

3RD LEG OF THE GYRE TRIP

SEPTEMBER, 2009

The voyage home from Hawaii to California will include a resample of the original 1999 summertime gyre crossing.

The 10-year time span will allow for computing the rate of growth and seasonal changes in plastic density over the past decade. We also will compare the amount of fish caught in the manta trawl, with a particular interest in the family Myctophidae (lantern fish), to levels caught during the winter transect run in February 2008, and for the first time assess the load of Persistent Organic Pollutants (POPS) present in their tissues.

The area for the 2009 NPSG research expedition falls outside the demarcation of U.S. federal environmental management agency jurisdiction. As a result, no federal agency is mandated to mitigate negative environmental impacts to protected species and to the environmental wealth of the country. Consequently, open ocean waters of the world are a difficult place to justify government spending on research or cleanup efforts, unless impacts to the U.S. economy can be proven.

HELP US CONTINUE!

Algalita Marine Research Foundation 2009 Pacific Gyre Expedition

To continue these exploration efforts, AMRF must rely upon the contributions of non-profit organizations and private sponsorship. To that end, we invite your support.

Sponsorship Opportunities

- \$50,000** Vessel and voyage insurance, or sample and tissue analysis
- \$25,000** Research equipment and materials
- \$10,000** Fuel and vessel maintenance
- \$5,000** Food for a crew of six for the 6-week voyage
- \$2,500** Satellite phone for Ship to Shore education programs
- \$1,000** Safety equipment, EPIRB, flares and strobe lights
- \$500** Medical supplies
- \$250** Ship incidentals
- \$100** Crew incidentals
- Other** No donation is ever too small and all are sincerely appreciated

To contribute to this endeavor, please contact:

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or visit us online at: www.algalita.org

and follow the prompts under
"2009 Pacific Exploration"



Since 1999, **Captain Charles Moore** and the crew of Oceanographic Research Vessel *Algalita*, in partnership with **Algalita Marine Research Foundation**, have dedicated their efforts to sampling the surface waters of the “**great Pacific garbage patch.**”

Located within 10 million square miles of circulating current in the North Pacific Subtropical Gyre (NPSG), the patch harbors six times as much plastic debris as plankton... plastic debris that makes its way to these waters from as far away as Mexico and Japan... plastic debris that, via invertebrates and feeder fish, is making its way into the oceanic and ultimately the human food chain.

During the summer of 2009, Captain Moore and his crew will mark the tenth anniversary of ORV *Algalita's* first NPSG sampling expedition with a return to the gyre to gather additional data and expand their research on the

potential impacts of wide-ranging oceanic micro-plastic pollution.



Fish collected from the NPSG in 2008 were found to have plastic in their stomachs. Until more samples are obtained and additional research conducted, we can only speculate as to the magnitude of impact upon the ocean ecosystem, and to a larger extent, human health. Pollutants are attracted to and concentrated on plastic, in addition to the array of toxicants within the plastic itself. Consequently, it is critical to determine the implications for humans and other animals that rely on these “plastic fish” for food.



1ST LEG OF THE GYRE TRIP

JUNE 10TH TO JULY 25TH, 2009

The first weeks of the expedition will focus on the collection and quantification of surface water and fish tissue samples in the NPSG west of Hawaii encircling the North West Hawaiian Islands, above Midway and Kure.

This area represents one of the last and most pristine coral reef habitats on the planet and is home to one of it's most endangered marine mammals, the Hawaiian Monk seal, as well as critical turtle and bird nesting areas. The importance of these islands for a myriad of species means that a full understanding of how these animals and their environment are interacting with plastic pollution is needed.

* Underwater exploration during the first two legs of the voyage will be chronicled in HD video.



2ND LEG OF THE GYRE TRIP

AUGUST, 2009

ORV *Algalita* will set sail from Hawaii as part of a major media initiative to help bring awareness to the issue of ocean plastic pollution.

Peligro Pictures and Prickett Films, in conjunction with Billabong and ScubaDrew Video, will join the expedition in a two week giant loop 1000 miles north of Hawaii into the NPSG.* The Billabong Seaplane and another long-range vessel will join the voyage as well to provide a platform for celebrity guests to come out and witness the problem first hand, while providing their thoughts and commentary on the issue.

