





Captain Charles Moore at the helm of the Oceanographic Research Vessel Algalita.

The Algalita Marine Research Foundation is dedicated to the protection of the marine environment and its watersheds through research, education, and restoration

Dear Friends of Algalita,

After seventeen years since its inception, the **Algalita Marine Research Foundation** has reached a new stage of maturity. The Foundation not only is working diligently to support itself but is also initiating creative programs to reach a global audience with our message of plastic pollution prevention. Somehow I can't resist the temptation to use the analogy of a child and label us precocious. Such a child not only needs its own natural abilities nurtured with loving guidance but also a bit of luck to attain adulthood. When those factors come together, as they have for our Foundation, the sky's the limit. Or, should I say "ocean?"

With steadfast support from Algalita's Board and Executive Director, our Director of Program Development and his team have coordinated the 5 Gyres project to study accumulation zones for marine plastic pollution in the remotest parts of the world's oceans. Whether on vessels of opportunity or chartered research vessels, manta and high-speed trawls are bringing back data never before gathered to assess mankind's synthetic impact on the seas. Meanwhile, the very important question of how to deal with this problem will be tackled by 100 students from around the world at our "Plastics Are Forever" International Youth Summit, held March 11 – 13, 2011 in Long Beach.

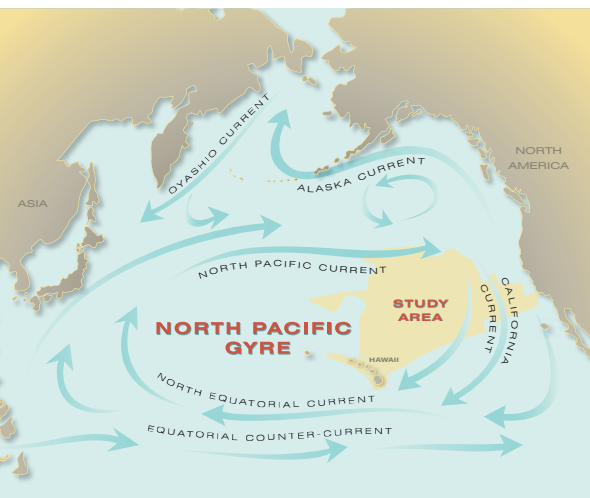
We continue to publish scientific papers in peer-reviewed journals that contain groundbreaking information on the effects of pelagic plastics. Our study of the lantern fish gathered from the Central Pacific in 2007 and 2008 published in "Marine Pollution Bulletin" found that 35% had ingested plastic particles. One little fish, no bigger than an adult finger, had 84 millimeter-sized pieces in its tiny stomach. Meanwhile, a paper entitled "Quantitation of persistent organic pollutants adsorbed on plastic debris from the Northern Pacific Gyre's 'eastern garbage patch,'" co-authored by Algalita's Research Advisor and myself, received high marks from the Journal of Environmental Monitoring.

Furthermore, we've assembled a powerful team to present papers and posters at the spring 2011 5th International Marine Debris Conference in Honolulu. Our travel trawl studies, our Ship-2-Shore education program which links our research vessels to schools, and ten years of sampling the Central Pacific all will be featured topics. Additionally, our jointly-funded Post Doctoral Scientist at University of Hawaii, Hilo, Marine Science has been investigating the impact to beaches and the creatures that inhabit them when they become heavily polluted with plastic fragments. He, too, will be presenting his findings at the NOAA sponsored conference.

I think you will agree that all this, coupled with far too many more achievements than there is room to reference here, indicates a level of maturity for the Foundation that we can be proud of. I know I am.

Captain Charles Moore
Founder, Algalita Marine Research Foundation

As Algalita crests the wave of its mid-teen years, we have the unique opportunity to look back upon from whence we came while at the same time scanning the horizon toward a new heading. It is a time for reflection upon our accomplishments as well as a time of excitement in anticipation of the adventures and discoveries yet to come.



Since 1997, when our founder, Captain Charles Moore, first voyaged through the eastern North Pacific and sailed through an ocean polluted with floating plastic debris, we at Algalita have been searching for answers. – “Who is contributing to this plastic waste stream?” “Where did it come from?” “What are the potential ramifications to the environment, the food chain, and human health?” “How can we help the ocean heal herself?”

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In more than a decade of scientific research, employing varying tools of measurement, we have recorded marked increases of plastic pollution in the North Pacific Subtropical Gyre. With 80% of all marine debris comprised of plastic, it is our contention that similar confluences of plastic particle collection are present within all the world’s oceanographic gyres. Our collaborative efforts with 5 Gyres Institute are a testament to our commitment in search of material proof of these occurrences within the North Atlantic, South Atlantic, South Pacific, and Indian Oceans.

Consequently, with plastic’s inability to biodegrade, photo-degradation merely reduces plastic particulate into smaller fragments that can be mistaken for food by birds, fish, and marine mammals. This invasion of the oceanic food chain, combined with plastic’s inherent toxic properties, portends a threat to human health that cannot be ignored.

As Algalita journeys into new waters, we will welcome the challenges that lie ahead with a resolve that our research and education will herald a new way of viewing the world in which we live and generate a global commitment to protecting the environment which sustains us.

Accumulated marine plastic debris litters the Azorean coast.



For me, the tipping point was France, June 2010. “I’m here because of you,” said a fellow attendee at the Paris meeting of UNESCO-IOC (United Nations Education, Scientific and Cultural Organization and the Intergovernmental Oceanographic Commission). “If it were not for the Algalita Marine Research Foundation, I would not be doing this research. We would not be aware of this issue, if it were not for you.” Numerous attendees made similar statements to me over the three days of conference participation.



Invited to attend by the United Nations GESAMP [Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection], Algalita, and I as the Foundation’s representative, stood amidst one of the most critical emerging issues of global marine pollution. This conference had been assembled to address micro-plastic particles and their transport of persistent, bio-accumulating and toxic substances (PBTs) in the oceans. As a result of the participants’ discussion, GESAMP consented to petition UNESCO-IOC to fund a world-wide assessment of the current scientific information available, including data collected by Algalita.

I left the conference with a renewed sense of purpose and an assurance by colleagues from around the globe that the work we are doing is essential and timely. The international community of experts involved with ocean pollution sees plastic as a potential human health problem that needs further research and discussion. And, this global community looks to Algalita for information and direction.

The need for Algalita’s continued efforts was reinforced time and again throughout the year as I spoke with industry trade organizations, high school students, parents, doctors and scientists studying endocrine disrupting chemicals associated with plastics, representatives from plastic manufacturers, community organizations, and the members of the Algalita Marine Research Foundation. We must continue research on the spatial and temporal distribution of plastic in our oceans and waterways. We must encourage research on the potential links between plastic and detrimental human health effects. We must engage in outreach and education regarding plastic pollution throughout the world.

If you have not yet experienced your “tipping point” to a call for action, perhaps our mission will be of inspiration. The need for individuals to come together to reduce single use plastic and to minimize plastic contact with our food and water will outpace many other causes. The data is being gathered. But you need not wait for more data. You can do the right thing, right now. Break the plastic packaging habit. Insist on less food contact with plastic materials. Buy locally grown produce. Speak with your buying decisions. Speak with your votes. And speak with your voice. Tell others what you learn and encourage them to join us in speaking up, clearly and resolutely, “Stop plastic pollution, and stop it now.”

Bill Francis

Board President, Algalita Marine Research Foundation

The international community of experts involved with ocean pollution sees plastic as a potential human health problem that needs further research and discussion

This past year, Algalita broadened its field research parameters far beyond the North Pacific Subtropical Gyre and the area popularly referenced by the misnomer “The Great Pacific Garbage Patch.”

In collaboration with the 5 Gyres Institute, the Foundation expanded its fieldwork into the subtropical gyres of the North and South Atlantic and Indian Oceans. Culminating with a Spring 2011 research voyage to the South Pacific, Algalita will have launched the first global study of plastic marine pollution. Additionally, we extended our reach even farther with the assistance of several citizen scientists who conducted trawl expeditions on our behalf aboard vessels of opportunity while sailing throughout other parts of the world’s oceans and seas.

On shore in the lab, our research scientists continued their investigation into the proliferation of plastic ingestion by fish, moon jellies, and albatross. While potential human health effects of plastic remain unknown, scientists estimate that nearly half of all sea-bird species, all sea turtle species, and no less than 22 species of marine mammals are harmed or killed by plastic debris, either from ingestion, entanglement, or strangulation prior to the material being broken down into smaller fragments.

Plastic particles in the marine environment absorb toxicants such as DDT, PCBs, flame-retardants, and other pollutants at high concentrations. Algalita is working diligently to advance its previous research with targeted testing to determine if these chemicals accumulate in fish, sea birds, and marine mammals subsequently traveling up the food chain and into the food that we eat.



Captain Moore sifts through a sample of plastic fragments collected within the North Pacific Subtropical Gyre, a thousand miles from land.

An assortment of plastic marine debris, in varying stages of photodegradation, awaits classification



The Algalita Marine Research Foundation
vision is a global environment that is healthy,
sustainable, and productive for all living
creatures, free from plastic pollution



With its unique and exciting programs, Algalita continued its premier education and outreach efforts throughout 2010.

The **Ship-2-Shore Education Program** engaged students from around the world in the day-to-day activities of Algalita researchers at sea. Via satellite communication systems, participating schools in the U.S., Australia, Canada, Chile, Colombia, Costa Rica, Guam, India, Mexico, The Netherlands, Puerto Rico, Uruguay, and Venezuela monitored our onboard research studies by following daily updates and conversing with the crew through blog posts. Supplementary resources and lesson plans related to the topic of plastic marine pollution enabled teachers to enhance their students' learning experience. With the guidance of the Algalita research team, students are encouraged to develop their own stewardship projects to address plastic pollution issues in their local communities.

The **Watershed Wonders - "Waste to Waves" Mississippi Tour** took Dr. Marcus Eriksen into the field for a month-long voyage down the Mississippi River. Along the way, Dr. Erikson visited schools and educated public audiences about plastic marine debris with the hope that the children would be inspired to adopt recycling projects and that educational institutions also would be encouraged to implement their own *Plastics Are Forever* programs.

The tour included presentations at:

- Headwaters Science Center – Bemidji, Minnesota
- Science Museum of Minnesota – St. Paul, Minnesota
- National Mississippi River Museum & Aquarium – Dubuque, Iowa
- St. Louis Science Center – St. Louis, Missouri
- Children's Museum of Memphis – Memphis, Tennessee
- Audubon Aquarium of the Americas – New Orleans, Louisiana

Accompanying the tour was a traveling exhibit comprised of kiosks constructed from doors salvaged after Hurricane Katrina. The display panels depict the ramifications of plastic pollution through artifacts and photographs, showing what Algalita is doing to find a solution.

The **"Plastics Are Forever International Youth Summit"** task force embarked upon a year-long planning process to bring to fruition a global conference designed to engage and educate 100+ environmentally-conscious teens. Scheduled for March 11-13, 2011 in Long Beach, California, the Summit program challenges participants to learn from experts on plastic pollution, share ideas with their peers from around the globe, and ultimately develop conservation programs for their hometown regions.



An interactive kiosk constructed from doors salvaged after Hurricane Katrina depicts the ramifications of plastic marine pollution.

Children participating in Algalita's Ship-2-Shore program learn how to become stewards of marine wildlife and the ocean environment.



STATEMENT OF ACTIVITIES

ALGALITA MARINE RESEARCH FOUNDATION

FOR THE YEAR ENDING DECEMBER 31, 2010

	UNRESTRICTED	TEMPORARILY RESTRICTED	PERMANENTLY RESTRICTED	TOTAL
SUPPORT & REVENUES				
Contributions & grants	\$233,281	\$211,450	-	\$444,731
Program service revenue	9,153	-	-	9,153
Membership	8,425	-	-	8,425
Interest & dividends	1,293	778	-	2,071
Unrealized gain on investments	9,373	6,513	-	15,886
Other	5,952	-	-	5,952
Net assets released from restrictions	227,567	(227,567)	-	-
TOTAL SUPPORT & REVENUE	495,044	(8,826)	-	486,218
EXPENSES				
Program services				
Restoration	2,000	-	-	2,000
Research	159,435	-	-	159,435
Education	181,956	-	-	181,956
Total program service expenses	343,391	-	-	343,391
Supporting services				
Management & general	59,082	-	-	59,082
Fundraising	40,345	-	-	40,345
Total supporting services expenses	99,427	-	-	99,427
TOTAL EXPENSES	442,818	-	-	442,818
CHANGE IN NET ASSETS	52,226	(8,826)	-	43,400
NET ASSETS				
AT BEGINNING OF YEAR	(254,411)	244,329	95,000	84,918
AT END OF YEAR	(202,185)	\$235,503	\$95,000	\$128,318

STATEMENT OF FINANCIAL POSITION

ALGALITA MARINE RESEARCH FOUNDATION

FOR THE YEAR ENDING DECEMBER 31, 2010



ASSETS

Cash & cash equivalents	\$348,054
Promises to give & accounts receivable, net	29,048
Investments	214,531
Equipment	4,322
Other assets	563

TOTAL ASSETS \$ 596,518

LIABILITIES

Accounts payable	20,786
Accrued expenses	447,414

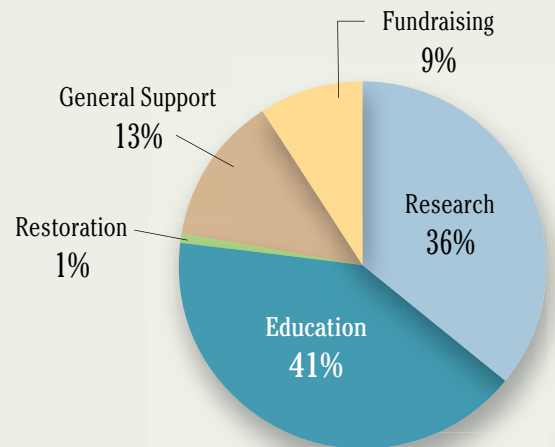
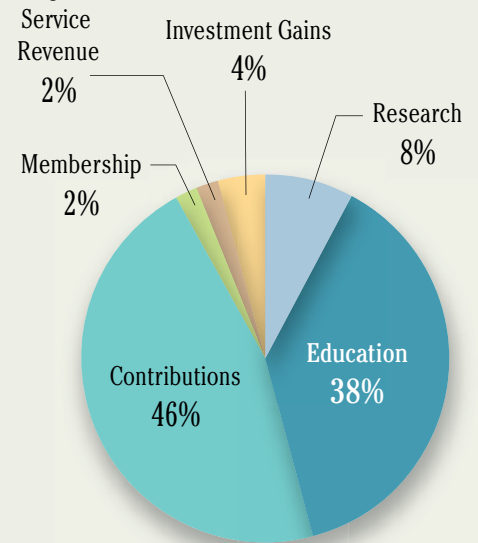
TOTAL LIABILITIES \$468,200

NET ASSETS

Unrestricted	(202,185)
Temporarily restricted	235,503
Permanently restricted	95,000

TOTAL NET ASSETS \$128,318

TOTAL LIABILITIES & NET ASSETS \$ 596,518



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California Coastal Commission – Whale Tail Grant Program
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Guacamole Fund
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Craig & Susan Grube
Lawrence W. Inlow Foundation Trust
McTamaney Family
New Belgium Brewing Company
Surf Industry Manufacturers Association
Tactics, Inc.
Bill Viola & Kiera Pirov
Volcom Clothing
Wells Fargo Foundation

HOW TO HELP ALGALITA

- Make a tax-deductible donation online at www.algalita.org, or by mail to:
Algalita Marine Research Foundation
148 Marina Drive
Long Beach, CA 90803.
- Corporate or Foundation support.
- Become a member online at www.algalita.org or call **562.598.4889**.
- Give a memorial or tribute donation in honor or in memory of someone or to commemorate a special occasion.
- Contribute with a gift of stock.
- Explore Planned Giving options.
- Contribute to the Algalita Marine Research Foundation's Endowment Fund.

*For more information call 562.598.4889
or visit www.algalita.org*

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PRINTED BY:

COLOR SERVICE, INC., Monterey Park, CA
www.colors-service.com

PAPER STOCK: Endeavour®Gloss, 15% post-consumer waste (50% recycled) elemental chlorine-free pulps, virgin fiber from sustainable forests, acid free. ISO14001 certification. FSC Certified Paper



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