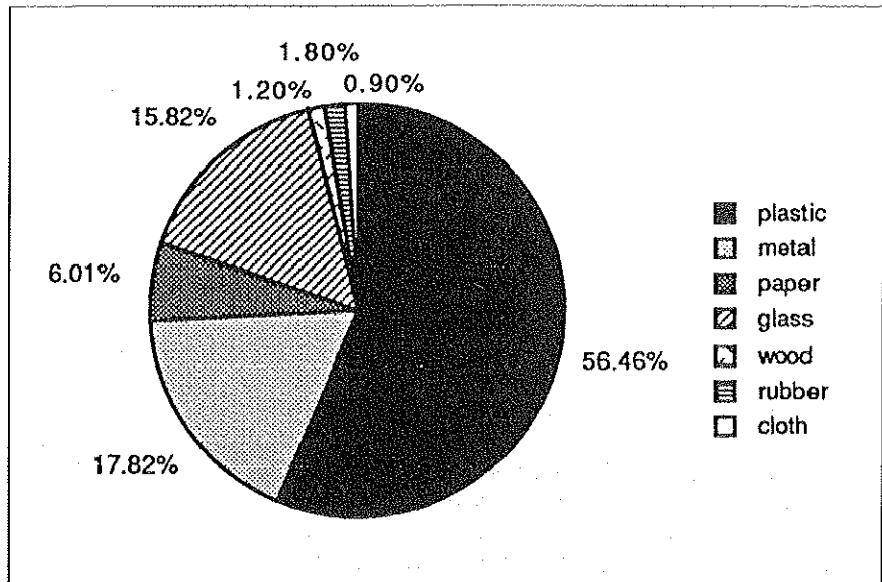
JUNEAU

KETCHIKAN

STATE TOTAL

METAL				METAL			
BOTTLE CAPS	127	364	491	BOTTLE CAPS			
CANS	694	576	1270	CANS			
CONTAINERS	69	53	122	CONTAINERS			
CRAB/FISH TRAPS	12	0	12	CRAB/FISH TRAPS			
DRUMS NEW	5	7	12	DRUMS NEWS			
DRUMS RUSTY	24	5	29	DRUMS RUSTY			
PIECES	62	291	353	PIECES			
PULL TABS	60	118	178	PULL TABS			
WIRE	87	242	329	WIRE			
OTHER	286	102	388	OTHER			
PAPER				PAPER			
BAGS	71	64	135	BAGS			
CARDBOARD	55	81	136	CARDBOARD			
CARTONS	51	49	100	CARTONS			
CUPS	35	36	71	CUPS			
NEWSPAPER	6	43	49	NEWSPAPER			
PIECES	165	221	386	PIECES			
OTHER	131	70	201	OTHER			
WOOD				WOOD			
CRAB/LOBSTER	0	0	0	CRAB/LOBSTER			
CRATES	82	13	95	CRATES			
PALLETS	1	8	9	PALLETS			
PIECES	66	27	93	PIECES			
OTHER	12	7	19	OTHER			
CLOTH				CLOTH			
CLOTHING/PIECES	79	83	162	CLOTHING/PIECES			
-----				-----			
TOTAL ITEMS/ZONE	8735	9118	17853	TOTAL ITEMS/ZONE			

PERCENT COMPOSITION OF ALASKA'S BEACH DEBRIS:



ALASKA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. glass pieces	1,981	11.10
2. plastic bags	1,518	8.50
3. metal cans	1,270	7.11
4. foamed plastic pieces	1,145	6.41
5. plastic caps, lids	849	4.76
6. glass bottles	752	4.21
7. plastic fishing line	620	3.47
8. miscellaneous plastic bottles	611	3.42
9. plastic rope	599	3.36
10. plastic sheeting	501	2.81
11. metal bottle caps	491	2.75
12. paper pieces	386	2.16
Total	10,723	60.06

SOURCES OF ALASKA'S BEACH DEBRIS:²

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	16.88
Galley Wastes	3.38
Fishing/Boating Gear	9.65
Operational Wastes	5.26
Sewage Wastes	0.26
Medical Wastes	not recorded

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Juneau	59.73	metal beverage cans
2. Ketchikan	53.31	glass pieces (fragments)

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
gull entangled in fishing line	1 deer 2 shore birds entangled in fishing line

2. Note: Alaska and the Virgin Islands used an earlier version of the national data card. The indicator items used for data collected in Alaska and the Virgin Islands included: (Bottles and Associated Goods—plastic soda bottles, plastic six-pack rings, glass bottles, metal beverage cans, metal bottle caps, metal pull tabs); (Galley Wastes—plastic milk jugs, plastic vegetable sacks, styrofoam egg cartons, styrofoam meat trays); (Fishing and Boating Gear—plastic fishing nets, plastic light sticks, plastic rope, plastic floats and lures, plastic fishing line, styrofoam buoys, rubber gloves, metal traps, wood traps); (Operational Wastes: plastic strapping bands, plastic sheeting, plastic hardhats, plastic write enable protection rings, wood crates, wood pallets, glass light bulbs, glass fluorescent light tubes); (Sewage Wastes: plastic tampon applicators).

MOST PECULIAR DEBRIS ITEMS REPORTED:

automobile manifold, ax head next to underwear, banana toothpaste, bottle with note from passenger on the *Noordam*, half human body with personal belongings, kitchen sink, mattress, old logging tools, ping pong ball, rain gutter, shotgun shells, windup elephant, wine bottle with message offering free drinks in Petersburg.

FOR INFORMATION ON ALASKA'S 1989 BEACH CLEANUP CONTACT:

Joaqlin Estus
Coastal Management Program Division of Governmental Coordination
P.O. Box AW
Juneau, AK 99811
(907) 465-3562

Doug Schneider
Alaska Sea Grant
University of Alaska, Fairbanks
Fairbanks, AK 997755040
(907) 4747086

1989 CLEANUP DATES: Spring and Summer



People of all ages worked together to clean up the California coast.



CALIFORNIA

October 1, 1988
 5,700 Volunteers
 1,100 Miles Cleaned
 200,000 Pounds of Debris Collected
 61,007 Debris Items Reported

Coordinated By: Jack Liebster
 California Coastal Commission
 631 Howard Street
 San Francisco, CA 94105
 (415) 543-8555

Californians love their coast. In 1988 more than 5,700 proved it by combing 1,100 miles of their coast to be part of the statewide beach cleanup that collected over 190,000 pounds of unsightly and sometimes dangerous debris.

In the statewide project coordinated by the California Coastal Commission, volunteers made up of citizens groups and businesses rid the beach of trash, recycling much of it, and sorting and gathering information about it along the way. This information, needed for the National Marine Debris Data Base, helps environmental agencies assess the impact of debris polluting the coastline.

In three years California's Adopt-A-Beach Coastal Cleanup Day and COASTWEEKS have gone from a few volunteers and a handful of activities to thousands of participants, scores of events, and a growing list of supporting agencies and groups.

In 1989 the Commission is expanding the Adopt-A-Beach Cleanup to a year-round program, involving not only cleanups but a broad public awareness and outreach program. An Adopt-A-Beach school curriculum, focusing on the impact of debris and pollution on the marine environment, the need for recycling, and the importance of taking personal responsibility for the stewardship of our natural resources has already been developed in conjunction with the Oceanic Society. Similar materials are being prepared for youth and civic groups. The next statewide cleanup on September 23, 1989 will kick-off the expanded program.

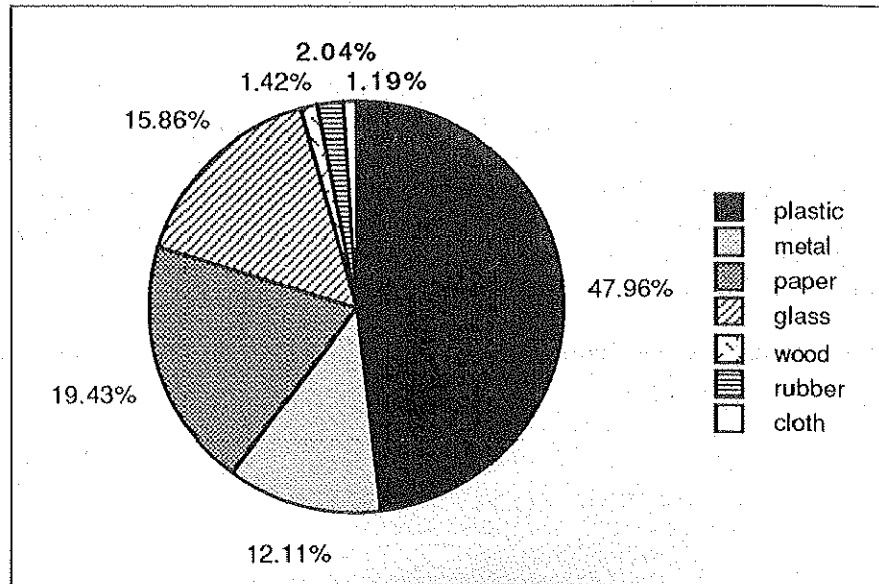
As the following data reflects, California beaches suffer from a plague of trash. The objective of California's project is two-fold. The first, obviously, is to get the beaches and coastline clean. The hundreds of thousands of pounds of trash volunteers have removed over the past years has made a real dent—especially in targeted areas where regular maintenance programs can't reach. But environment-conscious Californians feel the even more important objective is raising public awareness, educating the people who come to the coast (approximately 140 million per year), and changing the behaviors of those who litter.

The National Marine Debris Data Base is a powerful tool in that educational process.

Kathy Kastler, Public Information
 California Coastal Commission

RAW DATA SUMMARY	Mendocino		Marin	Solano	San Mateo	San Luis O	Ventura	Orange											
	Humboldt	Souoma	San Francisco	Alameda	Santa Cruz	Santa Barbara	Los Angeles	San Diego											
PLASTIC																			
BAGS	TRASH	8	25	196	0	79	30	282	325	22	56	74	265	85	109	19	1555	BAGS	TRASH
	SALT	0	0	0	0	1	0	0	0	0	0	0	3	34	23	0	61	SALT	
	OTHER	15	18	188	18	23	200	146	2	10	36	44	224	115	29	5	1073	OTHER	
BOTTLES	SODA	5	55	118	2	10	29	54	25	130	39	274	247	113	101	9	1231	BOTTLES	SODA
	BLEACH	5	2	22	2	0	2	8	13	0	12	5	20	12	5	0	108	BLEACH	
	OIL	8	14	17	0	0	10	8	3	0	11	18	39	9	14	0	151	OIL	
	OTHER	0	35	27	0	22	0	71	0	4	8	11	98	11	32	1	320	OTHER	
BUCKETS		0	1	11	0	0	0	4	5	1	4	2	13	7	0	0	48	BUCKETS	
CAPS/LIDS		10	70	460	28	55	421	199	54	123	92	412	742	242	142	78	3188	CAPS/LIDS	
CUPS/SPOONS		20	20	167	12	54	157	128	94	150	116	187	607	625	160	135	2632	CUPS/SPOONS	
DIAPERS		2	2	18	0	0	5	13	3	8	3	25	89	3	0	3	174	DIAPERS	
LIGHTERS		1	1	25	2	0	4	14	4	8	10	12	89	8	31	2	211	LIGHTERS	
FISH LINE		22	12	62	1	4	11	0	9	1	12	85	62	60	8	0	379	FISH LINE	
NET	LONG	0	9	3	0	0	0	0	0	0	10	8	5	1	2	0	38	NET	LONG
	SHORT	0	2	20	1	0	0	0	2	0	5	20	27	0	2	0	79	NET	SHORT
FLOATS/LURES		0	5	5	0	0	0	0	2	5	4	5	2	6	0	0	34	FLOATS/LURES	
HARD HATS		0	0	0	0	0	2	0	0	0	0	0	5	0	0	0	7	HARD HATS	
LIGHT STICKS		0	0	3	0	0	1	0	1	0	0	0	26	3	1	0	35	LIGHT STICKS	
MILK JUGS		5	18	27	1	2	26	7	4	29	20	50	73	15	28	2	307	MILK JUGS	
PIECES		10	28	741	5	95	0	450	47	250	259	327	732	843	29	0	3436	PIECES	
PIPE THREAD		0	0	4	0	2	0	0	1	7	0	1	1	1	4	0	21	PIPE THREAD	
ROPE	LONG	2	9	13	0	2	1	1	14	2	15	8	55	7	14	8	151	ROPE	LONG
	SHORT	7	16	52	4	6	20	0	25	0	87	16	42	9	3	9	236	ROPE	SHORT
SHEETING	LONG	0	0	2	0	0	0	0	1	0	0	0	4	0	1	0	8	SHEETING	LONG
	SHORT	0	0	10	0	1	10	0	1	0	2	17	6	1	0	0	48	SHEETING	SHORT
SIX-PACK		2	26	79	4	13	7	12	20	56	36	75	444	80	108	9	977	SIX-PACK	
STRAP BANDS		0	1	2	0	0	1	39	1	7	0	40	57	6	3	5	158	STRAP BANDS	
SYRINGES		0	1	1	0	3	0	0	2	0	0	0	2	4	1	14	14	SYRINGES	
TAMPON APP.		0	3	23	2	7	3	1	4	15	2	7	13	1	6	1	86	TAMPON APP.	
TOYS		1	6	23	0	1	5	0	5	5	14	10	18	13	19	2	122	TOYS	
VEGETIC		12	2	10	0	0	200	21	2	0	32	12	8	3	5	0	307	VEGETIC	
WRITE PROTECTOR		0	1	29	0	0	0	0	0	0	4	1	3	1	0	0	39	WRITE PROTECTOR	
OTHER		3	0	40	17	4	160	3	0	183	30	2	182	89	1	4	658	OTHER	
GLASS																			
BOTTLES:	BEVERAGE	60	81	767	51	24	121	355	97	750	156	820	629	438	125	12	4486	BOTTLES:	BEVERAGE
	FOOD	4	16	155	0	0	100	41	11	14	7	0	4	0	8	1	361	BOTTLES:	FOOD
	MISC	0	0	106	0	2	0	105	0	0	0	0	0	52	0	1	266	BOTTLES:	MISC
FLUORO TUBES		0	0	0	0	0	0	0	0	0	0	0	6	0	2	0	8	FLUORO TUBES	
LIGHT BULBS		0	2	1	0	1	0	0	0	0	8	1	5	0	4	0	22	LIGHT BULBS	
PIECES		25	0	364	40	0	60	802	51	500	132	599	860	703	18	3	4357	PIECES	
OTHER GLASS		0	0	3	0	1	20	36	1	0	0	2	3	308	0	1	373	OTHER GLASS	
STYROFOAM																			
BOOBS		1	0	14	0	1	2	55	1	0	42	2	7	1	8	0	134	BOOBS	
CUPS		30	14	288	7	16	33	242	23	215	36	405	340	307	175	31	2082	CUPS	
EGG CARTONS		0	0	9	0	5	0	23	2	0	2	7	68	3	13	0	132	EGG CARTONS	
PAST FOOD		6	8	116	0	0	12	88	10	60	39	128	303	74	81	6	931	PAST FOOD	
MEAT TRAYS		6	36	539	20	0	53	62	22	3	13	117	57	18	5	1	952	MEAT TRAYS	
STYRO:	LARGE	0	21	212	0	12	15	346	26	40	63	126	330	133	24	13	1361	STYRO:	LARGE
	SMALL	10	135	1027	50	101	84	771	102	146	180	293	1034	1121	68	12	5139	STYRO:	SMALL
OTHER		0	0	26	0	1	10	75	50	0	0	0	3	13	0	2	180	OTHER	

PERCENT COMPOSITION OF CALIFORNIA'S BEACH DEBRIS:



CALIFORNIA		1988 NATIONAL BEACH CLEANUP															
		Mendocino		Marin		Solano		San Mateo		San Luis O		Ventura		Orange		STATE TOTAL	
RAW DATA SUMMARY		Humboldt		Sonoma		San Francisco		Alameda		Santa Cruz		Santa Barbara		Los Angeles		San Diego	
RUBBER																	
BALLONS		1	1	71	8	11	50	1	17	5	6	17	444	26	9	15	682
GLOVES		2	1	49	1	2	0	0	4	0	2	2	23	21	0	0	107
TIRES		0	5	11	1	0	14	1	4	0	8	2	4	6	1	0	57
OTHER RUBBER		1	2	28	0	2	47	1	0	10	7	1	232	43	19	3	396
METAL																	
BOYBLE CAPS		20	34	470	4	91	125	1	72	575	23	296	666	193	125	21	2716
CANS: AEROSOL		1	7	6	0	0	11	16	2	9	6	13	51	8	49	0	179
BRVBRAGE		33	9	542	7	15	23	138	78	150	117	285	547	190	78	41	2253
FOOD		3	3	153	0	1	4	36	2	45	2	143	143	5	17	2	559
CANS		0	0	14	0	4	2	9	52	0	8	9	8	2	5	11	124
CRAB/FISH		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	9
BRUNS: RUSTY		0	0	1	0	0	1	3	1	0	1	3	0	5	0	0	15
NEW		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIECES		0	0	96	2	2	0	9	6	9	7	12	31	68	0	1	234
PULL TABS		0	2	93	2	12	100	45	12	70	20	50	146	16	29	4	601
WIRE		0	0	133	0	0	0	5	9	35	2	49	117	16	17	1	384
OTHER		31	25	62	0	4	30	0	1	21	1	3	54	72	8	3	315
PAPER																	
PAPER BAGS		8	17	104	0	4	16	360	43	100	37	117	340	383	107	12	1648
CARDBOARD		3	4	189	0	5	7	134	4	10	12	128	289	41	20	0	846
CARTONS		2	0	103	6	13	0	81	2	25	11	93	187	74	13	8	618
CUPS		0	13	42	5	15	1	111	3	20	25	91	302	45	75	2	750
NEWSPAPER		40	0	123	0	3	15	486	10	30	8	76	197	22	56	2	1068
PIECES		0	0	838	0	100	10	1267	53	500	26	213	946	823	53	25	4854
OTHER		0	0	160	1	41	0	506	101	150	200	123	152	617	10	6	2067
WOOD																	
CRAB/LOBSTER		0	0	0	0	0	0	0	0	0	2	18	0	1	0	0	21
CRATES		0	0	3	0	1	0	0	0	1	0	9	2	1	0	0	17
PALLETS		0	0	1	0	2	0	0	0	0	0	146	2	3	0	0	154
PIECES		0	2	48	0	14	19	8	41	10	23	12	330	42	34	8	591
OTHER		0	0	5	0	6	30	5	1	0	1	1	24	8	0	0	81
CLOTH																	
		7	8	156	2	14	24	24	14	40	11	74	166	129	42	14	725
TOTAL ITEMS/ZONE		482	828	9447	306	910	2314	7695	1597	4563	2169	6061	13423	8464	2190	558	61007

CALIFORNIA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. small foamed plastic pieces	5,139	8.42
2. paper pieces	4,854	7.96
3. glass beverage bottles	4,486	7.35
4. glass pieces	4,157	6.81
5. plastic pieces	3,836	6.29
6. plastic caps and lids	3,188	5.23
7. metal bottle caps	2,716	4.45
8. plastic cups, spoons, forks, straws	2,632	4.31
9. metal beverage cans	2,253	3.69
10. foamed plastic cups	2,082	3.41
11. paper bags	1,648	2.70
12. plastic trash bags	1,555	2.55
Total	38,546	63.18

MAJOR TYPES AND SOURCES OF CALIFORNIA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	20.10
Galley Wastes	5.51
Fishing/Boating Gear	2.45
Operational Wastes	0.71
Sewage Wastes	0.14
Medical Wastes	0.02

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Humboldt County	50.00	glass beverage bottles
2. Mendocino County	71.98	small foamed plastic pieces
3. Sonoma County	48.15	small foamed plastic pieces
4. Marin County	57.52	glass beverage bottles
5. San Francisco County	57.14	small foamed plastic pieces
6. Solano County	64.13	plastic caps and lids
7. Alameda County	40.40	paper pieces (fragments)
8. San Mateo County	56.67	plastic trash bags
9. Santa Cruz County	32.45	glass beverage bottles
10. San Luis Obispo County	59.98	plastic pieces (fragments)
11. Santa Barbara County	46.46	glass beverage bottles
12. Ventura County	47.26	small foamed plastic pieces
13. Los Angeles County	48.63	small foamed plastic pieces
14. Orange County	57.58	foamed plastic cups
15. San Diego County	64.70	plastic cups, spoons, forks, straws

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
gull with plastic in mouth	22 birds
gull entangled in fishing line	3 seals
	1 deer

MOST PECULIAR DEBRIS ITEMS REPORTED:

animal guts in plastic bag, barbeque tongs, bloody girdle, car stereo speaker, clay pigeons, condom, gourmet yogurt containers, hand cart for train, ironing board, large black pair women's underwear, nylon rain zipper from tent, Old Belfast rootbeer can, one dollar bill, pair men's briefs, pharmaceutical vial, plastic neon indian toy, photo, press-on-nail, razor blade, tank treads, train tracks.

FOR INFORMATION ON CALIFORNIA'S 1989 BEACH CLEANUP CONTACT:

Jack Liebster
 California Coastal Commission
 631 Howard Street
 San Francisco, CA 94105
 1-800-COAST4U or (415) 543-8555

For information on data collection:
 Jill Kauffman
 Center for Marine Conservation
 312 Sutter Street, Suite 606
 San Francisco, CA 94108
 (415) 391-6204

1989 CLEANUP DATE: Saturday, September 23

CONNECTICUT

September 24, 1988
14 Volunteers
2 Miles Cleaned
190 Pounds of Debris Collected
1,338 Debris Items Reported

Coordinated by: Peg Van Patten
Connecticut Sea Grant Program
University of Connecticut
Marine Science Institute, Avery Point
Groton, CT 06340
(203) 445-3459

Volunteers gathered at Bull Point Coastal Preserve in Groton, and at Seaside Park in Bridgeport to clean up two Connecticut beaches, keeping track of the material they collected on data cards. New London Federal Savings Bank provided the cleanup crews with biodegradable trash bags.

Fourteen volunteers from all walks of life, some from as far away as Hartford, pitched in at Bluff Point on September 24. The Department of Environmental Protection hauled away the day's "catch" which included items from France and Japan, one item identified as medical waste, and quite a bit of fishing line.

Phase two of the Connecticut Beach Cleanup took place at Seaside Park, on October 9 and 10, conducted by the Bridgeport 4-H Club under the guidance of Mary Bruce. Volunteers learned that the ubiquitous plastic 6-pack rings that hold together soda and beer cans can last 400 years in the environment! And they can harm marine life when animals become trapped in the holes. Fortunately, Connecticut, Rhode Island, and several other states have enacted legislation to allow only photodegradable rings (those that break down in sunlight.)

Information on plastic and other debris, the special data cards produced and distributed by the Center for Marine Conservation, and tips on conducting beach cleanups are available to interested groups from Connecticut Sea Grant.

Peg Van Patten

FALL, 1988 NATIONAL BEACH CLEANUP CONNECTICUT

RAW DATA SUMMARY

BLUFF POINT

PLASTIC

BAGS	TRASH	43
	SALT	0
	OTHER	134
BOTTLES	SODA	20
	BLEACH	1
	OIL	3
	OTHER	4
BUCKETS		1
CAPS/LIDS		63
CUPS/SPOONS		65
DIAPERS		4
LIGHTERS		3
FISH LINE		12
NET	LONG	0
	SHORT	0
FLOATS/LURES		1
HARD HATS		0
LIGHT STICKS		0
MILK JUGS		4
PIECES		231
PIPE THREAD		0
ROPE	LONG	0
	SHORT	15
SHEETING	LONG	0
	SHORT	0
SIX-PACK		15
STRAP BANDS		2
SYRINGES		0
TAMPON APP.		6
TOYS		4
VEGGIE		4
WRITE PROTECTOR		0
OTHER		59

GLASS

BOTTLES:	BEVERAGE	17
	FOOD	2
	MISC.	0
FLUORO TUBE		0
LIGHT BULBS		0
PIECES		122
OTHER		0

STYROFOAM

BUOYS		8
CUPS		47
EGG CARTONS		0
FAST FOOD		5
MEAT TRAYS		2
STYRO:	LARGE	14
	SMALL	108
OTHER		5

RUBBER

BALLOONS		21
GLOVES		0
TIRES		1
OTHER		14

METAL

BOTTLE CAPS		16
CANS:	AEROSOL	1
	BEVERAGE	43
	FOOD	0
	OTHER	1
CRAB/FISH		0
DRUMS:	RUSTY	1
	NEW	0
PIECES		14
PULL TABS		7
WIRE		1
OTHER		21

PAPER

BAGS		9
CARDBOARD		6
CARTONS		13
CUPS		7
NEWSPAPER		0
PIECES		47
OTHER		21

WOOD

CRAB/LOBSTER		0
CRATES		0
PALLETS		2
PIECES		36
OTHER		9

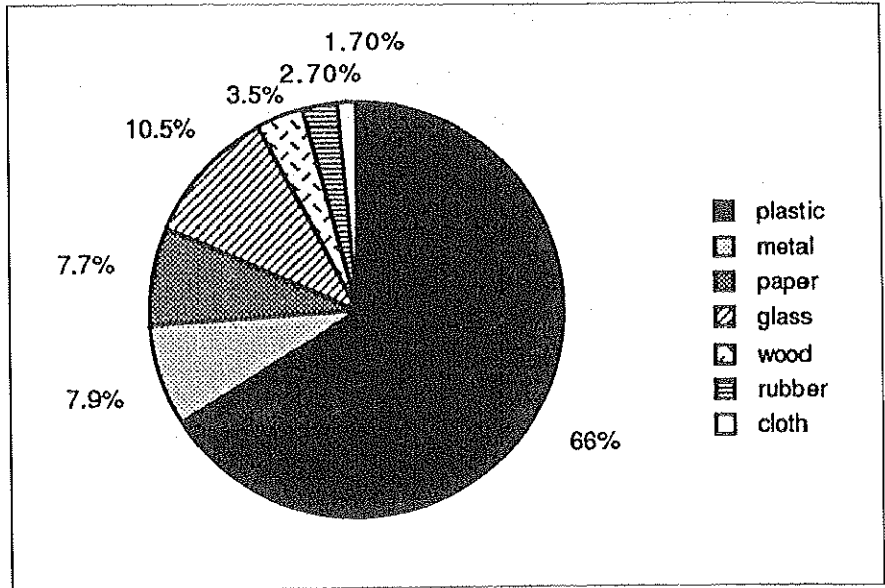
CLOTH

CLOTHING/PIECES		23
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TOTAL ITEMS/ZONE

1338

PERCENT COMPOSITION OF CONNECTICUT'S BEACH DEBRIS:



CONNECTICUT'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. plastic pieces	231	17.26
2. miscellaneous (other) plastic bags	134	10.02
3. glass pieces	122	9.12
4. small foamed plastic pieces	108	8.07
5. plastic cups, spoons, forks, straws	65	4.86
6. plastic caps and lids	63	4.71
7. foamed plastic cups	47	3.51
paper pieces	47	3.51
9. plastic trash bags	43	3.21
metal beverage cans	43	3.21
11. wood pieces	36	2.69
12. clothing/pieces of cloth	23	1.72
Total	962	71.90

MAJOR TYPES AND SOURCES OF CONNECTICUT'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	8.82
Galley Wastes	4.04
Fishing/Boating Gear	2.92
Operational Wastes	0.30
Sewage Wastes	0.45
Medical Wastes	0.00

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Data was collected only in Bridgeport in Connecticut.

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	none reported

MOST PECULIAR DEBRIS ITEMS REPORTED:

bladder bag, Christmas wreath, full whiskey bottle, hacky sack, Japanese pills (like Sudafed) in container, letter in bottle from France, shotgun shells.

FOR INFORMATION ON CONNECTICUT'S 1989 BEACH CLEANUP CONTACT:

**Peg Van Patten
Connecticut Sea Grant Program
University of Connecticut Marine Science Institute, Avery Point
Groton, CT 06340
(203) 445-3459**

1989 CLEANUP DATE: Saturday, September 23

"GET THE DRIFT AND BAG IT"



DELAWARE

September 24, 1988
650 Volunteers
54 Miles Cleaned
6,054 Pounds of Debris Collected
42,683 Debris Items Reported

Coordinated By:
Donna Stachecki Sharp
Delaware Department of Natural
Resources and Environmental
Control
89 Kings Highway
P.O. Box, 1401 Dover, DE 19901
(302) 736-4506

Delaware held its second annual coastal cleanup, "Get the Drift and Bag It," on Saturday, September 24, 1988 from 9 a.m. to noon. Although skies were gray and the weather was cold, approximately 650 volunteers cleaned 6,054 pounds of trash from beaches bordering the Atlantic Ocean and the Delaware River and Bay. The project is sponsored by the Delaware Department of Natural Resources and Environmental Control.

Delaware has 59 miles of beaches, ranging from popular Rehoboth Beach on the Atlantic to many rural, back-road beaches along the Delaware River. The cleanup attempts to clean all 59 miles of beach.

The 1988 volunteers, ranging from scout troops to senior citizen organizations and from families to individuals, collected 722 bags of trash averaging seven pounds each. The trash included paper, cans, bottles, foam products, beverage can rings, plastic bags and sheeting, balloons, plywood, and cigarette butts. Approximately 1,000 pounds of heavy debris, such as tires, was removed. Unusual debris found were an electric heater, a toilet seat, a 55-gallon badly eroded drum, and 24 light bulbs believed to come from ships because they were an odd shape and wattage (14 watts). Volunteers were encouraged to wear gloves.

This year volunteers found numerous pieces of foreign trash, such as a Brazilian plastic bag and a Danish milk carton found on the bayside of Cape Henlopen State Park; an Arabic cigarette package found at Lewes Beach; a Singapore toilet cleaner bottle found at Bennets Pier Beach; Mexican beer bottles found everywhere; and a metal aerosol can from the Netherlands, found at Delaware Seashore State Park.

The Mobil Oil Company supplied 2,000 Hefty trash bags. The Chemical Manufacturing Association of Delaware made a donation toward sodas for the volunteers. Waste Management of North America Inc. donated manpower and a trash truck for collecting full trash bags from the Delaware River and Bay beaches.

Delawareans are proud of their state's pristine beaches and want to see them remain the natural attraction that they are. Our 1989 cleanup is scheduled for Saturday, September 30.

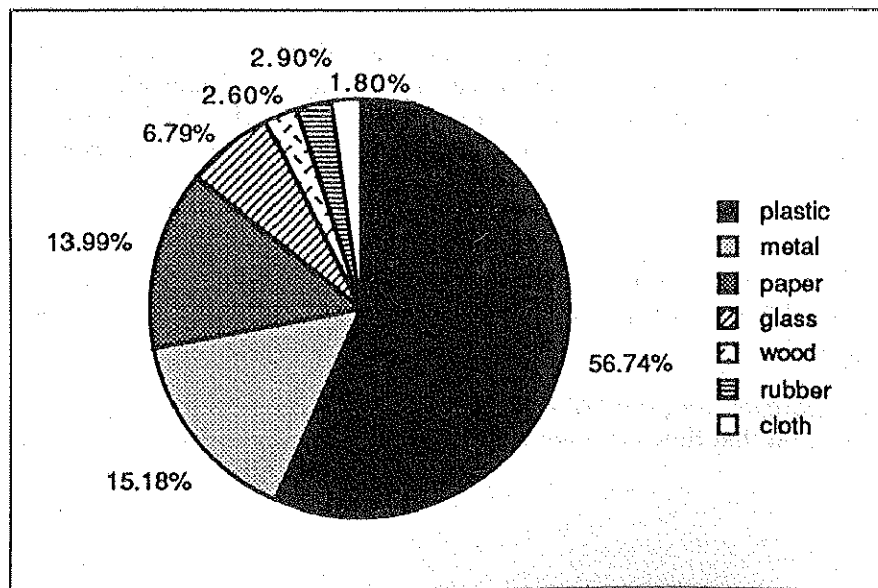
Donna Stachecki Sharp

PAUL, 1988 NATIONAL BEACH CLEANUP

DELAWARE

RAW DATA SUMMARY	Woodland		Kitts H		S Bowers		Big Stone		Fowlers		Broadkill		Cape Hen (bayside)		Rehoboth		Del Seashore		Fenwick Isl		STATE TOTAL		
	Augustine	Pickering	N Bowers	Bennetts Pier	Slaughter	Primehook	Lewes	Cape Hen (ocean)	Dewey	S Bethany	Plum	TOTAL											
PLASTIC																							
BAGS	TRASH	2	10	9	70	29	141	60	4	66	2	40	247	97	38	256	49	145	102	302	0	1	1670
	SALF	0	1	0	2	4	4	33	0	0	0	10	9	0	1	3	9	1	1	0	0	0	78
	OTHER	136	3	14	14	54	51	119	37	103	0	6	282	177	56	196	65	56	181	940	0	141	2232
BOTTLES	SODA	37	25	19	44	30	59	94	39	109	16	6	344	116	57	116	49	52	48	280	2	63	1645
	BLRACH	5	5	5	11	2	12	14	9	18	2	1	66	24	18	38	7	0	11	111	0	1	360
	OIL	5	2	6	4	6	26	24	3	10	1	0	45	21	7	21	2	1	5	40	0	0	229
	OTHER	7	4	5	12	9	9	17	13	11	0	5	92	49	17	53	16	10	9	145	0	2	486
BUCKETS		3	5	0	0	0	4	9	0	6	1	1	38	13	21	24	4	1	1	9	2	1	143
CAPS/LIDS		66	19	21	13	34	27	43	39	122	3	19	274	117	164	217	58	213	96	380	0	28	1973
CUPS/SPOONS		80	31	19	29	29	47	27	28	113	2	20	276	230	347	340	184	362	176	954	0	75	3369
DEAPERS		0	3	0	0	9	9	1	1	5	0	0	9	19	14	2	1	59	1	10	0	1	144
LIGHTERS		2	3	4	0	2	5	12	8	6	0	2	43	27	8	14	0	10	54	55	0	0	255
FISH LINE		2	8	5	2	27	7	9	8	37	3	6	130	50	55	57	17	8	7	54	0	3	495
NET	LONG	3	0	4	12	0	10	8	2	7	0	2	17	12	6	14	0	4	2	4	0	1	108
	SHORT	2	1	0	3	0	3	6	5	8	0	4	49	15	5	6	0	4	0	13	0	0	124
FOAM/LUBES		3	2	1	8	3	6	7	9	15	2	7	137	26	21	18	4	8	2	42	0	4	325
HARD HATS		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3
LIGHT STICKS		0	0	0	0	0	1	1	0	22	0	0	14	3	1	8	3	10	4	10	0	1	78
MILK JUGS		20	3	3	6	6	10	54	0	9	12	0	137	81	42	55	17	16	8	148	0	1	628
PIECES		100	66	19	5	62	65	29	140	39	0	11	244	170	124	25	20	69	43	793	0	21	2045
PIPE THREAD		0	0	0	0	0	0	0	0	0	0	0	3	7	1	2	0	1	0	2	0	0	18
ROPE	LONG	9	2	1	2	10	2	19	2	22	0	4	16	40	33	35	3	7	3	63	2	3	274
	SHORT	4	1	2	5	5	7	18	13	30	2	21	99	45	52	56	14	21	9	164	1	4	573
SHREPIING	LONG	1	1	3	4	0	1	3	1	2	0	0	2	2	0	8	2	0	0	8	0	0	38
	SHORT	0	0	9	1	0	1	7	4	6	0	0	10	9	10	7	2	2	10	29	0	0	107
SEX-PAK		14	23	1	1	22	25	9	7	12	8	1	61	73	27	48	7	18	74	101	4	12	548
STRAP BANDS		6	12	1	4	4	3	10	3	29	3	1	40	21	13	17	13	36	11	54	0	4	285
SYRINGES		0	0	0	0	0	0	0	0	1	0	0	6	1	0	0	6	0	10	0	0	0	24
TAMPON APP.		6	2	5	1	2	2	1	3	8	2	1	16	7	33	21	11	7	9	140	0	3	280
TOYS		7	8	0	0	1	5	12	7	21	0	1	25	13	6	22	7	13	11	112	0	0	271
VEGIE		0	9	0	0	0	0	0	1	4	1	0	3	10	31	10	13	5	2	20	0	2	101
WRITE PROTECTOR		1	12	1	0	0	1	0	0	0	0	11	0	27	4	5	12	1	3	0	1	79	
OTHER		0	19	30	3	14	20	5	11	16	0	17	136	63	66	107	51	11	21	92	0	1	683
GLASS																							
BOTTLES- BEVERAGE		19	21	14	10	45	41	61	28	42	8	3	290	95	43	110	10	41	41	345	1	5	1274
FOOD		0	7	0	0	1	0	6	0	3	2	1	108	18	4	43	4	0	0	44	0	0	341
MISC		0	18	0	5	2	1	2	2	0	0	0	8	3	1	18	0	3	0	7	0	0	70
FLUORO TUBES		0	0	0	0	0	1	0	0	0	0	0	9	2	0	1	0	1	1	6	0	0	21
LIGHT BULBS		0	0	3	1	0	0	3	0	0	0	3	24	23	0	3	3	0	1	29	0	0	93
PIECES		80	111	11	7	80	66	14	46	22	0	12	72	33	47	149	5	21	13	324	0	5	1118
OTHER GLASS		0	19	15	1	1	2	0	2	0	0	0	13	0	2	13	6	1	0	0	0	0	75
STYROFOAM																							
BUOYS		9	0	11	4	0	0	12	1	0	0	1	44	0	0	8	0	7	0	6	0	0	103
CUPS		82	35	34	18	17	90	101	15	63	17	24	252	146	143	189	50	160	67	359	3	51	1916
EGG CARTONS		0	1	0	1	0	0	2	0	0	0	1	16	18	5	17	2	6	1	7	0	0	77
FAST FOOD		8	6	1	2	5	25	6	0	3	4	1	26	50	13	23	9	22	21	48	0	29	302
MEAT TRAYS		15	5	2	2	3	4	8	8	3	2	0	25	19	10	17	2	0	1	14	2	0	142
STYRO: LARGE		12	7	3	4	1	15	12	0	2	2	0	15	52	16	63	0	43	1	125	0	7	420
	SMALL	98	5	9	0	7	33	15	10	26	0	0	95	110	119	267	46	240	110	288	0	41	1519
OTHER		2	0	1	6	3	1	1	2	1	0	1	8	4	1	11	48	0	0	6	0	0	96

PERCENT COMPOSITION OF DELAWARE'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		DELAWARE														STATE								
		Woodland	Kitts H	S Bowers	Big Stone	Fowlers	Broadkill	Cape Hen(bayside)	Rehoboth	DelSeashore	Fenwick Isl			STATE										
RAW DATA SUMMARY		Augustine	Pickering	N Bowers	Bennetts Pier	Slaughter	Primehook	Lewes	Cape Hen(ocean)	Dewey	S Bethany	Plum	TOTAL											
RUBBER																								
BALLOONS		4	2	6	3	3	5	20	14	25	0	3	227	59	71	36	14	51	57	147	0	23	810	
GLOVES		0	3	1	2	0	4	4	0	1	0	0	8	13	4	0	5	0	3	1	0	0	49	
TIRES		5	1	2	0	2	14	7	0	5	0	0	13	15	0	58	0	0	1	7	0	0	130	
OTHER RUBBER		1	0	20	1	17	11	5	7	5	0	7	32	22	10	34	7	7	10	43	0	1	238	
METAL																								
BOTTLE CAPS		13	29	2	3	11	8	2	2	9	0	1	73	36	78	35	49	84	53	174	0	20	682	
CANS:																								
AEROSOL		1	2	2	5	4	30	69	10	2	3	1	86	23	21	20	9	7	1	61	0	0	357	
BEVERAGE		31	37	34	205	37	126	176	85	106	24	25	1167	545	123	214	74	76	74	546	0	46	3791	
FOOD		0	2	0	2	5	4	29	1	1	0	0	20	33	33	1	0	9	1	29	0	0	150	
CANS		30	10	1	5	2	15	7	14	10	0	3	57	10	4	55	7	2	6	28	0	0	270	
CRAB/PISH		0	0	4	0	1	0	6	1	0	0	4	26	5	1	4	0	0	1	21	0	0	74	
DRUMS:																								
RUSTY		0	0	1	0	1	0	1	0	2	0	0	1	4	0	0	0	0	0	2	0	0	13	
NEW		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PIECES		0	7	0	4	8	6	6	0	13	0	2	41	27	36	38	0	22	11	88	0	0	309	
PULL TABS		27	13	0	1	0	3	0	0	0	0	0	15	9	57	39	16	77	55	45	0	3	360	
WIRE		0	2	4	2	4	7	0	0	6	0	2	15	7	18	32	16	9	8	8	0	7	147	
OTHER		0	4	7	10	3	6	0	9	16	0	8	44	34	25	55	13	12	17	41	0	10	314	
PAPER																								
PAPER BAGS		2	5	2	2	33	35	81	3	4	0	4	94	41	65	23	19	84	100	89	6	1	691	
CARDBOARD		4	7	1	2	29	46	43	11	4	2	3	41	24	36	32	15	32	14	106	0	12	464	
CARTONS		5	8	0	1	22	41	14	6	8	1	2	57	47	31	35	7	41	22	112	0	8	472	
CUPS		13	29	5	6	21	27	15	11	9	3	0	52	48	67	50	17	64	63	116	0	4	624	
NEWSPAPER		6	5	3	0	8	5	7	5	0	1	3	16	22	16	18	4	32	56	58	0	3	264	
PIECES		171	61	2	5	192	103	27	49	117	0	6	212	141	144	251	35	103	178	478	0	41	2560	
OTHER		0	12	5	4	47	111	11	17	20	0	2	71	25	60	115	6	114	139	151	0	2	911	
WOOD																								
CRAB/LOBSTER		0	0	11	0	35	2	1	0	0	0	0	5	3	0	2	5	0	0	41	0	0	105	
CRAYES		1	0	0	0	1	2	3	0	1	0	0	7	4	0	0	3	0	1	3	0	0	26	
PALLETES		0	0	0	0	6	0	1	0	2	0	0	3	3	0	2	4	4	0	9	0	0	34	
PIECES		0	35	29	1	37	12	14	0	28	0	9	101	61	45	122	23	32	47	202	0	9	800	
OTHER		1	3	5	7	2	9	4	0	1	0	2	7	17	5	5	13	3	3	27	0	30	144	
CLOTH																								
		0	7	7	10	40	47	35	18	34	4	5	100	65	50	81	24	24	29	150	0	19	749	
TOTAL ITEMS/ZONE		5182	819	444	598	1060	1524	1486	773	1447	133	313	6478	3644	2802	4087	1204	2404	2107	9160	23	795	42663	

DELAWARE'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. metal beverage cans	3,791	8.88
2. plastic cups, spoons, forks, straws	3,369	7.89
3. paper pieces	2,560	6.00
4. miscellaneous (other) plastic bags	2,232	5.23
5. plastic pieces	2,045	4.79
6. plastic caps and lids	1,973	4.62
7. foamed plastic cups	1,916	4.49
8. plastic trash bags	1,670	3.91
9. plastic beverage, soda bottles	1,645	3.85
10. small foamed plastic pieces	1,519	3.56
11. glass beverage bottles	1,274	2.98
12. glass pieces	1,118	2.62
Total	25,112	58.83

MAJOR TYPES AND SOURCES OF DELAWARE'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	19.45
Galley Wastes	7.00
Fishing/Boating Gear	6.14
Operational Wastes	1.40
Sewage Wastes	0.66
Medical Wastes	0.06

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Augustine Beach	64.97	paper pieces (fragments)
2. Woodland Beach	43.83	glass pieces (fragments)
3. Pickering Beach	55.86	foamed plastic cups metal beverage cans
4. Kitts Hummock	49.00	metal beverage cans
5. North Bowers Beach	37.74	paper pieces (fragments)
6. South Bowers Beach	48.10	plastic trash bags
7. Bennetts Pier Beach	54.37	metal beverage cans
8. Big Stone Beach	55.89	plastic pieces (fragments)
9. Slaughter Beach	66.21	plastic caps and lids
10. Fowlers Beach	63.91	metal beverage cans
11. Primehook	65.18	plastic trash bags
12. Beach Plum Island	51.91	metal beverage cans
13. Broadkill Beach	56.50	metal beverage cans
14. Lewes Beach	59.14	plastic cups, spoons, forks, straws
15. Cape Henlopen State Park (bayside)	58.55	plastic cups, spoons, forks, straws
16. Cape Henlopen State Park (oceanside)	65.70	plastic cups, spoons, forks, straws
17. Rehoboth Beach	58.77	plastic cups, spoons, forks, straws
18. Dewey Beach	52.35	miscellaneous (other) plastic bags
19. Delaware Seashore State Park	60.51	plastic cups, spoons, forks, straws
20. South Bethany	69.57	paper bags
21. Fenwick Island State Park	63.15	miscellaneous (other) plastic bags

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	11 seagulls 1 Canada goose 3 sea turtles (1 decapitated)

MOST PECULIAR DEBRIS ITEMS REPORTED:

bathing suit, bed, brand new flashlight, butterfly net, can of French jello pudding, curling rod, electric box, enema, flower pot, half of a twenty dollar bill, insulin needle, metal campaign button, needle cap, pacifier, petri dish, plastic toy soldier, pillow case, pineapple, Rambo flip-flop, rocket, rubber boot, rusted shower pipe, "scary" foreign lab bottle, shot gun shells, slinky, small stove, syringe, telephone, Texaco charge card, tire and axle, toothbrush, twenty dollar bill, two used condoms, umbrella, uncashed Bank of Delaware check for sixty dollars (returned to bank).

FOR INFORMATION ON DELAWARE'S 1989 BEACH CLEANUP CONTACT:

Nancy Rolli or David Small
 Delaware Department of Natural Resources and Environmental Control
 89 Kings Highway
 P.O. Box 1401 Dover, DE 19901
 (302) 736-4506

1989 CLEANUP DATE: Saturday, September 30



FLORIDA

September 24, 1988
 10,676 Volunteers
 914.6 Miles Cleaned
 388,000 Pounds of Debris Collected
 490,854 Debris Items Reported

Coordinated By: Edward Proffitt and
 Lee Hallman
 Center for Marine Conservation
 Bayfront Tower
 1 Beach Drive SE, Suite 304
 St. Petersburg, FL 33701
 (813) 895-2188

The Center for Marine Conservation's first statewide Florida Coastal Cleanup, held on September 24, 1988 opened many eyes to the extent of the marine debris problem in Florida and the willingness of Floridians to become involved in the solution. A total of 10,706 volunteers cleaned 914.6 miles of beach and estuary shoreline of more than 194 tons of debris. In terms of both miles covered and numbers of volunteers, this was the largest single cleanup ever held anywhere in the world!

As expected due to the tremendous amount of fishing activity conducted year round, monofilament fishing line was found in great amounts throughout the state. All told, 279 miles of monofilament line were cleaned from the beach, and another 26.4 miles were cut from artificial reefs off Jacksonville.

Ten separate animal entanglement deaths and dismemberments due to monofilament line were reported during the cleanup, which covered about 11 percent of Florida's total shoreline. Who knows how many sea turtles, seabirds, and other animals we would find entangled if the entire 8,000 miles of Florida coastline were surveyed?

The Florida Coastal Cleanup would not have been possible without the hard work and assistance of many, many people throughout the state. Although organized primarily by CMC staff, members of federal and state government agencies and private industry served on our steering committee to ensure that all went smoothly. Primary funding was provided by the Anheuser-Busch Companies, the Society of the Plastics Industry, Publix Supermarkets, Mrs. Allen F. Manning, the Curtis and Edith Munson Foundation, and Waste Management of North America, Inc. Florida Sea Grant Extension agents helped organize local cleanups, and provided scales to weigh monofilament line so that it could be measured. Organized Fishermen of Florida were instrumental in cleaning waterways and estuaries, especially those areas accessible only by boat.

In addition, First Brands Corporation donated 25,000 clear garbage bags so that certain materials, such as aluminum cans and glass bottles, could be separated from the trash for recycling after the cleanup. In Palm Beach County, plastic debris collected during the beach cleanup was sent to plastics recyclers in New Jersey and later returned to Palm Beach in the form of fifteen park benches.

The cleanup attracted the attention and support of many of our national, state, and local leaders. Governor Bob Martinez participated in the Jacksonville cleanup, and has subsequently introduced legislation to address the debris problem in Florida including the serious hazards posed by derelict fishing line. The entire Florida delegation of the U.S. Congress signed a letter of support for the cleanup, and Senator Bob Graham helped to produce a radio public service announcement promoting the cleanup. Senator Lawton Chiles helped at the Pinellas County site, and Representative Charles Bennett did the same in Jacksonville.

FALL, 1988 NATIONAL BEACH CLEANUP		FLORIDA															
RAW DATA SUMMARY		Duval		Flagler		Brevard		Martin/St. Lucie		Boynton Beach		Dade		Key Largo			
		Nassau/St. John	Duval Und	Volusia	Indian R	Palm Beach	Broward	Biscayne									
PLASTIC																	
BAGS	TRASH	297	972	3	75	267	710	515	662	1588	1179	715	1296	227	189	BAGS	TRASH
	SALT	3	16	0	0	13	10	9	7	65	0	24	163	6	0	SALT	
	OTHER	547	607	0	137	290	576	278	477	1123	101	705	1222	154	161	OTHER	
BOTTLES	SODA	250	357	1	104	176	387	422	957	932	725	244	737	93	184	BOTTLES	SODA
	BEACH	47	48	1	50	63	169	161	352	418	68	93	224	74	159		BEACH
	OIL	64	79	0	22	41	64	140	217	170	31	54	152	50	69		OIL
	OTHER	105	183	0	93	102	220	229	313	498	44	198	269	123	115		OTHER
BUCKETS		30	51	0	6	74	69	57	62	106	76	58	80	34	27	BUCKETS	
CAPS/LIDS		454	1127	1	261	499	1032	824	1064	2012	576	911	1464	182	155	CAPS/LIDS	
CUPS/SPOONS		1355	3220	1	530	2107	2179	1695	1693	3188	862	2611	2837	203	126	CUPS/SPOONS	
DIAPERS		39	57	2	9	111	38	36	59	125	25	168	91	4	0	DIAPERS	
LIGHTERS		64	97	0	24	71	80	66	132	275	90	94	114	13	31	LIGHTERS	
FISH BONE		106	193	34	37	82	580	251	273	280	58	230	240	128	179	FISH BONE	
NET	LONG	7	40	1	8	19	64	27	63	41	11	21	41	11	14	NET	LONG
	SHORT	11	14	0	22	29	120	66	73	76	18	75	42	6	7		SHORT
FLOATS/LURES		15	45	2	4	79	22	95	76	72	14	28	80	15	39	FLOATS/LURES	
HARD HATS		1	34	0	2	5	4	1	4	11	4	3	5	0	1	HARD HATS	
LIGHT STICKS		60	94	0	31	158	105	109	168	393	117	86	100	62	19	LIGHT STICKS	
MILK JUGS		64	103	0	57	102	142	184	294	383	127	85	142	79	89	MILK JUGS	
PIECES		1101	1018	0	405	979	1331	1350	1487	2005	798	1444	2030	203	132	PIECES	
PIPE THREAD		4	19	0	3	19	43	11	16	33	10	119	105	3	4	PIPE THREAD	
ROPE	LONG	147	134	0	49	172	251	99	241	360	124	144	201	111	55	ROPE	LONG
	SHORT	292	165	2	98	463	501	211	298	743	153	242	314	61	38		SHORT
SUBBITING	LONG	31	47	0	7	23	39	17	50	71	12	43	38	7	40	SUBBITING	LONG
	SHORT	27	110	0	22	21	96	78	139	275	305	108	107	13	42		SHORT
SIX-PACK		160	333	0	83	291	285	172	526	693	255	211	539	71	73	SIX-PACK	
STRAP BANDS		76	70	0	28	114	197	117	188	449	65	143	156	49	38	STRAP BANDS	
SYRINGES		11	11	0	5	7	12	11	27	58	12	17	21	4	8	SYRINGES	
TAMPON APP.		24	34	0	13	50	60	40	71	281	13	88	89	14	4	TAMPON APP.	
TOYS		64	76	0	11	66	48	42	85	205	30	130	138	5	4	TOYS	
VEGGIE		12	47	0	12	26	74	45	37	150	15	19	26	5	2	VEGGIE	
WRITE PROTECTOR		5	31	0	0	33	41	11	46	44	7	12	17	3	2	WRITE PROTECTOR	
OTHER		413	569	0	93	156	443	132	199	443	41	304	427	69	60	OTHER	
GLASS																	
BOTTLES:	BEVERAGE	774	932	6	154	676	724	901	1764	1808	975	482	2586	341	351	BOTTLES:	BEVERAGE
	FOOD	42	29	0	16	36	12	59	114	144	32	31	111	57	43		FOOD
	MISC	14	15	0	3	10	15	50	104	66	109	6	33	17	5		MISC
FLOORO TUBES		12	15	0	6	4	40	33	76	97	21	2	16	2	17	FLOORO TUBES	
LIGHT BULBS		38	42	0	6	56	26	89	203	167	73	32	66	60	55	LIGHT BULBS	
PIECES		146	571	0	245	239	188	432	549	769	147	367	987	149	198	PIECES	
OTHER GLASS		19	273	0	102	12	10	4	45	24	2	14	19	8	7	OTHER GLASS	
STYROFOAM																	
BUOYS		58	28	0	0	17	13	75	121	126	55	48	106	169	151	BUOYS	
CUPS		937	1019	0	288	825	1225	1696	1866	1970	1079	687	1540	326	339	CUPS	
EGG CARTONS		33	53	0	44	41	58	50	84	71	58	27	30	25	29	EGG CARTONS	
FAST FOOD		129	176	0	70	187	161	321	531	309	223	96	197	45	65	FAST FOOD	
MEAT TRAYS		85	95	0	49	59	101	102	115	136	83	34	79	13	19	MEAT TRAYS	
STYRO:	LARGE	287	167	0	140	293	394	396	578	936	217	309	538	104	172	STYRO:	LARGE
	SMALL	808	1241	0	234	669	1110	1460	1421	2473	1280	1405	2332	399	195		SMALL
OTHER		210	104	1	61	26	184	33	86	133	26	250	67	26	13	OTHER	

The huge success of the cleanup is a tribute to the 38 Zone Captains who did a tremendous job of local organizing, and to the citizens of Florida who turned out in record numbers on an exceedingly hot day. To all who helped— thank you!

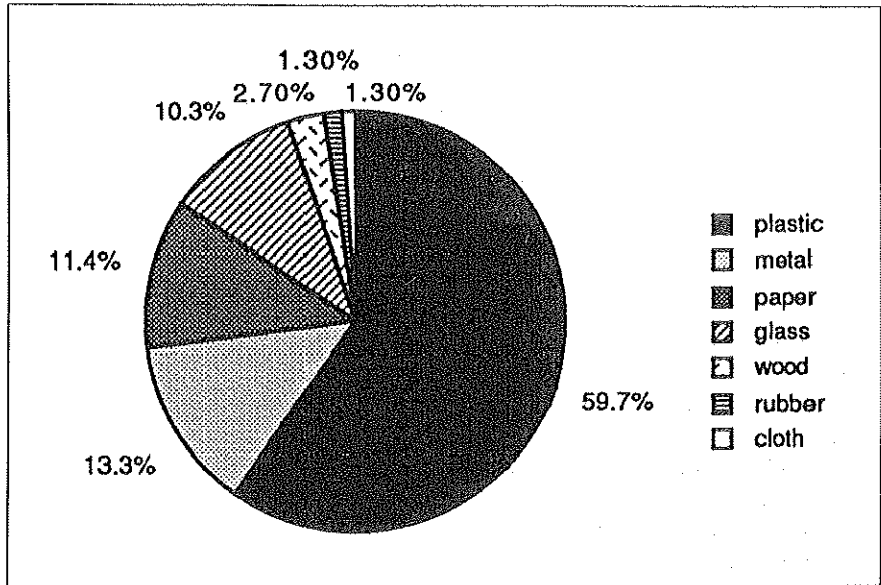
Edward Proffitt

1988 NATIONAL BEACH CLEANUP

FLORIDA

RAW DATA SUMMARY	Duval		Flagler		Brevard		Martin/St. Lucie		Boynton Beach		Dade		Key Largo		
	Nassau/St. John	Duval Und	Volusia	Indian R	Palm Beach	Broward	Biscayne								
RUBBER															
BALLOONS	112	203	0	20	97	64	71	72	166	15	59	48	2	2	BALLOONS
GLOVES	10	54	0	2	11	25	22	14	40	4	20	6	1	5	GLOVES
TIRES	8	63	0	2	10	5	8	34	7	2	2	42	7	13	TIRES
OTHER RUBBER	102	190	0	32	123	133	91	173	471	71	98	166	53	37	OTHER RUBBER
METAL															
BOTTLE CAPS	134	670	0	184	276	280	298	897	852	179	464	764	24	29	BOTTLE CAPS
CANS: AEROSOL	94	55	0	16	151	118	165	323	372	103	85	115	38	137	CANS: AEROSOL
BEVERAGE	1069	1332	12	236	604	989	1081	1674	2030	422	992	2115	374	197	BEVERAGE
FOOD	46	46	0	11	17	18	42	78	85	7	17	143	16	8	FOOD
CANS	80	92	0	7	11	19	25	57	23	32	32	125	13	7	CANS
CRAB/FISH	5	1	0	0	0	0	3	3	2	0	1	4	1	0	CRAB/FISH
DRUMS: RUSTY	12	42	0	3	5	1	5	12	6	0	1	25	3	0	DRUMS: RUSTY
NEW	2	0	0	0	0	1	0	0	0	0	0	0	0	0	NEW
PIECES	141	198	0	11	22	21	60	63	175	7	98	124	8	9	PIECES
PULL TABS	80	56	0	53	39	172	51	649	360	110	83	191	29	1	PULL TABS
WIRE	34	229	34	6	7	28	11	48	36	4	21	32	7	21	WIRE
OTHER	42	148	59	23	42	41	31	74	53	9	152	127	46	41	OTHER
PAPER															
PAPER BAGS	152	223	0	54	81	145	165	304	326	182	181	254	11	1	PAPER BAGS
CARDBOARD	150	229	0	34	12	112	68	208	112	88	52	125	11	22	CARDBOARD
CARTONS	144	225	0	57	65	176	165	274	158	161	21	185	3	12	CARTONS
CUPS	289	298	0	32	346	356	375	413	671	206	272	466	14	47	CUPS
NEWSPAPER	97	77	0	22	22	74	38	183	149	74	66	169	1	1	NEWSPAPER
PIECES	819	1212	0	743	325	1026	488	948	1040	618	883	1024	41	26	PIECES
OTHER	550	990	0	165	313	248	467	837	398	15	682	514	5	6	OTHER
WOOD															
CRAB/LOBSTER	5	2	0	0	10	0	3	7	6	0	7	4	1	1	CRAB/LOBSTER
CRATES	6	10	0	1	4	16	12	19	20	1	3	17	0	4	CRATES
PALLETS	7	16	0	0	18	29	18	12	27	2	5	44	7	17	PALLETS
PIECES	294	501	0	74	344	537	412	641	1050	284	344	498	101	110	PIECES
OTHER	40	66	0	9	38	32	28	49	129	2	24	88	5	1	OTHER
CLOTH															
	197	353	1	44	67	189	168	472	280	172	167	450	49	37	
TOTAL ITEMS/ZONE	14180	22352	159	5060	13125	19197	17561	26484	35861	13337	18124	30072	4701	4510	TOTAL ITEMS/ZONES

PERCENT COMPOSITION OF FLORIDA'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		FLORIDA											STATE						
RAW DATA SUMMARY		Collier	Sarasota/Manatee	Madiera	Wakulla	Bay	Okaloosa	Grassy Key	Dixie	TOTAL									
		Key West	Lee	Tampa Bay	Pasco	Franklin	Walton	Sante Rosa	Gulf	Charlotte	TOTAL								
PLASTIC																			
SACS	TRASH	663	70	844	277	1907	1631	347	466	56	296	78	257	87	419	22	45	179	2640
	SALT	55	1	59	13	67	104	2	28	1	10	1	6	3	89	0	1	7	763
	OTHER	530	238	1131	438	1579	1769	277	619	71	511	80	140	97	209	110	84	612	15092
BOYTIRES	SODA	415	41	533	294	1591	1020	304	476	198	590	64	546	106	83	63	29	251	12473
	BLEACH	141	7	84	29	432	181	64	129	67	162	29	254	26	63	40	21	67	3703
	OIL	63	22	89	74	425	192	64	221	34	94	10	79	10	28	28	56	167	2823
	OTHER	185	83	247	68	318	355	93	106	180	210	63	214	54	44	44	29	53	4817
BUCKETS		55	2	76	31	228	116	30	37	7	56	70	45	11	20	5	12	23	1568
CAPS/LIDS		832	162	1193	534	1751	2920	157	372	198	1395	587	1559	126	103	241	31	368	31373
CUPS/SPOONS		1797	993	2730	528	2531	5318	203	397	164	690	286	1451	139	204	169	68	297	40572
DISCS		35	21	88	81	140	94	53	33	7	22	3	22	10	2	4	7	13	1387
LIGHTERS		100	18	227	114	416	474	10	20	18	213	41	163	52	37	31	4	43	3158
FISH LINE		129	31	136	63	1084	236	13	37	18	161	8	113	42	62	11	7	141	5151
NET	LONG	73	1	39	8	126	62	4	3	3	58	5	15	10	8	6	3	14	806
	SHORT	30	2	74	8	54	55	4	1	1	15	10	13	3	8	9	0	6	852
FLOOTS/LURES		42	14	105	32	280	132	5	24	25	68	26	46	7	18	3	16	32	1481
HARD HATS		1	0	0	0	11	10	0	0	0	3	1	2	2	1	0	1	9	114
LIGHT STICKS		117	0	60	3	27	27	2	17	16	258	74	219	46	9	43	0	3	2425
MILK JUGS		193	38	169	47	643	323	77	111	92	155	50	318	38	67	25	20	52	1167
PIECES		842	205	1542	671	1873	3650	142	712	212	817	829	1201	62	309	176	7	277	27821
PIPE TRENCH		55	15	25	2	58	44	24	7	0	73	3	3	3	0	4	3	7	713
ROPE	LONG	123	15	151	73	326	164	17	51	17	106	89	109	25	172	25	2	16	3527
	SHORT	129	28	234	71	195	235	2	62	14	254	119	174	96	84	19	0	58	5356
SEEDETING	LONG	30	13	13	9	100	62	1	9	6	21	15	10	0	41	8	2	69	854
	SHORT	51	6	78	26	119	126	1	27	5	69	6	10	0	38	9	0	21	1969
SIX-PECK		291	25	304	132	1465	1005	90	168	39	215	29	221	71	128	42	39	144	8164
STRAP BANDS		108	2	126	49	220	209	6	17	10	169	20	87	18	19	20	3	28	2798
SYRINGES		28	1	4	13	98	49	12	1	0	24	15	7	14	2	12	0	5	489
TANKON APP.		37	7	23	18	195	68	16	11	7	30	15	21	4	5	3	0	6	1158
TOYS		36	18	180	28	193	332	9	18	17	73	32	102	13	32	19	0	20	2017
VEGIE		28	9	57	1	332	118	18	13	3	21	17	55	5	9	3	0	4	1164
WRITE PROTECTOR		18	14	13	4	142	146	8	10	0	34	23	22	15	0	0	0	31	712
OTHER		165	120	432	195	382	1089	115	360	20	399	152	371	25	53	19	12	77	7295
GLASS																			
BOYTIRES	BEVERAGE	511	345	1559	1022	4688	2594	903	1280	472	580	98	1261	175	236	287	209	695	29389
	FOOD	32	6	33	48	230	100	43	108	31	103	10	26	10	25	10	4	14	1619
	MISC	44	2	40	0	172	35	6	11	94	20	5	62	1	11	12	1	7	970
FLUORO TUBES		11	1	3	2	15	11	4	18	12	33	7	53	4	7	11	0	11	544
LIGHT BULBS		26	3	41	31	146	26	12	31	17	72	27	183	5	25	12	5	56	1631
PIECES		1183	81	983	415	2725	2545	142	655	154	177	27	336	69	183	66	33	174	15025
OTHER GLASS		161	10	85	12	37	112	39	130	3	14	27	19	4	14	1	3	83	1234
STYROFOAM																			
BUOYS		128	10	225	49	181	103	0	106	38	17	7	48	7	129	3	8	84	2140
CUPS		607	223	1280	767	3903	3307	187	699	262	688	270	871	150	273	154	236	539	27914
EGG CARTONS		79	6	89	41	134	51	22	25	31	64	31	153	6	23	32	2	11	1351
FAST FOOD		141	24	170	216	1252	1495	124	220	55	132	78	107	38	50	56	33	191	6892
MEAT TRAYS		45	10	119	64	388	264	53	193	75	105	31	74	13	26	19	42	58	2359
STYRO	LARGE	244	49	551	399	1652	1265	29	278	111	405	150	865	54	176	34	84	167	11144
	SMALL	1131	119	1739	1044	2892	4682	71	595	128	1713	523	1165	139	410	97	77	263	18116
OTHER		157	23	119	25	435	1154	5	194	0	288	14	104	0	59	13	32	28	4131

TYPES AND SOURCES OF FLORIDA'S BEACH DEBRIS:

Type of Debris

Percent of Total Debris Reported

Bottles and Associated Goods

17.37

Galley Wastes

5.97

Fishing/Boating Gear

5.45

Operational Wastes

1.62

Sewage Wastes

0.24

Medical Wastes

0.10

FALL, 1988 NATIONAL BEACH CLEANUP		FLORIDA														STATE		
RAW DATA SUMMARY		Collier	Sarasota/Manatee		Madiera	Wakulla		Bay	Okaloosa		Grassy Key		Dixie	Charlotte	TOTAL			
		Key West	Lee	Tampa Bay	Pasco	Franklin	Walton	Sante Rosa	Gulf									
RUBBER																		
BALLONS	26	5	147	10	71	187	5	6	3	81	38	67	31	33	3	0	23	1687
GLOVES	53	0	35	4	63	51	2	14	5	22	1	25	9	4	23	0	8	523
FIBES	20	7	30	16	202	113	7	33	6	18	2	12	0	26	8	3	16	749
OTHER RUBBER	113	55	216	148	360	333	21	125	13	139	45	108	31	55	24	2	86	3616
METAL																		
BOTTLE CAPS	1101	76	818	227	1041	1390	63	451	18	216	30	617	138	102	54	4	132	11529
CANS: AEROSOL	128	31	262	85	302	348	39	77	15	70	4	190	10	59	20	13	52	3289
BEVERAGE	1284	876	3813	721	4022	3031	190	1719	338	1127	176	971	166	331	153	376	971	33394
FOOD	72	27	235	122	201	116	78	95	18	42	4	34	5	67	7	14	100	1791
CANS	46	17	243	70	188	133	24	73	9	45	2	56	5	30	26	12	85	1602
CRAB/FISH	15	0	54	13	51	12	1	162	1	1	1	2	0	1	0	0	83	428
DRUMS: RUSTY	5	0	30	9	49	28	8	18	2	6	0	17	1	3	0	4	9	386
NEW	1	0	5	0	17	3	4	0	0	0	0	1	0	0	0	0	3	46
PIECES	86	135	175	51	180	355	38	191	14	82	30	129	8	52	44	3	47	2617
PULL YARDS	366	38	187	234	772	556	75	517	27	152	23	692	130	43	44	35	105	5884
WIRE	34	7	110	55	264	181	21	105	12	40	3	47	4	20	5	0	78	1454
OTHER	67	155	160	57	268	503	113	234	16	91	13	145	11	97	8	11	115	2975
PAPER																		
PAPER BAGS	113	66	290	85	627	683	107	233	64	100	10	148	20	44	34	26	98	4947
CARDBOARD	61	17	158	55	454	450	119	179	45	45	14	104	18	26	29	11	79	3087
CARTONS	144	28	194	140	717	405	124	156	32	46	10	91	13	22	13	26	120	4030
CUPS	172	80	458	83	1019	776	150	136	92	97	6	224	22	22	18	30	132	7336
NEWS PAPER	52	10	173	44	663	665	183	145	55	24	0	25	6	21	15	0	65	3110
PIECES	515	283	1451	914	1425	2538	341	1216	85	415	90	625	91	118	136	23	449	19402
OTHER	309	416	852	88	835	3085	66	675	11	1148	124	819	25	39	13	36	259	13820
WOOD																		
CRAB/LOBSTER	63	1	49	3	26	16	0	50	0	0	0	1	0	5	0	0	1	262
CRATES	19	1	25	5	15	6	0	24	1	6	0	8	0	2	1	0	6	232
PALLETS	17	0	17	6	20	33	24	9	1	8	0	2	7	5	0	0	2	354
PIECES	475	93	767	507	571	1610	59	102	51	382	51	527	44	163	51	29	104	10826
OTHER	17	30	115	50	116	426	34	21	71	18	8	188	2	20	5	1	35	1688
CLOTH																		
	140	29	522	177	891	736	123	224	56	167	23	224	22	133	16	36	166	6541
TOTAL ITEMS/ZONE																		
	17856	5650	29685	12061	53137	58460	5809	15918	4112	16264	4956	19819	2916	5571	2815	1957	9125	490854

FLORIDA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. plastic cups, spoons, forks, straws	40,572	8.27
2. metal beverage cans	33,394	6.80
3. small foamed plastic pieces	31,816	6.48
4. glass beverage bottles	29,389	5.99
5. foamed plastic cups	27,914	5.69
6. plastic pieces	27,821	5.67
7. plastic caps and lids	23,173	4.72
8. paper pieces	19,402	3.95
9. plastic trash bags	16,540	3.37
10. miscellaneous (other) plastic bags	15,092	3.07
11. glass pieces	15,035	3.06
12. plastic beverage, soda bottles	12,473	2.54
Total	292,621	59.61

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. St. John's County	59.26	plastic cups, spoons, forks, straws
2. Duval County	57.64	plastic cups, spoons, forks, straws
3. Duval Underwater Cleanup	23.27	metal wire
4. Flagler County	62.79	plastic cups, spoons, forks, straws
5. Volusia County	68.76	plastic cups, spoons, forks, straws
6. Brevard County	68.95	plastic cups, spoons, forks, straws
7. Indian River County	66.12	foamed plastic cups
8. St Lucie and Martin Counties	57.26	foamed plastic cups
9. Palm Beach County	66.14	plastic cups, spoons, forks, straws
10. Boynton Beach	67.53	small foamed plastic pieces
11. Broward County	67.77	plastic cups, spoons, forks, straws
12. Dade County	61.17	plastic cups, spoons, forks, straws
13. Biscayne National Park	67.94	small foamed plastic pieces
14. Key Largo, Pennicamp, French Reef	67.61	glass beverage bottles
15. Marathon, Grassy Key	63.11	plastic trash bags
16. Key West	56.12	plastic cups, spoons, forks, straws
17. Collier County	47.75	plastic cups, spoons, forks, straws
18. Lee County	52.32	metal beverage cans
19. Sarasota and Manatee Counties	54.16	small foamed plastic pieces
20. Hillsborough and Pinellas Counties	56.37	glass beverage bottles
21. Tampa Bay	58.79	plastic cups, spoons, forks, straws
22. Pasco County	45.45	glass beverage bottles
23. Wakulla County	42.06	metal beverage cans
24. Franklin County	55.13	glass beverage bottles
25. Bay County	65.65	small foamed plastic pieces
26. Walton County	81.66	plastic pieces (fragments)
27. Okaloosa County	58.93	plastic caps, lids
28. Santa Rosa County	62.72	plastic caps, lids
29. Gulf County	57.05	glass beverage bottles
30. Dixie County	51.35	metal beverage cans
31. Charolette County	50.92	metal beverage cans

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:**Debris Related**

pelican wing entangled in approx.
50 yds. 30-lb. test fishing line
2 gulls entangled
1 skimmer (bird) entangled in
fishing line
pelican with 15 feet of fishing
line hanging from mouth with bait
and hook attached, animal had
been there for several days
brown pelican with fishing line
dead bird entangled in plastic six-pack ring
pelican (wing only) entangled in fishing line
seabird (leg only) entangled in fishing line
green sea turtle entangled in fishing line

Other Reports

19 birds (several pelicans)
15 sea turtles (8 hatchlings)
1 softshell turtle
1 alligator (tail gone)
dead turtle tied to tree
turtle eggs

MOST PECULIAR DEBRIS ITEMS REPORTED:

aerosol blood clotter, air conditioner, antique radio tube, bag of syringes, bandages, Christmas lights, condoms, Coast Guard emergency drinking water packet, cruise ship trash, diamond and amethyst necklace, dog pacifier, douche kit, forty dollars, golf bag, intravenous bag of sodium chloride (100 ml.), kitchen sink, machete, many full bags of garbage, medical vial, micro-brief underwear, no dumping sign, portable potty (full), sex toy ("analysis pending"), shotgun shells, six left shoes, surgical masks, swimming pool, toilet seats, two bottles with notes inside, urinary catheter.

FOR MORE INFORMATION ON FLORIDA'S 1989 BEACH CLEANUP CONTACT:

Ed Proffitt
Center for Marine Conservation
Bayfront Tower
1 Beach Drive SE, Suite 304
St. Petersburg, FL 33701
(813) 895-2188

1989 CLEANUP DATE: Saturday, September 23



Volunteers returning with trash at Biscayne National Park, Florida.



GEORGIA

September 24, 1988
268 Volunteers
50 Miles Cleaned
200,000 Pounds of Debris Collected
21,752 Debris Items Reported

Coordinated By: Jay Calkins
Georgia Marine Extension Service
P.O. Box 13687, McWhorder Drive
University of Georgia, Skidaway
Island
Savannah, GA 31416
(912) 356-2496

This was the first year that organizations in Georgia worked together to clean up the barrier islands. Several civic organizations coordinated with state and federal agencies in an effort to cover as many miles of beach as possible. While Georgia's barrier islands and beaches are not as accessible or as populated as beaches in other states the problem of trash is as real as it is in other areas of the country. More than 200,000 pounds of trash were collected during the cleanup—nearly 2,000 pounds of which were removed by the Sierra Club and the Marine Extension Service from half a mile of Ossabaw Island, an uninhabited, state-protected barrier island.

While beach cleanup volunteers reported finding several unusual items including a mine detector float and some channel markers, perhaps the rarest find was the 12-foot-long body of a beaked whale found in Wassaw Island. It was perhaps the fourth or fifth one known to have washed ashore in Georgia in the past 200 years.

Several groups in Georgia participated in the cleanup including the University of Georgia Marine Extension Service/Georgia Sea Grant College Program, Department of Natural Resources, National Park Service, Sierra Club, Georgia Conservancy, Keep America Beautiful, U.S. Fish and Wildlife Service, Waste Management, Inc., and the Clean Community Advisory Council to name a few.

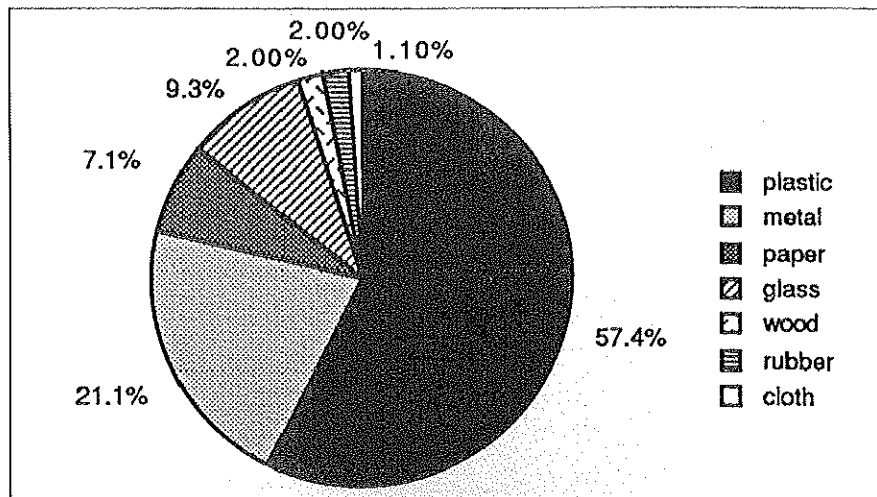
Jay Calkins

FALL, 1988 NATIONAL BEACH CLEANUP

GEORGIA

RAW DATA SUMMARY		St. Simons Island		Wassaw Island		Blackbeard Island		Cumberland Island		STATE TOTAL
		Tybee Island	Little Tybee Island	Ossabaw Island	Sapelo Island					
PLASTIC										
BAGS	TRASH	150	86	4	6	45	40	16	112	459
	SALT	12	1	0	0	1	1	1	2	18
	OTHER	215	57	1	20	54	11	21	120	499
BOTTLES	SODA	75	124	18	275	56	159	123	235	1065
	BLEACH	10	43	1	43	26	110	51	6	290
	OIL	2	8	7	35	15	39	24	5	135
	OTHER	41	35	0	66	30	63	50	6	291
BUCKETS		64	8	1	7	6	11	24	6	127
CAPS/LIDS		305	174	7	57	20	116	74	527	1280
CUPS/SPOONS		589	177	25	64	69	95	105	66	1190
DIAPERS		45	4	0	0	1	0	0	0	50
LIGHTERS		11	13	2	7	4	14	19	55	125
FISH LINE		24	19	2	11	7	1	6	8	78
NET	LONG	1	7	0	11	3	1	4	0	27
	SHORT	3	3	0	7	9	0	2	0	24
FLOATS/LURES		4	9	3	47	3	7	5	20	98
HARD HATS		0	2	0	1	0	0	0	0	3
LIGHT STICKS		0	8	0	0	1	27	34	31	101
MILK JUGS		5	21	6	75	4	114	60	146	431
PIECES		168	153	2	128	50	60	29	345	935
PIPE THREAD		0	1	0	0	0	3	0	26	30
ROPE	LONG	49	28	1	43	6	23	10	83	243
	SHORT	18	47	0	17	7	20	8	52	169
SHEETING	LONG	1	7	0	3	3	6	3	7	30
	SHORT	10	26	0	5	2	9	8	12	72
SIX-PACK		15	15	0	6	7	24	5	137	209
STRAP BANDS		5	8	0	5	5	13	6	38	80
SYRINGES		0	0	0	0	0	0	3	0	3
TAMPON APP.		41	1	0	0	4	12	6	3	67
TOYS		15	21	1	12	0	7	3	2	61
VEGGIE		0	6	0	1	3	3	4	11	28
WRITE PROTECTOR		2	2	0	0	0	2	2	6	14
OTHER		68	47	1	11	18	8	29	0	182
GLASS										
BOTTLES:	BEVERAGE	163	185	25	120	173	134	121	195	1116
	FOOD	4	7	0	35	16	45	30	40	177
	MISC	3	9	3	11	13	10	25	0	74
FLUORO TUBES		0	1	2	8	3	28	4	24	70
LIGHT BULBS		2	4	1	42	20	87	46	90	292
PIECES		38	82	0	38	17	5	4	3	187
OTHER GLASS		84	7	0	0	1	4	2	0	98
STYROFOAM										
BUOYS		4	6	2	36	7	51	16	9	131
CUPS		313	148	8	291	43	233	186	255	1477
EGG CARTONS		6	18	15	47	10	68	38	64	266
FAST FOOD		10	35	0	61	10	65	30	67	278
MEAT TRAYS		23	26	12	58	9	75	18	52	273
STYRO:	LARGE	47	101	11	128	28	87	51	195	648
	SMALL	162	206	0	189	103	107	54	50	871
OTHER		4	31	18	8	6	46	20	0	133

PERCENT COMPOSITION OF GEORGIA'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		GEORGIA								
RAW DATA SUMMARY		St. Simons Island		Wassaw Island		Blackbeard Island		Cumberland Island		STATE
		Tybee Island	Little Tybee Island	Ossabaw Island	Sapelo Island			TOTAL		
=====										
RUBBER										
	BALLONS	1	27	0	8	0	7	11	172	226
	GLOVES	2	2	0	2	11	6	22	46	91
	TIRES	2	17	1	3	0	1	2	0	26
	OTHER RUBBER	13	23	0	15	7	12	15	2	87

METAL										
	BOTTLE CAPS	220	24	9	30	8	26	8	6	331
	CANS: AEROSOL	3	84	3	26	18	50	41	108	333
	BEVERAGE	351	850	72	494	1016	224	181	233	3421
	FOOD	2	12	1	63	43	12	13	0	146
	CANS	10	11	0	5	8	9	15	10	68
	CRAB/FISH	0	5	0	16	5	13	4	1	44
	DRUMS: RUSTY	0	1	1	2	0	0	0	0	4
	NEW	0	0	0	0	0	0	0	0	0
	PIECES	14	29	0	6	16	0	0	4	69
	PULL TABS	15	9	0	2	7	8	0	20	61
	WIRE	11	8	0	15	7	3	1	1	46
	OTHER	22	18	0	3	18	5	7	1	74

PAPER										
	PAPER BAGS	54	34	0	4	10	13	2	10	127
	CARDBOARD	47	7	0	8	3	33	24	7	129
	CARTONS	30	20	1	14	5	25	6	5	106
	CUPS	223	39	7	25	10	38	7	75	424
	NEWSPAPER	8	3	0	5	1	2	0	0	19
	PIECES	448	66	0	21	25	9	23	35	627
	OTHER	57	36	0	4	3	12	4	0	116

WOOD										
	CRAB/LOBSTER	1	1	0	5	0	2	0	0	9
	CRATES	1	1	0	2	0	5	2	2	13
	PALLETS	2	20	0	2	0	5	2	0	31
	PIECES	51	96	5	53	6	77	3	0	291
	OTHER	10	6	0	4	21	31	2	15	89

CLOTH										
		89	30	0	11	31	15	6	57	239

	TOTAL ITEMS/ZONE	4498	3506	279	2883	2197	2687	1781	3921	21752
=====										

GEORGIA'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. metal beverage cans	3,421	15.73
2. foamed plastic cups	1,477	6.79
3. plastic caps, lids	1,280	5.88
4. plastic cups, spoons, forks, straws	1,190	5.47
5. glass beverage bottles	1,116	5.13
6. plastic beverage, soda bottles	1,065	4.90
7. plastic pieces	935	4.30
8. small foamed plastic pieces	871	4.00
9. large foamed plastic pieces	648	2.98
10. paper pieces	627	2.88
11. miscellaneous (other) plastic bags	499	2.29
12. plastic trash bags	459	2.11
Total	13,588	62.47

TYPES AND SOURCES OF GEORGIA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	28.52
Galley Wastes	8.03
Fishing/Boating Gear	5.37
Operational Wastes	2.59
Sewage Wastes	0.31
Medical Wastes	0.01

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Tybee Island	55.96	plastic cups, spoons, forks, straws
2. St. Simons Island	49.40	metal beverage cans
3. Little Tybee Island	53.06	metal beverage cans
4. Wassaw Island	61.78	metal beverage cans
5. Ossabaw Island	30.72	metal beverage cans
6. Blackbeard Island	64.42	foamed plastic cups
7. Sapelo Island	64.46	foamed plastic cups
8. Cumberland Island	70.37	plastic caps and lids

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	3 birds (2 terns) 1 sea turtle 1 12-foot whale

MOST PECULIAR DEBRIS ITEMS REPORTED:

computer part, enema bottle, golf ball, ham bone, lab centrifuge, love note in bottle, medical catheter tube in wrapper, mine locator, pantyhose and jockey shorts, part of a swimming pool, Russian baby formula, shotgun shells, toilet.

FOR INFORMATION ON GEORGIA'S 1989 BEACH CLEANUP CONTACT:

Jay Calkins
Georgia Marine Extension Service
P.O. Box 13687, McWhorder Drive
University of Georgia, Skidaway Island
Savannah, GA 31416
(912) 356-2496

1989 CLEANUP DATE: Saturday, September 23

HAWAII

October 22, 1988
3,037 Volunteers
102.8 Miles Cleaned
100,000 Pounds of Debris Collected
193,745 Debris Items Reported

Coordinated By: John Yamauchi
Hawaii State Litter Control Office
205 Koula Street
Honolulu, HI 96813
(808) 548-3400 or 548-6444

On Saturday, October 22, 1988, Hawaii's beaches and shorelines were cleaned and surveyed for ocean debris and trash. Fifty tons of debris were cleaned from 117 beach areas on the islands of Kauai, Lanai, Maui, Oahu, Hawaii, and even the uninhabited island of Kahoolawe. This beach cleanup, themed "Get the Drift and Bag It," was designed to focus public attention on the problem of marine debris and its impact on aquatic and terrestrial wildlife.

More than 3,037 volunteers participated in the cleanup. The tons of debris consisted of plastic, styrofoam, fishing nets, and lines which have been known to kill marine animals in Hawaii including Hawaiian monk seals, green sea turtles, and birds. On the uninhabited island of Kahoolawe, the cleanup was conducted on Kanapou Bay. The Bay has a southeast orientation that makes it a prime catch-basin for ocean debris caught in the trade winds and currents. Here, approximately 8 tons of pure marine drift was collected consisting predominantly of plastic. Nearly 1,000 rubber slippers, hundreds of plastic crates (mostly beer and sake from Japan), and 200 laundry baskets in addition to buckets, buoys, and floats were collected. Cargo nets were prominent in mounds up and down the 1/2 mile of beach, some tangled into masses 10 feet long. Machetes were used to chop at least 20 of these mountains into more manageable sizes for removal. A few dead sea birds were found tangled in these nets. More unusual findings included a car bumper with a Kauai safety sticker, a World War II metal ammunition case, and four large syringes and two hats from the USS Constellation aircraft carrier. Japan received the award for the most identifiable foreign trash.

Community organizations, military personnel, conservation groups, boy and girl scouts, school groups, dive clubs, commercial and leisure fishing organizations, ocean sports enthusiasts, recreational clubs, businesses, and tourists all pitched in to make this "Get the Drift and Bag It" cleanup a big success.

The cleanup was coordinated by the following organizations: Community Work Day Program, State Litter Control Office, County of Hawaii Department of Parks and Recreation, BIORTA/TORCH associations, and the Maui Community Work Day Program. The Governor's Advisory Committee on Litter Control sponsored the program.

John Yamauchi

FALL, 1988 NATIONAL BEACH CLEANUP

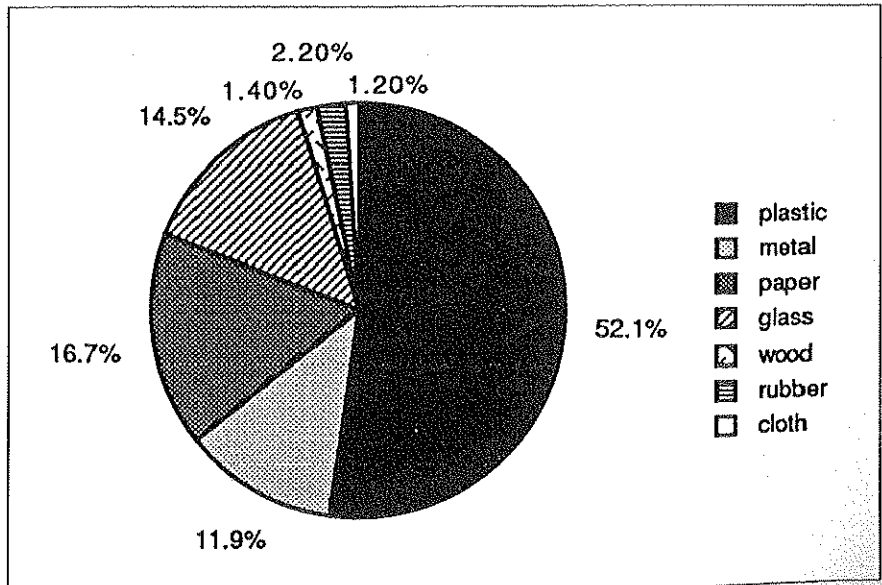
HAWAII

RAW DATA SUMMARY		Hawaii	Maui	Kahooolawe	Molokai	Oahu	Kauai	STATE TOTAL
PLASTIC								
BAGS	TRASH	211	1392	68	60	5494	454	7679
	SALT	1	8	10	0	163	45	227
	OTHER	349	578	3	0	4383	959	6272
BOTTLES	SODA	262	952	87	16	1330	408	3055
	BLEACH	32	136	116	12	488	328	1112
	OIL	17	66	10	6	229	81	409
	OTHER	70	161	159	36	680	224	1330
BUCKETS		23	68	123	29	192	45	480
CAPS/LIDS		440	1231	120	152	3708	1744	7395
CUPS/SPOONS		714	1665	13	104	7397	1557	11450
DIAPERS		513	386	0	3	387	156	1445
LIGHTERS		78	120	12	7	230	90	537
FISH LINE		224	301	33	255	1375	404	2592
NET	LONG	16	55	32	26	149	354	632
	SHORT	23	28	41	29	282	244	647
FLOATS/LURES		7	65	275	40	239	212	838
HARD HATS		2	3	3	0	45	1	54
LIGHT STICKS		5	86	25	3	129	12	260
MILK JUGS		60	96	103	8	245	156	668
PIECES		286	1047	320	225	8603	4045	14526
PIPE THREAD		3	9	0	12	86	71	181
ROPE	LONG	10	131	36	15	365	203	760
	SHORT	28	136	30	61	1079	381	1715
SHEETING	LONG	10	25	0	1	96	30	162
	SHORT	9	44	1	2	217	23	296
SIX-PACK		256	768	45	25	1120	316	2530
STRAP BANDS		44	183	52	73	549	218	1119
SYRINGES		4	19	3	0	97	18	141
TAMPON APP.		9	208	0	25	116	86	444
TOYS		22	105	25	45	317	108	622
VEGGIE		11	184	0	10	362	62	629
WRITE PROTECTOR		4	2	1	0	92	44	143
OTHER		227	412	33	15	1677	613	2977
GLASS								
BOTTLES:	BEVERAGE	544	2881	578	172	7950	2327	14452
	FOOD	50	110	0	24	134	270	588
	MISC	11	350	30	0	102	75	568
FLUORO TUBES		41	8	17	1	21	22	110
LIGHT BULBS		19	38	8	4	39	28	136
PIECES		1230	809	10	120	8056	1190	11415
OTHER GLASS		5	256	0	1	489	151	902
STYROFOAM								
BUOYS		33	41	66	39	272	247	698
CUPS		315	1240	7	26	3826	1387	6801
EGG CARTONS		16	21	6	6	99	75	223
FAST FOOD		318	1218	3	0	1992	414	3945
MEAT TRAYS		107	372	4	2	774	357	1616
STYRO:	LARGE	140	403	36	1	1314	565	2459
	SMALL	445	862	38	50	6298	2129	9822
OTHER		6	77	0	2	1126	907	2118

FALL, 1988 NATIONAL BEACH CLEANUP HAWAII

RAW DATA SUMMARY		Hawaii	Maui	Kahoolawe	Molokai	Oahu	Kauai	STATE TOTAL
RUBBER								
	BALLONS	101	69	0	2	535	48	755
	GLOVES	14	15	0	0	58	3	90
	TIRES	8	51	16	11	128	166	380
	OTHER RUBBER	164	601	81	18	1653	549	3066
METAL								
	BOTTLE CAPS	1033	1611	0	116	3374	973	7107
	CANS: AEROSOL	105	97	63	0	337	99	701
	BEVERAGE	970	1480	30	140	2420	1301	6341
	FOOD	77	177	2	44	652	250	1202
	CANS	43	114	0	0	600	94	851
	CRAB/FISH	2	4	21	0	30	5	62
	DRUMS: RUSTY	1	13	0	0	60	11	85
	NEW	0	1	0	0	18	3	22
	PIECES	343	114	32	1	742	460	1692
	PULL TABS	546	374	0	8	1300	225	2453
	WIRE	91	179	0	1	353	119	743
	OTHER	256	164	50	0	1017	238	1725
PAPER								
	PAPER BAGS	93	621	0	7	1218	333	2272
	CARDBOARD	117	424	13	32	826	306	1718
	CARTONS	199	610	13	3	645	464	1934
	CUPS	148	965	23	16	2037	471	3660
	NEWSPAPER	58	356	0	0	648	289	1351
	PIECES	1100	1094	0	7	6780	2661	11642
	OTHER	1056	905	0	6	6408	1411	9786
WOOD								
	CRAB/LOBSTER	1	6	0	0	36	6	49
	CRATES	7	30	40	0	13	7	97
	PALLETS	27	18	0	0	18	15	78
	PIECES	331	236	28	0	1208	128	1931
	OTHER	103	81	15	0	216	56	471
CLOTH								
		161	495	7	20	1204	414	2301
TOTAL ITEMS/ZONE		14405	30261	3016	2175	108947	34941	193745

PERCENT COMPOSITION OF HAWAII'S BEACH DEBRIS:



HAWAII'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. plastic pieces	14,526	7.50
2. glass beverage bottles	14,452	7.46
3. paper pieces	11,642	6.01
4. plastic cups, spoons, forks, straws	11,450	5.91
5. glass pieces	11,415	5.89
6. small foamed plastic pieces	9,822	5.07
7. plastic trash bags	7,679	3.96
8. plastic caps, lids	7,395	3.82
9. metal bottle caps	7,107	3.67
10. foamed plastic cups	6,801	3.51
11. metal beverage cans	6,341	3.27
12. miscellaneous (other) plastic bags	6,272	3.24
Total	114,902	59.31

TYPES AND SOURCES OF HAWAII'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	18.55
Galley Wastes	6.16
Fishing/Boating Gear	4.63
Operational Wastes	1.07
Sewage Wastes	0.23
Medical Wastes	0.07

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Hawaii	37.14	glass pieces (fragments)
2. Maui	49.25	glass beverage bottles
3. Kahoolawe	64.29	glass beverage bottles
4. Molokai	65.33	plastic fishing line
5. Oahu	52.89	plastic pieces (fragments)
6. Kauai	56.59	plastic pieces (fragments)

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	3 birds

MOST PECULIAR DEBRIS ITEMS REPORTED:

aerosol can of cleaning compound for aircraft surface, auto bucket seat, bassinet, bed mattress frame, bicycle, bra, broken cow jaw with an intact tooth, bullet, car door, carpets, ceramic duck head, golf balls, half of a telephone, iron valve handle from a ship, luggage, magnifying glass, mattress box-springs, money, moray eel living in a broken bottle, old metal ice chest, panties and an empty wallet in one place, pig heads, plastic Christmas holly, plastic channel marker, propane cylinder, records, refrigerator, scuba air hose, shipwreck, small cocaine bottle with a spoon attached to lid, sofa, surfboards, surgical masks, toilet, tooth brushes, typewriter, underwear.

FOR INFORMATION ON HAWAII'S 1989 BEACH CLEANUP CONTACT:

John Yamauchi
Hawaii State Litter Control Office
205 Koula Street Honolulu, HI 96813
(808) 548-3400 or 548-6444

1989 CLEANUP DATE: Saturday, October 14

LOUISIANA

September 24, 1988
 2,700 Volunteers
 77 Miles Cleaned
 180,000 Pounds of Debris Collected
 87,740 Debris Items Reported

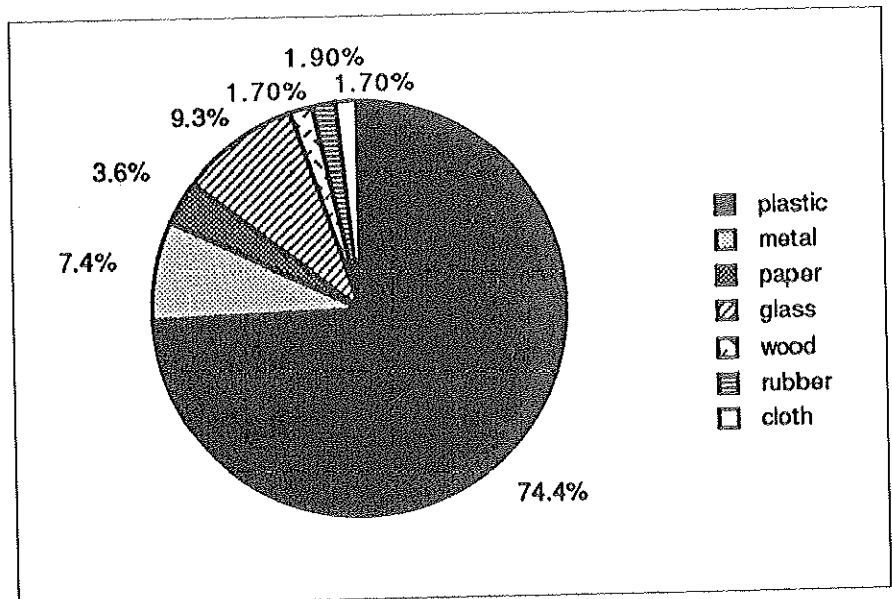
Coordinated By: Barbara Colthrop
 Louisiana Department of Culture,
 Recreation and Tourism
 P.O. Box 94291
 Baton Rouge, LA 70804-9291
 (504) 342-8148

Jim Hanifen
 Baton Rouge Audubon Society
 3343 Myrtle Avenue
 Baton Rouge, LA 70806
 (504) 765-2390

On September 24, 1988 nearly 3,000 volunteers visited Louisiana's beaches and filled 8,500 bags with mostly plastic and polystyrene garbage. The entire haul weighed around 50 tons.

Last year's volunteers collected almost twice as much trash. Officials speculate that either Hurricane Gilbert washed most of the trash into the marshes before BEACHSWEEP began, or Louisiana's Coastal Management Division's public awareness programs are starting to work.

PERCENT COMPOSITION OF LOUISIANA'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP LOUISIANA

RAW DATA SUMMARY		Long Beach	Holly Beach	Grand Isle	Fourchon Beach	Broussard Beach	Isles Dernieres
PLASTIC							
BAGS	TRASH	75	239	237	1329	468	385
	SALT	1	55	9	54	103	23
	OTHER	39	308	132	632	298	232
BOTTLE	SODA	7	188	366	559	124	510
	BLEACH	0	65	230	366	177	359
	OIL	2	29	127	140	18	115
	OTHER	3	35	189	161	42	239
BUCKETS		5	24	58	78	5	41
CAPS/LIDS		12	273	649	784	80	290
CUPS/SPOONS		1	92	143	303	24	161
DIAPERS		0	33	9	60	1	3
LIGHTERS		2	19	47	73	13	21
FISH LINE		3	30	32	56	11	16
NET	LONG	0	7	13	27	8	13
	SHORT	0	11	15	31	5	5
FLOATS/LURES		1	4	48	56	13	36
HARD HATS		0	5	2	3	2	7
LIGHT STICKS		0	24	29	53	5	37
MILK JUGS		31	219	367	822	328	456
PIECES		16	538	1221	1092	235	317
PIPE THREAD		0	32	23	252	0	10
ROPE	LONG	2	89	174	312	121	154
	SHORT	8	94	164	364	53	66
SHEETING	LONG	0	40	47	127	79	32
	SHORT	1	54	277	134	47	54
SIX-PACK		9	203	116	250	64	61
STRAP BANDS		1	27	48	61	7	18
SYRINGES		0	5	8	7	5	10
TAMPON APP.		0	11	22	31	7	7
TOYS		0	12	44	27	1	7
VEGGIE		0	33	6	29	36	7
WRITE PROTECTOR		0	9	23	26	3	10
OTHER		57	88	104	126	94	58
GLASS							
BOTTLES:	BEVERAGE	4	341	441	989	103	637
	FOOD	2	62	54	129	91	185
	MISC.	0	15	10	25	15	36
FLUORO TUBE		0	4	7	35	10	48
LIGHT BULBS		2	30	49	105	82	280
PIECES		16	376	47	376	28	125
OTHER		2	143	14	27	31	30
STYROFOAM							
BUOYS		5	32	49	124	29	94
CUPS		8	210	774	1567	175	926
EGG CARTONS		5	95	110	240	68	114
FAST FOOD		5	35	113	164	27	73
MEAT TRAYS		11	86	257	469	112	139
STYRO:	LARGE	1	121	346	562	178	253
	SMALL	16	163	2883	1638	136	313
OTHER		0	100	140	174	39	19

RAW DATA SUMMARY		Long Beach	Holly Beach	Grand Isle	Fourchon Beach	Broussard Beach	Isles Dernieres
RUBBER							
	BALLOONS	1	2	0	11	0	1
	GLOVES	9	102	11	72	124	31
	TIRES	5	19	12	111	23	16
	OTHER	1	42	59	158	96	37
METAL							
	BOTTLE CAPS	3	89	37	108	23	36
	CANS: AEROSOL	4	52	96	222	127	144
	BEVERAGE	13	155	235	500	88	547
	FOOD	0	53	22	82	66	49
	OTHER	1	41	37	84	37	57
	CRAB/FISH	0	5	6	4	0	6
	DRUMS: RUSTY	1	1	10	35	5	0
	NEW	0	0	2	0	0	1
	PIECES	1	26	30	115	21	10
	PULL TABS	5	34	7	95	0	6
	WIRE	1	33	14	31	22	8
	OTHER	2	12	53	73	30	20
PAPER							
	BAGS	2	38	25	130	5	17
	CARDBOARD	0	60	12	144	24	24
	CARTONS	3	32	32	92	10	15
	CUPS	0	67	46	239	10	31
	NEWSPAPER	0	3	5	53	1	1
	PIECES	9	132	113	342	70	47
	OTHER	0	14	20	44	12	7
WOOD							
	CRAB/LOBSTER	0	1	3	1	1	3
	CRATES	0	7	1	7	2	13
	PALLETS	0	2	23	21	16	4
	PIECES	3	107	78	296	37	111
	OTHER	4	17	23	56	7	17
CLOTH							
	CLOTHING/PIECES	1	288	80	248	325	87
TOTAL ITEMS/ZONE		422	6142	11384	18423	4785	8378

RAW DATA SUMMARY

Rutherford Beach Martin Beach Timbalier Island Grand Terre Cypremont Point Constance Beach

PLASTIC

BAGS	TRASH	247	121	175	9	106	106
	SALT	60	4	6	14	1	12
	OTHER	169	86	57	7	17	88
BOTTLE	SODA	263	215	362	70	100	44
	BLEACH	337	100	192	63	0	85
	OIL	67	35	80	30	0	24
	OTHER	350	104	172	27	25	58
BUCKETS		32	26	34	8	0	17
CAPS/LIDS		399	227	334	68	7	100
CUPS/SPOONS		155	123	158	19	14	29
DIAPERS		5	8	1	0	0	0
LIGHTERS		34	68	42	2	0	7
FISH LINE		7	24	14	5	0	19
NET	LONG	14	51	28	0	0	6
	SHORT	8	63	12	0	0	13
FLOATS/LURES		42	16	68	21	0	12
HARD HATS		8	0	4	1	0	2
LIGHT STICKS		101	147	80	0	0	4
MILK JUGS		608	257	447	68	0	130
PIECES		498	102	233	10	63	86
PIPE THREAD		11	16	10	1	0	3
ROPE	LONG	170	101	152	17	2	34
	SHORT	136	177	146	5	0	39
SHEETING	LONG	69	45	12	0	0	11
	SHORT	68	65	39	2	0	23
SIX-PACK		156	119	100	8	16	40
STRAP BANDS		65	14	62	1	1	12
SYRINGES		6	7	5	2	0	2
TAMPON APP.		2	10	7	2	0	0
TOYS		19	8	5	4	0	4
VEGGIE		24	32	4	0	0	11
WRITE PROTECTOR		11	4	4	5	1	1
OTHER		262	82	81	17	1	167

GLASS

BOTTLES: BEVERAGE		312	249	380	145	102	56
	FOOD	115	70	171	30	0	9
	MISC.	24	8	28	3	1	2
FLURO TUBE		21	30	100	2	0	0
LIGHT BULBS		148	59	214	40	0	8
PIECES		144	77	29	0	0	40
OTHER		11	3	12	3	0	4

STYROFOAM

BUOYS		87	38	147	14	0	12
CUPS		762	373	1223	115	37	68
EGG CARTONS		173	128	186	14	2	32
FAST FOOD		54	77	92	40	4	26
MEAT TRAYS		388	75	271	30	3	61
STYRO: LARGE		264	66	222	17	18	67
	SMALL	613	183	546	14	20	32
OTHER		59	17	43	1	0	7

RAW DATA SUMMARY		Rutherford Beach	Martin Beach	Timbalier Island	Grand Terre	Cypremont Point	Constance Beach

RUBBER							
	BALLOONS	1	1	4	0	1	0
	GLOVES	76	60	17	12	0	7
	TIRES	13	44	8	0	0	70
	OTHER	121	13	61	4	7	17

METAL							
	BOTTLE CAPS	16	66	110	12	3	7
	CANS: AEROSOL	192	133	193	15	0	12
	BEVERAGE	181	181	346	96	41	41
	FOOD	43	8	55	16	4	7
	OTHER	83	11	26	16	9	35
	CRAB/FISH	1	0	2	0	1	0
	DRUMS: RUSTY	6	4	6	1	0	0
	NEW	5	0	0	1	0	0
	PIECES	35	7	10	1	5	25
	PULL TABS	18	4	5	1	2	1
	WIRE	21	46	2	1	1	15
	OTHER	36	17	15	8	3	9

PAPER							
	BAGS	27	45	6	1	28	2
	CARDBOARD	37	35	33	1	8	4
	CARTONS	31	24	12	2	14	3
	CUPS	63	111	34	10	8	6
	NEWSPAPER	5	1	3	0	11	0
	PIECES	71	54	91	7	53	21
	OTHER	17	7	12	2	0	3

WOOD							
	CRAB/LOBSTER	1	2	0	2	1	0
	CRATES	4	2	7	7	0	0
	PALLETS	13	1	12	5	0	1
	PIECES	115	16	140	23	2	24
	OTHER	28	4	67	2	0	8

CLOTH							
	CLOTHING/PIECES	185	80	44	17	19	78

TOTAL ITEMS/ZONE		9073	4887	8111	1215	762	2009

Gulf Breeze	Ocean View Beach	Audubon Society	Minerals Management Service		STATE TOTAL		
			Peveto Beach	(Fourchon Beach)			
-----						PLASTIC	
28	2	3	2	314	3846	BAGS	TRASH
23	3	0	2	6	376		SALT
19	6	13	0	123	2226		OTHER
46	13	0	15	88	2970	BOTTLES	SODA
64	12	6	25	41	2122		BLEACH
26	4	0	5	8	710		OIL
31	10	2	10	25	1483		OTHER
13	3	3	0	5	352	BUCKETS	
75	1	13	25	161	3498	CAPS/LIDS	
19	18	4	3	60	1326	CUPS/SPOONS	
0	0	0	0	10	130	DIAPERS	
3	1	0	0	10	342	LIGHTERS	
3	0	3	0	30	253	FISH LINE	
7	0	1	0	5	180	NET	LONG
1	0	0	0	3	167		SHORT
2	0	0	3	8	330	FLOATS/LURES	
8	2	0	0	0	44	HARD HATS	
11	4	9	3	7	514	LIGHT STICKS	
142	12	3	13	113	4016	MILK JUGS	
68	2	37	10	395	4923	PIECES	
7	0	0	0	0	365	PIPE THREAD	
21	5	7	3	32	1396	ROPE	LONG
21	10	12	0	100	1395		SHORT
18	12	0	12	23	527	SHEETING	LONG
19	1	1	7	95	887		SHORT
42	5	1	7	43	1240	SIX-PACK	
7	1	1	3	12	341	STRAP BANDS	
0	0	0	0	0	57	SYRINGES	
3	0	1	0	0	103	TAMPON APP.	
3	1	0	0	7	142	TOYS	
15	11	1	0	4	213	VEGGIE	
3	0	3	0	1	104	WRITE PROTECTOR	
11	6	9	0	22	1185	OTHER	
-----						GLASS	
26	19	7	11	183	4005	BOTTLES:	BEVERAGE
5	6	6	2	10	947		FOOD
4	1	0	0	6	178		MISC.
2	0	1	0	0	260	FLUORO TUBE	
7	7	13	1	5	1050	LIGHT BULBS	
24	31	4	19	95	1431	PIECES	
3	13	2	6	2	306	OTHER	
-----						STYROFOAM	
16	12	3	0	21	683	BUOYS	
82	10	21	20	336	6707	CUPS	
14	4	7	3	23	1218	EGG CARTONS	
16	1	9	2	50	788	FAST FOOD	
13	10	15	7	70	2017	MEAT TRAYS	
37	7	21	1	38	2219	STYRO:	LARGE
47	30	875	20	675	8204		SMALL
18	1000	3983	20	24	5644	OTHER	

Minerals Management Service					STATE	
Gulf Breeze	Ocean View Beach	Audubon Society	Peveto Beach	(Fourchon Beach)	TOTAL	
						RUBBER
0	0	0	0	0	22	BALLOONS
38	3	0	0	11	573	GLOVES
13	0	0	2	27	363	TIRES
15	3	4	1	41	680	OTHER
						METAL
6	0	1	0	15	532	BOTTLE CAPS
32	7	8	8	24	1269	CANS: AEROSOL
36	11	2	10	143	2626	BEVERAGE
6	3	0	2	21	437	FOOD
2	0	2	2	17	460	OTHER
0	0	0	0	3	28	CRAB/FISH
6	0	0	1	4	80	DRUMS: RUSTY
0	0	0	0	0	9	NEW
3	0	3	1	26	319	PIECES
0	0	0	0	2	180	PULL TABS
4	0	0	1	10	210	WIRE
17	0	1	0	19	315	OTHER
						PAPER
3	0	0	0	29	358	BAGS
2	3	0	0	8	395	CARDBOARD
10	0	0	0	21	301	CARTONS
11	3	2	0	23	664	CUPS
2	0	0	0	3	88	NEWSPAPER
12	8	9	3	130	1172	PIECES
0	0	3	0	19	159	OTHER
						WOOD
0	0	0	0	1	15	CRAB/LOBSTER
0	0	0	0	1	51	CRATES
2	0	0	0	0	100	PALLETS
21	0	37	1	81	1092	PIECES
3	0	0	0	8	244	OTHER
						CLOTH
28	2	10	0	36	1528	CLOTHING/PIECES
1345	1339	5182	292	4015	87764	TOTAL ITEMS/ZONE

LOUISIANA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. small foamed plastic pieces	8,204	9.35
2. foamed plastic cups	6,707	7.64
3. plastic pieces	4,923	5.61
4. plastic milk, water gallon jugs	4,016	4.58
5. glass beverage bottles	4,005	4.56
6. plastic trash bags	3,846	4.38
7. plastic caps, lids	3,498	3.99
8. plastic beverage, soda bottles	2,970	3.39
9. metal beverage cans	2,626	2.99
10. miscellaneous types of plastic bags	2,276	2.59
11. large foamed plastic pieces	2,219	2.53
12. plastic bleach, cleaner bottles	2,122	2.42
Total	47,412	54.04

TYPES AND SOURCES OF LOUISIANA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	13.17
Galley Wastes	15.31
Fishing/Boating Gear	7.55
Operational Wastes	3.24
Sewage Wastes	0.12
Medical Wastes	0.07

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Long Beach	77.49	plastic trash bags
2. Holly Beach	60.84	plastic pieces (fragments)
3. Grand Isle	84.94	small foamed plastic pieces
4. Fourchon Beach	72.53	small foamed plastic pieces
5. Broussard Beach	67.77	plastic trash bags
6. Isles Dernieres	67.93	foamed plastic cups
7. Rutherford Beach	75.53	foamed plastic cups
8. Martin Beach	69.86	foamed plastic cups
9. Timbalier Island	72.20	foamed plastic cups
10. Grand Terre	60.16	glass beverage bottles
11. Cypremont Point	57.48	plastic trash bags
12. Constance Beach	74.37	plastic milk, water gallon jugs
13. Gulf Breeze	74.50	plastic milk, water gallon jugs
14. Oceanview	91.04	glass pieces (fragments)
15. Audubon Society	97.78	small foamed plastic pieces
16. Peveto Beach	75.68	plastic bleach, cleaner bottles, plastic caps, lids
17. Minerals Management Service	74.50	small foamed plastic pieces

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:**Debris Related**

seagull with fishing hook

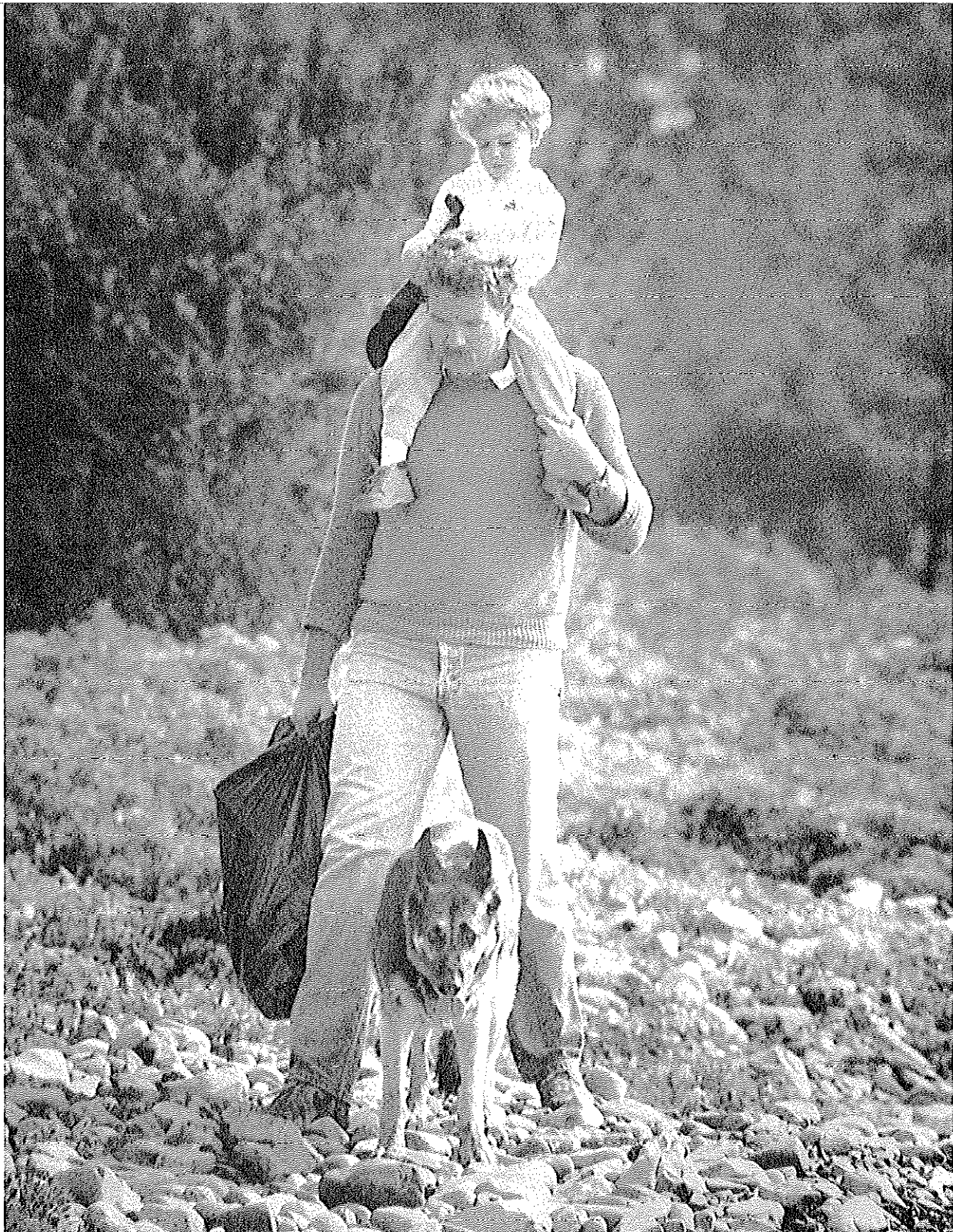
Other Reports1 bird
3 sea turtles
1 alligator**MOST PECULIAR DEBRIS ITEMS REPORTED:**

air conditioner, bra, bed mattress, ear muff, helicopter piece, Ms. Butterworth glass bottle (kept for collection), Oldsmobile car, two refrigerators, surgical mask, television, two toilet seats, washing machine, Zenith data system.

FOR INFORMATION ON LOUISIANA'S 1989 BEACH CLEANUP CONTACT:

Barbara Colthrap
Louisiana Department of Culture, Recreation and Tourism
P.O. Box 94291
Baton Rouge, LA 70804-9291
(504) 342-8148

1989 CLEANUP DATE: Saturday, September 23



YORK COUNTY COAST STAR

A father helps protect Maine's coastal beauty for the next generation.

MAINE

S.O.S. Save Our Shore.

October 1, 1988
 1,410 Volunteers
 114 Miles Cleaned
 15,200 Pounds of Debris Collected
 52,124 Debris Items Reported

Coordinated By: Flis Schauffler
 Maine Coastal Program
 State Planning Office
 184 State Street
 State House Station 38
 Augusta, ME 04333
 (207) 289-3261

Maine's 1988 Coastal Cleanup was a great success, with 1,410 volunteers picking up more than 15,200 pounds of debris along 114 miles of beaches, saltmarshes, and rocky shore. The area covered in Maine's fourth annual shore cleanup stretched from Eliot (at the New Hampshire border) to Eastport (not far from the Canadian border). There were 75 local cleanups, 50 of them coordinated by organized local groups (e.g. Audubon Society chapters, land trusts, school classes, and conservation commissions). The average size of a local cleanup was 18 people, with the record high held by a group of 150 junior high school students and their teachers in Belfast.

Maine's '88 cleanup involved many more people than in years past: participation increased 75 percent just between 1987 and 1988. Turnout at the cleanup increased despite a snowstorm on October 8, which caused several of Maine's cleanups to be cancelled. Most of the cleanups were fortunate to have warm, sunny weather on October 1, the official date for this year's cleanup.

Many local coordinators of Maine cleanups demonstrated creativity in publicizing their cleanups and educating their local communities about marine debris. One local organizer in Kittery sponsored a children's poster contest with the winning posters used to publicize the cleanup. In Kennebunkport, a local cleanup sponsor went into the schools, talking to classes about the hazards of marine debris. A cleanup organizer in Damariscotta took the CMC marine debris slideshow around to schools while another organizer in Searsport designed and printed cleanup t-shirts for all the local volunteers.

Efforts to publicize the cleanup were greatly enhanced by the pro bono work of two advertising agencies, The New England Group and Arnold & Company, Inc. The former developed a series of posters, bumper stickers, and PSAs for the cleanup, while the latter produced a brochure listing the coastwide cleanups. The cleanup also benefited from the donation of biodegradable plastic bags, supplied by Shop'n Save supermarkets—one of the nation's first supermarket chains to use biodegradable plastic bags.

Of course there were a few oversized items that couldn't be bagged and carted away: volunteers found several television sets, bedsprings, a refrigerator, stovepipe, and numerous sections of carpet. They also recorded finding six dead animals (three immature seals, a dog, an otter, and a leatherback turtle) and six dead birds (five herring gulls and a cormorant). Only in the case of the leatherback turtle could the cause of death be attributed to marine debris: the turtle had begun to decay, but the garbage bag caught in its throat was still intact. Despite these sobering finds, Maine's shore-pickers felt good about the amount of debris they collected this year, and are prepared to hit the shores again next September 23 for Maine's fifth annual coastal cleanup. Major sponsors for the 1988 Coastal Cleanup included The New England Group, Arnold & Company, Inc., Shop'n Save Supermarkets, Loring Short and Harmon, and Waste Management Company, Inc.

Flis Schauffler

MAINE		Machias		Mt. Desert		Vinalhaven		Searsport/Stockton Spgs		Rockland		Pemaquid	
RAW DATA SUMMARY		Eastport		Jonesport		Deer Isle/Brooklin		Castine/Cape Rosier		Camden/Rockport		Tenants/Cushing	

PLASTIC													
BAGS	TRASH	31	0	0	100	129	15	17	20	0	191	29	160
	SALT	2	0	0	3	19	17	0	0	0	1	1	8
	OTHER	62	4	14	72	112	24	34	24	3	151	99	82
BOTTLE	SODA	66	0	5	91	55	18	21	36	16	79	75	60
	BLEACH	41	1	0	35	33	9	38	13	0	20	59	22
	OIL	48	7	0	48	73	7	50	14	5	25	61	12
	OTHER	22	0	0	25	26	0	13	6	0	62	33	12
BUCKETS		6	0	0	5	4	2	5	17	1	7	14	9
CAPS/LIDS		31	10	3	50	91	13	34	68	19	187	62	81
CUPS/SPOONS		4	0	0	13	50	28	32	27	12	198	30	148
DIAPERS		12	0	1	2	10	1	3	2	0	10	0	1
LIGHTERS		6	0	0	2	11	2	2	6	0	10	5	5
FISH LINE		0	0	0	21	6	1	10	1	0	5	4	11
NET	LONG	11	0	2	124	11	10	1	0	0	0	13	6
	SHORT	4	2	2	91	7	14	1	1	0	12	15	11
FLOATS/LURES		4	0	0	1	9	0	15	4	10	3	22	6
HARD HATS		0	0	0	0	0	0	0	0	0	0	4	0
LIGHT STICKS		0	0	0	0	9	0	1	1	0	0	1	0
MILK JUGS		24	2	3	22	36	20	18	14	12	35	48	9
PIECES		58	17	10	124	113	31	394	152	8	203	268	162
PIPE THREAD		1	1	0	18	41	7	3	1	0	0	0	8
ROPE	LONG	45	3	16	189	59	49	25	8	3	70	119	49
	SHORT	56	15	20	324	66	50	10	12	8	88	162	96
SHEETING	LONG	4	4	1	29	18	7	17	6	8	21	18	3
	SHORT	2	1	5	73	16	16	9	3	14	40	10	17
SIX-PACK		4	0	0	6	33	6	5	17	4	112	12	9
STRAP BANDS		24	0	2	10	14	5	5	3	2	13	19	20
SYRINGES		0	0	0	0	0	0	0	1	0	0	0	2
TAMPON APP.		2	0	0	0	6	5	26	15	0	19	3	10
TOYS		1	1	0	1	4	0	6	2	1	27	19	17
VEGGIE		4	0	1	4	2	6	12	1	1	23	16	14
WRITE PROTECTOR		0	0	0	21	3	3	0	0	0	4	1	1
OTHER		11	48	3	16	17	13	7	17	0	21	62	48

GLASS													
BOTTLES:	BEVERAGE	42	5	2	32	1	25	27	55	8	333	63	59
	FOOD	4	1	0	4	0	1	3	1	0	35	11	10
	MISC.	0	0	0	1	0	7	1	0	0	0	2	0
FLUORO TUBE		0	0	0	1	0	0	0	0	1	0	16	0
LIGHT BULBS		1	0	0	4	0	0	2	0	0	3	9	0
PIECES		57	7	0	75	5	78	283	646	0	185	84	57
OTHER		13	0	0	28	0	0	0	0	0	13	1	1

STYROFOAM													
BUOYS		1	3	7	28	40	9	0	8	11	14	83	8
CHIPS		43	3	3	119	96	19	85	94	23	243	65	28
EGG CARTONS		2	0	2	2	8	0	0	0	0	14	2	0
FAST FOOD		1	0	0	30	24	6	3	11	8	39	19	7
MEAT TRAYS		16	0	0	7	10	4	10	2	0	7	6	6
STYRO:	LARGE	34	0	5	58	63	19	26	34	17	73	64	46
	SMALL	113	10	0	64	60	34	83	182	27	174	250	80
OTHER		5	0	0	11	8	1	9	2	0	5	1	10

RUBBER													
BALLOONS		1	0	0	3	10	4	9	3	1	4	8	28
GLOVES		9	3	0	44	47	8	1	1	4	36	90	16
FIRES		5	0	0	14	9	3	6	4	2	4	2	1
OTHER		25	27	1	46	57	11	4	0	0	28	44	75

METAL													
BOTTLE CAPS		7	6	0	32	38	14	2	20	0	317	21	18
CANS:	AEROSOL	6	0	0	16	12	2	4	9	2	21	16	2
	BEVERAGE	18	10	0	239	73	21	28	27	14	226	63	18
	FOOD	7	3	0	27	5	7	8	5	2	83	3	1
	OTHER	1	1	1	66	23	1	3	8	0	31	13	1
CRAB/FISH		0	0	0	8	7	0	0	1	0	0	17	2
DRUMS:	RUSTY	1	0	0	30	2	0	0	0	0	2	2	0
	NEW	0	0	0	10	0	0	0	0	0	1	0	0
PIECES		21	7	0	12	64	10	104	21	0	87	42	8
PULL TABS		0	0	0	3	6	3	1	17	0	57	2	8
WIRE		16	4	1	132	7	1	5	5	0	34	4	6
OTHER		8	2	1	9	13	1	4	14	0	62	16	2

PAPER													
BAGS		15	2	0	23	24	11	1	13	3	103	7	10
CARDBOARD		13	5	0	9	18	8	15	6	6	48	23	35
CARTONS		6	0	1	11	22	13	5	14	6	99	25	12
CUPS		2	0	0	9	13	6	2	8	5	56	9	42
NEWSPAPER		2	8	0	2	7	0	1	2	0	44	2	5
PIECES		15	48	2	52	89	46	41	89	9	596	83	134
OTHER		5	1	0	29	14	3	0	10	0	55	9	62

WOOD													
CRAB/LOBSTER		1	0	0	8	1	2	0	0	0	4	12	1
CRATES		0	1	0	10	0	2	0	1	0	0	1	0
PALLETS		0	0	0	5	0	0	0	3	0	3	3	0
PIECES		1	0	2	43	1	7	12	64	0	79	101	4
OTHER		0	0	0	27	2	2	7	12	1	1	34	1

CLOTH		27	18	4	107	3	17	9	24	1	59	66	21

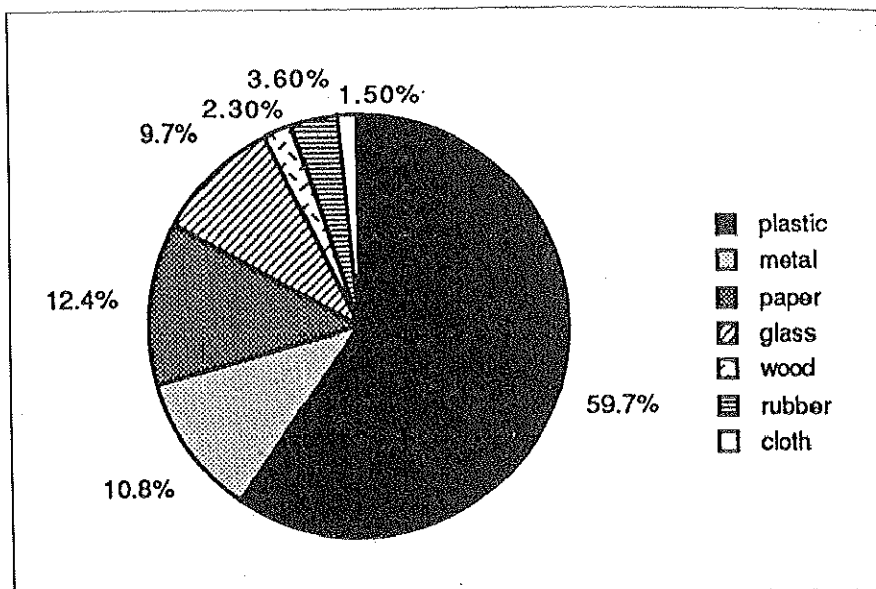
TOTAL ITEMS/ZONE		1130	291	120	3040	1965	785	1628	1908	278	4915	2678	1924

RAW DATA SUMMARY	Geographic Regions											
	S Bristol	Boothbay	Wiscasset	Gtown/Phippsburg	Augusta/Hallowell	Brunswick	Freeport/Cliff Isl	Falmouth	SPortland	Portland	Cape Elizabeth	Scarborough
PLASTIC												
BAGS TRASH	1	4	18	101	5	174	100	43	19	145	45	46
SAIT	0	0	0	4	0	4	7	0	0	0	0	5
OTHER	17	51	18	179	46	117	161	50	31	362	67	126
BOTTLE SODA	3	17	12	38	4	58	51	85	29	26	7	23
BLEACH	3	12	0	24	0	26	24	11	11	8	6	10
OIL	16	28	10	26	1	10	27	14	16	19	4	9
OTHER	4	7	6	39	1	19	15	5	7	14	3	6
BUCKETS	0	1	1	11	5	1	7	1	1	5	1	0
CAPS/LIDS	10	39	46	178	5	68	46	59	53	224	34	85
CUPS/SPOONS	1	27	21	163	17	23	29	39	76	367	30	49
DIAPERS	0	2	0	7	1	0	5	4	0	11	2	0
LIGHTERS	0	3	1	20	2	7	7	6	7	7	4	11
FISH LINE	0	0	0	69	1	1	1	0	3	2	2	5
NET LONG	5	4	0	20	1	1	8	3	1	2	3	8
SHORT	2	9	0	30	0	1	9	3	0	5	20	32
FLOATS/LURES	0	5	1	7	1	0	2	5	0	2	0	0
HARD HATS	0	0	0	0	1	0	0	0	0	0	0	0
LIGHT STICKS	0	0	0	1	2	0	2	5	0	13	2	1
MILK JUGS	1	19	12	36	1	34	36	19	35	75	2	7
PIECES	47	99	38	507	29	103	84	66	53	868	13	108
PIPE THREAD	0	0	0	2	0	1	0	0	0	14	1	9
ROPE LONG	11	60	0	72	5	10	9	7	31	9	20	45
SHORT	9	20	1	251	0	5	10	10	20	9	44	100
SHEETING LONG	3	7	1	12	2	2	4	0	3	32	0	0
SHORT	2	1	3	25	11	1	13	0	0	164	0	4
SIX-PACK	8	8	5	30	0	6	6	5	5	20	4	21
STRAP BANDS	1	13	7	70	0	0	11	5	23	25	40	28
SYRINGES	0	0	0	2	0	0	0	2	0	1	0	0
TAMPON APP.	0	0	0	19	0	0	3	22	5	131	22	11
TOYS	1	2	2	17	0	2	2	2	0	30	11	26
VEGGIE	3	5	1	19	0	30	15	11	0	15	0	4
WRITE PROTECTOR	0	0	0	4	0	5	0	0	0	19	1	0
OTHER	17	17	23	147	4	191	31	6	12	65	13	173
GLASS												
BOTTLES: BEVERAGE	14	18	45	77	10	192	104	43	15	102	7	48
FOOD	0	2	0	3	0	3	12	3	2	4	0	1
MISC.	0	1	0	1	0	5	2	0	2	3	0	9
FLUORO TUBS	0	0	0	1	0	0	1	0	0	0	0	0
LIGHT BULBS	0	0	0	7	0	0	3	3	4	3	0	0
PIECES	0	28	388	66	82	178	35	24	374	61	34	35
OTHER	0	0	1	3	1	6	15	0	12	0	3	2
STYROFOAM												
BUOYS	2	17	1	40	0	25	25	22	2	1	67	3
CUPS	3	65	42	184	23	79	107	95	201	206	67	39
EGG CARTONS	0	0	2	17	0	2	0	5	9	1	0	2
FAST FOOD	0	5	5	17	7	31	12	61	51	31	14	2
MEAT TRAYS	0	6	1	34	0	0	5	4	7	5	1	2
STYRO: LARGE	6	17	4	165	23	29	55	57	38	123	3	31
SMALL	20	50	18	336	98	126	131	144	61	515	47	95
OTHER	0	2	1	7	0	0	1	0	23	138	1	11
RUBBER												
BALLOONS	0	23	2	86	0	2	4	0	0	26	7	43
GLOVES	7	2	6	14	0	159	75	6	4	5	6	3
TIRES	0	5	3	16	5	15	3	3	7	4	1	1
OTHER	1	31	4	165	13	15	35	4	106	13	64	39
METAL												
BOTTLE CAPS	9	21	9	88	7	91	6	21	18	19	19	45
CANS: AEROSOL	1	4	4	14	4	14	17	7	9	5	3	1
BEVERAGE	16	26	37	111	20	0	86	65	23	39	15	30
FOOD	0	1	1	6	4	53	20	0	9	9	1	0
OTHER	0	3	3	39	2	8	7	1	7	14	0	5
CRAB/FISH	0	1	0	12	1	0	0	0	0	0	1	0
DRUMS: RUSTY	0	0	4	15	1	1	0	0	0	2	1	2
NEW	0	0	0	0	0	0	0	0	0	0	0	0
PIECES	0	12	33	37	22	32	12	15	6	47	0	17
PULL TABS	1	4	10	20	0	12	1	0	5	2	0	4
WIRE	0	2	15	7	3	0	0	8	13	8	0	3
OTHER	1	18	63	35	130	18	8	8	10	41	2	35
PAPER												
BAGS	0	1	6	55	7	53	6	9	5	45	6	5
CARDBOARD	1	16	8	44	11	22	3	28	23	10	2	6
CARTONS	3	5	16	30	1	29	13	9	27	33	6	27
CUPS	0	7	10	40	3	19	6	5	18	14	2	9
NEWSPAPER	0	1	0	23	0	3	2	3	1	45	0	13
PIECES	7	11	69	284	36	180	24	130	25	328	27	199
OTHER	4	14	291	307	4	10	5	26	10	15	151	58
WOOD												
CRAB/LOBSTER	0	0	0	16	0	0	2	1	1	0	5	1
GRATES	0	0	0	2	0	0	1	0	0	1	0	0
PALLETS	0	0	0	8	1	2	3	0	1	3	0	0
PIECES	8	2	5	101	0	19	21	92	69	64	22	26
OTHER	0	1	2	54	4	6	1	3	7	4	2	5
CLOTH												
	1	8	14	38	29	33	44	14	18	57	5	22
TOTAL ITEMS/ZONE												
	270	890	1350	4755	697	2372	1638	1407	1664	4735	993	1832

Kennebunkport		Kittery/Eliot		STATE		
Saco/Ocean Park	York			TOTAL		
----- PLASTIC -----						
23	12	25	68	1521	BAGS	TRASH
0	0	1	1	73		SALT
52	19	62	90	2129		OTHER
3	7	61	136	1082	BOTTLES	SODA
0	7	4	66	483		BLEACH
0	19	8	44	601		OIL
1	8	14	28	376		OTHER
3	0	1	6	114	BUCKETS	
51	15	235	101	1898	CAPS/LIDS	
52	4	463	87	2020	CUPS/SPOONS	
3	0	15	3	95	DIAPERS	
2	0	22	14	162	LIGHTERS	
1	2	14	18	178	FISH LINE	
0	3	1	4	242	NET	LONG
12	13	6	14	316		SHORT
0	4	1	8	110	FLOATS/LURES	
0	0	0	0	5	HARD HATS	
3	0	5	0	46	LIGHT STICKS	
1	4	1	36	562	MILK JUGS	
57	24	230	202	4068	PIECES	
0	0	0	1	108	PIPE THREAD	
2	24	10	95	1045	ROPE	LONG
21	48	62	144	1671		SHORT
0	1	1	3	207	SHEETING	LONG
1	1	26	20	478		SHORT
9	1	18	21	375	SIX-PACK	
6	1	18	14	379	STRAP BANDS	
0	0	0	0	8	SYRINGES	
3	2	22	28	354	TAMPON APP.	
1	0	39	8	222	TOYS	
0	0	2	12	201	VEGGIE	
0	0	1	1	64	WRITE PROTECTOR	
82	5	90	36	1175	OTHER	
----- GLASS -----						
14	22	85	85	1533	BOTTLES:	BEVERAGE
0	1	3	2	106		FOOD
0	2	0	1	37		MISC.
0	0	0	0	20	FLUORO TUBE	
0	1	0	3	43	LIGHT BULBS	
6	22	113	305	3228	PIECES	
1	0	6	3	109	OTHER	
----- STYROFOAM -----						
0	5	2	58	482	BUOYS	
16	23	207	231	2409	CUPS	
0	0	0	1	69	EGG CARTONS	
3	1	21	17	426	FAST FOOD	
0	4	0	7	144	HEAT TRAYS	
5	24	37	222	1278	STYRO:	LARGE
47	27	293	478	3563		SMALL
0	1	76	60	373	OTHER	
----- RUBBER -----						
8	4	18	11	305	BALLOONS	
0	4	7	11	569	GLOVES	
0	0	0	3	116	TIRES	
2	14	11	49	884	OTHER	
----- METAL -----						
7	8	211	30	1084	BOTTLE CAPS	
0	2	0	14	189	CANS:	AEROSOL
12	49	151	381	1798		BEVERAGE
0	4	7	2	268		FOOD
8	7	5	14	272		OTHER
0	4	1	42	97	CRAB/FISH	
0	0	2	4	69	DRUMS:	RUSTY
0	0	2	0	13		NEW
11	9	106	69	804	PIECES	
0	0	41	3	200	PULL TABS	
0	7	18	13	312	WIRE	
0	5	7	36	549	OTHER	
----- PAPER -----						
0	2	42	7	461	BAGS	
3	5	17	16	401	CARDBOARD	
1	0	47	51	512	CARTONS	
0	0	108	14	407	CUPS	
0	0	35	6	205	NEWSPAPER	
28	22	455	111	3140	PIECES	
0	7	218	19	1327	OTHER	
----- WOOD -----						
0	8	0	37	100	CRAB/LOBSTER	
0	0	0	2	21	CRATES	
0	0	0	3	35	PALLETS	
2	17	40	42	844	PIECES	
2	0	14	4	196	OTHER	
----- CLOTH -----						
1	16	43	59	758		

566	551	3907	3835	52124	TOTAL ITEMS/ZONE	

**PERCENT COMPOSITION OF
MAINE'S BEACH DEBRIS:**



MAINE'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. plastic pieces	4,068	7.80
2. small foamed plastic pieces	3,563	6.84
3. glass pieces	3,228	6.19
4. paper pieces	3,140	6.02
5. foamed plastic cups	2,409	4.62
6. miscellaneous (other) plastic bags	2,129	4.08
7. plastic cups, spoons, forks, straws	2,020	3.88
8. plastic caps, lids	1,898	3.64
9. metal beverage cans	1,798	3.45
10. plastic rope 2 feet or shorter	1,671	3.21
11. glass beverage bottles	1,533	2.94
12. plastic trash bags	1,521	2.92
Total	28,978	55.59

TYPES AND SOURCES OF MAINE'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	11.65
Galley Wastes	5.72
Fishing/Boating Gear	10.61
Operational Wastes	1.69
Sewage Wastes	0.68
Medical Wastes	0.02

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Eastport	70.88	small foamed plastic pieces
2. Machias	45.36	paper pieces (fragments)
3. Jonesport	87.50	short pieces of rope
4. Mt. Desert	61.48	short pieces of rope
5. Deer Isle/Brooklin	70.84	plastic trash bags
6. Vinalhaven	60.00	glass pieces (fragments)
7. Castine/Cape Rosier	63.88	plastic pieces (fragments)
8. Searsport/ Stockton Springs	43.24	glass pieces (fragments)
9. Camden/Rockport	76.62	small foamed plastic pieces
10. Rockland	44.88	paper pieces (fragments)
11. Tenants Harbor/Cushing	66.24	plastic pieces (fragments)
12. Pemaquid	66.74	plastic pieces (fragments)
13. South Bristol	72.59	plastic pieces (fragments)
14. Boothbay	69.89	plastic pieces (fragments)
15. Wiscasset	22.30	glass pieces (fragments)
16. Georgetown/Phippsburg	61.62	plastic pieces (fragments)
17. Augusta/Hallowell	42.27	small foamed plastic pieces
18. Brunswick	50.25	glass beverage bottles
19. Freeport/Cliff Island	64.77	miscellaneous plastic bags
20. Falmouth	62.26	small foamed plastic pieces
21. South Portland	50.06	glass pieces (fragments)
22. Portland	78.33	plastic pieces (fragments)
23. Cape Elizabeth	60.52	miscellaneous plastic bags foamed plastic cups foamed plastic buoys
24. Scarborough	62.63	paper pieces (fragments)
25. Saco/Ocean Park	81.27	plastic pieces (fragments)
26. Kennebunkport	56.08	metal beverage cans
27. York	53.60	plastic cups, spoons, forks, straws
28. Kittery/Eliot	62.14	small foamed plastic pieces

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris	Related Other Reports
dead leatherback sea turtle ingested plastic garbage bag	17 sea gulls and other birds
herring gull caught in wire lobster trap mesh	3 seals (2 decapitated) 1 otter
3 crabs and 2 lobsters released from a lobster trap that had washed ashore	

MOST PECULIAR DEBRIS ITEMS REPORTED:

alligator skeleton, arrow, bathing suits, bedsprings, broom, car radio, drug testing kit, ear plugs, enema bottle, flourescent orange condom, insulin syringe bag, lingerie, military canister, "quad blaster," pacifier, salmon tags from Canada, shotgun shells, sinks, televisions, toilet seat, toothbrush, underwear.

FOR INFORMATION ON MAINE'S 1989 BEACH CLEANUP CONTACT:

**Flis Schauffler
Maine Coastal Program
State Planning Office
184 State Street
State House Station 38
Augusta, ME 04333
(207) 289-3261**

1989 CLEANUP DATE: Saturday, September 23

MARYLAND

September 10, 1988
 171 Volunteers
 18 Miles Cleaned
 3,750 Pounds of Debris Collected
 14,436 Debris Items Reported

Coordinated By: David Cottingham
 National Oceanic and Atmospheric
 Administration
 Office of Chief Scientist
 14th Street and Constitution Avenue
 Room 6222
 Washington, DC 20230
 (202) 377-5181

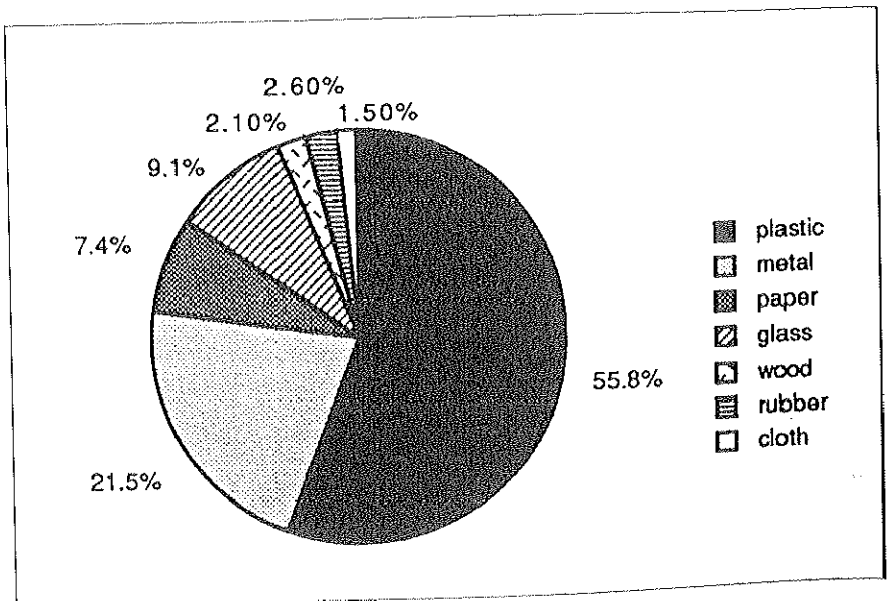
Fran Krieg Assateague Mobile
 Sportsfishermen's Association
 P.O. Box 149
 Ocean City, MD 21842
 (301) 957-9971

Judy Johnson Committee to Preserve
 Assateague Island, Inc.
 616 Piccadilly Road
 Towson, MD 21204
 (301) 828-4520

Ilia Fehrer
 Worcester Environmental Trust
 110 West Federal Street
 Snow Hill, MD
 (301) 632-2640

See Virginia for description of cleanup

**PERCENT COMPOSITION OF
 MARYLAND'S BEACH DEBRIS:**



FALL, 1988 NATIONAL BEACH CLEANUP

MARYLAND

RAW DATA SUMMARY		(MO-VA line STATE Assateague Isl to state park)TOTAL			Assateague Isl State Park STATE TOTAL				
PLASTIC					RUBBER				
BAGS	TRASH	157	168	325	BALLONS	69	156	225	
	SALT	10	13	23	GLOVES	4	1	5	
	OTHER	271	781	1052	TIRES	29	38	67	
BOTTLES	SODA	185	240	425	OTHER RUBBER	16	61	77	
	BLEACH	57	202	259	METAL				
	OIL	43	57	100	BOTTLE CAPS	68	28	96	
	OTHER	65	121	186	CANS: AEROSOL	44	67	111	
BUCKETS		19	23	41	BEVERAGE	489	636	1125	
CAPS/LIDS		102	355	457	FOOD	1414	70	1484	
CUPS/SPOONS		203	631	834	CANS	22	28	50	
DIAPERS		13	1	14	CRAB/FISH	0	2	2	
LIGHTERS		31	66	97	DRUMS: RUSTY	0	2	2	
FISH LINE		40	22	62	NEW	0	0	0	
NET	LONG	5	14	19	PIECES	24	54	78	
	SHORT	1	24	25	PULL TABS	13	23	36	
FLOATS/LURES		27	74	101	WIRE	9	25	34	
HARD HATS		0	0	0	OTHER	4	87	91	
LIGHT STICKS		8	13	21	PAPER				
MILK JUGS		113	77	190	PAPER BAGS	37	9	46	
PIECES		293	798	1091	CARDBOARD	58	68	126	
PIPE THREAD		1	1	2	CARTONS	19	39	58	
ROPE	LONG	78	138	216	CUPS	52	53	105	
	SHORT	64	243	307	NEWSPAPER	12	1	13	
SHEETING	LONG	11	44	55	PIECES	133	217	350	
	SHORT	12	33	45	OTHER	63	304	367	
SIX-PACK		46	43	89	WOOD				
STRAP BANDS		42	91	133	CRAB/LOBSTER	0	0	0	
SYRINGES		1	1	2	CRATES	1	2	3	
TAMPON APP.		72	33	105	PALLETS	7	5	12	
TOYS		21	92	113	PIECES	120	149	269	
VEGGIE		6	19	25	OTHER	9	17	26	
WRITE PROTECTOR		0	73	73	CLOTH				
OTHER		21	155	176		85	126	211	
GLASS					TOTAL ITEMS/ZONE				
BOTTLES: BEVERAGE		293	369	662		5681	8755	14436	
FOOD		42	128	170					
MISC		4	26	30					
FLUORO TUBES		4	7	11					
LIGHT BULBS		18	24	42					
PIECES		134	256	390					
OTHER GLASS		0	8	8					
STYROFOAM									
BUOYS		4	7	11					
CUPS		121	198	319					
EGG CARTONS		12	14	26					
FAST FOOD		23	55	78					
MEAT TRAYS		17	20	37					
STYRO: LARGE		55	143	198					
SMALL		132	579	711					
OTHER		3	8	11					

MARYLAND'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. metal food cans	1,484	10.28
2. metal beverage cans	1,125	7.79
3. plastic pieces	1,091	7.56
4. miscellaneous (other) plastic bags	1,052	7.29
5. plastic cups, spoons, forks, straws	834	5.78
6. small foamed plastic pieces	711	4.93
7. glass beverage bottles	662	4.59
8. plastic caps, lids	457	3.17
9. plastic beverage, soda bottles	425	2.94
10. glass pieces	390	2.70
11. paper pieces	350	2.42
12. plastic trash bags	325	2.25
Total	8,906	61.69

TYPES AND SOURCES OF MARYLAND'S BEACH DEBRIS:

Type of Debris	Percent of	Total Debris Reported
Bottles and Associated Goods		16.85
Galley Wastes		5.97
Fishing/Boating Gear		6.18
Operational Wastes		2.29
Sewage Wastes		0.73
Medical Wastes		0.01

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Assateague Island National Seashore (north end)	64.75	metal food cans
2. Assateague Island National Seashore	41.98	plastic pieces (fragments)

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
red fox found alive and released from entanglement in a plastic fishing net	none reported

MOST PECULIAR DEBRIS ITEMS REPORTED:

bicycle tire, briefcase, dental floss, Hawaiian lei, oil filter, refrigerator, shotgun shells, television, toilet seat, visor cap from "Davis Industries, Inc.—Best in Recycling!"

FOR INFORMATION ON MARYLAND'S 1989 BEACH CLEANUP CONTACT:

Judy Johnson
Committee to Preserve Assateague Island, Inc.
616 Piccadilly Road
Towson, MD 21204
(301) 828-4520

Ilia Fehrer
Worcester Environmental Trust
110 West Federal Street
Snow Hill, MD
(301) 632-2640

Karen Aspinwall
National Aquarium of Baltimore
501 E. Pratt Street
Baltimore, MD 21202
(301) 576-3888

1989 CLEANUP DATE: Saturday, September 9



Coastweeks 88 Massachusetts

MASSACHUSETTS

several cleanups scheduled
2,200 Volunteers
150 Miles Cleaned
50,000 Pounds of Debris Collected
90,455 Debris Items Reported

Coordinated By: Anne Smrcina and
Jane Alford
Coastal Zone Management Program
100 Cambridge Street, 20th Floor
Boston, MA 02202
(617) 727-9530

Thomas Bigford National Marine
Fisheries Service
Habitat Conservation Branch
2 State Fish Pier
Gloucester, MA 01930-3097
(617) 281-3600 ex. 209

Over 2,200 Massachusetts volunteers made a personal commitment to a cleaner coast during COASTWEEKS '88, picking up over 25 tons of trash from 150 miles of shoreline.

Massachusetts cleanups ran the gamut from small scale projects in isolated coves to major operations on town beaches. In Duxbury, 300 individuals picked up four tons of trash—Battelle Ocean Sciences did much of the local organization. Volunteer cleaners were treated to breakfast, lunch, and souvenir tee-shirts. Marblehead's shoreline attracted an estimated 800 cleaners who collected some eight tons of debris.

New Bedford-Fairhaven Harbors' two-part cleanup included a day of heavy duty effort by the U.S. Army Reserves to remove sunken shipwrecks, old pilings and other assorted navigational hazards and impediments to proper water circulation in the harbor (approximately 7 tons). The follow-up cleanup a week later, by about 100 individuals from the communities of New Bedford and Fairhaven, produced 600 bags of trash, numerous tires, and other debris.

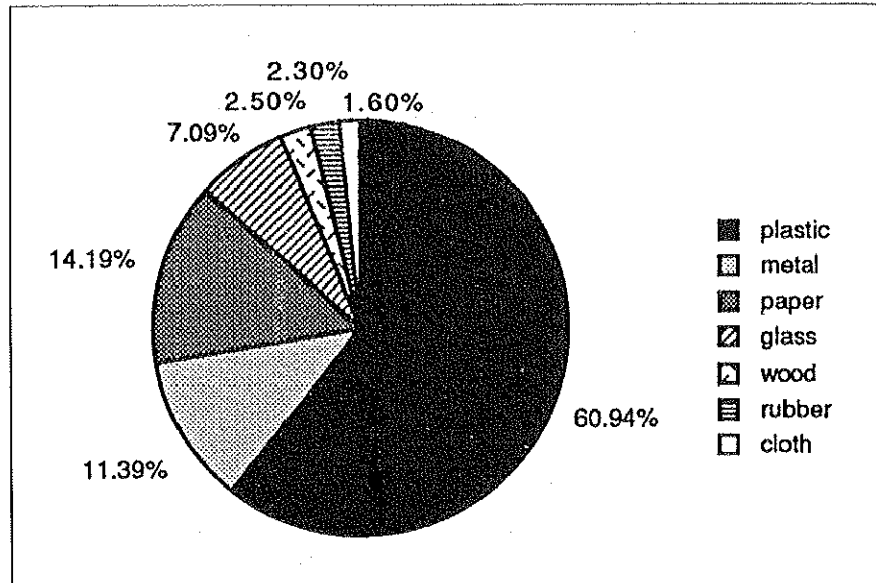
Cape Cod cleanups included Osterville Bay School's cleanup at Sandy Neck and well attended efforts in Eastham and Wellfleet. From Bourne to Provincetown, Cape cleanups collected over 3.5 tons of beach debris over some 34 miles of shoreline. Unusual items found in the course of the cleanups included a lead soldier, a 13-inch television set, a 10-inch long piece of curved bone, various automobile parts, and even a kitchen sink. But by far the most prevalent items collected statewide were made of plastic and styrofoam—coffee cups, food wrappers, fishing line, drinking straws, floats, etc.

The Massachusetts Coastal Zone Management Program (MCZM) coordinated the statewide effort in 1988 and plans to continue the program in 1989, with special emphasis on school participation next year. MCZM sends sincere thanks to all those persons committed to a cleaner coast including: the Coastal Resources Advisory Board for its efforts to increase awareness about the hazards of plastic pollution and dedication to increased public education programs, including construction of the Plastic Pollution Project as part of COASTWEEKS '88; Damon Clinical Laboratories, a division of Damon Corporation of Needham, and the Massachusetts General Hospital Blood Bank for donation of latex gloves for beach cleaners; Mobil Oil Corporation and Purity Supreme of Falmouth for donation of large trash bags, and Stop and Shop Corporation for donation of photodegradable shopping bags; MIT Sea Grant and Battelle Ocean Sciences for production of the publication "Plastics: Sealing the Fate of Marine Life," which explains the dangers of plastic pollution and the efforts to search for a solution to this serious marine pollution problem; all those persons involved in the construction of "Washed Up:

Plastic Pollution Project" which involved the creation of a sculpture by Boston artist Jerry Beck at Plymouth Memorial State Park which incorporated plastic debris collected from Massachusetts beaches and was later dismantled and transported to New England's CRINC's North Billerica reprocessing plant where the plastics were recycled into a park bench; and Tom Bigford, of the National Marine Fisheries Service, on the North Shore, and Judith Foote, Cape Cod Conservation District, for regional coordination. And of course, a thank you to the thousands of persons who made the beach cleanups actually happen.

Jane Alford

PERCENT COMPOSITION OF MASSACHUSETTS' BEACH DEBRIS:



MASSACHUSETTS' DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic pieces	7,223	7.99
2. small foamed plastic pieces	5,539	6.12
3. plastic cups, spoons, forks, straws	5,408	5.98
4. paper pieces	5,244	5.80
5. metal beverage cans	4,308	4.76
6. plastic caps, lids	3,919	4.33
7. plastic rope 2 feet or shorter	3,822	4.23
8. miscellaneous (other) plastic bags	3,653	4.04
9. glass pieces	3,448	3.81
10. foamed plastic cups	2,972	3.29
11. plastic trash bags	2,579	2.85
12. metal bottle caps	2,072	2.29
Total	50,187	55.48

TYPES AND SOURCES OF MASSACHUSETTS'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	12.32
Galley Wastes	5.43
Fishing/Boating Gear	9.49
Operational Wastes	1.94
Sewage Wastes	2.03
Medical Wastes	0.07

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Essex	22.87	glass pieces (fragments)
2. Rockport	83.12	small foamed plastic pieces
3. Gloucester	71.08	plastic cups, spoons, forks, straws
4. Manchester	78.25	plastic cups, spoons, forks, straws
5. Beverly	63.03	small foamed plastic pieces
6. Salem	72.10	small foamed plastic pieces
7. Marblehead	61.13	plastic pieces (fragments)
8. Belle Isle	53.21	glass pieces (fragments)
9. East Boston	56.66	plastic cups, spoons, forks, straws
10. Hull	95.03	plastic cups, spoons, forks, straws
11. Scituate	62.60	plastic tampon applicators
12. Marshfield	62.46	small foamed plastic pieces
13. Duxbury	60.17	short pieces plastic rope
14. Plymouth	54.89	foamed plastic cups
15. White Horse Beach	57.81	plastic pieces (fragments)
16. Scusset	56.55	glass pieces (fragments)
17. Sandwich	56.38	paper pieces (fragments)
18. Barnstable	53.42	newspaper pieces
19. Brewster	50.00	plastic cups, spoons, forks, straws
20. Eastham	70.63	plastic pieces (fragments)
21. Wellfleet	50.55	plastic pieces (fragments)
22. Truro	61.80	small foamed plastic pieces
23. Cape Cod (ocean beaches)	65.81	plastic pieces (fragments)
24. Craigville	75.24	plastic cups, spoons, forks, straws
25. Washburn	71.86	foamed plastic cups
26. Falmouth South	45.54	paper pieces (fragments)
27. Woods Hole	59.26	small foamed plastic pieces
28. West Falmouth	69.25	miscellaneous (other) plastic bags
29. North Falmouth	51.47	paper pieces (fragments)
30. Bourne	44.14	paper pieces (fragments)
31. Wareham	50.91	plastic pieces (fragments)
32. Mattapoisett	51.95	plastic pieces (fragments)
33. Demerst-Lloyd State Park	69.55	small foamed plastic pieces
34. Slocums River	69.97	miscellaneous (other) plastic bags

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	15 birds 1 raccoon

MOST PECULIAR DEBRIS ITEMS REPORTED:

balloon from Baltimore zoo, bathtub, couch, extra large bra, kitchen sink, pieces of old English pottery from the hurricane of 1938, pipe bomb, plastic missile (toy), plastic rooster, pink plastic tube labeled "sterile not for injection," safe, teapot, test tube, toilet, very smelly item in plastic bag identified as "yuck."

FOR INFORMATION ON MASSACHUSETT'S 1989 BEACH CLEANUP CONTACT:

Anne Smrcina
Coastal Zone Management Program
100 Cambridge Street, 20th Floor
Boston, MA 02202
(617) 727-9530

1989 CLEANUP DATE: Saturday, September 23



MISSISSIPPI

September 24, 1988
 1,200 Volunteers
 30 Miles Cleaned
 90,000 Pounds of Debris Collected
 59,451 Debris Items Reported

Coordinated by: Jim Franks
 and Dianne Hunt
 Mississippi Bureau of
 Marine Resources
 P.O. Box 959
 Long Beach, MS 39560
 (601) 385-5860

Sharon Walker
 MS-AL Sea Grant Consortium
 P.O. Box 7000
 Ocean Springs, MS 39564
 (601) 875-9341

Gail Bishop
 Gulf Islands National
 Seashore
 3500 Park Road
 Ocean Springs, MS 39564
 (601) 875-0074

On September 24, 1988 more than 1,200 volunteers collected over 45 tons of trash from approximately 30 miles on the beaches of five Mississippi barrier islands, one nearshore island, and mainland areas located in the three Mississippi coastal counties. The Mississippi Marine Trash Task Force, organizers of the cleanup, planned the campaign to rid the coastlines, even if only temporarily, of unsightly and damaging trash and to provide individuals the opportunity to experience firsthand the magnitude of the marine litter problem. The Task Force is composed of representatives of the State Bureau of Marine Resources, Chevron U.S.A. Inc, City of Biloxi, Friends-of-the-Islands, Gulf Islands National Seashore, Hancock Chamber of Commerce, Harrison County Beautification Program, Mississippi-Alabama Sea Grant Consortium, Mississippi Gulf Coast Community College, Pascagoula Keep America Beautiful, and the Scranton Museum.

Among the cleanup zones were barrier islands in the Mississippi District of the Gulf Islands National Seashore, a National Park Service area that encompasses unique wildlife habitat and cultural, historical, and recreational areas. Two of the islands, in fact, are the only barrier island environments in the Gulf of Mexico that are designated wilderness areas by the National Park Service. Mainland zones included waterfront areas that are not regularly maintained by local governments and that are marsh areas of wildlife habitat or areas such as harbors or beaches involving extensive use.

The cleanup involved unique challenges. Mississippi does not have developed barrier islands. Therefore, the cooperation of business, industry, and private boaters was necessary to secure boats large enough to transport volunteers to and from the islands and trash back to the mainland. Three waste disposal companies cooperated in disposal of trash. More than 27 businesses, industries, and civic groups donated funds, bottled water, soft drinks, bags, and other materials and services.

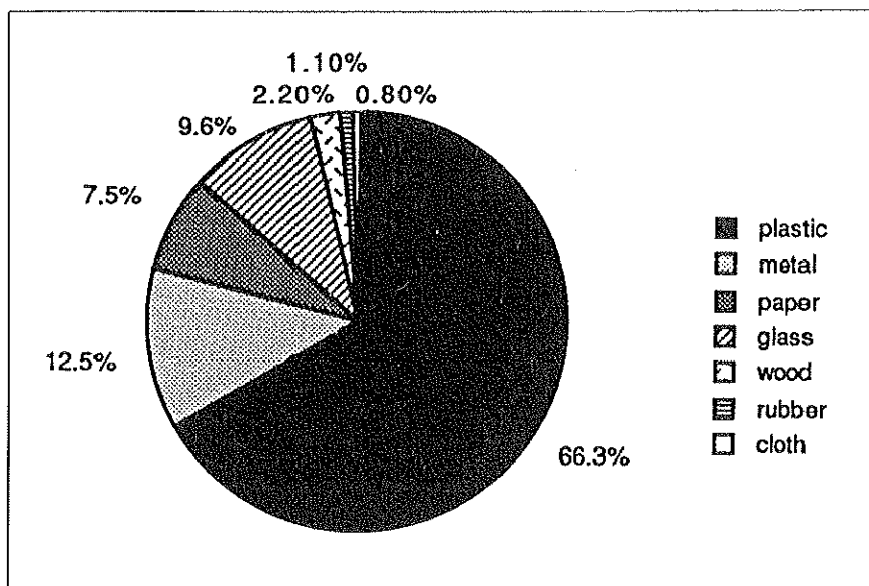
Volunteers ranged in age from babies in backpacks to an Honorary Cleanup Captain, 92-year-old "Auntie Litter." Involved were families, individuals, a commercial shrimper, groups from businesses, civic organizations, yacht clubs, environmental and conservation organizations, churches, 4-H, boy and girl scout troops, military installations, and students. The group that collected the most trash in each county received an engraved plaque. The group that collected the most trash overall received an engraved Sea Grant trophy to be on permanent display at the Gulf Islands National Seashore visitor center.

Jim Franks

FALL, 1988 NATIONAL BEACH CLEANUP

RAW DATA SUMMARY	Horn Isl		E&	Cat Isl	Pascagoula		Ocean Spgs		St. Louis,	Harrison			
	Petit Bois Isl	W Ship Isl	Deer Isl	Belle Fontaine	Ocean Spgs front	Ocean Spgs east	Waveland	Marsh Pt					
RUBBER													
BALLONS	3	22	8	5	15	1	0	7	4	38	0	2	105
GLOVES	15	40	64	7	30	1	0	21	10	15	0	21	224
TIRES	1	1	16	1	33	0	6	3	9	5	2	4	81
OTHER RUBBER	7	18	43	8	58	1	11	26	16	27	2	15	232
METAL													
BOTTLE CAPS	14	142	139	106	81	5	6	96	45	793	10	83	1520
CANS:													
AEROSOL	39	91	184	22	161	3	3	15	10	17	20	4	569
BEVERAGE	162	437	442	133	524	5	31	178	113	218	1	60	2304
FOOD	10	22	10	17	64	0	1	6	2	61	0	8	201
CANS	21	21	63	10	107	0	2	16	4	36	0	7	287
CRAB/FISH	1	3	4	9	22	2	6	11	3	12	0	4	77
DRUMS:													
RUSTY	1	1	8	2	26	0	0	7	1	7	0	1	54
NEW	0	2	0	0	1	0	0	2	0	2	0	0	7
PIECES	0	19	30	2	82	0	7	23	2	74	0	5	244
FULL TABS	0	794	149	3	34	6	1	67	15	291	0	349	1709
WIRE	0	10	20	1	23	2	1	8	6	36	0	9	116
OTHER	6	18	22	8	208	1	1	21	16	16	0	18	335
PAPER													
PAPER BAGS	9	20	14	4	70	5	21	59	32	261	0	21	516
CARDBOARD	9	18	30	3	51	3	4	57	42	102	1	24	344
CARTONS	10	41	37	6	70	0	3	41	12	76	0	15	311
CUPS	31	75	60	2	157	3	7	82	12	352	25	18	824
NEWSPAPER	0	0	4	0	5	2	7	10	1	231	0	4	264
PIECES	15	37	184	13	211	3	45	318	65	328	0	111	1330
OTHER	13	24	51	4	91	0	0	322	74	168	0	96	843
WOOD													
CRAB/LOBSTER	0	2	2	2	5	0	0	4	5	4	1	2	27
CRATES	2	3	7	0	15	0	6	7	4	2	0	1	47
PALLETS	0	1	4	1	14	0	0	15	0	25	2	3	65
PIECES	5	75	149	43	172	6	15	223	126	153	1	52	1020
OTHER	3	6	47	5	5	0	0	32	5	47	0	4	154
CLOTH													
	32	30	85	24	96	9	11	43	18	112	4	40	504
TOTAL ITEMS/ZONE	2369	7078	15083	2085	11806	816	971	4470	2233	9349	451	2740	59451

**PERCENT COMPOSITION OF
MISSISSIPPI'S
BEACH DEBRIS:**



MISSISSIPPI'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. plastic beverage, soda bottles	4,143	6.97
2. small foamed plastic pieces	3,532	5.94
3. foamed plastic cups	3,049	5.13
4. glass beverage bottles	2,470	4.15
5. plastic caps, lids	2,443	4.11
6. miscellaneous (other) plastic bottles	2,421	4.07
7. metal beverage cans	2,304	3.88
8. plastic pieces	1,986	3.34
9. metal pull tabs	1,709	2.87
10. plastic milk, water gallon jugs	1,655	2.78
11. plastic trash bags	1,651	2.78
12. plastic cups, spoons, forks, straws	1,634	2.75
Total	28,997	48.77

TYPES AND SOURCES OF MISSISSIPPI'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	22.39
Galley Wastes	9.74
Fishing/Boating Gear	7.93
Operational Wastes	2.57
Sewage Wastes	0.17
Medical Wastes	0.10

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Petit Bois Island	67.33	plastic caps and lids
2. Horn Island	61.13	plastic caps and lids
3. East Ship Island & West Ship Island	82.06	miscellaneous (other) plastic bottles
4. Cat Island	70.07	small foamed plastic pieces
5. Deer Island	68.13	foamed plastic cups
6. Pascagoula River Park	87.13	short pieces of plastic sheeting
7. Belle Fontaine Beach	71.16	small foamed plastic pieces
8. Ocean Springs (front beach and marsh)	56.47	paper pieces (fragments)
9. Ocean Springs (east beach and marsh), Davis Bayou	58.35	plastic trash bags
10. Bay St. Louis, Waveland, and Ellis Cuevas County shorelines	49.46	small foamed plastic pieces
11. Marsh Point	74.50	plastic soda bottles
12. Harrison County Mainland Beach Area	51.79	metal pull tabs

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
dead dolphin with rope looped around tail	12 birds 2 sea turtles 1 armadillo



SEA GRANT PHOTO BY LINDA SKUPIEN

A group of Keesler Air Force Base volunteers board the *Sailfish* for the trip to Deer Island in the one-day beach sweep Sept. 24, 1988. Keesler volunteers removed an estimated 2.5 tons of trash from Deer Island beaches.

MOST PECULIAR DEBRIS ITEMS REPORTED:

air filter, bicycle wheel, car speaker, devil worship items, douche, foreign liquor bottles, electron tube, He-man doll without arms or legs, intravenous drip bag, laundry basket, little brother, medicine bottle, occult paraphernalia, panties and pantyhose, plastic current drift marker bottle, plastic frog, refrigerator, shotgun shell, surgical mask, swimming pool, Tyranasaurus rex (plastic toy), television.

FOR INFORMATION ON MISSISSIPPI'S 1989 BEACH CLEANUP CONTACT:

Dianne Hunt
 Mississippi Department of Wildlife, Fisheries and Parks
 Bureau of Marine Resources
 2620 Beach Boulevard
 Biloxi, MS 39531
 (601) 385-5860

1989 CLEANUP DATE: Saturday, September 23



Volunteers celebrated a successful "Trash Attack" in New Jersey.

NEW JERSEY

October 1 and 8, 1988
 250 Volunteers
 15.4 Miles Cleaned
 10,021 Pounds of Debris Collected
 4,458 Debris Items Reported (Sandy
 Hook Cleanup only)

Coordinated by:
 Valarie Maxwell
 Sandy Hook-October 8, 1989
 Clean Ocean Action
 P.O. Box 505
 Building 18 Hartshorne Drive
 Sandy Hook, Highlands, NJ 07732
 (201) 872-0111

Island Beach State Park—October 1, 1989
 Will Berson
 Department of Environmental Protection
 Division of Coastal Resources
 501 East State Street
 CN 401
 Trenton, NJ 08625
 (609) 292-8973

Long Beach Island-October 1, 1989
 Patricia Morton-Toth
 Alliance for a Living Ocean
 P.O. Box 95
 Ship Bottom, NJ 08008
 (609) 698-7966

Three cleanups took place in New Jersey during October 1988: two cleanups took place on October 1 with one at Island Beach sponsored by the New Jersey Department of Environmental Protection and the other at Long Beach Island sponsored by the Alliance for a Living Ocean. The following weekend, on October 8, Clean Ocean Action sponsored one of its regular "Trash Attack" at Sandy Hook. All told, 250 people participated in New Jersey beach cleanups and collected more 10,000 pounds of debris on approximately 15 miles of coastline.

According to Clean Ocean Action, a howling northeaster coupled with a biting rain set the stage for the October 8 cleanup, the cleanup for which data was collected on the types of debris found. About 50 die-hard "Trash Attackers" came out to comb the beaches just the same, and wound up with two garbage trucks full of trash in about two hours which included the usual assortment of plastic bottles, bags, and pieces of styrofoam in addition to 178 plastic tampon applicators and 40 crack vials.

A long list of people and organizations helped with the Trash Attack. The National Park Service helped coordinate the event; MAST Academy donated a bus for the day, and supplied coffee and paper bags for the trash; 7-11 supplied coffee cups; Y107 radio sponsored the event, and DJ Chris Jones, News Director Fran Harris, and Joanne Ivins took care of publicity.

Clean Ocean Action also thanks Manny Dosil and Linda Lees for supplying sodas and sandwiches, Mark Frey of Keebler for donating snacks, and especially Daisy Bell Lincoln who helped coordinate the great volunteers who showed a real commitment to a clean ocean by braving the rain and cold and coming out to clean the beaches.

Assemblyman Joe Kyrillos, State Senator Frank Pallone, and Congressional Candidate Joe Azzolina all pitched in and helped the Trash Attackers pick up beach litter.

Clean Ocean Action

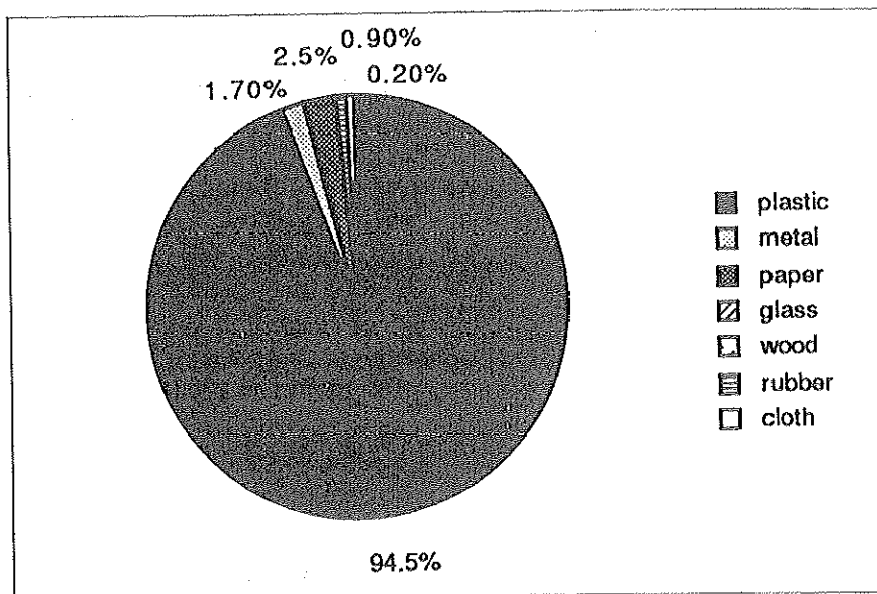
FALL, 1988 NATIONAL BEACH CLEANUP NEW JERSEY

RAW DATA SUMMARY

SANDY HOOK

PLASTIC			RUBBER	
BAGS	TRASH	104	BALLOONS	22
	SALT	0	GLOVES	3
	OTHER	65	TIRES	5
BOTTLES	SODA	437	OTHER	8
	BLEACH	66	METAL	
	OIL	153	BOTTLE CAPS	25
	OTHER	81	CANS: AEROSOL	7
BUCKETS		81	BEVERAGE	27
CAPS/LIDS		529	FOOD	0
CUPS/SPOONS		751	OTHER	0
DIAPERS		7	CRAB/FISH	0
LIGHTERS		42	DRUMS: RUSTY	3
FISH LINE		20	NEW	0
NET LONG		1	PIECES	1
SHORT		7	PULL TABS	8
FLOATS/LURES		27	WIRE	2
HARD HATS		0	OTHER	1
LIGHT STICKS		2	PAPER	
MILK JUGS		193	BAGS	4
PIECES		264	CARDBOARD	5
PIPE THREAD		9	CARTONS	27
ROPE LONG		19	CUPS	57
SHORT		29	NEWSPAPER	3
SHEETING LONG		14	PIECES	10
SHORT		55	OTHER	4
SIX-PACK		130	WOOD	
STRAP BANDS		31	CRAB/LOBSTER	0
SYRINGES		11	CRATES	2
TAMPON APP.		147	PALLETS	0
TOYS		70	PIECES	2
VEGGIE		5	OTHER	2
WRITE PROTECTOR		11	CLOTH	
OTHER		81	CLOTHING/PIECES	10
GLASS				
BOTTLES: BEVERAGE		3		
FOOD		0		
MISC.		3	TOTAL ITEMS/ZONE	4458
FLUORO TUBE		0		
LIGHT BULBS		0		
PIECES		0		
OTHER		0		
STYROFOAM				
BUOYS		1		
CUPS		258		
EGG CARTONS		10		
FAST FOOD		132		
MEAT TRAYS		13		
STYRO: LARGE		119		
SMALL		230		
OTHER		9		

PERCENT COMPOSITION OF SANDY HOOK, NEW JERSEY BEACH DEBRIS:



SANDY HOOK, NEW JERSEY'S, DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic cups, spoons, forks, straws	751	16.85
2. plastic caps, lids	529	11.87
3. plastic beverage, soda bottles	437	9.80
4. plastic pieces	264	5.92
5. foamed plastic cups	258	5.79
6. small foamed plastic pieces	230	5.16
7. plastic milk, water gallon jugs	193	4.33
8. plastic oil, lube bottles	153	3.43
9. plastic tampon applicators	147	3.30
10. foamed plastic fast-food containers	132	2.96
11. plastic six-pack rings	130	2.92
12. large foamed plastic pieces	119	2.67
Total	3,343	74.99

TYPES AND SOURCES OF SANDY HOOK, NEW JERSEY BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	14.13
Galley Wastes	8.77
Fishing/Boating Gear	5.88
Operational Wastes	1.50
Sewage Wastes	3.30
Medical Wastes	0.25

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Data was collected for only Sandy Hook, New Jersey.

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

none reported

MOST PECULIAR DEBRIS ITEMS REPORTED:

Barbie dolls, contraceptive foam kit and applicator, crack vials and lids, curlers, drug wrappers, medicine bottles, pacifier, plastic Buddha head, toy knife and soldiers.

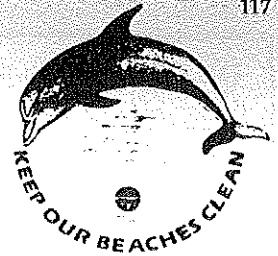
FOR INFORMATION ON NEW JERSEY'S 1989 BEACH CLEANUP CONTACT:

**Island Beach State Park
Will Berson
Department of Environmental Protection
Division of Coastal Resources
501 East State Street
CN 401
Trenton, NJ 08625
(609) 292-8973**

**Long Beach Island
Patricia MortonToth
Alliance for a Living Ocean
P.O. Box 95 Ship Bottom, NJ 08008
(609) 6987966**

**Sandy Hook
Valarie Maxwell
Clean Ocean Action
P.O. Box 505
Building 18, Hartshorne Drive
Sandy Hook
Highlands, NJ 07732
(201) 872-0111**

1989 CLEANUP DATE: Saturday, September 23



NEW YORK

October 8-10, 1988
 150 Volunteers
 4.2 Miles Cleaned
 4,560 Pounds of Debris Collected
 12,643 Debris Items Reported

Coordinated By: Roberta Weisbrod
 New York State Department of
 Environmental Conservation
 Hunters Point Plaza
 Long Island City, NY 11101
 (718) 482-4992

The cleanups conducted on the morning of October 8, 1988 were uniformly chill and sodden. Hudson Park in New Rochelle was conducted in the late afternoon to take advantage of low tides; then the rain ceased. Nevertheless the participants were uniformly enthusiastic. Despite the 42 degrees (F) temperature, the almost continuous rain, and the wind, "we should do this more often" was exclaimed frequently.

October 9 saw a cleanup of a beach in eastern Long Island while October 10 saw a cleanup at another ocean beach at the western end of the island approximately 80 miles away. All told more than 150 people representing about 15 environmental groups participated in the cleanups. Participants received t-shirts with the beach cleanup logo on front and the "We Care About New York" logo on reverse; gloves and bags were provided by We Care About New York.

The Long Island Sound State legislators were particularly supportive of the effort. State Senators Owen Johnson, Michael Flynn, Guy Vellela, Suzi Oppenheimer, and Assemblyman Tom DiNapoli all helped publicize the event; State Senator Oppenheimer led the cleanup at Hudson Park, New Rochelle; and Assemblyman DiNapoli helped at Bar Beach.

Breezy Point/Ft. Tilden led the tire derby, coming in with 10 this year (and 16 the year before); Orchard Beach on Pelham Bay was inundated with shopping bags (204) and would be a good place to pick up fishing line (29 pieces). Bar Beach in Hempstead Harbor came in as cleanest beach bringing a scant 41.5 pounds in 0.6 miles of shoreline.

The sources of beach and floatable marine debris in the New York include beach litter, municipal solid waste marine operations, combined sewer overflows, sewage bypass, stormwater outlets, recreational boaters, and commercial vessel solid waste disposal.

New York's 1989 cleanup is scheduled for Sunday, September 24, 1989 with hopes of expanding the number of beaches cleaned including Jones Beach and Robert Moses State Parks on the south shore of Long Island.

Roberta Weisbrod

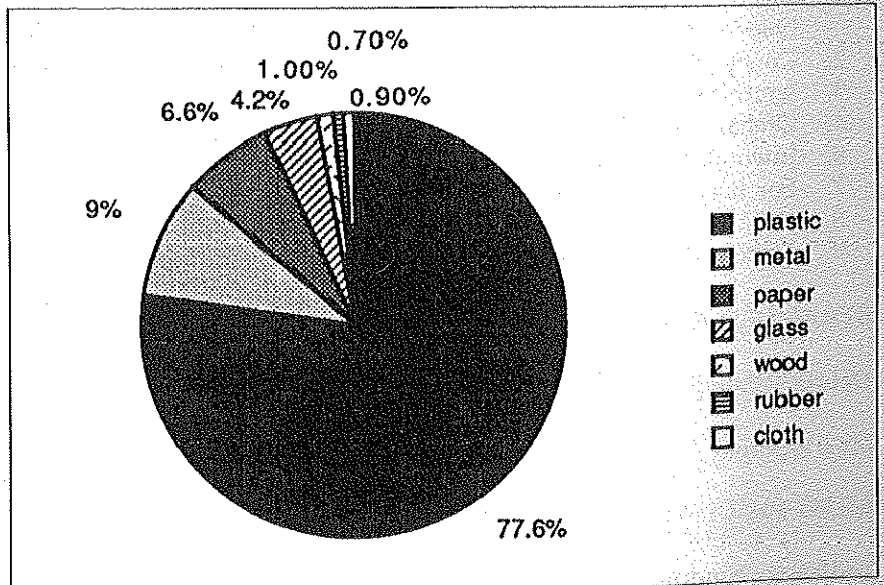
FALL, 1988 NATIONAL BEACH CLEANUP

NEW YORK

RAW DATA SUMMARY		Breezy Point	Fort Tilden	Coney Island	South Beach	Orchard Beach	Inwood Point	Bar Beach	West Beach	STATE TOTAL
PLASTIC										
BAGS	TRASH	17	10	14	30	6	13	42	308	440
	SALT	0	0	0	28	0	0	0	0	28
	OTHER	8	25	31	204	59	0	9	119	455
BOTTLES	SODA	305	118	147	44	67	9	103	166	959
	BLEACH	144	5	7	15	2	0	55	12	240
	OIL	83	14	34	9	6	0	44	24	214
	OTHER	450	37	58	2	10	0	17	4	578
BUCKETS		16	3	1	1	1	0	8	6	36
CAPS/LIDS		241	161	135	25	6	13	49	50	680
CUPS/SPOONS		388	328	179	103	64	86	100	72	1320
DIAPERS		3	4	2	2	0	0	0	1	12
LIGHTERS		146	14	47	2	1	1	14	17	242
FISH LINE		2	4	16	29	1	1	2	34	89
NET	LONG	0	2	0	0	0	0	0	0	2
	SHORT	0	0	0	0	0	0	0	1	1
FLOATS/LURES		2	0	3	1	0	0	11	0	17
HARD HATS		0	0	0	0	0	0	0	0	0
LIGHT STICKS		0	1	4	0	0	0	0	3	8
MILK JUGS		20	2	5	6	1	0	49	10	93
PIECES		375	58	35	107	23	15	15	66	694
PIPE THREAD		0	0	3	0	0	0	0	0	3
ROPE	LONG	10	2	5	0	1	0	5	2	25
	SHORT	14	12	8	0	0	0	2	0	36
SHEETING	LONG	14	0	0	2	0	0	0	2	18
	SHORT	154	1	0	3	0	0	0	1	159
SIX-PACK		88	15	7	16	6	0	1	30	163
STRAP BANDS		8	10	5	0	0	0	1	1	25
SYRINGES		18	3	7	0	3	0	2	0	33
TAMPON APP.		258	57	106	8	0	1	0	14	444
TOYS		14	21	23	3	2	0	12	16	91
VEGGIE		0	11	0	0	1	7	0	0	19
WRITE PROTECTOR		0	19	1	0	0	0	1	1	22
OTHER		15	51	17	64	10	2	26	36	221
GLASS										
BOTTLES:	BEVERAGE	41	37	59	65	77	11	40	12	342
	FOOD	0	1	0	0	7	0	0	0	8
	MISC	0	11	1	0	1	0	3	0	16
FLUORO TUBES		1	0	1	0	0	0	0	0	2
LIGHT BULBS		1	0	4	0	0	0	0	0	5
PIECES		1	57	4	12	8	21	0	0	103
OTHER GLASS		1	0	41	0	6	0	0	1	49
STYROFOAM										
BUOYS		1	0	0	2	4	0	0	4	11
CUPS		184	21	28	12	58	17	40	148	508
EGG CARTONS		2	1	1	0	2	0	0	8	14
FAST FOOD		30	28	5	5	6	12	5	45	136
MEAT TRAYS		40	0	0	1	0	0	9	7	57
STYRO:	LARGE	285	33	30	17	17	5	39	16	442
	SMALL	420	537	45	42	41	75	25	14	1199
OTHER		0	20	6	37	6	0	10	2	81

FALL, 1988 NATIONAL BEACH CLEANUP		NEW YORK								
RAW DATA SUMMARY		Breezy Point	Fort Tilden	Coney Island	South Beach	Orchard Beach	Inwood Point	Bar Beach	West Beach	STATE TOTAL
RUBBER										
BALLONS		0	12	11	1	1	0	0	1	26
GLOVES		0	1	6	0	0	0	2	0	9
TIRES		10	2	2	1	0	0	6	0	21
OTHER RUBBER		1	7	3	9	10	0	1	7	38
METAL										
BOTTLE CAPS		55	41	8	15	0	28	9	5	161
CANS:	AEROSOL	1	1	15	0	0	0	29	13	59
	BEVERAGE	64	20	34	87	81	16	57	239	598
	FOOD	0	7	0	14	6	0	6	32	65
	CANS	0	1	0	2	1	0	7	76	87
CRAB/FISH		0	1	0	0	0	0	0	1	2
DRUMS:	RUSTY	0	0	0	0	0	0	0	2	2
	NEW	0	0	0	0	0	0	0	2	2
PIECES		0	26	5	3	2	8	0	0	44
PULL TABS		12	8	5	7	0	3	0	0	35
WIRE		0	4	7	0	0	0	0	0	11
OTHER		0	6	13	29	6	10	2	4	70
PAPER										
PAPER BAGS		20	22	2	9	7	4	1	22	87
CARDBOARD		0	7	0	8	8	12	1	8	44
CARTONS		0	27	8	12	11	0	14	36	108
CUPS		195	21	17	12	6	14	9	8	282
NEWSPAPER		10	7	0	38	1	0	0	0	56
PIECES		0	26	4	67	10	100	0	4	211
OTHER		5	7	5	15	3	0	1	9	45
WOOD										
CRAB/LOBSTER		0	0	0	0	0	0	0	2	2
CRATES		0	0	0	0	0	0	0	4	4
PALLETS		0	1	0	5	1	0	0	4	11
PIECES		0	29	39	2	5	15	1	0	91
OTHER		0	6	4	0	1	0	1	9	21
CLOTH										
		11	16	5	36	1	9	5	28	111
TOTAL ITEMS/ZONE		4184	2040	1318	1269	664	508	891	1769	12643

PERCENT COMPOSITION OF NEW YORK'S BEACH DEBRIS:



NEW YORK'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic cups, spoons, forks, straws	1,320	10.44
2. small foamed plastic pieces	1,199	9.48
3. plastic beverage, soda bottles	959	7.59
4. plastic pieces	694	5.49
5. plastic caps, lids	680	5.38
6. metal beverage cans	598	4.73
7. miscellaneous (other) plastic bottles	578	4.57
8. foamed plastic cups	508	4.02
9. miscellaneous (other) plastic bags	455	3.60
10. plastic tampon applicators	444	3.51
11. small foamed plastic pieces	442	3.50
12. plastic trash bags	440	3.48
Total	8,317	65.78

TYPES AND SOURCES OF NEW YORK'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	17.86
Galley Wastes	6.83
Fishing/Boating Gear	3.51
Operational Wastes	0.71
Sewage Wastes	3.51
Medical Wastes	0.26

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Breezy Point, Fort Tilden, Queens, Gateway National Park	89.75	plastic oil and lube bottles
2. Coney Island, Brooklyn	79.80	small foamed plastic pieces
3. South Beach, Staten Island	77.01	plastic cups, spoons, forks, straws
4. Orchard Beach, The Bronx	64.62	miscellaneous (other) plastic bags
5. Inwood Point, Manhattan	60.84	metal beverage cans
7. Bar Beach, North Hempstead	50.59	paper pieces (fragments)
8. West Beach, Fort Tilden	78.12	miscellaneous (other) plastic bags
9. Dubose Point, Rockaway	70.10	plastic trash bags

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	1 seagull

MOST PECULIAR DEBRIS ITEMS REPORTED:

bedframe, condoms, crack vials, dessicant, douche, love letters, medical tubing, oxygen bottle, pacifiers, shotgun shells, sludge cakes, toilet paper roll, winter underwear.



Beach cleanup volunteers at Coney Island.

FOR INFORMATION ON NEW YORK'S 1989 BEACH CLEANUP CONTACT:

**Roberta Weisbrod
New York State Department of Environmental Conservation
Hunters Point Plaza
Long Island City, NY 11101
(718) 482-4992**

1989 CLEANUP DATE: Sunday, September 24



NORTH CAROLINA

September 24, 1988
 3,500 Volunteers
 150 Miles Cleaned
 94,000 Pounds of Debris Collected
 167,161 Debris Items Reported

Coordinated By:
 Northern Beaches—Rich Novak
 UNC Sea Grant
 North Carolina Aquarium
 Roanoke Island
 Airport Road
 Manteo, NC 27954
 (919) 473-3937

Middle Beaches: Diane Warrender
 Keep America Beautiful
 Court House Square
 Beaufort, NC 28516
 (919) 728-8595

Southern Beaches: Andy Wood
 North Carolina Aquarium/Fort Fisher
 Kure Beach, NC 28449
 (919) 458-8257

North Carolina's beaches play a vital role in the economy and aesthetics of our state. But litter and plastics can destroy coastal resources.

To focus public attention on the problems associated with marine debris, five state agencies coordinated Beach Sweep '88. This was North Carolina's second cleanup and one of 25 held nationwide.

The agencies providing overall coordination included UNC Sea Grant, N.C. Division of Coastal Management, N.C. Parks and Recreation, N.C. 4-H Clubs, and the N.C. Office of Marine Affairs. From there, three regional coordinators organized the northern, central, and southern sections of our coast.

Each agency contributed at least one staff person's time as well as money or services for Beach Sweep. Regional coordinators solicited volunteers and managed captains for 38 different cleanup zones.

Fund raising was necessary to meet all other operating expenses. Major donations and support came from McDonald's (printing the promotional poster), Webster Industries/Good Sense Bags, WWAY-TV in Wilmington (2 public service announcements), N.C. Aquarium Society (buttons), Pepsi and Coke distributors, Carolina Power and Light, and Southern Golf Distributors (golf pencils).

Publicity before the September 24 cleanup was more extensive than that for our first cleanup and included PSAs, news releases, a press conference, press kits, newsletter, state magazine articles, interviews and a toll-free information number.

The publicity paid off. On September 24, 3,500 people came to the coast. From 9 a.m. to 1. p.m. these volunteers collected more than 47 tons of trash and recorded each piece on data cards.

With this, North Carolina's Beach Sweep has been named as a finalist in the 1988 Take Pride in America Awards. Beach Sweep '88 was extremely effective as an active step in eliminating the problems of marine pollution. That step will be built upon with annual cleanups and ongoing educational activities to reduce littering.

Sarah Friday
 UNC Sea Grant College Program

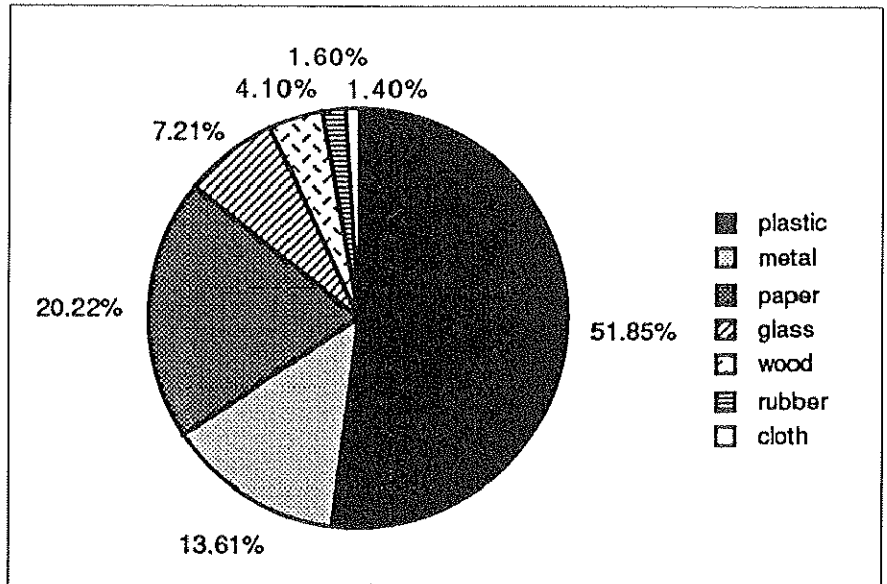
FALL, 1988 NATIONAL BEACH CLEANUP NORTH CAROLINA

RAW DATA SUMMARY		Duck/So Shores		Kill Devil Hills		Jockey's Ridge		Avon		Hatteras/Ocracoke		Morehead City		E. Atlantic Beach		Pine Knoll	
		Corolla N	Kitty Hawk	Nags Head	Pea Island	Frisco	Radio Island	Fort Macon	W. All Beach								
PLASTIC																	
BAGS	TRASH	60	151	187	94	174	27	98	60	132	46	269	171	163	304	66	239
	SALT	3	29	1	10	2	1	1	0	16	0	6	0	3	1	14	0
	OTHER	48	196	134	262	165	92	118	78	132	87	166	75	240	85	197	78
BOTTLES	SODA	139	505	102	42	71	25	207	33	102	75	795	86	246	122	165	58
	BLEACH	37	56	24	7	5	3	63	42	33	18	60	20	42	3	4	11
	OIL	13	55	2	3	5	2	21	1	19	11	97	5	15	0	5	3
	OTHER	13	56	25	22	27	2	103	7	30	21	35	10	32	41	16	35
	BUCKETS	42	87	5	9	10	3	8	3	3	4	8	6	13	2	8	4
	CAPS/LIDS	104	360	202	264	169	39	133	34	57	39	274	65	168	88	172	71
	CUPS/SPOONS	59	404	229	384	154	22	160	75	50	79	261	41	160	199	847	126
	DIAPERS	5	128	3	14	7	0	5	0	7	1	109	6	6	9	5	0
	LIGHTERS	23	39	33	14	22	2	16	4	6	8	22	14	21	48	36	7
	FISH LINE	55	78	58	53	37	2	30	10	50	9	72	1	42	18	24	6
	NET	3	16	10	5	9	1	6	7	1	1	11	3	8	3	11	3
	SHORT	2	21	6	5	2	0	1	3	1	0	24	1	23	5	25	1
	FLOATS/LURES	5	18	10	25	22	4	23	3	3	11	16	6	53	5	3	4
	HARD HATS	5	1	0	0	1	0	0	0	0	0	1	0	1	0	0	1
	LIGHT STICKS	35	15	24	1	43	2	8	3	3	12	1	5	2	20	1	1
	MILK JUGS	108	101	7	57	39	53	42	14	29	36	56	18	23	7	11	4
	PIECES	171	744	204	235	192	114	83	14	219	64	459	153	210	70	307	65
	PIPE THREAD	2	8	3	4	0	3	0	0	0	2	75	1	9	12	0	1
	ROPE	19	30	21	49	28	10	41	18	13	13	49	46	69	57	35	2
	SHORT	69	85	40	91	74	21	34	19	35	38	62	132	326	67	153	20
	SHEETING	2	27	5	4	0	5	29	26	8	0	31	0	9	2	2	1
	SHORT	26	59	68	13	12	3	28	38	8	1	16	9	10	8	12	3
	SIX-PACK	103	97	35	65	33	9	21	6	19	15	124	27	21	28	59	0
	STRAP BANDS	35	59	20	32	6	4	36	21	7	3	36	22	30	30	19	4
	SYRINGES	1	22	2	1	2	0	1	0	1	1	4	0	2	0	0	0
	TAMPON APP.	9	28	34	36	12	2	3	1	13	1	2	0	2	13	15	0
	TOYS	9	44	29	33	24	4	9	13	10	3	33	5	4	1	25	9
	VEGGIE	17	22	0	7	15	0	4	3	3	5	3	5	14	8	20	0
	WRITE PROTECTOR	0	8	5	7	0	0	6	0	8	0	0	1	1	0	10	1
	OTHER	4	90	127	105	83	12	52	14	54	51	53	44	57	119	238	9
GLASS																	
BOTTLES:	BEVERAGE	266	667	73	199	114	39	421	123	151	128	955	45	64	85	217	68
	FOOD	39	85	2	15	2	2	87	1	18	11	166	2	38	26	14	2
	MISC	6	15	13	0	1	1	9	0	0	6	29	0	30	5	10	0
	FLOOR TUBES	15	31	3	0	0	0	37	1	1	2	2	1	0	1	0	4
	LIGHT BULBS	20	29	5	2	4	1	64	0	11	7	14	9	21	8	3	3
	PIECES	60	158	10	50	36	22	25	18	42	60	705	67	112	80	95	27
	OTHER GLASS	0	2	2	40	41	1	4	2	4	3	36	0	8	111	4	0
STYROFOAM																	
	BOOYS	16	18	11	5	7	4	51	1	5	7	21	1	12	37	1	2
	CUPS	190	672	191	160	132	17	177	37	69	63	273	269	151	220	233	109
	EGG CARTONS	4	18	15	9	11	2	13	2	41	6	29	3	17	14	6	6
	FAST FOOD	21	119	24	66	45	21	35	6	4	4	98	22	73	31	42	96
	NEAT TRAYS	20	49	11	20	23	5	14	3	7	2	10	4	8	14	6	20
	STYRO: LARGE	124	163	122	158	81	16	150	23	49	23	48	53	82	18	56	11
	SMALL	65	840	253	316	280	68	125	75	72	64	176	476	483	51	144	44
	OTHER	0	55	17	153	28	1	74	6	89	8	24	1	187	0	8	1

PAUL, 1988 NATIONAL BEACH CLEANUP NORTH CAROLINA

RAW DATA SUMMARY	Duck/So Shores		Kill Devil Hills		Jockey's Ridge		Avon	Hatteras/ Frisco	Ocracoke	Morehead City		E. Atlantic Beach		Pine Knoll		
	Corolla N	Kitty Hawk	Nags Head	Pea Island						Radio Island	Fort Macon	W. Atl Beach				
ROUBER																
BALLONS	5	42	36	33	65	2	42	4	9	6	5	2	37	16	28	5
GLOVES	1	13	4	0	0	0	2	8	11	1	9	0	4	15	1	10
TIRES	5	5	3	1	2	3	4	2	0	0	27	3	20	6	1	9
OTHER ROUBER	4	54	19	36	13	12	42	10	13	17	62	12	30	25	45	8
NETAL																
BOTTLE CAPS	133	167	126	198	110	14	34	35	18	22	276	7	32	180	172	36
CANS:																
AEROSOL	17	71	27	73	14	0	66	6	32	14	54	3	15	28	64	7
BEVERAGE	287	868	225	342	154	60	803	199	230	325	580	81	67	234	346	125
FOOD	16	26	2	23	16	2	19	1	25	11	72	0	40	78	21	1
CANS	21	13	6	18	6	7	43	4	8	8	149	19	16	71	9	18
CRAB/FISH	0	3	0	1	1	0	0	0	6	0	73	2	7	3	6	0
DRUMS:																
RUSTY	1	1	1	0	0	0	4	0	0	4	22	0	4	6	1	0
NEW	8	0	6	1	0	0	0	0	1	0	1	0	1	0	0	0
PIECES	8	38	19	38	12	17	22	4	2	1	74	6	26	72	57	14
PULL TABS	13	37	74	120	26	5	2	0	1	1	33	0	4	37	53	2
WIRE	6	67	9	18	49	0	4	12	8	2	55	9	6	39	38	8
OTHER	3	18	17	17	27	1	15	62	8	13	132	5	13	16	24	4
PAPER																
PAPER BAGS	43	138	27	109	43	3	17	22	13	19	134	13	17	128	73	21
CARDBOARD	17	160	59	94	47	22	41	27	31	16	230	27	22	39	52	17
CARTONS	21	64	43	44	20	1	37	23	17	17	117	7	11	40	62	12
CUPS	104	251	39	95	60	2	23	29	23	56	153	14	51	84	134	20
NEWSPAPER	12	54	9	14	18	2	0	4	4	9	66	1	15	26	52	6
PIECES	72	668	263	516	383	30	75	127	117	73	375	55	150	179	367	311
OTHER	45	282	134	79	115	53	14	82	24	30	140	20	527	142	573	135
WOOD																
CRAB/LOBSTER	0	8	28	0	3	0	0	0	0	0	23	7	10	0	0	0
CRATES	1	5	1	5	6	0	4	0	0	2	2	1	5	9	0	0
PALLETS	2	4	0	3	2	0	5	1	2	0	10	0	2	4	42	0
PIECES	10	195	141	166	233	123	232	43	39	47	165	103	266	72	180	56
OTHER	4	20	9	17	13	31	26	30	3	0	6	1	40	120	57	8
CLOTH																
	17	80	68	116	62	13	56	46	76	62	195	18	20	49	61	26
TOTAL ITEMS/ZONE	2948	9914	3802	5343	3750	1070	4308	1649	2336	1796	9068	2343	4773	3776	5884	2019

PERCENT COMPOSITION OF NORTH CAROLINA'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		NORTH CAROLINA																			
		Emerald Isle		Swansboro		W Onslow		Lee Isl		Wrightsville		Carolina		Kure		Oak Island		Sunset		STATE	
RAW DATA SUMMARY		Bogue	Hammocks	Lejeune	Surf City	Figure Eight Isl	Masonboro	Wilmington	Fort Fisher	Holden											TOTAL
RUBBER																					
BALLOONS	35	113	49	15	10	52	58	2	8	127	37	51	1	19	50	67	65	19	1125		
GLOVES	0	7	2	1	1	2	7	0	0	14	0	3	0	3	6	9	5	3	142		
TIRES	0	2	0	0	0	0	4	0	12	31	5	9	0	0	11	53	4	1	225		
OTHER RUBBER	23	77	17	1	2	40	37	3	4	384	16	58	1	33	37	55	21	20	1231		
METAL																					
BOTTLE CAPS	65	328	29	29	20	159	75	15	14	570	104	280	28	277	135	112	59	118	3985		
CANS:																					
AEROSOL	6	11	21	13	0	34	83	5	140	58	24	15	0	1	226	11	21	31	1191		
BEVERAGE	167	305	283	47	47	598	352	206	6	461	991	599	17	269	979	852	159	385	11649		
FOOD	11	9	82	1	4	26	9	7	32	74	36	47	0	19	31	25	10	11	787		
CANS	9	99	22	2	2	37	42	0	2	112	21	44	0	14	72	17	16	10	937		
CRAB/FISH	0	1	0	0	0	2	1	0	0	12	0	0	0	0	1	1	0	2	122		
DRUMS:																					
RUSTY	0	72	1	0	3	2	3	0	0	2	7	11	0	2	4	3	11	0	165		
NEW	0	4	2	0	0	7	1	0	0	4	0	5	0	0	2	0	0	4	47		
PIECES	16	157	8	7	3	44	45	3	5	169	46	34	3	27	134	65	21	11	1208		
PULL TABS	14	35	6	1	12	11	38	10	5	69	7	24	3	13	27	18	27	10	738		
WIRE	1	65	14	4	11	29	36	0	2	63	9	22	0	11	19	21	8	9	654		
OTHER	21	310	30	0	50	53	73	2	1	175	6	15	2	20	33	57	30	12	1285		
PAPER																					
PAPER BAGS	14	201	9	54	28	95	66	6	1	155	8	176	4	28	115	144	44	37	2005		
CARDBOARD	23	97	30	5	12	123	111	0	4	137	18	98	10	29	38	76	51	76	1839		
CARTONS	11	73	15	7	4	61	30	5	6	76	15	106	2	45	39	105	30	50	1216		
CUPS	62	119	9	31	28	189	63	5	14	192	90	121	7	69	137	185	33	74	2566		
NEWSPAPER	5	25	19	4	39	45	10	0	3	101	11	10	3	25	72	35	10	13	723		
PIECES	154	1373	243	80	96	424	565	12	38	1994	171	884	70	976	492	422	287	481	12323		
OTHER	450	1099	162	84	71	281	1307	3	49	4916	68	591	7	944	197	64	172	297	13137		
WOOD																					
CRAB/LOBSTER	0	0	0	0	0	9	3	0	0	174	3	0	0	1	0	0	0	10	279		
CRATES	0	0	0	0	0	3	18	0	2	3	0	0	0	2	0	13	5	0	87		
PALLETS	0	2	0	0	7	15	19	0	1	14	3	3	0	2	3	5	6	6	183		
PIECES	145	428	86	15	21	404	413	2	61	634	72	198	18	127	96	253	268	91	5403		
OTHER	19	21	5	1	37	17	117	0	15	101	21	2	0	2	20	54	35	73	925		
CLOTH																					
	26	141	36	8	5	68	92	2	12	203	39	178	2	58	240	171	46	36	2328		
TOTAL ITEMS/ZONE	3321	11112	2869	928	1127	7526	7770	905	1140	19538	4451	7758	394	6646	8650	9620	4493	4134	167161		

NORTH CAROLINA'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. paper pieces	12,323	7.37
2. metal beverage cans	11,649	6.97
3. plastic pieces	10,875	6.51
4. plastic cups, spoons, forks, straws	8,426	5.04
5. foamed plastic cups	8,103	4.85
6. plastic beverage, soda bottles	8,094	4.84
7. small foamed plastic pieces	7,856	4.70
8. miscellaneous (other) plastic bags	7,392	4.42
9. glass beverage bottles	6,440	3.85
10. plastic trash bags	5,476	3.28
11. wood pieces	5,403	3.23
12. plastic caps and lids	4,907	2.94
Total	96,944	57.99

TYPES AND SOURCES OF NORTH CAROLINA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	19.20
Galley Wastes	5.07
Fishing/Boating Gear	4.31
Operational Wastes	1.33
Sewage Wastes	0.16
Medical Wastes	0.05

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Corolla North	56.51	metal beverage cans
2. Duck/Southern Shores	56.23	metal beverage cans
3. Kitty Hawk	60.47	paper pieces (fragments)
4. Kill Devil Hills	53.15	paper pieces (fragments)
5. Nags Head	54.72	paper pieces (fragments)
6. Jockey's Ridge (Sound Side)	56.17	wood pieces (fragments)
7. Pea Island	47.10	metal beverage cans
8. Avon	43.84	metal beverage cans
9. Cape Hatteras/Frisco	59.42	metal beverage cans
10. Ocracoke	45.82	metal beverage cans
11. Radio Island	43.24	glass beverage bottles
12. Morehead City Waterfront	76.95	small foamed plastic pieces
13. Fort Macon	63.71	small foamed plastic pieces
14. E. Atlantic Beach	46.13	plastic trash bags
15. W. Atlantic Beach	51.33	plastic cups, spoons, forks, straws
16. Pine Knoll Shores	52.30	paper pieces (fragments)
17. Bogue Banks	55.89	plastic pieces (fragments)
18. Emerald Isle	50.71	paper pieces (fragments)
19. Hammocks Beach State Park	53.50	metal beverage cans
20. Swansboro	52.69	plastic trash bags
21. Camp LeJeune	47.38	plastic cups, spoons, forks, straws
22. West Onslow	52.87	plastic soda bottles
23. Surf City/Topsail	48.07	plastic pieces (fragments)
24. Lee Island	61.66	metal beverage cans
25. Figure Eight Island	56.32	metal aerosol cans
26. Wrightsville Beach	39.39	paper pieces (fragments)
27. Masonboro Island	52.17	metal beverage cans
28. Carolina Beach	51.91	paper pieces (fragments)
29. Wilmington Beach	51.78	paper pieces (fragments)
30. Kure Beach	54.05	paper pieces (fragments)
31. Fort Fisher	53.32	metal beverage cans
32. Oak Island	62.95	metal beverage cans
33. Holden Beach	62.92	foamed plastic cups
34. Sunset Beach	46.69	paper pieces (fragments)

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:**Debris Related****Other Reports**

bird entangled in fishing line
 2 birds entangled in fishing line
 3 sea turtles (1 juvenile) entangled
 Dowitcher (bird) in fishing line, released
 sandpiper type bird with one leg
 wrapped in rubber band type
 material and no use of leg
 1 adult herring gull with
 leg entangled in plastic six-pack
 ring, looked as if it may
 come off on its own

12 birds

MOST PECULIAR DEBRIS ITEMS REPORTED:

a full diaper, airplane tail part, binoculars, canoe, car, condom, cruise ship shampoo bottle, dental instruments, disposable catheter tip, electric fan, golf balls, hammock, lady's garter, medical vial, military rations, muric acid, money, rug, plastic crab pot, toilet seat, surfboard wax, shotgun shell, side of trailer, pantyhose, plastic hippopotamus, refrigerator, typewriter ribbons, underwear, unmatched socks, water heater, weathered pocket watch.

FOR INFORMATION ON NORTH CAROLINA'S 1989 BEACH CLEANUP CONTACT:

Lundie Spence or Sarah Friday
University of North Carolina Sea Grant College Program
Box 8605
North Carolina State University
Raleigh, NC 27695-8605
1-800-27SWEEP

1989 CLEANUP DATE: Saturday, September 23



BRUCE JACKSON

This young cleanup crew was a part of Oregon's successful "Get the Drift and Bag it."



OREGON

October 8, 1988
 2,200 Volunteers
 120 Miles Cleaned
 28,400 Pounds of Debris Collected
 53,686 Debris Items Reported

Coordinated By: Judie Neilson
 Oregon Department of Fish and Game
 P.O. Box 59
 Portland, OR 97207
 (503) 229-5406

The fifth annual "Get the Drift and Bag It" was held on Saturday, October 8, 1988 from 9 a.m. until noon. Approximately 2,200 volunteers collected 14.2 tons of debris. These figures compare with previous years as follows: 1984—2,100 volunteers and 26.3 tons; 1985—2,300 volunteers and 25.5 tons; 1986—1,400 volunteers and 14 tons; 1987—2,700 volunteers and 17.5 tons.

Comparing the yearly totals shows that we are definitely finding less debris. From every zone the comment "the beach is the cleanest ever" came from the volunteers. This could be the result of increased awareness and dedication of Oregonians to packing out their beach trash, no big storms in the fall, which would shift the sand piles and uncover accumulated trash, the tremendous effort of the State Parks' "Company's Coming" cleanup last spring which removed 26 tons of debris, and changes in marine user attitudes about trash and its handling in anticipation of implementation of Annex V of the MARPOL Protocol.

There was no end to the variety of the debris found—tires, mattresses, 55 gallon drums, car bodies, parts of a boat, a couch, crab pots, bottles with Asian printing, and the most unusual of all, a mortuary box containing the ashes of someone buried at sea.

All plastic debris was picked up at sites along the coast by Environmental Pacific Corporation to be analyzed for recyclability. Only one gylord of polystyrene foam was suitable for recycling by the Amoco Foam Products Company, but most of the other plastic was reusable. Members of the Oregon Sanitary Service Institute collected all the nonplastic debris and hauled it to landfills.

Eighteen zone captains made special arrangements to feed volunteers the 300 dozen hot dogs, buns, and condiments donated by United Grocers and Armour Foods. Specialty suppliers donated salads, relishes, soft drinks, and potato chips. Food left over from the celebration parties was donated to senior citizen groups along the coast.

The weather was picture perfect. There were busloads of students who came from inland cities to help. Interestingly enough, this year the volunteer crew was mostly 45 years of age and above.

Some volunteers have already signed up for next year's cleanup, scheduled for October 7, 1989, or have agreed to adopt a stretch of beach to clean up a minimum of three times a year. Several Oregon corporations, the Mail Handlers Union, and other organizations chartered buses to bring volunteers to the coast. Coming the farthest distance was a group of about 35 employees and their families from the Amoco Foam Products Company in Yakima, Washington. They are working with the Environmental Pacific Corporation evaluating the polystyrene collected during the cleanup in the hope of reclaiming some of it for future products, such as building insulation.

One technique that worked especially well was having a truck adapted to railroad tracks travel a stretch of track adjacent to Garibaldi and pick up the filled sacks set out by volunteers. In past years this area was not as well cleaned because of poor access for removing the filled sacks.

FALL, 1988 NATIONAL BEACH CLEANUP OREGON

RAW DATA SUMMARY		Sunset Beach to		Arch Cape to		Sandlake to		Depoe Bay to		Yachats to		Ophir to		STATE TOTAL
		Warrenton	Seaside	Seaside to Arch Cape	Bay City	Bay City to Sandlake	Casc Head	C Head to Depoe Bay	Waldport	Waldport to Yachats	Florence	Sixes R to Ophir	CA Border	
PLASTIC														
BAGS	TRASH	6	287	169	222	337	10	155	238	172	64	7	48	1715
	SALT	0	6	5	0	9	0	6	9	0	3	0	3	41
	OTHER	0	296	354	417	1403	4	467	405	99	161	60	155	3821
BOTTLES	SODA	6	28	39	52	71	0	70	39	5	70	21	80	481
	BLEACH	0	17	37	16	128	2	25	30	6	73	38	37	409
	OIL	11	13	13	15	54	2	12	14	7	34	22	13	210
	OTHER	15	50	40	29	118	2	48	47	16	64	30	43	502
BUCKETS		0	5	11	32	36	0	77	22	21	21	11	15	251
CAPS/LIDS		24	113	455	210	492	30	527	274	65	492	112	196	2990
CUPS/SPOONS		4	85	174	119	175	0	311	100	95	136	27	113	1339
DIAPERS		0	8	11	10	12	4	19	27	9	3	2	15	120
LIGHTERS		0	5	14	8	24	4	27	29	2	39	9	13	174
FISH LINE		2	8	69	32	44	0	60	20	27	32	8	37	339
NET	LONG	0	14	17	11	28	2	7	11	3	4	6	3	106
	SHORT	0	2	29	18	27	0	34	21	4	33	9	4	181
FLOATS/LORES		2	6	17	2	46	0	35	35	26	48	14	19	250
HARD HATS		0	1	2	0	1	0	0	1	0	0	13	0	18
LIGHT STICKS		0	2	9	3	13	14	34	5	0	47	0	2	129
MILK JUGS		12	13	17	17	49	8	19	101	4	51	22	40	353
PIECES		0	100	1224	385	1102	50	1061	428	202	728	136	279	5695
PIPE THREAD		0	1	22	15	25	4	3	13	12	4	2	29	130
ROPE	LONG	8	57	77	25	202	4	72	110	25	79	23	35	717
	SHORT	6	51	272	75	392	12	275	230	50	213	46	87	1709
SHEETING	LONG	7	4	9	4	69	4	10	9	8	28	5	8	165
	SHORT	49	35	18	33	53	10	87	40	12	45	0	25	407
SIX-PACK		3	24	53	42	66	2	44	32	12	32	7	29	346
STRAP BANDS		5	19	126	38	99	4	66	70	42	83	9	20	581
SYRINGES		0	1	1	0	12	0	5	6	6	3	0	3	37
TAMPON APP.		0	4	13	7	55	0	9	8	2	7	4	6	115
TOYS		1	16	60	15	56	2	51	40	15	14	0	10	280
VEGGIE		6	11	33	60	92	0	37	77	33	32	25	34	440
WRITE PROTECTOR		3	0	4	2	13	0	10	6	1	5	1	0	45
OTHER		1	41	269	83	248	6	167	122	63	50	13	48	1111
GLASS														
BOTTLES:	BEVERAGE	16	52	105	84	91	0	192	124	27	155	0	103	949
	FOOD	4	3	5	6	21	0	12	11	3	31	0	2	98
	MISC	0	8	2	2	7	0	31	4	1	1	0	1	57
FLUORO TUBES		0	1	3	1	3	0	2	0	0	3	0	1	14
LIGHT BULBS		0	5	5	3	7	0	4	4	2	14	0	3	47
PIECES		1	42	90	222	280	0	312	190	144	29	0	59	1369
OTHER GLASS		0	12	1	22	6	0	16	5	0	8	0	1	71
STYROFOAM														
BOOYS		0	11	26	4	25	0	23	16	8	18	39	2	172
CUPS		11	46	322	363	269	0	356	261	75	206	48	146	2103
EGG CARTONS		1	9	16	15	51	0	13	83	1	21	4	5	219
FAST FOOD		0	20	60	67	85	0	84	67	11	94	10	62	560
MEAT TRAYS		10	17	53	146	182	30	52	159	27	57	78	41	852
STYRO:	LARGE	12	9	81	94	182	0	117	77	57	124	23	65	841
	SMALL	5	66	1020	436	962	60	1181	1321	433	881	267	397	7029
OTHER		0	4	128	30	49	0	277	102	72	2	4	14	682

FALL, 1988 NATIONAL BEACH CLEANUP OREGON

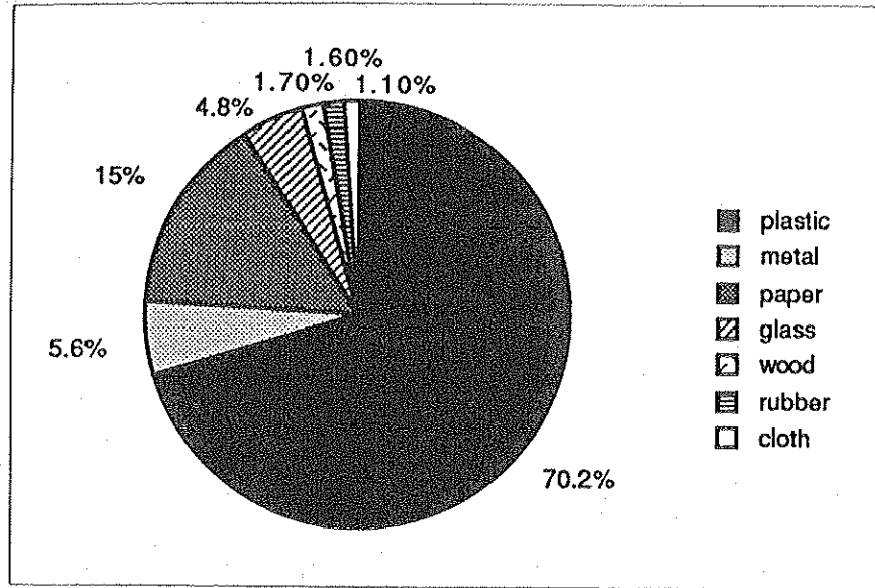
RAW DATA SUMMARY	Warrenton	Sunset Beach to Seaside	Seaside to Arch Cape	Arch Cape to Bay City	Bay City to Sandlake	Sandlake to Casc Head	C Head to Depoe Bay	Depoe Bay to Waldport	Waldport to Yachats	Yachats to Florence	Sixes R to Ophir	Ophir to CA Border	STATE TOTAL
RUBBER													
BALLONS	1	6	35	9	40	0	114	11	6	8	1	8	239
GLOVES	9	17	15	10	12	0	19	10	3	7	2	8	112
TIRES	0	1	2	4	27	0	13	59	3	16	3	14	142
OTHER RUBBER	1	9	31	13	50	0	106	35	3	59	19	38	364
METAL													
BOTTLE CAPS	12	30	75	59	31	0	179	55	14	112	1	68	636
CANS: AEROSOL	0	6	10	11	27	2	21	28	2	33	20	17	177
BEVERAGE	30	55	148	98	119	0	156	60	78	90	32	10	876
FOOD	0	6	7	8	14	0	11	23	1	12	1	40	123
CANS	0	30	41	16	38	0	30	4	6	21	1	6	193
CRAB/FISH	0	0	2	1	2	0	2	3	3	0	8	1	22
DRUMS: RUSTY	0	2	4	2	6	0	3	18	1	1	1	2	40
NEW	0	0	0	0	3	0	7	3	0	0	0	0	13
PIECES	0	11	19	25	27	0	46	37	14	6	7	46	238
PULL TABS	0	13	8	10	14	0	33	9	2	41	0	29	159
WIRE	0	11	30	37	23	0	61	8	9	7	0	20	206
OTHER	0	18	46	25	64	2	73	41	13	3	5	44	334
PAPER													
PAPER BAGS	10	36	65	39	52	4	118	35	14	41	2	46	462
CARDBOARD	18	132	47	66	78	2	123	26	4	21	3	53	573
CARTONS	10	33	18	27	73	0	83	37	4	17	21	36	359
CUPS	6	25	51	63	44	4	128	39	8	56	4	43	471
NEWSPAPER	0	50	92	60	30	0	103	50	30	93	1	46	555
PIECES	1	197	524	409	585	0	725	259	203	84	60	434	3481
OTHER	0	119	409	198	517	80	433	167	109	5	4	98	2139
WOOD													
CRAB/LOBSTER	0	9	0	0	0	0	0	0	1	0	0	0	10
CRATES	0	0	1	2	3	0	6	4	1	6	0	2	25
PALLETS	1	1	5	1	17	0	8	18	4	0	0	2	57
PIECES	0	40	65	58	140	0	97	39	16	36	0	36	527
OTHER	0	11	29	2	23	0	10	16	4	4	0	207	306
CLOTH													
-----	2	46	66	46	80	2	125	55	30	33	0	92	577
TOTAL ITEMS/ZONE	332	2542	7425	4791	9910	366	9335	6192	2491	5154	1351	3797	53686

Thanks to everyone for helping to document marine debris and making the cleanup such a success.

The major sponsors of the cleanup were Oregon Department of Fish and Wildlife, Stop Oregon Litter and Vandalism, the Oregon Telephone Pioneers, and Oregon State Parks.

Judie Neilson

PERCENT COMPOSITION OF OREGON'S BEACH DEBRIS:



OREGON'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. small foamed plastic pieces	7,029	13.09
2. plastic pieces	5,695	10.61
3. miscellaneous (other) plastic bags	3,821	7.12
4. paper pieces	3,481	6.48
5. plastic caps, lids	2,990	5.57
6. foamed plastic cups	2,103	3.92
7. plastic trash bags	1,715	3.19
8. plastic rope 2 feet or shorter	1,709	3.18
9. glass pieces	1,369	2.55
10. plastic cups, spoons, forks, straws	1,339	2.49
11. glass beverage bottles	949	1.77
12. metal beverage cans	876	1.63
Total	33,076	61.61

TYPES AND SOURCES OF OREGON'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	6.42
Galley Wastes	7.43
Fishing/Boating Gear	7.45
Operational Wastes	2.02
Sewage Wastes	0.21
Medical Wastes	0.07

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Warrenton	63.25	short pieces of plastic sheeting
2. Sunset Beach to Seaside	59.21	miscellaneous (other) plastic bags
3. Seaside to Arch Cape	72.31	plastic pieces (fragments)
4. Arch Cape to Bay City	65.79	small foamed plastic pieces
5. Bay City to Sandlake	74.23	miscellaneous (other) plastic bags
6. Sandlake to Cascade Head	73.77	small foamed plastic pieces
7. Cascade Head to Depoe Bay	65.62	small foamed plastic pieces
8. Depoe Bay to Waldport	75.99	small foamed plastic pieces
9. Waldport to Yachats	69.37	small foamed plastic pieces
10. Yachats to Florence	79.57	small foamed plastic pieces
14. Sixes River to Ophir	85.49	small foamed plastic pieces
15. Ophir to CA Border	57.44	paper pieces (fragments)

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
bird part and fishing line	at least 90 reports of stranded birds seagulls (many were multiple observations)
many dead birds in fishing line	
1 dead bird with fishing line around legs	10 seals
baby seagull entangled in plastic vegetable sack	1 walrus
dead bird entangled in cassette tape	
dead bird in kite string	
1 dead seagull with plastic in mouth	
gull in rope	

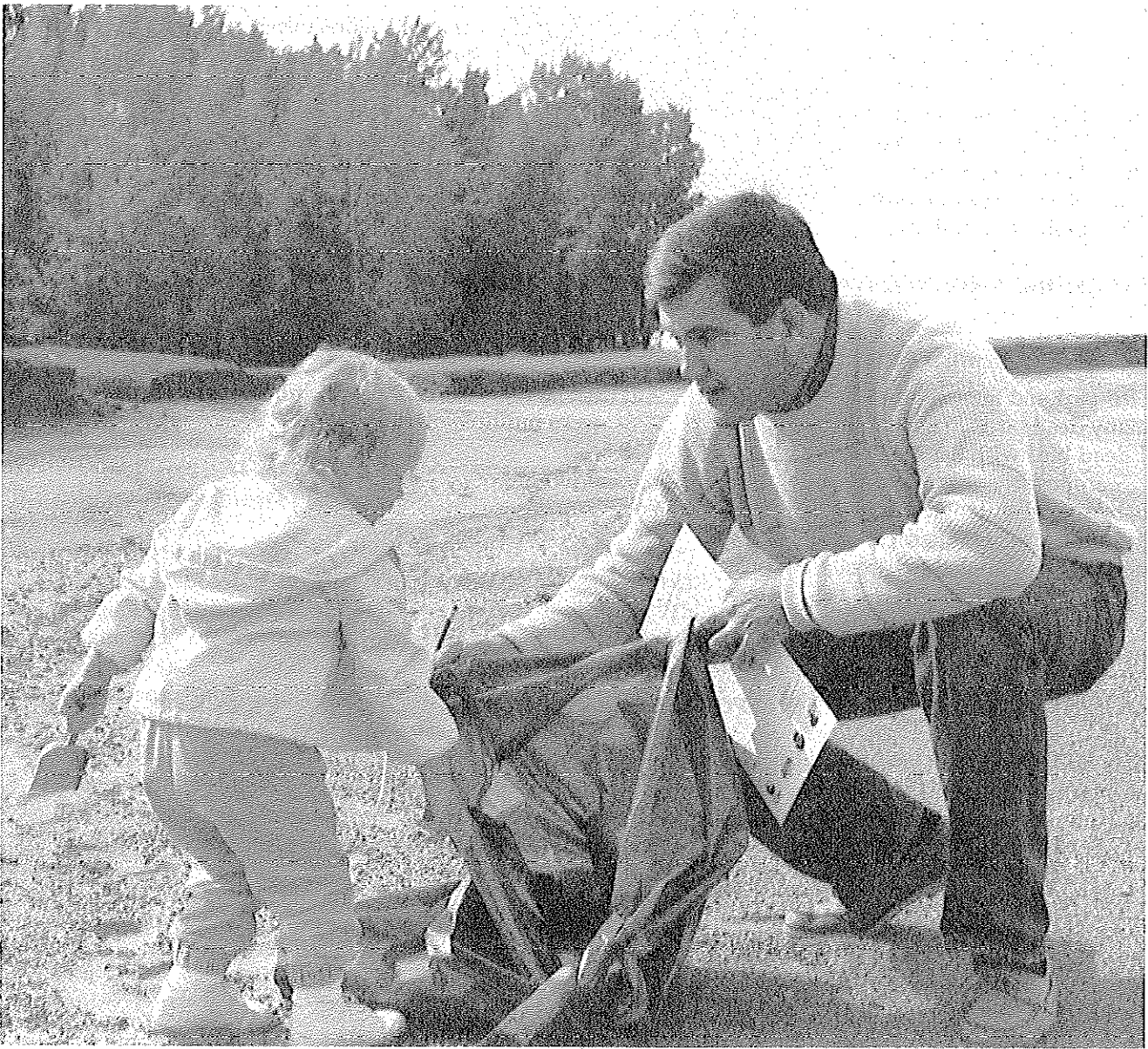
MOST PECULIAR DEBRIS ITEMS REPORTED:

auto or pickup bench seat, bar of Irish Spring soap, broom, condoms, drum of grease, fish heads tied to string, five dollar bill (which was kept!), golf ball, hockey puck, large amount of clothing, litter bag, men's underwear, metal display rack, real estate signs, shotgun shells, snuff box, television, toothbrush, plastic doll leg, plastic turtle, sled, surgical glove, underwear, vitamin bag from Germany.

FOR INFORMATION ON OREGON'S 1989 BEACH CLEANUP CONTACT:

Judie Neilson
Oregon Department of Fish and Game
P.O. Box 59 Portland, OR 97207
(503) 229-5406

1989 CLEANUP DATE: Saturday, October 7



Pennsylvania Congressman Tom Ridge and his daughter worked at the Presque Isle State Park cleanup on Lake Erie.

PENNSYLVANIA

September 24, 1988
174 Volunteers
7 Miles Cleaned
2,445 Pounds of Debris Collected
2,256 Debris Items Reported

Coordinated By: Genny Volgstadt
Presque Isle State Park
P.O. Box 8510
Erie, PA 16505
(814) 871-4251

Presque Isle State Park is a seven-mile peninsula situated on Lake Erie. Five miles of beach front are open to public swimming. Park managers are always wrestling with the trash problem.

Presque Isle State Park has organized beach cleanups for over thirty years. However, 1988 was the first year that the park had taken part in the COASTWEEKS cleanup. Cleanups are normally held in April in preparation of the tourist season. On September 24, 1988, a fall cleanup was also conducted.

Volunteers were asked to gather at the park's Visitor Center at 10 a.m. for area assignments, data cards, and trash bags. A total of 174 volunteers took part in the project collecting 1.22 tons of trash. McDonald's restaurants furnished a free lunch to participants at the park.

The cleanup was a huge success. All beaches were covered adequately by volunteers. Most of the debris collected fell into the paper and styrofoam categories. Several dead ring-billed gulls entangled in either fishing line or plastic six-pack holders were also found.

Volunteers were very enthusiastic and commented favorably on the project.

Genny Volgstadt

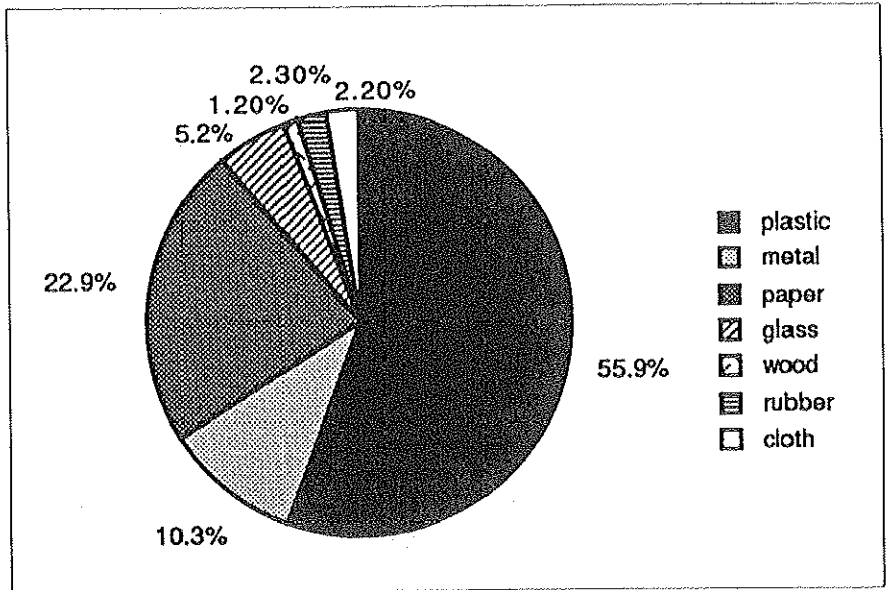
FALL, 1988 NATIONAL BEACH CLEANUP PENNSYLVANIA

PRESQUE ISLE
STATE PARK

RAW DATA SUMMARY

PLASTIC				RUBBER	
BAGS	TRASH	26		BALLOONS	24
	SALT	0		GLOVES	0
	OTHER	155		TIRES	3
BOTTLES	SODA	40		OTHER	26
	BLEACH	12			
	OIL	1		METAL	
	OTHER	17		BOTTLE CAPS	69
BUCKETS		3		CANS: AEROSOL	1
CAPS/LIDS		112		BEVERAGE	49
CUPS/SPOONS		213		FOOD	9
DIAPERS		13		OTHER	6
LIGHTERS		10		CRAB/FISH	0
FISH LINE		28		DRUMS: RUSTY	1
NET	LONG	0		NEW	0
	SHORT	0		PIECES	18
FLOATS/LURES		5		PULL TABS	29
HARD HATS		0		WIRE	13
LIGHT STICKS		0		OTHER	38
MILK JUGS		4		PAPER	
PIECES		14		BAGS	179
PIPE THREAD		0		CARDBOARD	26
ROPE	LONG	4		CARTONS	31
	SHORT	17		CUPS	50
SHEETING	LONG	0		NEWSPAPER	32
	SHORT	0		PIECES	139
SIX-PACK		16		OTHER	60
STRAP BANDS		17		WOOD	
SYRINGES		0		CRAB/LOBSTER	0
TAMPON APP.		56		CRATES	0
TOYS		14		PALLETS	0
VEGGIE		1		PIECES	4
WRITE PROTECTOR		8		OTHER	23
OTHER		21		CLOTH	
				CLOTHING/PIECES	49
GLASS					
	BOTTLES: BEVERAGE	94			
	FOOD	3			
	MISC.	0		TOTAL ITEMS/ZONE	2256
	FLUORO TUBE	0			
	LIGHT BULBS	0			
	PIECES	20			
	OTHER	0			
STYROFOAM					
	BUOYS	0			
	CUPS	120			
	EGG CARTONS	0			
	FAST FOOD	54			
	MEAT TRAYS	2			
	STYRO: LARGE	3			
	SMALL	253			
	OTHER	21			

PERCENT COMPOSITION OF PENNSYLVANIA'S BEACH DEBRIS:



PENNSYLVANIA'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. small foamed plastic pieces	253	11.21
2. plastic cups, spoons, forks, straws	213	9.44
3. paper bags	179	7.93
4. miscellaneous (other) plastic bags	155	6.87
5. paper pieces	139	6.16
6. foamed plastic cups	120	5.32
7. plastic caps, lids	112	4.96
8. glass beverage bottles	94	4.17
9. metal bottle caps	69	3.06
10. plastic tampon applicators	56	2.48
11. foamed plastic fast-food containers	54	2.39
12. paper cups	50	2.22
Total	1,494	66.22

TYPES AND SOURCES OF PENNSYLVANIA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	13.17
Galley Wastes	2.00
Fishing/Boating Gear	2.44
Operational Wastes	1.11
Sewage Wastes	2.48
Medical Wastes	0.00

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Data was collected for only one zone in Pennsylvania.

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:**Debris Related**

several dead gulls entangled in
fishing line and plastic or
six-pack holders

Other Reports

ring-billed gulls

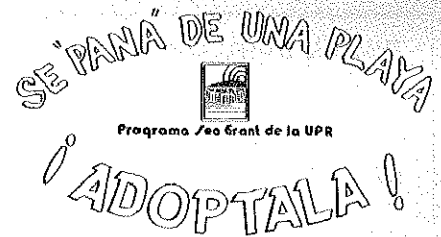
MOST PECULIAR DEBRIS ITEMS REPORTED:

ballet slipper, hair roller, pantyhose, ping pong ball, stuffed toy monkey, windshield wiper blade.

FOR INFORMATION ON PENNSYLVANIA'S 1989 BEACH CLEANUP CONTACT:

Debbie Gutowski
Department of Environmental Resources
Presque Island State Park
P.O. Box 8510
Erie, PA 16505
(814) 871-4251

1989 CLEANUP DATE: Saturday, September 23



PUERTO RICO

October 1, 1988
 407 Volunteers
 17.3 Miles Cleaned
 12,640 Pounds of Debris Collected
 28,083 Debris Items Reported

Coordinated By: Ruperto Chaparro
 UPR Sea Grant Program, RUM-UPR
 P.O. Box 5000
 Mayaguez, PR 00709-5000
 (809) 832-8045

The Sea Grant Program of the University of Puerto Rico conducted its beach cleanup on October 1, 1988. This was the fourth cleanup organized by Sea Grant in the last two years. Different from the previous cleanups, various beaches were cleaned simultaneously by volunteers of different organizations. Eleven beaches were cleaned in eight municipalities around the island.

Volunteer groups were very diverse, consisting of conservationists, student organizations, local neighborhoods, schools, municipal governments, and government agencies. Specific groups that participated in the cleanup included: the conservation organization Chelonia; Cuerpo de Voluntarios Al Servicio del Gobernador de P.R. from Carolina, Guayama, Barceloneta, Guayanilla, and Boqueron; Department of Natural Resources of Puerto Rico; Association of Wives of Federal Employees; the municipal government of Barceloneta; Association of Psychology Students of the University of Puerto Rico; 4-H Club of Lajas; and the biology class of Ramsey Base Junior High School. The groups varied in size, some with 200 volunteers and others with just three persons. All volunteers are convinced that something has to be done with the marine debris problem and decided the cleanup was a good opportunity. We at the Sea Grant Program of the University of Puerto Rico are convinced that the solution to the marine debris problem is EDUCATION, so this is why our major emphasis for all our cleanups is to educate the users of the coastal resources. We need to change the irresponsible attitudes of the users of our coastal resources by educating them about the danger marine debris, especially plastics, represent to the marine environment.

A total length of 27,800 meters of beach were cleaned by 407 volunteers who collected 12,640 pounds of debris. Special emphasis was given to the collection of plastics and conservation of endangered species and their habitats. Since this is an educational campaign we put special emphasis in having at least one beach cleaned in different areas of the island so that the movement is noticed by a large group of persons. Hopefully, this will motivate them to join our efforts and change their attitudes and waste disposal habits.

Ruperto Chaparro

FALL, 1988 NATIONAL BEACH CLEANUP PUERTO RICO

RAW DATA SUMMARY	Bocas & Criollas		Survival	Boqueron	Combate	Playa Santa & Bahía Noroeste		STATE TOTAL		
	Tres Palmitas Vacía Talega	Jobos & Bajura				Papayo	Punta Guilarte			
DE PLASTICO										
APLICADORES DE "TAMPONES"	9	18	8	9	4	0	0	1	8	57
AROS ASIDERAROS	52	91	16	60	27	4	0	68	35	353
PROTECCION A LO ESCRITO	0	72	1	0	7	0	0	0	2	82
BOLSAS DE BASURA	89	45	20	58	131	0	4	69	65	481
BOLSAS DE SAL	2	46	10	4	5	1	2	172	31	273
BOLSAS DE OTRO TIPO	65	0	20	76	0	0	38	0	80	279
BOTELLAS DE BEBIDOS	205	266	42	65	154	0	2	223	43	1000
DE LEJIA, DE LIMPIADOR	29	29	6	7	3	0	8	135	25	242
DE ACEITE, DE LUBRICANTE	8	23	10	4	29	1	0	93	18	186
DE OTRO TIPO	16	0	12	17	8	0	26	5	24	108
BOTELLONES DE LECHE	9	75	28	31	65	0	7	137	35	387
CASCOS DUROS	17	10	9	7	2	0	1	7	190	243
CHAPA DE PLASTICO LARGA	0	1	0	5	13	0	0	0	40	59
CHAPA DE PLASTICO CORTA	16	10	7	28	17	0	15	0	20	113
CINTAS DE GOMA	5	0	3	10	3	0	11	0	16	48
COPAS, CUCHARAS	351	267	718	597	118	32	2	300	759	3144
CORCHOS Y ESPEJUELTOS	19	5	0	5	2	0	4	4	17	56
CUBETAS	12	8	0	1	12	0	1	1	14	49
CUERDA LARGA	2	0	0	11	2	0	3	1	3	22
CUERDA CORTA	7	0	5	6	13	0	2	7	7	47
CUERDA DE PESCA	1	7	17	6	6	0	8	4	0	49
ENCENDEDORES DESECHABLES	1	28	3	3	35	0	0	11	4	85
JERINGAS	4	15	2	2	3	0	0	0	5	31
JUQUETES	8	9	2	13	29	0	3	31	20	115
PANALES	80	99	7	34	90	2	4	44	16	376
PEDAZOS	287	64	104	231	26	14	26	3	464	1219
RED DE PESCA LARGA	0	0	0	0	0	0	0	0	1	1
RED DE PESCA CORTA	0	0	1	4	0	1	0	0	2	8
SACOS/COSTALES DE RED	0	0	0	0	0	0	0	13	2	15
TAPAS, CHAPAS	22	247	96	62	103	2	6	155	344	1037
VARAS DE LOZ	0	0	1	0	0	0	9	0	7	17
OTRO TIPO DE PLASTICO	22	0	25	217	0	1	0	0	3	268
DE VIDRIO										
BOMBILLAS	7	13	0	1	6	0	2	1	7	37
TUBOS DE LUZ FLOUORESCENTES	0	0	0	1	0	0	0	5	2	8
BOTELLAS DE BEBIDAS	886	1882	84	583	185	10	22	134	177	3963
BOTELLAS DE COMIDAS	65	238	5	27	25	0	8	52	25	445
PEDAZOS DE VIDRIO	233	57	657	341	88	80	14	54	211	1735
OTRO TIPO DE VIDRIO	2	0	0	4	7	0	3	0	0	16
GONESPUNA										
BANDEJAS DE CARNE	7	41	45	27	19	0	10	103	44	296
BOYAS	1	0	0	5	11	0	0	30	99	146
COPAS	95	8	71	0	34	0	8	98	17	331
ENVASES DE COMIDA	26	142	3	11	48	0	0	55	10	295
ENVASES DE HUEVOS	1	12	1	2	1	0	14	0	15	46
PEDAZOS GRANDES	35	0	1	14	3	0	0	0	18	71
PEDAZOS PEQUEÑOS	45	5	307	16	4	3	0	0	15	395
OTRO TIPO DE GONESPUNA	29	0	104	0	3	0	5	0	6	147

FALL, 1988 NATIONAL BEACH CLEANUP PUERTO RICO

RAW DATA SUMMARY	Bocas & Criollas		Survival		Combate		Playa Santa & Bahía Noroeste		STATE TOTAL	
	Tres Palmas Vacía Talega	Jobos & Bajura	Boqueron	Papayo	Punta Guilarte					

GOMA										
GLOBOS	0	2	1	1	4	0	0	2	7	17
GUANTES	0	3	0	3	10	0	0	2	21	39
LLANTAS	0	14	1	0	6	0	4	6	5	36
OTRO TIPO	11	0	8	17	0	0	9	0	26	71

METAL										
ALAMBRE	3	0	18	24	13	0	8	4	18	88
LATAS DE AEROSOL	44	33	2	2	15	0	5	13	12	126
DE BEBIDAS	117	280	35	177	193	6	18	156	44	1026
DE COMIDAS	54	62	6	51	36	5	13	56	37	320
OTRO TIPO	42	0	1	14	2	0	9	0	33	101
LENGUETAS DE LATAS	576	5	702	411	61	85	26	220	347	2433
PEDAZOS DE METAL	59	37	34	58	9	4	5	2	56	264
TAMBORES ENMOHECIDOS	1	0	0	0	2	0	0	5	3	11
TAMBORES NUEVOS	0	0	0	0	3	0	0	0	0	3
TAPAS DE BOTELLA	68	77	159	296	93	22	8	143	61	927
TRAMPAS DE PECES	0	0	0	1	2	0	0	0	0	3
OTRO TIPO DE METAL	21	0	15	18	1	0	0	0	2	57

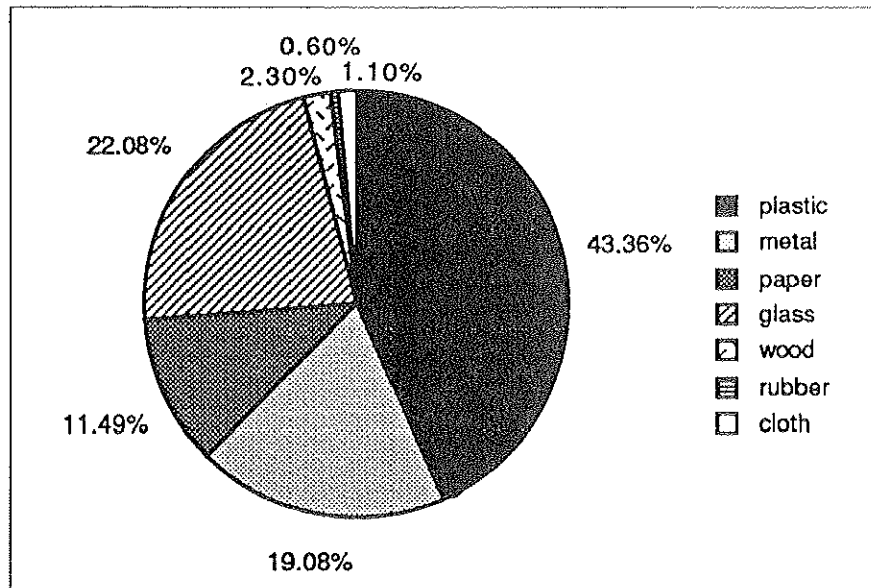
PAPEL										
BOLSAS	39	42	52	57	80	3	3	97	20	393
CAJAS DE CARTON	34	135	37	56	25	7	9	24	37	364
CARTON	51	52	18	60	16	4	7	39	39	286
COPAS	19	15	2	65	30	0	0	142	52	325
PEDAZOS DE PAPEL	107	636	94	234	94	8	8	63	120	1364
PERIODICOS	16	34	2	8	14	0	4	9	8	95
OTRO TIPO DE PAPEL	12	5	357	27	0	3	2	0	7	413

MADERA										
CAJONES DE MADERA	5	0	0	2	2	0	18	40	1	68
PALETAS	1	0	1	8	2	0	9	3	6	30
PEDAZOS DE MADERA	8	24	79	61	22	1	42	254	48	539
TRAMPAS DE LANGOSTA	0	0	0	0	2	0	0	0	1	3
OTRO TIPO DE MADERA	3	0	0	0	1	0	0	0	0	4

TELA										
ROPA	83	43	20	49	34	5	7	16	39	296

TOTALES	4144	5332	4095	4305	2113	304	482	3312	3996	28083

**PERCENT COMPOSITION OF
PUERTO RICO'S BEACH DEBRIS:**



PUERTO RICO'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. glass beverage bottles	3,963	14.11
2. plastic cups, spoons, forks, straws	3,144	11.20
3. metal pull tabs	2,433	8.66
4. glass pieces	1,735	6.18
5. paper pieces	1,364	4.86
6. plastic pieces	1,219	4.34
7. plastic caps, lids	1,037	3.69
8. metal beverage cans	1,026	3.65
9. plastic beverage, soda bottles	1,000	3.56
10. metal bottle caps	927	3.30
11. wood pieces	539	1.92
12. small foamed plastic pieces	395	1.41
Total	18,782	66.88

TYPES AND SOURCES OF PUERTO RICO'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	34.55
Galley Wastes	5.22
Fishing/Boating Gear	3.03
Operational Wastes	2.05
Sewage Wastes	0.20
Medical Wastes	0.11

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Tres Palmitas & Vacía Talega	38.06	glass beverage bottles
2. Bocas & Criollas	30.81	glass beverage bottles
3. Jobos & Bajura	41.64	plastic cups, spoons, forks, straws
4. Survival	38.28	plastic cups, spoons, forks, straws
5. Boqueron	48.75	metal beverage cans
6. Combate	20.07	metal pull tabs
7. Papayo	45.44	wood pieces (fragments)
8. Playa Santa & Bahía Noroeste	53.44	plastic cups, spoons, forks, straws
9. Punta Guilarte	63.16	plastic cups, spoons, forks, straws

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

none reported

MOST PECULIAR DEBRIS ITEMS REPORTED:

cosmetic eyeliner, iron rod six feet long, men's pants, piece of meat, plastic glasses, refrigerator doors (2), ripped sweater, sanitary pad

FOR INFORMATION ON PUERTO RICO'S 1989 BEACH CLEANUP CONTACT:

Ruperto Chaparro
 UPR Sea Grant Program, RUM-UPR
 P.O. Box 5000
 Mayaguez, PR 00709-5000
 (809) 832-8045

1989 CLEANUP DATE: Saturday, September 16

GET THE DRIFT & BAG IT

RHODE ISLAND

September 24, 1988
 500 Volunteers
 100 Miles Cleaned
 15,000 Pounds of Debris Collected
 65,222 Debris Items Reported

Coordinated By: Eugenia Marks
 Audubon Society of Rhode Island
 12 Sanderson Road
 Smithfield, RI 02917
 (401) 231-6444

Michelle Merola
 Department of Environmental
 Management
 OSCAR Program
 83 Park Street
 Providence, RI 02903
 (401) 277-3434

Rhode Island's survey and pickup of plastics in the marine environment has taken its name, Get the Drift and Bag It, from the original campaign in Oregon. For four of five years we have had an original logo, donated by professional artists, for T-shirts which we give out to identify volunteers on the beach and as a token of thanks. We also use the logo on posters.

A cooperative effort of the state's autonomous Audubon Society of Rhode Island and the Rhode Island Department of Environmental Management, Get the Drift and Bag It attracted more than 550 volunteers in 1988. Municipal conservation commissions, recreation departments, beautification committees, private land protection organizations, the Rhode Island Mobile Sports Fishermen, and dedicated citizens joined the survey. Some city residents made a trip to the shore 30-40 miles away to participate.

We surveyed 13 towns covering 100 miles of shoreline along Rhode Island's Atlantic-facing and estuarine coast. Most of the shore is sandy beach, approximately 10 percent is rocky shore, and a few miles are sand-cliff base.

Most of the retrieved materials were improperly discarded from recreational users of the shore and bay. Plastic oil-containers and plastic sandwich bags probably were jettisoned from boats on Narragansett Bay. Plastic straws and millions of wrappers from snack foods littered the beaches, as well as pieces of styrofoam coolers, fast-food containers, cans, and bottles. Fishing line was found, and new this year were light sticks found near fishing access areas. An occasional lobster pot and pieces of netting (less than a few square feet) were the only evidence of commercial fishing debris. Trash-dumping is another source. Everything from plastic swimming pools to plastic dashboards were tallied.

Among the items collected were 1,293 balloons, about 2 percent of our total haul by piece. The Rhode Island General Assembly in 1989, as a result of our campaign and a new law in New Jersey, banned mass releases of balloons. Gunshell casings came from skeet shooting along the coast and from boats; these casings wash ashore by the hundreds in some locations. In 1988 and 1989 we have tried to pass legislation banning plastic tampon applicators, which come from sewage systems and wash up on the beaches. PVC pipe, driven into the sand to support surf fishing poles, is often broken by beach vehicles into sharp spikes, which presents a safety hazard. Many pieces of broken pipe were found.

We were glad to be part of the 1988 national survey. A country-wide campaign attracts more press coverage, and volunteers feel that their work is even more important than for a local effort. The

FALL, 1988 NATIONAL BEACH CLEANUP

RHODE ISLAND

RAW DATA SUMMARY	RHODE ISLAND															STATE TOTAL	
	Westerly	Charleston	S Kingston	Narragansett	N Kingston	E Greenwich	E Providence	Barrington	Brickyard	Bristol Harbor	Mt. Hope Bay	Portsmouth	Prudence	Middletown	Tiverton		Little Compton
PLASTIC																	
BAGS TRASH	1025	15	40	11	10	21	45	44	4	324	272	500	42	171	115	4	2643
SALT	1	0	1	10	0	1	0	0	0	3	16	26	0	0	0	1	59
OTHER	1909	31	3	154	102	29	34	241	76	29	270	513	542	230	333	91	4587
BOTTLES SODA	332	6	44	27	45	18	165	40	119	102	436	216	410	158	146	36	2300
BLRACH	42	2	3	2	3	0	26	1	5	24	91	72	143	11	20	6	451
OIL	45	0	5	3	1	3	94	9	8	22	67	68	442	4	15	10	796
OTHER	8	1	1	8	6	1	18	11	6	34	34	39	68	10	61	27	333
BUCKETS	10	2	1	0	0	1	31	3	3	3	42	14	6	13	0	1	130
CAPS/LIDS	290	5	61	78	20	18	42	176	95	94	814	262	51	48	159	69	2282
CUPS/SPOONS	1480	46	56	255	31	23	29	267	283	207	802	302	107	482	172	89	4631
DIAPERS	12	1	1	2	2	1	2	2	19	7	30	15	1	38	16	4	153
LIGHTERS	17	0	4	10	3	3	13	8	14	17	45	34	7	7	13	3	198
FISH LINE	44	1	25	5	4	0	6	3	9	8	208	23	1	44	77	37	495
NET LONG	0	0	3	1	1	3	0	2	0	1	47	2	12	18	2	12	104
SHORT	5	2	1	5	0	10	0	0	0	5	41	9	4	2	6	3	93
PLAOTS/LURES	16	0	4	2	3	0	5	2	4	8	21	8	2	44	3	0	121
HARD HATS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIGHT STICKS	0	0	23	1	0	0	7	0	0	0	121	6	0	0	0	0	158
MILK JUGS	72	0	10	2	2	0	43	1	12	16	160	88	139	41	26	12	624
PIECES	1180	3	31	54	65	33	19	620	20	93	252	494	552	0	156	169	3741
PIPE THREAD	17	1	5	3	1	1	1	1	8	1	58	1	384	0	1	1	484
ROPE LONG	53	3	22	32	7	5	6	8	1	26	79	67	84	14	13	59	479
SHORT	296	8	24	71	12	9	4	7	9	36	64	67	43	16	31	173	870
SHEETING LONG	4	1	5	58	0	0	2	0	0	2	16	38	25	3	7	8	159
SHORT	0	2	1	3	3	0	0	0	0	6	52	39	12	0	71	7	196
STR-PAK	69	2	15	16	29	11	74	16	109	12	244	130	54	64	35	7	887
STRAP BANDS	67	1	20	10	3	0	0	22	16	42	59	67	27	14	24	8	380
SYRINGES	0	0	0	0	0	1	1	0	1	3	3	2	0	0	0	0	11
TAMPON APP.	192	0	16	4	2	4	35	21	231	76	78	78	24	11	2	6	780
TOYS	80	2	11	11	0	0	8	8	2	0	27	32	7	19	7	14	228
VEGGIE	35	2	4	5	3	37	12	12	6	24	48	50	136	26	28	5	433
WHITE PROTECTOR	38	1	1	0	0	0	16	0	0	2	1	5	7	1	0	2	74
OTHER	15	9	15	59	13	2	19	201	23	21	-259	50	28	9	30	22	775
GLASS																	
BOTTLES: BEVERAGE	214	11	32	54	178	68	176	40	135	51	519	182	270	107	157	30	2224
FOOD	24	1	1	1	0	1	23	1	0	0	47	5	3	25	6	2	140
MISC	0	0	0	0	0	0	103	4	0	0	6	2	10	2	0	13	140
PLAORO TUBES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIGHT BULBS	1	0	2	0	0	0	3	0	1	1	4	7	3	4	0	0	26
PIECES	360	0	1	47	130	43	165	45	147	8	461	179	37	24	177	8	1832
OTHER GLASS	20	1	0	0	3	8	2	3	0	1	137	2	0	0	0	0	177
STYROFOAM																	
BUOYS	29	1	25	1	0	0	7	1	2	5	15	7	16	159	2	0	270
CUPS	1446	14	118	186	15	7	91	24	80	57	452	181	257	238	284	151	3601
EGG CARTONS	2	2	1	0	0	0	11	1	0	7	23	13	0	56	0	0	126
PAST FOOD	179	1	15	21	3	8	49	0	2	13	104	70	11	285	44	21	826
HEAT TRAYS	36	4	2	1	0	1	9	1	0	3	44	9	2	14	4	0	130
STYRO: LARGE	116	9	161	28	8	6	14	7	218	25	102	81	456	3	35	20	1289
SMALL	1430	33	302	333	14	4	42	45	323	40	299	169	118	0	70	102	3324
OTHER	1	3	2	0	0	1	51	3	0	1	14	0	202	29	3	3	313

commitment to beautifying one's own place and the plight of sea turtles and birds damaged by plastic draws the crowd. Volunteers make it happen, and their enthusiasm gives new energy to those of us who fight environmental battles on a daily basis. Thanks volunteers!

In 1989 WLNE Channel 6 television has asked to cosponsor the project as part of their community service. Audubon and RI DEM look forward to working with a new partner for a better coverage of our 1989 Get the Drift and Bag It.

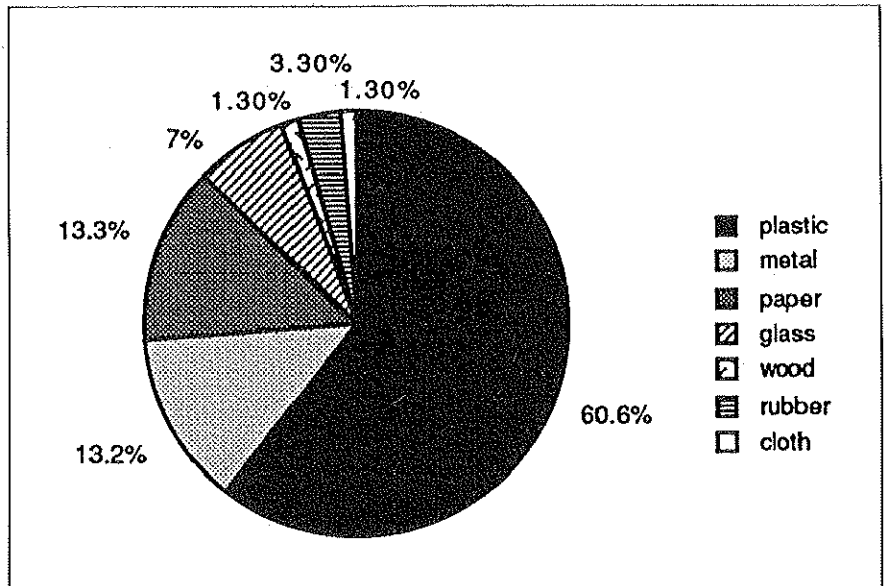
Eugenia Marks

FALL, 1988 NATIONAL BEACH CLEANUP

RHODE ISLAND

RAW DATA SUMMARY	Charleston		Narragansett		E Greenwich		Barrington		Bristol Harbor		Portsmouth		Middletown		Little Compton		STATE TOTAL
	Westerly	S Kingston	S Kingston	N Kingston	E Providence	E Providence	Brickyard	Brickyard	Mt. Hope Bay	Mt. Hope Bay	Prudence	Prudence	Tiverton	Tiverton			
RUBBER																	
BALLONS	1071	6	8	24	0	0	3	43	7	1	27	43	15	10	19	16	1293
GLOVES	1	0	0	3	1	3	17	0	1	3	31	9	5	5	4	9	93
TIRES	3	1	1	3	6	0	155	0	59	6	26	26	42	62	3	13	406
OTHER RUBBER	62	4	57	23	4	2	50	18	0	2	28	50	51	5	24	8	388
METAL																	
BOTTLE CAPS	1214	6	46	42	18	20	15	10	84	17	482	37	19	125	270	58	2463
CANS: AEROSOL	20	0	103	1	0	1	32	0	3	9	26	10	313	29	9	1	557
BEVERAGE	537	30	32	85	112	53	39	26	129	225	792	390	1151	69	170	52	3892
FOOD	1	0	1	1	3	0	0	0	11	39	4	10	0	10	3	83	
CANS	2	0	0	2	0	1	0	3	0	3	61	69	2	0	10	2	155
CRAB/FISH	0	0	0	3	1	0	1	0	0	3	8	2	0	1	0	6	25
DRUMS: RUSTY	1	0	0	0	0	0	8	0	2	0	9	3	0	0	0	0	23
NEW	0	0	0	0	0	0	1	0	0	0	0	0	37	0	0	0	38
PIECES	7	2	20	2	101	7	75	3	1	16	66	91	7	2	41	17	458
PULL TABS	8	8	9	7	4	14	46	3	2	0	149	10	2	180	54	4	500
WIRE	2	0	9	4	16	2	4	0	76	15	57	6	2	13	14	4	224
OTHER	5	4	16	40	10	0	14	8	0	3	48	28	1	0	13	4	194
PAPER																	
PAPER BAGS	444	1	2	20	1	11	31	1	0	4	171	40	10	244	147	10	1137
CARDBOARD	22	4	11	27	13	6	15	5	0	19	135	40	12	63	19	52	443
CARTONS	34	9	4	35	29	21	41	8	11	13	116	65	12	77	47	10	532
CUPS	576	15	12	62	36	41	32	9	18	9	343	53	39	231	103	24	1603
NEWSPAPER	21	0	2	27	2	1	2	2	0	0	28	3	72	81	25	2	268
PIECES	1950	30	26	153	206	13	52	71	0	9	420	65	20	20	576	83	3714
OTHER	13	19	12	353	0	26	26	55	62	17	240	107	4	0	59	14	1007
WOOD																	
CRAB/LOBSTER	0	0	18	3	0	0	6	0	0	0	5	0	1	3	0	0	36
CRATES	0	0	2	2	0	0	14	1	0	0	10	0	1	5	7	0	42
PALLETS	9	0	4	3	0	0	15	0	0	0	6	1	127	3	0	0	159
PIECES	1	9	20	20	4	24	24	22	0	8	22	77	59	109	26	31	456
OTHER	0	2	1	5	0	0	21	2	0	2	12	15	4	63	5	1	130
CLOTH																	
	25	6	19	25	37	16	48	19	3	32	224	70	75	114	71	36	820
TOTAL ITEMS/ZONE	17232	383	1553	2549	1326	664	2290	2210	2449	1887	10565	5538	6838	3966	4076	1696	65222

PERCENT COMPOSITION OF RHODE ISLAND'S BEACH DEBRIS:



RHODE ISLAND'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic cups, spoons, forks, straws	4,631	7.10
2. miscellaneous (other) plastic bags	4,587	7.03
3. metal beverage cans	3,892	5.97
4. plastic pieces	3,741	5.74
5. paper pieces	3,714	5.69
6. foamed plastic cups	3,601	5.52
7. small foamed plastic pieces	3,324	5.10
8. plastic trash bags	2,643	4.05
9. metal bottle caps	2,463	3.78
10. plastic beverage, soda bottles	2,300	3.53
11. plastic cups, spoons, forks, straws	2,282	3.50
12. glass beverage bottles	2,224	3.41
Total	39,402	60.41

TYPES AND SOURCES OF RHODE ISLAND'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	18.81
Galley Wastes	6.76
Fishing/Boating Gear	5.52
Operational Wastes	2.05
Sewage Wastes	1.20
Medical Wastes	0.02

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Westerly	61.47	paper pieces (fragments)
2. Charleston	55.87	plastic cups, spoons, forks, straws
3. South Kingston	69.67	small foamed plastic pieces
4. Narragansett	57.75	small foamed plastic pieces
5. North Kingston	31.00	paper pieces (fragments)
6. East Greenwich	39.46	glass beverage bottles
7. East Providence	45.02	glass beverage bottles
8. Barrington Town Beach	81.81	plastic pieces (fragments)
9. Brickyard Pond, Shoreline, Narragansett Bay	69.74	small foamed plastic pieces
10. Bristol Harbor	74.14	plastic trash bags
11. Mt. Hope Bay	54.99	plastic caps and lids
12. Portsmouth	69.47	miscellaneous (other) plastic bags
13. Prudence	64.67	metal beverage cans
14. Middletown	57.79	plastic cups, spoons, forks, straws
15. Tiverton	49.31	paper pieces (fragments)
16. Little Compton	69.75	short pieces plastic rope

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:**Debris Related**

seagull with leg twisted in
balloon string
seagull with fishing line wrapped
around leg
one seagull with fishing line

Other Reports

6 birds
1 sea gull with broken wing
beached whale

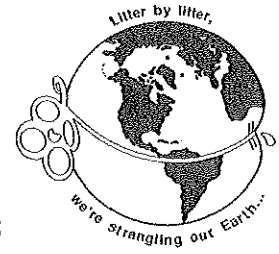
MOST PECULIAR DEBRIS ITEMS REPORTED:

antiseptic swab packages, bathtub, bottle with note from party boat passenger, butterfly net, condoms, fifty dollar bill (donated to Keep Bristol Clean), hospital vomit cup, ladies underwear, mens underwear, muffler, plastic car console, pregnancy test, radio, refrigerator door, rusty iron, sanitary napkin, shotgun shells, toothbrush, two plastic dinosaurs, wallpaper.

FOR INFORMATION ON RHODE ISLAND'S 1989 BEACH CLEANUP CONTACT:

Eugenia Marks
Audubon Society of Rhode Island
12 Sanderson Road
Smithfield, RI 02917
(401) 231-6444

1989 CLEANUP DATE: Saturday, September 23



SOUTH CAROLINA

SOUTH CAROLINA
BEACH SWEEP '88

September 24, 1988
3,000 Volunteers
198 Miles Cleaned
30,000 Pounds of Debris Collected
116,224 Debris Items Reported

Coordinated By: Lin Dunbar
South Carolina Sea Grant Consortium
287 Meeting Street
Charleston, SC 29401
(803) 727-2078

The South Carolina Sea Grant Consortium coordinated South Carolina's first statewide beach cleanup—Beach Sweep '88. Lin Dunbar was hired by the Consortium to serve as S.C. Beach Sweep '88 Chairperson, with support from Virginia Beach, S.C. Sea Grant's Public Information Specialist, and assistance from the entire Consortium staff. The state was divided into five zones, each overseen by area coordinators: Beth Day of the S.C. Marine Extension Program (Horry/Georgetown Counties); Jane Lareau of the American Heart Association (Charleston County), David Smith of the S.C. Marine Extension Program (Edisto Beach State Park, Colleton County), Nancy Schaaf of Beaufort County TLC (Beaufort County), and Sharon Richardson-McLain of the Coastal Zone Education Center (Hilton Head, Beaufort County).

While the primary focus of Beach Sweep '88 was to bring the public's attention to the problem of marine litter by cleaning the coastal beaches, volunteers recognized the interconnectedness of our waterways and estuaries and joined efforts by launching an "Estuary Sweep." Volunteers, led by Howard Pogue of Little River, and Ashby Taylor and Rob Dunlap of Charleston, used boats, scoop nets, and "waders" to sweep portions of the Intercoastal Waterway, Charleston Harbor, and the Stono River. In addition, the South Carolina Shrimpers Association and Save Our Shrimp organization, under the leadership of Donna Jacobs and Libby Ambrose, joined the effort by recording on data cards every item of marine debris dragged up in their trawl nets along the S.C. coast during the week of September 19, 1988.

Three thousand volunteers participated in all, collecting an estimated 15 tons of trash. But Beach Sweep '88 efforts went beyond a one-day cleaning of the coastline to include educational efforts directed toward the hazards of marine litter to wildlife and humans and possible long-term solutions to the growing litter problem. Duplicates of the CMC slide presentation on marine litter were made and sent to area coordinators for use in schools, clubs, business and media conferences. Educational mailings were sent to every South Carolina grade school (1,100 in all). Marinas, port facilities, merchant shipping lines and naval facilities in the state were also targeted with a mailing describing the impacts of marine plastic control legislation.

Community involvement was strong, as 79 businesses, associations, and municipalities generously supported the effort with goods, monetary contributions, services, refreshments, and publicity.

Beach Sweep '88 was a tremendous success. Schools are calling to receive for marine litter presentations and more about the problem and how they can become involved. The S.C. Sea Grant Consortium continues to answer inquiries concerning recycling and degradable products, issues raised by Beach Sweep '88. With continued momentum in the direction of better waste management, there is hope for turning the tide on trash!

Lin Dunbar

FALL 1996 REPAIRS/ISSUE CHECKOFF

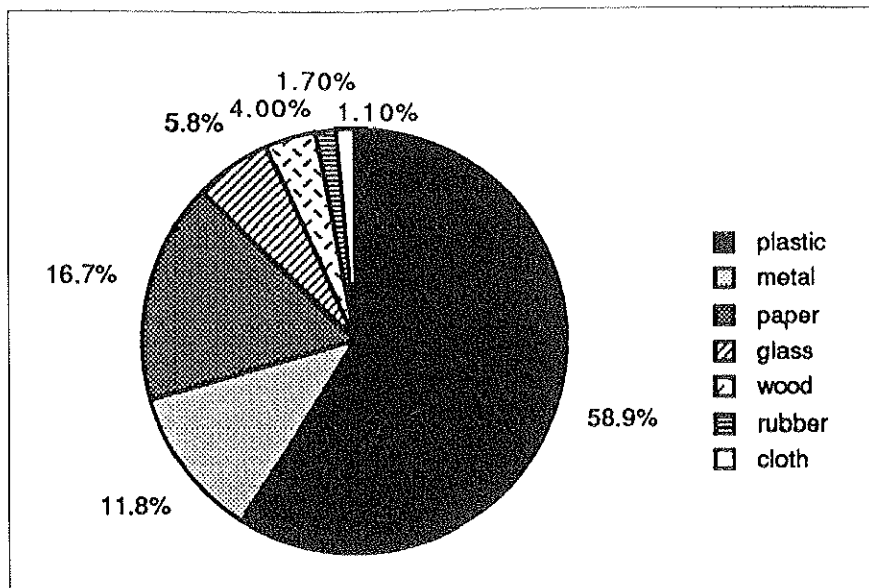
SOUTH CAROLINA

N Myrtle Myrtle B Garden City Pawley's Isl Cape Isl. C Romaine Isle of Palms Mt. Pleasant Charleston Stono R Kiawah Isl Botany Bay

REF DATA SOURCE: Cherry Gr Springmaid Surfside Hunting B Debitdue South Isl Bulls Isl Sullivan's SC Shrimpers Morris Isl Folly B Seabrook

Table with 15 columns (Ref Data Source) and 35 rows (Material Groups). Rows include PLASTIC, GLASS, STYROFOAM, RUBBER, ESTER, PAPER, and FOOD. Each row lists quantities for the 15 locations. A summary row at the bottom shows 'TOTAL ITEMS/2000' for each source.

PERCENT COMPOSITION OF SOUTH CAROLINA'S BEACH DEBRIS:



SOUTH CAROLINA'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. small foamed plastic pieces	10,927	9.40
2. metal beverage cans	8,366	7.20
3. plastic cups, spoons, forks, straws	7,527	6.48
4. paper pieces	6,927	5.96
5. foamed plastic cups	6,615	5.69
6. plastic pieces	5,475	4.71
7. plastic caps, lids	4,593	3.95
8. plastic beverage, soda bottles	4,265	3.67
9. miscellaneous (other) plastic bags	4,251	3.66
10. glass beverage bottles	3,961	3.41
11. wood pieces	3,585	3.08
12. large foamed plastic pieces	2,683	2.31
Total	69,175	59.52

TYPES AND SOURCES OF SOUTH CAROLINA'S BEACH DEBRIS:

Type of Debris	Debris Percent of Total Debris Reported
Bottles and Associated Goods	16.41
Galley Wastes	5.04
Fishing/Boating Gear	4.00
Operational Wastes	1.13
Sewage Wastes	0.13
Medical Wastes	0.09

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Horry County		
A. Cherry Grove	55.22	paper pieces (fragments)
B. North Myrtle	44.79	plastic cups, spoons, forks, straws
C. Springmaid	66.28	plastic cups, spoons, forks, straws
D. Myrtle Beach S.P.	57.52	plastic cups, spoons, forks, straws
E. Surfside	57.12	plastic cups, spoons, forks, straws
F. Garden City	53.77	plastic cups, spoons, forks, straws
2. Georgetown County		
A. Hunting Beach S.P.	57.47	metal beverage cans
B. Pawley's Island	68.68	small foamed plastic pieces
C. Debidue	68.17	foamed plastic cups
D. Cape Island	51.52	plastic soda bottles
E. South Island	61.94	metal beverage cans
3. Charleston County		
A. Cape Romaine	55.92	metal beverage cans
B. Bulls Island	61.67	foamed plastic cups
C. Isle of Palms	60.37	small foamed plastic pieces
D. Sullivan's Island	64.01	small foamed plastic pieces
E. Mt. Pleasant Pitt St. Bridge	43.06	paper pieces (fragments)
F. SC Shrimpers Assoc. (trawl surveys)	27.48	metal beverage cans
G. Charleston Harbor	59.51	metal beverage cans
H. Morris Island	63.48	metal beverage cans
I. Stono River Estuary	61.16	metal beverage cans
J. Folly Beach	61.68	small foamed plastic pieces
K. Kiawah Island	67.51	metal beverage cans
L. Seabrook Island	64.86	metal beverage cans
M. Botany Bay Island	58.79	metal beverage cans
4. Colleton County		
A. Edisto Beach	48.09	metal beverage cans
5. Beaufort County		
A. Hunting Island	70.50	small foamed plastic pieces
B. Fripp Island	46.11	wood pieces (fragments)
C. Pritchard's Island	76.08	small foamed plastic pieces
D. Capers Island	64.65	foamed plastic cups
E. Hilton Head Island		
0. Brighton Beach	36.11	glass pieces (fragments)
1. Burkes Beach	67.75	small foamed plastic pieces
2. Coligny Beach	57.90	small foamed plastic pieces
3. Folly Field	33.41	paper pieces (fragments)
4. Port Royal Plantation	72.22	small foamed plastic pieces
5. Singleton Beach	51.05	glass beverage bottles
6. The Sands/Port Royal Town	37.28	glass beverage bottles
7. Trask Landing	56.52	metal beverage cans
F. Daufuskie Island	65.09	small foamed plastic pieces
G. Otter Island	59.06	metal beverage cans

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
seagull entangled in fishing	14 birds line 3 sea turtles (1 juvenile) 2 dolphins

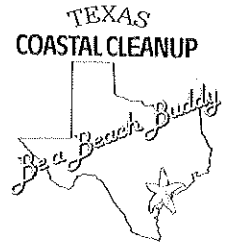
MOST PECULIAR DEBRIS ITEMS REPORTED:

bottle with note, condoms, doll head, dozen used bandages all similar in type, duck decoy, elixer medicine bottles, fire extinguisher, freezer compressor loader motor, hassock, hollow wooden mast filled with sea cucumbers, hospital identification bracelets, large rusted sewer pipe, large bundle of balloon ends tied with a string, medical tubing and a prescription bottle, mine activator, Molotov cocktail, plastic bottles from Premier Cruise Lines, plastic flashing light, plastic grapes, powder puff, sleeping bag, snorkel and dive mask, television cable, underwear.

FOR INFORMATION ON SOUTH CAROLINA'S 1989 BEACH CLEANUP CONTACT:

Jennie Summerall
South Carolina Sea Grant Consortium
287 Meeting Street
Charleston, SC 29401
(803) 727-2078

1989 CLEANUP DATE: Saturday, September 23



TEXAS

September 24, 1988
 5,987 Volunteers
 120.6 Miles Cleaned
 428,000 Pounds of Debris Collected
 344,813 Debris Items Reported

Coordinated By: Linda Maraniss
 Center for Marine Conservation
 1201 West 24th Street
 Austin, TX 78705
 (512) 477-6424

Angela Farias
 Texas General Land Office
 1700 N. Congress Avenue
 Austin, TX 78701
 1-800-85BEACH or (512) 463-5108

Nearly 6,000 volunteer "beach buddies" converged on the Texas coast Saturday, September 24, for the third annual Texas Coastal Cleanup co-sponsored by the Center for Marine Conservation and the Texas General Land Office Adopt-a-Beach program.

The totals indicate that 13,152 bags were filled with debris, amounting to 214 tons of trash collected from 14 beaches along the coast. Volunteers worked from the Mexican border to the Louisiana border. More than 1,200 volunteers helped at both Galveston and Corpus Christi cleanups.

The cleanup was threatened by Hurricane Gilbert less than one week before the scheduled day. Gilbert spared much of the Texas coast but did prevent cleanups at two sites and caused two cleanups on Matagorda Island and South Padre Island to be rescheduled in October.

Beach buddies discounts at 33 hotels encouraged volunteers to travel to the coast. Once again a Beach Litter Blues song contest was held in Corpus Christi, with a beach party after the cleanup. Volunteers had the opportunity to purchase special t-shirts with the 1988 cleanup's message printed on the back, The Gulf of Mexico, A Special Place. The Texas Coastal Cleanup at Port Aransas was filmed for a PBS program entitled "Challenge on the Coast," highlighting volunteer efforts to protect American's coastline.

Among the unusual items of debris found were a refrigerator and other appliances, a windshield wiper, couches, light bulbs, and a plastic doll. Many foreign items were also found including plastic bottles from Singapore, Japan, Mexico, Italy, and Germany.

Linda Maraniss

FALL 1988 BEACH CLEANUP

TEXAS

Texas Beach Buddies

RAW DATA SUMMARY

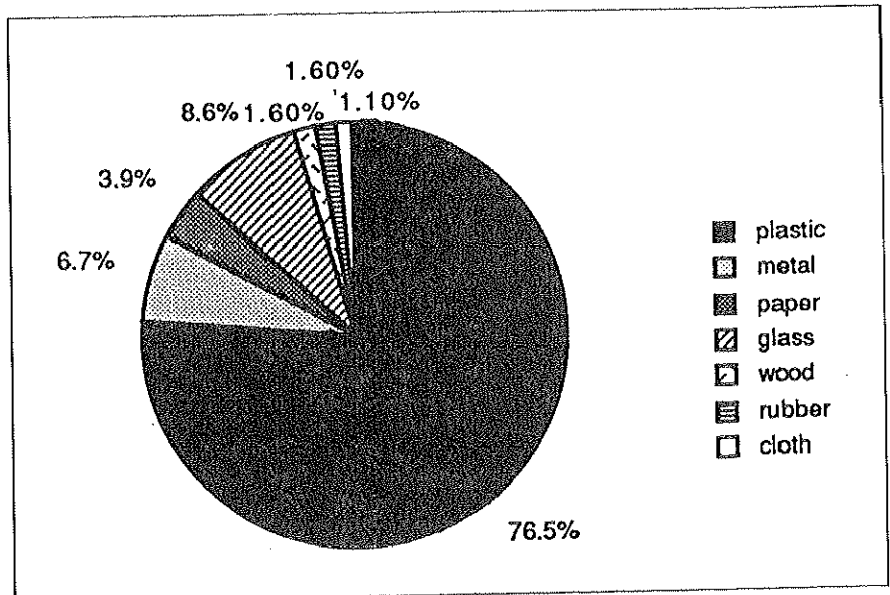
		Galveston		Port Aransas		Brazoria		S. Padre Is.		Palacios		Bay City		STATE	
		Bolivar	Matagorda	Corpus Christi		PINS		Boca Chica		Beaumont		St. Joe	TOTAL		
PLASTIC															
BAGS	TRASH	2284	3960	241	6101	4554	1739	1501	2519	11	102	197	1135	91	34435
	SALT	298	91	1	176	74	36	62	43	0	3	0	15	0	799
	OTHER	1489	2280	220	4382	1707	1686	903	1776	64	74	0	335	25	14941
BOTTLES	SODA	944	909	64	845	1896	1216	384	888	214	104	50	443	142	8099
	BLEACH	539	678	122	682	1403	557	574	278	12	53	7	412	58	5375
	OIL	264	203	31	188	415	194	170	236	0	13	8	119	28	1869
	OTHER	558	651	104	583	1035	562	378	328	21	15	0	263	35	4533
BUCKETS		129	237	27	134	245	160	71	74	4	14	15	81	9	1200
CAPS/LIDS		2049	4319	331	3761	4888	1810	1519	1586	16	91	27	839	31	21267
CUPS/SPOONS		1596	3235	70	1983	2142	1184	479	1044	154	71	38	229	5	12230
DIAPERS		97	137	1	39	43	97	6	140	35	10	0	7	0	612
LIGHTERS		202	553	13	277	496	213	84	122	0	74	1	51	0	2086
FISH LINE		727	467	6	606	338	214	65	248	0	26	5	57	3	2762
NET	LONG	93	54	6	72	154	57	30	43	0	0	12	24	4	549
	SHORT	96	85	5	95	185	52	44	37	0	8	0	30	0	637
FLOATS/LURES		110	240	6	98	209	69	21	44	2	11	4	70	40	924
HARD HATS		14	135	3	7	32	9	7	10	0	0	0	6	3	226
LIGHT STICKS		515	547	33	496	990	645	252	288	7	11	0	111	1	3896
MILK JUGS		1078	1237	113	1087	2156	1028	483	312	7	62	47	455	133	8198
PIECES		4359	4746	325	9850	6703	2625	2816	1926	16	57	0	1130	39	34592
PIPE THREAD		154	176	3	575	385	90	172	58	0	0	0	45	0	1658
ROPE	LONG	729	986	50	623	722	675	304	326	1	24	119	502	7	5068
	SHORT	835	1452	66	1484	1053	534	388	919	0	43	10	385	4	7173
SHRETING	LONG	525	580	64	991	871	224	460	43	5	6	4	427	2	4202
	SHORT	1727	1434	293	8682	4141	281	2460	95	0	7	0	1339	4	20463
SIX-PACK		1734	2352	72	1540	1649	1239	643	641	56	55	32	312	4	10319
STRAP BANDS		525	512	18	471	639	199	212	132	1	22	1	153	1	2886
SYRINGES		46	130	7	73	96	31	19	48	0	2	7	23	0	482
TAMPON APP.		104	141	1	114	203	124	84	64	0	1	0	7	0	843
TOYS		90	219	11	158	199	166	44	169	2	1	0	39	1	1099
VEGGIE		185	178	26	212	207	398	264	96	0	12	13	43	4	1638
WRITE PROTECTOR		104	169	19	202	351	68	71	67	0	5	0	25	0	1082
OTHER		421	654	65	616	482	457	212	236	88	27	0	126	6	3390
GLASS															
BOTTLES:	BEVERAGE	1187	1748	321	689	1591	2512	366	1505	2021	83	177	572	67	12839
	FOOD	155	127	81	151	480	232	243	88	22	2	0	158	10	1749
	MISC	60	58	20	61	89	150	35	108	12	1	0	131	0	725
FLUORO TUBES		37	61	16	77	204	103	57	48	0	9	5	44	1	662
LIGHT BULBS		102	187	55	188	428	285	169	61	1	20	4	111	19	1630
PIECES		694	4038	33	1608	504	763	168	3158	43	105	0	325	3	11442
OTHER GLASS		36	160	6	61	46	86	25	65	0	8	0	54	1	548
STYROFOAM															
BUOYS		119	125	11	115	166	182	78	54	2	41	7	97	25	1022
CUPS		2838	2320	82	2093	2959	1877	568	1633	12	177	57	633	8	15257
EGG CARTONS		631	348	108	558	1149	443	276	164	1	17	21	163	8	3887
PAST FOOD		426	624	80	345	607	394	141	87	2	8	13	177	5	2909
MEAT TRAYS		417	444	60	518	641	304	218	104	3	1	1	160	5	2876
STYRO:	LARGE	1015	790	52	619	1105	2740	333	447	18	61	14	327	28	7549
	SMALL	2680	4197	314	3223	4826	1759	755	828	15	219	0	630	50	19496
OTHER		234	335	54	210	118	237	63	79	0	3	0	40	1	1374

FALL 1988 BEACH CLEANUP

TEXAS

Texas Beach Buddies RAW DATA SUMMARY	Galveston		Port Aransas		Brazoria		S. Padre Is.		Palacios		Bay City		STATE	
	Bolivar	Matagorda	Corpus Christi	PINS	Boca Cluica	Beaumont	St. Joe	TOTAL						
RUBBER														
BALLONS	65	150	14	124	96	133	46	61	1	2	0	12	0	704
GLOVES	560	219	52	363	427	374	146	87	2	12	29	89	34	2394
TIRES	78	68	4	33	37	142	23	66	0	14	2	41	1	509
OTHER RUBBER	206	375	25	302	303	290	130	192	1	14	2	78	4	1922
METAL														
BOTTLE CAPS	297	522	45	478	811	480	120	900	62	61	13	84	0	3893
CANS:														
AEROSOL	218	220	32	185	506	436	156	133	0	38	10	87	35	2056
BEVERAGE	1821	1691	40	760	1227	1779	299	549	514	65	26	317	136	9224
FOOD	179	74	3	36	115	167	26	110	2	3	0	32	1	748
CANS	130	196	5	55	105	200	29	200	0	14	0	50	4	988
CRAB/FISH	15	6	1	2	3	27	5	20	0	5	3	0	0	87
DRUMS:														
RUSTY	29	53	1	25	37	59	4	197	0	9	1	7	3	425
NEW	3	4	1	10	1	22	3	4	0	2	0	0	0	50
PIECES	162	313	8	94	120	275	24	202	1	28	1	24	0	1252
PULL TABS	273	519	0	554	233	197	143	591	66	30	0	92	0	2698
WIRE	164	150	4	106	101	102	28	154	1	41	1	19	1	872
OTHER	136	222	8	112	65	147	47	116	2	30	0	34	1	920
PAPER														
PAPER BAGS	235	316	4	137	222	210	26	475	23	30	7	92	2	1779
CARDBOARD	194	177	6	79	107	156	26	263	2	26	2	32	2	1072
CARTONS	187	265	6	76	118	148	36	261	22	16	1	52	25	1213
CUPS	283	394	6	160	455	272	37	387	4	34	3	24	1	2060
NEWSPAPER	79	111	1	22	49	84	5	87	1	8	0	15	0	462
PIECES	933	1318	16	593	510	584	79	904	2	250	1	119	4	5313
OTHER	249	262	4	309	132	153	24	229	53	14	0	15	2	1446
WOOD														
CRAB/LOBSTER	0	10	1	1	10	14	0	37	0	1	0	0	0	74
CRATES	7	27	0	17	5	15	8	54	0	4	0	5	0	142
PALLETS	11	26	0	9	30	33	8	52	1	7	0	7	0	184
PIECES	643	1119	125	307	550	331	188	1085	3	54	2	157	2	4566
OTHER	33	207	10	92	40	41	2	164	1	15	0	49	0	654
CLOTH														
-----	1056	591	32	271	346	490	64	427	7	72	79	165	8	3608
TOTAL ITEMS/ZONE	43497	58914	4164	63031	62337	38057	20409	31272	3659	2659	1079	14558	1177	344813

PERCENT COMPOSITION OF TEXAS' BEACH DEBRIS:



TEXAS' DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic pieces	34,592	10.03
2. plastic trash bags	24,435	7.09
3. plastic caps, lids	21,267	6.17
4. plastic sheeting (two feet or shorter)	20,463	5.93
5. small foamed plastic pieces	19,496	5.65
6. foamed plastic cups	15,257	4.42
7. miscellaneous types of plastic bags	14,941	4.33
8. glass beverage bottles	12,839	3.72
9. plastic cups, spoons, forks, straws	12,230	3.55
10. glass pieces	11,442	3.32
11. plastic six-pack rings	10,319	2.99
12. metal beverage cans	9,224	2.68
Total	206,505	59.89

TYPES AND SOURCES OF TEXAS' BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	13.65
Galley Wastes	13.46
Fishing/Boating Gear	7.90
Operational Wastes	3.68
Sewage Wastes	0.24
Medical Wastes	0.14

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Bolivar	75.82	plastic pieces (fragments)
2. Galveston	72.87	plastic pieces (fragments)
3. Matagorda Island	76.32	plastic caps and lids
4. Port Aransas	87.08	plastic pieces (fragments)
5. Corpus Christi	83.79	plastic pieces (fragments)
6. Brazoria	69.80	large foamed plastic pieces
7. Padre Island National Seashore	86.31	plastic pieces (fragments)
8. South Padre	58.30	glass pieces (fragments)
9. Boca Chica	21.02	glass beverage bottles
10. Palacios	57.62	paper pieces (fragments)
11. Beaumont	65.80	plastic trash bags
12. Bay City	78.75	short pieces plastic sheeting
13. St. Joe	68.82	plastic soda bottles



This sand castle was created by Amazing Walter and Sandy Feet, Sons of the Beaches at South Padre Island, Texas.

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related

entangled bones in string,
possibly a bird
dead gull in wire ring
seagull entangled in fishing line
(approximately 40 inches)
dead bird entangled in debris
seagull in trash bag
stranded seagull in six-pack holder
fish entangled in rope

Other Reports

22 birds mostly seagulls
live seagull with broken wing

MOST PECULIAR DEBRIS ITEMS REPORTED:

aluminum ordinance shell, bedsprings, bowling pin, bucket of chocolate, crack vial, diaphragm, "Do Not Remove" mattress tag, "Don't Mess with Texas" can holder, douche applicator, "finkle waste," intravenous container, one hundred dollar bill, rusty dental instruments, surgical gloves, television, typewriter, veterinary liniment, washing machine agitator.

FOR INFORMATION ON TEXAS' 1989 BEACH CLEANUP CONTACT:

**Linda Maraniss
Center for Marine Conservation
1201 West 24th Street
Austin, TX 78705
(512) 477-6424**

**Angela Farias
Texas General Land Office
1700 N. Congress Avenue
Austin, TX 78701
1-800-85BEACH**

1989 CLEANUP DATE: Saturday, September 23

VIRGINIA

September 10, 1988 (Ocean Beaches)
 October 1, 1988 (Chesapeake Bay)
 130 Volunteers
 19.8 Miles Cleaned
 12,900 Pounds of Debris Collected
 15,510 Debris Items Reported

Ocean Beaches Coordinated By:

David Cottingham
 National Oceanic and Atmospheric
 Administration
 Office of Chief Scientist
 14th Street and Constitution Avenue
 Room 6222
 Washington, DC 20230
 (202) 377-5181

Edward Risley
 Audubon Naturalist Society
 7212 Beachwood Road
 Alexandria, VA 22307
 (703) 768-8478

Neil FitzPatrick
 Audubon Naturalist Society
 8940 Jones Mill Road
 Chevy Chase, MD 20815
 (301) 652-5964

Fran Krieg
 Assateague Mobile Sportsfishermen's
 Association
 P.O. Box 149
 Ocean City, MD 21842
 (301) 957-9971

Judy Johnson
 Committee to Preserve Assateague
 Island, Inc.
 616 Piccadilly Road
 Towson, MD 21204
 (301) 828-4520

Chesapeake Bay Coordinated By:

Susan Larson
 Hampton Clean City Commission
 22 Lincoln Street
 Hampton, VA 23669
 (804) 727-6394

Kathy O'Hara
 Center for Marine Conservation
 12 Cantamar Court
 Hampton, VA 23664
 (804) 851-6734

Candy Tomlinson
 Sierra Club
 216 Constant Drive
 Newport News, VA 23602
 (804) 764-7633

On September 10, approximately 250 people in four zones removed marine debris from Assateague Island in Maryland and Virginia, and Wallops Island, Virginia. Assateague Island National Seashore is largely undeveloped with public access limited to beaches at a state park and seashore (northern end) and Chincoteague Island National Wildlife Refuge at the southern end. Wallops Island is owned by the National Aeronautics and Space Administration (NASA) and access here is strictly controlled.

FALL, 1988 NATIONAL BEACH CLEANUP VIRGINIA

RAW DATA SUMMARY		Assataegue/ Chincoteague	Wallops Island	Buckroe	Salt Ponds	Grandview	STATE TOTAL		
PLASTIC									
BAGS	TRASH	293	33	45	4	3	378	BAGS	TRASH
	SALT	16	0	0	0	0	16		SALT
	OTHER	669	50	67	72	5	863		OTHER
BOTTLES	SODA	472	39	36	28	14	589	BOTTLES	SODA
	BLEACH	286	27	9	6	2	330		BLEACH
	OIL	109	8	17	19	13	166		OIL
	OTHER	212	19	43	4	4	282		OTHER
BUCKETS		70	3	3	2	0	78	BUCKETS	
CAPS/LIDS		344	33	171	34	17	599	CAPS/LIDS	
CUPS/SPOONS		635	46	116	118	10	925	CUPS/SPOONS	
DIAPERS		10	0	2	16	0	28	DIAPERS	
LIGHTERS		65	1	4	6	1	77	LIGHTERS	
FISH LINE		79	8	4	8	0	99	FISH LINE	
NET	LONG	92	8	1	4	2	107	NET	LONG
	SHORT	33	6	1	1	0	41		SHORT
FLOATS/LURES		42	0	5	0	3	50	FLOATS/LURES	
HARD HATS		3	0	0	0	0	3	HARD HATS	
LIGHT STICKS		24	0	7	0	1	32	LIGHT STICKS	
MILK JUGS		264	19	1	3	3	290	MILK JUGS	
PIECES		659	77	130	8	20	894	PIECES	
PIPE THREAD		101	0	1	0	0	102	PIPE THREAD	
ROPE	LONG	202	17	28	12	2	261	ROPE	LONG
	SHORT	228	15	21	7	0	271		SHORT
SHEETING	LONG	77	4	1	2	0	84	SHEETING	LONG
	SHORT	61	2	0	1	0	64		SHORT
SIX-PACK		100	5	22	21	1	149	SIX-PACK	
STRAP BANDS		86	11	6	0	0	103	STRAP BANDS	
SYRINGES		19	0	0	0	0	19	SYRINGES	
TAMPON APP.		52	0	2	0	0	54	TAMPON APP.	
TOYS		62	8	9	1	3	83	TOYS	
VEGGIE		64	11	0	3	0	78	VEGGIE	
WRITE PROTECTOR		11	0	0	5	0	16	WRITE PROTECTOR	
OTHER		271	77	24	30	1	403	OTHER	
GLASS									
BOTTLES:	BEVERAGE	655	51	48	97	14	865	BOTTLES:	BEVERAGE
	FOOD	159	12	0	0	1	172		FOOD
	MISC	28	3	2	0	0	33		MISC
FLUORO TUBES		41	0	0	0	0	41	FLUORO TUBES	
LIGHT BULBS		116	11	2	0	0	129	LIGHT BULBS	
PIECES		85	7	34	4	0	130	PIECES	
OTHER GLASS		6	0	0	0	0	6	OTHER GLASS	
STYROFOAM									
BUOYS		30	5	3	2	4	44	BUOYS	
CUPS		310	76	81	38	42	547	CUPS	
EGG CARTONS		35	2	2	0	1	40	EGG CARTONS	
FAST FOOD		55	7	20	22	2	106	FAST FOOD	
MEAT TRAYS		44	3	3	1	0	51	MEAT TRAYS	
STYRO:	LARGE	223	54	45	15	5	342	STYRO:	LARGE
	SMALL	247	299	269	16	7	838		SMALL
OTHER		19	0	4	0	1	24	OTHER	

FALL, 1988 NATIONAL BEACH CLEANUP VIRGINIA

RAW DATA SUMMARY		Assataque/ Chincoteague					STATE	
		Wallops Island	Buckroe	Salt Ponds	Grandview	TOTAL		
RUBBER								RUBBER
	BALLONS	331	32	10	2	3	378	BALLONS
	GLOVES	18	3	3	5	2	31	GLOVES
	TIRES	214	1	2	0	0	217	TIRES
	OTHER RUBBER	75	12	12	8	3	110	OTHER RUBBER
METAL								METAL
	BOTTLE CAPS	19	4	54	44	1	122	BOTTLE CAPS
	CANS: AEROSOL	118	7	5	5	2	137	CANS: AEROSOL
	BEVERAGE	675	147	98	59	77	1056	BEVERAGE
	FOOD	20	3	1	6	1	31	FOOD
	CANS	34	9	11	4	0	58	CANS
	CRAB/FISH	9	0	3	0	1	13	CRAB/FISH
	DRUMS: RUSTY	17	0	0	0	0	17	DRUMS: RUSTY
	NEW	1	0	1	0	0	2	NEW
	PIECES	37	6	24	10	3	80	PIECES
	PULL TABS	2	0	4	7	0	13	PULL TABS
	WIRE	52	3	3	4	0	62	WIRE
	OTHER	40	12	4	5	0	61	OTHER
PAPER								PAPER
	PAPER BAGS	70	3	27	34	0	134	PAPER BAGS
	CARDBOARD	41	6	18	7	4	76	CARDBOARD
	CARTONS	70	20	40	16	0	146	CARTONS
	CUPS	18	3	54	70	4	149	CUPS
	NEWSPAPER	1	0	9	6	0	16	NEWSPAPER
	PIECES	161	38	226	71	2	498	PIECES
	OTHER	107	10	229	0	0	346	OTHER
WOOD								WOOD
	CRAB/LOBSTER	0	0	0	0	0	0	CRAB/LOBSTER
	CRATES	9	6	0	0	3	18	CRATES
	PALLETS	15	1	0	0	0	16	PALLETS
	PIECES	437	97	9	9	0	552	PIECES
	OTHER	64	11	2	2	1	80	OTHER
CLOTH								CLOTH
		128	9	21	21	10	189	
TOTAL ITEMS/ZONE		10547	1500	2159	1005	299	15510	TOTAL ITEMS/ZONE

Volunteers collected debris along 17 miles of beach. State and federal officials then removed it. We found a variety of debris from fishing vessels, fast-food restaurants, beach goers, and industrial sources. We found more than 250 tires which probably came from an artificial reef off Ocean City, Maryland. We also found three stranded sea turtles, one of which had not been reported to Fish and Wildlife Service officials. The most unusual entanglement event was in Maryland where a red fox was found ensnared in a half-buried fishing net as it tried to eat a dead entangled seagull. Fortunately, volunteers released the fox alive.

The nearest public recreation area is Ocean City. We found a number of plastic and paper materials including balloons, straws, and cups, that probably originated there. Shoes, diapers, plastic toys, light bulbs, and bottles could have come from anywhere.

We want to thank all the staff at the Wildlife Refuge, National Seashore, and State Park who assisted volunteers along the 14 mile-stretch of inaccessible beach and helped to remove the debris.

David Cottingham
Ocean Beaches

The first beach cleanup data collection effort in the Chesapeake Bay was conducted on October 1, 1988 in Hampton. While the cleanup was originally scheduled to take place on Buckroe Beach, the number of volunteers that turned out for this event allowed for two additional areas of Hampton beachfront to be cleaned: the Salt Ponds and a more pristine beach at the Grandview Nature Preserve. In total, 50 volunteers participated in the Hampton Beach Cleanup. Some had heard about the cleanup as members of the Sierra Club while others reported that they had received information on the cleanup at Hampton Bay Days or from school and scout troops.

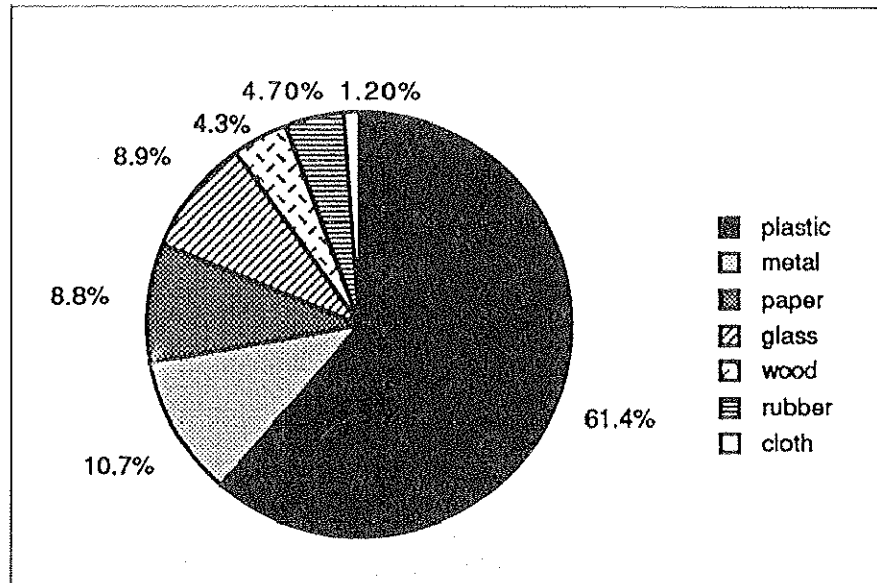
Although the beaches appeared relatively clean when volunteers first arrived, a surprising 1,200 pounds of debris was collected within three hours. Most of the debris was characteristic of the type of trash generated by recreational boaters and picnickers, but some of the more unusual items collected included several metal crab traps, wooden crates and pallets, and large pieces of plastic sheeting. Hampton's beaches on the Chesapeake Bay lie on the major shipping channel from the Atlantic Ocean, which may explain the findings of cargo wastes on the beach.

Recycling was a major emphasis of this cleanup. All aluminum cans and glass bottles were sorted from the trash after it was collected and taken to local recyclers. A group of dedicated sorters were able to work effectively and quickly once the bags were brought to a central area.

Plans are underway for an expanded cleanup effort on September 23, 1989.

Kathy O'Hara
Chesapeake Bay

PERCENT COMPOSITION OF VIRGINIA'S BEACH DEBRIS:



VIRGINIA'S DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. metal beverage cans	1,056	6.81
2. plastic cups, spoons, forks, straws	925	5.96
3. plastic pieces	894	5.76
4. glass beverage bottles	865	5.58
5. miscellaneous (other) plastic bags	863	5.56
6. small foamed plastic pieces	838	5.40
7. plastic caps, lids	599	3.86
8. plastic beverage, soda bottles	589	3.80
9. wood pieces	552	3.56
10. foamed plastic cups	547	3.53
11. paper pieces	498	3.21
12. rubber balloons	378	2.44
plastic trash bags	378	2.44
Total	8,982	57.91

TYPES AND SOURCES OF VIRGINIA'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	18.01
Galley Wastes	7.52
Fishing/Boating Gear	7.29
Operational Wastes	3.30
Sewage Wastes	0.35
Medical Wastes	0.12

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Virginia state line south on Assateague/ Chincoteague	63.28	metal beverage cans
2. Wallops Island	64.87	small foamed plastic pieces
3. Hampton		
a. Buckroe Beach	55.72	small foamed plastic pieces
b. Salt Ponds Beach	50.65	plastic cups, spoons, forks, straws
c. Grandview Nature Preserve	55.85	metal beverage cans

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	2 seagulls 1 sea turtle 1 dolphin 1 whale

MOST PECULIAR DEBRIS ITEMS REPORTED:

ball cap from USS Scott, bottle with message (will write back about littering), condoms, homemade bomb, oil tank, plastic ear plugs, plastic trash can, toilet seat, welding helmet.

FOR INFORMATION ON VIRGINIA'S 1989 BEACH CLEANUP CONTACT:

**Ocean Beaches
David Cottingham
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Office of Chief Scientist
14th Street and Constitution Avenue, Room 6222
Washington, DC 20230
(202) 377-5181**

and

**Judy Johnson
Committee to Preserve Assateague Island, Inc.
616 Piccadilly Road
Towson, MD 21204
(301) 828-4520**

1989 CLEANUP DATE: Saturday, September 16

**Chesapeake Bay
Deborah Blanton Hampton Clean City Commission
22 Lincoln Street
Hampton, VA
(804) 727-6394**

and

**Kathy O'Hara
Center for Marine Conservation
12 Cantamar Court
Hampton, VA 23664
(804) 851-6734**

1989 CLEANUP DATE: Saturday, September 23

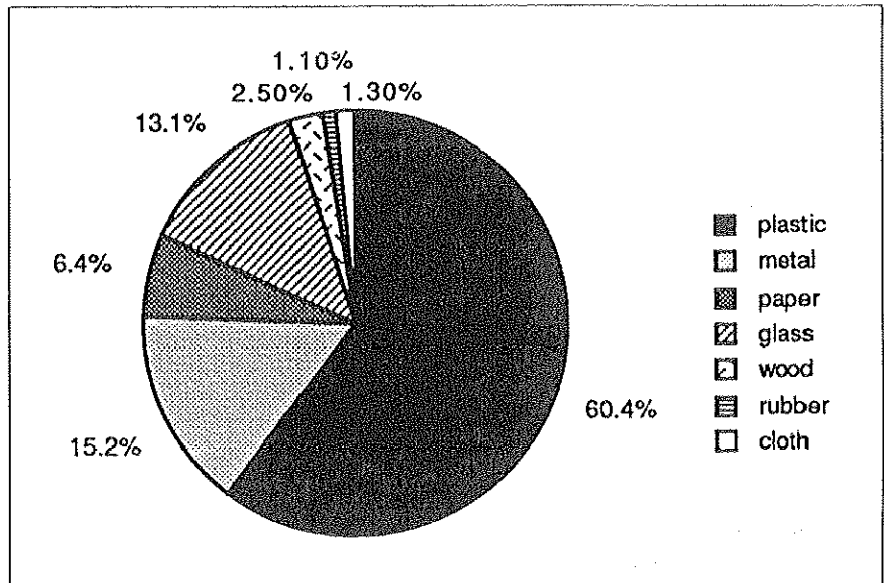
VIRGIN ISLANDS

September - October 1988
435 Volunteers
3.15 Miles Cleaned
unknown pounds
13,711 Debris Items Reported

Coordinated By: Patricia Mortenson
Environmental Studies Teacher
Government of the Virgin Islands
Department of Education
Charlotte Amalie
St. Thomas, VI 00801

Starting September 27 through October 10 the Environmental Studies Program of the Virgin Islands organized field trips to develop awareness of coastal problems as part of COASTWEEKS '88. The data obtained from St. Thomas and St. John was collected by school students as part of these field trips. Seventeen St. Thomas and St. John schools participated in all, with data reported from seven sites. Some of the classes used their data in follow-up projects. One of the most unusual items found was a bottle with a note inside from a cruise line passenger guest. The students wrote back to the authors of this note.

PERCENT COMPOSITION OF VIRGIN ISLAND'S BEACH DEBRIS:



FALL, 1988 NATIONAL BEACH CLEANUP		VIRGIN ISLANDS							
RAW DATA SUMMARY	PALM BEACH HASSEL IS.	LIMESTONE WATER IS.	MAGENS BAY ST. THOMAS	RED HOOK ST. THOMAS	HONEYMOON ST. JOHN	FRIS ST. JOHN	DRUNK BAY ST. JOHN	HAWKSNEST ST. JOHN	TOTAL
PLASTIC									
BAGS	8	436	13	151	34	147	582	73	1444
BOTTLES	2	277	1	13	4	0	177	1	475
GREEN	4	65	23	15	5	0	261	5	378
SODA	12	162	34	16	2	30	383	6	645
OTHER	12	176	4	12	4	0	516	5	729
CAPS/LIDS	22	270	31	54	4	35	686	27	1129
CUPS, STRAWS	2	0	1	0	0	0	7	0	10
DIAPERS	1	0	0	0	0	1	51	0	53
LIGHTERS	0	12	0	2	0	0	25	0	39
FISH LINE	1	7	0	0	0	0	20	0	28
FISHING NET	0	2	0	0	0	0	20	0	22
FLOATS/LURES	0	10	0	0	0	0	0	0	10
HARDHATS	1	8	0	0	0	0	286	0	295
LIGHT STICKS	5	16	0	14	0	5	118	0	158
MILK JUGS	17	99	1	0	1	0	74	3	195
ROPE	0	7	0	0	0	0	23	0	30
SHEETING	2	14	5	1	1	6	214	2	245
SIX-PACK	0	24	0	0	0	0	47	6	77
STRAP BANDS	0	3	0	0	0	0	28	0	31
TAMPON APP.	0	15	0	2	0	0	44	0	61
TOYS	0	13	0	0	0	0	8	1	22
VEGGIE	2	2	0	0	0	0	1	0	5
WRITE PROTECTOR	4	46	2	10	5	57	145	2	271
OTHER	GLASS								
BOTTLES	3	149	34	161	30	18	911	10	1316
FLOURO TUBES	0	2	0	0	0	0	60	0	62
LIGHT BULBS	0	7	0	0	0	0	30	0	37
PIECES	78	99	1	12	2	15	172	0	379
OTHER	0	1	0	2	1	0	1	0	5
STYROFOAM									
BUOYS	0	27	0	6	0	1	51	0	85
CUPS	46	157	2	3	0	33	282	6	529
EGG CARTONS	1	25	0	0	0	0	15	0	41
FAST FOOD	7	8	2	0	0	7	27	0	51
MEAT TRAYS	4	2	0	0	1	0	9	0	16
PIECES	14	41	1	3	5	5	697	1	767
OTHER	3	72	0	8	0	0	351	0	434
RUBBER									
BALLOONS	2	5	0	0	0	0	2	0	9
GLOVES	0	4	0	0	0	0	21	0	25
TIRES	0	13	0	0	0	0	27	0	40
OTHER	1	24	0	2	0	0	55	0	82

VIRGIN ISLANDS' DIRTY DOZEN:

	Total Number Reported Debris	Percent of Total Collected
1. plastic bags	1,444	10.53
2. glass bottles	1,316	9.60
3. metal beverage cans	1,180	8.61
4. plastic cups, utensils	1,129	8.23
5. foamed plastic pieces	767	5.60
6. plastic caps, lids	729	5.32
7. miscellaneous types of bottles	645	4.70
8. foamed plastic cups	529	3.86
9. plastic green bottles	475	3.46
10. glass pieces	379	2.76
11. plastic soda bottles	378	2.76
12. metal bottle caps	326	2.38
Total	9,297	67.81

FALL, 1988 NATIONAL BEACH CLEANUP		VIRGIN ISLANDS							
RAW DATA SUMMARY	PALM BEACH HASSEL IS.	LIMESTONE WATER IS.	MAGENS BAY ST. THOMAS	RED HOOK ST. THOMAS	HONEYMOON ST. JOHN	FRIS ST. JOHN	DRUNK BAY ST. JOHN	HAWKSNEST ST. JOHN	TOTAL
METAL - - - - -									
BOTTLE CAPS	2	79	7	6	44	0	161	27	326
CANS	29	224	20	148	42	35	656	26	1180
CONTAINERS	3	7	0	6	3	2	81	0	102
CRAB/FISH TRAPS	0	2	1	1	0	0	7	1	12
DRUMS NEW	0	0	0	0	0	0	0	0	0
DRUMS RUSTY	0	3	1	0	0	0	4	0	8
PIECES	2	5	1	2	1	4	222	3	240
PULL TABS	0	7	0	0	2	0	114	1	124
WIRE	4	13	0	0	6	0	13	0	36
OTHER	0	15	0	8	0	0	37	0	60
PAPER - - - - -									
BAGS	0	27	2	71	7	0	35	17	159
CARDBOARD	0	11	2	10	0	0	23	0	46
CARTONS	4	9	0	10	1	2	29	1	56
CUPS	0	74	5	13	7	0	71	4	174
NEWSPAPER	0	1	0	2	1	0	2	0	6
PIECES	2	6	3	48	6	0	241	5	311
OTHER	77	16	0	16	14	0	1	0	124
WOOD - - - - -									
CRAB/LOBSTER	0	2	0	1	0	0	6	0	9
CRATES	0	1	0	0	0	0	5	0	6
PALLETS	2	7	0	0	0	0	37	0	46
PIECES	7	40	0	5	0	0	188	10	250
OTHER	1	9	0	0	0	0	13	0	23
CLOTH - - - - -									
CLOTHING/PIECES	3	46	2	13	3	3	108	5	183
TOTAL ITEMS/ZONE									
	8735	9118	199	847	236	406	8481	248	13711

TYPES AND SOURCES OF VIRGIN ISLAND'S BEACH DEBRIS: ³

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	26.03
Galley Wastes	1.73
Fishing/Boating Gear	5.18
Operational Wastes	1.99
Sewage Wastes	0.23
Medical Wastes	not recorded

3. Note: Alaska and the Virgin Islands used an earlier version of the national data card. The indicator items used for data collected in Alaska and the Virgin Islands included: (Bottles and Associated Goods—plastic soda bottles, plastic six-pack rings, glass bottles, metal beverage cans, metal bottle caps, metal pull tabs); (Galley Wastes—plastic milk jugs, plastic vegetable sacks, styrofoam egg cartons, styrofoam meat trays); (Fishing and Boating Gear—plastic fishing nets, plastic light sticks, plastic rope, plastic floats and lures, plastic fishing line, styrofoam buoys, rubber gloves, metal traps, wood traps); (Operational Wastes: plastic strapping bands, plastic sheeting, plastic hardhats, plastic write enable protection rings, wood crates, wood pallets, glass light bulbs, glass fluorescent light tubes); (Sewage Wastes: plastic tampon applicators).

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Palm Beach Grove, Hassel Island	43.59	glass pieces (fragments)
2. Limestone Beach, Water Island	68.73	plastic bags
3. Magens Bay, St. Thomas	60.30	glass bottles, miscellaneous (other) plastic bottles
4. Red Hook, St. Thomas	36.60	glass bottles
5. Honeymoon Beach, St. John	27.97	metal bottle caps
6. Fris Beach, St. John	80.54	plastic bags
7. Drunk Bay, St. John	60.70	glass bottles
8. Hawksnest, St. John	55.65	plastic bags

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

None reported.

MOST PECULIAR DEBRIS ITEMS REPORTED:

African locust, bed spring, briefcase with passports enclosed from Los Angeles, disposable lighters from Martinique, large plastic bottle from Sweden, plastic bathroom cleaner bottle from Milano, Italy, plastic bottle of "Vidal Sassoon" hair rinse from Royal Caribbean Lines, plastic casino cups from Carnival Cruise Lines, plastic cup from Norwegian Cruise Lines, plastic Navy missile storage cylinder, stove, syringes with needles intact, two drug vials.

FOR INFORMATION ON THE VIRGIN ISLAND'S 1989 BEACH CLEANUP CONTACT:

Natalie Peters
Virgin Islands Marine Advisory
University of the Virgin Islands
St. Thomas, VI 00802
(809) 776-9200 X-1242

Elba McIntosh
Department of Planning and Natural Resources
Nisky Center
45A Estate Nisky, Suite 231
St. Thomas, VI 00802
(809) 774-3320 X-131 or 132

1989 CLEANUP DATE: Saturday, October 7

WASHINGTON

September 17, 1988
 1,904 Volunteers
 100+ miles
 64,000 Pounds of Debris Collected
 16,316 Debris Items Reported

Puget Sound Coordinated By:
 Ken Pritchard and Betsy Peabody
 Puget Sound Bank
 Washington Adopt-A-Beach
 607 3rd Avenue, Room 210
 Seattle, WA 98104
 (206) 296-6544

Ocean Beaches Coordinated By:
 Pacific Northwest 4-Wheel Drive
 Association's Operation Shore Patrol
 Camille Johnson
 Washington State Parks and
 Recreation Commission
 7150 Cleanwater Lane
 Olympia, WA 98504
 (206) 753-5759

On September 17, 1988 a massive cleanup of 34 Puget Sound beaches was accomplished by more than 900 Puget Sound Bank employees, their families, and community volunteers. At the same time, the Pacific Northwest 4-Wheel Drive Association's Annual Operation Shore Patrol removed debris from Washington's ocean beaches.

The "Puget Sound Bank Beach Clean Up Day," sponsored by Puget Sound Bank, was the first cleanup of this scale attempted on Puget Sound. The cleanup was launched with a special cleanup of Golden Gardens Beach in Seattle on September 16. Volunteers removed nearly 100 bags of debris from the beach. The trash was transported to the Seattle Aquarium and displayed as part of a special three-day exhibit on marine debris. A press conference was held at the Aquarium that same day to announce the opening of the marine debris exhibit.

On September 17, 904 volunteers participated in the cleanup of 34 beaches in 10 Puget Sound counties. They removed 5 tons of litter. Among the unique items found were two partially filled 55 gallon oil drums, a dead seal, bed springs, a hot tub, and an outhouse door.

The largest problem was accommodating all the people who wanted to participate. This was especially so in the South Sound where there are few large public beaches, and the beaches are kept fairly clean. The cleanup could easily have attracted more than 1,500 people if sufficient South Sound public beaches had been available.

In the meantime, the Pacific Northwest 4-Wheel Drive Association in cooperation with the Washington State Parks and Recreation Commission held their Operation Shore. This was the 17th annual cleanup for this group. Approximately 1,000 volunteers patrolled Washington's ocean beaches collecting an estimated 54,000 pounds of debris. Volunteer groups included the Telephone Pioneers and the Quinault Tribal Nation who cleaned their beachfront areas. One method of trash collection that has proved successful during Operation Shore Patrol was the use of mesh net bags for bulk quantities of potatoes. The mesh bags help to make the loads of trash collected lighter by allowing sand and water

FALL, 1988 NATIONAL BEACH CLEANUP

WASHINGTON

RAW DATA SUMMARY		WASHINGTON									STATE TOTAL
		Keystone Ferry	Myrtle Edwards Titlow Beach	Dash Point	Kopachuck	Salter's Point Ruston Way	Blake Island	Moclips to Copalis Beach			
PLASTIC											
BAGS	TRASH	35	0	4	8	0	12	29	5	259	352
	SALT	135	0	0	0	0	0	0	0	0	135
	OTHER	332	24	4	2	0	1	18	23	245	649
BOTTLES	SODA	71	6	4	32	0	0	19	12	174	318
	BLEACH	122	0	0	0	0	0	8	1	64	195
	OIL	19	4	0	0	0	0	13	1	52	89
	OTHER	90	1	21	0	0	3	0	7	17	139
BUCKETS		27	0	1	1	0	1	0	0	22	52
CAPS/LIDS		265	34	4	2	0	25	40	6	344	720
CUPS/SPOONS		117	20	13	13	0	5	23	17	73	281
DIAPERS		0	4	0	1	0	0	14	0	11	30
LIGHTERS		2	2	1	0	0	1	7	1	19	33
FISH LINE		13	1	9	0	0	4	33	4	44	108
NET	LONG	2	0	0	0	0	0	0	1	22	25
	SHORT	2	0	0	0	0	0	0	3	44	49
FLOATS/LURES		2	0	0	0	0	2	2	1	10	17
HARD HATS		0	0	0	0	0	0	0	0	0	0
LIGHT STICKS		0	0	0	0	0	0	0	0	9	9
MILK JUGS		12	0	0	0	0	0	3	6	83	104
PIECES		496	35	1	1	0	0	33	11	168	745
PIPE THREAD		0	0	0	1	0	0	0	0	3	4
ROPE	LONG	58	2	1	0	0	1	0	4	69	135
	SHORT	288	8	1	0	0	0	7	4	126	434
SHEETING	LONG	84	0	0	0	0	0	0	0	12	96
	SHORT	491	0	5	0	0	0	0	0	37	533
SIX-PACK		251	2	3	5	0	1	13	0	81	356
STRAP BANDS		110	17	5	0	0	5	12	2	148	299
SYRINGES		6	19	0	0	0	0	1	0	3	29
TAMPON APP.		35	0	0	0	0	0	2	2	16	55
TOYS		5	0	1	1	0	0	0	4	13	24
VEGGIE		40	5	0	0	0	0	0	1	113	159
WRITE PROJECTOR		11	0	0	0	0	0	0	0	24	35
OTHER		235	0	2	1	0	3	23	1	5	270
GLASS											
BOTTLES:	BEVERAGE	3	44	52	29	0	14	55	28	169	394
	FOOD	1	0	1	0	0	0	0	2	53	57
	MISC	0	0	0	0	0	0	0	0	13	13
FLUORO TUBES		0	0	0	0	0	0	0	0	2	2
LIGHT BULBS		2	0	0	0	0	0	4	1	7	14
PIECES		41	82	90	0	0	108	5	400	97	823
OTHER GLASS		2	0	5	15	0	0	0	0	0	22
STYROFOAM											
BUOYS		9	3	0	7	0	2	0	0	4	25
CUPS		47	77	10	16	0	5	40	50	350	595
EGG CARTONS		7	0	0	3	0	0	2	0	49	61
FAST FOOD		17	14	4	0	0	0	4	0	63	102
MEAT TRAYS		57	6	0	4	0	0	13	6	102	188
STYRO:	LARGE	75	95	11	1	0	1	0	29	139	351
	SMALL	409	425	10	5	0	28	0	500	172	1549
OTHER		24	0	0	0	0	0	0	1	0	25

FALL, 1988 NATIONAL BEACH CLEANUP

WASHINGTON

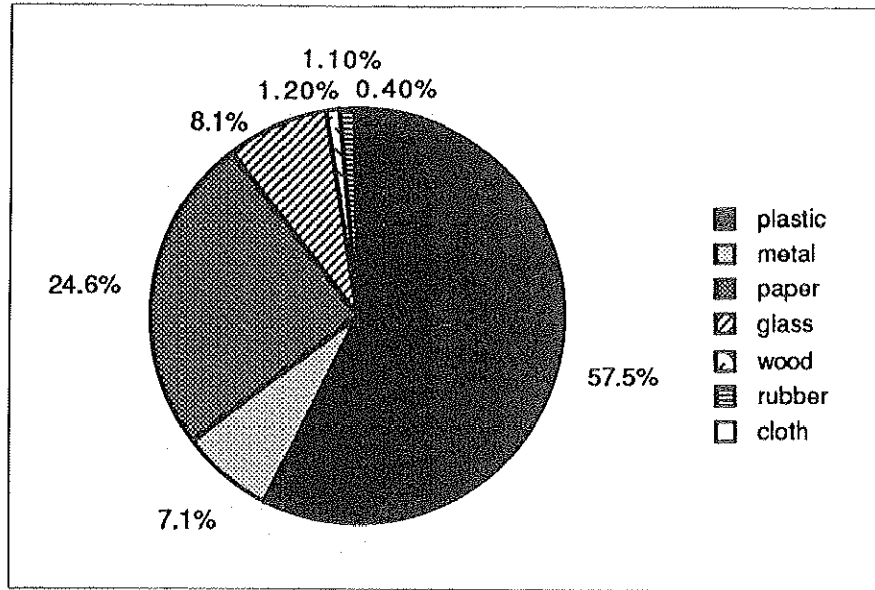
RAW DATA SUMMARY	Myrtle Edwards		Dash Point		Salter's Point		Blake Island		Moclips to Copalis Beach	STATE TOTAL
	Keystone Ferry	Titlow Beach			Kopachuck	Ruston Way				
RUBBER										
BALLONS	11	0	0	10	0	0	5	0	26	52
GLOVES	1	0	0	0	0	0	3	0	30	34
TIRES	0	3	0	0	0	0	1	4	17	25
OTHER RUBBER	17	0	3	0	0	1	33	7	3	64
METAL										
BOTTLE CAPS	3	8	88	28	0	58	0	22	127	334
CANS:										
AEROSOL	4	0	0	0	0	0	23	0	17	44
BEVERAGE	17	5	1	22	0	8	0	40	231	324
FOOD	1	0	0	2	0	0	12	7	11	33
CANS	8	0	0	0	0	0	0	100	6	114
CRAB/FISH	0	0	0	0	0	0	0	2	0	2
DRUMS:										
RUSTY	0	0	1	1	0	0	0	0	0	2
NEW	0	0	0	0	0	0	0	0	0	0
PIECES	2	0	0	0	0	5	19	8	7	41
PULL TABS	0	0	73	3	0	21	5	0	35	137
WIRE	2	1	4	2	0	8	0	2	20	39
OTHER	2	0	20	0	0	0	32	8	29	91
PAPER										
PAPER BAGS	3	3	8	3	0	0	19	2	72	110
CARDBOARD	2	1	8	2	0	2	0	0	62	77
CARTONS	8	0	2	5	0	0	0	1	35	51
CUPS	2	15	4	2	0	1	24	2	123	173
NEWSPAPER	0	4	3	0	0	1	0	0	3043	3051
PIECES	57	15	25	20	0	18	38	100	160	433
OTHER	4	0	0	2	0	99	0	10	1	116
WOOD										
CRAB/LOBSTER	0	0	0	0	0	0	0	0	1	1
CRATES	0	0	0	0	0	0	0	1	2	3
PALLETS	0	2	1	0	0	0	0	5	2	10
PIECES	0	0	0	2	0	1	17	50	88	158
OTHER	0	0	0	1	0	2	8	6	13	30
CLOTH										
	10	5	4	9	0	3	18	5	13	67
TOTAL ITEMS/ZONE	4204	992	508	262	0	450	680	1516	7704	16316

to escape. Trash is then dumped into plastic bags and taken to the landfill so that the mesh bags can be reused the next year. It was estimated that approximately a large percent of all litter items collected were plastic bait bags generated by commercial and recreational fishermen.

Many festivities surrounded the cleanup including a parade, sandcastle building contest, and spaghetti and pancake eating feasts afterwards for beach cleanup participants. Free camping space was also provided in Washington's State Coastal Parks to those who participated in the cleanup.

The enthusiastic response to the cleanup, from volunteers and news media, suggest an increasing public perception that beaches and shorelines are becoming polluted. Hopefully, this will result in stricter laws controlling the dumping of debris in our seas and common beach littering.

PERCENT COMPOSITION OF WASHINGTON'S BEACH DEBRIS:



WASHINGTON'S DIRTY DOZEN:

	Total Number Reported	Percent of Total Debris Collected
1. newspaper	3,051	18.70
2. small foamed plastic pieces	1,549	9.49
3. glass pieces	823	5.04
4. plastic pieces	745	4.57
5. plastic caps, lids	720	4.41
6. miscellaneous (other) plastic bags	649	3.98
7. foamed plastic cups	595	3.65
8. plastic sheeting two feet or shorter	533	3.27
9. plastic rope two feet or shorter	434	2.66
10. paper pieces	433	2.65
11. glass beverage bottles	394	2.41
12. large foamed plastic pieces	351	2.15
Total	10,277	62.99

TYPES AND SOURCES OF WASHINGTON'S BEACH DEBRIS:

Type of Debris	Percent of Total Debris Reported
Bottles and Associated Goods	11.42
Galley Wastes	6.49
Fishing/Boating Gear	6.52
Operational Wastes	2.84
Sewage Wastes	0.34
Medical Wastes	0.18

MAJOR CHARACTERISTICS OF DEBRIS IN EACH ZONE:

Zone Name	Percent Plastic	Most Prevalent Debris Item Reported
1. Keystone Ferry Beach	95.17	plastic pieces (fragments)
2. Myrtle Edwards	61.05	small foamed plastic pieces
3. Titlow Beach	22.64	glass pieces (fragments)
4. Kopachuck State Park	39.69	plastic soda bottles
5. Salter's Point	22.22	glass pieces (fragments)
6. Ruston Way	52.79	glass beverage bottles
7. Blake Island	46.37	small foamed plastic pieces
8. Moclips to Copalis Beach	41.39	newspaper

STRANDED AND/OR ENTANGLED WILDLIFE REPORTED:

Debris Related	Other Reports
none reported	1 rhinoceros auklet 1 seal pup 1 deer 1 sheep

MOST PECULIAR DEBRIS ITEMS REPORTED:

baby bottle, bed springs, boat hull, flattened garbage can, Greek shoe polish, hot tub buried in sand, jacket, millions of little plastic pellets, pink plastic items that resembled candles, refrigerator, women's underwear.

FOR INFORMATION ON WASHINGTON'S 1989 BEACH CLEANUP CONTACT:

Ocean Beaches
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1989 CLEANUP DATE: Saturday, September 16

APPENDICES

Appendix 1. Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks	
Alabama	"Germany" ¹	1 plastic spray bottle		
	Norway	1 plastic bag		
	China	1 buoy	1 fluorescent light bulb 1 plastic bottle	
	Thailand	1 tin can		
	Vietnam	1 plastic bag	food	
	Alaska	Canada	1 milk carton 1 5-gallon plastic jug "egg cartons"	from Terrace, B.C. from Terrace, B.C.
Japan		1 piece shrimp paper 4 containers	soup and soap	
USSR ("Russia")		1 plastic crate	for bottles	
California		"Germany"	1 plastic bottle 1 carton	bath gel or shampoo plastic coated paper
		Japan	1 light bulb 1 plastic package 2 bottles	1 glass, 1 motor oil
	Mexico	1 can 3 bottles	1 mineral water 1 "Negramodel"	
		"bottle caps"		
		"styrofoam cups, plates"		
	China	3 bottles	soy sauce	
	United Kingdom ("England")	1 piece of glass		
	Connecticut	Japan	1 container	with pills
		France	1 bottle	with letter
	Delaware	Bahamas	1 inspected baggage	

¹ Quotations (") indicate geographic names and foreign labels noted by volunteers. In some cases the sovereign state could not be determined. Number of items is also given where possible.

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Brazil	1 plastic bag	
	Denmark	1 milk carton	
	France	1 metal container	"Frene Jello"
	Mexico	1 bottle cap	
		1 wine carton	
	Netherlands	1 metal aerosol can	"Baygon"
	Peoples Republic of China ("China")	1 foil wrapper	"Soy Bean Paste"
	Spain	1 lab bottle	
		1 wine carton	
		1 unidentified plastic	
	Venezuela	1 milk carton	
		1 container	starch or aerosol
	Other		
	"Oriental"	1 plastic bag	
Florida			
	"Arabia"	1 milk carton	
		1 plastic bottle	
	Barbados	1 aerosol	
	Belgium	"plastic bottles"	
	Brazil	1 glass bottle	"Sao Paulo Brailiera"
		1 plastic ladle	
	Colombia	1 milk carton	
		1 plastic gallon jug	
		1 plastic wrapper	
		3 plastic bottles	1 "Cresopinol"
		1 "Drano"	
	Cuba	1 can	milk
		1 men's deodorant	"Hombres"
		1 plastic label	
		2 aerosol cans	1 medical
		3 bottles	1 glass
		1 wine or rum	
	Dominican Republic	1 oil can	
		1 plastic container	
		1 plastic bottle	deodorant
	Federal Republic of Germany ("West Germany")	1 metal container	"Tabac" shower bath foam
	France	1 lip balm	
		1 medicine-pills	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 plastic bottle	perfume
		1 wine bottle	
	Greece	1 lemon extract	
		1 lemon juice	
	"Germany"	1 metal aerosol	deodorant
		1 medication	"No sad" (5 ampules)
		4 plastic bottles	1 "Timotei" shampoo
			1 glue stick
		India	1 small bottle antacid
	Italy	1 plastic bag	"Moccagatta"
		1 wine bottle	
		"plastic bottles"	
	Japan	1 plastic bag	
		1 metal aerosol	
		5 bottles	1 bleach, 1 paste, 3 unidentified plastic
	Mexico	1 cap	creme rinse "El Casco"
		1 crate	"Guissona"
		1 juice container	
		1 plastic container	
		8 plastic bottles	1 "Tarnex" 1 shampoo 1 disinfectant 1 "Acido Muriatico"
	Netherlands ("Holland")	1 glass liquor bottle	"Bokma"
		1 light bulb	
		1 milk container	
		2 plastic bottles	shampoo
	Norway	"plastic cups"	
	China	1 metal container	talcum powder
		1 plastic container	white powder
		1 glass bottle	
		1 plastic bag	
	Portugal	1 bottle	mustard
	Singapore	1 beverage can	
	Spain	1 glass bottle	soft drink
		1 milk carton	
		1 olive oil	"Glosua"
		1 plastic quart container	
		1 can	shaving creme

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		2 plastic bags	1 milk
		3 plastic bottles	1 "Clora-1"
		1 toilet cleaner	
		1 creme rinse	
	Switzerland	1 baby product	
	Taiwan	1 can	fruit juice
	Trinidad	1 plastic cap	
	Venezuela	1 unidentified	
		3 plastic bottles	1 mineral water 1 water, 1 juice
	United Kingdom "England"	1 plastic bottle	
		1 light bulb	
	USSR ("Russia")	1 metal can	oil (?)
		1 munitions box	
		1 plastic jar	
		2 aerosol cans	1 insect spray
		3 plastic bottles	1 "Pycaha"
	Other:		
	"Europe"	1 lighter	
	"Greek or Russian"	1 metal can	insecticide
	"Latin America"	1 plastic jar	chicken fat (?)
	"Latin"	2 plastic bottles	1 shampoo, 1 oil
		2 plastic bags	for milk
	"Mexico or Spain"	1 plastic lighter	
		1 cleanser	
	"South America"	1 plastic bottle	"Super Lejia"
	"Turkey or Sweden"	1 milk carton	"Pinar"
Georgia			
	"Arabia"	1 plastic bottle	
	France	1 hair mousse	
	"Germany"	1 can	grease
		1 plastic bottle	shampoo
	Mexico	2 bottles	1 skin moisturizer
		1 glass	
	China	1 plastic bottle	
	Spain	1 bottle	liquor
		1 milk carton	"Can Leche"
	United Kingdom ("England")	1 bottle	wine
	USSR ("Russia")	1 aerosol	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 baby formula (?)	
		1 dry milk directions	
		1 insect spray	
Hawaii			
	France	1 glass jar	coffee
	Japan	1 lighter	"Mild Seven"
		1 marker pen	
		1 newspaper	
		1 tin foil label	
		1 pill container	
		1 plastic crate	"Kirin"
		1 plastic snack bag	
		1 plastic strapping tape	
		1 plastic tag	
		1 plastic vial	small
		1 bottle	squat sapporo
		1 styrofoam bowl	for noodles
		2 caps	1 plastic
		3 light bulbs	
		4 liquor bottles	
		4 plastic strapping bands	
		9 plastic bottles	4 bleach
		2 cleaners	
		2 suntan lotion	
		11 pieces of paper	
		11 glass bottles	3 Suntory whiskey
		1 lotion	
		1 saiki	
		1 sanraku ocean	
		"bandaid wrappers"	
		"candy and gum wrappers"	
		"cookie wrappers"	
		"plastic net floats"	
		"plastic pieces"	
	"Korea"	1 glass bottle	
		1 plastic lid	
	Peoples Republic of China ("China")	1 plastic crate	for bottles
		1 plastic fish net float	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 plastic bottle	
		1 glass bottle	medicine
	USSR ("Russia")	1 plastic bottle	cleanser
Louisiana			
	Brazil	1 bottle	bleach
		1 metal can	"Purificador: Bomar"
	Bulgaria	1 can	deodorant
	Canada	1 plastic bottle	shampoo
	Denmark	1 bag	tobacco
	France	1 bathroom cleaner	
		1 plastic bag	
		3 plastic bottles	1 cleaner
		1 shampoo	
	"Germany"	1 can	deodorant
		1 glass bottle	
		1 metal can	"Bac Frisch Deo"
	Greece	1 aerosol can	insecticide
			"Superflorex"
		1 glass bottle	grease "Maxvita"
		1 top of crate	
		1 plastic bottle	
	Italy	1 beverage can	
		1 can	soybean
		1 hair spray	
		1 paper wrapper	candy fig juice
		1 plastic can	soup
		1 plastic flavor packet	
		1 plastic holder	
		1 touch-up	
		3 plastic bottles	1 bowl cleaner
		1 cleaner, 1 syrup	
		3 aerosol cans	
		3 bottles	1 beverage
		1 cologne,	1 glass
		1 aerosol can	"Bayer Insecticide"
		1 can	coffee
		1 green bottle	
		1 plastic container	food

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 bottle	solvent "Nuova Varichina Sorgente"
		1 brown bottle	"Kahluma, S.A."
		3 paper milk cartons	
		4 plastic bottles	1 "Povidex 180 ml" 1 "Bedia-defruta" 2 bleach bottles
	Netherlands ("Holland")	1 bottle	shampoo
		1 plastic	"Van Nelle Zwadeshag (tobacco)"
	China	1 aerosol can	
		1 aluminum can	tea
		1 can	soluble cocoa
		1 container	food
		1 plastic container	5-gallon
		1 bottle	vinegar
	Portugal	1 bottle	whiskey
	Singapore	1 paper milk container	
		1 plastic bottle	
		1 bottle	soft drink
		2 fruit juice	
		10 metal beverage cans	4 "Soya Bean"
		2 soft drink	
	Spain	1 insect spray	
	Thailand	1 food	
		2 plastic bags	1 rice
		4 plastic bottles	"Nam Pla"
	United Kingdom ("England")	1 can	food
	("Scotland")	1 green glass bottle	whiskey (?)
	USSR ("Russia")	1 glass bottle	vodka
		1 metal aerosol spray	
		1 bottle	shampoo
	Venezuela	1 plastic bottle	pediatric medicine 1 baby toddy 1 unidentified
	Vietnam	1 fish sauce	
		1 glass bottle	sauce
		1 tea	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Other:		
	"Middle East"	1 plastic bottle	
	"Orient"	1 aerosol can	
		1 can	
		1 glass bottle	
		1 plastic bottle	
		1 plastic lid	
Maine	Canada	1 plastic bag	salted nuts
		2 lobster crate	
		security closures	
		5 fish tags	3 red for salmon
		1 green for salmon	
		1 from New Brunswick	
	Norway	1 bottle	toilet bowl cleaner
	China	1 cardboard box	
	Spain	1 plastic bag	food
Maryland	Brazil	1 unidentified	"Santal nectar de laranja"
		1 plastic bottle	"Sennap"
	"Germany"	1 plastic bottle	
	Mexico	1 unidentified	"Manzana"
	Netherlands ("Holland")	1 plastic bottle	"Opuask"
		1 milk carton	plastic coated paper
Massachusetts	Canada	1 plastic strap	for lobster
		1 lobster buoy	
	France	1 unidentified	
	Italy	1 glass bottle	
	Norway	1 plastic fish box	
Mississippi	France	1 can	soda
		2 bottles	liquor
	Ireland	1 plastic bottle	"Oxysept 2"
	Japan	1 glass bottle	carrot juice

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Mexico	1 aerosol insecticide 4 plastic bottles	"Detenfon" 1 shampoo 1 "Clarisol"
	China	1 can 3 beverage cans	tea
	Portugal	1 glass bottle	wine
	Phillipines	1 aluminum can	juice drink
	Singapore	11 metal beverage cans 8 "Soya Bean"	1 "Chrysanthenum tea"
	Taiwan	1 coffee drink	
	Thailand	1 noodle wrapper 1 glass bottle 2 plastic mesh bags 4 bags	5-pound, rice rice "Taka yamu"
	USSR ("Russia")	"hypodermic needles"	
	Other		
	"Asian"	1 glass bottle	spice
New York		none reported	
New Jersey		none reported	
North Carolina			
	Cuba	1 bottle	fruit
	France	1 paper towel toilette	
	"Germany"	1 lid of 1 plastic bottle 2 bottles	"Drehuesschleuss" "Sonnenmilch" detergent
	Japan	1 milk carton 1 plastic bag 1 plastic bottle	detergent
	Mexico	1 anti-perspirant 1 glass bottle	"Gillette"
	Pakistan	1 metal can	insect repellent "Mafu"
	Peru	1 plastic bottle	"Copsa"
	Spain	1 plastic bottle	"Lavanda Puig"
	USSR ("Russia")	1 aerosol can	
	Venezuala	1 aerosol can	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Other		
	"Japan or China"	1 light bulb	
	"Orient"	1 2-gallon can	
		1 plastic bottle	oil
Oregon	Argentina	1 plastic container	food
	Canada	1 bottle	with note
		1 egg carton	
		1 meat tray	
		1 plastic wrapper	for bread
		1 plastic bottle	oil
		1 plastic container	yogurt
		1 tin can	
		3 milk cartons	1 paper, 1 plastic,
	Federal Republic of Germany ("West Germany")	1 orange juice	
	France	1 milk carton	plastic coated paper
	"Germany"	1 vitamin bag	"Vivoptal"
	Japan	1 can	"Coke"
		1 fish float	
		1 piece flexible plastic packaging	
		1 plastic crate	
		1 plastic container	food
		1 plastic handle	
		1 super glue	
		2 light bulbs	
		3 plastic pieces	
		6+ bags	3+ plastic, 1 food, several for noodel and soup
		7 plastic bottles	1 gasoline, 1 beverage
	"Korea"	1 plastic container	
		2 plastic bags	
	Mexico	1 cigarette	
		1 container	food
		1 glass bottle	pop
		1 tin container	
		2 plastic sacks	"Leche"

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Netherlands ("Holland")	1 rug shampoo	
	New Zealand	1 plastic bag	food
	Norway	1 radio	
	China	1 plastic container	food
		1 glue	
		1 plastic ring	
	Turkey	1 flask	
	USSR ("Russia")	1 plastic container	
		1 plastic bottle	detergent
	Venezuela	1 plastic container	food
	Other		
	"South America"	1 plastic bottle	
	"Orient"	1 plastic bottle	
		1 glass jar with lid	
		1 plastic piece	
	"foreign"	1 aerosol can	
		2 boxes	food
Pennsylvania	none reported		
Puerto Rico			
	Italy	1 bottle	
Rhode Island			
	Canada	1 container box	
		1 plastic tag (red)	from Newfoundland
		"cardboard boxes"	
	India	1 cigarette container	
	Japan	1 plastic bottle	
	Portugal	4 cans	tropical fruit drink
South Carolina			
	"Arabia"	1 plastic container	food
		1 air freshner	
		1 plastic bottle	"Lift"
	Argentina	1 plastic bottle	household cleaner
	"Bermuda"	1 plastic beer stein	
	Canada	1 plastic cap	for liquor bottle
		1 vegetable sack	
	Chile	1 plastic bottle	toilet bowl cleaner

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Cuba	1 asthma inhaler	
		1 glass bottle	wine
		1 medical aerosol	"Salbutamol by Medicuba"
		1 plastic bottle	"Salbristanol"
		9 bottles	whiskey (5 oz.)
	Finland	1 plastic bottle	monicolor (toner)
	France	1 glass bottle	"Cointreau"
		4 plastic bottles	1 medicine, 1 conditioner, 2 water
	Greece	1 aerosol can	insecticide 1 plastic bottle
	Italy	1 plastic lid	
		1 plastic bottle	
	Japan	1 paper container	drink with straw
		1 plastic container	"Trio"
		1 strip of plastic	
		2 plastic bottles	1 shampoo, 1 "Netex"
		"light bulbs"	
	Mexico	1 carton	pineapple juice
		1 unidentified	"Wente Bro - Arroyo Seco"
		1 plastic bottle	salsa sauce
	Netherlands ("Holland")	1 metal can	tobacco, "Van Nelle"
		1 glass bottle	whiskey, "Leevwarden"
	Norway	1 cardboard label	mustard
		1 can	hair spray
	Panama	1 styrofoam lid	
	China	1 newspaper	
		1 plastic carton	for bottles
		1 plastic glass eye shade	
		3 plastic bottles	1 bleach, 1 lens wash,
		1 "Harpie"	
	Spain	1 condom wrapper	
		1 juice	"Iiko"
		1 milk carton	
		1 ovaltine	
		1 plastic tube	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 7-up	
		4 plastic bottles	1 hand cleaner
		1 "Reganerol"	
	USSR ("Russia")	1 aerosol can	insecticide
		1 glass bottle	wine
	Other		
	"Orient"	1 plastic bottle	nasal spray
	"Scandinavia"	1 plastic bottle	
Texas			
	Argentina	1 detergent	biodegradable "Ducomar"
		1 milk cartons	
	Brazil	1 plastic bottle	deodorant
	"Bermuda"	1 cigarette lighter	
	Canada	1 bottle	whiskey
	Colombia	1 container	5-gallon, "Texaco"
		1 glass bottle	"Laboratorios"
		2 plastic bottles	1 cleanser, 1 vitamins
	Cuba	1 bag	yuca
	Federal Republic of Germany ("West Germany")	1 carton	apple juice
		1 bottle	solid roll-on
		1 plastic milk container	
		2 plastic bottles	1 "Schauma" 1 "Mosel Nilch"
	Finland	1 bottle	whiskey
	France	1 aerosol can	"Gluid"
		1 container	baking soda
		1 bag	chocolate candy
		1 life preserver	
		1 metal can	"Transyl"
		3 bottles	1 liquor, 1 chemical,
		4 plastic bottles	1 toilet bowl cleaner
		1 "Sinkal-S4"	
		2 shampoo bottles	
	"Germany"	1 aerosol	"Barnengens Fotex
		Fot Spray"	
		1 coffee mix packet	
		1 milk drink mix packet	
		1 plastic jug, oil	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 plastic lid	
		1 plastic tube	
		2 bottle	1 food preparation
		2 plastic rings	
		4 plastic bottles	1 "Dusch das," 1 "Pril," 1 "Scheur," 1 bleach
	Greece	1 glass bottle	wine
		1 bottle	shampoo
		2 plastic bags	1 sea salt
	Ireland	1 order form	
	Israel	1 bottle	alcohol
	Italy	1 aerosol	
		1 lighter	
		1 plastic bag	potasium hydroxide 90-9272
		2 bottles	1 wine, 1 olive oil
		5 plastic bottles	1 bleach "Ipoclorito di Sodio" 1 "Linflan," 1 shampoo, 1 vanilla 1 unidentified 2 cleaner
	Jamaica	1 plastic lid	
		2 bottles	1 wine
	Japan	1 plastic container	bait (?)
		2 aerosol containers	1 insecticide
		5 miscellaneous bottles	1 glass, liquor 1 "HCl" 2 sauce
		6 plastic bottles	1 cleaner, 1 "Clorox," 1 soap, 1 soda 2 shampoo
	"Korea"	1 plastic bag	
		1 plastic wrapper	
	Malaysia	1 aerosol can	insecticide "Baygon"
	Mexico	1 ajax	
		1 "Bayer"	
		1 "Blanqueador"	
		1 bread rack	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 box	"Chiclet"
		1 cigarette pack	
		1 container	
		1 "Del Rico"	
		1 drink mix	
		1 flour sack	
		1 fruit punch pouch	
		1 glue	
		1 hair dye	
		1 light bulb	
		1 measuring spoon	
		1 medicine	
		1 "Mistolene"	
		1 "Muriatio Acid"	
		1 newspaper	
		1 "Oscar Meyer"	
		1 "Pedro Domeco"	
		1 "Pino Da's"	
		1 plastic canister	
		1 plastic "Chinito"	
		1 plastic envelope	
		1 plastic cup	1 plastic label with advertising
		1 plastic jug	
		1 plastic medicine	
		1 plastic piece	industrial "Magnoplastica"
		1 plastic shipping box	for cigarettes
		1 plastic tub	"Primavera"
		1 plastic tubes	
		1 rubbing alcohol	
		1 "Saladitas Santos Gamesa"	
		1 "Salimon"	
		1 "sneakers"	
		1 scrub brush	
		1 syringe	
		1 tabasco	
		1 talcum powder	
		1 vegetable sack	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 wire brush	
		3 plastic crates	1 "Con Pesca"
		3 plastic sheets	with writing with spanish labels
		4 aerosol containers	1 air freshner 1 "Repelende de Mesquitos"
		4 glass bottles	1 "Jumex"
		1 beverage	
		1 pickle jar	
		4 plastic wrappers	2 candy 1 "Cafe fa Miliav" 1 "Viva" 1 "Blanco Dash"
		5 cans	1 Royal Baking Powder (?)
		1 milk	
		2 paint	
		1 spice, large	
		6 oil containers	
		7 miscellaneous bottles	1 shoe polish 1 whiskey bottle 1 chemical detergent
		1 alcohol	
		9 caps and lids	1 margarine "Primavera"
			2 plastic 1 "Cajon" 1 "Herdez" 1 "Agua Clorinada" 1 "Quiteseeste Tesello" 1 "Tripura"
		24 bags	1 paper 1 for gloves 1 "barcel" catsup 1 frozen vegetable 3 chips 17 plastic (1 beans, 1 food 1 "Papas Fritas,"

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
			1 "Frojoles," 1 ketchup)
		247 plastic bottles ²	12 "Fru-Bebida de Fruta" 13 "cleaner" 15 "green" (generally cleaners) 23 motor oil 61+ bleach (includes 36"Clarisol," 11 "Clorox," 4 "Cloralex" 11 other)
	Netherlands ("Holland")	1 glass bottle 1 plastic container 1 plastic bag 2 plastic bottles	"Vestegen Specrijen" 1 salt, 1 shampoo
	Norway	1 plastic bag 1 tobacco can 1 shampoo bottle 1 water drink pouches	
	China	1 container 1 plastic container 1 plastic package 1 salted whole cashews 2 metal cans 2 plastic bags	for a tooth brush 1 glass bottle chemical (10 gallon) liquid garlic 1 beverage
	Portugal	1 plastic bottle	oil
	Republica de Philippines ("Philippines")	1 milkfish bag	

² Note: Identification for the remaining plastic bottles found in Texas of Mexican origin included: 1 "Acetona," 1 "Aceite Veedol," 1 "Ammenes Talco," 1 alcohol, 2 baby bottles, 2 baby powder, 1 baby lotion, 1 battery acid "Jassa," 1 battery solution, 1 "Blancidor," 1 boric acid (500 ml), 1 "Bruts Bebida de Fruta," 1 "Causo," 1 conditioner, 2 deodorant, 4 detergent, 1 dioxogen, 2 disinfectant, 1 drain cleaner, 1 "Easy-Off," 1 "Elliransidor," 1 "El Nedo," 1 "El Nevado," 4 "El Mendidor," 1 "El Rendido," 1 "El Renoidor," 1 "Frosti Bebida de Fruta," 1 "Fruita," 5 "Frutisi," 1 hand lotion, 1 "Imemsa," 9 juice and fruit drinks, 1 liquor, 1 medicine, 1 "Metamucil" (full of fish hooks), 1 mineral water, 1 "Muriatic Acido," 2 oil, 1 "Pega Facil," 2 "Pinesol," 2 "Polmolive," 2 "Pinol," 1 "Rendidol," 1 "Revlon Zip II," "Sauvitel," 1 "Searge," 1 "Selsum Blue," 5 shampoo, 1 "Singer," "sopa," 1 "Suave," 1 "Suavitel," 1 "Sueve Blanquedor," 1 "Talco Ammons Deodorant," 1 "Teque la," 3 "Valenciana," 1 "Yucateca," and 37 unidentified.

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 plastic woven sack	5 pounds
		1 plastic bottle	deodorant
	Singapore	1 drink box	soy
		1 plastic bag	
		2 beverage cans	1 "Yeo's"
		2 plastic bottles	1 "Nicolait"
		1 toilet bowl cleaner	
	Spain	1 aerosol bottle	hairspray
		1 glass bottle	liquor
		1 label	herbicide
		1 plastic jug	hair mousse
		1 tube	
		2+ plastic bottles	cleaners
	Sweden	1 container	food
		2 plastic bottles	"Kvalitesshus"
	Taiwan	2 bags	1 crackers
	Thailand	1 glass jar	food
		1 package	noodles
		1 plastic bag	
		1 plastic sack	white rice
	Turkey	1 bottle	food
		1 plastic cap	
	United Kingdom ("England")	1 air freshner	"Keen"
		1 bottle top	
		1 glass bottle	liquor
		1 bottle	chemical cleaner
			"Chloramphemical"
		1 plastic bottle	"Sanilav (Jeyes)"
	("Scotland")	1 glass bottle	
	USSR ("Russia")	1+ bottles	
	Vietnam	1 plastic bottle	chili garlic sauce
	Venezuela	1 glass bottle	
		1 lighter	
		1 plastic container	
		6 plastic bottles	1 oil
		1 "Bay Cline"	
		1 "OK Quakerstate"	
		1 "Quaker"	
		1 "Frutege"	

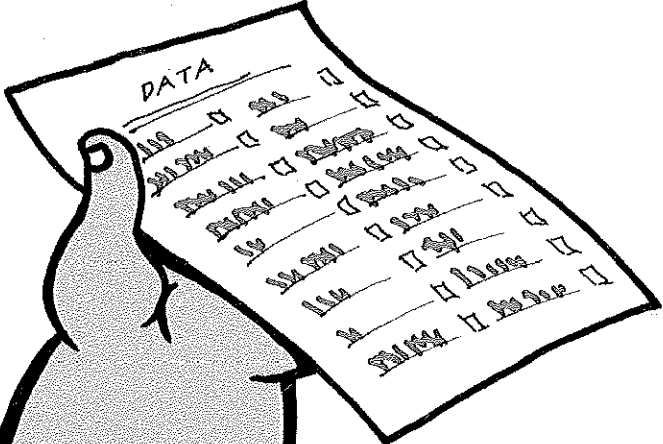
Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
	Other		
	"Australia"	1 shipping label	
	"Far East"	1 foil type package	aspirin (?)
	"Mideast"	1 can	
		1 glass bottle	
		1 package	sugar or medicine
		1 plastic lighter	
		2 aerosol cans	1 first aid spray
		1 insecticide	
		4 plastic bottles	1 toilet bowl cleaner
	"Oriental"	1 glass bottle	
	"Slavic"	1 plastic bottle	
	"Spanish/English"	1 detergent bag	
Virginia	Brazil	1 milk carton	
	Canada	1 light tube	
	France	1 cleaning fluid	
	Greece	2 plastic bottles	1 lemon juice
		1 foot powder	
	"Germany"	2 plastic bottle	1 dish detergent
		1 suntan lotion (?)	
	Italy	1 plastic bottle	"San Benade"
	Japan	1 plastic bottle	shampoo
	Mexico	1 plastic container	motor oil
	Netherlands ("Holland")	1 aerosol can	"Chantidel (Bride) creme"
	Portugal	1 plastic bottle	cleaner
	Singapore	1 plastic bottle	toilet cleaner
	Spain	1 aerosol can	insecticide "Ta Pum"
	Other		
	"Orient"	1 plastic bottle	
	"Sweden or Norway"	1 plastic squeeze bottle	"Senap"
Virgin Islands			
	Italy	1 plastic bottle	bathroom cleaner "Socti-verti"
	Sweden	1 plastic bottle	large
Washington			
	Japan	1 board	from box
		1 foil bag	noodles
		1 glass bottle	

Appendix 1 (cont.). Foreign Debris Items Reported During 1988 Beach Cleanups.

State	Country	Type of Debris Item	Other Remarks
		1 plastic bottle	
		"plastic wrappers"	food
		"plastic bottles"	
	Greece	1 shoe polish	

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