

Underwater Speleology

Journal of the Cave Diving Section of the National Speleological Society

Focus on Sump Diving

Volume 53, No. 1
Spring 2026

Blue Descent

NSSCDS™

COMMUNITY

Teamwork above and below the surface.

INTERNATIONAL CAVE DIVING CONFERENCE • JUNE 5th & 6th 2026

Rembert Farm - 13014 NW 174th Ave., Alachua FL, 32615

FRIDAY 5:00pm - 9:00pm

Story Time Social Event
Raffle Prizes + Beer and Pizza

SATURDAY 8:30am - 4:30pm

Engaging Speakers + Lunch + Awards
Raffle Prizes + Grand Prizes



TICKETS ARE LIMITED • REGISTER BY MAY 5TH AT [NSSCDS.ORG](https://nsscds.org)

NSS-CDS BOARD of DIRECTORS

CHAIR:

[Fred Stratton](#)

VICE CHAIR:

[James Chandler](#)

TREASURER:

[Renée Power](#)

SECRETARY:

[Jennifer Dillaman](#)



DIRECTORS:

COMMITTEES AND VOLUNTEERS

[Joerg Hess](#)

[Steve Dalcher](#)

TRAINING DIRECTOR

[Chris Brock](#)

WEBMASTER

[Kevin Stiegler](#)

ADMINISTRATIVE MANAGER

(Section business):

[Adam Hughes](#)

5200 NW 43rd Ave., Ste. 102-380
Gainesville, FL 32606
561.704.3038

Underwater Speleology

Volume 53, Number 1, Spring 2026

Focus on Sump Diving

Section Editor: Michael A. Raymond

features

Editorial: The State of Sump Diving

by Michael A. Raymond5

Caving in the Mountains of Chiapas

by Germán Yáñez Mendoza6

Evacuating a Patient Underwater

by Michael A. Raymond.....11

Equipment and Lessons Learned from the Northeast Sump Team (NEST)

by Joe Kaffl.....18

Sumposium Weekend - Rescue Practice

by Michael A. Raymond.....23

Exploring in Ellison's Blue Hole

by Joseph Firkaly-Paciera III.....24

Tremendous Time in Tulum - Winter Workshop Wrap Up

by Fred Stratton30

The Gnarly Sumps of Georgia's Climax Cave

by Guy Bryant35

columns, news, and announcements

A Note from the Chair

by Fred Stratton4

Recognizing Members' Outstanding Service

by Fred Stratton10

Preview of the 2026 International Cave Diving Conference

by Fred Stratton.....16

My 100th Cave Dive - Abe Davis Story

by Dan Alix.....40

Milestone Dives and Awards

by Fred Stratton42

2026 Underwater Speleology advertising rates - see page 45

COVER: Guy Bryant pushes a bottle through to Court Smith in Climax Cave. © Guy Bryant.

A NOTE FROM THE CHAIR

EDITOR

Barbara J Dwyer

SENIOR EDITOR

Michael A Raymond

GRAPHIC ARTIST

Shannon Perry

PHOTOGRAPHY EDITOR

Guy Bryant

CONTRIBUTING WRITER

Fred Stratton

ADVERTISING MANAGER

Nancy Winfree

To our readers and members: Views represented in *Underwater Speleology* articles are solely the author's and do not reflect the views of the NSS-CDS Board of Directors or of the Editor.

We advocate freedom of speech and welcome discussion. Feel free to rebut previous articles and/or to submit your own.

The magazine encourages members to submit news, stories, letters, trip and exploration reports, maps, and photos for consideration. Please contact the Editor for publication guidelines and to avoid duplication of work.

Underwater Speleology (UWS) is published quarterly (four times yearly) by the NSS-CDS, 5200 NW 43rd Ave, Suite 102-380, Gainesville, FL 32606. Telephone: (561) 704-3038

UWS is a membership benefit. Information about membership fees and registration can be found at <https://nsscds.org>.

Please send address changes to cds-manager@nsscds.org or to 5200 NW 43rd Ave, Suite 102-380, Gainesville, FL 32606

UWS text, illustrations, and photographs may not be reproduced without the express consent of the NSS-CDS or its authors, artists, or photographers.

NSS-CDS is a 501(c)(3) nonprofit organization.



by Fred Stratton

Spring is upon us. As nature awakens from its winter slumber, humans egress their hibernation lairs and venture forth. Here in north central Florida people talk of an “unusual winter” in which some saw snow flurries! (I can hear our ice diving members in the upper Midwest laughing). This is going to be a great year for the Cave Diving Section as we build on recent momentum and growing member enthusiasm.

The 2026 Winter Workshop in Tulum, Mexico was, by all measures, a tremendous success thanks to Claire and Lanny Vogel, our hosts at Underworld Tulum; eleven high caliber speakers; a dedicated crew of NSS-CDS volunteers, staff, and Board members. We especially appreciated the effects of carbonic acid's carving beautiful passages through the Yucatán Peninsula after the last Ice Age. Read the article on page 30.

The 2026 International Cave Diving Conference (ICDC) planning team has shifted into high gear. With top-shelf speakers, spectacular raffle prizes, generous sponsors, great food, tasty beer, and the cave diving camaraderie you've come to expect, this year's Conference (June 5th and 6th) is shaping up to be quite the kickoff to summer. See the article on page 16 for details.

Tara Forest Threat: The Alachua City Planning and Zoning Board met on 20 January to finish its previous quasi-judicial hearing about the fate of the Tara developer's Special Exception Permit. This would have allowed the construction of retention ponds in Tara April, a parcel of land just northwest of Mill Creek Sink and only a few hundred feet from Mill Creek at its closest point. Both sessions were packed to overflowing. With a room capacity of 156 people, citizens spilled into the hallway and onto the parking lot. Others who couldn't even find parking watched the hearing through the Our Alachua Water Livestream.

(continued on page 17)



**Sheck Exley's 77th birthday is today
April 1, 1949 - April 6, 1994.**

THOUGHTS ON THE STATE OF SUMP DIVING

by Michael Raymond
Section Editor

Ever since I began cave diving in 2013, it seemed like the center of the cave diving world was in Florida. The NSS-CDS is heavily focused on Florida, and chatter on social media was usually about Florida diving as well.

It may be changes in what I read and who I hang out with, but lately I've been hearing far more about diving outside than inside the state. People are setting records in Arkansas and Texas, and there is exploration going on in Minnesota, Wisconsin, New York, Missouri, West Virginia, South Dakota, Arizona, Alabama, Kentucky, Utah, and other states.

Here are a few thoughts on those efforts.

Despite the high-quality products made by companies in the dive industry, it seems like we still use plenty of homemade dive equipment. Packaging to keep things dry while traversing sumps is repurposed or homemade. The tiny rebreathers used for short and shallow sumps are built using supplies from plumbing stores. Given the small numbers of people doing this exploration, it makes sense. No business would make a profit selling to this esoteric market.

Florida and México are warm and beautiful—but finding virgin dry cave beyond a sump for the first time makes it worth it.

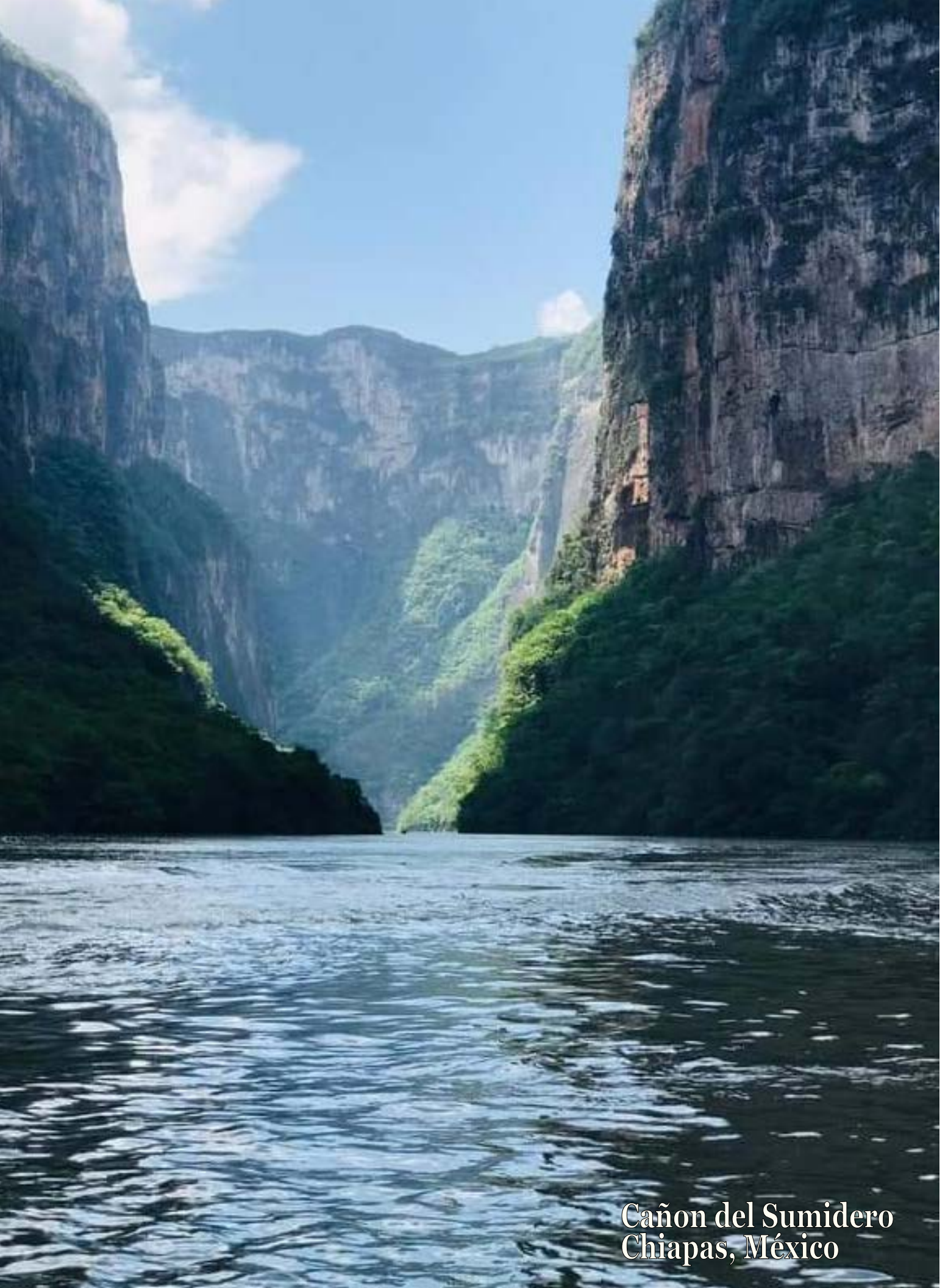
Preparing for rescues in these environments continues to be a challenge. Whereas in places like the United Kingdom where they have several caches of sump rescue equipment in their much smaller country, the U.S. National Cave Rescue Commission is almost entirely focused on dry cave rescue. There are no caches of supplies, and it often seems like we have more states than people involved in sump diving.

There is much good news though. Because of the Rolling Thunder rescue attempt (report in the next issue), the state of West Virginia has gotten very interested in training divers to do mine rescues. News about the incident has made many people aware that sump rescue is an option for future cave incidents. There is also no shortage of diving leads. We could have ten times as many active cave divers and still have to say no to most projects.

And that points to maybe our greatest need: generating more sump divers. Florida and Mexico are warm and beautiful. It is only the lure of true exploration that draws people to our cold and muddy sumps.

But once you find virgin dry cave beyond a sump for the first time, it almost becomes worth it.

Michael Raymond is a Minnesotan sump diver. He is an instructor with the U.S. National Cave Rescue Commission and the U.S. representative to the European Cave Rescue Association and is leading the effort to develop skilled sump rescuers in America.



Cañon del Sumidero
Chiapas, México

Caving in the Mountains of Chiapas

by Germán Yáñez Mendoza

Chiapas is part of the Central American Isthmus belt. The state is largely a karst plateau that contains many different ecosystems. There is a vast amount of jungle, mountains with cloud forest, the Pacific Ocean, many rivers and lakes, and also caves. Yes you heard right, CAVES.

The Federación Mexicana de Actividades Subacuáticas A.C. is a national diving organization. It includes the Círculo Espeleológico del Mayab A.C., a nonprofit caving organization from the Yucatán Península that has members from Quintana Roo, Yucatán, and Campeche states. We have been working with the Chiapas local caving group Grupo Espeleológico Jaguar A.C., another nonprofit organization based in Tuxtla Gutiérrez city, Chiapas.

For years, both organizations have worked closely together on scientific projects, cave exploration, and cave diving. This article is about our first expedition in 2013 when we first met each other and began to work together. We have since made many other expeditions and will write about them in future articles.

In 2012, I had a video call from Kaleb Zarate, a biologist and cave explorer. Kaleb is a founder of Grupo Espeleológico Jaguar A.C. and a past president. During this call, Kaleb showed me a map of Cueva del Aguila and Cueva Cuauhtémoc. These caves are located in the San Fernando region close to Tuxtla Gutiérrez. The area is at high elevation and surrounded by beautiful mountains and canyons. We began to plan our first cave expedition there. Since this trip, we have traveled there almost every two years to explore with them.

San Fernando. This town is influenced by the Mayan Zoque culture. The area extends for 360 square kilometers/140 miles and sits at an altitude of around 1800 m/5900 ft above sea level. Temperatures average 25 degrees C/77F in summer and 15C/59F in winter with an average of 15 degrees C/59F. It's an area with lots of clouds and rain most of the year, perfect for growing coffee, corn, and beans.

Base camp. We arrived in Chiapas by car from Quintana Roo. Kaleb from Grupo Espeleológico Jaguar greeted us and took us to the base camp. We passed the day checking our equipment, making sure that it all had arrived and was functioning properly. We spent the night there in the base camp in Tuxtla Gutiérrez. We planned to gather the next day so that all of the explorers from Chiapas and Quintana Roo could meet each other.

The meeting day arrived. We—Bruno Espinosa from México City and myself from Quintana Roo—introduced ourselves to the team members that we didn't know. All of them are very skilled in vertical work with single-rope techniques (SRT) in caves. We made plans to explore two different sites. One is Cañon del Sumidero, which contains Cueva del Aguila. The other one is named Cueva Cuauhtémoc.

Cañon del Sumidero.* This huge canyon spans 32 km/20 mi in length with walls over 800 m/2625 ft high. During the boat trip down the river, we spotted different caves. We briefly checked out Cueva del Aguila, which requires federal permission for camping and exploration.



Our camp in Cañon del Sumidero. © Germán Yáñez Mendoza.

* "Sumidero" translates as "drain."



Getting to the sump involved a steep climb while hauling up all of our gear. © Germán Yáñez Mendoza.

After we obtained the permits from CONANP (the National Park Service), we loaded a boat with equipment and supplies. We would need rigging gear to climb the huge wall that led to the cave's entrance (in the middle of the east wall). We hauled all of our diving gear and enough food for two days. We planned to use filters to purify water for drinking.

We told the boat captain where to drop us and to pick us up in two days.

We began our ascent with a team of Mexican and Italian cavers, who rigged and installed rebelay and pulleys to raise up the heavy gear. The wall was very high, probably around 300m/984 ft. There was a little entrance in the top where we made our base camp. In the rainy season, water cascades strongly into this area. Planning our expedition during the dry period was essential in order to avoid dangerous conditions. Having all of the cavers properly trained in SRT exploration made our efforts safer and easier.

We reached the top of the wall at night and decided to rest and start caving the next day.

The next morning, we all had a good breakfast. We would be walking and diving in the wet part of the cave, so we grabbed granola bars and water.

Our trip began as a difficult descent. There was

lots of mud, and conditions were slippery. We fell a couple of times. Carrying tanks and heavy equipment complicated the effort.

After an hour of walking, we reached a place with crystal-clear water that looked like a river. We stopped here and assembled our cave diving gear to begin the dive. The water temperature wasn't bad— 22 C/72F. With a semi-dry suit it was perfect. Depth was 7m/23 ft. I swam underwater with very clear visibility, passing the first sump after around 15 minutes. We passed a second sump at around 20 minutes, and then the cave stopped. It continued, but it was a fissure, with no space to admit a diver.

The return was in zero visibility. Without a guideline it would have been impossible to find the way out. Fortunately I had done a solo dive, so I didn't have to worry about anyone else. I grabbed the line, cut it, and tied off in a crack. Then I used my compass to survey out, pretty much in zero visibility.

We tried to reach the other sump inside the cave, but the day went by fast. The boat was picking us up the next day, which didn't allow us time. We had to have all of our gear down at the edge of the river where the boat would pick us up. Transporting everything required an entire day's activity.

Cueva Cuauhtémoc. We returned to Tuxtla Gutiérrez for a day to recover from our exploration efforts in



The author rigged up for a descent.



Transporting gear in Cueva San Fernando. © Germán Yáñez Mendoza.

Cañon del Sumidero. We planned a trip to the San Fernando area to explore Cueva Cuauhtémoc, planning to camp in the village near the cave. We had spent four days there on a previous scouting trip and had observed that the pond was deep. So we expected that this sump would contain a deep cave.

During our Chiapas pre-trip planning, we had decided to bring a couple of tanks containing trimix and EANx mixes for decompression. This made the dives much safer.

This time we had two push divers, Bruno Espinosa and myself, as well as safety diver Iván Palacios. Our excellent surface support consisted of Kaleb Zarate, Pinky, Roberto Rojo ("Chibebo"), and others whose names I don't remember. Without their support, it would have been a hell of a job to dive the sump.

The dry portion of this cave is around 500m/1640 ft with a couple drops that required us to install rigging and rebelayes. The deepest drop is around 17m/56 ft and the second drop eight meters/26 ft. Both required vertical cave gear.

At the water, we decided to install a zip line to load the tanks and in case we needed to bring up an unconscious diver. The zip line made the logistics of moving gear to the water much easier.

I did the first dive solo dive to 60m/197 ft. Conditions weren't bad for exploring—the temperature was around 23 C/73F and the visibility around 10 m/33 ft. When I reached 60 meters and swam into some small spaces, my deco time began to increase rapidly. My breathing gas started to run down quickly too. So I started my ascent, completing the deco requirements with a mix of 80/20. I left the other side of the deep pit for the next diver to explore.

We had to wait a day for the water to clear so that we could see where to go and spot side passages to explore.

It was Bruno's turn to make the second dive on the next day. He descended using trimix and went to the side opposite from the one I had explored. He searched without finding any passages.

On the final day, I decided to do a third dive. I wanted to be sure that this cave was just a pit and didn't have side passages. I descended again to 60 meters and checked all around. The cave's fissures allowed water to flow, but there were no passages large enough to admit a diver.

We didn't know it at the time, but we had set a record for conducting the deepest cave dives in the mountainous, karstic state of Chiapas.

At the end, we had a great time with friends camping, caving, and cave diving. We met our most important goal—to have fun, to document the cave, and to come back alive and safe.

This trip allowed us to meet new people and to make great friends. Just as importantly, we demonstrated to the Chiapas community that cave diving is a great tool to explore caves in the mountains in this beautiful karst plateau.

In another article, we will publish our five-day camp inside Puercoespín ("Porcupine"), another sump and cave in the same region.



Germán is an explorer of caves, a pioneer in promoting cave safety and rescue, and a longtime NSS-CDS cave diving instructor. He recently presented at the 2026 Winter Workshop in Tulum.

RECOGNIZING OUTSTANDING SERVICE

We presented two NSS-CDS Outstanding Service Awards (OSA) at the 2026 Winter Workshop hosted by Underworld Tulum. The OSA recognizes "outstanding service and selfless dedication" to the Cave Diving Section of the National Speleological Society.

THE NSS-CDS PRESENTS THE OUTSTANDING SERVICE AWARD TO CLAIRE VOGEL AND LANNY VOGEL.

"As hosts of the 2026 Winter Workshop at Underworld Tulum, your tireless efforts to plan and coordinate innumerable details played a major role in the brilliant execution of the NSS-CDS's first international event. Your contributions exemplify a high level of service to the Section and deep devotion to the cave diving community."



Claire Vogel accepts the Outstanding Service Award from Fred Stratton on behalf of herself and Lanny Vogel. Photo by Shannon Perry.



Shannon Perry accepts the Outstanding Service Award from Fred Stratton. Photo by Renée Power.

THE NSS-CDS PRESENTS THE OUTSTANDING SERVICE AWARD TO SHANNON PERRY.

"Your creativity, hard work and meticulous attention to detail were instrumental in the successful planning and execution of the 2026 Winter Workshop in Tulum, México. Your contributions—from graphic design and marketing to point-of-sales system updates and logistics support—embody the very spirit of our member-driven organization."



EVACUATING A PATIENT UNDERWATER

Equipment and Procedures

by Michael A. Raymond

In a sump rescue, one or more patients are trapped inside a cave because they cannot exit through a flooded tunnel. Reasons for being trapped include medical problems, problems with their equipment, or something to do with the cave passage. In one scenario, a sump diver has a problem with the line or his or her diving equipment. A more common scenario is that people doing a dry cave trip get trapped because a passage floods. This article will discuss part of the solution to the latter.

Whether to swim out? When rescuing patients from behind a temporary sump, using divers to swim out patients is usually the last option. Finding a way to wait out the flooding and / or lower the water are vastly safer for everyone involved. Exceptions do exist, such as when the cave is rapidly flooding to the ceiling. We will briefly mention some of the human dynamics at the end of this article. This article will focus on equipment issues and rescuer procedures.

If you are going to swim a patient out through a flooded passage, you need to provide the patient with scuba equipment. For situations in which you know ahead of time that you will be swimming the patient, this equipment includes some type of fins, harness, buoyancy control, and breathing apparatus. We'll discuss each of these.

EQUIPMENT CONSIDERATIONS

Fins or not? You may be tempted to not put fins on the patient. Fins are just one more thing you need to transport through the cave. You may think you can move the patient yourself just fine. You are so used to diving only with skilled divers that you have forgotten what it is like to see someone out of trim. You will need to deal with all of these issues in a rescue.

When propelling a patient, you will swim right above them. This assumes a large cave passage. You will take their wing's low pressure inflator, unclip it from their chest, and move it somewhere more accessible. This includes putting it on top of the person or clipping it to their left shoulder D-ring where it's less accessible but also protected. To propel the patient,

you will grab the shoulders of their harness and tow them as you swim along.

Swimming an inert patient is hard work. It is exhausting. For all but the shortest sumps, you will be happy to get a little help from the patient. Consider the tradeoffs between extra silting caused by the patient's poor finning and saving your energy for critical moments. If and when you have the patient fin, you both will keep kicking each other. We are investigating techniques to mitigate this.

Remember that one important element of fins is their impact on trim. Even if you don't want the patient to do much finning, consider sticking something heavy on their feet to keep them in trim. You don't want to have to manage a patient who goes feet up any time you leave them.

Buoyancy. This brings us to our next topic — managing the patient's buoyancy. In the sump rescue world, one of our main training exercises is to have a rescuer swim a mock patient up and down a sloping guideline. When doing this, you will be tempted to use the patient's wing to manage buoyancy for both of you as you lay on top of him or her — you will dump all the gas from your wing and only use the patient's. This reduces the number of bladders you need to control.

But this technique fails, potentially disastrously, when the rescuer has to get off the patient to manage some issue. Suddenly the rescuer is very negative and the patient very positive. You cannot predict all the times when this might happen. Therefore, the rescuer must make an effort to keep both people near neutral.

If you have been following sump rescue training efforts from a distance, you have probably seen photos of patients traveling in litters. That does make for exciting photos. But the American sump rescue community, and most of the world, recommends against this. Litters are heavy, have buoyancy issues, and are hard to maneuver through restrictions. Patients with broken arms or legs can have their limb duct taped to another body part. Patients with head,

neck, or spinal issues so severe that they warrant a litter when traveling through dry cave will either receive enough body support just from being in the water or are very unlikely to survive an underwater transport.

An exception to litter use does exist in the case of very short duck unders. In this case it may be faster to give a patient in a litter a regulator and push them through the duck under than to get them out of the litter and repackage them on the far side.

Breathing considerations. The last major piece of equipment is the breathing apparatus. We will discuss the tanks, regulators, and hose systems. In all of this, we assume you know ahead of time that you will be swimming the patient. All the equipment for the patient is deliberately brought into the cave for them.

The patient should use *aluminum scuba tanks* with stage rigging. Rescuers must travel to the patient while wearing their own tanks and transporting the patient's. This means that the patient's tanks must be rigged with bungees, bands, straps, bolt snaps, etc., so the rescuer can wear them in a stage-diving configuration. You may want an additional cord or climbing sling around the tank neck to ease hauling the tank up and down pits. Once you reach the patient, you will need to adjust the tank rigging so that it can be used in a sidemount configuration. This may involve shortening straps or bungees.

Regulators. Let's transition to the regulators. There should be a specific set of hoses on every first stage regulator that a patient will use. Each regulator:

- must have a submersible pressure gauge.
- must have a second stage regulator with a hose long enough for the patient to breathe from when swimming in sidemount configuration.
- should have an inflator hose that can be used with the patient's buoyancy device or drysuit.
- should have a hose with a male QC6 connector. This last hose is for integrating with the regulator that the patient will actually breathe from.

When rescuing a patient with limited or no diving experience, the patient will ideally breathe from a single second stage regulator. Having the patient switch between different regulators will significantly increase patient stress and the odds of something

going wrong. Put a necklace on the regulator so it can be easily found if the patient loses it.

Whether the patient's second stage is a traditional second stage or a full face mask (FFM) will depend on equipment availability, the patient's comfort level, the patient's experience, the nature of any facial injuries, and whether you can find a FFM to fit the patient's face.

Connecting the patient's two sidemount tanks to his or her primary second stage will require some type of gas block (see photo below). A hose going from each first stage will connect to the gas block with a QC6. The breathing gas will then flow through a third hose to the patient's second stage.

While it may seem natural to clip the gas block near the patient's shoulders, clipping it near the patient's butt D-ring is preferred. There is more space there and less chance of the gas block's being scraped when traveling through restrictions. This does mean the hoses need to be longer. You will want a five-foot hose for the patient's second stage. Route all the hoses under the patient's harness and wing to the extent possible to protect them.

One interesting debate is whether the gas block can be a simple splitter or whether it should have a switch. The switch allows selecting which of the two sidemount tanks is in use. A splitter is simpler. A switch provides increased fault tolerance, but also the



An example of a gas block with hoses. Courtesy of Michael A. Raymond.

chance to make mistakes. Perhaps the top reason for a switch is to support decompression.

When moving a patient through a long or deep system of sumps, you may need to swap out the patient's scuba tanks while underwater. In the United States, there are extremely few deep sumps through which a patient might need to travel. They do exist in México and parts of Europe. Switchable gas blocks are needed for these deep sumps.

PROCEDURES

The procedure for swapping tanks is related to that for stage diving. The patient's left tank is used exclusively during swaps and for air breaks. The patient normally only breathes from his or her right tank.

During a swap, if the patient has a switchable gas block, switch them to their left tank. Then:

- disconnect the QC6 connecting their right tank to the gas block.
- turn off the first stage and clip the tank on the line.
- turn on the new tank, and verify gas safety for the depth. Confirm that the first stage works.
- connect the new tank's QC6 to the gas block's QC6.
- switch the gas block over to the new tank.

Throughout all of this, regularly check in with the patient. Confirm the patient is breathing okay after the gas switch.

The second stages connected directly to the first stages are there in case anything goes wrong with the gas block system. Gas switches are another reason why aluminum tanks are important: Taking a steel tank off a patient will cause a radical change in buoyancy and trim.

Attentive readers will have noticed that the tank swapping procedure made no mention of the inflator hose. When sidemount diving, one tank's inflator hose is connected to the wing, while the other tank's inflator hose is connected to the drysuit.

You can disconnect the inflator hose during a tank swap and connect a new one, but there is a way to

avoid this. This will save you time and complications. Attach a hose splitter between the gas block and the patient's second stage. One of the exiting hoses will go to the patient's second stage, while the other goes to the patient's drysuit.

The splitter can also be placed between the patient's left tank and the gas block. This assumes that you put the patient into a drysuit. Using a wetsuit is far more simple, but some situations are too cold for this to be a viable option.

The patient's fins, harness, wing, and breathing system are the major parts of the equipment that rescuers need to provide. Minor equipment includes a helmet and light. Most patients will already have a caving helmet. Their helmet may be foam filled and very buoyant.

Patient control considerations. Giving the patient an underwater flashlight is good for their psychological state. It will help them understand what is going on and give them some control over their situation. A helmet-mounted light is preferable. The patient could drop a handheld light, and it occupies a hand that could be used for other tasks like following the guideline.

Should the patient even have his or her hands free? One school of thought is that if you don't trust a patient enough to use a regulator and put them into an FFM, then why would you trust them not to grab you when they panic?

The American sump rescue community is exploring the possibility of recommending that all non divers be restrained. While the patients in the 2018 Tham Luong rescue were all restrained, this is the only known rescue where that was the case. One good argument in favor of restraint is that the two workers rescued at the start of that incident almost died because when they panicked, they were free to swim away from the rescuers.

Airway maintenance. Another area of discussion is whether rescuers must control the patient's airway. In basic scuba rescue classes, students are taught to bring unconscious divers to the surface using one hand to hold the second stage in the patient's mouth and keeping the patient's head and neck oriented to maintain a patent airway.

Should sump rescuers do this? Some argue that it may be the only way to ensure that a patient doesn't

panic and spit out the regulator. Another positive argument is that because every scuba training agency teaches this method, a sump rescuer may get sued if he or she doesn't use it and a patient dies. One argument against this technique is that it is for patients who are unconscious. Our procedure for unconscious patients is to use FFMs. Another argument against the technique is that moving a patient through a cave is so task intensive that the rescuer simply cannot spare a hand for the patient's regulator.

A COMPLEX AND EVOLVING APPROACH

In this article we have discussed equipment and procedures for deliberately evacuating conscious non-diver patients through sumps. Patient psychology and training are largely ignored in this article. Before performing a rescue, the incident command staff must examine the variables of the patient, their equipment, and the cave passages. This will enable them to assemble a holistic set of equipment and techniques. Most of the current recommendations by the American sump rescue community were inspired by prior work in Europe and Australia. Much research remains to be done.

Michael Raymond is a Minnesotan sump diver. He is an instructor with the U.S. National Cave Rescue Commission, the U.S. representative to the European Cave Rescue Association, and is leading the effort to develop skilled sump rescuers in America.

ZERO GRAVITY

PROVIDING THE MEANS TO SAFER AND MORE ENJOYABLE DIVING

"Your Complete Cave Diving Base in Mexico"

THE BASE

- Sale & Rental Equipment
- Full Equipment Support
- Nitrox & Trimix Fill Station



Book your training or guided dives today
info@zerogravity.com.mx | www.zerogravity.com.mx

- Cave, Rebreather and Open Water training
- GUE ITC Center & Full-time Instructors
- Expert Guided Dives



STAY WHERE YOU DIVE

Fully Equipped Studio Apartments (Single, Double, Triple)
-Kitchenette, AC, WiFi, Hot Water, Laundry & Parking



Note from the Chair – continued from page 4

Expert testimony included NSS-CDS members, experienced Mill Creek Sink guides, geologists, and hydrologists (on 13 January). A total of 54 members of the public spoke in opposition to the proposal on the 20th. Tellingly, zero citizens spoke in support of the project.

After 11 hours of discussion, testimony, rebuttals and public comments over two sessions, the Alachua City Planning and Zoning Board voted 4-0 to deny the permit request. (One P&Z Board member recused herself because she missed the first part of the hearing on 13 January). In a very pro-development city hall, this decision was a sign of hope that the current Planning and Zoning Board does indeed factor the public interest into their decision making process.

The developer surely is plotting his next potential move, but we may take pride in having joined forces with local citizens and members of other conservation-minded organizations to educate, inform, and influence the city of Alachua to do the right thing. Well done!!!

Clearcut Sink Infrastructure: Now that NSS-CDS volunteers—in coordination with Florida State Parks rangers—completed the Clearcut Sink stairs, platform, and diver benches, final preparations are being made to open the Sink to cave divers. We'll have more details in the next issue.

Cow Springs Painting Project: A dedicated crew of eight NSS-CDS volunteers completely replaced the stair stringers and treads from the upper platform to the lower platform on 21 December. CDS member Lucas Velez donated several gallons of paint sufficient to cover the entire boardwalk, upper and lower platforms, and the stairs. Cow Springs property manager John Rutledge and Tom “TJ” Johnson then applied the paint. We expect that the protection from the elements will extend the life of the infrastructure. Thanks to volunteers and donors alike.

Annual Recognition Awards: The nomination period for this year's annual recognition awards for Conservation, Exploration, Lifetime Achievement, and Volunteerism will be 28 March through 11 April. With CDS members actively engaged in so many productive endeavors, some for decades, there are many good candidates for these awards. Please nominate your peers for their outstanding efforts! Send nominations to awards.coordinator@nsscds.org.

Election Cycle: Each year, three positions on your Board of Directors come up for election. These two-year terms are staggered to provide some measure of continuity. This year the voting period will open on 28 March and close on 23 May. Please participate and choose wisely. Your vote matters.

Go dive. Have fun. Be safe!

Fred Stratton is the 2025-2026 NSS-CDS Chair. He has been diving since 1987. The darkness beckoned to him in 2003.

GET READY, DIVE COMMUNITY:

by Fred Stratton

The 2026 **INTERNATIONAL CAVE DIVING CONFERENCE** is Coming

We've gained a lot of momentum in the past several years since the Section restarted events after the COVID-19 outbreak subsided. Last year's Conference broke the record for attendance and overall participation. By popular member demand, we are returning to our beautiful new venue of Rembert Farms in Alachua, Florida.

ALL-STAR PRESENTER LINEUP

We've got a stellar lineup of speakers presenting various topics of interest to all.

Paul Heinerth will once again be our MC. Thank you, Paul!

Dr. Chris Werner is the current director of the Woodville Karst Plain Project (WKPP), which just celebrated its 35th anniversary. Founded in 1990 by legendary explorers Bill Main, Lamar English, Parker Turner, and Bill Gavin, the WKPP continues its efforts to explore, map, and understand the underground rivers that intrigue us so much.

Jason Richards is a prolific explorer of both dry and wet caves and a noteworthy cave cartographer. He has explored and mapped caves in Hawaii, Florida, and Tennessee, among many other places.

Matthew Hardman and Brent Kiomall will present an update on Divers Atlas, a crowd-sourced repository of dive sites around the world. Matthew and Brent combine their love of science, exploration, and technology to gather and share information.

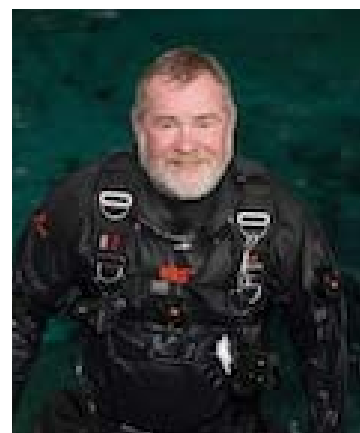
James Mott co-hosts The Great Dive Podcast and founded Mott Underwater. As a technical dive instructor, he is a coach at heart and focuses on skill development and the pursuit of mastery, rather than issuing certifications.

Bryan Buescher and Vicki Bashor—a husband-and-wife team—received the 2025 NSS-CDS Conservation Award for their work in raising the alarm over developmental threats to Mill Creek Sink. Bryan will update us on the status of these efforts.

Story Time with Woody and Lamar will be the highlight of this year's Conference Friday night social. We will toss a question at Woody Jasper and Lamar Hires and let the conversation go where it goes. Just like the Withlacootchee, it is sure to meander to interesting places!



Rembert Farms grounds. Photo courtesy of The Barn at Rembert Farms.



Don't miss Storytime with Woody (L) and Lamar (R)!



Our Friday night social will be at The Barn at Rembert Farms in Alachua, FL. Photo courtesy of The Barn at Rembert Farms.

Beer and pizza? Of course! This year we will return to those fine fermented beverages from Halpatter's Brewery in Lake City, courtesy of our friends at Dive Rite.

What else will be new? We have listened to feedback that told us that "we like the prize drawings but they take too long!" We are working on streamlining the process, which will include drawing some prizes at the Friday social and the use of silent auctions.

GRAND PRIZE DRAWINGS

Speaking of prizes, our grand prizes are just that. Dive Rite donated a \$5,000 spending spree good for anything in their catalog of "equipment of serious divers." You can even apply it toward the purchase of the O2ptima CM chest mounted CCR! Whatever you need — a new primary light, a drysuit, more stage regulators (do you ever have enough?) — you can complete your dive locker with this prize!



Grand prize number two is a Seacraft GO! This small yet mighty DPV weighs in at 21 pounds and yet packs a punch with 64 pounds of thrust, a top speed of 265 ft/ 81m per minutes, and 220 minutes (3:40) of runtime at cruise speed. What's more the GO! is air transportable as its 582 WaH of battery power are derived from six 97 WaH batteries—3 WaH under the TSA maximum. Clever, eh? Brought to you by the NSS-CDS, Explorer Technology, and Sump UK.

TICKET PRICES:

Conference tickets are \$70 for members and \$100 for non-members. [Join us](#) for \$35 and get the member price.

Tickets for the Dive Rite Shopping Spree are \$15 for one, \$70 for five, or \$130 for 10 tickets.

Tickets for the Seacraft GO! DPV are \$25 apiece, \$115 for five, or \$220 for 10 tickets.

Visit the [NSS-CDS website](http://www.nsscds.org) at www.nsscds.org to purchase conference and grand prize raffle tickets.

The NEST Perspective on Sump Diving

EQUIPMENT DEVELOPED AND LESSONS LEARNED

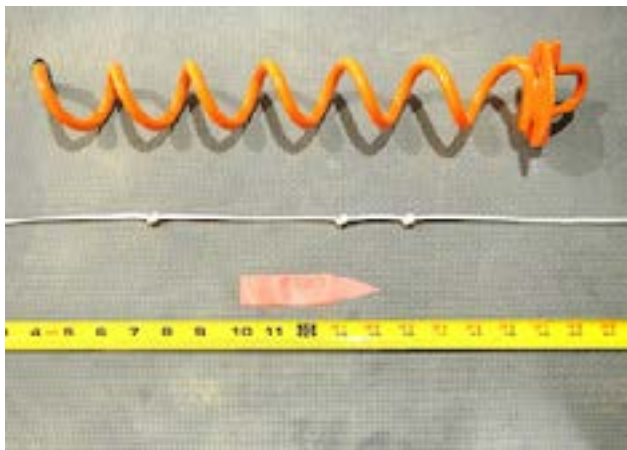
by Joe Kaffl

In the early 90s I founded The Northeast Sump Exploration team, NEST. Since that time the team has successfully conducted well over a thousand dives and explored numerous virgin sumps pushing large segments of dry passage beyond many of them. I am currently working on a book about these adventures and updating the team manual.

What follows are some approaches that we have developed and continue to use that might be of interest and some lessons learned the hard way.

Built-in directional markers. An early-in-our-adventures innovation that I developed was to build directional markers into the line. Every ten feet is marked by a knot for survey purposes. In front of that knot—pointing in the direction leading out—are two additional knots about two inches apart.

This has several advantages. Since the knots are part of the line, they provide a foolproof directional indicator of the way out. If you lose the line in zero visibility and recover it, you could potentially be disoriented as to the correct direction to exit. Let's face it: If you lost the line, something else is probably going wrong, so your stress level will be heightened.



Directional knots placed on the exit side of the survey knot and dog spike. Courtesy of Joe Kaffl.

The knots solve this problem, since you cannot go more than 10 feet without running into a set. Because they are pre tied, there is no task loading incurred during the dive to add them. Unlike an arrow, they cannot be installed in error. Not using arrows for the most part also reduces the amount of flapping the line does under flood conditions, therefore protecting the line from abrasion. (NOTE: I am aware that others have used this approach situating the two directional markers—the knots—on the other side of the 10- foot knots, so beware of this potential inconsistency).

Artificial belays. When exploring a virgin sump, we normally conduct progressive penetrations rather than lay massive amounts of line on a single dive. We also use artificial belays extensively to ensure the line is located in the optimum position in the passage. We rarely use natural tie offs, which tend to be too far apart and not in ideal locations.

The most-used belay is a Disler spike made out of PVC pipe that divers can carry under rubber inner tube retainers on the side of the tanks. These have



Sample of line belays L to R: Disler spikes; drop weight in stowed position with wrapped line with clip for attachment to D-ring; plastic screw for hard gravel, and 3-pound stainless weight to attach to side mounts. The 1"x1" tile is used to mark sensitive areas in dry passages. Courtesy of Joe Kaffl.



Disler spike for placement in mud, sand, or sediment. Courtesy of Joe Kaffl.

a slot cut halfway through the pipe a few inches from the top. They are excellent for placement in mud, gravel, or sand sediment. We normally space these every 10 to 20 feet with the line wrapped around the slot multiple times, locking it in place. If the line should break, it cannot be washed a long distance, which might make its recovery in zero visibility impossible.

Coated lead drop weights are another belay device. that are attached with a continuous line loop—not the clips used to transport them—to ensure a bomb-proof connection that cannot detach or slide down the line. The clip is never used for line attachment because it can fail. The weights are ideal for locations with hard bedrock floors and where the line goes upward at a sharp angle.

Spikes. Metal spiral dog spikes or plastic screw spikes can be used in soft sediment when nothing else will hold or for hard bottoms that resist the placement of a spike.

UFOs. The final belays used are Underwater Fixed Objects, UFOs, developed by Erik Tesnau. These are cast concrete blocks or pyramids with stainless screw eyes. They are ideal as the first underwater tie off in systems that have high current flows under flood conditions.

A key team rule is when you run out of belays, the dive is over and it is time to go home. I have stopped on several occasions when I thought I might be close to air filled passage but out of belays. Being greedy can kill you, and it is not worth the risk. In some passages with loose sediment, the eddies created by Disler spikes will bury the line over time. Ironically, the device can protect guideline buried for long periods. We have found line buried for more than 20 years in perfect condition when pulled up.

Keep Plans and Equipment Simple

Another lesson learned is that task loading KILLS. It kills highly trained pilots, idiots driving while on their dumb phones, and cave divers. The human brain can only accept a limited amount of sensory input before it gets overloaded. The brain ignores some of this information, sometimes with deadly results. The only way to reduce task loading is to keep plans and equipment configurations as simple as possible and to take exploration and all dives slowly and methodically.

Every piece of equipment should add value, and it is great if one item can serve multiple purposes. Every time you add unneeded complexity to your gear, you introduce more potential failure points as well as use up valuable mental capacity. It is also important not to become a swimming hardware store. You do not need four compasses; a primary and backup are fine for most sites.

Lights are life support and therefore a different story. Using lights that have simple controls, rather than sophisticated models with multiple modes that



Under Water Fixed Objects (UFOs) designed and built by Erik Tesnau. These are great for the first tie off in the first sump or in high-flow conditions. Stainless quick links are used for line attachment. Courtesy of Joe Kaffl.

require complex button pushes, is the way to go. They must be based on site conditions and exploration plans with as much reasonable redundancy as possible.

In addition to running my primary light, I also have a backup—normally on a rubber inner tube loop around my neck—that is also on. If my primary fails, I am not left in the dark, once again reducing task loading.



Head-mounted backup lights attached to repurposed bike inner tubes. One set is worn around the neck and another around the head when not wearing a helmet. Backup lights use non-rechargeable lithium batteries. Courtesy of Joe Kaffl.

Gas. After the first section of line is laid for most dives, I will carry stages to the end of the line and reserve my side mount gas for further exploration. This gives me more redundancy, not only with regard to gas volume but a spare regulator if I make it to air-filled cave. Conservative gas turn points also make sense. At virgin sites I have used $\frac{1}{4}$ as my turn point on many initial dives.

Bad air, although rare, is always a possibility in dry passage on the other side of sumps. We also carry a small gas analyzer. One of our long-term sites went from perfect to low, life-threatening oxygen levels with no warning.

Having the ability to pump your own pre-dive gas and rebuild your regulators and other equipment is another way to reduce the risks.

Line cutters. We carry line cutters for two main reasons. The first is routine maintenance, such as splicing line or replacing worn sections. The second is to end a line entanglement that cannot be resolved in any other way.

The standard line cutter that the NEST uses consists of a pair of stainless steel EMT scissors worn on the wrist of the right arm or— for south paws— the left. The sheath is sewn out of heavy military grade two-inch flat webbing. The scissors are attached with a lanyard to the wrist. The lanyard is attached to the blade handle that has the serrated edge. The small tab on the end of the cutter is ground down to make inserting into the sheath easier.

Divers also carry a small backup cutter stowed on the left wrist so that it can be deployed with one hand. This system is designed for the conditions under which we dive and, like any approach, has advantages and disadvantages. We generally dive in cold water and, in most cases, solo with poor to no visibility. We usually move at relatively slow speeds.

Our system's primary advantage is that the cutter is always close at hand and cannot be lost or dropped. The disadvantage is that wearing the unit on the wrist adds some clutter and reduces streamlining. For our diving conditions, the advantages outweigh the disadvantages.

EMT scissors worn on wrist lanyard that allows them to dangle when doing line repairs and prevents inadvertent loss. Courtesy of Joe Kaffl.



Backup line cutter is worn on the other wrist. Older computer shown for size comparison. Courtesy of Joe Kaffl.

Let's face it: Any time you find yourself in a sump having to cut your line because of an entanglement, it has been a really bad day. Picture that situation: You are feeling stupid because you should not be in this position to begin with, so something else has probably gone wrong to get you here. You are excited, and the adrenaline is pumping. You have not panicked yet, but you are not as coordinated as you would like because of all of the adrenaline pumping through your body.

To all this, add cold or possibly numb hands. You reach for your knife and oops—you drop it, and it falls out of reach and disappears into the near zero visibility. You die.

With our system, you release your line cutter, and you can't drop it or lose it. If you are conducting routine line maintenance, you can even let it dangle for a short period while you use both hands for a different task.

Repair kit. We carry small repair kits in the drysuit pocket that allow us to correct minor problems on the other side of sumps. The Q-tips hold needles to remove O-rings. The light body is used as a dry container for small parts. It all fits into the small bag I made (*at right*).



Repair kit for quick fixes. Courtesy of Joe Kaffl.

Above all - Beware complacency and overconfidence

The saying that there are old sump divers and bold sump divers certainly applies. My final piece of advice is that it does not matter how many cave dives you have under your belt. The cave does not care. Complacency and over confidence can also kill you.



Author selfie modeling his head-mounted lights discussed in the article.



Joe Kaffl founded the Northeast Sump Exploration Team (NEST). He is a lifelong NSS and NSS-CDS member.

CDS Officer Elections are Live. Please vote!

Each year, three positions on your Board of Directors come up for election. These two-year terms are staggered to provide some measure of continuity. This year the voting period will open on 28 March and close on 23 May. You can read the [candidates' statements](#) on the CDS website. The new Board will convene at the International Cave Diving Conference on June 6, 2026, at the annual Membership Meeting.

If you did not receive a ballot via email, contact Adam Hughes at cdsmanager@nsscds.org.





DIVE RITE®
EQUIPMENT FOR SERIOUS DIVERS



2025 Symposium Weekend

by Michael A. Raymond

The American sump rescue community got together on November 8th 2025 to begin our annual practice session. We had no idea that the weekend would be interrupted by an actual rescue attempt. This article will discuss what practice we did get done. Details of the rescue attempt are published in a companion article.

The American sump rescue community has been getting together for a "Symposium" practice event every year since 2022. This enables us to experiment with different ways of executing the key tasks, and to practice our solutions. This was a down year with only six attendees – Michael Raymond, Ian Flom, Chris Garguilo, Christopher Howell, Tucker Palmatier, and Aaron Thomas – but we were still able to make forward progress. We met at Gray Quarry in northeastern TN. The plan was to practice individual tasks on Saturday and then do a mini exercise on Sunday. This would be our first time doing an end-to-end exercise, with the goal of identifying the unknown unknowns.

The event included a presentation by the author about the recent European Cave Rescue Association (ECRA) conference in Poland. This year's conference was the largest ECRA had hosted so far, with over two hundred cave rescuers from around the world. It included a multi-specialty skills demonstration at a flooded pit mine with cliffs around it. Divers moved a mock patient through the water to one of the cliffs where a rigging team raised him up, moved him to a different cliff, and lowered him back into the water where the divers took over and swam with him again. This happened several times. The medical group participated by showing how they would treat and monitor the patient throughout the simulated evacuation.

Other topics discussed at the Symposium included the use of full face masks (FFMs), what supplies to bring in your response kit bag through the sump, and what equipment is available for building shelters on the far side of sumps. We tried out a bothy bag, which is a multi-person shelter. It is supported by the personnel inside. This is uncomfortable, but this makes it small and lightweight to transport.

At the end of the morning, we practiced swimming patients along guidelines in open water. We set up a ~30m/100 ft guideline that stayed at a level depth of

~7m/15 ft. We also set up a short guideline dropping sharply down to ~15m/50 ft. Divers buddied up and propelled each other back and forth along the guidelines and then swapped roles. All mock patients wore sidemount harnesses and were face down.

After the swimming practice, we discussed ways to improve. It's rare that we can all get together for practice sessions. Being able to practice swimming with a "Rescue Randy" mannequin would allow us to get more repetitions in. We assumed that none have realistic buoyancy characteristics though. After the event we learned that the Ruth Lee company makes dummies that are used by public safety dive teams. While somewhat expensive, they bear further investigation.

The group agreed that the exercise was made easy because all the mock patients were experienced divers. In the future we would like to practice with brand new divers, or even non-divers, to see what changes. The logistics and risk management of that will be challenging. Further lessons learned from this exercise are discussed in the companion article Equipment and Procedures for Evacuating a Patient Underwater.

At the end of the afternoon, we re-entered the water to practice two more tasks. We practiced looking for exits from sumps, or for indicators in the sumps, which could help guide beyond-sump search planning. We also practiced swapping a tank on a patient using a gas block. The author served as the mock patient for the latter. He found that those rescuers who constantly checked on his status (as the gas block was manipulated and the tanks were moved around) greatly increased his comfort level and awareness of what was going on.

Done for the day, we cleaned up and headed out for Mexican food. As we left the restaurant, we were planning to head to our campsite and hang out before bed. This plan was interrupted by a call about a missing miner in the Rolling Thunder mine in West Virginia. The mine had flooded earlier in the day, and he was presumed trapped beyond the sumped tunnels. All thoughts of continuing our practice the following day disappeared as we got on the road. I'll have a full report of the rescue attempt in the next issue.

EXPLORING IN ELLISON'S BLUE HOLE:

History and Ongoing Adventures

by Joseph Firkaly-Paciera III

For such a short system, the Blue Hole has had a temperamental relationship with divers. Sitting at the base of Pigeon Mountain in Georgia, this bad-visibility cave has a history of divers unable to find the way forward, lost divers, and three line entanglements or breakages—one involving myself. The pre-1976 exploration reports are somewhat hard to interpret so I will do my best to describe them.

The Struggle to Find the Way On

Early penetration attempts were deterred by the cave's false entrance and low visibility. Once you enter one of the two main vents, you come to a small antechamber with a low passage that appears to be the way on. Many divers have taken this route and found themselves in a miserable, silty tunnel with the only way forward being the squeeze and a dig through silt and organic debris that lines the floor.

The actual way forward is a small square-shaped passage on the high left-hand side of the antechamber. It is very easy to miss. Some divers in recent years have sworn that the cave doesn't go, likely because they chose the false passage.

For example, Steve Hudson and Tom Schmidt were the first divers to explore the cave in December of 1968. Slipping beneath the shallow pool, they entered Blue Hole's the main vents. Silt rose around them. As Tom slowly inched his way into the antechamber, everything went black. His dive light flickered out, and he turned to leave. Steve continued, but realizing he was alone with a low silty passage below him, he decided to turn around as the silt engulfed his body. He had chosen the wrong path going into the false entrance.

Steve and Tom returned in January 1969 with Christian De Sousa, Ronnie Aycock, and Marguerite Mathews. They made it a few feet further than they had on the original dive but failed to make much progress.

The next group to dive Blue Hole was the Metro Underwater Divers Confederation Aquatics Team (MUDCAT) made up of Larry Bean, Scott Haney, Scott Leese, and Lanier Waddle. After talking to Hudson and Aycock in October 1975, they planned a series of no-holds-barred dives to finally reveal Blue Hole's secrets. They too encountered major silt



Ellison's Blue Hole at night. © Jon Lillestollen



Ian Flom emerging from the sump. © Jon Lillestollen

problems. Even a solo diver was able to penetrate the cave only 40 ft/13 m. The false entrance had fooled another team that made it to the low tight false passage but were constrained by their back mount gear.

Eventually, Welsh diver John Parker heard about the cave. He boasted that he could “dive anything as tight as [he] could crawl through in a dry cave.” In April of 1976, he dug through silty squeezes, using only touch to find his way in zero visibility. The reports vary but one thing is clear: John discovered the main passage forward. He had explored over 200 ft/67 m of passage in two different tunnels and possibly had made it to the “terminus” (later known as the Twister restriction). He had unlocked the upper passage that would be one of the two keys to exploring Blue Hole.

The Twister Restriction/the Broken Line Restriction

Blue Hole lay dormant for many years. Eventually, Florida divers Woody Jasper, Lamar Hires, and Wes Skiles learned of John’s explorations. Using the then-new to them sidemount configuration (borrowed from British sump divers), they undertook five dives in the mid 1980s.

Woody and Wes first visited the cave on August, 26, 1984. They dived 400 ft/133 m to the “terminus” and found a refrigerator-sized boulder blocking a small vertical crack that had significant flow. They would need to come back to get around this obstacle.

Woody and Lamar returned on October 3, 1984. They were able to slowly push the refrigerator-sized rock off the ledge and down to the floor below, where it sits today. Woody then attacked the restriction using “Go Forth,” his homemade dive tool that he had developed to facilitate cave access. He worked in zero visibility until the crack was wide enough for him to scrape through the 10-foot long twister restriction, pushing his tanks ahead. He found a medium-sized room with no ceiling? that led to a restaurant-sized dry room with a waterfall and stream on one side. Knowing that Lamar’s current cave rig was too bulky to clear the restriction, he rejoined Lamar so that they could explore the dry cave on another day.

Three days later, they returned wearing more streamlined dive gear, no wetsuits, and full caving equipment. The dive must have been very cold.

Beyond the sump room was a low crawl that led to two small rooms with a canyon at the far side. They named this Cave Buster Canyon. It had a few side leads that they were unable to check on this trip. One thousand feet from the sump, they found a large room choked with a hundred-foot-long breakdown pile. They checked for leads about 15 ft/5 m up. But after Lamar fell, they decided to exit and return another time to fully survey and explore the cave. When they returned on November 10th, 1984, they lined 1200 ft/400 m of passage from the sump to the end of the breakdown.



Entering Ellison's Avenue. © Jon Lillestollen

The Ordeal at Blue Hole

The group's fifth dive on September 21st, 1985, was the most eventful. Wes, Lamar, and Woody were joined by Jeff Stillo, Paul Smith, and Luis Menoyo. The goal of this dive was to time-release dye from a team of dry cavers in the Glub-Glubs of Ellison's Cave to determine if it were hydrologically connected to Blue Hole.

Everyone made it through the underwater section and the twister restriction and through to the breakdown room. Fifteen minutes after the dye was released in the Glub-Glubs, divers saw it emerging from the bottom of the breakdown pile in Blue Hole. The two systems were indeed connected hydrologically and very closely.

Jeff, Paul, and Luis exited, leaving Woody, Wes, and Lamar to explore the cave. They worked for six hours and found a small side passage that continued for 1000 ft/333 m off the main tunnel. Woody and Lamar then exited, and Wes continued to explore and dig out the side passage. He found organic debris and what looked like bear claw marks but could not find any clear way on, so he headed out.

When he reached the sump pool, he found Lamar and Woody waiting by the water's edge. The guideline had broken, and both had attempted multiple searches. Both Woody's and Lamar's tanks were down to 500 psi.

Wes had a brilliant idea. Having mapped the cave on the way in, he could use his survey data to reverse the azimuths and end up back at the twister restriction. He set his compass, tied off, and followed the azimuth in zero visibility. He was able to find the lost restriction and tie off his primary so that he could at least get back to the surface if need be.

Wes shoved his body into the restriction, having to back out and try again several times. While working his way through, he ran into what he least wanted to run into—Paul Smith's dry-caving sump pack and, moving forward, Paul's mask, light, and dive tables. Wes feared the worst. Having done several body recoveries, he knew that removing gear was common in the panic before drowning, and he knew he was likely to find a body.

Wes continued through the passage, eventually finding the line and tying back into it. He was very low on air he but returned to tell Woody and Lamar that he had found the way out. He added that there would likely be a body or multiple bodies during the exit. As Wes led through the twister restriction, "suddenly a very cold hand came out of the darkness and a face was thrust up into [his] mask, almost scaring [him] to death. As soon as it was there it disappeared." Luis Menoyo had come back to make sure that they were ok. After finding the three other divers working through the restriction, he exited to give them space.



A highly decorated section of Ellison's Avenue. © Jon Lillestollen

Wes, Lamar, and Woody learned why the line had broken when they surfaced. Luis Menoyo had exited first without difficulty. Jeff Stillo followed but became hopelessly entangled while going through the twister restriction. He panicked and struggled to free himself, breaking the line and simultaneously kicking off Paul Smith's mask. Paul was left in the restriction in zero visibility with no mask and no line. Fortunately he was able to slowly work his way through, dropping his gear on the way out. Eventually he found the line and was able to get out of the cave. They surfaced to find emergency crews and several hundred people fearing for the worst. Suffice it to say the divers never visited the cave again.

Forrest Wilson's and Mark Wenner's Dive

The only other dive report was from Forrest Wilson and Mark Wenner, who visited the cave on October 8th, 2011, during the TAG Fall Cave-In. They were the first divers since the 80s who were able to find the main passage, but they had to exit after a line entanglement. Their report mentioned that Jason Richards and Marbry Hardin had dived the system during the 2000s but were unable to find a way forward.

Blue Hole and the Broken Line Restriction

First trip. I first visited Blue Hole with my girlfriend on November 6th, 2022. I had heard about the cave from

Richard Blackburn, who had sent me a copy of Robert Burgess's *The Ordeal at Bluebird* as narrated above. Cave divers seldom visited this cave because of its low visibility and near-impossible navigation. Luckily for me, a recent major drought had made it diveable for the first time in years.

My first dive involved trying to get into the cave. The entrance has two vents that can easily be entered, but they quickly lead to a false passage down to the right and the actual tunnel up to the left. The true passage is a small rectangular-shaped opening that is easy to miss and too small to allow turning around. As my bubbles hit the ceiling, years of built-up organic material rained down on me. I saw three spiderweb-like lines on the floor from previous explorers. The visibility then went to zero, so I backed out 60 ft/20 m and exited.

I was determined to make it to the major restriction in the back of the cave on my second dive. I swam in some 120 ft/40 m. Here the tight box-shaped passage opened into a two-to three foot tall, four to-five foot-wide phreatic tube with lots of protruding rock on the floor. As I swam, I saw several passages shooting off at 30-degree angles headed in various directions.

I kept going and came to a medium-sized room where the floor dropped out. In the back of this room, a large boulder with a small bedding plane and a canyon came together at 90 degrees, with two lines going



Matteo Bucalossi and Joseph Firkaly-Paciera in Ellison's Avenue. © Jon Lillestollen

through it. This was the infamous restriction that Woody, Lamar, and Wes had been stuck behind years before. I looked at the restriction and decided to leave.

On my third dive, I was starting to get cold but wanted to look at the restriction a bit closer up. I swam there and stuck my head in a few times to see if I could fit through easily; I could not. There was a clay floor, and the visibility went to zero. Because I was solo diving with no surface support, I thought it would be best to come back another time with someone who could pull me out of the restriction in case I got stuck. I surveyed out through a visibility of around two feet.

Second Trip. The next window of opportunity was during TAG Fall Cave-In on October 8th, 2023. A major drought had brought the visibility back up to diving conditions. Ian Flom, a Kentucky caver with a similar proclivity for cold, dark, low-visibility TAG caves joined me on this trip. We decided to stagger our dives 40 minutes apart so that if one diver had a problem, the other could come to assist.

I made the first dive up to the restriction and made sure that the line was in good condition. It was clear that several of the lines should be removed, but overall I thought they were alright.

Ian went in after me and was able to get through the restriction. He turned around after making it through to make sure that he could get back out. He was worried his rebreather might tear a hose.

I made a quick third dive to the restriction. There is a low clay-bottomed bedding plane that pinches down on the left side. On the right is a thin canyon with sharp chert layers protruding in several spots, making it impossible to enter. As I slowly pushed my way into the bedding plane, the visibility quickly went to zero. I backed out a bit and tried again unsuccessfully. I realized that I would have to rotate my body 90 degrees from the bedding plane into the canyon.

I backed all the way out and waited for the heavy sediment to clear the visibility to within a foot. I entered the restriction again, holding the line in front of me in a Superman position, and pushed myself as far as I could into the bedding plane. The visibility went to zero again. I slowly rotated into the canyon, backing out and going forward, scraping my way through the canyon until I came to a large room on the other side. This was the sump pool room that Wes had described in *The Ordeal at Bluebird*. All I had to do was go up, and I would be in a dry cave.

At this moment I realized that I had broken one of the two lines in the exact spot that the line had broken on Wes. Luckily the second line was still securely in my hand.

With the visibility already at zero, I decided to turn around and make sure I could get back through the restriction. All I had to do was reverse the twisting motion I had done before. For a zero-visibility restriction, it seemed easier to exit than it was to enter, but it still took a significant amount of scraping and back and forth. I soon got to the other side and saw the broken line floating in front of me. Frustrated, I knew that this line needed to be taken out, and I started removing it. I wrapped the line around my full reel, which ended up making a mess of a yarn ball, but still worked well. As I exited, Ian was gearing up to look for me because I had been gone for just under 40 minutes. The line removal had taken longer than I thought it would. It's nice to know that if something had gone haywire, he would have been there to help.

We discussed plans to come back and replace the line through the restriction with some thick 5mm accessory cord to end the history of line breakages. We hope to go back in the next few months with dry caving gear and remap the dry cave beyond the broken line restriction.

I'm sure it will be an adventure.

Joseph is an active sump diver based in Chattanooga, Tennessee. He is an avid dry caver and diver who has dived sumps throughout the southeast. He fell in love with caves while studying geology at Tulane University in New Orleans and hasn't looked back since.

Joseph Firkaly-Paciera III
NSS 68,196 RE



Tremendous Time in Tulum:

The Section's First Road Trip

Story and Photos by Fred Stratton
Cenote Jailhouse photos by Ricardo Castillo

What started out as an idea blossomed into a mission—to conduct our first international event. Shortly after the very successful January 2025 Winter Workshop in High Springs, Florida, we began planning this six-day event. We found eager partners in Claire and Lanny Vogel, proprietors of [Underworld Tulum](#). Claire and Lanny had perfected their event hosting processes after several iterations of [Cave Camp](#), a multi-day event of diving, socializing, and learning. Voila! We had a model to emulate and hit the ground running.

With nearly 40 signed-up members, speakers, and Lanny's and Claire's crew, we had nearly 60 people at various events. There are literally thousands of entrances into the Yucatán's cave systems, so Lanny helped divers visit caves that suited their interests and abilities while ensuring that no single dive site was inundated or overly stressed.

The Vogels also coordinated dive guides and photographers, as well as gas fills and rental cylinders. With more than 40 divers (attendees and guides), we were burning through well over 100 cylinders a day.

Lanny kicked off the event on 21st February (with an in-brief, followed by diving and a social

event with beverages and three types of empanadas. As with all Section events, we issued each participant a goodie bag, this time a 10-liter dry bag provided by Shearwater.

Awaiting Workshop participants after great diving was a world-class lineup of dive professionals, explorers, innovators, scientists, and conservationists. Here's a brief rundown:

[Natalie Gibb](#) had the most unique title for her presentation: New and Creative Mistakes in Cave Diving. Natalie's take on accident analysis of some of her own incidents was refreshing. She combined classic what happened facts infused with a Human Factors perspective.

Roberto "Chibebo" Rojo established the non-profit organization [Cenotes Urbanos](#). They discover, survey, map, clean, and study caves in urban settings. We will feature an article on Chibebo in the next issue.

Danny Riordan: [Evolution of cave lines and line markers](#). Danny unfurled a sheaf of various sizes and colors of lines and a myriad of markers. As the creator of the cave cookie, Danny shared what inspired his invention and its application. He also signed a cookie for each Workshop participant. Thanks, Danny!



Sam Meacham explains the Sian Ka'an exploration project.
© Fred Stratton.



Team Dive Rite. © Fred Stratton.

WW26

THANK YOU TO OUR SPONSORS



INDEPTH
GET DEEPER INTO DIVERS



Dive
by Design



fourth element



**STAY
DRI**



NSSCDS™



L-R: NSS-CDS instructor [Luís Sánchez](#), [Salvador Bernod](#), and [Isaac Torres](#) of *Rango Extendido*. © Fred Stratton.

[Lanny Vogel](#) provided a Human Factors in Diving primer including its application to some incidents in México. The Q&A that followed was equally engaging and could have gone on for hours.

[Robbie Schmittner](#) presented Yucatán Peninsula Large-Scale Groundwater Movement, a fascinating look at the area's hydrology and its application to exploration.

[Sam Meacham](#) educated us on the CINDAQ project in the Sian Ka'an Biosphere Preserve in Punta Pájaros, México, which included airlifting supplies and the team into the remote jungle via a Vietnam War- era Huey helicopter.

[Landon Lasseter, MD](#), delivered Understanding Decompression Algorithms and Gradient Factors and the complex quest to understand pressure's impact on divers.

[Ricardo Castillo](#) provided a unique look at the Dive Rite O2ptima CM (chest mounted) CCR (aka Choptima) and a peek at forthcoming innovations being engineered for the Chop.

[Roger Williams](#) presented Bad Trim Millions of Years in the Making: How Differences in hydrogeology between Florida and the Yucatán dictated different diving techniques and philosophies.

[John Kendall](#) presented Photogrammetry in a Brazil Cave Project, which involved recovery of 11,000 year old human bones, thrilling the archeology department at the University of São Paulo.

[Germán Yáñez](#) provided an overview of Underwater Cave Rescue and its many organizational, operational, and logistical complexities.

Divers like to eat as much as dive, so we put on a lavish barbecue feast prepared by a renowned local chef and his crew. This was preceded by Sam Meacham's superb story of exploration in Sian Ka'an and followed by raffle prizes and awards. Claire and Lanny Vogel and Shannon Perry were bestowed the NSS-CDS Outstanding Service Award for their phenomenal work organizing and executing the Winter Workshop. Carl Fago, Daniel Logan, and Mark Schlosser received their Abe Davis awards for 100 safe post-training cave dives.

The capstone of the final night's festivities was drawing Austin Walker's name as the winner of the Grand Prize, a cave diving trip for two to Tulum courtesy of the NSS-CDS and Underworld Tulum. Congratulations, Austin!

We owe a large part of the Workshop's success to our many magnanimous sponsors.

We issued a post-event survey to participants and their feedback was overwhelmingly positive. Based on their responses, and input from broader membership, we will consider conducting similar international events in the future.

Lastly, a tip of the hat to the coordination team: Lanny & Claire Vogel, Shannon Perry, Adam Hughes, Jenny Dillaman, Renee Power, Justin Reams, Steve Dalcher, (and yours truly).

What about the next Winter Workshop you ask? We'll be back in Florida on Saturday the 16th of January 2027. See you there!



¡Hasta la próxima! (Until next time)! © Fred Stratton.

WW26 SPEAKERS NSSCDS™



LANNY VOGEL
UNDERWORLD TULUM



ROGER WILLIAMS
XOC-HA



LANDON LASSETTER, MD, MBA
DEEP6



ROBERTO ROJO (CHIBEBO)
BIOLOGIST/SPELEOLOGIST/TV HOST



GERMÁN YÁÑEZ
EXPLORER



RICARDO CASTILLO
DIVE RITE MEXICO



SAM MEACHAM
CINDAQ



ROBBIE SCHMITTNER
EXPLORER/RESEARCHER



DANNY RIORDAN
EXPLORER/
GUE INSTRUCTOR



JOHN KENDALL
GUE TECHNICAL, CAVE
+ CCR INSTRUCTOR



NATALIE L GIBB
UNDER THE JUNGLE



PUSHING THE GNARLY SUMPS OF CLIMAX CAVE

by Guy Bryant

Climax Cave is one of the longest dry caves in the state of Georgia. It's located near Climax, Georgia, about 42 miles north of Tallahassee. I first explored it extensively in the 1970s with Court Smith, Bill Donahoo, and David Nolan. Even then, what fascinated me most were the numerous sumps scattered throughout the system—sections where the cave dipped below water and continued on the other side.

Reaching these sumps was no easy task. The cave entrance drops into a large sinkhole, followed by multiple routes down to the main passage. There's a waterfall shaft that we often used to wash off mud after long trips. From there, accessing the deeper parts of the cave meant crawling through tight, muddy restrictions—sometimes for hours.

EARLY EXPLORATIONS

Over time, I became increasingly curious about whether these sumps “went.” In 1976, Court and I brought Sheck Exley to a relatively accessible sump in the southern section of the cave. After waiting for dry conditions to make a key restriction passable, we returned with minimal gear— a single tank, light, and reels.

Sheck made the first dive, wearing only a T-shirt and bathing suit. He laid 67m/122 ft of line and surfaced in another sump beyond. Court followed, extending the exploration into a third sump. That day confirmed what we had hoped: These sumps were indeed

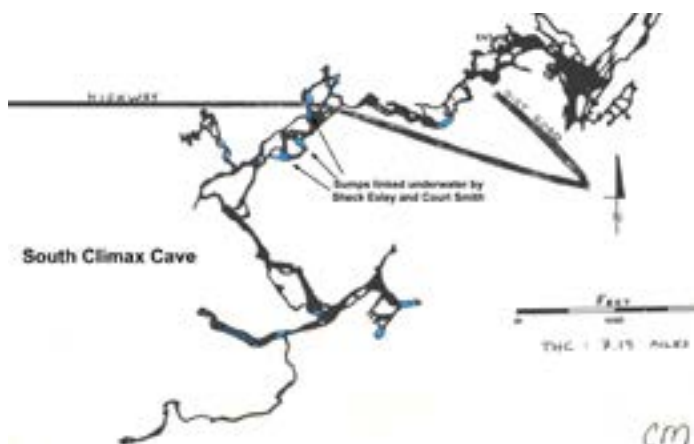
navigable. We exited the cave after about five and a half hours underground, encouraged by the potential for further exploration.

Three years later, my attention turned to the more remote and challenging sumps in the cave's northern section, particularly in an area known as Razor Hall. I free dived sections of these sumps with a mask and light in July 1979 and discovered continuing passage. That was all the motivation I needed to organize a proper dive.

November 1979. With support from the Athens Speleological Society and the University of Florida Grotto, we mounted a full-scale expedition. A large team of cavers transported gear, enabling us to reach a sump near Peggy's Pond. We named this the Dive Pool. Using single back-mounted tanks, Paul Smith and I submerged and followed a lead north. I laid line as we progressed, eventually surfacing in Razor Hall—successfully connecting the sump to a previously known dry section.

On the same dive, we explored additional passages, including one leading to what we named the Pool of Naked FROGS.* By the end of the trip, we had laid roughly 305 m/1,000 ft of line and significantly expanded the submerged cave's known extent.

** FROGS is an acronym for the Fort Rucker/ Ozark Grotto [Skinnydippers].*



Map showing the three sumps linked by Sheck, Court, and Guy on our second trip to the south sumps. Courtesy of Guy Bryant.



Guy Bryant and Buddy Sanders in Climax Cave, November 1979. Photo courtesy of Guy Bryant.



Court Smith in Dive Pool, Climax Cave. March, 1980. © Guy Bryant.

March 1980. Court Smith and I returned to push exploration further. This time we carried all of our own gear through the cave. It was a grueling process that involved relaying heavy equipment through mud-filled restrictions.

During a 14-hour trip, we discovered one of the cave's largest underwater passages, which averaged about 12 m/40 feet wide and 9 m/30 feet deep. Court laid over 182 m/600 ft of new line before we turned the dive due to equipment issues, including a cracked mask that severely limited my visibility.

We returned in April with additional support, continuing to explore side passages and to close loops between known sections. On that trip, we added several hundred more feet of line and completed a circuit connecting Peggy's Pond to the Dive Pool through submerged passages. Altogether, our efforts resulted in approximately 640 m/2,100 ft of explored underwater passage in Climax Cave.



Court after our 14-hour dive, March 1980. © Guy Bryant.

One of the more interesting observations was the presence of thick mud deposits and even old carbide graffiti in some submerged sections. This suggested that parts of the cave had once been dry. Local accounts indicated that water levels may have risen after a dam was constructed in the area decades earlier.

Shortly after our work, Buddy Sanders organized a large-scale expedition with dozens of cavers and multiple dive teams. Court and I had had enough of Climax Cave and declined. Sheck Exley and Forrest Wilson joined Buddy's trip. It's possible that John Zumrick, Mary Ellen Eckhoff, and Paul Smith participated as well. Although the group operated efficiently and safely, they did not significantly extend the known system beyond what we had already explored.

FAST FORWARD 25 YEARS

Discussion of revisiting Climax Cave started sometime around April 2005 after a dive at Jackson Blue. We were eating at Sonny's BarBQ in Marianna, FL, and discussing some of our past misadventures. I mentioned diving Climax Cave in South Georgia 25 years ago. Well, that did it.

Cindy Butler had been dry caving and sump diving for a few years and got excited about the idea of a sump trip into Climax. She decided to organize a trip even after I told her it was a difficult cave.

Before we finished eating, the decision had been made. We set a date for June 18, 2005. Now all we had to do was recruit enough sherpas to get all the gear to the water.



Guy in the Pool of Naked FROGS. Photo courtesy of Guy Bryant.



Guy gears up to dive the Pool of Naked FROGS with Cindy Butler. Photo courtesy of Guy Bryant.

June 2005. Cindy recruited a team of experienced cavers and divers for our expedition. Conditions had changed dramatically over 25 years. Sand had filled in many passages, making the already difficult crawls even more restrictive.

After hours of digging and pushing gear, we reached the sumps and began diving.

Cindy and I relocated the original lines and re-explored sections I had last seen in 1980. Visibility remained excellent, and we confirmed the integrity of earlier routes while identifying new leads. A second dive team extended exploration further, adding several hundred feet of new line in previously unexplored passages. Despite the progress, the



Cindy Butler prepares to dive a sump at Climax Cave in June 2005. © Guy Bryant.

cave's physical demands remained significant. The trip lasted more than 12 hours, including long crawls, tight restrictions, and heavy gear transport. By the end, we were exhausted—but satisfied to have revisited and extended the exploration after so many years.

CLIMAX CAVE AWAITS ITS NEXT EXPLORATION TEAM

To my knowledge, no further sump diving has taken place in Climax Cave since that 2005 expedition. The cave remains a challenging and demanding environment, requiring determination, teamwork, and a willingness to endure long hours in mud-filled passages just to reach the water.

For me, Climax Cave represents a unique chapter in early cave-diving exploration, one defined not just by discovery, but by the effort it took to reach it.



Check Guy's [blog](#) for a detailed account of the Climax Cave exploration and his adventures in other less-known caves.

Guy Bryant is a cave diver, photographer, and author with decades of experience exploring submerged cave systems within Georgia and Florida. In the late 1970s and early 1980s, he participated in exploration and survey efforts in Climax Cave, Georgia, contributing to the documentation of previously unknown sump passages. His work combines technical diving with a deep interest in preserving the history of early cave diving exploration. He has detailed some of his anecdotes in his book [The Education of a Cave Diver](#) and images in [Illuminated Springs](#).

Thank you!



By James W. Chandler

Hello fellow members,

First, I want to say thank you to all of our members for your continued support of the NSS-CDS. As I come to my final few weeks on the Board of the NSS-CDS, (on June 6, 2026) after five years serving the organization, I take stock of what we have accomplished. However, it has been a team effort. I'd like to thank specifically some of the great individuals I have had the pleasure to work with over the past five years in the organization in various roles. If I named specific people, I know I'd leave someone out.

I believe we have left the organization in a better place than we found it. Our bylaws allow a member to serve no more than three consecutive terms, or six terms in a lifetime. Each term is two years.

The accomplishments that have been made in the past five years have been monumental and frankly too numerous to list here.

We have had some amazing events with attendance at an all-time high. Our membership is over 1,000 people for the first time in the NSS-CDS's fifty-plus year history. The sport of technical and cave diving is interesting and drawing new generations of conservationists and divers.

I have had the honor to serve for two years as a Program Director and the past three years as the Vice Chairman. I hope to still work with the next board if I can help them in any way.

I look forward to seeing everyone at the NSS-CDS International Conference on Friday and Saturday June 5 & 6, 2026 at Rembert Farms in Alachua, Florida.

As a life member, I'm excited for the future of the NSS-CDS and what's in store for the next fifty years.

James W. Chandler is the NSS-CDS Vice Chairman.





2026 International Cave Diving Conference

Friday 05 June (5 - 9pm) and Saturday 06 June (8:30am - 4:30pm)

Rembert Farm - 13014 NW 174th Ave., Alachua FL, 32615

(Tickets are limited. Reserve yours at [NSSCDS.org](https://nsscds.org) while supplies last.)

About the Conference

Welcome to the 2026 NSS-CDS International Cave Diving Conference! This year will bring the most enjoyable and memorable Conference experience yet. This is your organization. Come participate and help build the cave diving community.

- **WIN** one of two impressive GRAND PRIZE RAFFLES. Dive Rite has donated a \$5,000 shopping spree. Use it for anything in the Dive Rite catalog. You can even apply it toward the purchase of an O2ptima CM CCR. The second grand prize is a Seacraft GO! DPV, a small but power-packed scooter that you can bring on a plane to your destination!
- **MEET** leading cave diving product manufacturers, innovators, educators, researchers, explorers, dive shop staff, and photographers! Reconnect with old friends and make new ones.
- **DISCOVER**, learn, and get inspired by an exciting lineup of cave diving speakers on exciting topics: exploration, discovery, technology, and more.
- **ENJOY** our beautiful new Conference venue, the picturesque Rembert Farms, adjacent to Mill Creek Sink. It features breakout rooms, great food, and a special selection of beer from Halpatter's Brewery of Lake City, FL, courtesy of Dive Rite!
- **WIN SOME MORE!** In addition to our two GRAND PRIZES, sponsors have donated dozens of exciting DOOR PRIZES and RAFFLE GIVEAWAYS.

The NSS-CDS put together the 2026 International Cave Diving Conference for YOU. Your attendance is what makes the Conference and other valuable NSS-CDS work possible. You support access to new dive sites, education, research, conservation, and so much more. Thank you for being a special part of the cave diving community and the NSS-CDS. See you at the Conference!

Very respectfully,

Your friends at NSS-CDS

WHAT 100 SAFE CAVE DIVES MEAN TO ME

By Dan Alix

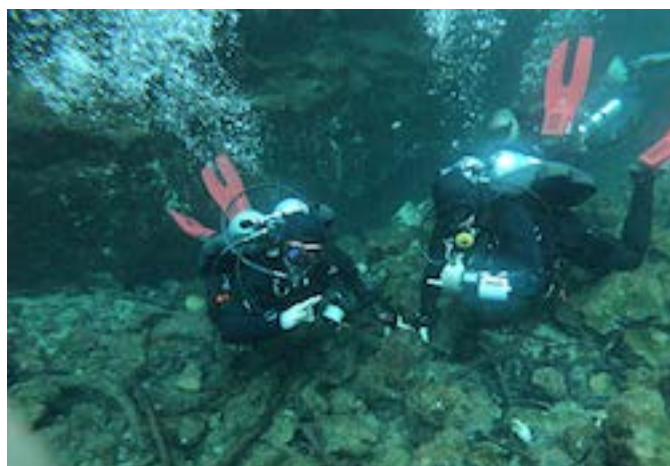
Like a lot of divers, my journey into cave diving came sometime after I earned my Open Water C card in July 1999. I rarely dived, perhaps once or twice a year. It wasn't until I began to train to become an Open Water Instructor in 2017 that I started diving a lot. In the beginning I was fascinated with deeper wrecks and underwater wildlife. I had read the stories of people like Jacques Cousteau and later about Wes Skiles's exploration but always remembered the pictures of the cenotes in Mexico.

In September 2020, after spending a few years getting rebreather and tech certified, my main dive buddy Dominic and I began discussing cave certification in earnest. Over the course of the next three months we completed both Intro to Cave and Full Cave.

Unlike many people, we were blessed to be only five hours from the heart of the north Florida cave diving scene. Our goal after our full cave course was to be down in the caves one weekend every six weeks. In the beginning for me, it was open-circuit back-mounted double 104s and/or double 85s with one dive in the morning and one in the afternoon. We would stay at places like Cindy's Motel, the Blue Gem, or the cabins at Dive Outpost just to get our fix. I was fascinated with the different formations, the flow, the depth, and the planning that would go into each dive.

I became an NSS-CDS member in 2021 and attended my first International Cave Diving Conference in May of 2022. Later I would learn of the NSS-CDS's "Abe Davis Award" for 100 safe post-training cave dives.

One hundred caves dives seemed like a crazy number for someone diving in the caves one weekend every six weeks. But after almost five years on this crazy cave journey, Dominic and I hit our goal. Along the way, we bought and studied cave maps and slowly started increasing our abilities and knowledge in the various systems. It started with simple runs up the main line in places like Peacock and Ginnie



Dominic Castrignano and Dan Alix, Full Cave Grad Dive, December 2020. Photo by Mark Fowler.

Springs. We alternated who would lead and put in the primary lines. We would validate different circuits and started jumping off the main lines into side passages. Because every system was new to us, we would continue to explore Ginnie and Peacock and added on a regular basis Little River and Madison.

We both continued learning and growing as cave divers, taking other cave courses like Cave DPV and Cave CCR and even a side mount course before doing the Cave CCR crossover to the Dive Rite Choptima CCR.

We attended many NSS-CDS Conferences and Winter Workshops. We got to meet people like Guy Bryant, Paul Heinerth, and Lamar Hires and got to



Dominic Castrignano and Dan Alix at Madison Blue Springs.

hear about the changes in the sport over the years. We would meet the inventor of the line cookie, Daniel Riordan. We would read books and articles from Stratis Kas, author of *Close Calls*, and later meet him and the late Michael “M2” Menduno.

We started meeting and seeing the same people at the different cave diving sites in Florida and the various conferences and workshops. Lots of encouragement and some simple dialog between us like “where are you heading today?” and “I will try not to mess it up too much for you.”

Lessons Learned

The journey to 100 safe cave dives came with some simple lessons.

One, don't be too eager to do the big dives until you get the experience. I had maybe a dozen cave dives under my belt when I told my buddy I wanted to go dive the cenotes. He said we are not ready yet. That was 2021. We recently attended the NSS-CDS 2026 Winter Workshop in Tulum, Mexico, and fulfilled that goal. I am happy that we waited.

Two, take the courses with different instructors. We have taken several cave courses with different instructors over the last five years and have so much more cave knowledge because of it. Each instructor brings his or her unique knowledge and experiences to the training and fills in more gaps about the history of the sport.

Three, I encourage you to meet new people and ask some questions. We were all new once. In some cases, you'll make a new friend and have a new cave diving buddy. Other times, they might be the person who saves your dive with a spare O-ring or an extra hose.

Thanks for the read, and maybe I will see you at a dive site.



This photo of Dan in Ginnie Springs won the Underwater Cave Photoshoot Prize at the 2022 NSS-CDS Conference.
© Gene Page.

Recent Cave Safety Awards

by Fred Stratton

Congratulations to our members upon reaching the following milestones:

ABE DAVIS AWARD

Recipient	Location	Date Dived	Date Awarded
Khrista Jones	Chan Hol, Tulum, México	09/11/2023	2/09/2025
Terry Zembsch	Cow Springs, Florida	12/24/2025	02/06/ 2026
Carl Fago	Cenote Cristal, Tulum, México	02/24/ 2026	02/26/2026
Mark Schlosser	Vaca Ha, Tulum, México	03/05/2018	02/26/2026
Daniel Logan	Del Fico, Sardinia, Italy	07/30/2024	02/26/2026
Heison Chak	Ginnie Springs, Florida	02/07/2025	03/05/2026

INTERNATIONAL EXLEY AWARD

Recipient	Location	Date Dived	Date Awarded
Germán Yáñez Mendoza	Aerolito Cenote, Cozumél, México	11/24/2025	02/26/2026

Don't forget to vote!

Elections are live for both the CDS Board of Directors and Annual Recognition Awards.

The voting period for Directors opened on 28 March and will close on 23 May. You can read the [candidates' statements](#) on the CDS website. If you did not receive a ballot via email, contact Adam Hughes at cdsmanager@nsscds.org.

Annual Recognition Awards: The nomination period for this year's annual recognition awards for Conservation, Exploration, Lifetime Achievement, and Volunteerism will be 28 March through 11 April. With CDS members actively engaged in so many productive endeavors, some for decades, there are many good candidates for these awards. Please nominate your peers for their outstanding efforts! Send nominations to awards.coordinator@nsscds.org.



Daniel Logan accepts his Abe Davis Award from CDS Chair Fred Stratton at the 2026 Winter Workshop in Tulum. Photo credit: Shannon Perry.



Germán Yáñez has made [many more than] 1000 cave dives in more than five different countries. Renée Power presents the Sheck Exley International Award at the 2026 Winter Workshop in Tulum, México.



Fred presents the Abe Davis Award to Carl Fago. Photo credit: Shannon Perry.

Have you reached a cave diving milestone? Have one coming up? Let us know, and write up your story for Underwater Speleology. Contact [Fred Stratton](#) for details.



Mark Schlosser accepts the Abe Davis Award marking completion of 100 safe post-training cave dives. Photo credit: Shannon Perry.

NSS-CDS Committees Need Members

There's always plenty to do at NSS-CDS. One great way to become more involved with the Section is to sign up for one of the committees or subcommittees listed below. Share your special skills, meet other cave divers, and possibly gain a dive buddy or two.

If you're interested or want more information, please contact [Fred Stratton](#).

COMMITTEES AND SUBCOMMITTEES

Communications

- a) IT Subcommittee: [Jennifer Dillaman](#), Coordinator
- b) Website Subcommittee: [Kevin Stiegler](#)
- c) Social Media Subcommittee: Justin Reams, Coordinator
- d) *Underwater Speleology*: [Barbara Dwyer](#), Coordinator

Membership

- a) Awards Subcommittee: [Fred Stratton](#)
- b) Elections Subcommittee: Kelly Jessop
- c) Workshop/Conference Subcommittee: *ad hoc*
- d) Fundraising Subcommittee: VACANT

Safety

- a) Accident Analysis Subcommittee: Charlie Roberson, Coordinator. Doug Ebersole, Lamar Hires, Frauke Tillmans, Larry Meyer, Vince Ferris
- b) Line/Markers Subcommittee: Ken Sallot, Coordinator. Michael Kutnya, Kyle Martin, Justin Judd, Chris Brock, Jim Wyatt.

Training: [Chris Brock](#), Training Director Science

- a) Geology Subcommittee: Pati Spellman, PhD, Coordinator
- b) Biology Subcommittee: Thomas Sawicki, PhD, Coordinator. Marin Hawk.
- c) Conservation Subcommittee: Chelsea Dinon, Coordinator, Marin Hawk Patricia Spellman, PhD, Emily Sustarich, John Sustarich, Angela Teal.
- d) Cave Cartography Subcommittee: Jason Richards, Coordinator, Alex Brett.

Cave Access

- a) Properties Subcommittee: [Steve Dalcher](#), Coordinator
- b) Landowner Relations Subcommittee: TBD

Property Managers

- a) Cow Springs: John Rutledge
- b) Edward's Spring: Tom Johnson
- c) School Sink: Bob Beckner
- d) Mill Creek Sink: Andy Pitkin, Charlie Roberson

ADVERTISE IN UNDERWATER SPELEOLOGY

2025 ad rates are as follows:

CDS Supporter for \$350 per year:

- Four 1/4 page color ads in four consecutive issues of UWS
- 10% discount on any additional advertising in UWS
- Listing as a CDS Supporter in UWS and the website
- Prices adjusted for larger ads:
- 1/2 page \$550/year
- Full page \$750/year
- 1/4 page on inside front or back cover \$450/year
- 1/2 page on inside front or back cover \$700/year
- Full page on inside front or back cover \$950/year

Per-Issue Pricing

- \$100 per issue for a 1/4 page ad
- \$150 per issue for a 1/2 page ad
- \$200 per issue for a full page ad
- \$150 per issue for a 1/4 page ad on the inside front or back cover
- \$250 per issue for a 1/2 page ad on the inside front or back cover
- \$350 per issue for a full page ad on the inside front or back cover

CDS Instructor Ads:

- \$100 per year for a 1/4 page ad

For specs and more information, please contact UWS's Ad Manager [Nancy Winfree](#).

Underwater Speleology
A Publication of NSS-CDS
5200 NW 43rd Ave., Ste. 102-380
Gainesville, FL 32606

EQUIPMENT FOR SERIOUS DIVERS



WWW.DIVERITE.COM

