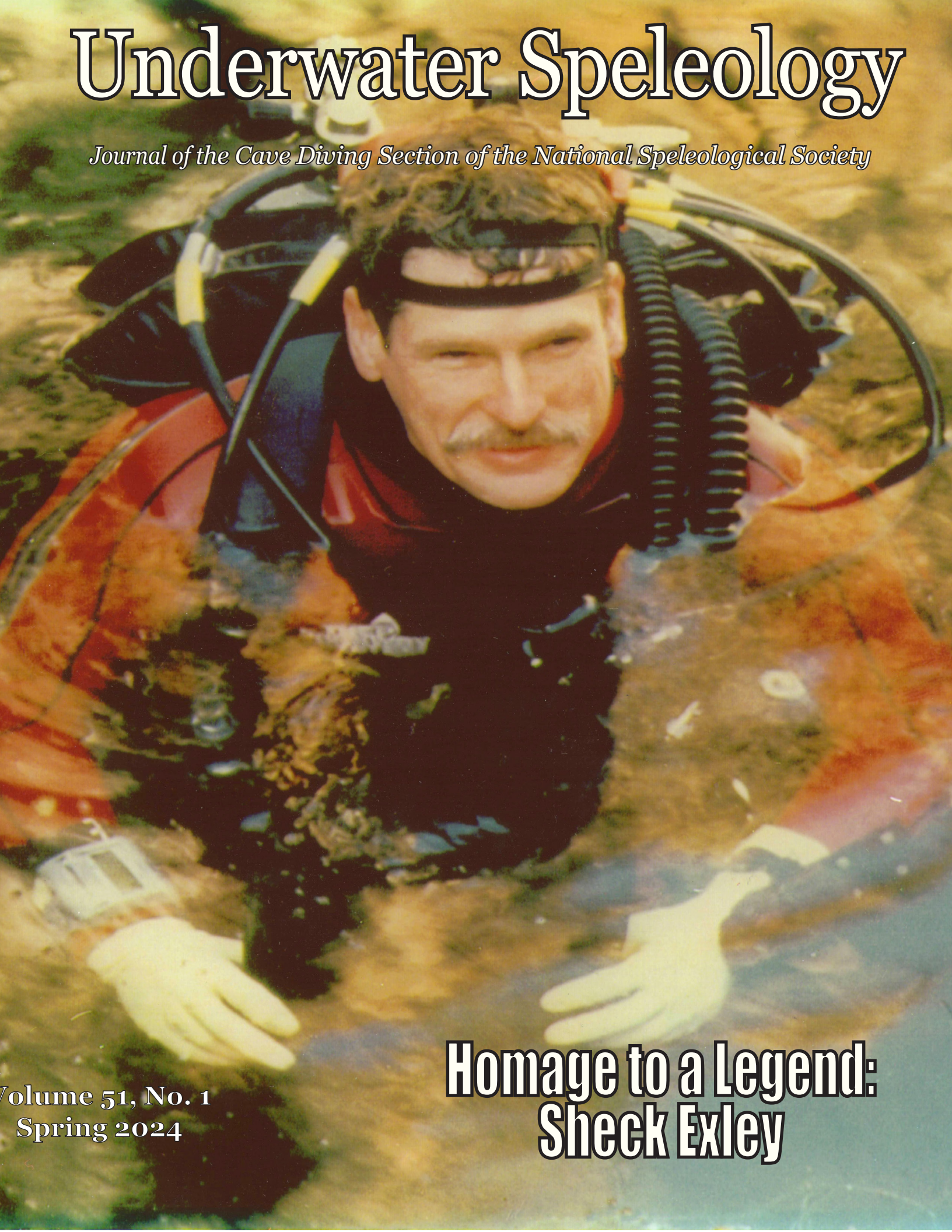


# Underwater Speleology

*Journal of the Cave Diving Section of the National Speleological Society*



Volume 51, No. 1  
Spring 2024

**Homage to a Legend:  
Sheck Exley**



Photo credit: Jennifer Dillaman

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Cover: Sheck Exley in the water at Bushmansgat, South Africa, 1993, before his record-setting dive to 863 ffw/265 m. Photo courtesy of Mary Ellen Eckhoff and Brian Udoff.

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# Underwater Speleology

**Volume 51, Number 1 Spring, 2024**

## features

Sheck Exley: Homage to a Legend (Part 1)	
by Barbara J Dwyer.....	6
Peacock Springs Hurricane Restoration	
by Fred Stratton.....	16
Jill Heinerth Receives An Honorary Doctorate and a First-Place Film Award	
by Barbara Dwyer.....	18
Our Abe Davis Journey	
by Heather Knowles and David Caldwell .....	21
Book Review: Cave Diving: Everything you Wanted to Know by Stratis Kas	
by Fred Stratton.....	24
New Cow Springs Access Procedures	
by James Chandler.....	20.
Announcing New NSS-CDS Recognition Awards	
by Gayle Hall .....	28

## columns

A Note from the Chair	
by Sam Leflore .....	4
DPV Workshop for NSS-CDS Instructors	
by Max Kuznetsov.....	19
Training Notes	
by Jim Wyatt.....	22
Milestone Dives and Awards	
by Gayle Hall .....	15
2023 NSS-CDS Budget Reconciliation	
by Gayle Hall .....	26

**2024 Underwater Speleology advertising rates - see page 31**

# a note from the chair

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[Barbara J Dwyer](#)

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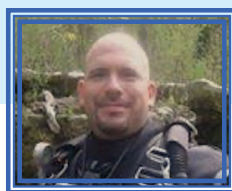
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by Sam Leflore

Dear NSS-CDS Community Members:

I hope this message finds you in good spirits and health. I want to express my profound gratitude and pride in the success of our recent Winter Workshop. The dedication and enthusiasm displayed by each participant truly exemplified the spirit of exploration and collaboration that defines our organization.

I'm thrilled to announce that we have confirmed our partnership with the Florida Speleological Society (FSS) for an extended vertical workshop on March 23-24, 2024. This collaboration presents an incredible opportunity for us to further expand our knowledge and skills in vertical exploration. This promises to be an enriching experience and an opportunity to understand and gain experience in this challenging discipline. We'll be announcing more dates shortly, and you can contact me for more information.

Looking ahead, I am excited to remind you all of the upcoming NSS-CDS International Conference scheduled for May 31st - June 1st. This event serves as a cornerstone of our community, providing a platform for networking, learning, and sharing insights from our collective experiences. I encourage each of you to mark your calendars and join us for what promises to be a memorable and enlightening occasion.

Furthermore, I want to emphasize the importance of our upcoming elections, set to go live on March 23rd. As NSS-CDS members, each of you plays a crucial role in shaping the future direction of our organization. Your voice matters, and I urge you to exercise your right to vote. Together, we can ensure that our leadership represents our membership's diverse perspectives and aspirations.

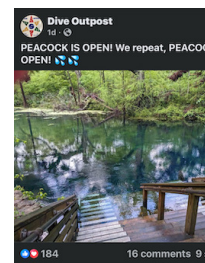
Let us continue to uphold the values of exploration, safety, and camaraderie that define our community. With your ongoing support and engagement, I'm confident that we will achieve new heights of excellence in the coming year.

Thank you for your unwavering commitment to the NSS-CDS.

Warm regards,

Sam LeFlore  
Chairman  
NSS-CDS

Just in: Peacock is open for diving!



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.

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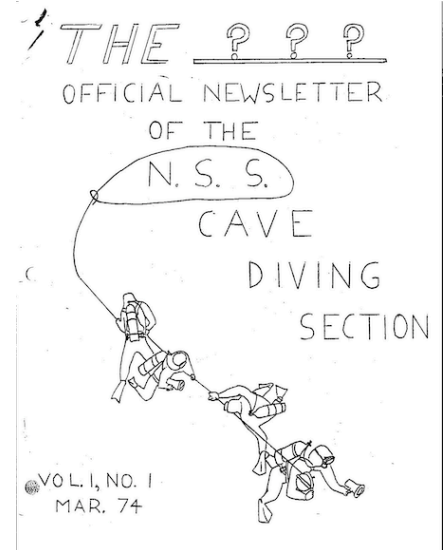
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## Remembering Sheck Exley

This issue is dedicated with respect and gratitude to Sheck Exley. It coincides with what would have been his 75th birthday (April 1, 1949) and the 30th anniversary of his death (April 9, 1994). This issue also marks *Underwater Speleology's* [50th anniversary](#) with Sheck as its first editor. The magazine began as a decidedly low-tech newsletter in search of a name. Sheck banged it out on an old typewriter and graced its cover with whimsical drawings. There was a lot of news, and I am grateful to have these back issues.



“Remembering Sheck Exley” is a revised version of a story that I wrote several years ago for *The Journal of Diving History*. I do not remember Sheck personally because I never met him — he died about five years before I started cave diving. Yet I’ve felt a kinship with him ever since I read *Caverns*. We both lost our younger brothers when we were around the same age. I could relate to how his relentless pursuit of excellence in diving may have represented an effort to “undo” his brother’s death, perhaps to spare others from the anguish that his family’s must have gone through.

I learned a lot while researching the story (did you know that Sheck was a pilot)? Did you know that he left line in a [partially explored tunnel](#) in Madison that one of our longtime members recently discovered? Michael Menduno pointed to some of his early interviews with Sheck and connected me with some lesser known photos. Most of the images you’ll see within are from Mary Ellen Eckhoff’s personal collection and are in Brian Udoff’s care (Brian is working on a documentary about Sheck). I am grateful to all of them.

The story grew longer than planned, so Part 2 will appear in the next issue.

In other news, let’s offer congratulations and thanks to Dive Rite, which just marked its 40th anniversary in business. Lamar and his family created the first commercially available “equipment for serious divers” at a time when cave divers had to create their own. You can see a historic video on p. 26.



The Board of Directors has been busy. It’s again election time - you should have received your ballots. We have a balanced budget (p. 26). There’s a new effort to recognize members for their contributions, and we need nominations (p. 28). Work parties are underway for repairs at Peacock and other dive sites, and Peacock has just reopened for diving. And of course our annual International Cave Diving conference is coming up at the end of May.

Looking forward to seeing everyone there!

—Barbara

Sheck drew this “back of the napkin” sketch for Guy Bryant, who made it available for last year’s conference t-shirt.



# Homage to a Legend Sheck Exley

by Barbara J Dwyer

*Nearly 30 years after his death, Sheck Exley is still regarded as the high priest of cave diving. He swam into his first cave during a basic scuba checkout dive at the age of 16, sparking a curiosity and enthusiasm that would drive him for the rest of his life. He was the first person to log 1000 cave dives at the age of 23 and made more than 4,000 cave dives during his life. Working as a high-school math teacher to finance his passion, Sheck set depth and cave penetration records and then broke them. He wrote America's first cave diving manual, mapped caves around the world, and published more than a hundred articles and several books.*

*Most importantly, Sheck Exley developed safety protocols that form the basis for safe cave diving 40 years later. His careful, methodical practices changed the perception of cave diving as a renegade, deadly sport into a highly disciplined activity. Today's cave divers provide essential information for anthropologists, hydrogeologists and other marine sciences, and governments.*

*Death caught up with Sheck at age 45. He perished attempting to bottom out the world's deepest cave at Zacatón in Tamaulipas, Mexico, together with diving partner Jim Bowden. The team found his body wrapped in his descent line when they retrieved their gear.*

## HOOKED

Sheck's defining obsession was to explore, survey, and map the vast Florida aquifer. Having grown up in Jacksonville, Florida, surrounded by rivers and sink holes, he was comfortable in water at an early age. During a Boy Scout outing to Silver Springs, one of the boys told Sheck that he saw an underwater cave. Sheck did not believe him—he knew that

Sheck in Mexico, 1979

caves were on land. He could not equalize his ears to dive down to see it.

Years passed. When Sheck turned 16 in 1966, he signed up for one of the new basic scuba courses taught by a national agency. Writing in *Caverns Measureless to Man*, he described wandering away from his checkout dive group and discovering a small limestone opening in the spring:

“In the shadowy entrance, I could see a dozen yard-long eels which wriggled into crevices in the rocky floor...I would have given anything to have had a light so I could see where the tunnel went from there. Did it get deeper? Were there big rooms? Or did it branch out into a confusing maze of passages, its floor littered with the fossil remains of huge prehistoric animals?”

Dive instructor Ken Brock forcefully shooed Sheck away and was about to scold him. But he caught the look in Sheck’s eye and instead commented, “You’re hooked.”

Within weeks of his checkout dive, Sheck, his younger brother Edward, and their friends were

“spring hopping” using Ned Deloach’s [Guidebook to Florida Springs](#). They explored every cavern and cave they found, not knowing where they went, diving as many as three or four springs each day.

## KARST WINDOWS

The ancient inland sea that submerged what is now Florida and the southeastern states created the largest cluster of underwater caves in the US. The Suwannee and Withlacoochee Rivers and their tributaries are dotted with karst windows that offer portals to the aquifer below. Florida’s rivers meander, go underground, and resurface. Ninety percent of the state’s drinking water comes from the Floridan aquifer.

For the handful of self-taught cave divers who had been exploring the springs, it was the wild west. The AquaLung regulator had just become available in the 1950s. The pioneers, Sheck among them, learned by surviving their mistakes or from those of others. They figured out safety measures as they went along—use a guideline, stay off the floor, carry enough light, and reserve sufficient air to get out of the cave alive.



Sheck sets his new depth record of 225 feet at Zuber Sink (now 40 Fathom Grotto), Ocala, FL. August 19, 1967.

Buoyancy compensators were years away. Divers tied inverted milk or bleach bottles to their belts and inflated them using their second stages. These sufficed until diving manufacturers began marketing the “horse collar,” the Mae West vest, and the first “stabilizing” jacket BC in the early 1970s.

## CLOSE CALLS

Sheck narrowly avoided the Grim Reaper more than once and survived emergencies that would have finished most divers.

For example, Sheck and his buddy Tommy Hawkins got narced while diving to about 130 feet at Orange Grove. The nylon string that they had wound around a coffee can to use as a guideline entangled them and brought them close to drowning, according to some accounts.

The entanglement fiasco persuaded Sheck not to use a guideline on their next dive at Peacock Springs. He and Tommy swam to the cavern’s end, at which point Tommy decided to exit. Sheck swam him out and then returned to the cave entrance.

What happened next is cave diving lore.

Equipped with a partially empty 72 cu ft tank and a dim flashlight, Sheck ventured solo about 400 feet into the cave. He swam rapidly to stay off the floor and periodically crashing down to rest. The cave’s graceful arches lured him. But when he turned to swim out, the branching passages all looked the same. After finding the end of the maze, he found only solid rock where he thought the cavern should be.

With his regulator breathing hard, Sheck pulled his J valve for his last five minutes of air. Fighting panic but determined to get out, he found an “impossibly tiny” crack in the ceiling. Squeezing and wriggling his way through the crevice with his arms pinned to his sides, barely able to breathe, he caught sight of distant daylight. He finally broke through and swam toward the light, exiting by a route entirely different from the one he used to enter. \*\* Sheck never entered a cave without a guideline again.

Later that day, Sheck and Tommy made a dive at Little River. They had had their tanks refilled, so Sheck was



*Left to right: Unknown friend, Sheck Exley, and Edward Exley at Cowpen Lake, c. 1967 or 1968.*

astonished when Tommy signaled that he was out of air as they descended the chimney. Sheck rapidly donated his second stage, upside down and free flowing, which flooded Tommy’s mask. Panicked, Tommy attacked. Both needed air. Sheck saw his friend convulse and flail. He pulled him out of the cave and performed CPR, which he’d learned from his diving instructor. Tommy survived but got the bends, which resolved after recompression treatment.

Sheck’s adventures commanded a brash respect from his dive buddies and his younger brother. They treated him as a hero for saving Tommy, which, Sheck wrote, “made me more arrogant than ever.” The boys plagued their diving instructor with risky stunts and near misses, diving progressively deeper to impress each other. Testosterone excess accounted for this behavior, Sheck thought.

## CAVE ORGANIZATIONS FORM, AND TRAINING BEGINS

By the early 1970s, serious cave divers had formed alliances and began to organize. The National Association for Cave Diving (NACD), formed in 1969, was the first organization. Sheck served as an officer but envisioned a structure in which members—not committees—ran the show. In 1973, he formed the Cave Diving Section as a chapter or “grotto” of the National Speleological Society (NSS-CDS). Sheck served as its first president and newsletter editor. By 1976, the NSS-CDS was the world’s largest cave diving organization and has remained so since that time. The two organizations began to develop safety protocols and training concepts.

\*\* How Sheck got out has long intrigued cave divers. Jim Thomas [reconstructed this dive](#) using vintage equipment and a safety diver and offers some interesting conclusions.

## THE DEATH TOLL

More than 300 people perished in Florida's underwater caves between 1960 and the 1980s, including 26 in 1974 alone. The state began dynamiting caves to appease public outcry. Some landowners prohibited cave diving on their properties. The State of Florida considered legislation to ban cave diving altogether.

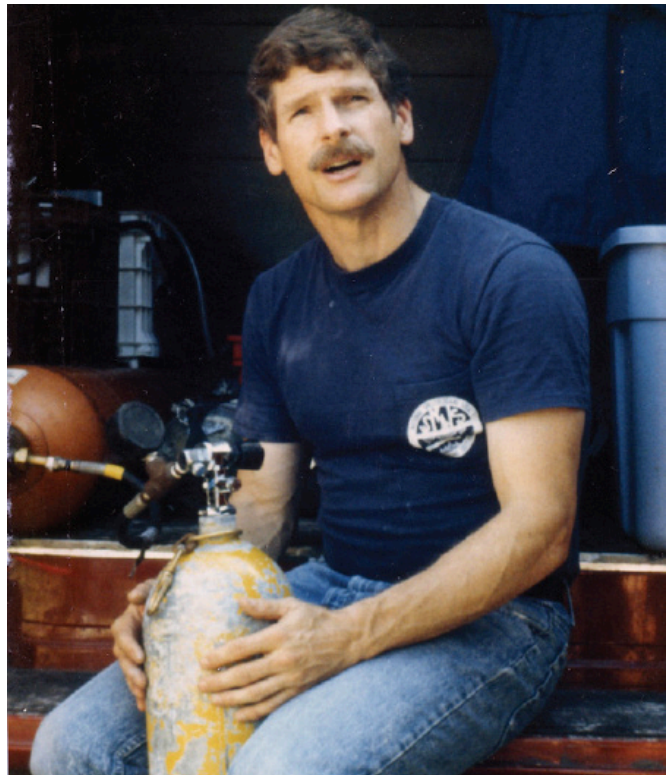
Serious cave divers knew what was causing the deaths. Most of the fatalities involved open-water divers who couldn't resist "just a peek" and then continued past the light zone. They didn't know about guidelines, redundant equipment, or finning techniques to avoid silting. Divers who tried to use guidelines often became entangled. Most were diving on a single 72 cu ft tank without a pressure gauge and using a weak flashlight. Two divers might try to buddy breathe when one ran out of gas, or they might fight each other till the end for the last breath of air.

### "KILLER CAVE CLAIMS ANOTHER VICTIM"

Then, as now, volunteer cave divers recovered the bodies for local law enforcement. For decades there were rarely live cave diving rescues, although Lamar Hires has at least one to his credit and Edd Sorenson has five.



At Indian Springs, 1981



Teaching a trimix class at Zuber Sink, 1992.

Sheck was the first to approach the fatalities in a problem-solving way. Analysis of the accident data over several years pointed to several common factors, including failure to use a guideline, poor or no gas planning, lack of training and proper equipment, and deep cave diving using air. Divers could survive, Sheck emphasized, by following several now well-recognized basic rules.

The first edition of [\*Basic Cave Diving: A Blueprint for Survival\*](#), published in 1979, identified these common factors and illustrated them with stories with which he was personally familiar and for which he often had done the body recoveries. Few experienced cave divers had died at this point, but those fatalities usually involved diving deep in a deep cave using air as a breathing gas. Later editions would add training, how to avoid silting, preventing panic, and a number of other considerations.

Sheck's own close calls, the ongoing fatalities, and the horrific experience of watching his younger brother Edward drown in 1968 sharply refocused his thinking. He [recounted this event](#) in the October 1992 issue of aquaCORPS:

*"I told [Edward] to be careful, then watched him swim out to the deepest section, take a few breaths, and disappear behind the huge ledge. A minute later he*

*reappeared, swimming at a strange angle instead of straight up to the surface. When he got to the surface he kept on swimming instead of clearing his snorkel, then slowly started sinking toward the 125-foot bottom. After an hour of CPR, my mouth filled with his vomit, we had his heart and lungs going again, but he never regained consciousness.*

*My only brother, Edward, was dead. I was the one who had to make the call to my parents."*

Sheck warned his students and never to take chances, lest they had to make a phone call like he did. He refused to teach his high-school students about diving.

"Most of the kids have no idea that I am a diver, but a few find out and inevitably ask me to teach them to dive or sponsor a scuba club," he said. "I will never do either for fear of encouraging the "macho" so evident in teen-aged males."

#### THE GOLDEN AGE OF CAVE DIVING

The 1970s and '80s were heady times for Florida's explorers. Sheck, Mary Ellen Eckhoff,\*\* John Zumrick, Paul DeLoach, Wes Skiles, and other early

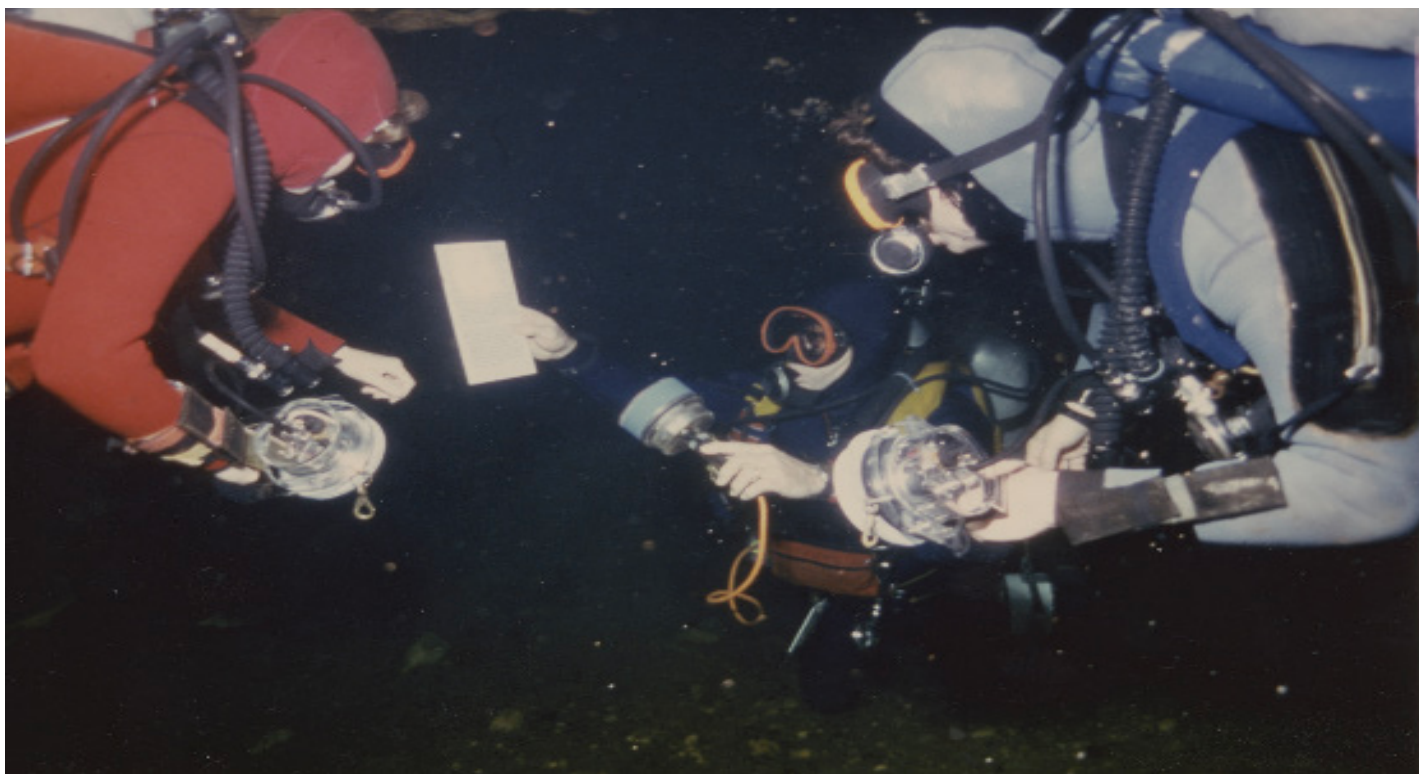
cave-diving luminaries were among the first to see undiscovered passage.

Exploration expanded tremendously in the 1970s and more than doubled again in the 1980s. Cave diving in the Yucatán peninsula began in earnest. National and international rivalries and friendships formed. Penetration and distance records rose and fell as one cave's explored territory pulled ahead of another's.

Some of Sheck's major projects included:

**The Peacock system.** Sheck called the idea of exploring this system his "dream." He knew from the day that he got lost there that the cave would be large and extensive. He organized a major exploration effort there in the early 1970s. John Harper, Tom Mount, Ike Ikehara, Randy Hylton and others had previously explored the outer passageways and connected the Peacock system with Orange Grove Sink.

Shortly thereafter, John and Randy made the first nonstop traverse from Orange Grove Sink to Peacock I, surpassing John's own 2800 ft traverse in the Hornsby system. The exploration took many years and many more dives. By March of 1977,



**\*\* Sheck (left) and Mary Ellen Eckhoff (right) were married on October 29, 1983 in Thunderhole Cave System. Henry Nicholson (center background) performed the ceremony. The marriage lasted only a few years, but the affection and partnership endured.**



*Sheck, Mary Ellen Eckhoff, and Dave Paulsen at Ginnie Springs, September 12, 1982.*

Peacock at 19,203 feet of passage became Florida's longest surveyed cave. It now stands at more than 30,000 ft with exploration still ongoing.

**Devil's Eye/Ear.** Sheck, Lewis Holtzendorff, Court Smith, and others extended the line in the Devil's system at Ginnie Springs in 200-300 ft increments, reaching 3000 ft by April of 1975. Explorers continue to find new passage even after 30,000 ft have been surveyed.

**Manatee Springs.** Joined by Dana Turner, the group picked up exploration in the gigantic and high-flow Manatee Springs. Bob and Sue Friedman had surveyed about 1400 ft in 1969 before the ferocious outflow stopped them.

Sheck's group added between 200-500 ft of line on most dives until they began using stage tanks. By May 1975 they had extended the line out to 4110 ft before the park restricted access.

Lewis Henckel and Dave Manor got access in 1979 and with difficulty pushed to 5323 ft. Predicting that no one would go further, they left their reel in place. Sheck returned with Bill Main in June of 1981. Using as many as five stages each and enduring up to seven hours of decompres-

sion, they pushed to 6867 ft. Bill took a break, and Sheck and Clark Pitcairn laid line to 7665 ft. They believed they had walled Manatee out. As of now, divers have laid line to at least 20,000 ft.

**The Cathedral-Falmouth system.** "Cathedral Canyon is the cave we hoped Wakulla would be," Sheck wrote in *Underwater Speleology*. The Manatee penetration record had held for more than seven years. But Sheck bested it in Cathedral Springs, an enormous and deep system that he explored to 10,935 ft between 1972 and 1990. Sheck purchased the property and bequeathed it to NSS-CDS in his will.

Exploration halted until 2003 due to changes in water quality and access. Between 2003-2005, Todd Leonard and Bjarne Knudsen explored to beyond 17,000 ft. Charlie Roberson and Jon Bernot of Karst Underwater Research (KUR) established a new world record by exploring to 26,939 ft penetration in November of 2016. Sadly, agricultural pollution and water mining have all but destroyed this once pristine white system.

**Hole in the Wall.** The team surveyed this Marianna, FL, system between 1975 and 1978. Working with Dale Sweet, Sheck, Mary Ellen Eckhoff, Paul



*Sheck and Court Smith*



*In-water meditation was part of Sheck's pre-dive strategy. Nacimiento del Río Mante ("Mante"), Tamaulipas, Mexico, 1988.*

DeLoach, and John Zumrick used twin 100s with double, triple, and even quadruple stages to explore the cave to just over 4500 ft by early 1978.

**Madison Blue.** The team used stage tanks to push passage in this lengthy high-flow cave. Court Smith discovered and named the spectacular "Courtyard." Madison is now surveyed out beyond 26,000 ft, and exploration continues today both there and at and nearby M2.

#### SAFETY, DISCIPLINE, AND EDUCATION

Necessity drove cave diving equipment innovation in the early years. John Harper used air-filled plastic jugs to keep himself off the cave floor. Frank Martz manufactured the first dependable, bright underwater lights and guideline reels in the 1960s. Jamie Stone and Jim Lockwood modified the Farallon MK 7 DPV by replacing its lead acid batteries with NiCad cells to extend burn time and range. George Benjamin's isolator manifold minimized the need for redundant pony bottles.

**Safety** concerns prompted new guidelines. By 1968, Sheck had proposed the now-standard "rule of thirds." Lewis Holtzendorff developed directional line arrows made from duct tape ("dorff arrows") in 1976 after an experienced cave diver made a fatal wrong turn in Peacock and used his last breaths to write a farewell letter to his family. Forrest Wilson later designed and produced plastic clip-on line arrows. Sheck was the first to use staging to survey Madison Blue to 2099 ft in 1970. Before this, divers were limited to tanks that they could carry on their backs.

**Discipline.** Sheck's commitment to fitness, equipment maintenance, and meticulous dive planning set the bar high. He had trained in karate since high school and had earned a black belt by college. He believed that karate improved his physical condition, willpower, and concentration. Before a dive, Sheck used visualization, in-water meditation, and martial arts exercises to clear his head and to increase body awareness.

"I've learned to handle fear by what I call controlled paranoia—a combination of meditation and experience," Sheck told Ned DeLoach. "The meditation clears and settles my mind, allowing me to stay at a high state of alertness and continually aware of my body's reaction to the stress. My experience has taught me how vulnerable I am."

*"Survival depends on being able to suppress anxiety and replace it with calm, clear quick, and correct reasoning."*

Sheck was "easily the most disciplined man I have even met," Jim Bowden recalled in an interview after the fatal Zacatón dive. "He had a calm intellect and strength that he often cloaked in the "good ol' boy" image" that others saw.

Sheck contended that the cave was out to get him and that the odds would catch up with him sooner or later. To stay alive, he visualized everything that possibly could go wrong on a dive and solved problems beforehand. "I mix my own gases, I check every piece of equipment over and over, and I memorize each aspect of the dive plan," he told [Ned DeLoach](#). "Fear keeps me alert. I am constantly



*Bob Johnson, Larry Murphy, Sheck, Dan Lenihan, Barry Kerley at Warm Mineral Springs, Sarasota County, FL, March 1975.*



Trimix class at Forty Fathoms Grotto, Ocala, FL. November 23, 1993. Lee Meister, Curt Bowen, Sheck Exley, Doug Embler (front), and Darin Cowhard (rear).

attuned to every feeling in my body, every function of my equipment, and every happening in the surroundings. "Off guard for a minute and the tiger is on my back."

**Education.** Sheck produced some 100 articles and six books about cave diving. He wrote the *The Dixie Cavern Kings* for his university dive club, the first cave diving manual to be published in the United States. The "blue book," *Basic Cave Diving*, has been translated into Spanish. In addition to *Caverns Measureless* and *The Taming of the Slough* (completed by Sandra Poucher) Sheck wrote and contributed to NSS-CDS training manuals.

He has been repeatedly recognized for his accomplishments, including being named a Fellow of the National Speleological Society and The Explorers Club. He received the Lew Bicking Award as America's top cave explorer in 1981. The Historical Diving Society honored him with its 2022 Pioneer Award.

## FIGHTING THE DEPTH DEMONS

The early cave divers knew that they were pushing the limits of human endurance by diving deep on air. Sheck had claimed the depth record at Eagle's Nest in 1969, diving to 292 ft and adding on to Frank Martz's existing line. He had dived in Mystery Sink and Forty Fathoms Grotto. Nitrogen narcosis notwithstanding, air was the only readily available breathing gas during the 1970s.

Hal Watts, who then owned Forty Fathoms Grotto, held the depth record of 355 ft in 1967. Hal believed that divers could manage nitrogen narcosis by performing short and progressively deep air dives. Two of his students had surpassed his record with a dive to 437 ft in 1971, although both passed out.

**A series of deaths** marred the 1971 Andros Blue Hole expedition, which the legendary George Benjamin led. Benjamin had been exploring off Andros since the 1960s and had maintained an extraordinary safety record. He chose his divers carefully and custom designed his equipment (including the isolation manifold that bears his name).

Benjamin had defined sharp limits early on: The Andros caves were extremely deep, and their greatest depths far exceeded the safe use of compressed air. To go further would require mixtures of helium and oxygen and their use were well beyond safety limits, he had decided. Observing these limits had long prevented any major incidents during his expeditions.

That all ended in 1971.

Sheck saw the grim toll close up when he joined an Andros expedition. Just before he arrived on the island, a rookie diver had talked an experienced member into taking him into a deep cave. The less-experienced diver panicked and drowned at about 180 ft. His body was recovered the next day at 255 ft.

Later the same week, Frank Martz disappeared into a silty corkscrew restriction at around 300 ft during an air dive with Jim Lockwood. Frank was one of the world's top cave divers and had considerable deep-air cave diving experience.



From the AquaCORPS archives. Courtesy of Michael Menduno.

Sheck arrived on Andros a few days later. Divers told him that Frank had been especially moody and anxious and was intent on doing hazardous dives. Frank had recently mentioned to Sheck that he was avoiding Eagle's Nest, his favorite Florida cave, because an encephalitis-causing amoeba had been discovered in the water. The two were not particularly close, and Frank's personality was normally acerbic and bizarre. But Sheck wondered: Had Frank contracted encephalitis or believed that he was terminally ill? Had he arranged his suicide by plunging into a "bottomless" cave?

Sheck retraced Frank's Andros guideline to its cut end. There was no sign of Frank, and his body never was found. Possibly he had dropped his knife, started after it, and was weighted down by his steel 100s. The accident haunted Sheck and continued to do so whenever he visited Andros.

### **Boiling Hole, Andros, 1971.**

Disaster struck again in December of 1971. Jim Lockwood had recommended Sheck as a support diver to Canadians Archie Forfar and Anne Gunderson, deep exploration divers who operated a dive shop on Andros.



*Frank Martz*

Anne, Archie, and Jim planned to set a deep-air record to 485 feet diving a 1000-foot deep wall. Using Hal Watts's techniques, they had "built up" to depths of 400 feet. Not surprisingly, both had developed symptoms of severe oxygen toxicity—partial to total blindness, amnesia, and loss of consciousness. Archie had devised a system of drop-away descent weights and auto-inflating BCs to bring them up "automatically" if they lost consciousness.

Sheck also developed symptoms of oxygen toxicity during his two practice dives with the group. He stopped kicking and used his BC to ascend to 300 ft. Nausea and cramps developed when he resumed swimming but receded upon ascent.

For the record-setting dive, Sheck, Randy, and photographer Bill Wiggins would wait at 300 ft while Anne, Archie, and Jim tried for their 480 ft goal. The appointed day dawned cloudy, windy, and with rough seas. Sheck was susceptible to seasickness, so he skipped breakfast and took a double dose of the nausea suppressant marezine. He changed his

regulator to one with higher resistance than his own, which was free flowing slightly.

The dive got off to a bad start. Anne and Archie had trouble freeing the cable that they used as a descent line. Jim Lockwood sensed trouble immediately. The oil from the cable was all over his hands. He could not inflate his BC during descent and dropped uncontrollably. He lost sight of Anne and Archie and thought that they were not keeping up with him. At 400 ft and about to lose consciousness, Jim ran into Archie, who helped him inflate his BC. Sheck, Randy, and Bill waited at 300 ft as planned. Nine minutes into the dive, Jim floated upward. Randy grabbed his tank valve and hauled him up.

Anne and Archie were nowhere to be seen. Sheck, running lower on air than he had planned, started down to look for them. He spotted them below when he reached 420 ft. Archie was face down, his legs moving slowly. Anne lay motionless nearby.

Sheck dived to 465 feet in a rescue attempt, "further than anyone had dived on air and lived to tell about it." Visual distortion and the knowledge that a convulsion or blackout were next turned him back.

Anne and Archie were dead, and Sheck feared that Randy and Bill also were lost. He found them at decompression, which began at 110 ft and lasted for 162 minutes.

**In 1988, Bill McFaden** of the WKPP [drowned](#) 50 ft short of the Little Dismal Sink entrance following a problematic deep-air dive. The WKPP quickly tightened up its already stringent standards, prohibiting any deep diving using air.



*Archie Forfar and Anne Gunderson. Date and photographer unknown.*

**Rob Palmer, 1997.** “Air diving records viewed objectively are on a par with playing Russian roulette with an increasing number of bullets in the gun,” he noted in *Deep into Blue Holes*. “The deeper you go, the more likely you are to convulse of oxygen toxicity and die.” Ironically, Palmer died nearly a decade after his comments while [diving deep on air](#) in the Red Sea.

*To be continued in the next issue. Part 2 will cover the advent of mixed gases in cave diving, Sheck’s Mexico explorations, and his fatal dive at El Zacatón.*

*Barbara Dwyer is the editor of Underwater Speleology. She lives in San Francisco, California.*

THE PHOTOGRAPHS ABOVE ARE COURTESY OF MARY ELLEN ECKHOFF AND BRIAN UDOFF UNLESS OTHERWISE NOTED. BRIAN IS WORKING ON A DOCUMENTARY FILM ABOUT SHECK’S LIFE. A SPECIAL THANKS TO MICHAEL MENDUNO, EDITOR EXTRAORDINAIRE OF [INDEPTH MAGAZINE](#), FOR MAKING AVAILABLE HIS INTERVIEWS WITH SHECK, HIS PHOTOS, AND BACK ISSUES OF HIS PUBLICATION AQUACORPS.

A version of this story originally appeared in *The Journal of Diving History* Fourth Quarter 2022, Vol 30, No. 113.

## Congratulations to the recent Abe Davis award recipients!

### 100 safe cave dives

Sam LeFlore	1/15/2023
John Taber	2/25/2024
David Caldwell	2/25/2024
Heather Knowles	2/25/2024



# Hardy Souls Brave the Cold for Peacock Springs Hurricane Restoration

by Fred Stratton

Hurricane Idalia swept through Suwannee County Florida in late August 2023, the most powerful hurricane to hit the state's Big Bend area since 1896. Idalia spawned at least 12 tornadoes, devastating homes, businesses, and the much-loved Wes Skiles Peacock Springs State Park in Luraville.

The Florida State Parks rangers and contracted tree specialists have been working feverishly to remove thousands of tons of debris and fallen trees. Rangers reopened the Orange Grove section of Peacock SP in November. Clearing the road to the Peacock section of the park proved more challenging. Scores of trees blocked the road and weak, partially uprooted trees presented an ever-present danger.

Surprisingly, the spring and sinkholes (Orange Grove; Peacock I, II and III; Challenge, Olsen) were little affected. The staff repaired a section of the boardwalk to Peacock I. Several diver benches and many sections of fencing were damaged.



*Jennifer Dillingham and Renée Power.*

Enter the NSS-CDS. Partnering with the North Florida Springs Alliance (NFSA), the Section surveyed the damage with Park Manager Nicholas Brown, compiled a materials list, and scheduled volunteer workdays for 20 and 21 January 2024.

Braving cold (for Florida) temperatures as low as 26F /-3C, a total of 38 enthusiastic volunteers removed damaged, rotted, and weakened structures and replaced them with new pressure-treated materials. The additions included 240 ft /73m of fencing, six new eight-foot diver benches, one diver bench repaired, one picnic table repaired, one BBQ reinstalled, the handicapped parking sign reset, three parking curbs replaced, and a section of wood handrail replaced.

Generous members supported the volunteers with donations used for lunch. Local dive shops Big Guy Scuba and the Dive Outpost supported the event with sustenance and hot beverages. With everyone fueled and motivated, work proceeded at a lightning-fast pace.



*Ranger Nicholas Brown driving the tractor.*

The NSS-CDS thanks Ranger Brown and his staff for the splendid partnership that restored weak and damaged infrastructure and even added two new diver benches where none previously existed. The tremendous amount of work we accomplished in 48 hours represents the shared love NSS-CDS members have of our precious cave systems.



From left to right: Jason García, Shane Paradis, Sidney Ruetz.  
Photo by Lee Ann Waggener.

Willy Levine cutting lumber down to size.



From left to right: Steve Lambert, Joerg Hess, Fred Stratton, Dale Musser, Leslie Taborac, Josh Dillaman.

**Just in: Peacock is open for diving!**

Photographers: Lee Ann Waggener, Kimberly Smith, and Fred Stratton

## An Honorary Doctorate and a First-Place International Film Award

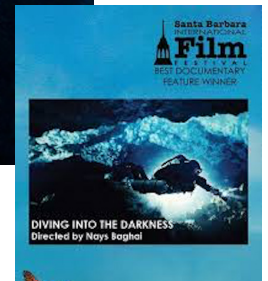
**Jill Heinerth's *Diving into the Darkness* Wins Best Documentary Award at the Santa Barbara Film Festival - February 17, 2024**

Jill's new feature documentary film, *Diving Into The Darkness*, had its world premiere at the prestigious Santa Barbara International Film Festival and won the Best Documentary Award. The film traces Jill's journey of exploration and resilience through her incredible explorations as the film's subtitle — "never cave into fear" — suggests.

Cave divers featured include Bill Stone, Brian Kakuk, Richard "Harry" Harris, and Natalie Gibb.

Plans are underway to organize a special screening for the NSS-CDS. Future distribution will be announced on the film's website. You can sign up for updates on future screenings as the global distribution plans become available at [www.DivingIntoTheDarkness.com](http://www.DivingIntoTheDarkness.com).

Watch the trailer [here](#).



Jill accepts her honorary Doctor of Humane Letters at the University of Victoria, Toronto, on October 11, 2023.

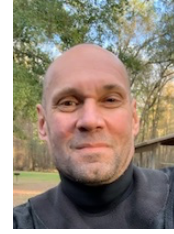
Jill Heinerth was awarded a Doctor of Humane Letters, *honoris causa*, from Victoria University, The University of Toronto, last October. Jill was honored for her many roles as diver, explorer, scientist, author, teacher, photographer, filmmaker, documentarian, and environmental advocate.

Chancellor Nick Saul conferred the degree on October 11, 2023, as part of Victoria University's Charter Day that celebrates the anniversary of the University's founding in 1836.

Jill was named the Royal Canadian Geographical Society's first Explorer-in-Residence in 2016. She is the inaugural recipient of the Sir Christopher Ondaatje Medal for Exploration, was awarded the Canadian Polar Medal, and has been named to the International Scuba Diving Hall of Fame. She has heightened environmental awareness through her books, including [Into the Planet: My Life as a Cave Diver](#) and via TV, radio, and film.

# Training Announcement

by Max Kuznetsov



## DPV Workshop to Support Recent Changes in NSS-CDS Standards

Fellow NSS-CDS instructors,

Join us for a DPV workshop aimed at supporting recent changes in NSS-CDS standards. The workshop will take place at Ginnie Springs Devil's Eye starting at 9 am on May 30th, 2024, just two days before the International Conference.

Scooters will be provided, but feel free to bring your own if you prefer. The workshop agenda includes discussions on land, as well as demonstrations and practice sessions in open water.

Please contact me at [max@cavemax.com](mailto:max@cavemax.com) if you're planning to participate. This will help us ensure we have adequate support and resources for all attendees.

We look forward to diving into these important topics together!

Best regards,

Max Kuznetsov  
Training Director



# Announcing New Cow Springs Access Procedures

By James Chandler  
Vice-Chair NSS-CDS

Recently there have been some changes to the procedure for diving Cow Springs. As a friendly reminder to all NSS-CDS members and to answer any questions, the following rules now apply:



*Photo (and superimposed cow) courtesy of Lee Ann Waggener.*

- Each diver must sign a new release each day they are diving on the property.
- As always, no DPV use is allowed.
- ONLY active NSS-CDS members may access the property with a signed waiver.
- No other activities are permitted on property.
- Any other persons found on property may be subject to prosecution for trespassing.

## Where are the releases?

The leases are on the the NSS-CDS website, and you sign them electronically. They are valid only for the calendar day when they are signed. So if you sign it at 11:55 pm the night before your dive, it is only valid until midnight (for five minutes, not for the next day)

## How do I gain access to the property once I sign the release?

Upon signing the release you, will be e-mailed a gate code that enables you to access the gate on the day you signed the release.

## Can I bring non-diving guests?

No, only active NSS-CDS members with a signed waiver are permitted to access the property.

## So what happens if I violate the rules?

These rules exist for the NSS-CDS's greater good and not as punishment. Violations could result in temporary or permanent suspension of Cow Springs access privileges or suspension or expulsion from the NSS-CDS (as the case may warrant).

We all need do our part to protect our access to all of our Florida Springs. Dive site and security improvements are underway.

Fred Stratton led a work party of nine volunteer members at Cow Springs on 30 March. Major accomplishments included paving the changing room floors, refurbishing the lone diver bench and adding two new benches along with much-needed landscaping.

**If you have any questions** about diving at Cow Springs, do not hesitate to contact property manager Cameron Mahaffey [via email](mailto:cmahaffey@nsscds.org) or at (352)-922-9196 or any Board member directly or at [BOD@nsscds.org](mailto:BOD@nsscds.org).

# Our Abe Davis Journey

by Heather Knowles and David Caldwell

Both of us have been certified cave divers for more than 20 years. However, there were periods when we weren't doing much cave diving, and we were instead focused on shipwreck exploration. But we always enjoyed cave diving and more or less re-discovered it when we began mine diving over 10 years ago at a marble mine in Vermont. That rekindled our interest in cave diving too. Before we knew it we were off to Mexico, then Florida, and making regular trips to resume our cave diving.

As we have a tendency to do, we like to apply our own standards to things. For example, when we began diving rebreathers in 2006, we self imposed a high number of hours on ourselves to learn the rebreather in a lower-risk environment versus trying to push through — making a lateral move to the level of diving we had been doing on open circuit. It required patience and dedication, but it was worth the effort because it brought the confidence that comes with putting in the time.

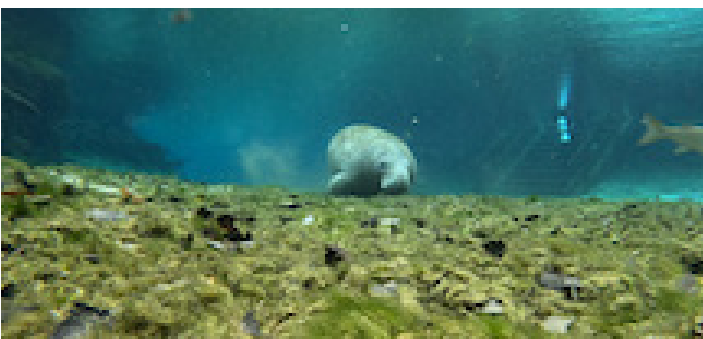
We approached pursuing our Abe Davis award the same way. We wanted each dive to mean something and reflect our journey of learning and progressing our skills and experience. We decided to exclude all our mine dives from the count, which would have gotten us there some time ago. While mines are cave-like and certainly have big challenges, we believe there are some differences that make them distinct from each other, mainly the physical environment, the lack of flow and ways restrictions differ in size and shape. We felt that the dives should reflect our cave diving knowledge and skill and how we were growing it on our own. So, this meant it took a lot longer to log 100 cave dives, especially since we are not local to Florida!



With a lot of commitment to making two to three cave diving trips per year, we kept equipment in a storage locker to aid travel. We had the the chance to do some cave diving in unique places like Molnar Janos cave in Budapest and gained a lot of varied experience. In February 2024, we hopped on a plane for a long weekend where we knew we might be lucky enough to log that dive #100. On February 18, we dived to Mainland, one of our favorite places in Ginnie Springs. This is a dive that we worked up to by doing progressively more complex and longer dives, then scooter dives, then eventually even bringing a camera there. It is a beautiful dive, but it requires careful planning and flawless execution!

We got to Ginnie early and had a quiet set-up and departure. We had the cave to ourselves and a nice ride up to the jump where we dropped stages and scooters. We took video with our combination of handheld GoPros and Sola 15K video lights. We thoroughly enjoyed the dive together. We exited when it was time and after a little over 2 hours emerged from the cave to find a manatee sitting outside of the Eye, playing and snacking on the vegetation. This was the absolute highlight of the dive and made completing our Abe Davis dive even more special.

These things always lead to the question of what's next, and the answer to that is having fun cave diving. Lists can become a "thing" and that's not our intent. We plan to keep our same mindset and philosophy of continuous learning, strengthening experience and having fun!



# Etiquette for Cave Diving



by Jim Wyatt

The cave diving community has observed certain etiquette practices for many years. As cave diving has become more popular and instructor access has skyrocketed, many more divers are in the caves. All cave divers need to understand and adhere to these time-honored practices. We feel the need to review them here so that we can work together and know how to respect one another while in the cave.

## The Primary Line

The primary line ensures that we have a continuous guideline between us and a safe exit point. That line should follow several important principles:

- It should be tight.
- It should be on the floor of the cave or as close as possible, even if it's necessary to place rocks on top of it to keep it down. This helps to avoid entanglements and makes it easier to see.
- The line should not zig-zag across the passageway. It should rather make a straight line along one wall or the other or be deployed down the middle of the passage if there are other lines along the walls.
- We do not use other teams' primary or secondary tie-off points.
- We should route our line under other teams' lines if we must cross the other line.
- We should attempt to share reels with other teams when possible.
- The line must never impede other teams from entering or more importantly exiting.

## Night Vision

It takes about ten minutes to fully adjust to and achieve night vision in the cave.

Over the years our dive lights have gotten much brighter. We see more and more cave divers with

extremely bright video lights. Some often times have no regard for other divers in the cave. When someone shines a light in your eyes, you immediately lose the adaptation you have achieved for night vision. The process of adapting your eyes to the dark and regaining night vision must then start over. To avoid this:

- Never shine your dive light into another cave diver's eyes.
- Never shine your light onto a diver conducting a drill such as lost line.
- When you see a cave diver approaching, shine your light DOWN to the floor. Shining it down still illuminates the cave well enough to see and greatly reduces the probability of blinding another diver.
- If you have one or several video lights, turn them OFF when other cave divers are approaching. Consider doing your video projects late in the evening through the middle of the week and NOT during busy times.
- When meeting a team going in the opposite direction, shield your light with your hand and/or shine it on the wall nearest you and NOT onto the other team members.

It is very poor etiquette and unsafe to shine your lights in a manner that blinds other cave divers.

## Who has the Right of Way?

It has long been established that exiting teams have the undisputed Right-Of-Way (ROW).

- When you see a swimming team exiting, give them the ROW, even if it is inconvenient.
- When you are on a DPV you always grant ROW to any swim team unless you and/or your team is exiting *in extremis*.

## Sharing & Caring

Someone owns the land surrounding all the caves we dive in. Those landowners give us access and permission to be on their property. We must respect and adhere to their rules if we want to have continuing access.

- Pick up your trash.
- Leave the land area around the dive site in as good or better shape than when you arrived.
- Do not break the rules these landowners have established; it puts all cave divers in a bad light when we ignore them.
- Respect your fellow cave divers by sharing picnic tables, dressing rooms, tank racks and other amenities that are provided for making things easier and more comfortable for us.
- Don't take up two parking places with one vehicle.
- When dropping stage bottles, deco bottles, and DPVs, be careful about where you place them.
- Do not place your items on sensitive areas such as clay or silty areas. Choose rocky areas instead.
- Do not stress the guideline when attaching your equipment.
- Ensure that your items are sufficiently stable while clipped off so they do not bang into the cave walls, ceiling, or floor.
- Make sure your buoyancy is under control at all times.
- Turn around occasionally to check and see if you are causing a silt cloud especially when changing depths and/or transiting smaller silty sections of the cave.

Remember, you are supposed to share the cave with other teams. The cave is not yours alone.

*Jim Wyatt is a longtime NSS-CDS instructor, a Training Committee member, and a past Training Chairman.*

## The 2024 NSS-CDS elections are now live.

**Please remember to vote!**

**Balloting will end May 18th, 2024.**

**If you didn't get a ballot by email, please contact [Adam Hughes](#), CDS Administrative Manager.**



## CAVE DIVING: EVERYTHING YOU ALWAYS WANTED TO KNOW

by Stratis Kas

Reviewed by Fred Stratton

I first became aware of Efstratios Kastrisianakis (aka Stratis Kas) at the 2023 NSS-CDS Winter Workshop. A fellow cave diving enthusiast recommended his book *Close Calls*. I bought a copy and devoured it in a few days. His second book, *Cave Diving*, took more than five years to write in between his numerous adventures above and below the water.

This time Stratis, with help from his dive buddy Matteo Ratto, wrote the bulk of this book by bringing in legends and luminaries of the overhead diving world. Accomplished underwater photographers Joram Mennes and Laurent Miroult furnish stunning images that pair with the text much as a perfect wine complements a meal. Laurent's and Joram's pictures of caves, cenotes, and mines span the globe from the Caribbean to Europe and the Americas to provide the reader with a mesmerizing sampler platter of cave diversity and beauty.

The subtitle *Everything You Always Wanted to Know* may sound boastful, even bombastic. Yet this book covers a tremendous amount of territory while being logically organized. The prose shifts from thought-provokingly technical to gracefully lyrical, such as this description of why caves captivate and lure us into their depths.

*"...this crystal clear, life-giving water whose density allows me to fly with grace, as do birds in the sky..."*

Who has not felt that same exhilaration during a perfect dive when the team is in sync and all is right with the world—if only during that dive—as we “transcend the mundane.”

Stratis is also candid about the risks. “My life depends on my precision” summarizes his purposeful approach to cave diving:

There is tremendous attrition in recreational scuba and to some extent, technical diving. Stratis calls for a lifelong commitment and even provides a checklist against which divers can assess their readiness to be a cave diver.



Michael Menduno tees up the book with a shoutout to our DRD4-7R gene, the one that drove sump divers in Wookey Hole to explore and to innovate. The book is peppered with cave diving history beginning in 1935 when Penelope Power and Graham Balcombe went underground in Somerset, England. Of course Sheck Exley is a prominent feature in cave diving history. Stratis refers to Sheck's accident analysis and his seminal book *Basic Cave Diving - A Blueprint for Survival*, noting how its original dive rules still apply.

“Don't Dive Deep” is modified to “dive using the correct gas for the chosen depth”).

The Importance of... The book features one-page stories from prominent cave explorers highlighted by the lead in “The Importance of...” Roger Williams starts off with *The Importance of Slow Learning*, scathingly indicting zero-to-hero binge learning and 100-dive instructors. His views are widely held but rarely said in polite company. This book shoots live rounds and hits the mark.

The section on equipment considers gear as components in a philosophy of diving, one born of Hogarthian heritage and refined into an approach that is clean, simple, and streamlined. Advances in sidemount diving are covered in depth. Rebreathers, lights, computers, mixed gases, and the effects of proper gear selection enhance performance and mitigate stressors such as task loading and CO2 buildup. Again, Stratis uses history to explain how we got here (e.g., why three lights per diver? why two cutting devices? why wear primary lights on our left hands)?

The sections on Gas Planning and Navigation reflect the author's position that the two are inextricably linked. Strong cases are made for standard gas mixes and personalized line markers.

These two sections link nicely with Emergencies and Problem Solving. There are seamless overlaps without redundancy throughout the book, each chapter dovetailing with the preceding one.

Stratis Kas is a clear proponent for team diving, even walking us through the value of beam matching and diver position in a two- or three-diver team. In the Communications Section, Jaime De La Puerta Salazar argues that pre-and post-dive briefings are as critical as in-water signaling.

How many of us have complained about the deterioration of “diver etiquette?” (see article in this issue, p. XX) We all were taught to be polite underwater...or were we? Melissa Eckert believes that etiquette starts at the dive shop fill station. These “Importance of...” features come from unique perspectives developed over thousands of dives. Cave Diving is full of these gems.

The section on Diving Science is captured nicely by Robbie Schmittner’s statement that divers are the “eyes and hands” of science, citizen divers contributing to conservation and understanding. This chapter will fill knowledge gaps of diving physics and physiology (stripped out of most recreational diving courses) by not shying away from Henry’s Law and the Bert Effect in explaining the actions of compressed gas within the body.

The importance of gas planning extends to the intricacies of planning sufficient bailout for DPV dives. (I myself see divers entering north Florida cave systems with less than ideal gas supplies, comfortable that their scooters will speed them to the surface should trouble occur.) Stratis walks us through various gas planning scenarios, in bar and PSI, with great detail and digestible verbiage.

***“...this crystal clear, life-giving water whose density allows me to fly with grace, as do birds in the sky...”***

There are stories for even the most accomplished divers. Ben Reymenants shares an experience that changed the way he taught cave diving. Other top divers such as Edd Sorenson highlight two killers—complacency for experienced divers and going beyond one’s training and experience for newer divers.

Allesandra Figari writes compellingly of our responsibility to protect what we value, while George Vandoros shares a tale of landowner relations severed and then restored. Both stories will resonate with every NSS-CDS member.

The final chapter weaves exploration, survey, and photography into a coherent whole. These complementary disciplines bring to the surface a picture of what so many take for granted - our precious underground cave systems.

I savored every sentence in this masterwork. This book belongs in every cave diver’s library.

**Fred Stratton is an NSS-CDS Program Director and has been cave diving since 2003.**

# NSS-CDS 2023 Budget Reconciliation



The NSS-CDS Board of Directors passed a budget in June of 2023 for the first time in history. After a careful analysis of the past five years of income and expenses, this budget helped us direct spending, identify trends, and recognize new opportunities for growth. We present this recap in the interest of transparency and to encourage your feedback.

**The NSS-CDS is financially strong.** Our 2023 overall financial performance showed income of \$8000 over budget, largely driven by income from the Dive Equipment and Marketing Association (DEMA) booth proceeds and merchandise sales. The Cost of Goods and Services came in approximately \$2000 under budget, contributing to our strong income performance. Expenses were under budget by approximately \$2000, driven by budgeted funds for Training Materials and Website Enhancements funds. These funds were not utilized in 2023 and remain available for 2024.

**The 2024 budget** was passed in December 2023. Additionally, donated funds for Meeting House Sink improvements have been directed to an interest-bearing risk-free account to generate additional funds until the necessary approvals are obtained to begin work.

Thank you for your support of the NSS-CDS. Without our valuable members, sponsors, and volunteers, we could not be the organization you have made us.

Questions and comments? Please email [treasurer@nsscds.org](mailto:treasurer@nsscds.org).

Respectfully submitted,  
[Gayle Hall](#), Treasurer

## Congratulations to Dive Rite!

**Celebrating 40 years of equipment for serious divers**



[Lamar sums it up here.](#)

**Thank you Lamar, Lee Ann, Jared, and the Dive Rite Family for your support!**

NSS- CDS			
Budget			
January 1-December 31, 2023		<b>2023 January - December</b>	
		<b>Total Year-to-Date</b>	
	<b>BUDGET</b>	<b>ACTUAL</b>	<b>DIFFERENCE</b>
<b>Income</b>			
DEMA Income	\$ 4,000.00	\$ 7,699.98	\$ 3,699.98
Instructor Fees Income	\$ 2,000.00	\$ 2,210.00	\$ 210.00
International Conference Income	\$ 23,680.00	\$ 23,680.00	\$ -
Joe Citelli Memorial Fund	\$ 1,220.00	\$ 1,220.00	\$ -
Membership Dues	\$ 17,000.00	\$ 17,389.25	\$ 389.25
Merchandise Sales	\$ 10,000.00	\$ 12,171.47	\$ 2,171.47
Student Registrations	\$ 3,500.00	\$ 3,725.00	\$ 225.00
Winter Workshop Income	\$ 1,729.00	\$ 1,909.00	\$ 180.00
<b>Total Income</b>	\$ 63,129.00	\$ 70,004.70	\$ 6,875.70
<b>Cost of Goods Sold</b>			
COGS - Books	\$ 1,049.88	\$ 725.14	\$ (324.74)
COGS - Reaper Signs & Stickers	\$ -	\$ 875.44	\$ 875.44
COGS - Additions to Merchandise	\$ 5,000.00	\$ 3,513.97	\$ (1,486.03)
COGS - T-shirts	\$ 3,000.00	\$ 1,922.79	\$ (1,077.21)
Cost of Certification Cards	\$ 615.00	\$ 670.39	\$ 55.39
<b>Total Cost of Goods Sold</b>	\$ 9,664.88	\$ 7,707.73	\$ (1,957.15)
<b>Total Income</b>	\$ 53,464.12	\$ 62,296.97	\$ 8,832.85
<b>Expenses</b>			
Annual Filing Expense	\$ 63.00	\$ 115.01	\$ 52.01
Awards Expense	\$ -	\$ 30.97	\$ 30.97
Bank Fees & Checkstock	\$ 625.00	\$ 258.39	\$ (366.61)
DEMA Expense	\$ 5,165.00	\$ 6,462.17	\$ 1,297.17
Insurance	\$ 3,000.00	\$ 2,552.84	\$ (447.16)
International Conference Costs	\$ 13,646.72	\$ 13,646.72	\$ -
Legal & Professional Services	\$ 900.00	\$ 915.00	\$ 15.00
Merchant Fees	\$ 4,100.00	\$ 3,236.28	\$ (863.72)
Office Administrator	\$ 10,000.00	\$ 9,900.00	\$ (100.00)
Office Expense	\$ 500.00	\$ 572.99	\$ 72.99
Postage & Shipping	\$ 2,500.00	\$ 2,362.81	\$ (137.19)
Repairs & Maintenance	\$ 2,200.00	\$ 2,147.32	\$ (52.68)
Software Expense	\$ 1,315.00	\$ 1,193.76	\$ (121.24)
UWS Expenses	\$ 2,400.00	\$ 2,939.76	\$ 539.76
Hosting Fees	\$ 650.00	\$ 313.50	\$ (336.50)
Website Enhancements	\$ 500.00	\$ -	\$ (500.00)
WooCommerce Fees	\$ 400.00	\$ 298.00	\$ (102.00)
Winter Workshop Expenses	\$ 3,050.00	\$ 2,970.99	\$ (79.01)
Training Materials Printing Costs	\$ 1,000.00	\$ -	\$ (1,000.00)
<b>Total Expenses</b>	\$ 52,014.72	\$ 49,916.51	\$ (2,098.21)
<b>Net Operating Income</b>	\$ 1,449.40	\$ 12,380.46	\$ 10,931.06
<b>Net Income</b>	\$ 1,449.40	\$ 12,380.46	\$ 10,931.06

# NSS CDS Recognition Awards

by Gayle Hall

The cave diving community is replete with so many wonderful individuals whose hard work and accomplishments help shape the specialty we enjoy. To celebrate the generosity, courage, and tenacity of special people who have gone above and beyond, the NSS-CDS will recognize three individuals each year with awards.

**One award in each of these categories will be presented during the International Cave Diving Conference each year.**

- [Explorer of the Year](#) (named in honor of Brett Hemphill)
- [Volunteer of the Year](#)
- [Lifetime Achievement Award](#)

## Criteria for Award Recipients

Must be a current member of NSS-CDS in good standing.  
May not be a current Board member.

## Nomination Process

Nominations may be made by any member in good standing or member of the Board of Directors. The Board of Directors will vote for one winner in each category. Candidates may be nominated by completing a form on the NSS-CDS website.

Nominations must be received by **Sunday, May 5, 2024**. Board members will vote for the winner at the May Board meeting. Awards will be presented at the International Conference.

## Award Descriptions

### Brett Hemphill Explorer of the Year Award

- Finds a previously unknown cave system, or participates in going exploration of a known cave system. May be in the role of leader or as part of an organization.
- Gains lawful access to cave systems by establishing a relationship with and receiving authorization from the landowner.
- Participates in line laying, photo documentation, and survey of the system.
- Produces maps using data derived using accepted cave mapping techniques. Explorer's name must be on map. Map must be submitted with nomination.
- Recipients are awarded a free one year membership to NSS-CDS, a plaque, a feature story in *Underwater Speleology*, and recognition on the website and Facebook page.

## Volunteer of the Year Award

- Participates in volunteer activities, including Cavengers at Workshop/Conference, dive site work days, other activities as identified.
- Contributes time, resources, and expertise to further NSS – CDS’s mission.
- Creates a supportive environment through idea generation, problem solving, and positive interactions.
- Promotes and recruits others to help with NSS CDS projects.
- Recipients are awarded a free one-year membership to NSS-CDS, a plaque, a feature story in *Underwater Speleology*, and recognition on the website and Facebook page.

## Lifetime Achievement Award

- Exhibits a strong history of exploration, conservation, education, and safety.
- Has made significant achievements with community-wide impact in one or more of these cave diving and related activities:
- Exploration including linking one system to another or extending line in a known system.
- Innovations in the design and manufacturing of equipment particularly that which enhances diver safety and performance or contributes to preserving cave systems.
- Refinement of procedures and protocols that have advanced the art and science of cave diving techniques, raise proficiency and enhance safety.
- Documentation of cave surveys such as cartography of previously unmapped systems and updating old surveys with more precise data.
- Contributions to cave related sciences such as hydrology, geology and biology that include discovery of new species, published scientific papers, lectures, and presentations to advance knowledge of the karst environment.
- Original writing or artwork related to cave diving including NSS-CDS training materials, journals, magazine, blogs, books, photography or videography.
- History of leadership and service within NSS- CDS.
- Recipients are awarded a Lifetime membership to NSS-CDS, a plaque, a feature article in *Underwater Speleology*, and recognition on the website and Facebook page.

**Do you have someone in mind?** Use this link to nominate a deserving individual **by Sunday, May 5, 2024**. We look forward to celebrating these exceptional members soon!

**Gayle Hall is Awards Committee Chair and Treasurer of NSS-CDS.**



## 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](https://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 during the International Cave Diving Conference or on the web site: <https://nsscds.org>

# ADVERTISE IN UNDERWATER SPELEOLOGY

2024 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

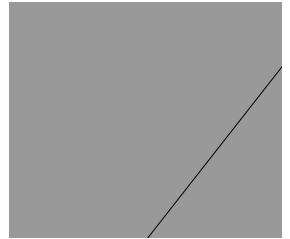
CDS Instructor Ads:

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

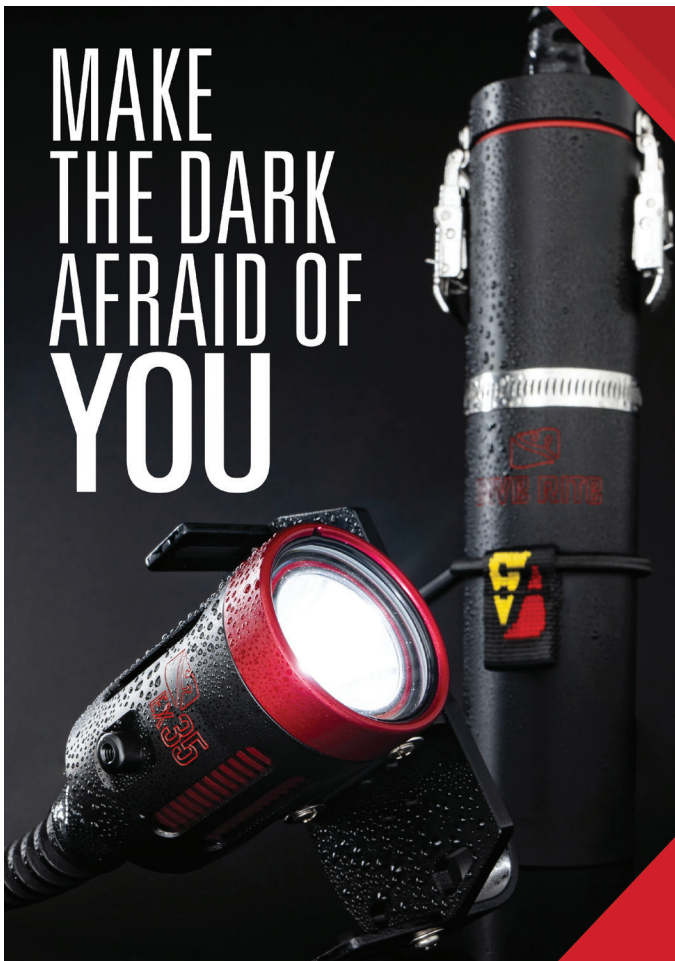
The NSS-CDS is looking for an advertising manager to work with sponsors, instructors, and businesses. Hours are at your convenience. For more information, contact [Barbara Dwyer, Editor](#).

Cave Diving Section of the  
National Speleological Society, Inc.  
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