

FMSEA 2010

CHANGING REEFS: CORALS ON ACID



**ANNUAL CONFERENCE
PROGRAM**

Thursday, May 13

3:00 - 6:30 PM Registration Open - *Hampton Inn Lobby*
5:00 PM Conference Committee Meeting
6:30 - 8:00 PM Sci-Café Event/President’s Circle Event - *Hampton Inn Tiki Hut*

Friday, May 14

7:30 AM - 5:00 PM Registration Open - *Hampton Inn Lobby*
7:30 AM - 9:00 AM Continental Breakfast – *Hampton Inn*
7:30 AM - 5:00 PM Full and 1/2 Day Workshops & Field Trips -*Transportation on your own.*
4:00 - 6:00 PM Exhibitors set-up - *Coral Shores High School*
6:30 - 7:57 PM Conference Opening - *Nelson Government & Cultural Center*
(adjacent to the *Hampton Inn*)
Social with Heavy Appetizers and Music with DJ Jay
7:58 PM Sunset
8:00 - 9:00 PM Opening Speaker, Dr. Billy Causey, Southeast Regional Director, National Marine Sanctuary Program

Saturday, May 15

**All programs and sessions are at Coral Shores High School*
7:00 - 10:00 AM Exhibitor set-up - *Coral Shores High School*
7:45 - 8:30 AM Registration Open - *Nelson Government & Cultural Center*
8:30 - 10:00 AM Opening Session & Strategic Planning Update
Panel Discussion
10:00 AM - 12:00 PM Registration Open - *Coral Shores High School*
10:00 AM - 4:30 PM Exhibit Hall Open
10:10 AM - 12:00 PM Concurrent Sessions 1 & 2
12:00 - 1:00 PM Sandwich Platter Lunch and Regional Meetings (Look for Region Signs)
1:00 - 1:30 PM Committee Meetings (See committee descriptions on pgs 19-20)
1:40 - 3:30 PM Concurrent Session 3 & 4
3:30 - 4:00 PM Cookie & Coffee Break in Exhibit Hall
4:10 - 5:00 PM Concurrent Sessions 5
5:00 PM Deadline to Submit Election Ballots
Exhibit Hall Breakdown
6:00 - 7:00 PM Silent Auction and Social at *Sundowners Restaurant*
7:00 - 10:00 PM Banquet, Annual Meeting & Evening Keynote - Jim Toomey, creator of *Sherman’s Lagoon*

Sunday, May 16

8:30 - 10:00 AM FMSEA/FWC Collecting Certification Facilitators Meeting– *Dolphin Cove*
10:30 AM – 12:00 PM Board Meeting– *Florida Keys Electric Co-op*

*** The conference hotel, the Hampton Inn, is 11 miles from Coral Shores High School. In an effort to promote sustainability, car-pooling to and from the hotel is encouraged.
*** Transportation will be provided to Sundowners Restaurant for the silent auction, banquet and keynote. Busses will depart from the Hampton Inn from 5:30-7:30 PM. Busses will depart from Sundowners (returning to Hampton Inn) from 9:00-11:00 PM.



Changing Reefs: Corals On Acid

Welcome to Key Largo! The conference sites include Coral Shores High School and Monroe County's Nelson Government and Cultural Center. The theme this year explores the effects of a changing global climate on the world's underwater ecosystems, particularly coral reefs.

Important Conference Information

Your **name badge** is required for entry into concurrent session, exhibit areas and other conference-related activities. Please wear it at all conference events.

Election ballots are included in each registration packet. Please be sure to turn your ballot in by 5:00 PM on Saturday. Election results will be announced at the banquet Saturday evening.

Auction items may be dropped off at the registration table. If you haven't already done so, please be sure to submit a donation form with your auction item(s). All items must be received by **noon** on Saturday.

Looking to get more involved with FMSEA? **Join a committee!** Committee Descriptions can be found on pages 19-20, so find one that suits your interests and talents and be sure to attend the meeting on Saturday at 1:30 PM. Meeting locations will be announced that morning.

The **Research Track** continues! The microscope designates a presentation on current marine science topics.



Wireless **internet access** is available at the Hampton Inn, however, there is no access at Coral Shores High School.

FMSEA is on **Twitter!** We'll be posting new developments, logistical tweaks, and helpful tips to help you make the most of your conference experience. Follow our micro-blog all weekend and you won't miss out on a moment!

Follow us at <http://twitter.com/fmsea>, and be sure to enable your mobile updates!

Questions? FMSEA Board Members and Conference Committee Members are wearing colored ribbons on their nametags. If you have any questions or concerns throughout the conference, please don't hesitate to ask!

The **Florida Marine Science Educators Association (FMSEA)** is a chapter of NMEA and provides a network for marine educators working together to coordinate and expand marine education, communication and interaction. FMSEA members receive the Littoral Drift, a quarterly newsletter which contains information on educational workshops and conferences, teaching aids and resources, regional news and other articles of interest. In addition, FMSEA sponsors an annual Student Project Award for elementary, middle, and high school students and offers scholarships to teachers to help them continue their professional development. In conjunction with the Florida Fish and Wildlife Conservation Commission, FMSEA hosts Marine/Aquatic Collecting Certification Workshops throughout the state. Visit FMSEA online at www.fmsea.org.



Thursday Evening Schedule

6:30 - 8:00 PM

Sci-Café/President's Circle Event - *Hampton Inn Tiki Hut* - Enjoy light appetizers, drinks, and some stimulating conversation! The laid-back environment, plain language, and inclusive conversation create a welcoming and comfortable atmosphere for people with no science background. Complementing the conference theme, the topic of discussion will be *Coral Reef S.O.S.* Guest speaker **Lauri MacLaughlin** will kick the evening off with a brief introduction of her work as a NOAA Sanctuary Resource Specialist, sharing stories and experiences on Florida's coral reefs. This event is free and open to the public, however, a sign-up list will be located at registration to provide the conference committee with a head count. We will also take time at this event to recognize all the past-Presidents in attendance.

Friday Workshops

All workshops include a box lunch and beverage. Transportation is on your own. Carpooling opportunities and directions to all locations will be posted at the registration table in the Hampton Inn Lobby. Pre-registration is required.

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|--|-------------------------|
| A. Educators Aquatic Species Collection Certification | 9:00am - 12:00pm |
| Location: Island Dolphin Care | |
| B. Project WILD Aquatic | 8:00am- 2:00pm |
| Location: Dolphin Cove | |

Friday Field Trips

All trips include a box lunch and beverage. Transportation is on your own. Carpooling opportunities and directions to all locations will be posted at the registration table in the Hampton Inn Lobby. Pre-registration is required.

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|---|-------------------------|
| A. Dolphin Research Center I | 9:00am - 12:00pm |
| B. Dolphin Research Center II | 9:00am - 5:00pm |
| C. Dolphins Plus – Shallow Water Dolphin Interaction Program | 12:30 - 3:00pm |
| E. Coral Restoration Foundation I | 9:00am - 12:00pm |
| F. Coral Restoration Foundation II | 9:00am - 5:00pm |
| G. Glass Bottom Boat | 8:30am - 12:00pm |
| H. Snorkeling Trip with Keys Diver Snorkel Tours | 1:00pm - 5:00pm |
| I. Discover SCUBA Workshop | 9:00am - 11:00am |

Sessions at a Glance

	<u>Ocean "Potpourri" Room 4-211</u>	<u>Teaching Methods Room 4-212</u>	<u>Corals...and More Room 4-213</u>	<u>Community Projects Room 4-214</u>	<u>Organisms & Habitats Room 4-215</u>	<u>Research & Technology Room 2-206</u>
10:10-11:00		Ocean Productions	pHate of Corals	Aquaculture Academy	Plankton Monitoring	Ocean Acidification and Corals
11:10-12:00		School-masters	SeaTrek Distance Learning	Serving Deserving	St. Johns River	
1:40-2:30	Out Seat, Dirty Feet	Creek and Kazoo	Corals Alive	Marine Studies "Keys Style" **Room 4-105 (1st Floor)	Tour de Turtles	Hawksbill Research
2:40-3:30	FMSEA Collection Workshop	Marine Mania	Advancing Climate Change	Volunteer Share-A-Thon	Amazing Oceans	Dark Reefs
4:10-5:00		Key It Out!	"Sea" Rehab	Science Café	Turtle Teach	Sea Perch Robotics

Notes _____

Friday Evening Schedule

6:30 - 9:00 PM

FMSEA Mixer - *Nelson Government & Cultural Center* - Relax with FMSEA friends, old and new! Come mingle with your colleagues on the lawn of the Nelson Government and Cultural Center. Enjoy heavy hors d'oeuvres and refreshments as you groove to the tunes of DJ Jay. Beer, wine and non-alcoholic beverages will be provided.

Immediately after sunset (7:58 to be exact!), **Billy Causey, Ph.D.**, Regional Director of the National Marine Sanctuary Program, will welcome participants to the Florida Keys with stories and reflections on his many years working and living in this unique environment. This will be a great kick-off to what is sure to be a fabulous array of sessions and science on Saturday.

Saturday Schedule

7:45 - 8:30 AM

Registration Open - *Nelson Government & Cultural Center*

8:30 - 10:00 AM

Opening General Session and Strategic Plan Update Panel Discussion with Dr. Billy Causey, Mr. Ken Nedimyer, Dr. Julie Lambert and Dr. Alex Brylske

Each panelist will give a five-minute introduction of themselves and their thoughts on global climate change/ocean acidification, as it relates to their respective fields. A short clip from a documentary, created by Dean Shwinberger, on ocean acidification will be shown prior to the panel's discussion. Moderator Howard Rutherford will filter questions from the audience. Questions can be submitted prior to the Opening Session at the registration table.

10:00 AM - 12:00 PM

Registration Open - *Coral Shores High School*

10:00 AM - 4:30 PM

Exhibit Hall Open

Session I

10:10 - 11:00 AM

Ocean Productions - Motivating with Movie Maker - Mrs. Valerie Gaynor, Jensen Beach High School
Room 4-212 • G, N, E, M, H, P

Participants will leave this session with working knowledge of how to use Movie Maker in a marine science classroom. Movie Maker is easy to learn and easy to teach, so your students will be producing their own videos in no time.

pHate of Corals: Ocean Acidification Lessons for the Classroom - Ms. Casey Boleman, Florida Institute of Technology; Mr. Philip Gravinese, Brevard County Public Schools
Room 4-213 • H

What if there were no more coral reefs? Is it possible that the world's

Intended

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coral reefs are in danger of disappearing before our eyes? This presentation will include demonstrations of activities that can be utilized in high school classrooms, including two inquiry-based lessons developed around the issue of ocean acidification. Students learn that increasing amounts of carbon dioxide are being dumped into the atmosphere from burning fossil fuels, causing the ocean to become more acidic.

Marine Science/Aquaculture/Aquaponics Academy (Part 2): Collaboration for Sustainability and Entrepreneurship - Mrs. Katrin Rudge, Mrs. Diane Bassett; Mrs. Jada Thompson; Dr. Norine Eckstrom, Riverview High School

Room 4-214 • H

Riverview's science/CTE team (marine, environmental, aquaculture) is excited to describe its unique personalized, project-based curricula integrating research, science, aquaculture, entrepreneurship, engineering, and communication skills. Current projects involve food fish (tilapia); koi and aquatic plants; different varieties of cichlids, and fish waste is used for aquaponics. Our new school currently has two fully operational 5-crypt RAS aquaculture systems with plans to add an outdoor aquaculture/science center housing a 72X30 greenhouse, 30X60 research facility, and dock.

Plankton Monitoring as a Teaching Tool for All Ages - Miranda Kerr, Florida Oceanographic Society

Room 4-213 • G, N, E, M, H, P

I registered Florida Oceanographic as a sampling site for NOAA's Phytoplankton Monitoring Network. The program's goal is to monitor and promote awareness of harmful algal blooms. In addition to the scientific data collection, I created three education programs: an adult education class on plankton, a volunteer training and monitoring program, and a unit on phytoplankton for summer camp. Other schools and organizations could register as sites and utilize these educational programs to enhance the experience.



Studying the Effects of Ocean Acidification on Three Reef Building Corals of the Caribbean/Western Atlantic: Research and Education Through Public Aquaria - Mr. Butch Ringelspaugh, The Pier Aquarium
Room 2-206 • G, N

A presentation based on studying the effects of ocean acidification on three of the most important and beautiful corals endemic to the Caribbean/Western Atlantic. Two of the corals are listed on the Endangered Species List, Elkhorn Coral and Staghorn Coral, while the third is the hybrid of the two, Fused Staghorn Coral. I will discuss how this project will utilize cutting edge technology for research and education at The Pier Aquarium in St. Petersburg, FL

Session II

11:10 AM - 12:00 PM

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Schoolmasters - Fishing For Standards - Dawn Miller-Walker, Science Eye & ECO; Jay Walker, Science Eye & ECO

Room 4-212 • G, N, E, M, H

The objectives of Schoolmasters is to provide students multiple learning experiences throughout a given time period using the fun, exciting and hands-on sport of fishing while educating them with science, literacy, math, history, social studies and safe ethical angling practices as well as encouraging them to become stewards of the environment.

Don't Hold Your Breath! Diving Into Ocean Education with SeaTrek Distance Learning - Kasey Gaylord-Opalewski, Mote Marine Laboratory & Aquarium

Room 4-213 • G, N, E, M, H, P

Join us as we share our experiences in developing a model for small traveling exhibits about marine life, supplemented with interactive videoconference programs. Our exhibits combine tactile objects and activities with highly interactive, media-rich videoconference programming from Mote Marine Laboratory's SeaTrek programs. SeaTrek is a videoconference-based distance learning program featuring real-world science at Mote. SeaTrek provides high interest experiences that take students beyond textbooks and inspire them to learn more about the ocean.

Serving Deserving Youth! - Tristin Ware, The Florida Aquarium

Room 4-214 • G, N, E, M, H

Sulphur Springs Elementary School in Tampa, FL is working with community partner, The Florida Aquarium, to build an integrated learning community while providing educational opportunities that guarantee achievement for each student. Through a generous grant from JP Morgan Chase, The Florida Aquarium is providing assistance with new equipment, professional development opportunities for staff and field trips for students. At this session you will learn about the process and receive examples of some of the lessons.

Get Your Feet Wet, Explore the St. Johns River - Kelly Savage, St. Johns Riverkeeper

Room 4-213 • G, N, E, M, H, P

Interested in Florida's largest river? Why is it brown? Is it freshwater or saltwater? Learn all about the history and ecology of the St. Johns River while learning activities to apply to your class or group.

Session III

1:40 - 2:30 PM

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Out Of Your Seat, Dirty Your Feet - Mr. Brad Tanner, Mote Marine Laboratory; Miranda Wrobel, Mote Marine Laboratory

Room 4-211 • M

Educators from Mote Marine Laboratory extend new ways to teach science to middle school teachers in Southwest Florida counties. Teachers will learn methods on how to explore outside the traditional classroom.

The Creek, the Kazoo and What You Can Do! - Ms. Susan Sawyer, The Pier Aquairum; Mrs. Stephanie Frump, Campbell Park Elementary

Room 4-212 • E

Join us as we explore the journey of Kasey the red kazoo as he floats down Booker Creek in St. Petersburg, Fl. This elementary level children's book will inspire students grades K-5 to learn more about watersheds and how throwing away trash properly can keep our rivers, streams and ocean clean. Participate in a hands on lesson plan/activity created for the book. Sign up to receive a free copy of the book and lesson plans.

Corals Alive...Spinning Coral Research Into Engaging Public Presentations! - Lauren Tyler, The Florida Aquarium; Debbi Stone, The Florida Aquarium

Room 4-213 • G, N

Through a grant from the Gulf of Mexico Regional Fishery Management Council, The Florida Aquarium developed interpretive materials for guests. Highlighting coral research projects of the Aquarium and its partners, the activities are used on the exhibit pathway and present coral concepts in an engaging manner. Using materials like felt boards and original animation, staff demonstrate activities that show how the Aquarium's ongoing coral research projects are shared with the public. Hands-on activities included!

Marine Studies "Keys Style" - David Makepeace, Kathleen Cottrell, Brad Simonds, Dannon Magrane and William Harrelson, Coral Shores High School

Room 4-105 (First Floor) • G, H, P

Delivered mostly by students, the presentation will provide a unique perspective on the Service Learning-based program where SCUBA diving is often required. Projects to be highlighted include REEF Fish ID, RECON Reef Assessment, Conch Aquaculture, Seagrass Restoration and Monofilament Fishing Line Recycling. The student's coral restoration work in partnership with Coral Restoration Foundation will be a major emphasis. The teacher will explain how he uses E-portfolios, logs and reflections to assess the student's progress.

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Tour de Turtles: An Educational Journey Into Sea Turtle Conservation - Ms. Rocio Johnson, Caribbean Conservation Corporation
Room 4-213 • G, N, M, H

Tour de Turtles is an educational, online program that focuses on the biology and conservation of sea turtles in a fun, interactive platform. Student and teachers will follow the migrations of endangered sea turtle participating in a 3-month-long marathon. The online program is paired with an Educator's Guide that provides information and lesson plans for teachers.



The Comprehensive Florida Hawksbill Research and Conservation Program - Larry Wood, Zoological Society of the Palm Beaches
Room 2-206 • G

The Comprehensive Florida Hawksbill Research and Conservation Program is a unique effort to bring students, scientists, and volunteers together to study and protect Florida's Critically Endangered hawksbill turtles and the coral reefs on which they depend. This unique marine species is an important member of coral reef ecosystems, yet had never been studied in Florida waters. Now 6 years old, this Program has served as a springboard for numerous partnerships in marine research and conservation.

Session IV
2:40 - 3:30 PM

Educators Aquatic Species Collecting Workshop
Room 4-210 • G, N, E, M, H, P

This 2- hour session highlights both the benefits and alternatives to the collection of aquatic species for use in the classroom. Collection methods, minimum impact techniques, and associated conditions and restrictions will be discussed. Learn about available resources and related activities. Participants will be eligible to receive a 3-year collection certification from the Florida Fish and Wildlife Conservation Commission or renew their certificates.

*** This is a 2 hour DOUBLE Session***

Marine Mania - Mrs. Valerie Gaynor, Jensen Beach High School
Room 4-212 • N, M, H

Learn how to use puzzles, game boards, comic strips, and children's books as a unique teaching tool. Rubric will be provided paperless, so bring your flashdrive. The work is done for you. Bring excitement and childhood fun back into your classroom. Lessons plans follow the Sunshine State Standards.

From Planning to Action: Advancing Climate Change Adaptation Plan for Florida's Coral Reefs - Abbie Sloan, UCSD; Alex Score, Eco-Adapt, Scientist/Project Manager
Room 4-213 • G, N, E, M, H, P

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The *Climate Change Action Plan for the Florida Reef Tract – 2010-2015* is an adaption plan designed to maximize the resilience of Florida’s coral reefs to the cumulative threats associated with climate change and other existing natural and anthropogenic challenges. This session will include information about the development process and management strategies of the Plan, as well as opportunities for the audience to provide guidance towards identifying effective outreach strategies for coral reef stakeholder groups.

Volunteer Management Roundtable and Share-A-Thon - Cristin Ryan, Smithsonian Marine Station; Jennifer Gerena Royce, Loggerhead Marinelife Center; Kelly Savage, St. Johns Riverkeeper

Room 4-214 • N

Does your organization rely on the power of volunteers? Would you like to see what other facilities are doing and share your ideas? Come participate in this roundtable discussion on volunteer management to learn about volunteer training, appreciation events, recruiting and more at informal facilities around Florida. Be prepared to share your materials and ideas!

Amazing Oceans - Dawn Miller-Walker, Science Eye & ECO; Jay Walker, Science Eye & ECO

Room 4-213 • G, N, E, M, H

The salty seas come to your classroom! Students become marine biologists in this hands-on, inquiry-based program. They will step into the shoes of Jacques Cousteau or Silvia Earle studying the ocean ecosystem while learning that anyone and everyone can be a conservationist. Marine biologists will: Determine Salinity, Fashion a Fish, Classify Shells & Label Their Structures, Determine “What’s At The Top?”, Ascertain an Unknown Habitat, or Analyze Otoliths.



Dark Reefs and Ancient Gardens: Life on the Floor of the Gulf Stream - Prof. Charles Messing, Nova Southeastern University

Room 2-206 • G

Though only a small arm of the sea, the Strait of Florida represents one of the most biodiverse areas in the Atlantic. Here, where the Gulf Stream acts as both biological conduit and barrier, Prof. Charles Messing takes us on a visit to vast mounds of deep-sea corals, hidden terrace cliffs, meadows of archaic sea lilies, and great ridges topped by golden sea fans over a thousand years old.

Session V
4:10 - 5:00 PM

Key It Out! - Jackie Fletcher, Retired-Hillsborough Cty School District
Room 4-212 • H

Dichotomous keys are an excellent way to reinforce terms describing external anatomy of organisms while giving students examples of individuals within a group. This session provides four student-tested iden-

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tification keys (Marine Algae, Edible Fish of Florida, Sharks and Whales), answer sheets, answer keys and Power Point presentations that can be downloaded to class computers. Bring your laptop and check them out! CDs will be available but bring your flash drive.

Let's "Sea" Some Rehab! Giving Students the Power to Help Marine Mammals and Coral Reefs Recover from Human Impacts - Noelle Belden, Dolphin Research Center

Room 4-213 • G

Okay, so coral reefs are on acid. How can we all help with rehab? Whether you live in Miami or Minneola, there is something everyone can do on a daily basis to help coral reefs and the marine mammals that depend on them. This presentation will give our students ideas and inspiration to help dolphins and the environment thrive for many more generations. Let the healing begin!

Welcome to the Science Cafe: Have a Drink and a Think - Jim Wharton, Mote Marine Laboratory; Howard Rutherford, The Pier Aquarium

Room 4-214 • G, N, H, P

Science Cafes are a (relatively) new science outreach format gaining popularity around the country that takes researchers out from behind the lectern and puts them in the more informal environment of a pub or café. Food and drink are had, presentation is light, and meaningful conversation is the goal. We will present a Science Café 101 in the first half with open discussion after to share experiences and consider the potential of the format.

What Sea Turtles Teach Us - Kristin Child, Gumbo Limbo Nature Ctr

Room 4-215 • G

This presentation will discuss various educational components of Gumbo Limbo Nature Center's Sea Turtle Conservation program, including the satellite tracking of captive raised loggerhead turtles, the annual Sea Turtle Day, and the Sea Turtle Rehabilitation Program. In addition to the talk, there will be the opportunity to participate in a hands-on sea turtle stranding activity.



Sea Perch, an Innovative Program in Ocean Technology, for Middle School and High School Teachers and Students - Dr. Dennis Hani-

sak, HBOI/FAU; Ms. Brandy Nelson, HBOI/FAU

Room 2-206 • M, H

Sea Perch is an innovative underwater robotics program that trains teachers – who then train their students – to build an ROV, or remotely operated vehicle. The program, started by MIT Sea Grant, is aimed at igniting children's enthusiasm for science, technology, and engineering. This session will introduce Sea Perch to workshop participants and will provide information on a training workshop for Florida science teachers to be held at Harbor Branch in June 2010.

Saturday Evening Schedule

- 5:00 PM** **Deadline to turn in Election Ballots**
- 5:30 - 7:30 PM** Busses will shuttle conference participants to Sundowners Restaurant.
- 6:00 - 7:00 PM** **Silent Auction and Social** at *Sundowners Restaurant* - All proceeds raised by the silent auction are used to provide needs-based scholarships for educators to attend future conferences.
- 7:30 - 10:00 PM** **Banquet, Annual Meeting & Evening Keynote** - After dinner, the fun continues as **Jim Toomey**, creator of the widely-syndicated and wildly popular comic strip, *Sherman's Lagoon*, shares the insights he's gained on the world's ocean from his animated friends during his presentation, *Drawing Inspiration from the Sea*.
- 9:00 - 11:00 PM** Busses will return participants to the Hampton Inn.

Sunday Morning Schedule

- 8:30 - 9:30 AM** **FMSEA/FWC Collecting Certification Facilitators Training/Meeting**
- *Dolphin's Cove*
- 9:45 - 11:00 AM** **FMSEA Board Meeting** - *Florida Keys Electrical Cooperative* - Board meetings are open to all members. If you have ever thought about getting more involved in FMSEA but were uncertain how to do so then JOIN US!

Invited Speaker Bios



Alex Brylske, Ph.D., has had a long and varied career as a marine educator. For more than half his life he has taught marine science and underwater technology to both formal and non-formal audiences. His career has taken him to destinations all over the world including the Caribbean, Hawaii, Red Sea, Southeast Asia, Fiji, Papua New Guinea and Micronesia, where he has worked for companies in the private sector, governmental agencies and non-governmental organizations.

Currently, Dr. Brylske is a Professor of Marine Science and Technology at Florida Keys Community College in Key West, and directs the College's scientific diving research program. Alex is also an adjunct professor at Edison State College, where he teaches online courses in oceanography; and he holds an appointment at Florida Gulf Coast University as a member of their External Associate Graduate Faculty.

In addition to coral reef issues, Dr. Brylske's interests include environmental education, recreation ecology and marine ecotourism. For his contribution to the field of sustainable marine tourism, Alex was a 2001 recipient of NOAA's prestigious Walter B. Jones Memorial Excellence Award for Ocean and Coastal Resource Management. He has published several papers and has made numerous presentations on sustainable marine tourism at conferences around the world.



Billy Causey, Ph.D., is the Southeast Regional Director for the Office of National Marine Sanctuaries of the National Oceanic and Atmospheric Administration. Previously, he had managed National Marine Sanctuaries in the Florida Keys since 1983, when he became the Manager of the Looe Key National Marine Sanctuary. As the manager of this marine protected area he developed the education, science and enforcement

programs and sustained an interagency partnership between the state and federal governments. He served as the Superintendent of the 2900 square nautical mile Florida Keys National Marine Sanctuary from August 1991 to September 2, 2006, when he assumed his current position. Dr. Causey has been the lead NOAA official in the development of the management plan for the Keys Sanctuary, which is the third largest marine protected area in the United States. He serves as the liaison with local, state and other federal agencies responsible for management of natural resources in the Southeast Region. Dr. Causey has received numerous awards for his work in coral reef conservation, but is probably most highly recognized for his experience in marine protected area management and policy development. He was responsible for establishing the first comprehensive marine zoning plan for the United States. He is a charter member of the Working Group for the South Florida Ecosystem Restoration Task Force.



Julie Lambert, Ph.D., is Associate Professor of Science Education at Florida Atlantic University (FAU), Boca Raton. She has a Ph.D. in science education and a M.S. degree in biological oceanography. She has experience teaching Earth science and oceanography, preparing teachers, and developing curriculum materials. Her research has focused on the teaching and learning of marine, Earth, and climate science at various levels throughout K-16 education. As a co-PI on the NSF-funded Florida Center for Ocean Science Education Excellence, she advised, wrote chapters, and assisted with the development of the *Life on an Ocean Planet* textbook and teachers' guide.

She currently teaches in FAU's environmental education master's program and recently taught a graduate level global climate change education course (See Course Website Information: <http://www.coe.fau.edu/faculty/lambert/>). As part of the course, she pilot-tested the NASA-funded American Meteorological Society (AMS) program, *Climate Studies: Introduction to Climate Science* (<http://www.ametsoc.org/amsedu/online/climateinfo/textbook.html>). She is co-PI on the US Department of Energy's National Open-Ocean Energy Laboratory project awarded to FAU. She oversees curriculum development on renewable energy and the oceans.



Ken Nedimyer is president of the Coral Restoration Foundation, Inc (CRF), a 501 c (3) non profit based in Tavernier, Florida. Ken, a graduate of Florida Atlantic University, is a 32 year resident of the Florida Keys and has logged over 20,000 hours of diving there. Since 1985 he has owned and operated a successful small business called Sea Life Inc, which supplies marine specimens and aquacultured live rock to aquarists and pet stores throughout the United States. Ken's life long diving experiences have given him a unique insight into the marine environment of the Florida Keys and a passion to try to restore some of the degraded reefs that he's seen die over the last 30 years. Ken has worked with a variety of different coral reef scientists and aquaculturists on projects ranging from aqua culturing marine tropicals, to transplanting sea urchins, and more

recently to growing threatened corals and replanting them on degraded reefs in the Florida Keys. Ken owns and operates the first offshore live rock aquaculture farm in the Florida Keys, the first offshore staghorn coral nursery in the U.S, and the first and only offshore elkhorn coral nursery in the U.S..

Ken is also active in fishery management issues at the local, state, and national levels. He is president of the Florida Marine Life Association, spokesman for the Florida Fish and Wildlife's Marine Life Work Group, Vice Chair of the Florida Keys National Marine Sanctuary Advisory Council, and a member of the Coral Advisory Panel for the South Atlantic Council. Ken has been working with The Nature Conservancy for the last five years trying to understand what makes some reefs (and corals) more resilient than others, and is now partnering with them and NOAA on an American Recovery and Reinvestment Act (ARRA) grant to try to implement restoration strategies for threatened staghorn and elkhorn corals. Ken now spends most of his time maintaining and expanding several offshore coral nurseries, developing coral restoration techniques and programs, and teaching others how to do the same.



For the past 17 years, cartoonist **Jim Toomey** has been writing and drawing the daily comic *Sherman's Lagoon*, which is syndicated to more than 250 newspapers in North America, including the *Washington Post*, the *Chicago Tribune*, the *San Francisco Chronicle* and the *Toronto Star*.

Presenter Bios

Diane Bassett - Room 4-214 - Session 1 - LadyDi_1959@msn.com

Katrin Rudge (SLC Leader), Diane Bassett, Jada Thompson, and Norine Eckstrom are part of Riverview's unique Aquaculture 'Team'. They have been working collaboratively to develop and implement a unique program and are excited to be here today to share their progress and successes with you.

Noelle Belden - Room 4-213 - Session 5 - Noelle@dolphins.org

I have been a marine wildlife educator for almost 5 years. About two years ago, I became a staff member at Dolphin Research Center in Grassy Key, Florida, (I was an educator at Sea World of Orlando prior to employment with DRC). I am responsible for presenting information on marine mammals/conservation to our visitors.

Casey Boleman - Room 4-213 - Session 1 - cboleman1998@my.fit.edu

InSTEP (Integrated Science Teaching Enhancement Partnership) is a collaboration between Florida Tech and Brevard County Schools, which pairs graduate students with Brevard County teachers. Lesson plans are based on state and national curriculum standards and include demonstrations and inquiry-based activities that rely heavily on experimentation and problem solving.

Kristin Child - Room 4-215 - Session 5 - kchild@byboca.us

Kristin Child is an Environmental Program Coordinator, and former Marine Turtle Specialist, at the Gumbo Limbo Nature Center in Boca Raton, Florida. Previously, she worked for the Florida Fish and Wildlife Conservation Commission in the Sea Turtle, Manatee, and Nongame Wildlife sections.

Kathleen Cottrell - Room 4-105 - Session 3

Norine Eckstrom, Ph.D. - Room 4-214 - Session 1 - norine_eckstrom@sarasota.k12.fl.us

Katrin Rudge (SLC Leader), Diane Bassett, Jada Thompson, and Norine Eckstrom are part of Riverview's unique Aquaculture 'Team'. They have been working collaboratively to develop and implement a unique program and are excited to be here today to share their progress and successes with you.

Jackie Fletcher - Room 4-212 - Session 5 - jackieflet@aol.com

Jackie Fletcher taught science in the Hillsborough County School District for 35 years and retired in June, 2009. She taught Marine Science the last 22 years and AP Environmental Science the last 5 years. She has been a member of FMSEA since 1988 and a member of NMEA since 1989. She is currently mentoring science teachers, including APES and Marine Science teachers.

Stephanie Frump - Room 4-212 - Session 3 - frumps@pcsb.org

Stefanie graduated from Eckerd College in 2001 with a Bachelors degree in Marine Science. She worked as an Instructor at the Florida Aquarium teaching education programs before moving on to Campbell Park Elementary Marine Science Center, where she has been the Marine Science Coordinator for the last 7 years.

Kasey Gaylord-Opalewski - Room 4-213 - Session 2

Kasey is the SeaTrek Program Coordinator & Educator at Mote Marine Laboratory. Kasey has developed curriculum, activities, and has been a co-creator of the videoconference programs. Kasey has a B.A. in Biology from Minnesota State University - Moorhead (2001), a Graduate Certificate in Coastal Studies (2004) and a M.S in Environmental Education (2005) from Nova Southeastern University.

Valerie Gaynor - Room 4-212/Room 4-212 - Session 1/Session4 - gaynorv@martin.k12.fl.us

Valerie is a National Board Certified Marine Science and Biology teacher at Jensen Beach High School. She has been teaching for 10 years in public high schools in 3 different states. She has also worked with NOAA (Shark Cruise and Marine Mammal Observation), Environmental Studies Center-Jensen Beach, and Marine Education Center and Marine Life-Gulfport, Mississippi. Now she brings the ocean into the classroom with her underwater videos and photography.

Phillip Gravinese - Room 4-213 - Session 1 - gravinese.philip@brevardschools.org

William Harrelson - Room 4-105 - Session 3

Dennis Hanisak, Ph.D. - Room 2-206 - Session 5 - dhanisak@hboi.fau.edu

Dr. M. Dennis Hanisak is Research Professor at HBOI/FAU, Director of its Center for Marine Ecosystem Health, and Director of Education.

Rocio Johnson - Room 4-215 - Session 3 - Rocio@cccturtle.org

Rocio Johnson is the Marketing and Communications Coordinator for Caribbean Conservation Corporation (CCC). She worked with CCC researchers and education staff to develop Tour de Turtles, which has been recognized by the Florida's Sea Turtle Grants Program as a leading educational program to further sea turtle conservation. She is a graduate of the University of Florida with a B.S. in Public Relations and has worked at CCC for 3 years.

Miranda Kerr - Room 4-215 - Session 1

Miranda Hoover Kerr: Bachelors of Science in Biology, Wittenberg University; Masters of Science in Biology, Florida Atlantic University -Thesis: "Monitoring seasonal and yearly changes in the mesozooplankton community in the Indian River Lagoon, FL." Currently, Education Specialist at Florida Oceanographic Coastal Center, Stuart, FL

Dannon Magrane - Room 4-105 - Session 3

David Makepeace - Room 4-105 - Session 3 - bean@terranova.net

David Makepeace is a 37 year educator born in the Keys. Recognized by Florida Learn and Serve in 2008, he is considered an authority in environmental project based service learning. His students have been active in habitat assessment and restoration since 1992. His co-presenting students are all seniors at CSHS.

Prof. Charles Messing - Room 2-206 - Session 4 - messing@nova.edu

Prof. Charles Messing is a scientist, writer, illustrator, educator and actor whose research on marine life has taken him from Malaysian coral reefs to the Puerto Rico Trench. He has led 12 deep-sea submersible expeditions, wrote or co-authored 47 scientific journal articles, and is a member of the Explorers Club.

Dawn Miller-Walker - Room 4-212/Room 4-215 - Session 2/Session 4 - dwalker@scienceeye.com

Over 10 years of environmental education experience teaching principals of ecosystems, conservation, ethical angling, and other aspects of plant, animal and aquatic biology. Dawn is the owner/program director of the Science Eye, the Co-Founder/program director of the Environmental Conservation Organization (ECO), and on numerous environmental educational Boards.

Brandy Nelson - Room 2-206 - Session 5

Ms. Brandy Nelson is Coordinator, Academic Services, for HBOI's Marine Education programs and will be the lead instructor for the upcoming Sea Perch workshop.

Butch Ringelspaugh - Room 2-206 - Session 1 - bringelspaugh@pieraquarium.org

Butch Ringelspaugh is the Curator of Exhibits at The Pier Aquarium in St. Petersburg, FL. He received a B.S at USF St. Petersburg in Environmental Science and Policy and is currently a graduate student at USF's College of Marine Science studying biological and chemical oceanography.

Jennifer Gerena Royce - Room 4-214 - Session 4 - Jennifer@marinelife.org

Jennifer Royce is a volunteer as well as employed with organizations that utilize volunteers for over 10 years.

Katrin Rudge - Room 4-214 - Session 1 - katrin_rudge@sarasota.k12.fl.us

Katrin Rudge (SLC Leader), Diane Bassett, Jada Thompson, and Norine Eckstrom are part of Riverview's unique Aquaculture 'Team'. They have been working collaboratively to develop and implement a unique program and are excited to be here today to share their progress and successes with you.

Howard Rutherford - Room 4-214 - Session 5 - hrutherford@pieraquarium.org

Howard Rutherford is the Executive Director of The Pier Aquarium in St. Petersburg. He is a former President of FMSEA and an NMEA Board Member.

Cristin Ryan - Room 4-214 - Session 4 - ryan@si.edu

Cristin Ryan has worked as a marine biology educator and volunteer coordinator with the Smithsonian for nearly four years.

Kelly Savage - Room 4-215/Room 4-214 - Session 2/Session 4 - kellydsavage@gmail.com
Kelly loves all things water, hence her move from Kansas City Missouri to Rhode Island, where she earned her Bachelors degree in Marine Biology at Roger Williams University. She is currently the Outreach Coordinator at St. Johns Riverkeeper where she leads boat trips, coordinates events, and manages volunteers.

Susan Sawyer - Room 4-212 - Session 3 - ssawyer@pieraquarium.org
Susan graduated from the University of Florida with a Bachelors' in History and Education. She worked at the Florida Museum of Natural History from 2006-2008 developing a children's exhibit and public programs. She began working at the Pier Aquarium as an educator in 2008 and is now the Education Coordinator.

Alex Score - Room 4-213 - Session 4
Alex Score has more than 20 years of experience as a marine biologist and has worked to preserve and protect coral reefs, fisheries, and sensitive coastal habitats. In 2009 she joined EcoAdapt to focus her work on climate change adaptation in coastal and marine systems.

Brad Simonds - Room 4-105 - Session 3

Abbie Sloan - Room 4-213 - Session 4 - abbielmoyer@yahoo.com
Abbie is a graduate student in the Marine Biodiversity and Conservation program at Scripps Institution of Oceanography in San Diego, California and has assisted EcoAdapt with the development of the Action Plan. She is working to develop effective outreach strategies for a variety of stakeholder groups in Florida.

Debbi Stone - Room 4-213 - Session 3 - dstone@flaquarium.org

Brad Tanner - Room 4-211 - Session 3 - bradtanner@mote.org
Brad Tanner graduated from the University of North Carolina at Wilmington with a BA in Environmental Science. While attending school, he worked in education at the North Carolina Aquarium at Fort Fisher. Before taking a job with Mote Marine Laboratory, he was the Education Director for Carolina Coastal Adventures. This enabled him to design, teach, and evaluate many field programs.

Jada Thompson - Room 4-214 - Session 1 - jada_thompson@exmail.sarasota.k12.fl.us
Katrin Rudge (SLC Leader), Diane Bassett, Jada Thompson, and Norine Eckstrom are part of Riverview's unique Aquaculture 'Team'. They have been working collaboratively to develop and implement a unique program and are excited to be here today to share their progress and successes with you.

Lauren Tyler - Room 4-213 - Session 3 - Ltyler@flaquarium.org
In the conservation education field for 16 years, Lauren holds a dual degree in Elementary Education and Marine Science and an MBA. She currently works at The Florida Aquarium as the Director of Youth Education and loves spend time outdoors both above and below the water!

Jay Walker - Room 4-212/Room 4-215 - Session 2/Session 4 - jwalker@ECO-TAN.org
Jay Walker has a BS in Information Systems Management and was a Programmer/Database Administrator for over 12 years. He became involved in environmental education after meeting his wife, Dawn Miller-Walker, 5 years ago. He is the Co-Founder/President of the Environmental Conservation Organization (ECO) and works along side his wife at the Science Eye as an education consultant.

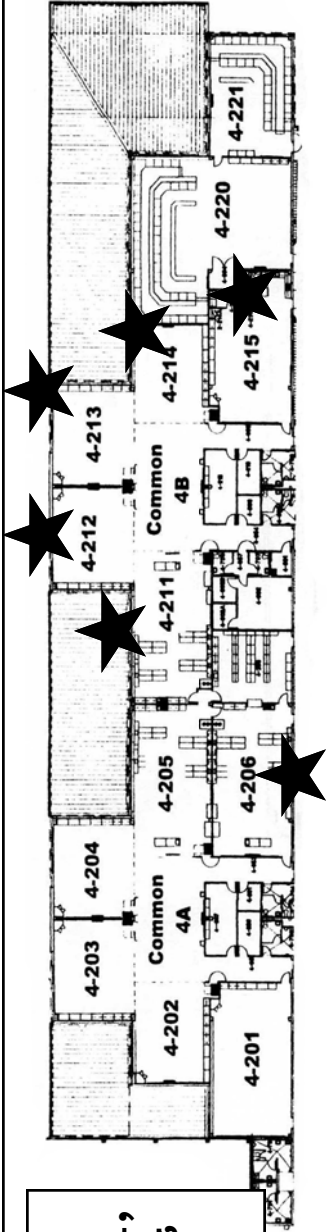
Tristin Ware - Room 4-214 - Session 2 - tware@flaquarium.org

Jim Wharton - Room 4-214 - Session 5 - jimwharton@mote.org
Jim Wharton is the Vice President for Education at Mote Marine Laboratory in Sarasota. He is a former President of FMSEA and an NMEA Board Member.

Larry Wood - Room 2-206 - Session 3 - wood9794@bellsouth.net
Mr. Larry Wood, MS, has been actively involved in marine turtle conservation for 22 years. He has developed numerous programs related to sea turtle nest monitoring, stranding/rehabilitation, and public awareness. He is currently a Conservation Biologist at the Palm Beach Zoo and a Doctoral student at Florida Atlantic University.

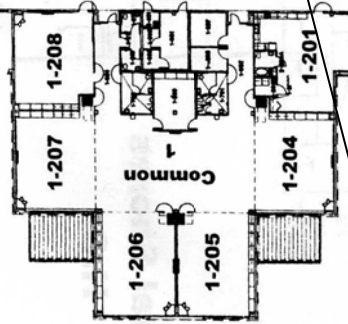
Miranda Wrobel - Room 4-211 - Session 3

**Second Floor -
Rooms 4-206, -211,
-212, -213, -214, &
-215**

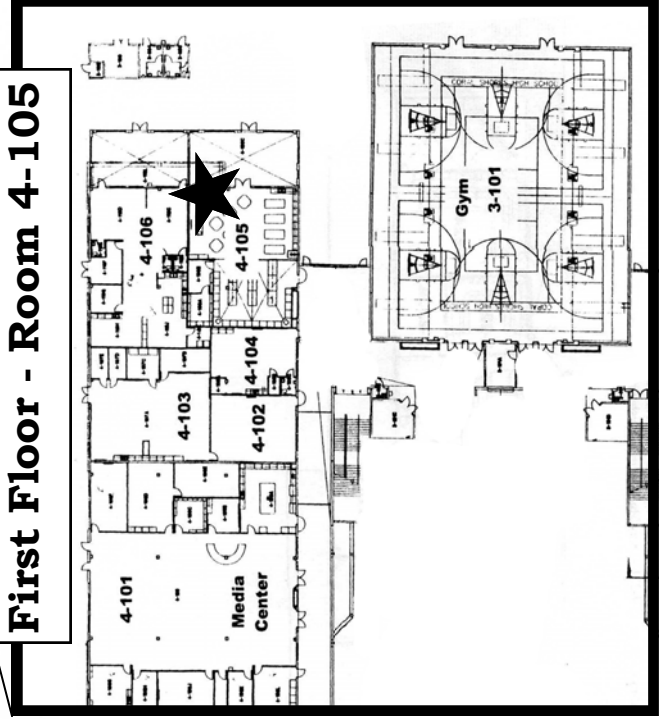
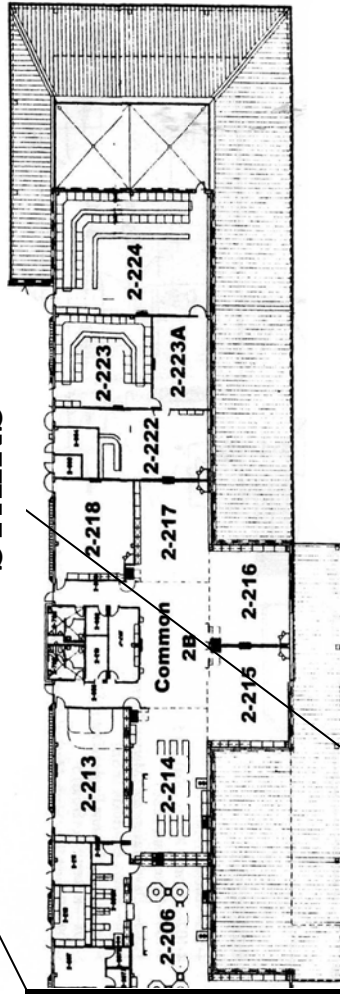


STAIRS

First Floor - Room 4-105



STAIRS



**Coral Shores
High School**

FMSEA Committee Descriptions

Conference Committee

Committee Chair – Past-President

The Conference Committee is responsible for the planning and implementation of FMSEA’s annual statewide conference.

Development Committee

Committee Chair- TBD

The Development Committee is primarily responsible for the development of a long-range fundraising plan to include corporate/foundation/individual donations. The Development Committee informs the Board of existing grant funding for FMSEA activities. The Development Committee also encourages Regional Directors and members to make known regional and statewide funding opportunities for aquatic education programs known to FMSEA and its members.

Responsibilities of the Development Committee include:

- Develop long-range fundraising plan
- Identify target fundraising goal
- Develop and maintain prospective list of corporate/foundation/individual donors
- Develop and maintain recognition of corporate/foundation/individual donors
- Provide list of proposals/collaborative projects in which FMSEA has a presence
- Communicate “Funds/In-kind Contributions” leveraged by Regional Directors and members to the Board
- Encourage members to make regional and state funding opportunities for aquatic education programs known to FMSEA and its Regional Directors

Marketing Committee

Committee Chair- Lauren Tyler, Ltyler@flaquarium.org

The Marketing Committee is primarily responsible for developing a marketing plan for FMSEA to promote ocean literacy. Consideration should be given to the ocean literacy messages developed by the National Marine Educators Association (NMEA).

Responsibilities of the Marketing Committee include:

- Development of FMSEA marketing plan
- Development of unified ocean messages to be used when there are “events” i.e. injured animals, strandings or harmful algal blooms
- Develop a model news release about FMSEA for use locally by regions
- Development of FMSEA collateral material to distribute at regional meetings and special events i.e. Oceans Day, FAST, NMEA

Membership Committee

Committee Chair- Membership Secretary

The Membership Committee strives to recruit and involve new and existing members and maintain an accurate and clean FMSEA membership database. The Membership Committee works closely with the Marketing Committee to develop collateral material to use a recruitment tool. The Membership Committee works closely with the Development Committee to review and assess membership benefits.

Responsibilities of the Membership Committee include:

- Maintain an accurate and clean database
- Provide Regional Directors with updates at each board meeting
- Review and propose enhancements to membership process i.e. timing, benefits, etc..
- Recommend enhanced membership benefits to the Board.
- Create ways to involve members in FMSEA committees and activities.

Outreach and Awareness Committee

Committee Chair – Laura Diederick, diederick@si.edu

The Outreach and Awareness Committee strives to increase awareness and appreciation of marine and aquatic education in formal and non-formal educational settings at all levels, and the role of FMSEA in facilitating that process. Efforts generally include developing processes and materials for various publics, especially the education community.

The Outreach Committee’s responsibilities include:

- Compile materials developed by FMSEA members related to marine and aquatic education and align with the ocean literacy principles, Sunshine State Standards and National Science Education Standards
- Prepare for the next round of science curriculum review in 2012-2013 to ensure ocean literacy principles are a strong component of the curriculum
- Modify the NMEA ocean literacy presentation for a Florida audience and offer as a workshop (using the collection workshop as a model)
- Oversee the “Enhancing Public Engagement” focus area in the NMEA Strategic Plan 2008-2013
- Look for opportunities for collaboration with other organizations and report out to the Board on these efforts
- Encourage Board members to participate in regional meetings by reporting on dates during Board meetings

Website Committee

Committee Chair – Jim Wharton, jimwharton@mote.org

The website committee works closely with the webmaster and is primarily responsible for developing a website plan for Board review and approval.

Responsibilities of the Website Committee include

- Develop website goals
- Identify type and depth of website
- Develop a website plan for development, implementation and maintenance
- Develop website budget for Board review and approval
- Develop and issue RFP for website development

Notes

Notes

Exhibitors

Please visit the Exhibitors below in our Exhibit Hall, located in the breezeway at Coral Shores High School. Exhibit Hall hours are on Saturday from 10:00 AM to 4:30 PM.

Dolphin Research Center

Current Publishing Corporation

SeaCamp Association, Inc

Florida Keys National Marine
Sanctuary

Schoolyard Films, Inc

Caribbean Conservation Corporation

SCUBAnauts International

Florida International University

2009-2010 FMSEA Board

President - 2009-10

Jeremy Lake
Suncoast Earth Force
9214 Knights Branch Street
Temple Terrace, FL 33637
(813) 494-7619 Cell
JLake@Earthforce.org

President Elect - 2009-10

Jeremy Lake
Suncoast Earth Force
9214 Knights Branch Street
Temple Terrace, FL 33637
(813) 494-7619 Cell
JLake@Earthforce.org

Secretary - 2009-10

Sara Hamilton
FL Keys Electric Coopera-
tive
PO Box 1211
Islamorada, FL 33036
(305) 360-7727 Cell
Srhamilton24@yahoo.com

Treasurer - 2007-10

Kathy Russell
85121 Tinya Road
Yulee, FL 32097
(904)277-7350 W
(904)225-9280 H/Fax
krussty1@aol.com

Membership Secretary - 2009-12

BJ Viers
1042 Big Pine Key
Atlantic Beach, FL 32233
(904)247-5973 W
(904)247-5976 Fax
bchguyinfla@aol.com

Past President - 2009-10

E. Howard Rutherford
The Pier Aquarium
800 2nd Ave, NE Ste. 2001
St. Petersburg, FL 33701
(727) 803-9799 X202 W
(727)894-1212 Fax
hrutherford@pieraquarium.org

Newsletter Editor

Laura Diederick
Smithsonian Marine Station
701 Seaway Drive
Fort Pierce, FL 34949
(772)462-6216 W
diederick@si.edu

NMEA Representative

Jim Wharton
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, FL 34236
(941)388-4441x474 W
(941)374-0085 Cell
jimwharton@mote.org

Panhandle - 2008-10

Rich Abrams
FWC - Marine Fisheries
2590 Executive Center Cr.
Berkley Bldg, Ste. 204
Tallahassee, FL 32301
(850)488-6058 x 228 W
(850)528-5487 Cell
rich.abrams@myfwc.com

North - 2008-10

Hugh Adkins
Crystal River Marine Station
12646 W Fort Island Trail
Crystal River, FL 34428
(352)795-4393 W
adkinsh@citrus.k12.fl.us

Northeast - 2009-11

Terran Rosenberg
Marineland's Dolphin
Conservation Center
9610 Ocean Shore Blvd
St. Augustine, FL 32080
(904) 471-1111 x 112 W
trosenberg@marineland.net

West Central - 2008-10

Lauren Tyler
The Florida Aquarium
701 Channelside Drive
Tampa, FL 33602
(813)367-4017 W
Ltyler@flaquarium.org

East Central - 2009-11

Brandon Smith
Riverwalk Nature Center
840 Forrest Ave
Cocoa, FL 32922
(321)433-4490 W
brandon.smith@brevardparks.com

Southeast - 2009-11

Dawn Miller-Walker
Science Eye/ECO
18241 SW 52nd Ct
Southwest Ranches, FL 33331
(954)680-7977 W
dwalker@scienceeye.com

Southwest - 2009-11

Tim Oldread
1600 Ken Thompson Pkwy
Sarasota, FL 34236
(941)388-4441 x 369 W
Tim.oldread@mote.org

Historian

Carol Leonard
7228 Sunnybrook Blvd.
Englewood, FL 34224
(941)473-3292 H
Carol_Leonard@verizon.net

Webmaster

Jason Robertshaw
Mote Marine Laboratory
Sarasota, FL 34236
(941)388-4441x250 W
jrshaw@mote.org



FMSEA thanks its generous supporters:



Coral Shores High School • Monroe County

Conference Committee

Chair:	E. Howard Rutherford
Co-Chairs:	Sara Hamilton, Mellie Lewis & Dawn Miller-Walker
Concurrent Sessions:	Tim Oldread & Dawn Miller-Walker
Registration:	Mellie Lewis
Hospitality:	Lauren Tyler
Food, Lodging & Transportation:	Sara Hamilton
Field Trips:	Sara Hamilton Mellie Lewis
Speakers:	E. Howard Rutherford Tim Oldread
Entertainment/Events:	Dawn Miller-Walker
Silent Auction:	Brandon Smith
Exhibits:	Rich Abrams
Publications & Signage:	Laura Diederick
Technology:	Jason Robertshaw Jay Walker
Volunteers:	Megan Merstock