December 2016





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The Spirit of our Program and How You Can Help

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Dear Friends and Crew,

When we look back at 2016 after our next 30 years, we will recognize it as a major milestone for our organization. Faced with the loss of our Marine Science Afloat™ classroom, our staff and volunteers rallied together and found a solution, once again cementing our commitment to this vital program.

This renewed vigor has had a dramatic impact on our organization. We've recruited new board members and new volunteers and have relationships with new partners who are eager to see our program expand to all students in the Puget Sound area.

Our most sincere thank you for being part of this energy that has defined 2016. I hope you'll read through this newsletter and see first hand all of the reasons we are here and why we need your help. Any end-of-year donations would be appreciated and help 2017 start with the assurance that we can not only sustain our organization, but grow it.



Sincerely,

Pat Maxwell

Executive Director

The "Spirit" of Our Program

Our flagship program, Marine Science Afloat[™], has completed the 2016 season with its new charter partner, The Spirit of 76. This 70-foot vessel is licensed to carry up to 150 passengers and has classroom space to accommodate 75 students. The upper deck has two outside areas for sampling activities and a covered area inside, while the lower deck has three heated classrooms.

The Spirit of 76 is owned and operated by Josh Larsen and Captain Alan Cox of Champagne Cruises. With 26 years of maritime experience and a dad of three children, Larsen has a keen understanding of the needs of the program. Many enhancements have been made to the boat to improve the student's audio and visual experience in both warm and cold weather during the 2017 season. When the ship is not piloted by its owners, she is in the capable hands of Captain Ralph Hammersborg, an experienced captain as well as a retired science and marine biology school teacher. The Spirit of 76 is available for weddings, parties and events when it is not in service for the Marine Science Afloat™ program.

Pacific Marine Research would like to extend its appreciation to our former charter company, Argosy Cruises, for 30 years of partnership with our Marine Science AfloatTM program.



OUR MISSION
"To Educate and Train the Future Stewards of Puget Sound"

Dear Friends,

Thanks to your help, over 125,000 students were able to experience the wonder and awe of our own Puget Sound through our Marine Science Afloat™ program over the last 32 years.

That is...

125,000 more people who understand Puget Sound's vital role in our ecosystem, 125,000 more people who know the dangers it faces, and 125,000 more people who will strive to protect it.

And when those 125,000 share what they've learned with their family and friends, we start a chain reaction. You made this happen. And now, we need to keep it going.

Our goal is to bring our mission to "educate and train future stewards of Puget Sound" to all schools, regardless of their ability to fund their student's participation.

Would you consider an end-of-year donation of \$50, \$100 or whatever you can afford to help us bring our program to all students?

We simply can't do it without you. Your support will make a real, lasting impact in the lives of area students and Puget Sound.

Visit www.marinescienceafloat.org now to donate or see page 5 and let us tell you more about how we use the funds we raise. We take our commitment to you as seriously as our commitment to our mission. We hope this information will help you understand the importance of your donation. Thank you for your support.

The Grunt Sculpin: A Fish-Geek's Fish

CREATURE FEATURE

When we asked our marine education staff what marine animal should be our first creature feature, it was unanimous... the Grunt Sculpin (*Rhamphocottus richardsoni*). There is no wonder board member David Todd calls the Grunt Sculpin a "fish geek's fish." This fish has it all; intrigue, beauty and funny noises. The Grunt Sculpin is said to get its name from the grunting noise that can be heard by divers underwater.

The Grunt Sculpin is found in the coastal waters of the North Pacific, extending from Alaska to California and all the way to Japan. At just 2-3

inches long, it defends itself by hiding and masquerading itself as a barnacle. That's right, they hide out in empty Giant Barnacles, and when they poke their head out, they look like a closed barnacle. When they turn around, their

orange tail fins look like a living barnacle feeding! They'll also take shelter in empty cans and bottles, so next time you are out in the Puget Sound cleaning up, be sure to look inside any trash for this crafty creature! They live in tide pools, rocky areas and sandy bottoms up to 500 feet deep.

Their appearance is strange, to say the least; think "a seahorse on steroids" or an "aquatic warthog,"

David Todd advises. Their large head makes up 60% of their body and rather than scales they have small plates that have tiny spines. Their strong pectoral fins are used to "crawl" across the ocean floor; their version of swimming. When they mate, the female chases a male into a crevice or barnacle shell and keeps him there until she lays her eggs... and then makes him guard them!

They eat crustaceans, fish larvae and plankton. Our Marine Science Afloat students have seen many Grunt Sculpin over the years via our live dives. If you haven't seen one, be sure to check out the Seattle and Vancouver Aquariums. Both have Grunt Sculpin on display... and listen carefully!



Kara, Michael, Tessa and Kathryn Pizzo

Do you know Marine Science Afloat alumni who were inspired by the program? Nominate them for our Student Steward of the Month. You can email the student's contact info to us at newsletter@marinescienceafloat.org.

Kara Pizzo Puesta del Sol Elementary, Bellevue, WA

STUDENT STEWARD OF THE MONTH

Kara Pizzo, a fifth grader at Bellevue School District's Spanish immersion elementary school, Puesta del Sol, attended our Marine Science Afloat program last May with nearly 90 of her classmates and both of her eager parents. Her mother Kathryn, our newest Board Member, and her sister Tessa, had attended the year before and the family was instantly drawn to the mission of the program.

After the program, Kara's parents would find her regularly observing marine life and picking up plastics, bottles, and other debris along the shoreline of whatever beach they visited during family boat outings around Puget Sound. At times this debris included full fish skeletons that she would examine thoroughly, begging to bring them home. Luckily, her parents convinced Kara to photograph her findings instead, and she now enjoys a growing collection of images.

"It was the best field trip ever, we learned so much," Kara says. "I loved looking at the creatures under the microscope, and seeing what the divers saw on the video. I wish we could go again."

The program clearly left a deep impression on both girls and their parents, which is one of the reasons Kathryn reached out to volunteer with PMR. Having lived in the Seattle area for 26 years, gratitude for the local natural wonders and waterways has permeated the Pizzo family in everything they do, from work to leisure, creating lifelong family memories cruising Puget Sound year round. Her nonprofit and grant experience led her to offer PMR her help in any capacity, from adapting their new operations, to looking at ways to expand their capacity to serve additional schools and demographics. She is delighted to be a part of the PMR crew.

Will your employer match your charitable donations?

Help us double your impact before the end of 2016! Check with your employer, many companies including Microsoft, Home Depot, Boeing, Starbucks, Wells Fargo, and Alaska Airline to name a few, will match all or part of your gift to us. Some, like Microsoft, will also donate cash for employee volunteer hours! We love our socially-responsible local employers. Thank you for your support!

What is Marine Science Afloat™?

Students learn to love and appreciate Puget Sound on our 5 1/2 hour hands-on scientific expedition aboard the Spirit of 76 floating classroom. Haul in the plankton nets! Spy into the invisible watery world in the microscope lab! Meet your slimy and squishy underwater neighbors! And most importantly - Learn how your daily actions can help protect this magnificent, but delicate ecosystem that we all share. Follow along with our team of scientific divers as they explore the depths beneath the boat and introduce us to the animals below with our LIVE underwater video system.



Trips depart Bell Harbor Marina in Seattle from mid-March to mid-June and focus on grades 4-12. For information about school and youth group field trips, please contact fieldtrips@marinescienceafloat.org or call (206) 361-1919.

Interested in working with us? Visit www.marinescienceafloat.org for more information about volunteer and paid positions. Seasonal paid positions now available for experienced marine science/biology educators and divers.

WE OUR VOLUNTEERS

Sarah Mathisen Shipboard Instructor/Board Member

Shipboard Instructor and Board Member Sarah Mathisen's first experience with Pacific Marine Research was with the Marine Science Afloat™ program... as a third grader back in 1989! Sarah, her marine biologist mother, and 50 of her classmates from the Bertschi School attended a trip with their science teacher Julie Blystad, who still teaches at the Bertschi school and still organizes trips with PMR 28 years later. Sarah remembers dissecting a California Sea Cucumber, noticing its five rows

"The impact the Marine Science AfloatTM program has on students is palpable," she said. "The novelty and excitement of being out on the water and actually doing the marine science is a very special experience for the kids. They get to learn in an unconventional and handson way and that is something that is becoming rare in our current education system."

Her favorite part of the job is the "oooh and ahhhs" she hears when students fo-



Sarah Mathisen on the Snowgoose, the Marine Science Afloat™ classroom in 1989, with her third grade classmates from Seattle's Bertschi School.

Mathisen joined the board in 2013 at a time when the organization's fate was in question. With the Executive Director and most of the board retiring, the organization was at risk of shutting down. But Mathisen, along with a few other passionate staff members, stepped in. She took over school bookings and "came along for the ride," as she puts it.

She looks forward to expanding PMR programming, making sure the Marine Science AfloatTM program remains the centerpiece of the organization.

"Our main message kids take home from the boat is to understand the concept of a watershed and what that means for the health of Puget Sound," explained Mathisen. "There is a lot we could do to further the understanding of a watershed. Its becoming more and more urgent for students to catch the science bug like I did, if not to study science, to at least appreciate and respect it."



WHY I DONATE

"I donate because I want children to experience the awe and wonder of Puget Sound; an amazing, productive, and diverse habitat in our backyard so that they care enough to become stewards of this ecosystem."

of muscles running down the length of their body. These marine experiences inspired her to study Biology at Connecticut College, ultimately leading to her current position at Shaw Center for the Salish Sea, a non-profit aquarium in Sidney, BC on Vancouver Island.

She began working as a shipboard instructor for PMR in 2009 and quickly found it to be one of the most rewarding positions she has ever held. cus in on plankton under their microscopes for the first time.

"Once you explain the microscopes you wait to see if you need to step in and help," she explained. "But when you hear those ooohs and aaahs uttered, you know they are getting it and seeing something that is truly wondrous. It is an awesome feeling to share that wonder."

Our New Floating Classroom Comes at a Price

For 30 years Argosy Cruises helped support PMR's mission by chartering the Goodtime II to PMR at a special rate. Because of other commercial commitments they no longer have a vessel available for us to charter. Champagne Cruises has agreed to help us continue our mission by allowing us to charter The Spirit of 76 at a special rate.

Even with the generous charter rate Champagne Cruises provides, PMR has an ongoing significant increase in operating expenses. The Spirit of 76 home port is on Lake Union. Costs for deadheading to saltwater, marina fees, and other inflation increases in operating costs means that our revenue from trips no longer covers our operating expenses.

Pacific Marine Research (PMR) is a Seattle-based, charitable, 501(c)(3), non-profit educational organization. PMR



needs continuing donations in order to bring Marine Science Afloat™ to the students of the Puget Sound Watershed. Donations and scholarships are encouraged, and are tax-deductible to the full extent allowed by law.

Would you consider an end-of-year donation of \$50, \$100 or whatever you can afford to help us expand our program to all students?

Visit www.marinescienceafloat.org now to donate or use the form below. Make your donation go further! Do you work for an employer who will match your donation? Check with your employer, many companies including Microsoft, Boeing, Home Depot, Starbucks & Alaska Airline, to name a few, have matching donation programs.

Please enclose a che	\$100 \$150 \$250 Other \$ ck made payable to Pacific Marine Research. can be made at www.marinescienceafloat.org
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Board Member

Thomas Mickel Board Member

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Andrew Lewin
Board Member

Kathryn Pizzo

Board Member

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