

REDUCING BALLOON MARINE DEBRIS

Taking the Rise Out of Balloon Debris in Virginia through Social Marketing

Virginia has 112 miles of ocean-facing coastline much of which is either protected or restricted from public use. These areas are the northernmost nesting beaches for threatened loggerhead sea turtles. They also are an important migratory stop-off and nesting area for several species of endangered and protected shorebirds.

The Problem

Several species of birds and sea turtles are impacted by balloon litter in Virginia through ingestion and entanglement in the ribbons attached to balloons. Recent beach cleanup data have shown that turtle and seabird nesting beaches are severely impacted by balloons. In fact, balloons are usually the first or second most commonly found litter item on Virginia's beaches.

The Virginia Marine Debris Reduction Plan identified balloons and their attachments (often made of non-biodegradable plastics) as one of the top five most harmful types of marine debris.

The Behavior

Incidental and mass balloon releases are often used as a way to celebrate special occasions such as weddings, birthdays, festivals, fundraisers, graduations, store openings and sporting events; and, to commemorate the loss of loved ones at funerals and memorials. Partners in Virginia conducted extensive research to better understand who plans

Balloon Debris Numbers

Over a period of five years, 2010-2014, volunteers participating in the International Coastal Cleanup in Virginia found and reported 4,916 pieces of balloon litter. Of these, 3,122 (63.5%) were found on ocean beaches. In 2014, 236 volunteers found 904 balloons on Chincoteague National Wildlife Refuge in a three-hour period. Recent surveys of remote islands on Virginia's Eastern Shore documented up to 138 balloons per mile of beach. Virginia's balloon litter problem mirrors a US problem; on average, balloons are the 17th most commonly found litter item in Virginia as well as in the US, according to International Coastal Cleanup data. This suggests that Virginia is an appropriate state to research and create a social marketing campaign that could be scalable to other states.



Bags of balloons found in one day on a Virginia beach.

Impacts of Balloon Debris

Released balloons can drift hundreds of miles and out over our oceans. Latex balloons burst in the atmosphere (photo top right), so that when they fall into the water they resemble jelly fish, a favorite food of sea turtles like the Kemp's ridley shown above with string attached to a balloon protruding from its mouth. Birds like the deceased gannet pictured are also easily entangled in the balloons and their ribbons. Most of the osprey chick's nest in the next image is filled with balloons and ribbons. Foil balloons (incorrectly referred to as Mylar) that become entangled in power lines can cause wide-spread power outages.



Christina Trapani



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balloon release events – and, most importantly, why balloons are selected to celebrate and memorialize in lieu of other actions. The Virginia Coastal Zone Management (CZM) Program received grants from the National Oceanic and Atmospheric Administration's Marine Debris Program and Office of Coastal Management to focus on this question and to develop a social marketing campaign to "sell" litter-free alternatives to balloon releases.

Understanding Our Audience

The Virginia CZM Program and Clean Virginia Waterways worked with the research firm OpinionWorks to conduct interviews, focus groups and surveys to determine the underlying drivers of celebratory or bereavement behavior associated with balloon releases. Conducting this research was the first and most important step in developing social marketing strategies that change behavior and reduce mass balloon releases.

The Campaign Strategy

This research, and additional message testing with engaged and married couples, informed the design of the *Joyful Send-off* campaign to reduce balloon releases at weddings and, by extension, other celebratory events these couples may engage in the future.

The *Joyful Send-off* campaign "sells" memorable, joyful, picture-perfect, and litter-free send-offs. The goal is that brides and grooms will learn that all released balloons become litter, and will not organize or participate in a balloon release in the future.

The *Joyful Send-off* campaign strategy focuses on the positive and includes colorful, vivid, and captivating imagery and multi-media, including videos with couples sharing their personal experiences. The strategy engages venues, planners, and other wedding businesses, who influence the decisions of couples, and share behavioral prompts with couples.

The pre-campaign research was carefully comprehensive so that it not only informed the *Joyful Send-off* campaign strategy, but laid a foundation for development and implementation of additional strategies to reduce balloon release during other "celebratory" and "memorial" events—engaging other non-traditional audiences, including funeral directors, car dealership employees, sports team managers and school administrators.

Key Themes Identified During Balloon Release Research

A lack of knowledge—many people do not understand that no balloon is "environmentally friendly if released," and that every released balloon becomes litter and can be harmful.

Some who are aware that balloons often become litter and that balloons have a harmful impact justify or rationalize their actions.

People assume "biodegradable" means "harmless."

Balloon release events are primarily planned by associations, families and schools, with women planning about 85% of releases.

Balloons are released mainly at parks, school grounds, churches and wedding venues.

Some rural residents think their distance from the ocean makes balloon releases acceptable.

Spring has the highest number of balloon releases, followed by the fall.

The majority of balloon releases are at "sad" events (e.g., funerals, memorials), are organized to raise awareness, or are at "happy events" (e.g., weddings, graduations).

The sight of balloons rising into the sky stirs strong emotions.

Although balloon releases illicit strong emotional responses, if balloon releases are not done as part of a ceremony, participants find a release less meaningful—indicating that the ceremony may be the more important part of the balloon release for those participating.

Sky lanterns present a potential harmful litter item that is similar to helium-filled balloons and an additional risk of starting a fire.

Electrical outages caused by foil balloons contacting power lines is a concern to many.

For a copy of the campaign report, outlining all research and strategy details, visit go.longwood.edu/cleanva-publications.

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Joyful Send-off Campaign Strategy Components

Compelling Photography...

Colorful imagery that is self-explanatory and clearly model couples using alternative send-offs.

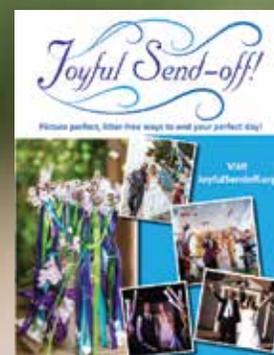


...and Videography

The *Joyful Send-off* campaign message is vivid, personal and concrete.

Print Ads and Articles

Joyful Send-off message is being delivered by trusted sources.



Website and Social Media

Joyful Send-off enhances social diffusion through use of social media and encouraging couples to share their experience.

Joyful Send-off pivots to the positive, and also educates about the problem of balloon debris.

Wedding Venue Kits

Joyful Send-off partners personally contacted and delivered kits to venues to encourage them to partner in the campaign and help convey the message to couples.



Sample Handouts

Samples of send-off ideas, such as bubbles and ribbon wands, are displayed and distributed at wedding expo exhibits. A magnet full of ideas is placed in bridal show bags.



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An important secondary goal of the project was to build capacity among partners in developing and implementing social marketing campaigns to target common, persistent, and harmful marine debris items such as single-use plastic, derelict fishing gear, crab pots, microplastics, and cigarette butts. In June 2017, the Virginia Coastal Zone Management Program provided training with Dr. Doug McKenzie-Mohr—the founder of community-based social marketing and the author/co-author of three books on the topic—to partners in Virginia and other Mid-Atlantic states. Expanding the *Joyful Send-off* campaign to the entire Mid-Atlantic is now one of the strategies of the Mid-Atlantic Ocean Action Plan.

How Will We Know if We're Making a Difference?

Since balloons can travel great distances, measuring success presents challenges. Through two monitoring projects, the campaign partners hope to see trends as campaigns are implemented to decrease the release of balloons.

Since 2013, two Virginia Beach-based researchers have been gathering data about balloon debris (types, quantities and sources where possible) found on several remote beaches and islands in Virginia. Starting in 2015, funding from the VA CZM Program has supported this monitoring. Between 2013 and 2017, more than 11,400 balloons and balloon-related litter items were documented as part of this research.



During the taping of a new video on balloon debris, researchers Christina Trapani and Kathy O'Hara share some of the many balloons they have documented and collected on Virginia beaches.

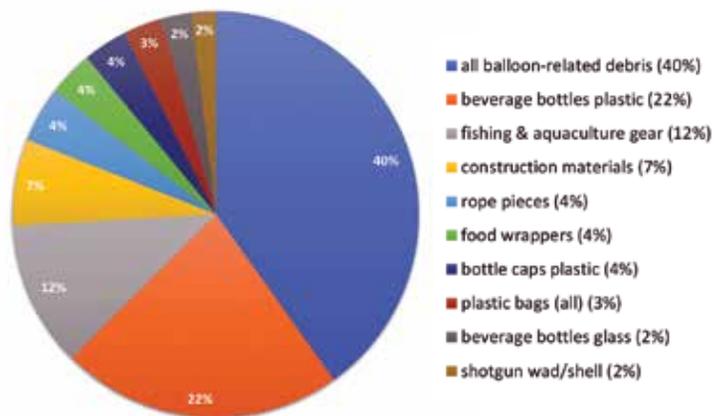
A second monitoring effort in Virginia is using NOAA's Marine Debris Monitoring and Assessment Protocols. Through a grant to the Virginia Aquarium from the Virginia CZM Program, volunteers are collecting data monthly from four Virginia beaches: Chincoteague National Wildlife Refuge, Fisherman Island National Wildlife Refuge, Back Bay National Wildlife Refuge, and Grandview Nature Preserve in Hampton. The Virginia Aquarium's partner, Clean Virginia Waterways of Longwood University, is entering all data into NOAA's national database and analyzing the results. This monitoring began in April 2014, and will continue through June 2018.



Researcher Kathy O'Hara documents balloon debris on one of Virginia's barrier island beaches.

Balloon Litter on Virginia's Remote Beaches: Results of Monitoring from 2013 - 2017 - www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMIssuesInitiatives/MarineDebris/MarineDebris-Balloons.aspx

Top Debris Items on Virginia Beaches - 2013-2017



Coordinating Partners and Funding

This research and development of the *Joyful Send-off* campaign was supported by a FY14 grant from the NOAA Marine Debris Program, and several (FY14, FY15, FY16 and FY17) grants from the NOAA Office of Coastal Management to the Virginia CZM Program through the federal Coastal Zone Management Act. In-kind and financial support has been provided by several partners including OpinionWorks, Clean Virginia Waterways, volunteers, and the Virginia Aquarium. Reducing this common and harmful type of marine debris is part of the VA CZM Program's commitment to implementing the Virginia Marine Debris Reduction Plan and the Mid-Atlantic Regional Planning Body's Ocean Action Plan.

