



# The Mouthpiece

September 2010 THE ACTIVE DIVERS ASSOCIATION NEWSLETTER



**OCTOBER 17**

**FREE DIVE, FREE BBQ, FREE RAFFLE**

Mark your calendars and plan to attend.

**Who-** all ADA members and families.

**What-** free beach dive, free bbq, free raffle.

**When-** Sun day Oct 17, dive at 8 am, BBQ at noon, raffle to follow.

**Where-** John Lloyd St. Park, 1.5 miles N. of Sheridan St. on A1A, Dania Fl. Jetty Pavilion.

More info in the Oct newsletter.

## **NITROX CERTIFICATION TRAINING SEPTEMBER 11, 2010**

Force E scuba shop in Pompano Beach is offering ADA a special price of \$100, usually \$145. Training begins at 10 am, wraps up at 1 pm., includes course review, materials, manual, exam, and Nitrox card.

**Students must obtain the manual before the 11th, and review**

Failure to do so will leave you confused and you may not pass.

Call Gary Thompson to obtain manual at 866 943 3489.

A maximum of 10 students.

Call Lon to sign up.

## **IMPORTANT NOTICE**

Send checks and money orders for activity payments, payable to ADA, to:

Jerry Kosakowski

8221 N. W. 8 Place.

Plantation Fl. 33324



## The Surprising Miami Wrecks Dive by Lilli Ferguson

I was looking forward to the ADA Miami wrecks dive on August 7 as I had not been on that particular trip before, and the short newsletter description of what we might see was intriguing – it said there were a number of different ships and even a sunken plane offshore. So I arrived at the docks full of anticipation to see something new.

When we learned that the current had been strong that morning during the operator's first dive trip and we weren't going to be diving any wrecks after all, I was surprised and wondered where we would be going (thinking darn! I really wanted to see that plane). Our first dive ended up being at the Neptune Memorial Reef. Lon and several others who had been to it before described it as an underwater burial memorial, with columns and gates, and a lot of marine life. People can choose to have their ashes placed in openings underneath the base of the Memorial Reef, and the divers who had been to it before described it as a really interesting site. As I normally stay far away from gravesites, I wasn't too sure what to think of this change of plans.

My dive buddy, Frank Young, and I descended and swam towards the area in a strong current. The first thing to emerge into our sight was the columns. There were memorial plaques for individuals and for at least one group set in various places around the base of the structure. Some of the plaques were set on giant concrete sea stars, sand dollars or shells. Corals and sponges grew all over the site, and large crabs and fish hid in the crevices. Of course, fish were swimming around us as well. I found some tiny transparent and blue shrimp hiding in the alcoves, which were hard to see until I highlighted one against my black dive glove and was able to get a closer look – Frank saw it too, and I believe he got some photos or a video of it. At another point in the dive, some of the others were crowded around something interesting – an eel? – but with the divers and cameras blocking my view, I didn't see it and decided to swim a few yards onwards to look at other things. This site was bigger than I expected, and it felt like a lost city, with its columns, arches and two giant lions standing guard up above, and I'm sure everyone experienced it slightly differently. Thankfully, I did not feel any ghostly presences. After what seemed like not very much time, it was already time to start for the surface.

The second dive of the afternoon was to Rainbow Reef. The current was slower here, and our dive was a leisurely tour around the whole area to see what we could see. While some people said after the dive that they didn't see very much at this site, I swam fairly slowly and ended up seeing some really interesting things. At one point, I turned around and saw a very large spotted eel swimming in the open, until it quickly disappeared so thoroughly into a small hole in low relief coral that no part of it could be seen. That hole didn't look big enough for such a large eel! Later in the dive, I came across a big scorpionfish, perfectly blending into the background. This fish looked exactly like the coral it was resting on top of – down to the algae-colored patches on its body. We spent a few moments eye to eye studying each other. Once again, soon enough, it was time for me and my buddy to return to the surface, and our dive adventures were over for the time being.

All in all, this "Miami Wrecks" dive day was a surprise for me – a pleasant one, it turned out.



## Diving Medicine FAQs From DAN

### Remember to Breathe

**Q:** In basic open-water classes, divers are told "never to hold their breath" for fear of lung injuries due to the expansion of compressed gas during ascent. Further, students are told that the most dangerous part of the ascent is closest to the surface.

Why is this? What is the actual mechanism by which lungs are injured by expanding gas? Do they actually rip and tear? Since the lungs are surrounded by a fluid-filled sac, where does the expansion occur? Is there empty space between the lungs, the sac, and the rest of the body? Finally, why exactly would the last bit of the ascent be more dangerous, say, than covering the same vertical distance much deeper? Doesn't the ambient pressure change as much between 60 and 30 feet as it does between 30 feet and the surface?

**A:** Lung expansion injuries can be the most dramatic and life-threatening emergencies in scuba diving. They are generally a result of lung overinflation due to pathological air trapping (lung disease), or breathholding during ascent. A good understanding of lung anatomy is essential to comprehending the associated risks. The main bronchi divide into smaller airways called bronchioles and continue to branch and reduce in size until they form the respiratory bronchioles, which terminate in the alveolar sacs.

The alveoli are the key functional unit of the respiratory system where gas exchange takes place. These fragile air sacs are surrounded by a delicate membrane only one- to two-cell layers thick and are encompassed by a network of tiny blood capillaries. Exposed to atmospheric pressures at sea level, our lungs are in a state of equilibrium as we inhale and exhale.

Slight pressure changes occur as we change elevation, yet equalization of the pressures inside and outside the lung is a passive and inconspicuous event with each breath. During descent into water, all gas-containing spaces in the body tend to shrink as the pressure surrounding the body increases; for example the lung volume of a breathhold diver becomes smaller with the descent in the water column. Because scuba regulators deliver breathing gas at the ambient pressure of the diver, higher concentrations of the breathing gas enter the lungs, preventing the reduction in volume that would occur. Otherwise, the lungs will progressively increase in volume until the elastic limit of the alveoli is exceeded and lung injury occurs.

This forces gas into one of three locations:

1. the space within the chest cavity (pleural space), a condition known as pneumothorax;
2. the tissue planes within the lung itself (interstitial space), from where it may travel into the space around the heart, the tissues of the neck and the larynx (mediastinal emphysema); or
3. the blood.

In this latter condition (arterial gas embolism, or AGE), gas bubbles can pass from the pulmonary capillaries via the pulmonary veins to the left side of the heart, and then to the carotid or basilar arteries (cerebral arterial gas embolism, or CAGE). While this explanation appears reasonable, it is not completely satisfactory. Since lung tissue is extremely compliant, one would expect the interstitium of the lung and the vessels within it to be subjected to the same increase in pressure as the alveoli. The vessels might therefore be expected to collapse, preventing gas from entering.

Probably gas enters blood vessels at "corners" of the lung - for example, between the lung and the mediastinum, where pressure differentials may cause disruption (tearing), allowing extra alveolar gas to enter. It is important to note that a breathhold ascent from a depth as shallow as four feet of sea water (fsw)/1.2 meters (msw) may be sufficient to tear alveoli sacs, causing lung tear and one of these three ailments.

For a fixed quantity of gas, the relationship between its volume and the external pressure is provided by Boyle's law. In essence, British physicist/chemist Robert Boyle discovered that at a constant temperature and mass, the volume of a gas is inversely proportional to the pressure exerted on that gas. When the pressure is doubled, the volume is reduced to one-half of the original volume. Conversely, when the pressure is reduced by one-half, the volume doubles. For a diver at 15 fsw/4.6 msw, the total pressure acting on his body is 1.5 atmospheres (one atmosphere at the surface, plus an additional 0.5 atmospheres exerted by the water column). A sudden ascent to the surface would therefore result in a 30 percent pressure reduction, and assuming a compliant chest wall, a volume increase of 50 percent. Lung injury may result.

Actual volume changes may be less than this because of the effect of the surrounding chest wall to provide some rigidity and protection for the lung. However, if the same vertical change occurred from a depth of 66 fsw/20 msw, the 0.5 atmosphere of depth change would only result in a 16 percent reduction in pressure and a 20 percent increase in lung volume, and would be less likely to cause lung injury. Boyle's law thus explains why abrupt changes in depth while in shallow water can be far more hazardous than equivalent changes of depth in deep water.

## September

Sept.4 Sat, pm Pompano reef \$49  
Great place to see some spectacular reefs and ocean life as you get ready for the night dive to follow. Just a great day/night diving.

Sept. 4 Sat. nite Pompano \$49  
The beauty of the seas...only at night. See the life in the ocean that only comes out when the sun goes down. We'll even teach you the basics so you won't be scared of the things that go "Bump in the Night"

Sept. 12 Sun. PM W. Palm (*advanced*). \$49  
Drift Dive in swift currents, giant turtles, grouper, schooling fish and outstanding color. Depth 80-100', visibility 40-100'. Many wreck/reef sites to choose. **See advanced criterion this issue.**

Sept. 18 Sat. Pm Islamorada \$49  
Just 4 miles past Tavernier, sites may include: Hammerhead, The Canyon, El Infante, Crocker, No Name, The Valley Aquarium, Alligator. Average depth 30-40', visibility 40-50'. Some current, many fish, shallow wrecks.

Sept. 25 Sat. PM Miami wreck, adv. \$49  
Choice of more than 40 wrecks. Some unlike anywhere else: Jet airliner, M-60 Tanks, Tankers, Freighters, Tugs, Barges. Most are intact with penetration possible. Average depth 90', visibility 40-50'. Expect currents and dramatic profiles, many fish. **See advanced criterion this issue.**

## October

Oct. 3 Sun. PM Duanne wreck (*advanced*). \$49  
Our favorite Coast Guard Cutter, upright in over 100 feet of blue water. It DOES count even when you don't touch bottom! OUR LIMIT 100 feet! **See advanced criterion this issue.**

Oct. 10 Sun. PM N. Key Largo reef \$49  
Sites may include: The Christ of the Abyss, the Elbow, N. Dry Rocks, N. N. Dry Rocks, Grecian Rocks, Carysfort, Shark Reef. Average depth 30', usually no current. Average visibility is 30-50' with many tropical's, morays, cudas.

Oct. 16 Sat. AM, BNP reef, (includes two tanks) BBQ \$10 \$59  
Sites may include: Rocky Reef, Elkhorn Forest, Ball Buoy, Far Out Reef, Cuda Ledge. Usually no currents, massive corals, small caves. The Keys "Best Kept Secret", only one commercial boat allowed in area. Depth 20-30', vis 30-60'.

Oct. 24 Sun PM Ft Lauderdale (*advanced*). \$49  
Double your pleasure with the best of both worlds! A reef followed by a wreck. A plethora of flora and fauna, just waiting to be explored. **See advanced criterion this issue.**

Oct. 31 Sun PM Spiegel Grove (*advanced*). \$49  
Come explore our local big one. Lots to see and plenty of challenges. **See advanced criterion this issue.**

## AQUA LUNG AMERICA RECALLS INFLATORS.

Power inflators are recalled because the oral inflator button is not properly bonded and can fall off during use.

Models of the Apeks WTX sold from Nov. 2006 to March 2010 are recalled and should be returned to an authorized dealer who will apply a free fix or replacement.

For info call 877 253 3483 or [www.aqualung.com](http://www.aqualung.com)

**Are you on Facebook? Join the ADA page here:**  
**<http://www.facebook.com/ActiveDivers>**  
**We can post your photos and share dive stories!**  
Send your pics and info to Helen at [adahcmiami@aol.com](mailto:adahcmiami@aol.com)

**Post Dive BBQS**

Cost \$10.00 includes-

Grilled hotdogs, hamburgers, chicken, Potato Salad, Coleslaw, chips and fixins. Soda & Beer.  
While divers are tending their gear, our chef of the day will be preparing a feast fit for a King/Queen or at least for hungry divers. We invite all divers on the above dates to join us for good outdoor food and telling tall fish tales. Please send \$10 along with the dive fees, you may make one check for both.

**DIVE AND EAT FREE**

That's right, on our BBQ days you can earn a free dive and free eats. It's easy, just volunteer to be the chef of the day and you go for free.

Here's how it works -

You buy the food and bring to the dive, after which you and the Safety Officer will prepare and serve. The supplies and menu list will be faxed to you a few days prior with an exact list of needed items. Then you submit a receipt and your expenses will be reimbursed. Call Lon for more info and sign up!

**IMPORTANT NOTICE**

Send checks and money orders for activity payments, payable to ADA, to:  
Jerry Kosakowski  
8221 N. W. 8 Place.  
Plantation Fl. 33324



## ADA KEEPING DIVE COSTS DOWN

1. We do not plan to raise our local dive prices this year.
2. We are offering free beach dives this year in the metro area. No need to drive long distances to dives.
3. Our prices are still the lowest in town.

Examples:

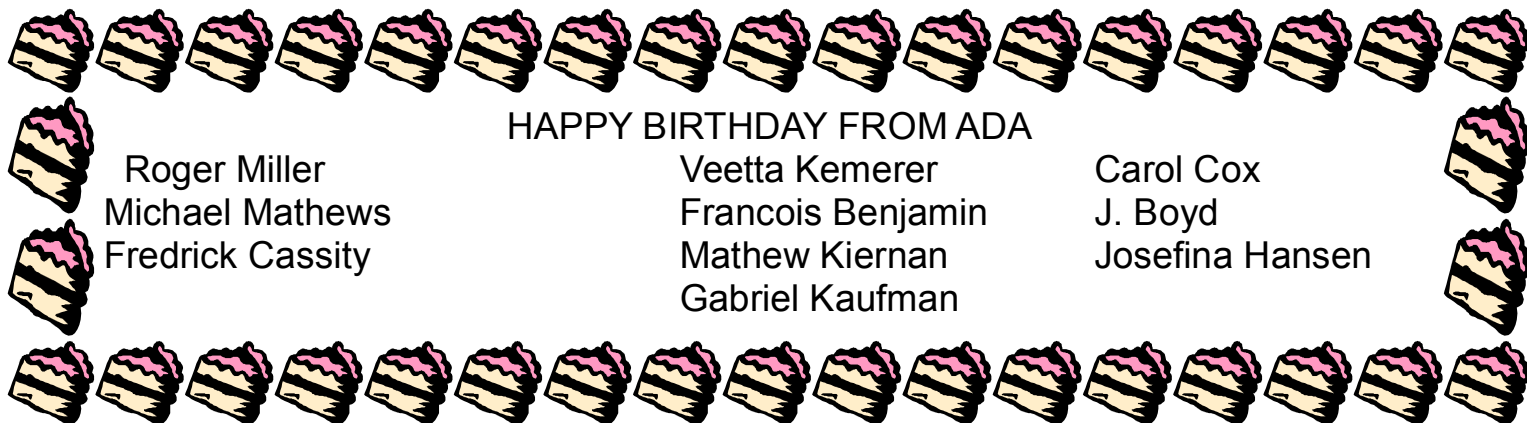
Dive shop A- walk in divers \$99

Our price same shop \$59

Dive shop B- walk in divers \$80

Our price same shop \$49

4. Free dives and free food. See article this issue for details.
5. We are offering a frequent-diver discount. Pay for any 5 local dives and get the 6th FREE.  
You can't beat that with a stick.



HAPPY BIRTHDAY FROM ADA

Roger Miller  
Michael Mathews  
Fredrick Cassity

Veetta Kemerer  
Francois Benjamin  
Mathew Kiernan  
Gabriel Kaufman

Carol Cox  
J. Boyd  
Josefina Hansen

## HOW TO SAVE OUR PLANET, BIT BY BIT.

### THE THREE R's OF BEING GREEN

**Reduce-** consumption of electricity, gas, water, non-renewable resources, waste.

**Reuse-** plastic bags, boxes, paper, bottles, cans, containers and donate items.

**Recycle-** plastics of all types, paper, cardboard, glass, metals, if you can't reuse them.

You can do these each day, every day.

## Interesting in Diving the Dry Tortugas in October?

I'm thinking of signing up for a liveaboard (non-ADA) dive trip to the Dry Tortugas in October and am wondering if other ADA members might be interested in going too.

The Dry Tortugas are about 70 miles from Key West, and some wonderful natural resources are found here, including sea turtles, more pristine coral reefs than are normally seen near the mainland/Florida Keys, and hundreds of species of fish. The area also has important nesting colonies of birds, and features Fort Jefferson (part of Dry Tortugas National Park). This area is closer to Cuba than to Key West!

Here is a link to the trip description:

[http://www.spreeexpeditions.com/dry\\_tortugas.asp](http://www.spreeexpeditions.com/dry_tortugas.asp)

The trip departs the night of Thursday, 10/21/10 from Stock Island (next to Key West) and returns the afternoon of Sunday, 10/24/10.

## ADA RULES & REGULATIONS

All Members Must be familiar with the following

### FOR ALL ADVANCED DIVES (DEPTHS OVER 60') ADA DIVERS MUST:

1. Be current (dive activity within the previous 3 months).
2. Have the approval of an ADA Safety Officer.
3. Have a minimum of 25 logged dives.
4. Carry an alternate air source (octopus), time keeping device and depth gauge.
5. Have previous ADA diving experience.
6. All members must dive with at least a 72 cubic foot tank.

### ADA GUIDELINES FOR COMPUTER ASSISTED DIVING

1. Members using dive computers may extend their time underwater ten (10) minutes beyond the time allowed by the tables.
2. Computer assisted dives must be well within the NO DECOMPRESSION LIMITS.
3. Members should understand and follow the manufacturer's recommendations.
4. If a computer diver is buddyed with a diver using the tables, both must follow the tables.
5. If a buddy-team is using unlike computers, both must follow the more conservative computer.
6. If, in a buddy-team, either computer fails, both divers must terminate the dive.

### IMPORTANT MESSAGE FROM THE SAFETY OFFICERS' COMMITTEE

All members are reminded to read the "Rules & Guidelines for Diving Activities" you received with your membership package. Number 16 states, "All divers must be present for the pre-dive briefing". If the diver is not present for the entire briefing, diving privileges may be revoked for that dive. Please plan to arrive on time - or better yet - a bit early. We thank you and appreciate your cooperation.

*Julio, Dan, Robert, Lee and Lon*

### CANCELLATION AND REFUND POLICY FOR LOCAL DIVE TRIPS

Because of our contractual agreements with our service agents - dive shops and boat captains, we must notify them - usually seven days in advance - of the final number of spaces we are paying for. Thus, if our members cancel less than seven days in advance, we regret that **NO REFUND OR CREDIT** can be given, unless trip cancellation insurance has been purchased at the time of the dive trip payment (see next news article!)

### ADA TRIP CANCELLATION INSURANCE

The Board of Directors has approved a unique concept in local diving: **NO FAULT INSURANCE!!**

For an additional \$5.00, per person, per local dive trip, members can eliminate the worry of losing their dive fees because of an unforeseen change of plans.

If, for any reason you are unable to attend a local dive for which you are scheduled and have paid the insurance, ADA will credit your dive fee to another date. *The \$5.00 insurance is non-transferable and non-refundable!*

When you make a reservation, ask for dive trip cancellation insurance. The Board has elected to continue the insurance offer for this year.

NOTE: It may be discontinued at any time without prior written notice.  
Please call Lon with your questions and comments.

### IMPORTANT WEATHER INFORMATION

Before departing for the dive site, confirm weather condition with Lon or the designated Safety Officer. It is the responsibility of the member to call; we cannot call you due to the large number of divers involved. For morning dives, call between 6 and 10 p.m. the night before the dive. For afternoon dives, call between 9 and 10 a.m. the morning of the dive.

1.

### HOW TO MAKE DIVE RESERVATIONS

1. Check this newsletter or the annual calendar for upcoming dives.
2. Call Lon (305) 251-4975 to make a reservation. Please do not leave a message on the answering machine, The trip may be full.
3. We will hold your reservation for four (4) days from the date you call. If we do not receive payment within four days, your space may be given to other members. If you wish to confirm receipt, call Lon.
4. Ask for details about the trip when you call. Otherwise, details will be given when you call for a weather report. See important weather information in this and every issue)
5. Make your check payable to ACTIVE DIVERS ASSOCIATION. Not to any individual, and mail to :  
Jerry Kosakowski ,8221 NW 8 Place Plantation, Fl 33324
7. Itemize dates of dives in the left hand corner of your check.
8. REMEMBER! That family members must have completed individual documentation to register as ADA members.

## ADA CHECK-IN TIMES !!!

Ours are different than the dive operators.  
When making dive reservations or during the all important  
**WEATHER CHECK.**  
Inquire about the ADA CHECK-IN TIME. Please arrive on  
time, or better yet, a bit earlier and chat with new friends and  
old buddies.

## Divers Den

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Phone: (305) 595-2010  
Fax: (305) 271-4641  
DiversDen@msn.com

12614 N. Kendall Drive  
Miami, Florida 33186

Web Page: [DiversDenmiami.com](http://DiversDenmiami.com)



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### The Mouthpiece ACTIVE DIVERS ASSOCIATION NEWSLETTER *September 2010*

Dive Trips/Return Address:  
Lon Von Lintel (305) 251-4975  
13374 SW 46 Terrace Miami, FL 33175

Membership:  
Frank Young  
1115 Country Club Prado  
Coral Gables, FL 33134  
305-903-1113  
[Membership@activedivers.org](mailto:Membership@activedivers.org)

Conservation:  
Peter Taylor (305) 669-3160

Newsletter:  
Steve Herz (305) 606-6331  
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