

An underwater photograph of a woman with blonde hair, smiling, wearing a black Patagonia tank top. She is holding a blue plastic bottle in her right hand. In the background, there is a red buoy and some debris, including a piece of a boat's hull. The water is clear blue.

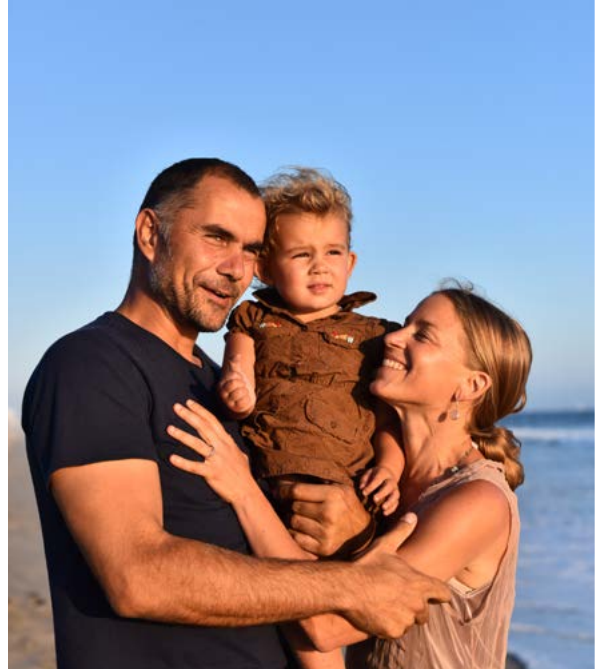
# ANNUAL REPORT 2015



5GYRES

patagonia

## From our **EXECUTIVE DIRECTOR**



Dear Friends,

When Marcus and I began The 5 Gyres Institute in 2009, plastic pollution was still a nascent movement. The western world had begun to take notice thanks to the pioneering work of Captain Charles Moore and others, but there was little global dialogue or data.

We launched 5 Gyres with the simple goal of closing this gap – and putting plastic pollution on the international agenda.

From January 2010 to the present, we completed a series of scientific firsts researching plastic in all 5 subtropical gyres, as well as the Great Lakes and Antarctica. Over 250 people joined us on board: citizen scientists, artists, journalists, CEOs, industry professionals and activists. Including many of you – our volunteers, ambassadors and friends. Together, we leveraged our findings to drive action and global awareness.

Our paper on plastic in the Great Lakes catapulted the plastic microbeads issue to the public sphere. These findings inspired a 2-year collaborative campaign that recently culminated in a major win: a National bill banning microbeads from commerce.

In 2014, we convened 8 scientists around the world to publish the first global estimate of plastic pollution in the world's oceans. Our findings, 270,000 tons, from 5.25 trillion particles worldwide - changed the way we describe ocean plastics. Rather than a "patch", we've turned our oceans into a plastic smog.

Now in 2016, the dialogue has changed. The movement is growing up – and 5 Gyres is maturing with it – thanks to your belief in our mission, and the dedication of our team.

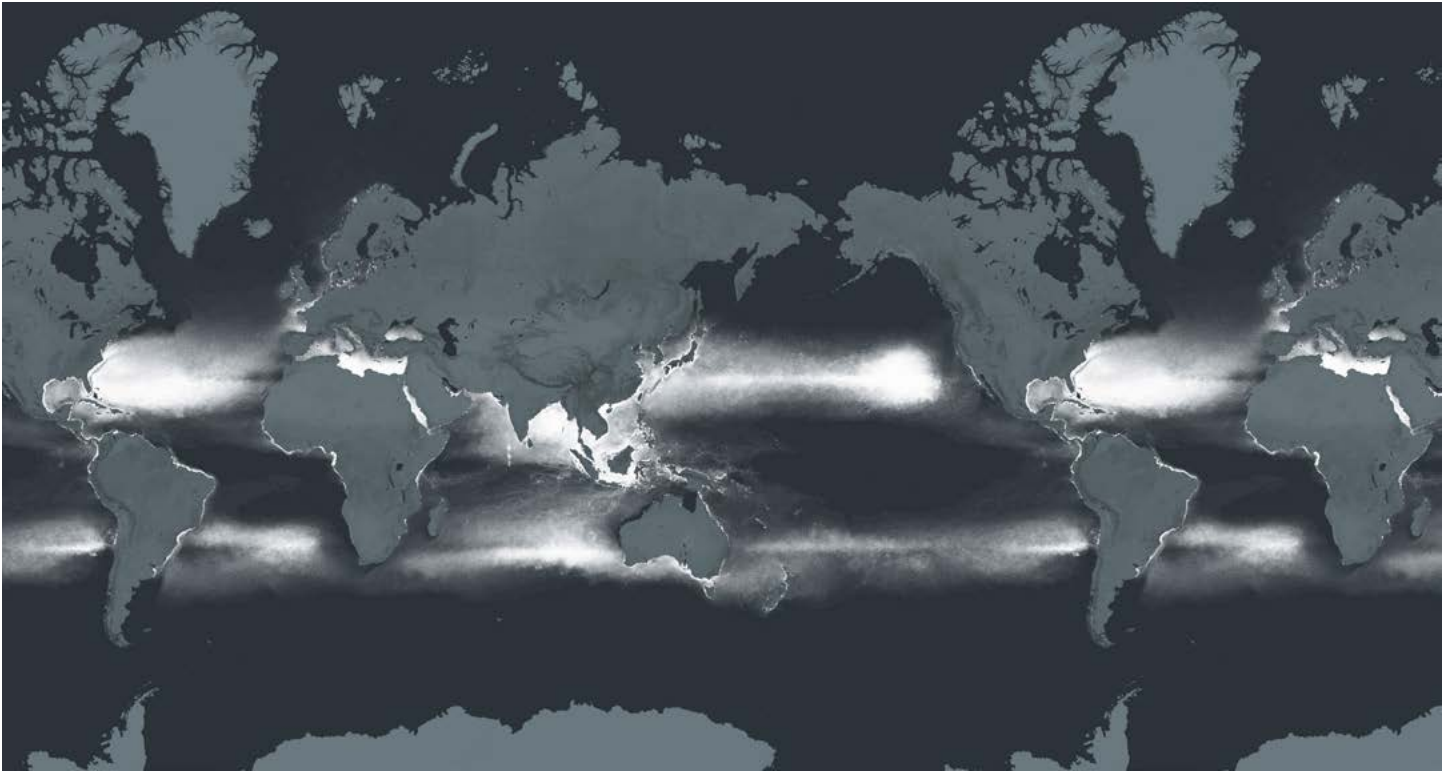
The following report will detail some of our incredible achievements in 2015 – the unprecedented passage of the Federal Microbeads bill from science to solution in a short 2 years, the launch of our Ambassador Program, our SEA Change Expedition and Bahamas Youth Summit and our team's continuing dedication to our core values, to name a few.

More important than anything is our community – our volunteers, our ambassadors, and our partners and supporters - you. We're excited about the years to come, and look forward to continued evolution on the journey towards a planet free of plastic pollution.

With appreciation,

Anna, Marcus and Avani





Global Plastic Distribution - We need to think of plastic in our oceans as Plastic Smog – it's everywhere

# OVERVIEW OF THE PLASTIC POLLUTION ISSUE

by Marcus Eriksen, PhD - Research Director and Founder

We have seen tremendous strides in research on global plastic pollution, with more publications in the last four years than the previous four decades. 5 Gyres is taking a lead on understanding the impact of plastic on our global waters. Our research has shown the following:

1. Plastic products rapidly degrade into micro and nanoplastic particles in the ocean, and are distributed globally from inland waters to the most remote regions of the global ocean.
2. Plastics absorb high concentrations of toxins, and many scientists suggest ocean plastic should be labeled a hazardous substance.
3. Plastics entangle and are ingested by hundreds of species, from camels in remote deserts to deep-sea fish. In the ocean, it is safe to say that the entire marine food web interacts with plastic marine pollution today.

These statements are deeply rooted in science, collectively making a strong case that the chemistry of plastic is dangerous in the environment and requires a higher threshold for when and how it should be used in society. We must change the way we describe plastic in the ocean - considering the global distribution, the dominance of small particulate, and the ecotoxicity, it is more appropriate to refer to trash in the ocean as a plastic smog.

In 2016, we have several research projects in the works - focusing on hotspots for plastic marine pollution outside the subtropical gyres and looking at cities as significant contributors of microplastic pollution, which feeds the plastic smog in our seas.



# 2015 SEA CHANGE EXPEDITION

Our 16th research expedition took us from Miami to the Bahamas, then north to Bermuda and westward to New York City. Traveling over 3000 miles through the North Atlantic subtropical gyre, our crew of 14 sailors, NGOs, companies, research entities, eleven students from four universities and several high schools, professional watermen and women, musician Jack Johnson and ocean enthusiast Celine Cousteau joined the Expedition to carry out research and communicate the solutions to the issue of plastic pollution.



We dipped our nets in the ocean 38 times in the three weeks at sea, coming up with microplastic in every sample. Our most disturbing sample was the last one we collected just outside New York City. We towed our net 60 minutes up the Hudson River and it contained more microplastic than all previous samples.

If plastic is like a smog in the ocean, our urban centers are the horizontal smokestacks that feed the smog.

## Crew Testimonials



"The SEA Change Expedition changed my life and made me a passionate activist for ocean health. I have become outspoken in my community about ocean conservation and have been incredibly inspired by my fellow crew members to change not only my personal lifestyle choices but to take action at a policy level as well. My crew mates are now important mentors and collaborators for sea change!"

—Pearl Gottschalk, LUSH Cosmetics

"As a member of Surfrider Foundation I thought I was fairly up to speed on marine plastic pollution before, but the SEA Change Expedition really opened my eyes to the breadth and depth of the issue, provided me with firsthand experience and a stronger network which I can draw from to share the story."

—Reece Pacheco, Surfrider NYC



"I research marine plastics as my career, but the experience of sailing with a diverse crew of peers that shared similar values--rather than just shared expertise--is unique and not to be missed."

—Max Liboiron, Newfoundland Scientist

# ACTION CAMPAIGN

## MICROBEADS: HOW A TINY BEAD LEAD TO A HUGE WIN

In the summer of 2012, 5 Gyres partnered with Dr. Sam Mason at SUNY Fredonia to conduct the first research on plastic pollution in the Great Lakes.

Aboard the Flagship Niagara, our team and SUNY crew surveyed all 5 of the Great Lakes for plastic pollution. One Erie sample contained over 1200 tiny plastic orbs, more plastic by count than any of our ocean samples. Under a microscope, they were a perfect match to the plastic microbeads used as exfoliants in scrubs, body washes, and even toothpaste. For the first time, we'd found a microplastic pollutant that had a clear source.

Thanks to the leadership of our European Partners The Plastic Soup Foundation (PSF) we had a precedent for action – PSF lobbied Unilever in 2012 to eliminate microbeads from their products. We joined forces with the global Beat The Bead coalition, and launched the US effort in 2013. Along the way, we learned a few important lessons.

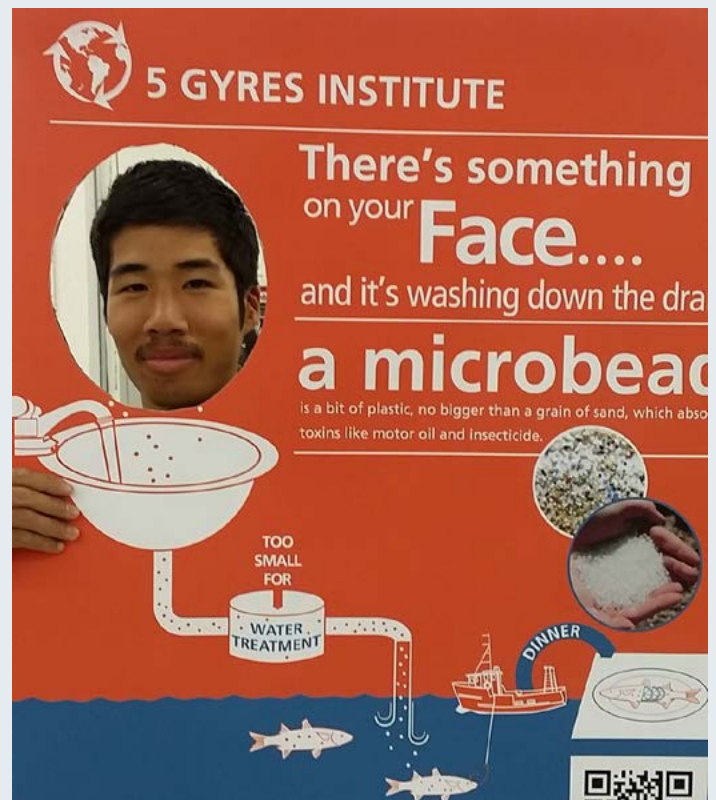
Sound science coupled with community engagement is critical. While science alone didn't tip the scales, having

bulletproof scientific data proved invaluable throughout the life of the campaign, driving media, and providing a powerful *raison d'être* for beating the bead.

Collaboration is key. In 2014, with heavy lifting from many skilled activists and numerous NGOs, we came close to passing legislation, and in 2015, thanks to the initiative of Clean Water Action, Story of Stuff, Californians Against Waste, NRDC, Surfrider Foundation, and others, coupled with the tremendous leadership of CA Assemblymember Richard Bloom, we won the battle in both California and the US.

To scale, we need to create more leaders. We'll always believe in the importance of good science. But it's what we do with this science going forward – inspiring leaders, and creating community around them – that will grow our impact.

Action campaigns will always be at the heart of 5 Gyres' work. Our scientific research, volunteer programs and education outreach all support our action campaigns, to drive design and policy changes that stem the flow of plastics to our land and sea.



# AMBASSADOR PROGRAM SUCCESSSES IN 2015

by Carolynn Box



Our Ambassador Program is designed activate a stronger community of trained leaders, to increase exponentially the number of people learning about plastic pollution and getting involved in solutions. Our Ambassadors are stepping up and taking action – giving presentations to schools and Universities, tabling at community events, speaking at educational conferences, and participating in legislative efforts to support plastic reduction policies. We are expanding the program in 2016, with more robust goals and more Ambassadors to help drive our action campaigns.

“Being an Ambassador is something that is doable for students who want to get involved and actually make a difference. Working with 5 Gyres, allowed me to put myself into action to make a difference in an educational atmosphere. Having the support from an organization is empowering because I felt like I had a solid team behind me. This is important. It was bureaucratic to get this ban passed and it was helpful to have 5 Gyres backing me.”

–Candace Gregg, UCLA Student

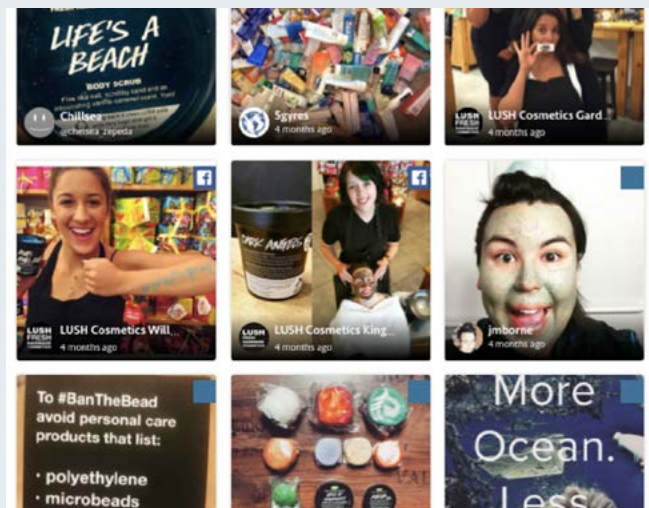
“I really believe in what 5 Gyres is doing to mitigate plastic pollution and think the 5 Gyres team has so much to teach others. The Ambassador Program is full of like-minded people, who are passionate about the cause, and they are my new allies!”

–Genevieve Abedon, Californians Against Waste

## LEADERSHIP—AT WORK

Our mission of engagement includes working with corporate partners to inspire their staff and their communities to take action on plastic pollution. In 2015, we led activation campaigns with retailers Whole Foods and LUSH Cosmetics.

In honor of April's Earth Month, 5 Gyres teamed up with Whole Foods, ACURE Organics, Klean Kanteen Packaging 2.0, Preserve and Rainbow Light Nutritional Systems to showcase our microbeads campaign in 38 New England Whole Foods stores. Whole Foods adopted a companywide policy refusing to carry products containing plastic microbeads. End cap displays were created to feature companies dedicated to reducing plastic pollution. In store customer demos engaged thousands of people in the issue of microbeads. 5 Gyres also was invited into Whole Foods regional headquarters, distribution facilities and stores to educate 300+ employees with regards to plastic pollution and our campaign to Ban the Bead.



5 Gyres and LUSH Cosmetics also partnered to spread the microbead message. LUSH produced a fantastic video highlighting our campaign to Ban The Bead. During May and June, 5 Gyres' campaign to Ban the Bead was featured in 225+ stores in North America, complete with a full spectrum of marketing materials, an employee education guide and popular social media campaign.

# TRACKING CALIFORNIA'S TRASH PROBLEM



5 Gyres partnered with the State Water Resources Control Board, the Bay Area Storm Management Agencies Association (BASMAA) and the San Francisco Bay Regional Water Quality Control Board to launch Tracking California's Trash (TCT), a multi-faceted project to monitor and better understand sources of watershed pollution - predominantly single use plastic items in California's coastal regions. Our team is out in the field, testing new research equipment designed by Marcus to capture the "first flush" after rain events. It's hard work, but we are gathering invaluable data and developing new methods that we hope will help cities and counties better understand the efficacy of trash prevention initiatives, including product bans, bag and foam bans, street sweeping and structural controls.

A huge thanks to our Ambassadors for rolling up their sleeves!

## OUR 2016 FOCUS

by David M Green, Board President

As The 5 Gyres Institute moves into its eighth year, we see a whole new landscape in front of us. The hard work done by groups like 5 Gyres, Algalita and many others has paid off – the world has acknowledged the prevalence of plastic pollution in our oceans and watersheds. In order to accomplish a vision of a planet free of plastic pollution. We feel that real change can only come from responsible production of plastic products and "Extended Producer Responsibility." But given the natural resistance to these changes we feel that consumer demand for better designed products is the only way to accomplish this.

We see 5 Gyres has a crucial role to inspire a new group of leaders in calling for these changes. By marrying our research and history with education and leadership training we look to encourage people to take action. This will be the throughline in our new programs for 2016 and 2017:

- My Life, My Land, My Sea - a training program in partnership with US Forest Service and CSU, Chico
- Action Campaigns - Community action campaigns bringing together motivated leaders all over the world to help each other spread the message
- Ambassador Program - Creating deeply skilled volunteers who can train other leaders

5 Gyres will also continue to innovate and push forward the documentation of plastic pollution. As the world comes to terms with the level of plastic pollution in the oceans, there are still new frontiers to explore and document. As consumers become aware of the true extent of plastic pollution, this will shift expectations of how plastic products are designed, produced and recovered.



**Board** David M. Green | Chair | Anna Cummins | Marcus Eriksen | Elan Glasser | Peter Stranger | Colette Brooks | Jesse Nicely

**Staff** Anna Cummins | Executive Director, Co-Founder | Marcus Eriksen | Director of Research, Co-Founder | Haley Jain Haggerstone | Development Director | Lia Colabello | Director of Global Partnerships & Community Engagement |Carolynn Box | Ambassador Program Manager | Ginger Goss Mukherjee | Office Manager

## 2015 FINANCIALS The 5 Gyres Institute

### INCOME

Individuals	63,287	9.3%
Corporate Contributions	202,499	29.9%
Foundation/Trust Grants	269,460	39.8%
Education Kits	2,525	0.4%
Voyage Seats	136,616	20.2%
Special Events	1,871	0.3%
<b>TOTAL INCOME</b>	<b>677,257</b>	<b>100%</b>

### EXPENSE

Salaries and Related Expenses	344,133	49.5%
Program Expenses	225,866	32.5%
Marketing Expenses	24,416	3.5%
Merchandise Expenses	4,000	0.6%
Travel Expenses	47,429	6.8%
Admin & Overhead Expenses	49,592	7.1%
<b>TOTAL EXPENSE</b>	<b>695,435</b>	<b>100%</b>

## 2015 SUPPORTERS

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