

Underwater Speleology

Journal of the Cave Diving Section of the National Speleological Society



Volume 51, No. 4
Winter 2024



It's almost time for the NSS-CDS Winter Workshop
 January 18, 2025, 8 am-5 pm
[High Springs Civic Center](#)

CONSERVATION AND SCIENTIFIC METHODS OF DATA COLLECTION

Speakers

Matt Hansen:
 Exploring in Madison and Withalacoochee caves

Surveying, cartography, and
 map-making technology

Dr. Tom Sawicki and Nicholas Coppock, Groundwater
 Biodiversity Lab: Amphipods in the Floridan Aquifer

An Update about Mill Creek (Alachua) Sink

\$ 30 NSS-CDS Members \$ 65 non members

Get your tickets and/or join NSS-CDS [here](#)

Become a vendor or sponsor [here](#)

Workshops

The Florida Speleological Society: Knots, rigging, and
 intro to vertical caving

Michael Poucher: Survey techniques

Hands-on instrument and lab techniques

Dive bench building workshop by Steve Dalcher

Lunch by



Plan to attend the post-workshop
 social at High Springs Brewing Co.

Cover photo: Little Devil's Spring Illuminated at Night. © Guy Bryant.

NSS-CDS BOARD of DIRECTORS

CHAIR:

[Fred Stratton](#)

VICE CHAIR:

[James Chandler](#)

TREASURER:

[Renée Power](#)

SECRETARY:

[Steve Forlenza](#)



DIRECTORS:

COMMITTEES AND VOLUNTEERS

[Gayle Hall](#)

[Steve Dalcher](#)

TRAINING DIRECTOR

[Chris Brock](#)

WEBMASTER

[Teri Walker](#)

ADMINISTRATIVE MANAGER

(Section business):

[Adam Hughes](#)

5200 NW 43rd Ave., Ste. 102-380

Gainesville, FL 32606

561.704.3038

Underwater Speleology

Volume 51, Number 4, Winter 2024

features

Gas Planning: How Much is Enough?

by Chris Brock and Fred Stratton.....6

Meet the 2024 Lifetime Achievement Award Winner: Tom Morris

by Gayle Hall and Rachael McCarthy.....9

Cave Divers Extract Ancient Car from Sinkhole

by Rachael McCarthy..... 14

DEMA Show 2024 Wrap Up

by Steve Forlenza.....16

Edward's Spring to Reopen for Diving

by Steve Dalcher.....17

In Memoriam

Hal Watts12

Bill Gavin26

columns

A Note from the Chair

by Fred Stratton4

NSS-CDS Board Nominations

by Kelly Jessop and Jim Wyatt.....14

Membership Updates

by James Chandler.....15

Milestone Dives and Awards

by Gayle Hall.....29

2025 Underwater Speleology advertising rates - see page 25

A Note from the Chair

EDITOR

[Barbara J Dwyer](#)

SENIOR EDITOR

Michael A Raymond

PHOTOGRAPHY EDITOR

Guy Bryant

ASSOCIATE EDITOR

Jenna Kreider

CONTRIBUTING EDITOR

Michael Menduno

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.



Dear fellow members,

Cave Diving Section are very active divers. take you this past year? system or “new-to-you” favorites? Perhaps you Palau, Palawan, or live aboard or were enchanted by Mexico’s decorated cenotes.

members generally Where did your diving Did you see a new cave passages in old, familiar dived WWII wrecks off Malta or luxuriated on a

Wherever you dived in 2024, at the core of your preparedness was training and education you gleaned from experienced dive professionals. The road to becoming a well-respected cave diving instructor is even more involved and arduous. Most NSS-CDS instructors have well over 1,000 cave dives. At least one instructor has logged more than 11,000 lifetime dives, over 3,000 of which were in caves. Their logbooks are replete with memorable dives in kelp, rivers, lakes, oceans, quarries, wrecks, mines, and diving in the military. Breadth and depth of experience is a hallmark of a true professional.

Where will your diving take you in 2025?

Perhaps a better question is “where do I want to go with my diving in the next year or two—or even five years?” What inspires you? Do you get goose bumps thinking of diving inside Japanese freighters laden with war matériel in Chuuk (Truk) Lagoon? Is this the year that you’ll discover the manifold benefits of rebreather diving? Have you maxed out what you can safely do on doubles and want to stack some stages to see more? Is this the year you’ll pull the trigger on that DPV purchase? Are you lured to the great white north to ice dive or to descend on the woodies in the Great Lakes?

Whatever your scuba daydreams, carefully consider the instructor you choose to expand your skill set and to challenge your mind and body. There’s a saying that we don’t stop playing when we grow old. We grow old because we stop playing. Sure, cave diving is serious business—but if it’s not fun, why bother?

As I enter my 38th year of diving, I have a few things on my scuba wish list. Some of them include planning more CCR trimix dives to experience deeper passages in systems such as Mill Creek Sink and Eagle’s Nest, as well as deeper offshore wrecks. Mapmaking intrigues me, so I plan to sign up for the NSS-CDS Cave Surveying and Cartography courses.

Whatever aspirations you have, NSS-CDS instructors can help you achieve them.

When seeking a professional dive instructor, shop for quality and return on investment from a training agency with a proven track record. (After all, training and education are investments in yourself and, by extension, benefit your teammates too). The NSS-CDS has been a technical scuba training agency since its founding in 1973, two decades before Michael Menduno coined the term “technical diving.” With a 51-year record and a retinue of course revisions and improvements in the months ahead, investing in training with the Cave Diving Section is a wise choice.

by Fred Stratton

Visit our website at nsscds.org and click or tap on “Training” in the menu, and select “Training Programs” to learn more.

Love binds the cave diving community

A second thought about this year is the love resident among the active members of the cave diving community. Not love as it has been cheapened by emojis in social media, but true love of the sport and genuine love, concern, and care for fellow cave divers. Examples:

- Hurricane Helene pushed 4 ft/1.3m of storm surge into Paul Heinerth’s Scuba West in September. A second surge hit the dive shop after the water receded, only in a good way. A wave of volunteers, materials, and money poured in to help clean, repair, and reopen this landmark facility located next to Hudson Grotto.
- The NSS-CDS has members in just about all 50 States and in over 20 countries around the world. Divers from 14 nations outside of America attended the 2024 International Cave Diving Conference on 01 June 2024, including Luis Sánchez, who thrilled the audience with his exploration of Mexico’s caves. Old friends embraced, and new friends were made.
- Hardly a week goes by without someone’s posting about lost gear, only to have a fellow cave diver respond with “I found it and dropped it off at Shop X. They’re holding it for you behind the counter.” The items I’ve seen returned include backup lights, reels, spools, GoPro cameras, a full set of Fourth Element undergarments, and even a Shearwater Perdix! The sense that we’ve got each other’s backs in the water *and* on land is a powerful ethic that binds us together.
- Volunteers for NSS-CDS workdays in 2024 contributed over 2,000 man-hours to post-Hurricane Idalia restoration in both the Orange Grove and Peacock areas of Wes Skiles Peacock Springs State Park (SP), three weekend projects in Madison Blue Springs SP, two work projects in Cow Springs following Hurricanes Debby and Helene, and cleanup and landscaping at School Sink. Many volunteers are “frequent flyers,” and we see new faces at each workday. We deeply appreciate our volunteers for their generous spirit and energetic commitment.

(continued on Page 29)



Photo: Gene Page and Kim Bauldree

Michael Angelo Gagliardi passes

As this issue went to production, the sad news broke that Michael Angelo had died suddenly at his home.

Members of the NSS-CDS offer warm condolences to Michael Angelo’s wife Zelda and his son Andre. *Underwater Speleology’s* next issue will touch on how MA applied his artistic skills in the service of conservation—including the two incredible restoration projects he led to repair vandalism to Cow Springs’s clay banks and the whale bone fossil in Devil’s.



HOW MUCH GAS IS ENOUGH?

Know before you go!

by Chris Brock and Fred Stratton

We live in a remarkable age of rapid technological change. This technology now enables cave penetrations that required teams of support divers and dozens of cylinders in the past. Lights, rebreathers, diver propulsion vehicles (DPVs aka scooters), and computers are manifestly more reliable than even 10 years ago.

This reliability can lull us into an overconfident state in which we forsake the basics and begin pushing the boundaries of our training, experience, and range of gas and equipment (e.g. scooter batteries, rebreather absorbent scrubbing capacity).

“Just a Bit Farther...”

Divers who have never experienced serious equipment malfunctions are sometimes emboldened and shrug off stories that the “old timers” tell. They may not have dealt with a free-flowing regulator that silted out a small passage and required a lengthy no-vis, touch-contact exit. Or they haven’t returned to their deployed stage bottle to find the gauge reading 0 PSI / bar with 2,000 ft / 610m to the exit. Perhaps their scooter hasn’t flooded and died far from the front door.

Overconfidence can lead divers to swim “just” 200 ft/ 60m more than last time. Over time, “just a little farther” stretches into a *lot* farther. Gareth Locke calls this “normalization of deviance.” Deviation from safe practices becomes normalized because nothing goes wrong—until it does.

The military maxim that “a lesson is not learned until it is applied” is so true in diving. In the case of gas planning, we must regularly apply our knowledge for it to become ingrained and habitual. Most thoughtful cave divers carry on with what they were taught, beginning with the Rule of Thirds learned in cavern

class. Guidance varies, but most cave training agencies use dive planning parameters similar to those that the NSS Cave Diving Section uses.

Key Parameters for CCR and DPV Dive Planning

Rebreather Equipment Requirements

Open-circuit bailout cylinder(s) must contain at least 150 percent of the gas required to exit the cave from maximum point of penetration. This must be in the form of either two or more separate cylinders or a single cylinder with an H-valve.

Cave CCR Standards

Divers must have no less than 1.5 times the open-circuit bailout gas needed to exit the cave from the farthest point of penetration. The amount needed is calculated using a 21.25 L/0.75 ft³ per minute Surface Air Consumption (SAC) rate and a 10m /33 ft per minute swim speed.

Cave CCR Standards and Mixed-Team Diving

Mixed teams must maintain at least twice the open-circuit bailout needed, or the open-circuit divers must maintain their own sufficient reserve.

DPV Standards

Gas planning should be based on each diver having sufficient gas necessary to share with a teammate on exit. Strategies may include:

- having 1.5x the amount of gas to swim out from farthest penetration based on Respiratory Minute Volume (RMV) and swim speed,
- use of safety scooters, and
- use of stage cylinders as safety bottles.



The dive to Mainland is breathtaking but requires meticulous planning and preparation. Chris Brock is the diver. © Fred Stratton.

The Divers

Meet Leon and Cheryl, who are planning a complex circuit rebreather dive in Devil's Eye. Leon has been cave diving for nearly 20 years. His Henry Nicholson Safe Diving Award certificate marking 500 cave dives hangs proudly in his office. Cheryl earned her Full Cave rating in 2016 followed by Cave DPV in 2020 and Cave CCR in 2022. She has around 175 post-training cave dives. She dives when she can, often in spurts on guided dives on vacation in Mexico.

The Dive Plan

Today Leon and Cheryl plan to conduct a dive up the gold line to Sweet Surprise to Mainland and back to the gold line before exiting. Their plan involves two jumps and two Ts with a total distance of nearly 8,000 ft (2,438m).

The dive's midpoint is in the area of two Ts after swimming through 200 ft/60m of single-file passage, a section in which turning around would be extremely difficult and would likely completely silt out the passage.

Leon has made this dive a dozen times, while this will be a totally new experience for Cheryl. Leon describes the beauty and ever-changing terrain of the passages through which they will venture. Cheryl is all in.

Because Leon dives more frequently than Cheryl does, she always trusts Leon to plan their routes and gas requirements when they dive as a team.

Configuration and Gas Planning

Leon and Cheryl are diving identical gear: Both have twin steel LP 85s, CCRs, and scooters. When planning their gas, they consider the following scenarios.

Scenario One. Leon and Cheryl turn around at the first T and swim back through Sweet Surprise due to equipment malfunctions.

Givens:

- Assume 3,900 psi/269 bar in the tanks (That's unlikely but let's go with it).
- The baseline for an LP 85 is $2640/85 \times 2 \times 100 = 6.4 \text{ ft}^3$ per 100 psi.
- $39 \times 6.4 = 249.6 \text{ ft}^3$ of gas available to swim out on
- $3,800 \text{ ft} / 33 \text{ ft/min} = 115 \text{ min}$ per standards to swim out of the cave.

Depth considerations:

Let's say that the average depth is 90 ft (27m):

$$90/34 + 1 = 3.64 \text{ ata}$$

$$0.75 \text{ ft}^3/\text{min} \times 3.64 \text{ ata} = 2.73 \text{ ft}^3/\text{min}$$

$$115 \text{ min} \times 2.73 \text{ ft}^3/\text{min} = 313.95 \text{ ft}^3 \text{ of gas required to get out}$$

$$313.95 \text{ ft}^3 - 249.6 \text{ ft}^3 = 64.35 \text{ ft}^3 \text{ short just to swim out}$$

$$64.35 \text{ ft}^3 / 2.73 \text{ ft}^3/\text{min} = 23.57 \text{ min short—and you die.}$$

$$23.57 \text{ min} \times 33 \text{ ft}/\text{min} = 777 \text{ ft} / 237\text{m short}$$

$$313.95 \text{ ft}^3 \times 1.5 \text{ times needed} = 469.72 \text{ ft}^3 \text{ of gas per standards for this dive.}$$

Let's say the average depth is 80 ft (24m):

$$80/34 + 1 = 3.35 \text{ ata}$$

$$0.75 \text{ ft}^3/\text{min} \times 3.35 \text{ ata} = 2.51 \text{ ft}^3/\text{min}$$

$$115 \text{ min} \times 2.51 \text{ ft}^3/\text{min} = 288 \text{ ft}^3 \text{ of gas to get out}$$

$$288 \text{ ft}^3 - 249.6 \text{ ft}^3 = 38.4 \text{ ft}^3 \text{ short just to swim out.}$$

$$38.4 \text{ ft}^3 / 2.51 \text{ ft}^3/\text{min} = 15.29 \text{ min short—and you die.}$$

$$15.29 \text{ min} \times 33 \text{ ft}/\text{min} = 504 \text{ ft} / 154\text{m short}$$

$$288 \text{ ft}^3 \times 1.5 \text{ times needed} = 432 \text{ ft}^3 \text{ of gas per standards for this dive.}$$

Let's say the average depth is 70' (21m):

$$70/34 + 1 = 3.05 \text{ ata}$$

$$0.75 \text{ ft}^3/\text{min} \times 3.05 \text{ ata} = 2.28 \text{ ft}^3/\text{min}$$

$$115 \text{ min} \times 2.28 \text{ ft}^3/\text{min} = 262 \text{ ft}^3 \text{ of gas to get out}$$

$$262 \text{ ft}^3 - 249.6 \text{ ft}^3 = 12.4 \text{ ft}^3 \text{ short just to swim out}$$

$$12.4 \text{ ft}^3 / 2.28 \text{ ft}^3/\text{min} = 5.43 \text{ min short—and you die.}$$

$$5.43 \text{ min} \times 33 \text{ ft}/\text{min} = 179' / 55\text{m short}$$

$$262 \text{ ft}^3 \times 1.5 \text{ times needed} = 393 \text{ ft}^3 \text{ of gas per standards for this dive.}$$

Utilizing a wide margin for average depth, it is mathematically impossible for either diver to swim out of the cave in this scenario. Neither diver independently carries 150% of the gas required by standards for the dive. This is a violation of CDS Standards and does not follow safe diving practices.



Chris Brock swims through Sweet Surprise on the way to Mainland. © Jennifer Dillaman, Blue Descent Photography.



Peering down the crevasse at Mainland. © Fred Stratton.

Scenario Two. Let's suppose now that a problem occurs at the same location, but the team decides to complete the blind circuit and swims on through Mainland.

We previously determined that each diver has 249.6 ft³ of gas available in the back gas. Per standards, we know that it will take 115 minutes to swim home (3,800 ft/33 ft or 1,158m /10m per minute).

This time let's say that Leon places an AL 80 safety bottle with 3,000 psi at 2,900 ft / 884m. The base line for an AL 80 is $80/3000 = 2.7 \text{ ft}^3/100 \text{ psi}$
 $30 \times 2.7 \text{ ft}^3/100 \text{ psi} = 81 \text{ ft}^3$ of gas in the bottle for argument's sake.

At an average depth of 90 ft: $313.95 \text{ ft}^3 - (81 \text{ ft}^3 + 249.6 \text{ ft}^3) = 16.65 \text{ ft}^3$ left in the tanks. In this situation, one diver has enough gas to live, and neither has the required 469.72 ft³ of gas per diver to be compliant with CDS Standards for this dive.

At an average depth of 80 ft: $288 \text{ ft}^3 - (81 \text{ ft}^3 + 249.6 \text{ ft}^3) = 42.6 \text{ ft}^3$ left in the tanks. So one diver has enough gas to live, and neither has the required 432 ft³ of gas per diver to comply with CDS Standards for this dive.

At an average depth of 70 ft: $262 \text{ ft}^3 - (81 \text{ ft}^3 + 249.6 \text{ ft}^3) = 68.6 \text{ ft}^3$ left in the tanks. One diver has enough gas to live, and neither has the required 393 ft³ of gas per diver to be compliant with CDS Standards for this dive.

Because Leon dropped a single stage, an exit toward Mainland provides enough gas for a *single* diver—not both—*theoretically* to swim out of the cave. These calculations do not take into account delays in exiting caused by gas switches, navigational confusion, line entanglements, reduced visibility, or other unforeseen issues encountered when returning through small, silty passages. Let's not forget the possibility of having to donate the long hose to a team member or even to a distressed diver on a separate team.

These problems are why CDS Standards require each teammate to carry 150% of the gas needed to exit the cave from the farthest point of penetration.

Neither mathematical scenario describes the situation in which both divers are beyond the midpoint of the circuit when unforeseen problems occur. Choosing to follow proper protocol and returning home in the direction from which they came, the utilized gas plan becomes less plausible should the team reverse direction at say 4,200 ft (1,280m) from Sweet Surprise.

Proper procedure dictates a setup dive

This potential disaster would be averted by both completing a setup dive and by carrying the proper amount of gas. This would allow the team to safely continue forward toward the nearest confirmed exit, which in this example would be continuing toward Mainland to the gold line. By not completing

a setup dive, Leon put Cheryl in a “trust me” situation. She likely would elevate her RMV and experience CO₂ retention and overall stress swimming away from the exit she knows to complete a blind circuit under emergency conditions.

The perceived extended range afforded the team while wearing properly functioning rebreathers does not excuse the team members from following cave diving procedures by properly setting up a complex circuit in case the unforeseen occurs. A circuit involving two Ts and the farthest point of penetration of 3,800 ft (1,158m) requires a setup dive.

Discussion

Many of us have completed this dive in similar fashion, going all the way around in one trip after first “proving” the circuit from both routes on two separate dives. (Several dives also build familiarity with the system, which aids situational awareness with each successive dive).

As an alternative dive plan, in addition to bringing a tow scooter, stages might be dropped at Sweet Surprise, Mainland, and at Stage Bottle Rock. This would afford over 430 ft³ and 150% of the gas needed to swim out of the cave at an average depth of 80ft / 24m. Should you desire a more conservative approach, place additional stages along the route. ,

Hundreds of documented cases of poorly planned cave dives fill stacks of accident analysis reports. When Sheck Exley wrote *Basic Cave Diving: A Blueprint for Survival* in 1979, most cave diving deaths were untrained open water divers. They still happen but have become more rare. Conversely, deaths among well-trained and equipped cave divers have risen. DPVs and rebreathers combine to enable penetration far beyond what is safe for divers carrying standard steel 85s or 104s and a single stage bottle as bailout.

Gas planning is both an individual and team responsibility. After all, some of the gas I’m carrying is yours. How will you answer the next time your teammate ask, “how much gas is enough?”

Guiding or teaching complex circuits are always best completed in two dives. Doing so ensures not violating safe diving practices that might put the team at risk should the unforeseen happen at or beyond the circuit’s midpoint.

Chris Brock is Training Director for the NSS-CDS. He teaches all levels of cave diving and its specialties, CCR, mixed gas, and other technical diving. Chris is an Instructor Trainer for NSS-CDS.

Fred Stratton is the 2024-2025 NSS-CDS Chair. He has been cave diving since 2003.

NSS-CDS ELECTIONS ARE COMING

It's time to nominate Board of Director Candidates.
See the complete information on page 14.

HAL WATTS 1935-2024

“Plan your dive, and dive your plan.”

by Barbara Dwyer

Hal Watts, known far and wide as Mr. Scuba, died in Ocala, Florida, on December 7, 2024, at the age of 89. He had retired from active diving some years ago following a series of strokes but continued to attend DEMA, CDS conferences, and tech diving events around the world.

Hal got involved in diving by accident. While looking to purchase a gun, he came across an ad for used scuba gear. Hal bought the gear, which included an old Navy dive manual. He was instantly “hooked” when trying it in a swimming pool, followed by a dive at Crystal River, FL.

But he told an [interviewer](#) that the first dive that really got his attention was in Zuber Sink (now known as 40 Fathoms Grotto), which he later purchased). Inexperienced and knowing nothing of the depth, Hal and a friend tied a line to a tree and followed the line down until they crashed to the floor and thoroughly silted out the area. They kept ahold of the line and each other, added air to their Clorox bottles, and ascended rapidly to crash into an overhang at about 30 ft. Noting that they were extremely lucky, Hal said that “our problem was that we didn’t have a plan.” He adapted his famous motto from his flight training. This experience prompted him to work with Scubapro to develop the “octopus” and SPG, he added.



Photo courtesy of PSAI

Hal started what’s now [PSAI](#) in 1962 as Florida Divers Supply. The organization underwent rapid growth and a series of name changes. By 1988, it had expanded well beyond Florida, and the name was again changed to the Professional Scuba Association (PSA). The “International” was added in 1995. Hal also was one of the original founders of the National Association of Cave Diving ([NACD](#)).

Hal’s accomplishments are legendary, and you can read about them [here](#) and [here](#). Rather than reprint others’ words, I’ve gathered some photos of Hal in hopes that you will enjoy them.



Hal on his Harley, Dec 2013.



Jan and Hal celebrate their wedding at DEMA 2002, Las Vegas, Oct 24.



99 at Forty Fathom's Grotto



Breck Johnson, Hal, and Bill Oigarden at Eagle's Nest 1981



Hal Watts's Forty Fathoms Grotto. © Curt Bowen, 2008.



and a reunion: Bill Oigarden, Hal, Breck Johnson, 2023.



Hal with daughters Kirsten (L) and Scarlett (R), 2019.



Undated.



Early Scubapro ad



Photo courtesy of Bob Evans.



Hal in his office, 2017.



DEMA 2019 in Orlando: Gary Taylor, Hal Watts, Kevin Gurr, Larry Green and Jan Watts. Photographer unknown.



1965. Courtesy PSAI.



Undated.

It's Nomination Time for NSS-CDS Board of Directors Candidates

by Jim Wyatt and Kelly Jessop

It's time for us to nominate candidates to run for the NSS-CDS Board of Directors. If you have been a member or know or someone who has been a member for at least one year AND think they should run for one of the board seats please send a message to Kelly Jessop at kjessop@bellsouth.net with their name and email addresses **by 31 January, 2025**.

You can also nominate yourself.

In order to qualify, a person must have been a member of the CDS *and* the NSS for a minimum of one year.



IMPORTANT DATES

On or before four (4) months prior to the annual membership meeting - **31 January 2025** - the nominating committee shall solicit recommendations for nominees from the membership.

On or before fourteen (14) weeks prior to the annual membership meeting - **22 February 2025** - the nominating committee shall select and submit to the election administrator a list of qualified nominees.

On or before twelve (12) weeks prior to the annual membership meeting - **08 March 2025** - nominees shall submit candidate platform statements to election administrator.

On or before ten (10) weeks prior to the annual membership meeting - **22 March 2025** - the election administrator shall announce when voting commences and ends on the NSS-CDS website. All voting will be done electronically.

Completed ballots must be received by the election administrator on or before two (2) weeks prior to the annual membership meeting - **17 May 2025** - in order to qualify as a legal vote.

All candidates will be notified of the election results within seven (7) days after the close of the elections. That date is **24 May 2025**.

ANNOUNCING MEMBERSHIP UPDATES

by James Chandler
NSS-CDS Vice Chair



Part of my work as Vice Chair involves overseeing the Membership Committee. In this role, I've been tasked with reviewing our various classes of memberships with an eye to simplify, streamline, and economize.

Annual Membership

Recently, the Board considered amendments to annual membership dues necessitated by rising costs. This will help our organization to provide consistent levels of service to our members, including opening and managing new cave systems to enjoy.

In that vein, the Board has decided to eliminate the \$20 annual membership for NSS members who join the CDS. Verifying such membership isn't practicable. It would be cost prohibitive to link the member databases of both organizations. Therefore, from this point onward we will have one annual membership rate at \$35.

The Board also approved making January the annual membership renewal month. New (and renewing?) members will be charged a prorated amount of the \$35 when joining outside of January, then charged the full \$35 the following January.

Life Membership

I reviewed our Membership levels for presentation and discussion at the December 8, 2024 board meeting. Along with updating the annual membership rate, the Board also approved a modification to the Life Membership rate. As with the annual membership, the rate for a Life Membership has not been adjusted in many years.

As of January 1, 2025, the NSS-CDS Life Membership will be \$500.00 and will increase to \$600 as of January 1, 2026. Becoming a Life Member is still a great value. You never have to worry about your membership expiring, and it is a tremendous way to show your commitment to cave diving's premier organization.

Updates to the Renewal Process

As of January 1, 2025, all members will renew in January for the year running February 1 to January 31 each year. Having all members renew in the month of January will streamline accounting tasks for our Operations Manager, Adam Hughes. This in turn will free Adam to provide even better customer service in other areas. It also removes any doubt as to when one's annual membership is up for renewal.

We have also made it very convenient to renew. Go to the website's store, click Auto Renewal, and the CDS will charge your card each January for your member dues.

Membership Levels

Currently we have seven different membership options in our bylaws, although four of these haven't been offered in the online store in many years. The Board voted on a proposed amendment to the Bylaws, which will be on the ballot this spring. The initiative will streamline our membership levels to three from seven.

Our current membership levels are Regular (annual), Associate, NSS-CDS Life, CDS Partial, Family Regular Membership, Family Associate, and Family NSS-CDS Life.

The proposal would simplify our membership classes to Annual and Life.

This change in Article II, Section B does require a bylaw change. The change will streamline the process to join or to renew. It also will aid the budget process by having a more predictable revenue stream which in turn facilitates good governance and fiscal responsibility. We ask for your support for this bylaws change.

We will provide more updates at Winter Workshop 2025 on January 18, 2025, in High Springs, Florida USA. I look forward to seeing you there.

Cave Divers Assist in Historic Car Extraction from Sinkhole

by Rachael McCarthy

In a remarkable collaboration, three North Florida cave divers worked with state park officials to hoist a long-submerged car from a Tallahassee sinkhole on private property. The 1977 Datsun 200SX had been underwater for a half century, according to locals.

Cal Jamison and cave diver Chris Brown organized the haulout. The two volunteer with [Friends of Wakulla Springs State Park](#). Cal met with the property owner, who knew about the car when he purchased the land 40 years ago. He had long wanted to remove it, but the cost was prohibitive.

Aware that retrieving the car would not be a typical recovery, they contacted cave divers Tom Morris, Sean McCarthy, and Cameron Mahaffey. The Friends of Wakulla Springs State Park donated \$1500 toward the effort. Extracting an old car from a flooded sinkhole in Florida's ecologically sensitive aquifer called for cave divers who also had retrieval operations experience.



Extracting the car was a delicate operation. © Sean McCarthy.

A Sinkhole's Toxic Secret

How the car got into the sinkhole is a mystery. Locals say that it has been leaking toxic fluids into the nearby aquifer for at least 50 years. The sink itself is a murky pit, measuring about 120 ft square and bottoming out at about 77 ft. The car rested on the debris cone at a depth of around 40 ft. The divers would need to locate the car in the turbid water, then determine the safest way to secure and extract it by crane.

"This is not the kind of operation we're used to," pointed out longtime NSS-CDS member Tom Morris. Tom, a biologist and veteran of thousands of cave dives, noted that "normally we're mapping underwater passages or conducting research dives. But this was an opportunity to use our skills to help with something practical and important for the community."

Tom, Cameron, and Joey considered the sinkhole's depth and structure and observed how the vehicle was situated. Visibility was nearly zero, and their dive lights couldn't penetrate the suspended particles. They navigated using touch and experience. Noting that sinkholes are unpredictable, Cameron emphasized that they had to move cautiously. "The bottom can drop off quickly, or there could be underwater caverns that could make recovery tricky. It was crucial to take our time to avoid putting ourselves in danger."

The divers spent about three hours underwater securing the car. Fixing lift straps to the car's frame required delicate rigging and careful coordination with the crane operators topside. The operators carefully maneuvered the crane to avoid damaging the fragile landscape. While communicating with the divers, they slowly raised the vehicle and completed the operation without incident. Onlookers who had gathered for the event praised the divers and surface crew and thanked them for their skill, care, and commitment to conservation.

"It's not often that a group of divers this experienced comes together to help with a task like this," said Chris Brown. "It's always a source of pride to have great confidence in our cave diving community—even when there's no cave—and to see our volunteerism,



The remains of the recovered 1977 Datsun 200 SX. © The Wakulla News.

collegiality, and expertise at work.” Chris was recently involved in the local effort to halt construction of a gas station directly over nearby Chip’s Hole, with the land instead being donated for conservation.

Giving Back to the Community and to the Aquifer

The collaboration highlighted the importance of stewardship of the state’s ecosystems, which provide Florida’s drinking water. “It’s all one big bowl and we all have straws in the same glass,” said Cal Jamison.

For Sean McCarthy, the operation was a reminder of the myriad ways in which cave diving skills can be applied. “I’ve always said that cave diving isn’t just about exploring the unknown,” he noted. “It’s also about giving back to the community when it’s needed most.”

Giving back to the community was the unifying theme for this operation. The landowner and the aquifer both benefitted. The Friends of Wakulla Springs State Park partially underwrote the job. The divers donated their time to prepare the car for safe removal and to be sure that no one was injured or the environment damaged. The operation was a fine example of cave divers and environmental advocates working together for a common cause.

About the Divers

Tom Morris is a veteran cave-diving biologist and has studied the Florida springs for decades. Among his many honors is the NSS-CDS’s recent Lifetime Achievement Award. Sean McCarthy is this team’s newest cave diver. He has 20 years’ experience as a public safety diver, with numerous vehicle and body recoveries to his credit. Cameron Mahaffey located the sunken car and spent weeks organizing the recovery effort to be sure that it was executed flawlessly. Cameron is the 2024 NSS-CDS Explorer of the Year.

Rachael McCarthy contributes frequently to Underwater Speleology. She lives in O’Brien, FL, and dives the nearby caves.

The NSS-CDS 2024 Lifetime Achievement Award Winner

AN INTERVIEW WITH TOM MORRIS

by Gayle Hall and
Rachael McCarthy

Tom Morris received the NSS-CDS Lifetime Achievement Award at the International Cave Diving Conference, June 1, 2024. This award recognizes an individual who has made significant contributions to underwater cave exploration, conservation, education, and safety. Examples of these contributions are innovation, refining procedures and protocols, documentation, writing, and additions to the body of cave-related science. The award recognizes and honors its recipients for their history of leadership and service to NSS-CDS.

Tom received a lifetime membership to NSS-CDS, a commemorative plaque, a feature in Underwater Speleology, and recognition on the website and Facebook page.

We enjoyed spending time with this accomplished diver and scientist and learning more about his career.

Tell us about yourself. How did you first start diving?

My dad came home around 1959 with a scuba tank with a J-valve and a primitive single hose regulator. The first stage had only one port for the regulator. It did not need another one as there were no submersible pressure gauges at the time. My dad took us to a neighbor's pool, and we taught ourselves to SCUBA dive. I was just a kid.

We would family camp at Madison Blue. We only had one rig, so we took turns diving in the spring. We would ease back into the cavern, being careful not to lose sight of daylight.

Before long, I put a two-D-cell flashlight in a plastic bag, and I was off and running. We would traverse between the two entrances. We later made two sets of twins with CO₂ bottles, ½ inch valves, and "suicide bars" for manifolds. We also made lead weights and reels in the garage. In hindsight, I think my dad was trying to get rid of us kids.

My dad also took us to other springs—Ginnie, Devil's Eye, Peacock. You had to walk to Devil's as the road was a continuous mud hole. Devil's Eye was a very dark cave back then. It just sucked up your light. The limestone was encrusted with black goethite, right from the entrance. It is mostly rubbed off now, but, while on deco, if you peer into small protected cracks, you can still see some of it.

Cave divers fast track now. Back then it took me years to get to, say, the Florida Room in Little River, but divers get back there now in their cave classes. Of course, I was using Clorox bottles for a BC. Later, I got a horse collar that had to be orally inflated. Finally, Scubapro came out with the first power inflator BC. That was heaven on earth.

After my parents got married in Winter Haven, they took off on a drive around the country. Their first stop was Wakulla Springs, where they spent the night in the lodge. I have not done the math, but maybe I was conceived there, right above the cavern. That might explain my lifelong love of caves, especially the water-filled ones.

What about the springs and caves appealed to you?

Everything appealed to me, right off the bat. The beauty. The excitement. The gear. And, of course, the exploration. Cave diving is the ultimate in "what's around the next corner." I also loved the wilderness aspect of it—you are on your own. Did I mention the beauty?

As I gained experience, and the mechanics of diving became second nature, I really started focusing on the cave environment, trying to figure out the mysteries of cave geology, hydrology, biology, all of it. There are still things I am trying to understand. People often want to know which cave is my favorite.



Tom rappelling into Squirrel Chimney. The 45 ft solution tube descends to a water-filled room that's one of the only sites that contain three species of cave crayfish. It is the only known site for the Squirrel Chimney Cave Shrimp, Florida's only known cave-adapted shrimp, which may be extinct. © Pete Butt.

My answer is usually “the one I am in at the moment.” They are all unique – every one is different and interesting in its own way. I have never been in one I did not enjoy, at least in retrospect.

You have done many things in your storied career. What was most meaningful?

Wow, it is hard to pick one thing. I will start with this. Nancy and I went on our honeymoon with Sheck Exley and gang to assist with his big dive at El Nacimiento del Río Mante. The “help” all wanted to bounce dive down the chasm to 400 feet, where Mary Ellen Eckhoff had left a garter belt. The lines were confusing, but Paul Smith and I got to the belt. We got a bit low on deco gas, but fortunately Nancy came down to check on us and fixed that problem. She and I both agree that our unconventional *luna de miel* was the best. And yes, we did get away from the guys for a few days.

Working with Wes Skiles on filming and photographic projects was fun. These included the IMAX film [Journey Into Amazing Caves](#), [The Cave](#) movie, the [Water's Journey](#) Series, Nat Geo and NOVA specials,

the [Ring Cenotes](#) project, and others. There was always a conservation message in the films (except for “The Cave”), and I would like to think that they had a positive effect on the viewers.

Getting in on the ground floor with Wes, Lamar Hires, Mark Long, Woody Jasper, Paul Smith, and Ron Simmons on the development of Florida-style side mount was rewarding, and boy, did it open up so much more cave to explore. Rob Parker pitching British style side mount is what got me thinking about it, but apparently Woody, the great innovator, was already onto it. I cannot believe there are over fifty outfits making side mount gear now.

The groundbreaking dives at Wakulla Springs in 1987 were great. Paul Heinerth, Wes, and I lucked out and got the last dive. We went almost 4200 feet in B Tunnel, which is the prettiest of all the Wakulla passages. Wes and Paul got the survey while I looked for cave animals. Bill Stone's subsequent book [The Wakulla Springs Project](#) became the “bible” for mixed gas diving and really kicked off deep/long cave exploration, not to mention rebreathers. The dives Wes and I did with Mike Madden and Eric

Hutcheson at Nohoch Nah Chich, trying to make the elusive connection with Dos Ojos, were terrific—long, shallow, pretty, and warm. What could be better!

Well, here's what could be better. In 1988, Wes and I rode out Hurricane Gilberto, the largest Atlantic storm on record, in little (at the time) Playa del Carmen. Gilberto had the lowest barometric pressure ever recorded—888 millibars. It was reported to have 197 mph sustained winds. We saw blue sky in Gilberto's super-tight eye. It looked like a Hollywood disaster movie. It was a life experience. Hurricanes are great if you don't own anything that's going to get torn up.

Pete Butt, Wes, and I did a lot of Karst Environmental Services work-related diving in the Yucatán. One client was planning on building a road through mangroves out to a barrier island. We found an offshore blue hole which went back towards the mainland. Under the mangroves, the cave was over 100 feet wide and very shallow. A bulldozer would have surely crashed through the ceiling.

I have been on several bio-speleology expeditions to Mexico. In one spring, north of Mante, I ran across a new species of blind catfish. We needed more specimens, so I went back later with Dean Hendrickson and Tom Iliffe. Tom and I did a sketchy dive on twin 40's to 180 feet and collected six more fish. They were super skinny. Dean took them back to Texas and fed them up. After he withheld food, it took them well over half a year to thin down again. Their food supply in the cave is apparently very intermittent.

On another trip James Brown and I discovered a blind cave sleeper in a cave inundated by the Presa Miguel Alemán in Estado de Oaxaca. It was the first fish of its kind in the Western Hemisphere. These are the kind of discoveries that keep me diving.

The dye trace that Pete Butt and I did from Mill Creek (Alachua) Sink to Hornsby Spring in 2005 is paying off now, as it is a key piece of science critical to the disposition of a controversial development near the swallet. We also did traces at Ichetucknee Springs and a year-long one at Silver Springs. It was on one of our charcoal-trap change-out days at Silver that Pete was [attacked by Floyd](#), an almost twelve-foot 525-pound alligator. Pete survived but, unfortunately, Floyd did not. That was quite a day.

The best job I ever had was when the FDEP paid me to do biological surveys of Florida aquifer caves. I

was unsupervised and could go wherever I wanted. I really stretched the grant money out by camping every night. James Brown was between jobs and assisted me a lot. All I had to do was feed him. We dove in many new caves, especially in panhandle Florida, and made some cool discoveries. These including finding a new species of cave amphipod and documenting the presence of the Georgia Blind Cave Salamander in the Choctawhatchee River drainage, 50 miles to the west of its known range. This is the kind of basic natural history information critical for wildlife protection. Cave biology is my primary focus in diving now.

Many people have commented on how you shaped their diving, exploration, and research. How do you reach out to the next generation of explorers? Why is it important to you?

Gosh, I never thought that I reached out so much, but I have always been willing to share knowledge, particularly regarding the natural history of caves. And I suppose I can provide some historical perspective. I love Florida cave science, so if any readers have a question for me, give me a call. It would be payback for all the times divers have clued me in on something unusual and interesting going on in caves.



Tom's son Scott accepts Tom's NSS-CDS 2024 Lifetime Achievement Award from Jamie Chandler. Photo by Carrie Spencer.

I guess I should mention that I have just about completed a chapter “The Biology of Peacock Springs” for Sandy Poucher’s next printing of her *The Taming of the Slough* book. There will be a good bit of information about general Florida cave biology and lots of stuff specific to Peacock.

Wes’s first *Water’s Journey* episode, which I helped with, really hit a collective nerve, and is still being shown to audiences today. Its message is all about conservation of the Floridan Aquifer, the world’s best. During the filming at Hart Springs, Jill Heinerth and I ran into some serious flow at a sand restriction in Hart Springs, which made for stirring footage.

I have led field trips and given cave-related presentations to various groups, and even helped run a week-long “springs camp” for middle schoolers. So, maybe I did reach out a bit after all.

As a population, how do you think we are doing with conserving our precious resources?

I am pleased to say that cave divers have done a lot to help protect Florida’s groundwater resources. Years ago, the WKPP was instrumental in stopping a proposed gas station near Wakulla Springs. Cave diver Chris Brown spearheaded an effort that stopped a petroleum product tank farm east of Tallahassee, near Lloyd, that had the potential to contaminate a huge swath of aquifer between two major swallets and St. Marks Spring.

Recently, Casey McKinlay and the WKPP divers helped Conservation Florida relocate a gas station and purchase land to protect Chips Hole and Wakulla



Photo credit: Nancy Morris.

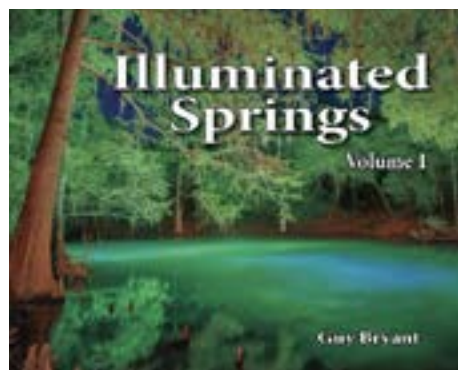
Springs. Cave divers also helped halt a Walmart distribution center that threatened Mill Creek Sink. And right now, Bryan Buescher and a dozen other cave divers are leading an effort to make sure a huge [housing project](#) does not harm Mill Creek Sink, where surface drainage is channeled underground on its way to Hornsby Spring and the Santa Fe River. Cave divers are often the first ones to raise the alarm when groundwater resources are threatened.

I hate to say it, but I see way too much unnecessary damage in some of our caves. Cave diving instructors need to make sure that students leave their classes with a knowledge of delicate cave features that are easily and permanently damaged, such as goethite, as well as the skills to dive without marring our caves. Of course, knowledge and skills need to be reinforced

(continued on page 24)

Guy Bryant releases *Illuminated Springs*, his first book in the series.

Imagine springs and sinkholes meticulously photographed during the mesmerizing hours of sunset and twilight. To photograph Florida’s springs, Guy and his team illuminated the clear water below the surface while simultaneously light painting the surrounding landscape and foliage. This technique creates a glowing, otherworldly beauty where one might expect fairies or elves to magically appear.



Guy will have copies of his books available at the upcoming Winter Workshop. His books and *Illuminated Spring*-related merchandise are available on [Amazon](#), his [website](#), or [Merch](#).

DEMA 2024'S A WRAP!

by Steve Forlenza
NSS-CDS Secretary

The NSS-CDS had a strong showing in DEMA 2024's tech diving section. This year's show was at the Las Vegas Convention Center from November 18th through November 22nd. Stephen Forlenza and Max Kuznetsov each donated a week of their time and energy hauling our organization's banners and merchandise out to Las Vegas. They set up the booth and staffed it for five days, greeting new and old customers alike.

The show, as always, was a success. It wasn't the biggest or the liveliest DEMA in memory, possibly because the Formula 1 Grand Prix was also in town. But the CDS always benefits from attending DEMA. We maintain relationships with old friends while making new ones. And it's an opportunity to articulate our mission while obtaining new vision.

All manner of curious divers stopped by to chat and ask questions. Our west coast friends enjoyed the CDS's three-panel display. There were lots of questions about membership benefits, training opportunities, and our current conservation projects. People were excited to hear that work is underway at Edward's Sink and that it will soon be open for diving to CDS members.

We had lots of favorable comments—and sales—for this year's "casino" tee shirt special. Many thanks to Justin Enzmann for his design. Sales of the limited-edition tee shirts that we make each year support the Section and help to finance member benefits. If you haven't had a chance to grab yours, we might have a few left over. This year's shirt and tees from years past will be available at the upcoming Winter Workshop and the International Conference.



Justin Enzmann designed this year's Las Vegas-themed tee shirt for DEMA 2024.



CDS instructor Edd Sorenson (center) displays his DEMA tee shirt. With Steve Forlenza (left), and Max Kuznetsov (right).

It goes without question that no operation can be successful without the support of others. What would we do without Adam Hughes's continued support? We owe a major thanks to our friends at Dive Rite for transporting our gear to Las Vegas. Gayle Hall, thank you for the "after-action review" from previous years; it was more helpful than you know. Barbara Dwyer, our *Underwater Speleology* editor, lent a hand in between looking for story leads. And Renee Power stopped by for a short stint to pitch in.

To all of our members and supporters who stopped by and supported the section—Thank you!

'See you next year in [Orlando!](#) Stop by and see us at Booth #1267, November 14-18, 2025.

Stephen Forlenza
Booth Captain

About the DEMA 2024 Team: Stephen Forlenza is NSS-CDS Secretary. Max Kuznetsov is a member of the Training Committee and former NSS-CDS Training Director.

Edward's Spring to Reopen for CDS Member Diving

by Steve Dalcher

Edward's Spring, thought to be the terminus of the Cathedral system, should shortly be open for diving. Fred Stratton, NSS-CDS Chairman, signed a formal access agreement allowing exclusive access for qualified NSS-CDS members. This was the culmination of months of prep work by members of the CDS Cave Access Committee, chaired by Ian Parrish, Landowner Relations Subcommittee Coordinator. Tom (TJ) Johnson has assumed the duties of Property Manager for Edward's Spring.

A Brief History

Edward's is a river cave located in the northwest corner of Suwannee County adjacent to Hwy 90. Originally known as Roaring Springs in the Civil War era, a Confederate Army Post was located adjacent to it. I was able to locate a marvelous memoir by Clothilde O'Hara Mainer titled *Yesterday in Old Columbus*. It details the area's history and even touches on the steamboat wreckage at Troy Springs! Edward's is also known as Ellaville Spring. Sheck Exley gave it its current name in honor of his deceased brother Edward.

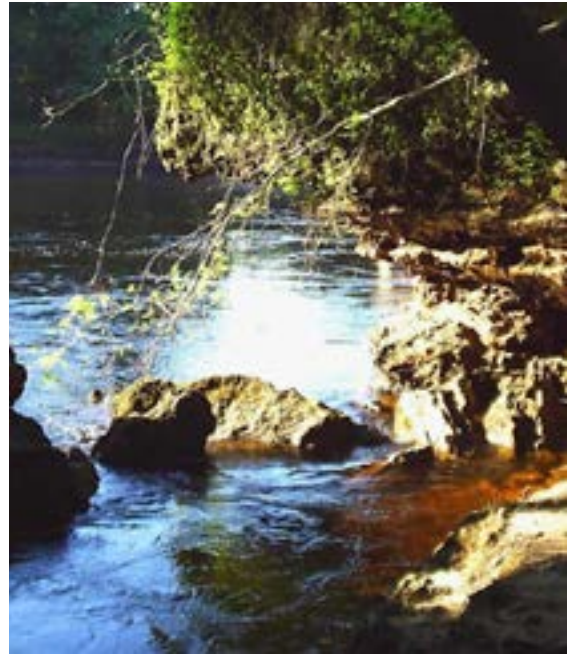
Spring Conditions

[Edward's Spring](#) is deep, averaging 120 ft/36m, with high flow. Its walls and ceilings are dark and soft, making debris percolation a diving consideration. This is an advanced dive and should be done initially with someone familiar with the system. (See proposed requirements below). It has been [surveyed](#) to 33,553 ft /10227m (and growing).

This unique system has been explored by Sheck Exley, Lamar Hires, Bill Rennaker, Adam Hughes, Tom "TJ" Johnson, myself, and many others. Divers are able to cross two rivers and three counties while completing a traverse to the Suwanacoochee. Currently, diving in the Suwanacoochee Spring is restricted. The CDS is exploring options to allow for emergency egress to the Suwanacoochee from Edward's Spring.

Spring Access

The CDS has been working with the landowner to facilitate safe access for members. We have



Edward's Spring circa 2003. Photo by Tom "TJ" Johnson.

conducted a volunteer work day to clear away debris from the hurricanes of 2024. Another work day will be scheduled in January 2025 to install railings, steps, and platforms. As of today, no diving is permitted but we anticipate opening in March, 2025.

Contact me ([Steve Dalcher](#)) if you'd like to join an upcoming work party or have questions.

Dive Requirements

The CDS is developing guidelines for safe diver access. We anticipate that these will include:

- CDS membership
- Full Cave Certification with Abe Davis Award or equivalent
- Trimix certification and use while diving this cave
- Initial dives to be done with someone who knows the system.

by Steve Dalcher
NSS-CDS Board Member
Chair, Cave Access Committee
CDS Instructor No. 415 and Life Member

(Tom Morris: continued from page 21)

with a strong conservation ethic. I think the best time to instill that ethic is during diver training, when the students are in the thrall of their instructors.

What can we do differently?

We should increase emphasis on in-cave conservation, especially during cave diving classes. It should get just as much coverage as safety and exploration. Really, it can be woven in seamlessly throughout the training.

What one thing would you recommend that every cave interested person could do to change the trajectory of the declining health of our springs?

Educate yourself on the stance of politicians regarding environmental protection. Aquifer contamination and over-pumping are landscape-level problems that need landscape-level solutions, which is in the sphere of government. Vote accordingly. It really matters.

You received a pinnacle [Lifetime Achievement Award](#) from NSS-CDS in June. What does that mean to you? What advice would you give future and upcoming researchers and explorers?

The award was quite an unexpected honor. But it almost seems unfair to get an award for doing something that has been so much fun for so many years. I sometimes wonder what I would do with my time if it was not for cave diving. It has given me high adventure, and the blending of my career as a biologist and my cave diving hobby has really worked out great. How many biologists are lucky enough to get to explore an almost entirely undescribed ecosystem?

As far as advice to the research-inclined diver goes, there are still plenty of things to figure out in our caves. For example, we do not know much about what is going on in cave sediments, or how cave crayfish survive in the hydrogen sulfide water at Palm Springs. There will always be more questions.

Regarding exploration, Florida keeps on dishing out new stuff, but not at the rate of the old days. Bill Main likes to say that we have already picked the low hanging fruit, and he is right. However, new stuff is still out there. Modern technology, like Lidar, can locate features that only a local would know about, such as small sinkholes out in the karst plains. Finding this stuff still takes a lot of effort, but the payoff can be huge. Just consider the recent success of Cameron Mahaffey and Addison Snyder at Sand Dollar Sink.

The exploration front is way out there in the known caves. But with modern gear and the excellent skills of our divers, I think the explorers will be laying line for some time to come.

The great adventure will continue.

About the authors:

Gayle Hall is a member of the NSS-CDS Board of Directors and is the Awards Subcommittee Coordinator.

Rachael McCarthy recently moved to Florida to focus on cave diving.

ADVERTISE IN UNDERWATER SPELEOLOGY

2025 ad rates are as follows:

CDS Supporter for \$350 per year:

- Four 1/4 page color ad 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

The NSS-CDS is looking for an advertising manager to work with sponsors, instructors, and businesses. Hours are at your convenience. For more information, contact [Adam Hughes](#).



In late October, sadly, we learned that Bill Gavin, a founding member of the Woodville Karst Plain Project (WKPP) and its second Project Director, had passed away. He was 65 years old. Bill Gavin was trained by Tex Chalkley in 1978 and was cave certified in May 1979 through the National Speleological Society-Cave Diving section (NSS-CDS).

He was active in the Woodville Karst Plain area, exploring caves such as upstream Sullivan Sink and discovering the Big Rooms along with Bill Main in the early 1980s. He and Main made the connection between Sullivan Sink and Cheryl Sink in January 1988. Bill Gavin, Parker Turner, Bill Main, and Lamar English did the traverse dive between Sullivan and Cheryl in June of 1988, a world record at the time, and went on to form the WKPP. "He was one of the most aggressive explorers I knew," noted Main. "Sheck Exley was another."

Bill received a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University in 1982. He spent his professional career as a civilian mechanical engineer at the U.S. Naval Coastal Systems Station in Panama City, Florida. He was the last engineer to work on the US Navy's ill-fated EX-19, the Navy's first fully digital closed-circuit rebreather in the late 1980s, which was planned to be used for deep saturation diving missions.

Bill was a world-class innovator. He worked diligently to help Bill Main perfect the Hogarthian gear configuration which gave birth to DIR; modified early Tekna scooters for depth; and later went on to develop the Gavin scooter. He also implemented gas blending standards for the WKPP's early trimix use and devised the original decompression tables the team would use throughout the late 1980s before Dr. RW Bill Hamilton began working with Parker Turner.



The original Gavin scooter, 1995. Courtesy of WKPP.



Bill Gavin. Photo courtesy of WKPP.

Bill went on to explore downstream Innisfree Sink, pushing it toward Turner Sink in the early 1990s.* His dives in Wakulla Spring in the early 1990s pushed A-tunnel out to nearly 6,000 ft penetration. Bill was a pioneer in deep underwater cave exploration, was well respected in the diving community, and implemented many of the early standards that the WKPP still utilize to this day.

Divers everywhere are immeasurably grateful for Bill's many contributions to our diving longevity. Our hearts go out to his family and friends.



WKPP co founders L to R: Bill Gavin, Parker Turner, Bill Main, Lamar English. Photo courtesy of WKPP.

* Bill Gavin survived—and [wrote the accident report for](#)—the 1991 Indian Springs cave collapse that killed his friend and diving partner Parker Turner. It is the only known cave diving death that has not been attributed to human error. — Editor's note.

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: [Steve Forlenza](#)
- b) Website Subcommittee: [Teri Walker](#)
- c) Social Media Subcommittee: TJ Mueller
- d) *Underwater Speleology*: [Barbara Dwyer](#)

Membership

- a) Awards Subcommittee: [Gayle Hall](#)
- b) Elections Subcommittee: Kelly Jessop
- c) Workshop/Conference Subcommittee
- d) Fundraising Subcommittee: Kendra Warlow

Safety

- a) Accident Analysis Subcommittee: Charlie Roberson
- b) Line/Markers Subcommittee: Ken Sallot

Science

- a) Geology Subcommittee: Pati Spellman, PhD
- b) Biology Subcommittee: Thomas Sawicki, PhD
- c) Conservation Subcommittee: Bobby Scharping, PhD
- d) Cave Cartography Subcommittee: Jason Richards

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

Cave Access

- a) Properties Subcommittee: [Steve Dalcher](#)
- b) Landowner Relations Subcommittee: Ian Parrish

Property Managers

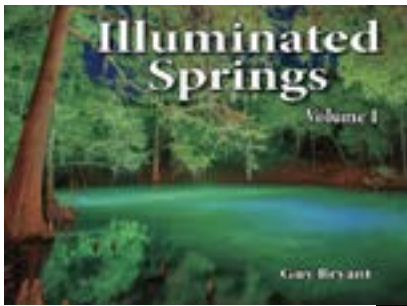
- a) Cow Springs LLC: Cameron Mahaffey
- b) School Sink LLC: Bob Beckner
- c) Mill Creek Sink: Andy Pitkin, Charlie Roberson



Save the Dates for
the 2025 International Cave Diving Conference

May 30 and 31st, 2025
High Springs, FL

NSS-CDS Thanks its 2025 Winter Workshop Sponsors and Volunteers



2025 and beyond

As the NSS-CDS enters its 52nd year, where do you see the organization heading? Are we poised to capitalize on the talent resident among our members? Can we amplify our firepower by collaborating more effectively with other organizations? These questions require a strategic mindset. While we mind the day-to-day transactional needs, we are taking transformational steps to strengthen the organization in each of our core mission areas of safety, education, and conservation. The three are inextricably linked; efforts in each area reinforce the others.

During this next year, we will be opening Edward's Spring to members early in 2025 once all access, safety, and conservation measures are in place. Our online learning platform will go live next year. The International Cave Diving Conference on the 30th and 31st of May will be *the* hot ticket of the year with the Winter Workshop on 18 January in High Springs priming the pump for a year to remember with many more surprises in store.

Go dive, have fun, and be safe.

Fred Stratton, Chairman
NSS-CDS

**Fred Stratton is the 2024-2025 NSS-CDS Chair.
He has been cave diving since 2003.**

Cave Diving Safety Milestones

by Gayle Hall

The divers below have earned safety awards during the 4th quarter of 2024. Offer them congratulations when you see them around the dive sites.

The Abe Davis Award: 100 safe cave dives

Greg St. Amand
Dan McIntyre, Jr.

Brian Kelley
Tyler Ray

Guy Bryant

The Henry Nicholson Award: 500 safe cave dives

Brian Kelley

Guy Bryant

The Sheck Exley Award: 1000 safe cave dives

Guy Bryant

NSS-CDS members can [apply for the awards](#) at no charge. For more information, contact [Gayle Hall](#).



Why should I join the NSS-CDS?

The benefits of membership include:

- Being part of the largest cave diving organization in the United States.
- Helping to shape cave diving's future by electing leaders to represent your interests.
- Receiving discounts on store merchandise and meeting registration fees.
- Accessing members-only content on nsscds.org.
- Receiving Underwater Speleology magazine in your mailbox - 4 issues annually.
- Diving admission at members-only sites (Cow Springs, School Sink, Mill Creek/Alachua Sink) AND,
- Getting invited to work parties and picnics. Join your fellow divers to improve parks and dive areas! (Membership is not required for work parties).

Join on the web site: <https://nsscds.org>.

Cave Diving Section of the
National Speleological Society, Inc.
5200 NW 43rd Ave., Ste. 102-380
Gainesville, FL 32606

RETURN SERVICE REQUESTED



MAKE
THE DARK
AFRAID OF
YOU

THE
EX35
PRIMARY CANISTER LIGHT



DIVE RITE®
EQUIPMENT FOR SERIOUS DIVERS • WWW.DIVERITE.COM