

CURRENTS

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**SCUBA EDUCATORS
INTERNATIONAL**

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Welcome to our October electronic issue of Currents.

In the Northern Hemisphere the seasons have changed from Summer to Autumn, the leaves are starting to change colors and fall from the trees and there is a crispness in the air. In the Southern Hemisphere the seasons have changed from Winter to Spring, where things are beginning to warm up. Regardless where you may reside, the change of seasons often provides a change in diving opportunities. If you live where in the middle of winter you can go ice diving and experience crystal clear water or you may choose to take a holiday and travel to a far warmer location. If you live where it is warming up, different species of aquatic life are now returning with the warmer water offering a feast for the eyes. These climate and location differences provide unique ways to celebrate the coming holidays. We have included a brief mention of some of the activities one dive club in the US participates in – that of pumpkin carving and Christmas tree decorating – all while underwater. We would love to learn and share with our leadership team what activities you participate or plan in your area. As you share, others may be able to utilize those ideas in their own locale – and this will help strengthen the diving community, helping to make and keep committed life-long divers. We hope you each take the opportunity to enjoy the changing possibilities and keep on diving.



Vortex Springs, Florida USA

Announcements



Editor:	Santyna Johnstone
Photo Credits:	Tom Leaird
	Jim Elliott
	Patty Blake

DAN Diving Fatalities Workshop

by Thomas Leaird, SEI Diving Instructor Trainer

During April this year the Divers Alert Network (DAN) held a two and a half day seminar in Durham, North Carolina to look at causes of diving fatalities. Information is now available from DAN's web site at www.diversalertnetwork.org or through DAN's publication *Alert Diver*. Search for "2010 Diving Fatalities Workshop" where you will then be able to download individual presentations from that workshop.

Language has been developed to help identify the causes and course progression of incidents that lead to death. These are a "triggering event", a "disabling or harmful event", and a "disabling injury." Using this format, a simple flooded mask could be the triggering event leading to breath holding on ascent as the harmful event leading to lung rupture as the disabling injury. Half of all fatalities involved divers with less than 20 dives. An article in the Summer 2010 *Alert Diver* indicates that scuba is a very safe activity when compared to many other risk factors in our lives. One study lists 0.472 fatalities per 100,000 dives. However, any level of incident leading to fatality is unacceptable.

DAN has discovered five significant root causes for these incidents:

1. Some sort of pre-existing disease.
2. Poor buoyancy control.
3. Rapid ascent or violent water movement.
4. Gas-supply problems.
5. Equipment problems.

The poignant question is - how should the scuba diving industry modify training to reduce the risks among certified divers? Recommendations for diving professionals are noted below in brief:

- Do a pre-assessment with divers prior to any deep dives in advanced courses.
- As part of every dive briefing, provide divers with the most realistic view possible of the conditions so that divers can make informed personal risk assessments.
- Develop a procedure manual that provides standards for your operations.

Over-weight and older divers appear to be at higher risk and should be advised accordingly. The incidents of cardiac events appear higher in these but the same exists in other sports. We just happen to do our activity underwater where breathing air is required and a medical abnormality just may be magnified by the presence of the environment we use for our recreational pursuit.

My personal recommendation: Evaluate new students carefully, train them well, certify students only when they have achieved acceptable levels of proficiency, and do whatever it takes to keep them diving safely. Divers that enjoy our recreational activity and make it a lifestyle are apt to dive more often, thus reducing the associated risks.

National Disability Awareness Month

October is National Disability Awareness Month according to the American Association of People with Disabilities (AAPD). Many individuals with disabilities including cognitive challenges and blindness through paraplegics and quadriplegics are all potential scuba divers. There are several organizations that work with Instructors and other interested individuals who desire the training and skills necessary to share our underwater adventures with individuals with challenges.

Everything, from assembling and disassembling gear, dressing in a wetsuit, entry and exits, buoyancy control, buddy breathing and communication are all impacted and need modification for safe and enjoyable scuba diving experiences for those facing various physical and mental challenges and for their dive buddies and Instructors.

SEI Diving is partnering with the Handicapped Scuba Association (HSA) and Diveheart to provide instruction and training for leadership team members. Scuba diving provides a freeing environment that overwhelms the senses allowing individuals with disabilities to enjoy an activity that can be shared with both family and friends, opening avenues that may have been closed in the past. Potential students even include injured military personnel such as amputees. This underserved market segment can add to both business and personal fulfillment. There are several ways to become involved – find one that interests you.



Handicapped Scuba Association
www.hsascuba.com



D I V E H E A R T

Making Possibilities for Disabilities

www.diveheart.org



DMW

Diveheart Military Wounded

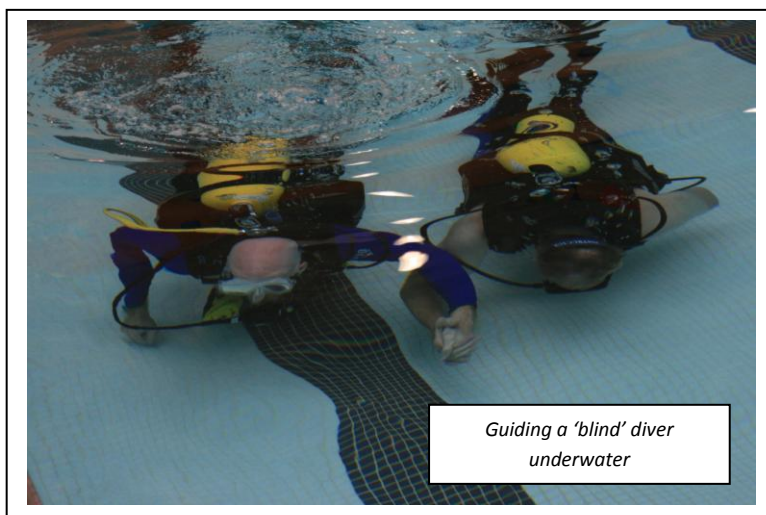
Contact Diveheart or HSA to learn more about the opportunities to become involved with divers facing challenges and make a difference in the life of another.

Empathy Training

Diveheart's training goals are to share information about a variety of disabilities, and teach what accessibility means, demonstrate modified diving training procedures, in addition to providing an opportunity for participants to experience empathy training which will help enable instructors and dive buddies to know what it is like to dive with a disability. Each participant experiences the role of the diver with a disability, an instructor, lead dive buddy and support team member.

Blindness Empathy Training

Empathy training provides participants blackout masks to wear to experience blindness and requires each participant to practice the same open water diving skills such as gear assembly. With loss of sight, it becomes difficult if not impossible for an individual with vision challenges to recognize visual cues or to read gauges to determine depth or air supply. Modifications such as specific hand messages for communication and close contact provide need assistance.



Empathy Training (cont.)

Insights from a visually challenged diver

by Sarah Wittekind

"I find diving relaxing, and I feel a sense of freedom that one just can't get on dry land. I also enjoy the chance to experience something that's almost alien; not being able to see doesn't detract from that. Underwater, I'm on more of a level playing field than one would think."

In Open Water training, "the only special allowance that was made for me was that the written test was read to me (since I couldn't read it myself.) I had to demonstrate all the same skills that the other students had to demonstrate, and my desire to take on the challenge of scuba diving made me successful."

"Why SHOULDN'T a blind person dive? I know that unless you've known an independent and intelligent blind person in your personal life, it might be hard to imagine things like logistics, for example. Where an intelligent, responsible, safe blind person is concerned though, I can't really see a reason why he or she shouldn't dive. The motivations for wanting to dive and the experiences gained when you dive are essentially the same, regardless of what you can or can't see."

Sarah is the daughter of Richard Schwalm SEI Diving Instructor



*Jim Elliott
Diveheart Founder*

Jim began the nonprofit organization "Diveheart" after seeing the enjoyment and confidence of his legally blind daughter while she was skiing and he decided to help others with disabilities, regardless if it was a visual, physical or mental challenge. As an experienced diver he has since taught 100s of children, helped countless adults and assisted many wounded military veterans all come to experience and enjoy scuba diving.

http://money.cnn.com/magazines/moneymag/moneymag_archive/2010/03/01/105904263/index.htm



Diveheart Institute Participants

*Front (L-R): Mark Thrasher, Carol Reed, Richard Schwalm,
Tom Leaird, Randy Smith*

Back (L-R): John Kooms, Bryan Smith, Jim Elliott, Joshua Buhro

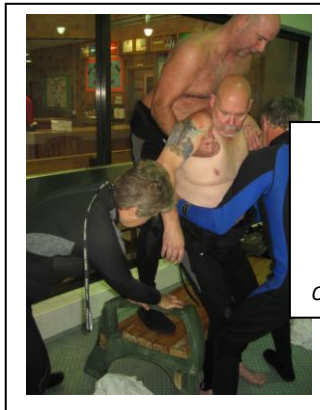
Empathy Training (cont.)

Paraplegic and Quadriplegic Empathy Training

Instructors and dive buddies serve and function as the hands, arms, legs and equipment monitors for divers facing challenges so all can participate in safe and enjoyable diving experiences.



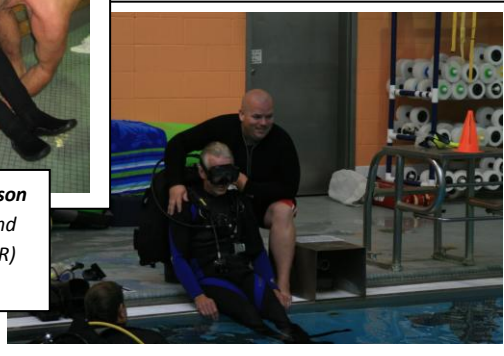
Paraplegic 2 person carry (above) and assisted entry (R)



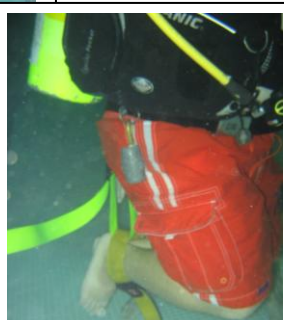
Wetsuits
Dressing a Paraplegic (L)



Dressing a Quadriplegic (R)



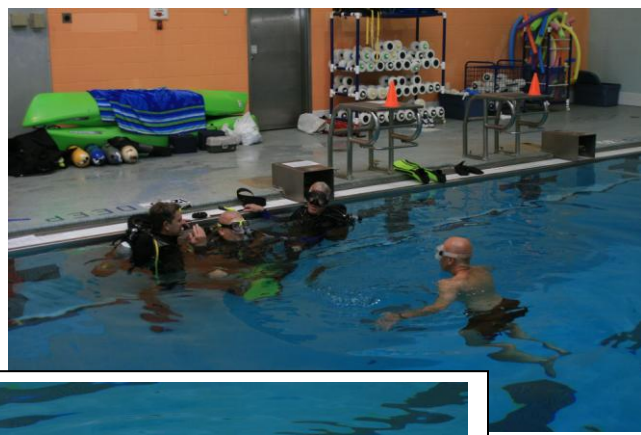
Quadriplegic 4 person assisted entry
Great care is taken to prevent injury such as scraping the back, buttock and back of the legs against the edge of both entry and exit locations.



Simulation

To experience either paraplegia or quadriplegia, the feet are tied together (no fins are needed) and in the case of a quadriplegic, the tied feet are then tied to the back of the weight belt.

Buoyancy control becomes a more difficult skill to master as the lower part of the body does not assist in propulsion and alters the body angle in the water.



Comfort in the water
Going over the dive and final checks (above) and adjusting the BC (left)

Empathy Training (cont.)

Insights from Empathy Training

By Bryan Smith SEI Diving Assistant Instructor

Working with and training with divers facing challenges can be an overwhelming at first, yet very fulfilling experience. For those individuals with disabilities, scuba diving helps take away some of the stumbling blocks and limitations divers deal with on a daily basis while going about their everyday lives. Weightlessness and full body emersion into this underwater activity offers different sensations and elicits feelings including that of freedom and a oneness with nature.

I did not realize all this training and experience would encompass. Each participant was required to complete each role as the challenged diver, the instructor, the dive buddy and the secondary support person to experience the training from all perspectives – which proved to be rigorous and intensive but so very worthwhile.

I found trust to be one of the most important if not the most critical quality for many participants, but especially for a quadriplegic diver. Trust in the dive buddy, trust in the equipment, trust in the training as everything, including the very life of the diver depended on another individual. It takes trust and courage to spit out a regulator to indicate 'out of air' because there may be no other way to signal and inform a dive buddy. In buddy breathing, it takes complete confidence in your dive buddy to trust they will share their air as frequently as needed as you can't reach out and help yourself. I found mask clearing and ear equalizing on decent along with nose and mask clearing to require a concerted effort to achieve successfully which would necessitate more practice to become more comfortable.

The rewards of working, with wounded military veterans including amputees, children with disabilities and adults overcoming debilitating injuries from illness or accidents are so overwhelmingly positive. This is life changing for all involved!



Buddy breathing



Buddy breathing



Ear clearing

Holiday Traditions

Autumn Events: Halloween and Thanksgiving

Pumpkin Carving is a holiday tradition for many across the US and these divers of all ages hold an annual competition of pumpkin diving underwater.



Aiden Leaird pumpkin carving



Divers from the Delaware Divers Club with their pumpkins

We would love to hear what your holiday diving activities entail – send your photos and stories to info@seidiving.org

Christmas

Try decorating a Christmas tree underwater

Helpful hint:

Ornaments and decorations will want to float so they will need to be tied of securely.

**Merry Christmas and
Happy Holidays from
Scuba Educators
International**



Decorating a Christmas tree underwater

Reminders

CMAS Certifications

Scuba Educators International, Inc has completed an agreement with Underwater Society of America regarding CMAS certifications. Effectively immediately, we will begin issuing CMAS diver and leader certifications. The cards are purchased by USOA from CMAS and the front side will show the international CMAS logo, the diver or leader level and a hologram. The back side of the cards will be printed at the SEI Diving office and will show both SEI Diving and USOA logos in addition to the diver or leader information similar to our current cards.

Underwater Society of America holds a seat on the Technical Committee of CMAS international and therefore SEI Diving will become the training agency for USOA. To be sure both our instructors, SEI Diving, and USOA is covered by liability insurance, each instructor MUST list "Underwater Society of America" as an additional insured on their insurance. We must have that certificate in our file before we can issue cards. Diver levels do not expire but instructor levels will expire in five years from date of issue as long as the instructor maintains insurance and is current with SEI Diving.

Here are the equivalent levels:

<u>CMAS</u>	<u>DIVER</u>	<u>SEI Diving</u>
1 Star Diver		Open Water Diver (age 15+)
2 Star Diver		Advanced OW (age 15+ w/ 20 logged dives)
3 Star Diver		Advanced Plus Diver (age 16+ w/ 50 logged dives)
4 Star Diver		Master Diver + DRAM Rescue Diver + 100 logged dives
<u>CMAS</u>	<u>INSTRUCTOR</u>	<u>SEI Diving</u>
1 Star Instructor		Divemaster/ Assistant Instructor (age 18+ w/40 logged dives)
2 Star Instructor		Instructor (age 19+ w/ 100 logged dives)
3 Star Instructor		Instructor Trainer (age 21+ w/ 200 logged dives)



Be aware that in the CMAS system, a One-Star Diver is a diver that is accompanied on dives by a higher level diver. The SEI Diving Open Water Diver does not fit the criteria of a Two-Star Diver because 20 logged dives are required.

Cost for these cards will be: Diver \$25.00 US each
Instructor \$40.00 US each

Please contact our office for further assistance at 765 281 0600 or info@seidiving.org

Dive Site Info

We have received requests from numerous SEI Diving Leadership for other SEI Diving Leadership all over the world to write a little about the dive sites they use and some of the features (wrecks, planes etc), fish and other aquatic life found at that dive site.

Pictures & Stories

If you have any interesting pictures or stories from your dives – send them to us and we may be able to include them for others to enjoy.

The Grouper That Swallowed My Arm

In the good old days in Cozumel, we used to feed the fish by hand. We would gather remains from our breakfast, such as pieces of bacon or sausage and place them in plastic bags that we would take along on our morning dives tucked into a BC pocket. The fish would go bonkers when we'd pull those baggies out and release some of our leftovers! It was all very exciting! Little did we know that we were teaching our scaled friends bad manners and that they were learning to be aggressive towards divers. Bermuda chubs would snap at anything that looked like plastic, such as our mask straps. Yellowtail snappers often snapped at our hair. Groupers would charge through the area pushing smaller fish out of the way, while big green morays would come out of their caves for a bite to eat and often slither around us, and sergeant majors would swarm the area.

Feeding the fish was a pretty common activity in those days. The fish loved it and the divers had a ball with it. Occasionally, though, someone would get bitten. One day in particular I learned my lesson.

One morning, as I entered the water from the boat, noticing how beautifully clear it was, I looked far off into the distance across the sand. Then, I cast my view along the top of the wall. As I reached the top of the drop off, I saw a particularly large grouper down the reef about 50 feet away from me. This guy was about 4 feet long and totally gorgeous. I looked at him and saw he was looking my direction. So, I reached into my pocket and pulled out my little baggy full of yummy bacon bits. No sooner had I gotten it out and waved it in front of me to get his attention, than he made a beeline for me going so fast that I couldn't get the bag hidden from his view before he reached me. I didn't know anything that big could move that fast.



Large Grouper with a diver

He swam right up to me and sucked into his mouth the baggy, my hand and my arm past the wrist halfway up to my elbow. POW! Just like that! I was stunned for a moment as I made eye to eye contact with him right there in front of me. I pulled my arm, wiggling and wriggling as I pulled. I slugged him in the side with my other hand, but he wouldn't let go. Finally, with enough wiggling and pulling, I was able to pull out my arm with the baggy still intact.

I covered up the baggy with my arms in front of me and turned away from him. He swam around to my front again and looked for the baggy. I turned away again, and he followed around to my front again. But in the meantime I was able to get the baggy tucked back into a pocket. So, I put both hands right in front of him with my palms up and open. He swam right up to my one hand and looked closely at it. Then he swam right up to the other hand and looked at it. Then, not seeing the baggy anymore, he turned around and swam away.

Later, I discovered some long scratches down my arm, but nothing serious, thanks to my wetsuit and gloves. I guess there's a lesson to be learned here!

Final Note

Renewals

**'Tis that time of year – renew early and receive a discount
before November 30, 2010**

SEI Diving Bucks

There are two areas where you can earn credit. Certify more than 50 students during our fiscal year or purchase more than \$1,000 worth of supplies and materials for your students.

Instructors certifying 50 students earn a \$50 credit for use in the SEI Diving store and each additional certification over 50 earns you another SEI Diving Buck. Purchasing \$1000 in supplies and materials earns you a \$50 credit and for each \$20 amount of materials purchase over \$1000 earns you another SEI Diving Buck.

Publications and Continuing Education

As a reminder, Currents is your publication, and submission to Currents counts towards continuing education, so we encourage participation in this newsletter. Articles or information can be sent to info@seidiving.org. We prefer Word documents for articles so that we can format the text to fit layout. Pictures and figures should be referred to in the text and attached separately with proper labeling. Pictures should be sent as jpeg or pdf files. If you have any questions, please contact our office at 765 281 0600. Please scan all files and pictures for viruses before sending.

Contact Us

General questions, scuba certifications, replacement cards, and leadership renewals:



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