

Currents



Quarterly Journal: July 2013, Vol. 7, No. 3

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Staying Fresh and Current

A little knowledge can go a long way. We applaud the efforts of our leadership team. Many go above and beyond to teach and guide students both in diving and in life and are a great benefit to the communities in which they live. In this issue, we highlight little ways to make a difference. Teaching students and divers what an actively drowning victim looks like, may prove to one day save a life. Encouraging divers to remain current in their diving skills and offering refresher courses for divers that have not been in the water in a given period of time helps them become prepared and more comfortable with the skills they need so they are better able to enjoy the diving experience.

Advanced divers and even leadership could take a refresher for any specialty they may not have practiced in a while as discussed in the article on the benefits of a DRAM rescue refresher course. Educating and exciting students and even other instructors to the beauty found in your local diving haunts, wets the appetite for lifelong diving adventures. Creating proactive divers can impact the environment for the better as they help to remove trash or eliminate invasive predators harming the natural eco-structure balance.



Every little bit helps so keep up the good work!

Left: Gabrielle Gabrielli with students and friends at a recent dive in Florida; see related article that starts on page 7.

Recognitions

SEI Instructor Robert Ogoreuc Awarded



Outgoing National Drowning Prevention Alliance (NDPA) President Robert (Bob) Ogoreuc received the distinguished Higgins and Langley Memorial Award for the New Jersey State Police Open Water Rescue Program.

"Unique to the rescue program is storm surge flood training, which requires specific planning, skill, and capability beyond inland flood and swiftwater rescue training. Since 2006, the Open Water Rescue Program has provided training to more than 1,800 police, fire, EMS, and lifeguard first-responders from over 100 agencies, preparing them for lifesaving missions during the many hurricanes, storms and floods which routinely strike the region." (NDPA Digest Issue 3, 2013)

Ogoreuc was also awarded the Physical Education Teacher of the Year by the Pennsylvania State Association for Health, Physical Education, Recreation and Dance. in Feb 2013

<http://ndpa.org/home/category/news/news-releases/>
or

<http://ndpa.org/home/news/ndpa-in-the-news/2013/02/ndpa-president-sru-professor-robert-ogoreuc-earns-psahperd-teacher-of-the-year-honor/>

SEI Instructor Trainer Phil Graf Spotlighted

Phil Graf was chosen as for the Industry Partner spotlight in the recent DAN HighViz Newsletter. Phil is owner of Omni Divers Underwater Services and works with and trains public safety dive teams in his local area of the upper North West to the Atlantic shores. Phil has been an SEI Instructor Trainer almost 8 years and a Regional Representative for SEI as well as for other dive agencies and groups.



Dear Bob Ogoreuc,

It is my great honor to congratulate and notify you that you have been chosen to receive the 2013 Higgins and Langley Memorial and Education Award in Swiftwater Rescue. This award is given in recognition of the excellence in the dangerous technical rescue discipline of swiftwater and flood rescue.

The Higgins and Langley Board of Directors has chosen to recognize the program development of the New Jersey State Police Open Water Rescue Course.

The awards will be presented on Friday, May 31, 2013, at 7:00 p.m., at the annual National Association for Search and Rescue (NASAR) conference at the Sheraton Myrtle Beach Hotel in Myrtle Beach, South Carolina.

Once again, congratulations and we hope to see you at the awards ceremony.

Sincerely,

A handwritten signature in black ink.

Cody Harris
Secretary
Higgins And Langley Memorial and Education Fund



Above: letter from Higgins and Langley Memorial and Education Fund and photo of Ogoreuc accepting award.

Always Ready

Submitted by Tony Frazer, SEI Instructor, Ohio

As a veteran of the US Coast Guard, I fully subscribe to the motto "Semper Paratus" or "always ready". We keep our O₂ provider, First aid and CPR renewed every other year to keep those skills up to date. In the DRAM course, we learn the proper procedures and skills needed to manage dive emergencies. These skills, just like our O₂, First Aid and CPR, are refreshed...lets see...um...well...never! Really? Is that being ready? Not so much.

I belong to a dive club, and every year we provide Dive Safety for a couple of different events. It dawned on me one day, 'we have the people, but did we have the skills?' Our members have the cert cards, but some of them took their DRAM course more than 10 years ago. I'm not knocking them; there just isn't any continuing education for rescue. A skill not used is no longer a skill. This put me on a mission. I needed to have everyone up to spec and ready, so I made up my own refresher.

I put together a DRAM refresher program designed to revisit and practice vital skills. Including:

- Self rescue (*handling personal stress*).
- Defense skills and handling (*recovering*) a victim.
- Rescue, recovery and egress.

I conducted this "DRAM refresher" in a 2 hr pool session over the winter. We started with personal water skills; a swim, a tread, a lap around the pool on Scuba with no mask and a full gear doff and don at the bottom of the pool. This portion physically and mentally stressed students, made them uncomfortable and forced them to deal with stressors, all in a controlled environment, which prepared them for the next evolution.

We moved on to rescue techniques and handling emergencies. We handled

struggling victims on the surface and we recovered submerged unresponsive divers. We practiced defense and control techniques for panicked divers and swimmers (we do safety for Triathlons every year). We also went over egress techniques and rescue gear. Each participant found personal weak areas along the way. We repeated those skills to build up proficiency and refine technique.

Then it was time to put it all into practice. The final scenario included a roped off section on the pool deck. This 8x5 area simulated the limited deck space of a private boat, where they attended to two injured divers, one with DCS symptoms and another that suffered convulsions and cardiac arrest. They did this in the confines of "the boat deck" amongst their gear bags and dive rigs. Then they actually had to talk to someone when they "made the call". I played the Coast Guard and followed a script. Students communicated position, persons on board, description of vessel and nature of distress in detail. The stress peaked and the scenario closed out as they made preparations for the

rescue helicopter by securing the deck and pulling anchor.

I wrapped everything up with a discussion of the after effects of a traumatic situation and the need to seek out counseling for stress and grief. This is something I personally find very necessary but often briefly mentioned or not discussed at all.

The lessons learned and skills refreshed were priceless. It was a real eye opener for all who attended. They were amazed at how much they forgot and how quickly it came back. They can't wait to do the DRAM refresher again next year. So:

- Stress the value of refreshing skills to those who regularly dive.
- Stress the need to refresh skills to those who regularly serve in a leadership role.
- Stress the importance to refresh skills to those who regularly participate as a safety Diver.
- Hold a refresher session and maintain your readiness.

Semper Paratus.



Performing CPR



Two person diver egress



Administering Oxygen



One person diver egress

Photos by: Derek Borrero, PDIC IT, Florida

Emergency Responders

Public Safety Training

By Derek Borrero, PDIC Instructor Trainer, Florida

We have conducted several classes in search and recovery, underwater crime scene and maritime tactical operations conducted at the school of Justice at Miami Dade County in Florida, with great success. A few of our clients that have gone through our program include:

- Homeland Security (ice)
- City of Miami PD
- Metro-Dade PD
- Miramar PD
- Pembroke Pines PD
- Sweetwater PD
- Monroe Sheriff's Office and
- Hollywood PD.

If anyone, individual or department, in the public safety community is interested, our courses include classroom lectures, pool training and open environment training. We understand the demands of emergency response and the issues we encounter routinely. Be safe and stay wet.

derekborrero@aol.com

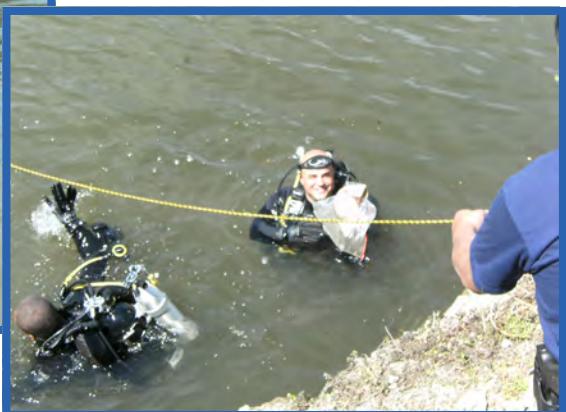


Above: Trainees practicing maneuvers in sand.



Left: Underwater line search.

Below: Line search.



Above: Boat search.

Left: Taking a break from training.

DRAM Reminder

What a drowning really looks like

The National Drowning Prevention Alliance (NDPA) Digest 3rd Issue 2013 linked to a story on signs to watch for to identify and rescue an actively drowning individual.

Characteristics of Instinctive Drowning Response
by Dr Francisco Kia

- Drowning people are physiologically unable to call out for help
- Their mouths will sink below and reappear above water – but not long enough to get to sufficient oxygen
- They will not be able to wave for help. The body's instinct is to push down on the surface of the water
- Drowning patients are vertical in the water with little or no leg movement. And they will remain in the same location, no progressive movement in any direction
- Once drowning begins, the patient will submerge in 20-60 seconds

http://www.kvoa.com/news/what-a-drowning-really-looks-like/?goback=%2Egde_4217090_member_250216172#!prettyPhoto/0/&utm_source=NDPA+Digest+Third+Issue+2013&utm_campaign=NL+send&utm_medium=email



Rescuing a Distressed Diver

Triggers and signs of a distressed diver can begin to be observed even before a dive begins. A diver may be experiencing a headache or feel seasick, equipment may not be properly prepared and anxiety or nervousness may cause a diver to make subtle basic skills errors. Divers may vocalize their anxiety or display hesitation in delaying entry - both of which can lead to perceptual narrowing. (SEI DRAM Manual, pg 9-19)

Once in the water a distressed diver may exhibit high treading, mask or regulator removal or may be clinging or clambering to reach an anchor line or float. Divers can experience stress at any point during the dive as well. Equipment issues, buoyancy problems, difficulty clearing, irregular breathing and even swim

speed and direction can indicate anxiety and can lead to diver errors such as ascent at the wrong time or place or breath holding during ascent. (SEI DRAM Manual, pg 9-19)

A distressed diver may progress towards active drowning. If whatever is causing the anxiety or nervousness cannot be identified and corrected, the situation could go downhill fast.

"A diver that progresses from distressed to actively drowning will show signs that can be recognized by the rescuer. Among these, as the diver's energy level depletes and stress level increases, the diver's position in the water becomes lower and arm movements that have been 'dog paddle' style become thrashing to the side. These movements and

changes are instinctual and indicate to the rescuer the need to act rapidly. As this diver progresses into actively drowning, response to a rescuer's commands will diminish. The rescuer may next observe other ineffective movements including jerky and thrashing movements and, as the diver becomes lower in the water; their head position will be back struggling for the last bit of air." (SEI DRAM Manual pg 19)

All leadership should have taken a Diver Rescue course at some point prior to certification. Ask yourself: how long ago was that course taken and do you remember what was taught? The above video clip may be of use to you and your students to help them recognize what an actively drowning person looks like – it may save a life!

Practice and Preparation

Quality Education – what we are all about!

By Tom Leaird, SEI & PDIC CEO, SEI & PDIC Instructor Trainer, Indiana

My son, who lives across the state from us, wandered into a new scuba store in his town that is supported by another agency and inquired about the programs offered. Dan, during a less-busy time in his life, was a YScuba Instructor. He immediately called me saying, "Dad, it frightens me." The course being offered at that store was essentially this: Students purchase a gear package and a class which includes an on-line classroom portion and when that is complete the students go to a local quarry for a Saturday morning "confined water" session and that afternoon do the first two open water dives followed by two more open water dives on Sunday morning and then they are certified.

Each of you reading this can form your own opinion as to this concept in diver education. For me, it raises many questions including brand loyalty, store loyalty, and the big one, will the resulting students be safe divers that eventually become committed to the sport? The whole idea of the abbreviated scuba course has come about in a market that continually fights for more dollars in the door, and in a market that, according to the DEMA Certification Census, has seen a plateau in participation since the high days of the early 2000's. As a descendant of YScuba, SEI and now PDIC have continued the traditions of a full scuba education. Are we wrong? I don't think so. My personal Open Water class is approaching the fourth weekly session – half-way through the traditional 32-hour class/pool program. I have eleven students in this class. When my

students complete the program with open water dives, they will be well-prepared to go diving. Now, will they be totally relaxed in the water? Probably not in every situation, but certainly at the level to which they have been trained! But they have the knowledge and skills to stay involved. An understanding buddy, a few dives, an advanced, or a specialty class, and they will be committed to a lifetime of fun in our super recreational activity.



Gabrielle Gabrielli and student after a dive in Florida.

Additional benefits of giving students the additional time to practice and become comfortable with their newfound skills include more interaction with each other (with a result that they have a ready-made buddy), and increased student interaction with the instructor, where the instructor has more opportunity to emphasize critical information and make students as comfortable as they can be. Additionally, critical skills taught early on and practiced over a longer period of time have shown to improve the student's comfort and competence with scuba equipment and skills, thereby training a safer diver. Surveys show that entry level

scuba students who do not feel comfortable with their scuba skills are less likely to continue diving. For the business-minded among us, data also shows that retaining these customers and keeping them active is the way that more equipment and more travel are sold.

I can't predict the future. However, I am continuing to support a full education in our scuba programs and encourage each of our SEI and PDIC Instructors to do the same. If you want to teach an abbreviated program like the one illustrated in the first paragraph, do it with another agency that allows it. To me, it's not as much about getting more money in the entry-level course, as it is about quality education and enhancing the lives of those students that we do teach. The money will follow if you do it right. I think some students will do well with shortened courses but the majority will not. My long-range hope is to live long enough that the scuba industry realizes that a shortened course is not in the best interest of either the student or the dive store. If you make it a fun experience, they will tell their friends and also come back for more in the future.

Let me hear from you – what do you think we should be doing in the future for our standards and programs? We are considering incorporating more technological avenues such as a video or on-line classroom. What avenues do you suggest we consider that would aid our leadership in teaching students while at the same time staying true to a full education experience?

Diving in Florida

SCUBA Diving in Fabulous Florida

By Gabrielle K. Gabrielli, Ph.D., SEI Instructor, Florida

Diverse. That is the first word that comes to mind when thinking of SCUBA diving in Florida. With year-round diving in all parts of the state, there is something for everyone from beginners to experienced technical divers and from those who like fresh water to those who prefer salt. Cave divers come from around the world to explore the state's complex underwater systems, treasure hunters enjoy artifact diving, and the element of the hunt is added to SCUBA in spear fishing, lobstering, and scalloping. There are over 1,350 miles (2173 kilometers) of coastline with excellent shore diving, too. Another thing that makes Florida unique is its state park system. Twenty-six Florida state parks have SCUBA diving, and most are free to dive with the only fee being park entrance (\$4-10 per vehicle). There are also national parks that offer exceptional SCUBA opportunities including in the most remote area of the state, the Dry Tortugas.



Shipwrecks

Florida boasts thousands of fascinating shipwrecks from the USS Oriskany in Pensacola to the USS Vandenburg in Key West. The Empire Mica wreck, a British tanker

sunk in 1942 by a U-boat, sits in Mexico Beach. The Red Sea tugboat wreck rests in Panama City and has attracted abundant marine life in a relatively short period of time; she has provided divers with rare whale shark sightings on the wreck. Regina (or Sugar Barge), a tanker that sunk in 1940, was declared an Underwater Archaeological Preserve in 2004 in Bradenton Beach. San Pedro Underwater Archaeological Preserve State Park features the San Pedro, a 287-ton (292 tonnes), Dutch-built ship that sank in a hurricane in 1733; its remnants have been enhanced with replica cannons and sit in less than 20 feet (6 meters) of water in Islamorada. For more challenging diving, a favorite wreck site is the USS Spiegel Grove in Key Largo. The 510-feet (155 meters) retired U.S. Navy Thomaston-class dock landing ship was sunk erroneously on her side in 2002 but in 2005, she was up-righted by Hurricane Dennis. Marine life is prevalent, and at times, visibility reaches the entire 130 feet (40 meters) depth. Sponges and gorgonian corals make a great backdrop on the structure for the *(continued on page 8)*



Gabrielle Gabrielli



Entrance to Peacock Springs Cave System
(Photo by Walter Pickel - March 2005); Source = http://en.wikipedia.org/wiki/Image:Image_Peacock_Springs_Entrance.jpg |Date= |Author= Walter Pickel |Permission = Public Domain |other_versions=



Gabrielle and students traveling to off shore dive site in Panama City, FL.



underwater American flag; it is a site to behold. The Key Largo Chamber of Commerce Artificial Reef Committee sells annual Upper Keys artificial reef medallions for \$10 to support its artificial reef program. <http://keylargo chamber.org>. The second largest artificial reef in the world is the USS Vandenberg, a decommissioned 1944 warship in the Florida Keys

National Marine Sanctuary, Key West. The 524-feet (160 meters) vessel is covered in gorgonian corals and sponges, and sits in 140 feet (43 meters) of water and anchors the southernmost point of the Florida Keys Shipwreck Trail. The biggest artificial reef is the USS Oriskany, also known as "the Mighty O" in Pensacola, which measures 911 feet (278 meters) long, 150 feet (46 meters) wide, and over 150 feet (46 meters) tall.

Her flight deck sits at 140 feet (43 meters) deep, but there is a lot to

see at 100 feet to 80 feet (30 meters to 24 meters), which is where the top of the smokestack is located. The history of all of these vessels is impressive, and shipwreck aficionados will never tire of the possibilities for wreck exploration in Florida.



Treasure Hunting

Due to Florida's location and sometimes unpredictable waters, many unintended shipwrecks are found throughout the state, some of which have provided a veritable treasure trove. As recently as March 2013, deep sea archaeologists found a plethora of gold bars, significant artifacts, pearls, and silver recovered from the wreck of a 17th-century Spanish galleon sitting 1,300 feet (396 meters) deep in the Dry Tortugas. Odyssey Marine Exploration researchers believe the wreck to be the 117-ton (119 tonnes) Buen Jesus Nuestra Señora de Rosario, one of the ships in the 1622 Tierra Firme treasure fleet loaded with the riches of the New World bound for Spain. There are many opportunities



to treasure hunt for open water SCUBA divers from Key West to Fort Myers to Indian River, Suwannee River, and more. In Venice, SCUBA divers are likely to find collectible artifacts while shore diving including prehistoric shark teeth as long as six inches (15 centimeters). Treasures range from fossils to silver to other artifacts.

Shore Diving

A favorite shore diving spot in north Florida is the jetties in St. Andrews State Park, Panama City Beach. There is abundant sea life including octopus, rays, stargazers, turtles, goliath grouper, redfish, flounder, dolphins, and an occasional spotted eagle ray, manta ray, or seahorse. Be sure to time your dive for high slack tide for optimal diving conditions; excellent timing and a little luck may give you 100+ feet (30+ meters) of visibility and a relaxing drift dive in up to 70 feet (21 meters) of water before you make the turn around the end of the jetties to enjoy a calmer, shallower dive that provides a safety stop with a view. In southern Florida from Vero Beach to Jupiter, divers swim just 75-150 yards (68-137 meters) to a reef that parallels the shore. In less than 15 feet (4.5 meters) of water, corals, sponges, and tropical fish are visible. One of the most popular shore diving spots in the state is the Blue Heron Bridge located in Riviera Beach; divers have reported sea life from puffers to trunkfish to unique finds such as bandtail searobins.

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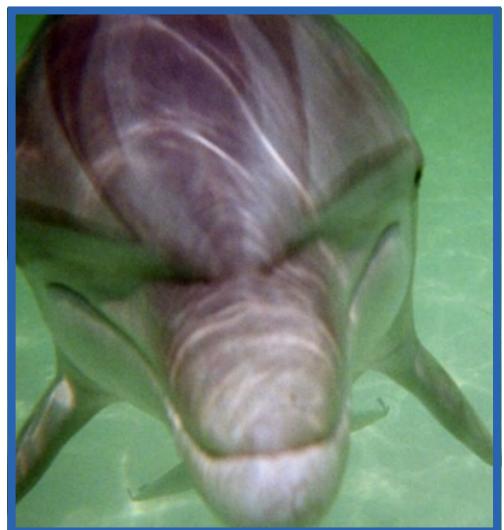
Hawksbill sea turtle in Jupiter, FL



Above: Gabrielle and fellow divers pose for this picture off the shore of a favorite diving spot in north Florida near Panama City Beach.



Left: Diver Katherine enjoying her diving experience.



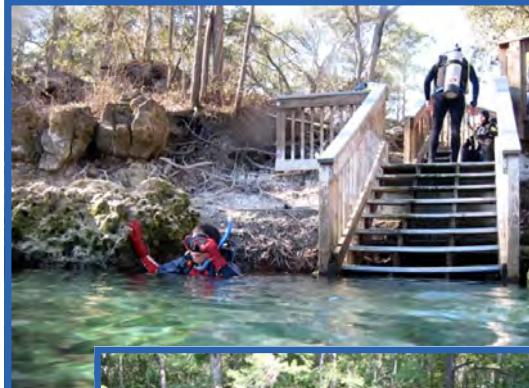
Barracuda in Pensacola, FL



Sea life is abundant at the St. Andrews State Park, in Panama City. Above: two photos show two dolphins posing for candid shots.

Springs, Caves, and Caverns

While Florida is known for excellent saltwater diving, an entire industry of SCUBA diving in Florida is inland. There are over 700 pristine springs, most of which are located in the northern and central parts of the state. Many are karst or artesian springs rising up from the depths of Florida's limestone base. Springs with outflow are rated from one to eight based on the volume of water they displace. First magnitude springs have the strongest flow and discharge at least 100 cubic feet (2,832 liters) of water per second, or about 64.6 million gallons (244.5 million liters) per day. Florida has 27 first magnitude springs, more than any other state. Some favorites to SCUBA dive include Troy, Manatee, and Wacissa Big Blue. Troy Spring not only has a pristine spring with a lot of turtles, hogchokers, and other marine life, but it also holds the remnants of Civil War era steamboat Madison in the river, scuttled in 1863 to keep it from being captured. Morrison Springs in Walton County, a second magnitude



**Albino crayfish
in Big Blue
Spring**



near Tallahassee requires a gorgeous paddle on the river among turtles, playful river otter, osprey, to the dive site known for being crystal clear with impressive outflow. The spring provides fascinating things to see including salamanders and albino crayfish. Divers should only use frog kicks since the 46-foot (14 meters) bottom is covered in unforgiving silt.

Above: Two of Florida's many pristine springs located in the northern part of the state. Right: View from a kayak.

spring, is a favorite site for SCUBA training because it has excellent facilities, a dive training platform

at about 20 feet (6 meters), and there is no charge for entry. Manatee provides two dive destinations in one visit including the main spring area

and Catfish Hotel, a pristine area covered in duckweed but full of interesting life beneath the healthy, green covering. Finally, Wacissa Big Blue Spring



North-central Florida is also the leading cave diving destination by in the world. The area is a well-known training site for cavern and cave diving. Many who earn their certifications in north and central Florida return to explore the intricate underwater cave systems throughout their diving careers. Some of the top instructors who literally "wrote the book on cave diving" live in the area. Sheck Exley was a pioneer in cave diving who helped make the octopus a standard piece of equipment for rescue. He



Troy Spring in Branford



Manatee Springs in Chiefland



Cave diver Norm enjoys Troy Spring..

funded his passion by teaching high school math in Live Oak and wrote the seminal Basic Cave Diving: A Blueprint for Survival in 1977. A more recent example is The Cavern Kings (2012) by Jeff Bauer, a Tallahassee cave diving instructor. Popular cave diving sites include Jackson Blue near Marianna, Orange Grove of Peacock State Park near Luraville, and Devil's Eye of Ginnie Springs in High Springs. Unfortunately, many divers who have dived beyond their levels of training have become victims of Florida's intricate underwater cave system. Cave diving expert Edd Sorenson of Cave Adventures (<http://caveadventurers.com>) is often called to recover SCUBA divers' bodies, but he has also been hailed a hero for saving cavers' lives while risking his own to perform rescues.

Aquariums

One of the most unique places to dive in an aquarium is at Epcot's DiveQuest. The 5.7-million gallon (21.6 million liter) saltwater aquarium provides easy diving in 27 feet (8 meters) of water with guaranteed sightings of sharks, turtles, rays, and more. In addition to enjoying all the sea life, one thing divers say is the most fun is saying hello to the audience that surrounds the aquarium's 56 large windows.

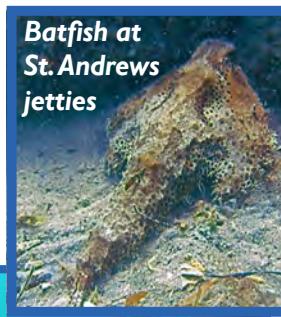
<https://disneyworld.disney.go.com/events-tours/epcot/epcot-divequest/>

Reefs

The only natural living coral reef in North America is found

offshore from South Florida into the Florida Keys. The Florida Reef is located on the edge of the Gulfstream on the Atlantic side of the Keys. The Keys are known

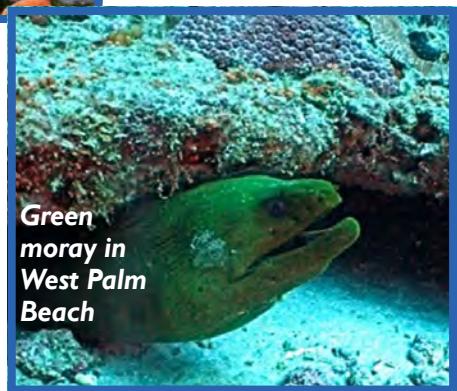
as "Dive Capital of the World", and the minute one crosses the bridge to the Keys, it is apparent with the plethora of dive shops and even dive radio where listeners receive frequent trip reports including current conditions. A must-see is coral spawning, and the best time to see it is in late August to early September each year. The Keys



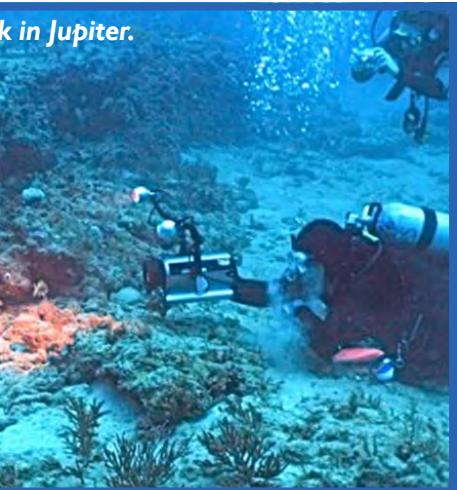
Batfish at St. Andrews jetties



Fan coral in the Keys



Green moray in West Palm Beach



Diver Diego photographs nurse shark in Jupiter.

provide unique dive experiences such as annual underwater pumpkin carving contests, underwater music festivals, and an underwater Easter egg hunt with Spencer Slate of Captain Slate's

Atlantic Dive Center (<http://captainslate.com>)

dressed as a 240-pound (109 kilogram) Easter bunny who hides the eggs. Santa, of course, also SCUBA dives in Key Largo to benefit a local children's shelter. Marine life prevalent in the Keys includes purple gorgonians, giant grouper, tarpon, snappers, elegant finger corals, green moray eels, enormous

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boulder and elkhorn corals, abundant lobsters, reef squid, and rays. The Florida Keys National Marine Sanctuary covers 2,900 square nautical miles (9,700+ square

kilometers) and has abundant sea life. Also, about 70 miles (113 kilometer) west of Key West is the remote Dry Tortugas National Park. The 100-square mile (259 square kilometer) treasure is mostly open water with seven small islands, and it is known for spectacular corals and marine life. The archipelago's coral reef tract is the third largest barrier reef system in the world (Australia is first and Belize is second). The



Left: Porcupine fish
Above: Sea anemone;
Right: Angel fish

park is accessible only by boat or seaplane. Because it is so remote, there are only about 60,000 visitors per year to the pristine park, so the coral reefs are refreshingly healthy. Park entrance is just \$5 and is good for seven days. Learn more at <http://nps.gov/drto>.

Throughout the rest of the state, there are excellent artificial reefs including many shipwrecks plus those provided by nonprofits such as Organization for Artificial Reefs (<http://oarreefs.org>) in Tallahassee and Mexico Beach

Artificial Reef Association (<http://mbara.org>). The Florida Fish and Wildlife Conservation Commission's Artificial Reef Program reports that 70-100 new artificial reefs are constructed in Florida using a combination of federal, state and local government and private funds. Through fish censuses, researchers have identified more than 220 species of fish on



artificial reefs. The state monitors sites and maintains a database of all artificial reefs in Florida at <http://myfwc.com/conservation/saltwater/artificial-reefs/locate-reefs>.

Remember Florida

The next time you plan a big SCUBA trip, don't forget about fabulous Florida with diverse freshwater and saltwater diving, shipwrecks, treasure hunting, spearfishing, shorediving, and so much more. In recent years, marine life rarely seen in the state including whale sharks has become more prevalent, too. Should you book your trip to the Sunshine State, be sure to join SCUBA Friends, a Facebook group of predominantly Florida divers or those who want to visit to dive in Florida with friendly divers who

have a "SCUBAddiction." <https://www.facebook.com/groups/scubafriend>



Sea grass at Sanibel Island



Care for Marine Life

Memories of Florida and Final Thoughts

By Gabrielle K. Gabrielli, Ph.D., SEI Instructor, Florida

I often take one or two International SCUBA trips per year, and I've unfortunately been disappointed in many of the destinations due to lack of marine life from overfishing and due to the sad state of coral reefs when not adequately protected. Though the reefs have certainly diminished, especially in the northern

Keys, Florida never disappoints for marine life. Most people think of the Keys for SCUBA, but I enjoy diving the entire state including the north. I love seeing turtles, sharks, goliath groupers, and other large marine life.

One of the best places to see them is diving in the Jupiter and West Palm Beach areas. On any given trip with my favorite Captain Randy of Emerald Charters (<http://emeraldcharters.com>) (aka "Shark Whisperer"), we will enjoy a drift dive and get to see loggerhead, leatherback, hawksbill, and green turtles, as well as plenty of nurse sharks. The area is known for lemon shark season from January to mid April.

I feel fortunate to live in Florida not only for our phenomenal SCUBA diving, but also for snorkeling and enjoying wildlife on land by bicycle or by foot. I have been swimming with the same pod of dolphins since I was in elementary school in Panama City, Florida, and my dad was stationed at Tyndall Air Force Base. My first interaction, I recall cutting my foot pretty badly and crying, then being surrounded by dolphins who lifted my spirits

and turned my tears into laughter. The cut required a tetanus shot, but I'll never forget how joyous I felt the first time I saw them. When I see dolphins today, especially "my dolphins," that childlike



School of Jack Crevalle at St. Andrews jetties.

Gabrielle admiring her favorite Atlantic Bottlenose dolphins



joy returns. When our military family moved to Germany, there were several years when I didn't see my pod, so I wondered if we would remember each other when I returned at age 17 to attend college. Those doubts were soon erased when I returned to my favorite snorkeling site and was approached by a pod of playful dolphins. One in particular I knew instantly, and he seemed just as happy to see me. I would spin around and he would mimic me; I would nod my head and he would do the same. To this day, he is the most interactive dolphin I have ever met. Unfortunately, not everyone is respectful of protections in place for dolphins, and some fishermen regard dolphins as a nuisance because they tend to steal their catch. When you see a dolphin, enjoy its presence but do not chase, harass, or in any other way disturb the dolphin's activities. If you see a dolphin with its baby, give it as much distance as possible so as not to interfere. With careful observation, you will enjoy seeing many playful dolphins, too.

(continued on page 14)

Dolphin and baby



I also have fond memories growing up in Satellite Beach swimming in the countless canals and inlets when a manatee would swim up to me, gently nudge me, then roll over as if to say, "Scratch my belly, please!" Elated, I would comply with the manatee's request and squeal with delight when the manatee would thank me by waving his pectoral fins. Of course the laws have changed since then (as has my knowledge of the now endangered species), but people are still able to enjoy them. Mary Morris with U.S. Fish & Wildlife, a pioneer in manatee research, said, "Florida is special because one of the only places in the world where you can get this close to manatees." Unfortunately, Morris says that boats continue to be a major cause of manatee fatalities, not only from propeller strikes evident in scars on manatees' bodies, but also with blunt trauma that is not visible on the outside of their bodies. Resting manatees can hold their breath for as long as 20 minutes, so boaters must be trained to look for the swirls that manatees' tails make on the water's surface. Many restrictions have been added to protect manatees, especially in Kings Bay, the



headwaters of Crystal River. Crystal River National Wildlife Sanctuary was set up in 1983 specifically to give West Indian Manatees a winter refuge. From November 15 through March 31, sanctuary boundaries prevent people from entering. The sanctuary hosts hundreds of manatees, and it is special to watch the gentle giants. As of March 2012, SCUBA diving is no longer allowed in Three Sisters Springs, one of the best sighting areas for manatees. There are still some areas where SCUBA is permitted, but given the depth and restrictions, snorkeling is the best method to view manatees. The "sea cows" are seen throughout the state, and many have expanded their yearlong habitats to the north including pristine Wakulla Springs, south of Tallahassee. For more information about the law, protection zones, where to see manatees, how to help save manatees, and more visit <http://myfwc.com/wildlifehabitats/managed/manatee>.



Manatees from Wakulla Springs to Crystal River. Top photo taken before recent restrictions.

Sponge Surprise

By Roger Dunton, SEI Instructor, California

Visibility was particularly clear on our third day of diving the walls and reefs of West End Roatan. A feeling of calm and peace enveloped me as we floated down off the surface to the edge of the drop-off. The colors were intense with the sunlight flooding the corals and sponges in this shallow reef area. I was lost in that sense of weightlessness, as if I were in outer space... drifting, drifting. To me, one of the greatest pleasures of diving is that sense of out of the body drifting. Gravity has no claim on me here in this liberating atmosphere of clear, blue liquid. The water is warm and all feels well with the world.

Tropical fish of all shapes and colors are acting out their daily activities of eating and keeping from being eaten, of finding mates and impressing them, of claiming and protecting their territories. Drama is everywhere if we just slow down and observe for awhile. I watch as a three inch Yellowhead Jawfish hovers vertically above his burrow in the rubble. After excavating a burrow in the sand by mouth, he hovers above and retreats, tail first, into the hole when frightened or threatened. As I slowly approach, I see this male is incubating a clutch of eggs in his mouth. During the eggs' five to seven day incubation period, the male seldom feeds and only occasionally leaves the clutch unattended in the burrow. What a dad! A school of Blue Tangs (more like a mob) swim by and stop to forage for awhile, stirring up the bottom and leaving clouds of yellow feces. They play an important part in inhibiting algae

growth on the reef and contributing large amounts of detritus to the habitat.

As I look along the bottom at the base of the corals and sponges, I see a cleaning station with a large Nassau Grouper hovering inches off the sand while several Cleaning Gobies crawl over and around the Grouper. As I look closer, I see one Pederson Shrimp climbing into the open mouth and another scamper into the open gills of the Grouper. The Gobies and Shrimps are scouring the Grouper for parasites, and if they come across a wound, they'll also pick off any infection and tend to the wound. Wow, what service! Hey, how about me? I slowly extend my hand pointing downward towards a Pederson Shrimp that is waving his antennae around like a high school kid advertising a car wash fund raiser at a corner gas station. He hops onto my finger and crawls around cleaning my cuticles and nails. Oh yeah, there's all kind of mini dramas going on if you go slowly and look closely.

Suddenly something else catches my eye. It looks like a piece of white paper shredding and spreading out underwater. I think to myself, "Now who could be so careless as to drop a large piece of paper into the water? What a mess!" But wait, it seems that the goopy white stuff is coming out of that large barrel sponge over there. As I swim closer to investigate, sure enough, IT IS COMING OUT OF THE SPONGE! Did someone dispose of something inside that large sponge? I head on

along the reef only to see the same scene repeated at the next barrel sponge I come across. So, I start looking for more of those large barrel sponges. Everyone that I find of that variety is emitting white stuff! It looks like gooey paste. I swim further along the reef only to find more of the same type of giant sponges that look like volcanoes spewing out smoke. WOW! This is wild. I think these large barrel sponges are spawning! The water was becoming smoky all along the reef and the bottom was beginning to look like there had been a light snowfall. In all of my years of diving, I have never seen this. THIS IS WILD! I was very excited as I continued to look for more of the sponges and they were all doing it, but only this one type of sponge.

We went back in the water a couple of hours later for another dive in a nearby area, and the water was again very clear, but the bottom was still lightly sprinkled with snow. The sponges were quiet now. We just happened to be at the right place at the right time. What a thrill!

Instructor Hint:

Learn what animals and plant life are in your diving environment. If you have a special event or season – share this with your students and let them experience the excitement and wonder of our underwater world. This exposure will create lasting memories and entice the diver to continue diving and exploring.

Invasive Predators

Lionfish License Waiver

<http://myfwc.com/news/news-releases/2013/april/17/lionfish-rule/>

The Florida Fish and Wildlife Conservation Commission (FWC) has decided to waive license requirements for lionfish harvest. "Lionfish are a nonnative, invasive species that negatively impact Florida's native saltwater fish and wildlife. Currently, the most effective method of removing lionfish from Florida waters is by spearing or using a hand-held net. Removing the license requirements and bag limits will increase lionfish harvest opportunities."

<http://www.dema.org/displaycommon.cfm?an=1&subarticlenbr=848>

Lionfish are venomous and stings require medical attention

DEMA & DAN Lionfish PSA offers first aid instructions for those diving near lionfish:

http://www.youtube.com/watch?v=7Q9zDnidc_o&feature=youtu.be

The more you know **Lionfish are:**

- 1) Voracious predators being shown to eat native fish and crustaceans in large quantities, including both ecologically and economically important species like grunts, snapper, nassau grouper, and cleaner shrimp
- 2) Not known to have any native predators
- 3) Equipped with venomous dorsal, ventral and anal spines, which deter predators and can cause painful wounds to humans
- 4) Capable of reproducing year-round with unique reproduction mechanisms not commonly found in native fishes (females can reproduce every 4 days!)
- 5) Relatively resistant to parasites, giving them another advantage over native species
- 6) Fast in their growth, able to outgrow native species with whom they compete for food and space"

For more information please visit: <http://www.reef.org/lionfish>



Screen shots
from Be A
Diver First
Aid YouTube
video:



Above: Lionfish

Below: Cleaning, removing and washing wound area caused by a lionfish is important to do immediately after wound occurs.



Left: Diver catching lionfish



Above: Lionfish by Tom Leaird, Course Director, Ceo & President SEI and PDIC

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