



Nauplius Notations

In all the COVID chaos last Spring, I really didn't notice and guessing most of you didn't either, but this is the 30th Anniversary of the SENEME Newsletter!! I am astounded to realize that, barring a couple of brief hiatuses, I have been the SENEME Newsletter Editor since I took over the reins from Thaxter Tewksbury in 1999 - over 20 years ago!! My twins, who are now 23, were only 2 years old at that time - what was I thinking! (Although, we now can be pretty sure that science would show I was probably in a totally sleep-deprived brain fog and therefore, had no idea what I was getting myself into for the next 20 years!)

In light of this milestone, I thought it would be fun to resurrect some of the ol' "Nauplius Nostalgia." A few of you will remember that title from a regular throwback feature in a few of the newsletters about a decade ago. It is always fun to peruse the old "Nauplius" issues! Where else can you discover what adventure Joe Hage, one of our former Vice Presidents, has been up to in his "Sound Notes from the Water Column" or to see just how far technology has come when you read what Elizabeth Gibbs, SENEME Life Member and former Membership Secretary wrote about the World Wide Web in 1995. I am confident you will enjoy as much as I did, curling up with a bit of our delightful history. Below is one of my all-time favorite SENEME Fall Conference pics - Me with Thaxter and my first (and only!) bluefish, I believe sometime in the late 1990's (I'm wearing a 1992 NMEA Conference in Oregon sweatshirt, which still hangs in my closet!).

I hope you and your families have a cozy and healthy holiday season, and I look forward to seeing you all in person again in the not-too-distant future! Stay Safe!

Donna Dione
Vice President and Newsletter Editor



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*2003 Mickey Weiss
2004 Thaxter Tewksbury
2005 Ralph Yulo
2006 Elizabeth Gibbs
2010 Katrina Barrett*

MARINE EDUCATOR OF THE YEAR

*2005 Lance Arnold
2006 Matt Schardt
2010 Vicky Sawyer
2011 Joseph Hage
2012 MaryEllen Mateleska
2012 David Bednarz
2014 Michael O'Connor*

MEMBERSHIP AND ELECTION UPDATES FROM THE SENEME BOARD....

Due to COVID-19 derailing any plans for SENEME gatherings in 2020, the SENEME Board voted to extend the memberships of all Members-in-Good-Standing as of March 2020 by one year. For example, if you renewed for 1 year when you were due to expire at the end of 2019, instead of your membership expiring at the end of December 2020, your membership will now expire at the end of December 2021. If you already had a 2021, 2022 or 2023 expiration date, those have all been extended by one year as well.

At the Virtual Annual Meeting held on November 18th, SENEME members in attendance voted that, given this year's unexpected circumstances throwing the SENEME Board into various states of disconnect, in lieu of holding a formal election this year, all Board Officer positions will be extended by one year. Positions set to expire in 2020 will now expire in 2021, and positions set to expire in 2021 will now expire in 2022. Thanks to all the current Board Officers for agreeing to serve an extra year!

NAUPLIUS NOSTALGIA

COMPILED BY DONNA DIONE, EDITOR

THIS FEATURE RESURRECTS ARTICLES FROM THE ARCHIVES OF "THE NAUPLIUS."

REPRINTED FROM *THE NAUPLIUS*, SUMMER 1993, VOLUME IV, NUMBER 2

What is a Nauplius?

By Donna Dione

Have you ever wondered what those creatures swimming across the front of your newsletter are? Or have you been strolling through town in your stylish SENEME t-shirt when someone asks what kind of "bugs" are crawling on your back?

When I found that even some of us whose profession is marine education were a bit lacking in nauplius expertise, I figured there might be many other confused souls drifting around out there searching for the answer to the timeless question, "What is a nauplius?" So off I set to find the answer for us all.

Following the advice I've given countless students, I started out by "looking it up" in Webster's Dictionary. It was there I discovered that my investigation was not going to be as easy as I thought. How do I explain to the guy on the street that the "bugs" on my back are actually "the earliest larval stage of entomostracan crustaceans and certain shrimps?" Maybe he'll have an idea that they are some sort of baby crustaceans, but most likely he'll think I like to wear shirts with some sort of foreign seafood on my back!

Basically, crustaceans are a class of mostly aquatic and gill-breathing animals that are characterized by a hard exoskeleton, a segmented body divided into head, thorax and abdomen and pairs of appendages with each segment highly modified for such uses as protection, feeding, walking and swimming. Entomostracans are just a sub-class of the crustaceans. Usually there is more than one nauplius stage that an organism goes through as the larva ages.

Familiar marine animals that have nauplius larvae include krill, barnacles, shrimp and copepods (the most abundant zooplankton). Our "mascot" nauplius for SENEME is one of the nauplius stages for a group of the copepods.

Well, now that I am seeing nauplii on the walls, the ceiling and in my soup after reading various plankton texts, I should be able to wear my t-shirt with confidence, knowing I am a little wiser about the creatures on my back and ready to educate the next unsuspecting soul who dares to ask about those "bugs!"

REPRINTED FROM *THE NAUPLIUS*, FALL 1995, VOLUME VII, NUMBER 1

Wax down your surfboard, we're off to explore the World-Wide Web!

By Elizabeth Gibbs

For those of you who have yet to link up with this most rad new form of communication, the World-Wide Web - WWW, or just the Web for short - is a system, accessed over the Internet, that allows users to follow point-and-click links leading between documents and files on computers all over the world. To get to the Web, you need a special SLIP/PPP connection (assuming you are not at a university or company that has some form of direct line to get onto the Internet). Your Internet provider should be able to help you with one of these. Web access is already available from many commercial on-line services. Once you have the right sort of connection to the outside world, you use a software application known as a browser (Netscape is the browser of choice for most of the world's users) to gain the full benefits of the Web - including graphics, sound and video.

If you already have access to the Web, you know what a candy store of useful, fun, and arcane information it is. This article by no means claims to offer an exhaustive guide to marine education resources on the Web, but rather hopes to provide a jumping off point for surfing novices, and perhaps give some new ideas to old beach bums. (*Editors Note: The article then continues with a few ideas for websites to visit which probably no longer exist.*)

Happy Surfing! Please feel free to share sites you've found for future issues of *The Nauplius*...

FROM OUR FRIENDS AT OCEANIA...

As a result of the COVID-19 pandemic, the hosts of the NMEA 2021 Conference, Oceania, with the full support of the NMEA Executive Committee and the NMEA Board, have made the difficult decision to cancel the 2021 Conference.

Several factors influenced this decision, including uncertainties around vaccine timing and distribution, our ability to safely host conference participants, and other limitations that would hinder our ability to put on a quality conference.

Although we will miss hosting you in Hawai'i next summer, we are excited to announce that NMEA is re-imagining our conference experience and is planning to host a virtual conference event in 2021!



FUTURE EVENT PLANS....

SENEME hopes to reschedule the Horseshoe Crab Tagging Event originally scheduled for June 2020 to sometime in the late spring of 2021. We also are investigating the possibility of holding a virtual SENEME event. **Stay tuned to your email in the new year for details as they become available!**

The New York State Marine Education Association (NYSMEA) is making plans to host the 2022 NMEA Conference at Hofstra University. As updates become available, they will be found at www.marine-ed.org or <https://nysmea.wildapricot.org/NMEA-2022>. We look forward to catching up with our marine and aquatic colleagues when NMEA returns to the Northeast!

MORE NAUPLIUS NOSTALGIA

COMPILED BY DONNA DIONE, EDITOR

REPRINTED FROM *THE NAUPLIUS*, WINTER 1992-3, VOLUME IV, NUMBER 2

SOUND NOTES FROM THE WATER COLUMN

By Joseph Hage

The snow and frozen leaves crunched lightly as we walked along the path deeper into the woods. The air was crisp, and our breath seemed to hang around our heads. It is the time of year when my family takes a winter hike through the woods in search of the perfect evergreen boughs for the Christmas wreath. Much deliberation results as to the best mixture of hemlock, white pine and firs, but our true purpose was to get outside and amble aimlessly together through the winter woods. Gently arching snow-laden branches of hemlock provided a perfect target for a well-aimed snowball, as my unsuspecting brother was powdered. He let out a yelp that scared the dog and echoed through the woods. Much thrashing and crashing shattered the muffled silence of the cold woods air. The snow had fallen the day before and was still fresh. Ice crystals glistened in the sunlight with princess and running pines seeming to have dollops of sparkling ice cream capping their tiny green branches along the forest floor.

A small brook cascaded down a snow-capped, mossy, rock slope. Tiny shelves of ice clung to the sides of the rocks, and water gurgled underneath. As the black water swirled beneath the clear ice shards, bubbles became trapped and spun crazily until they created enough to burp out from under their icy prison. As I was staring so intently into this mesmerizing brook, I must have kindled a jealousy in my dog, for he stomped and tromped triumphantly in the water, splashing and crashing through the ice for my undivided attention. My face was spattered with mud and water, and my father smiled and muttered something about poetic justice. It was getting late, and we had collected some small, but arguably perfect pine boughs. We were beginning to feel the cold especially since some of us were damp from snow battles.

During the summer, I am outside more than in, but once the school year begins, I am trapped inside, forced to breath the school air, with the only light coming from fluorescent bulbs. Just about this time of year, I need to get outside to recharge the cranial capacitor with more natural stimuli. Our objectives were met, we were able to collect some Christmas decorations and get outside for a winter walk in the woods.

By Joseph Hage



Joe receiving the SENEME Marine Educator of the Year Award in the Fall of 2011 from then President, Lauren Rader.

REPRINTED FROM *THE NAUPLIUS*,
FALL 2011, VOLUME XXIII, NUMBER 1



Schools and caregivers are struggling to meet the educational needs of students in a new and rapidly changing environment. The New England Science & Sailing Foundation is uniquely able to meet these needs by providing high quality educational experiences in support of public and private school systems. This new program, NESS Shore Support, is designed to meet the needs of parents, students, and caregivers.

NESS's new program, NESS Shore Support, offers learning support during online and hybrid schooling, as well as high quality, experiential, NESS enrichment programs. The main goals of the NESS Shore Support Program are:

- – Provide in-person, on-demand academic support to students during their online lessons as they work through the curricular materials provided by their school. This is accomplished with NESS full-time educators and NESS SEA AmeriCorps members.
- – Support parents with childcare options that scaffold online and hybrid learning.
- – Provide enriching science and sailing programs to empower learning while in a setting to improve socio-emotional skills.

This program serves students in grades K-8 and fluctuates depending on each student's individual online schedule. NESS provides academic support in terms of mentorship and homework help while students are engaged in their schools' online learning. NESS provides STEM enrichment classes that are designed to promote a love of learning and socio-emotional benefits.

The hours of this program are 8:30am-3:00pm for elementary school students and 7:30 am-2:00 pm for middle school students with optional pre-care for elementary (starting at 8:00am). Post-care will be enrollment in one of our afterschool programs (sign-up separately). There is an additional fee for both options.

The Shore Support program monthly tuition is \$500.00 per student. Scholarships for students in need will be considered. Pre-care is a \$10.00 flat fee per day.

Visit <https://nessf.org/shoresupport/> for more information.



GSO Ocean Classroom

University of Rhode Island's Graduate School of Oceanography (GSO) has expanded its education and outreach initiative. *GSO Ocean Classroom* brings current and relevant ocean science research to K-12 and public audiences. Ocean experts present programs in schools, virtually, outdoors at field locations and here on the URI Narragansett Bay Campus. Due to COVID-19 guidelines, field programs and in school offerings are on hold. In place of an in-person field trip, virtual opportunities are available. For more information visit the [Ocean Classroom webpage](#).



High School Internships at Mystic Aquarium

Due to the huge success of the first High School Internship program offered this fall of 2020, Mystic Aquarium is pleased to offer another session starting January 19, 2021. This prestigious program will leverage the unique assets of the Aquarium to introduce students to a diversity of careers and career pathways. In this 8-week program specifically designed for students in grades 9 to 12, participants will work and study alongside the amazing professionals who advance our mission to inspire people to care for and protect our ocean planet through conservation, education, and research. Students will be mentored in small groups by our professional staff, where they will develop a range of technical and interpersonal workforce skills including resume building, interviewing, communication and leadership. Click here for more information: [High School Internships](#).

Mystic Aquarium Summer Camps 2021 Available

With health and safety as our number one priority, we are happy to confirm that we will be offering unique and memorable camp experiences for children entering grades PreK-10, as well as family programs for a caregiver/child pair, this summer! Mystic Aquarium offers the perfect environment to enjoy and explore animals while having outdoor adventures in nature. In addition, each camp will have its own dedicated classroom within the *Milne Ocean Science and Conservation Center*, which is separated from the general public, to continue learning and exploration. In accordance with the State of Connecticut requirements for youth camps, Mystic Aquarium has established stringent guidelines to ensure camper and educator safety for the summer. Click here for more information: [Summer Camps 2021](#).

Mystic Aquarium Online Resources

- **Cost:** Free
- **Details:** Daily on Weekdays - [Facebook or YouTube Live broadcasts](#); Live Animal Exhibit Webcams; Ocean Ambassadors; 9 playlists to choose from on YouTube Channel including *Aquarium Rehab*, *Story Time*, *60 Seconds of Science* and *Ocean Ambassador's Conservation for All*; and online educational resources
- **Links:** [Facebook Live](#), [YouTube Channel](#), [Animal Webcams](#), [Ocean Ambassadors](#), and [Fun & Learning online educational resources](#)
- **Costs:** Vary
- **Details:** Virtual Conservation Education Programs; After School Virtual Enrichment; Virtual Encounters with belugas, African penguins, Steller sea lions, or Northern fur seals/harbor seals/and a spotted seal; Virtual Paint With programs that include the mailed painting with belugas, African penguins, seals, rays or a reptile
- **Links:** [Virtual Conservation Education & After School Programs](#); [Virtual Encounters & Paint With Programs](#)



The Maritime Aquarium has revised its regular STEM-based, standards-fulfilling educational programming into a selection of online offerings that teachers can use as they adapt to distance learning. The programs are conducted synchronously to allow for questions and answers and for adaptations to specific curriculum needs. The programs also can be recorded for later viewing; for example, by a student who missed the live stream.

Looking for programs in Spanish? The Maritime Aquarium now offers several programs completely in Spanish!

For more information on all of our programs, visit:
<https://www.maritimeaquarium.org/distance-learning>.



SENEME Dates to Remember

Due to the current unpredictability of the COVID-19 situation, SENEME is holding Board meetings via Zoom on an as needed basis. If you would like to participate in upcoming Zoom meetings, please contact SENEME President, Megan Strand, at mstrand@nessf.org or Vice President, Donna Dione, at donnadione@comcast.net to be added to the email list to receive the log-in information. Board meetings are open to all SENEME members at any time.



**THANK YOU TO OUR SENEME ORGANIZATIONAL MEMBERS
FOR THEIR SUPPORT!!**



MYSTIC
AQUARIUM



The Nautilus is the newsletter of the Southeastern New England Marine Educators Association Inc. (SENEME). Submissions including (but not limited to) articles, activities to share, student projects, pictures of SENEME members in action, recipes, and other organization's announcements are welcome for all issues. The opinions expressed by authors published in this newsletter do not necessarily reflect the views of SENEME and all its Board members. SENEME is not responsible for any typographical errors that may occur within this publication. Permission is granted by SENEME for readers to make copies of newsletter items for their own, non-commercial use.