



# Anemone

The Children's School of Science Newsletter

Summer 2017

## CSS SCHEDULE OF EVENTS

### SUMMER 2017

Sessions A & AB Begin  
Monday – July 3

Back-to-School Night  
Monday- July 3  
6 p.m.

School Closed  
Tuesday– July 4

Woods Hole Fourth of July  
Parade  
Tuesday – July 4  
12 p.m.

Open Board Meeting  
Wednesday - July 19  
7 p.m.

CSS Volunteer Party  
Location TBD  
Thursday - July 20  
5:30 p.m.

Open House – End of Session A  
Friday - July 21  
Last 15 minutes of each class

Session B Begins  
Monday - July 24

Back-to-School Night  
Monday- July 24  
6 p.m.

CSS Annual Picnic  
Thursday - July 27  
Woods Hole Ball Park  
5:30 p.m.

CSS Annual Meeting  
Monday – August 7  
7:30 p.m.

Open House  
Wednesday - August 9  
5 p.m.

End of Sessions  
B & AB  
Thursday - August 10

To keep up with current events throughout the summer and reminisce with others about CSS over the winter, be sure to like us on Facebook.



## President's Letter

Greetings-

Welcome to the 104<sup>th</sup> year of the Children's School of Science! It is an early – unusually sunny – spring day in New England and I find myself day-dreaming about summertime in Woods Hole. Perhaps because my kids are getting older as well as their grandparents, I've caught myself more this year than in the past, deliberately creating time with family and friends and cherishing those moments. The Children's School of Science is another one of those moments for our families. It gives our children the chance to get outside and study nature first-hand. It gives us as parents, grandparents and caregivers a chance to be with the kids in nature, exploring together and socializing with our summer friends.

As our lives become more complex, it takes a deliberate commitment from all of us to create these moments for ourselves and for our kids. CSS is a vibrant community of dedicated individuals: Doug and Aaron, our teachers and assistants and dozens of volunteers (parents, grandparents, alumni). It is a pleasure working with the CSS community. The support of our volunteers is among the most important components of CSS's successful longevity and sustained high quality and FUN experience for our children. People are the Children's School of Science greatest asset; the friendships forged from this extended community are its greatest reward.

What Science School needs most is your active engagement. Please see the volunteer opportunities listed in this newsletter. Whether you have one hour this summer or more, if you're a returning family or new to our community, if you are a parent or caregiver, we welcome you to get involved. Doug, Aaron, teachers, assistants and volunteers are easy to spot (especially during the first few days of each session)...we're the ones wearing the matching Children's School of Science t-shirts!

The joy of being involved in a child's exploration of the world around them is more powerful now than ever because we make it happen despite the fast paced digital world we live in today. Together we can create this unique opportunity for our kids to develop a love and appreciation for the natural world.

See you soon!

With warmth,  
Debi Laster, President



## Foldscoopes for Science School

This past summer, students in the CSS course, *Microbial Life*, took part in a field test of an exciting new scientific tool called a Foldscope.

A Foldscope is a microscope made from thick paper stock which has been folded origami style along prepressed folds. A tiny spherical lens, which can magnify up to 400x, is attached to the surface of the ingenious tool.

The Foldscope is the brainchild of Dr. Manu Prakesh from the Department of Bioengineering at Stanford University. Born in India, he believes in the importance of empowering all people to engage directly in science. He believes that if people have a better understanding of the causes of disease they will also begin to understand the impacts on health from and to their environment.

The *Microbial Life* students assembled their Foldscoopes under the guidance of our curriculum co-chair Christine Field, MIT graduate student James Pelletier along with CSS *Microbial Life* teacher Tara Bennett Bristow.



They took the Foldscoopes out on field trips to several sites such as Sippewissett Marsh and Day's pond. Samples were placed on special paper slides with plastic translucent "windows" and inserted into the Foldscope. Students held this assembly up to the sun, peered through the lens and were excited to see microbes right before their eyes, in their hands and at a beach!

Sample details were also enhanced by outfitting some of the scopes with a mini LED.

In addition, by magnetically strapping the Foldscope to an iPhone with the sample stage positioned over the phone's camera aperture, images obtained during the field trip were directly shared with the Prakesh initiative.

This feature also facilitates the creation of movies of the microscopic subjects as well as data archival.

Foldscoopes can be produced for less than \$1.00. They can be modified with special lens filters, as well as with different power lenses and light sources. The *Microbial Life* students were also able to provide feedback from their field tests. Especially useful were suggestions on how to engineer the Foldscope to prevail in wet marine conditions! CSS was happy to learn, at summer's end, that Dr. Prakesh was the recipient of a MacArthur fellowship grant (aka "genius award") which he will use to further his goal of bringing the power of science to the people.

<https://www.kickstarter.com/projects/276738145/foldscope-the-origami-paper-microscope>

**Many thanks to Chris Field for bringing this project to CSS!**

### STANDING COMMITTEE CHAIRS

#### Archives

Dorothea Mautner  
Charlotte Emans Moore

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Ellie Armstrong

#### Extension Classes

Charity Gray  
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#### Hospitality

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Alec Cummings  
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#### Sustaining Fund

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Kitty Brown  
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Debi Laster

#### Trip Sites

Susan Laster

#### Ways & Means

Becky Connors  
Brittany Collier-Gibson





## Bringing the Ocean into the Classroom

Due to the generosity of The Friendship Fund and the Kaminer, Ribbans, Rowland and Weisberg families Science School classrooms will be setting up ten new custom-made aquaria this coming summer. Children's School of Science simply could not provide the experience it does without generous benefactors such as these families and foundations.

With the help of board member Roger Sloboda who assessed our aquaria needs and identified Fiberglass Specialties, a company based in Rochester, Massachusetts (just off the Cape near Mattapoisett). Ten new custom 21-gallon tanks will be ready for this summer's classes.

"These new tanks will be great. Like our old ones, they are fiberglass for durability, but unlike our old tanks which had viewing

panels, students are able to observe sea creatures in their natural habitat giving them the chance to learn about their anatomy, movement, diet, etc. Having students participate in hands on activities while collecting specimens, setting up the aquarium, monitoring and maintaining the aquarium, and releasing the animals back into their own environment, truly gives students the opportunity to understand the aquatic environment surrounding them. This knowledge and fascination leads them to care about protecting the environment and spreading their knowledge to others," notes *Oceanography and Advanced Oceanography* teacher Scottie Mobley.

In support of the Science School - the Kaminer, Ribbans, Rowland and Weisberg families, are funding two of the new aquaria in memory of dear friends involved with CSS over 50 years ago: Mona Lee Gross, parent-volunteer and dedicated organizer, and her daughter, Aline Dorothy Gross, a passionate student who went on to study biology and biochemistry in college and graduate school.

Members of two generations of these families expressed that decades later they continue to carry wonderful memories and lasting appreciation of the educational experiences at CSS.

The Friendship Fund, endowed by Charles Crane, has supported Science School over the years in many ways. Ellen Tully, the great granddaughter of Charles Crane is a long-time supporter of CSS. Each summer students walk to Tully beach to observe and collect. A family of environmentalists, six generations have ties to Science School. As such, a contribution for the new aquaria was a natural fit for Tully and The Friendship Fund.

"Pretty much all of Charles Cranes' living descendants are concerned with raising people who know and love the natural world and make it a high priority to protect it. We want to raise as many generations of informed caretakers of our environment as we can," said Ellen Tully.

Children's School of Science thanks these families and all members of our community who make contributions of resources, time, and talent. It is this active engagement that makes CSS a thriving institution.



The option to bring creatures from the sea to the classroom for observation is one of the highlights in a CSS student's day. Classroom aquaria provide a temporary home and window to observe individual behaviors and interactions between organisms. At the end of the summer, the organisms are returned to their natural environments.

Up to 15 tanks are set up in our classrooms each summer. Over time our current aquaria have started to reach their useful life. Leaks are beginning to form, and the occasional breakage sought us to seek funding for new tank inventory. Science School would not be the same without the tanks or without our many supportive friends.

windows on two sides, these new tanks will have windows on all four sides. This will allow more students to observe the contents at a single time," said Roger Sloboda.

Science School teachers elaborate on the added value of classroom aquaria to the student experience. "You would have to spend countless hours in the water to be able to locate and observe many of the organisms we have in the tanks. Coming in each day and observing the animals for a few minutes is truly a highlight for many of our students," said Kate Schafer who teaches *Environmental Science*.



## CSS Welcomes New Teachers

Like many summers before, this one also brings new faces to the CSS faculty. We have a returning teacher who is now the father of two and four new teachers who bring their interests in a myriad of topics to the classroom. Read on for a preview of who will be leading the children on their summer Science School adventures.

### Carly Borken

Carly grew up around Quissett Harbor and attended CSS as a student. She returns to CSS as a teacher for *Experiments in Woods Hole* and *Environmental Science*. She received her B.S. in Zoology (minor in Botany) from the University of Hawaii at Manoa in 2006. Carly later earned her masters from Duke University in Environmental Management. She has spent the last nine years teaching AP Environmental Science and Marine Science at the Taft School in Watertown, CT. A lifelong learner and determined environmentalist, her passion for teaching is rooted in helping students collect and understand data, synthesize opinions, and become creative problem solvers.



Carly Borken



Jessica Donohue

### Jessica Donohue

Jessica Donohue joins CSS from The Sea Education Association (SEA) and will be teaching *Woods, Ponds and Fields* in session B. She received her B.S. in Geology from Binghamton University and her M.S. in Environmental Science from the University of Rhode Island in 2013. She has worked at SEA for the past three years conducting research on marine plastic debris, both from sailing research vessels and in the laboratory. She also occasionally sails as an assistant scientist with SEA, running the shipboard lab, deploying oceanographic equipment and educating college students while out at sea. She previously worked in education outreach with the RITES Project; organizing and developing science professional development opportunities for teachers and field trips for students. In her free time Jessica enjoys swimming, cooking, yoga and exploring the outdoors.





## CSS Welcomes New Teachers

### Corey Simonsen

We are pleased to welcome Corey Simonsen back from a six-year break from CSS to teach *Ichthyology* in Session B. After receiving degrees in Geology from Amherst College and the University of Vermont he embarked on a teaching career that has taken place mainly at Milton Academy in Milton, MA. At Milton Corey taught an earth science course to sixth grade students for 11 years before transitioning last summer to his current role as Assistant Director of K-8 Admission. Corey lives in Milton with his wife Emily Armstrong (CSS lifer) and children Max and Finley. Corey's previous classes taught at CSS include the *Geology of Cape Cod*, *Meteorology*, *Terrestrial Navigation* and *Oceanography*.



Corey Simonsen



Megan Zottoli

### Megan Zottoli

Megan Zottoli, a familiar face in the village, will teach *Photography* in session A. Megan who grew up in Woods Hole received a BA in Art from Hampshire College in 2006. Many of you will recognize her as a swim instructor at Woods Hole's Stony Beach where she taught lessons for 17 years! Most recently Megan worked at the Waldorf School of Cape Cod teaching woodworking, printmaking, knitting, sewing, and first grade. She is currently working at the National Academy of Sciences. Megan is looking forward to rocking this year's photo class and helping CSS students take on the world in black & white.

Welcome to all our new teachers. For a look at our returning teachers check out the Faculty tab on the CSS website.

## Call for Recipes!

We need your favorite recipes!

105 CSS Recipes will be published in commemoration of CSS's 105<sup>th</sup> year.

Join this community effort and send in your best picnic, summer barbecue or any family favorite recipe. Email recipes to [boardpresident@childrenschoolofscience.org](mailto:boardpresident@childrenschoolofscience.org) or drop off a hard copy at the CSS front desk. The cookbook will be sold during CSS's 105<sup>th</sup> summer of 2018 and all proceeds will go to the CSS sustaining fund. Thanks for your support!



**CSS ADMINISTRATIVE OFFICERS 2017**

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Doug Jones

**Assistant Administrator**  
Aaron Sloboda

**Curriculum Co-Chairs**  
Karen Dell  
Christine Field

**Registrar**  
Crickett Warner

**Teaching Assistants Chair**  
Apple Stephen

**Website and Facebook Administrator**  
Aaron Sloboda

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**Consider Being a Science School Assistant**

Summer time for me has always meant Woods Hole. Every year starts with a strong desire for summer to come, dreaming of days spent going to the beach, wandering the village, and of course classes at Science School. I would scroll through the catalog of classes and choose my favorites in the winter, then spend the remainder of the school year anticipating the first day. Seven years from that first exciting summer, I was confronted with the frightening prospect that my time as a science school student could be over. Since I could not imagine my summer without Science School, the next step for me was to apply to be a Science School Assistant. I applied for, and received, my job as an assistant. After that first summer, my love for science school has only increased. Being an assistant is not a far cry from being a student; I still get to participate in all of the activities and learn from the meaningful field trips, speakers, and other hands-on learning opportunities provided by Science School. Riding the bike path, going crabbing and field trips to the labs are just as fun as an Assistant as they were as a student. So, if you aren't quite ready to stop going to Science School, being an Assistant could be the next step in your Science School journey. Look out for a signup sheet on the kiosk in mid-July.

- Alec Cummings



**Summer 2016 Assistants**

**CSS Assistants - 2017**

Candidates apply this summer for 2017 position and must be 16 years old by summer of hiring. Keep an eye on kiosk for details and interview sign up times. Applications must be filed with Apple Stephen along with letters of recommendation by December 1, 2017 for consideration. Assistants work all six weeks of Science School and are assigned to two classes per session.



**Summer Extension Classes**

Don't forget to watch for information on this year's Extension Classes. We'll have walks in the woods, boat rides and hands-on projects for the whole family. Check the CSS notice board, CSS website, or our Facebook page.



## CSS 101: A Guide for Families

Welcome to CSS! Whether this is your family's first CSS summer or 104<sup>th</sup>, here is a cheat sheet of this summer's activities for you to preview. Mark your calendars and prepare to get the full Science School experience.

### June 29 and 30: Unpacking the School

Session A/AB teachers and all assistants will be setting up the schoolhouse for opening day. If this is your first summer, please feel free to stop by for a brief visit to introduce yourself to Doug Jones, CSS Director and Aaron Sloboda, CSS Assistant Director!

### July 3: First Day of Classes Sessions A and AB

Make sure to send your child wearing closed toed shoes which can get wet, already applied sunscreen. A hat and a water bottle are optional but helpful. At the beginning of each class, Doug will address all families in the schoolyard. Parents will get important information such as parking, pick up and drop off. Plan ahead – parking is not available on School Street. If you can walk to the schoolyard that is the best plan. Otherwise, park at a metered spot to gather in the schoolyard.

### July 3, 6-7pm: Back to School Night Session A

This is a chance for parents and families to meet their child's teacher and teaching assistants in the classroom, hear what your child will learn in class and the fun activities and field trips they will experience. The hour is broken up into four 15-minute periods (8:30am classes will meet 6:00-6:15pm, 10:15am classes will meet 6:15-6:30pm, 12:00pm classes will meet 6:30-6:45pm and 1:45pm classes meet 6:45-7:00pm). There are light refreshments served in the schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. The CSS Store is open if you'd like to purchase a CSS t-shirt, bag, mug, rain jacket, plus artwork and other CSS items! WHOI opens up their School Street Parking Lot to CSS for this event.



### July 4, 12:00pm: Woods Hole Fourth of July Parade

Come cheer on the 2017 CSS Assistants as they march in the parade! It is always a fun surprise to see how they've dressed up to celebrate and the humor of the local laboratory participants is an added bonus!

### July 20, 5:30-7:30pm: CSS Volunteer Party

Location to be confirmed. CSS is a remarkable success story relying on close to 100 volunteers to create the fun summer experience for our kids each year. If you have volunteered or sign up to volunteer for this summer's session, you will be invited to this party to kick back and relax.

### July 21: Session A Open House

Pop in for the last 15 minutes of each class. This is the second time parents and families are invited to their child's classroom to see what he/she has been up to during the past three weeks.

View classroom aquaria, art projects and experiments. Parking is not available on School Street. Please plan accordingly

### July 25, 6-7pm: Back to School Night Session B

This is a chance for parents and families to meet your child's teacher and science assistants in the classroom, learn what your child will learn in class and the fun activities and field trips they will experience. The hour is broken up into four 15-minute periods (8:30am classes will meet 6:00-6:15pm, 10:15am classes will meet 6:15-6:30pm, 12:00pm classes will meet 6:30-6:45pm and 1:45pm classes meet 6:45-7:00pm). There are light refreshments served in the schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. WHOI opens up their School Street Parking Lot to CSS for this event.



### July 27, 5:30-7:30pm: CSS Annual Picnic

Held at Woods Hole Taft Ball Park off of Millfield Street. The Assistants are the hosts for this event. Bring your own picnic dinner, relax and have fun as the Assistants organize games for the kids. Brownies and watermelon are provided. It is a fun evening of fresh air, games and fun! You will find out what "uca uca limulus" really means. WHOI opens up their School Street Parking Lot to CSS for this event.

### August 7, 7:30-9pm: CSS Annual Meeting

Held at Fisher House on Church Street, as much a party as a meeting, this is a special evening. Featuring reports from CSS committees, recognition of our teachers, assistants and student lifer awards, end of year slide show and lots and lots of refreshments. The children are welcome and this is a great opportunity for them to see the full spectrum of Science School offerings in one night. Parking in the Church of the Messiah lot available but limited.

### August 9, 5-6pm: Open House Session B and AB

This is a second time parents and families are invited to your child's classroom to see what he/she has been up to during the past three weeks. View classroom aquaria, art projects and experiments. The hour is broken up into four 15-minute periods (8:30am classes will meet 6:00-6:15pm, 10:15am classes will meet 6:15-6:30pm, 12:00pm classes will meet 6:30-6:45pm and 1:45pm classes meet 6:45-7:00pm). There are light refreshments served in the schoolyard courtesy of the CSS Hospitality Committee. Kids and families can socialize in the schoolyard. Last sale day of the season for the CSS Store! WHOI opens up their School Street Parking Lot to CSS for this event.

## Ways and Means – T-shirts and So Much More!

The Ways and Means Committee is looking forward to another fun and productive summer! This year we will be selling tank tops in addition to our other fabulous merchandise! The CSS merchandise opportunities:

**July 3 6-7pm**

Back to School Night Session A

**July 21 6-7pm**

Open House Session B

**July 25 6-7pm**

Back to School Night Session B

**August 9 5-6pm**

Open House Session B

We would be thrilled to have volunteers for set-up, selling and clean-up at all sales events – please consider helping support CSS in this way! If you have any questions, please feel free to direct them my way at [brittcolliergibson@gmail.com](mailto:brittcolliergibson@gmail.com)



**SEE YOU THIS  
SUMMER!**