Weighting for Drysuits
by Jessica Harned

Diving and Medications,
Drugs and Substance Abuse

CONTINUING EDUCATION
AND MORE!

Be Inspired -
Be Inspiring!

NEWS
DIVING MEDICINE
EVENTS
Greetings,

I recently taught a class in central Texas. It was a custom designed class to help jump start a new dive team.

Having the privilege of being able to help a new team literally from the very beginning is unique. Usually by the time I am asked to come teach a class or consult with a team to help resolve some problems, the team is already formed, has performed dive missions for a while, has already spent their budget on equipment and maybe some training and I have to figure out how to make do with what they have. It is always a challenge.

I have been on my own team for 30 years and we have always been catching up on training, new member qualifications, policies or equipment. We never have caught up and we never will. It is a common and difficult situation to deal with.

But being able to help a funded team from the very beginning was inspiring. I was able to see, perhaps for the first time in my career, what a team could do with the proper funding, administrative support and divers with great attitudes who are willing to learn.

There are no bad habits to break. There are no preconceived ideas about how things have to be done and a desire and willingness to begin the process by using common sense to solve problems.

I was able to spend three days with them and in that brief time, their willingness to learn, their passion for the job and new diver excitement created a unique learning experience for all of us.

In the brief time I spent with them, I saw them grow as a team. If they are able to continue on the path they have started, whether I ever go back or not, theirs has the ability to be one truly extraordinary team.

It is hard to maintain a positive outlook when you are on a dive team like ours and perform the type of work we do. We suffer from burnout, apathy and (my favorite) “broken give-a-crappers”. After working with this team, I am recharged and excited about the potential we all have.

We are getting into the really cold months, those dreary times when we dread having to go out and dive. Make it a goal to do something different during this cold season. You know you will have training – don’t do what you have always done before, do something different. Do something that will be challenging and perhaps even fun for your divers.

Invite your neighboring teams to come train with your team or arrange to go train with them. Look for ways to recharge yourselves and your team

Be inspired and if possible, be inspiring. I was and I strive to be.

Stay Safe,
Mark Phillips
Editor / Publisher
PSDiver Monthly

If you would like to discuss this topic or any other, join our discussion group at: CLICK HERE TO JOIN
SPECIAL TO PSDIVER MONTHLY

Weighting for Drysuits
Jessica Harned

Often times the question arises as to how much weight a diver should wear when using a drysuit. This can certainly be an important factor in having an enjoyable dive. If the diver is weighted too little, he/she could be fighting to stay submerged especially during the safety stop. If the diver is over-weighted, he/she could have trouble maintaining neutral buoyancy throughout the dive. Either way, the diver could become frustrated and exhausted. Additionally, being improperly weighted could result in a potentially unsafe condition.

When determining how much weight to wear with a drysuit, there are many factors to consider. The diver can start with a weighting equal to 10% of their body weight. Adjustments will need to be made as there are a few things that will affect buoyancy including water type, insulation thickness, and tank material. After compensating for these differences, it is important for a diver to perform a neutral buoyancy weight check. If the appropriate amount of weight is added and the diver is still having trouble descending, he/she can troubleshoot to avoid being over-weighted.

Because saltwater is more dense than freshwater, the diver will need approximately 2-4 lbs more when diving in saltwater than in freshwater. If worn, the thickness of insulation the diver is wearing underneath the drysuit will affect buoyancy. The diver will be more buoyant with an increase in the thickness of undergarment. For example, if the diver is going from a 150 wt undergarment to a 300 wt undergarment, they would want to add approximately 2 lbs to their weight system.

Finally, the use of aluminum versus steel tank will influence the diver’s buoyancy. Aluminum tanks become positively buoyant once the air is used. Therefore, a diver diving with an aluminum tank who is neutrally buoyant with a full tank would need to add approximately 5lbs to compensate for the end of the dive.

Once these adjustments are made, it is important for the diver to perform a neutral buoyancy weight check. To do a proper weight check, the diver should enter the water where it is too deep to stand, fully geared with regulator in mouth. Once the diver is in position, he/she should fully deflate the BCD and drysuit and breathe normally. The diver is correctly weighted for neutral buoyancy if he/she floats at eye level vertically and sinks slowly when he/she fully exhales. If the diver sinks very quickly right away, he/she is over-weighted and needs to remove weight. However, if the diver floats at the surface he/she is under-weighted and may need to add weight. It is recommended to make weight adjustments in small increments. For example, add or remove 2-3 lbs at a time and repeat weight check.

Remember, once the diver has established proper weighting and is floating at eye level, if diving with an aluminum tank; add 5lbs to compensate for the end of the dive when he/she will have less air in the tank.

PSDiver Monthly Issue 78
For public safety diving, underwater search and recovery and/or underwater crime scene investigation, the diver will likely be slightly negatively weighted on purpose. The diver may need to add additional weight to compensate for current if the need and situation arises. These are more specific additions of weight that do not fall within a generally accepted generic weighting system.

If the diver has added weight and continues to have difficulty descending, he/she can try a couple of things before adding even more weight. The most common problem is the diver not exhausting all of the air out of the drysuit when trying to descend, so he/she is fighting against the related buoyancy and usually compensates for that by adding more weight. This causes the diver to be over-weighted throughout the entire dive.

The diver should be sure to fully deflate the drysuit. In order to properly vent excess air from the drysuit prior to entering the water, the diver should open the drysuit valve fully, place a finger under the neck seal and squat down. While still squatting, remove his/her finger from the neck seal. Then, stand up. The diver should remember, after he/she vents the drysuit, any manipulation of the seals will put air back in the drysuit.

In addition to excess air, another possible factor in being unable to descend is that some new drysuit divers have a tendency to kick their feet on the surface. New drysuit divers may feel slightly unstable on the surface at first and will kick their feet to help feel stabilized. If the diver is kicking his/her feet while trying to perform a feet first decent, they will continue to kick themselves up to the surface. The diver should be sure to keep their legs still if he/she is performing a feet first descent.
Finally, it is also possible the diver is not exhaling completing. Inflated, the average person’s lungs hold about 8lbs of lift. Therefore, if a diver is not exhaling, his/her lungs could be buoying him/her up.

If the above mentioned techniques are followed, the diver should be properly weighted for diving in a drysuit. Once the weighting has been established, the diver should record what weight they wore. The diver recording his/her weight will allow for use with future dives and the neutral buoyancy weight check may not need to be repeated as long as all the factors remain the same. If there is a change in conditions (insulation change, water type, and/or tank), it is recommended to repeat the weight check.

Now that you know how to properly weight a diver for diving in a drysuit, where do you put that weight? There are a variety of options for weight systems. For the most part, it comes down to personal preference and comfort.

Below is a list of common weight systems.

**Weight systems**

**Traditional Weight Belt** – Weight belts are worn around the waist. They do a good job of holding weights, but could be uncomfortable and may need adjustment at depth. Depending on the person, the weight belt could have a tendency to slip. For the most part, the weight belt can only sit at the waist and does not have placement adjustability.

**Weight-Integrated BC** – The weights in a weight-integrated BCD are worn in the BCDs quick release system. Adjustability is limited to BC adjustability. Some find that this system holds the weight too high on the body. Weight integrated BCDs are not usually recommended for Public Safety Diving.

**Weight and Trim System** – The weight and trim system is worn as a harness system with full adjustability. This system can be adapted for a person’s individual buoyancy characteristics.

**Ankle Weights** – This weight system is worn on ankles. Only minimum weight should be used. This system is used in addition to a main weight system to get weight lower down. Divers should be aware that wearing ankle weights may make it harder to kick.

**Tank Weights** – These weights are added to the tank. There are a few methods to attach tank weights. Some are integrated into the tank boot. Others are attached to the tank band. Some folks even attach the weights to the neck at the base of the valve. Only minimum weight should be used. This system is used in addition to a main weight system.

Whatever system you ultimately decide to use, and whatever additional trim weights you add to your diving rig, your main weight system must be quick release.

Jessica Harned
Diving Unlimited International, Inc.
San Diego, California  USA
619.236.1203  800.325.8439
www.DUI-Online.com
Murky depths dogged search
September 29, 2010 DANIELLE McKAY

VISIBILITY, depth and lack of resources restricted police divers' bid to find missing Hobart physicist Bob Chappell a court has heard.

Sergeant Paul Steane told the Hobart court the silt bottom of the Derwent River limited visibility to zero at times, forcing divers to search with their hands.

Sgt Steane, who is the officer in charge of the Tasmania Police dive team, said depths of up to 26m also limited visibility and the amount of time divers could spend searching.

He told the court a team of Victorian police, who scanned the riverbed with sonar-imaging equipment, had limited time to spend on the search. "If we had them for longer, our search would have gone for longer," he said.

Victoria Police Senior Constable Shane Morton told the court sonar searches on April 18 and 19 last year covered a search zone in the River Derwent of one nautical mile by half a nautical mile.

He told the court the search uncovered 90 objects of interest; 25 targets were cleared by Tasmania Police divers -- however nothing of interest to the case was found.

Creek search for bikie shooting weapon
Sep 30, 2010
Map: Revesby 2212

Police divers are searching a creek in Sydney's south west for the gun used to shoot Hells Angel Peter Zervas.

Three divers are submerged in the murky water at Salt Pan Creek in Revesby Heights. Detectives are hoping they will find the gun used to shoot Hells Angel Peter Zervas. He was shot eight times outside his mother's Lakemba unit last year, but survived.

The shooting happened a week after his brother Anthony Zervas was bashed to death at Sydney Airport in a bikie brawl. Police say the Comanchero gang was watching Peter Zervas for several weeks before he was shot.

Acting Superintendent Steve French
syt says it was a well organised murder attempt. "They had teams deployed and they were junior members of the Comanchero not senior members of the Comanchero," he said. "You had the surveillance team and police will allege there was a second team which was the shooting team. "The surveillance team were to call in the shooting team upon sighting Peter Zervas."

Earlier this week, police made their first arrests over Peter Zervas' shooting. They charged two brothers - Christopher and Richard Fong - with conspiracy to murder. No one has been charged with attempted murder.

Police say there will be at least one more arrest. They say they have not searched this water for the weapon before but will not reveal why they are doing it now.

Paddlers, landowners divided over river access

http://www.northcountrypublicradio.org/news/story/16457/paddlers-landowners-divided-over-river-access

OCTOBER 07, 2010

Over the last 20 years, sport paddlers in the Adirondacks have been pushing the limit on the kind of water their canoes, rafts, and kayaks can navigate. They've developed new techniques and new equipment that can handle more aggressive rapids and even waterfalls. And paddlers are also waging fierce legal battles to try to open more rivers, including routes that offer access to remote wilderness areas.

Some landowners are pushing back, arguing the sport is stepping on their private property rights. As Brian Mann reports, the dispute has sparked a kind of range war on some of the North Country’s most beautiful rivers.

Download audio
Adirondack Explorer tracks history of the debate in Albany.

My journey into this story begins in the depths of Ausable Chasm, a flume of towering sandstone cliffs and whitewater in the Champlain Valley. Easy stretches of the river are a tourist attraction run by the Ausable Chasm Company. They sell tickets to families who like to hike and paddle. But there's another class of paddlers, serious athletes who have been fighting for a decade to get a shot at some of the Ausable’s fiercest rapids.

Despite a court decision opening New York's navigable rivers to recreation paddling, no-trespassing signs and a cable still divide Shingle Shanty Brook. (Photo: Brian Mann)
Kayaker Andrew Ludke of Pennsylvania describes the chasm as an exhilarating challenge. "Coming over that drop, you're entering this magical place. You're pitting your personal skills against the natural environment," he said. This summer Ludke was one of the first paddlers ever to run this stretch of the Ausable River after a court decision opened the route. He was also one of the first to get injured. "I actually had trouble right at the beginning and ended up swimming out of the rapids below Horseshoe Falls," he said. "And if I came against the cliff face I pushed off the rock 2 or 3 times and swam aggressively to the other side of the river."

Ludke shrugs off the fact that he broke a bone in his hand. But he's furious at what he describes as harassment by the people who own the land on both sides of the river. "They were telling us that if we put a foot on dry rock that we would be cited. They were taking pictures of us, telling that they were radioing to the police and if we got out would be cited for trespassing," he said.

The confusion, said Ludke, put paddlers at risk. But John McDonald, president of the Ausable Chasm Company, says kayakers don't have any business running these rapids. "Personally, no I don't for one reason because of the safety factor. We had a fellow jump in the chasm from the bridge a few years ago. And the state police diver almost drowned trying to find his body."

McDonald concedes that on this river the courts have spoken, given paddlers the rights to run the rapids every year. And he worries that an accident would force his tourist attraction to close for days, even weeks. "If they shut it down, we don't have any income," McDonald said.

It turns out this kind of feud between paddlers and landowners is common across the US. "They've told me to get out, given me dirty looks and threatened and I haven't quite had a gun pointed at me whereas other people I know have had guns pointed at them. Eric Leaper is director of the National Organization for Rivers, a paddler advocacy group based in Colorado. Earlier this year, landowners in his state lobbied aggressively to defeat a bill that would've clarified the rights of paddlers to run most of that state's navigable rivers, even if they pass through private property. "And rancher after rancher got up and said 'this ranch has been in my family for 3 or 4 generations and now you're going to act like it's yours.' It's very frustrating," Leaper said.

McDonald says the dispute is the result of a legal gray area. "The courts have spoken, and we've got to live with what they've decided," he said. "But at the same time, there's a feeling that we've been invaded, our private property has been invaded."

And Ludke says it's a continuing problem. "The confusion, the harassment, it's just... it's been a problem ever since," he said. "We're going to keep coming down this river, because it's a beautiful place. It's a magical place."

---

Kongsberg Mesotech
MS 1000
Scanning Sonar for Search & Recovery
www.kongsberg-mesotech.com
come take my property,' and I do have sympathy because they have this long-standing misunderstanding that the river flowing through their ranch is private. Now they know the county road going through their ranch isn’t private, but they think the river is," Leaper said.

This is the pivot-point of the debate: a tangled legal argument going on state-by-state over what rivers are. Are they part and parcel of the land that surrounds them, or are they travel corridors open to everyone for commerce and recreation? Phil Brown is editor of the Adirondack Explorer magazine and an avid paddler who’s written extensively about this topic. He says here in the state of New York there’s actually a lot of legal precedence supporting the idea that rivers are a kind of traditional public highway. "This common law right dates back to old England so in a way this represents our heritage. There was a time when rivers were used as travel, a sense that you know, a private a landowner may doesn’t the rivers, or they may own the rivers but the public has the right to travel on them," Brown said.

Paddlers and many legal experts say navigable rivers that cross private land in New York were opened unambiguously to canoe and kayak traffic by a landmark decision in 1998 involving the Adirondack League Club. In that decision, the state’s highest court rejected the landowners’ argument that recreation and sport paddling aren’t valid reasons to use rivers that pass through private areas. "I understand their desire not to have paddlers on their land, however the law has spoken and they may not have a choice," said Ross Whaley of the Adirondack Landowner's Association, who’s researched the ALC decision. "It seems that the case law over time has made it clear that navigable in fact streams can be navigated by paddlers. This stems from English common law, which was the law of the state of New York prior to any legislative law. And the Adirondack League case settled that where the court said that recreational passage is allowed under the common law," Whaley said.

That view is shared by John McDonald, head of the Ausable Chasm Company and an attorney. He doesn’t want paddlers passing through his land but says the ALC decision was definitive. "Legally they do have the right to go through the river. That case also decided was what paddlers could do. They could portage and they have the right to stop." That means that paddlers have the legal
right to get out of their boats, scout for obstacles, and even portage around them when necessary. But here in the Adirondacks, some landowners are still aggressively posting rivers that appear to be navigable.

Shingle Shanty Brook is one of those contested locations. By paddling through the posted water and making a short portage across private land, boaters are able to avoid an overland carry that's more than a half a mile long. Based on the precedence set in the league club decision, the group I'm with decides to push on, ignoring the signs—and the cable stretched across Shingle Shanty Brook. Phil Brown and a growing number of other paddlers have made this same trip. "I mean it's just a beautiful winding stream, marshy grasses, the day we did it there were puffy clods, sun was shining, big sky—it was just gorgeous. Any paddler would rather do that than lug his canoe through the woods for a mile."

But Judson Potter, head of the Brandreth Park Association which owns this land, is convinced that all these paddlers are breaking the law. "There's a camp built by grandfather in 1918. It's a very important part of my family's history and we very actively regularly use the area and we don't want to be in the situation where there's a conflict between members of our family and members of the public who are going through the area," he said.

Potter has rigged automatic cameras on his land to photograph paddlers who cross the short portage trail. He points to specific details of Shingle Shanty Brook and the sometimes-complex language of the Adirondack League Club decision that he thinks means this route should remain closed. "Very simply spoken, nowhere in this ALC case does it say recreational use alone establishes navigability in fact. It doesn't say that anywhere on this," said Potter.

Here's what the ALC decision actually says: "If a river is navigable in fact, it is considered a public highway notwithstanding that its banks and bed are in private hands. "And while New York's highest court didn't broaden the definition of proper use of Adirondack rivers, it does say explicitly that "recreational use fits within that description." John Humbach is a law professor at PaceUniversity in White Plains, New York, who has studied the case law for river navigation rights in the state. Despite the reservations still raised by some landowners, he says the law is clear. "If it's obviously clear that a river can be
navigated because people are in boats floating down it, then it's almost certainly going to be held to be navigable in fact," Humbach said.

Ross Whaley with the Adirondack Landowners Association says the next step is for the state Department of Environmental Conservation to work with the legislature and with landowners and recreation groups to compile a final list of which North Country rivers are clearly navigable and open to the public. "My sense is it's going to come to closure in legislation at some point in time—how long that'll take, I don't know," he said. A preliminary list compiled in 1990 by the DEC included no fewer than 55 Adirondack rivers and stretches of river that should be open to the public. Shingle Shanty Brook was one of the rivers on that list.

'I was laughing and crying at the same time' Family sees end of mystery - Remains of man dead 51 years finally identified
http://www.winnipegfreepress.com/local/i-was-laughing-and-crying-at-the-same-time-family-sees-end-of-mystery-104231414.html
3/10/2010

KELOWNA, B.C. -- It's taken more than half a century to solve the mystery, but a British Columbia brother and sister finally know what happened to their father.

Robert Thomson was last seen on May 16, 1959, before he crossed the old Kelowna, B.C., floating bridge to pick up medication for his four-year-old son, David, who was ill after a tonsillectomy.

Thomson, known as Bob, had arranged to meet a pharmacist but never showed up.

The Chief Coroner's Office has now confirmed skeletal remains found on the bottom of Okanagan Lake in 1987 are those of Thomson.

After numerous attempts, scientists used new technology to acquire a DNA profile that proves a match with Thomson's children -- Bonnie Miller and David Thomson. "After 51 years, my dad's been identified," Miller said. "Now we know where he's been resting all these years and we can put closure to this. "I was laughing and crying at the same time," she said after remains found in 1987 were finally identified as that of her father. "It's not a sad story anymore. It's a happy ending because now we've found him."
The team that clinched Thomson's identity spent the last four years trying to match the remains with a missing person.

Extracting a DNA sample from human material so degraded by lake water was an exceptional challenge, said Stephen Fonseca, who manages the Identification and Disaster Response Unit in the Chief Coroner's Office in Burnaby, B.C. "It's like winning a lottery for us," Fonseca said of the oldest historical case his unit has identified. "My staff were so excited. They were over the moon."

On the night Thomson disappeared, the bridge span was raised to let through a CP Rail tug and barge at about 8:40 p.m. Witnesses said Thomson's four-door Pontiac drove past the red light and warning bell as he approached the lift span. The car went into a screaming skid for 30 metres and tore off the guard gate before plunging into Okanagan Lake.

David Thomson, now 55, believes his father jumped out of the car as it hit the water.

When a crane raised the vehicle the next morning, the driver's door was open but there was no sign of Thomson, who became the first person to die on the bridge after Princess Margaret opened it 10 months earlier.

Lance Tanner, now 90, was a police diver at the time. He said that 20 minutes after the crash, he jumped into the lake in scuba gear. Using a light, he swam circles around the car for half an hour but found no trace of the missing man. "The car was upside down on the bottom of the lake facing south," he said in 2005. "The tail lights and headlights were on. It was 70 feet deep."

Subsequent searches turned up nothing in the murky water. The family believed currents swept Thomson's body to a deeper part of the lake or into a cave.

It wasn't until 1987 that two recreational divers found a pair of black dress shoes, socks and what appeared to be human remains at a 21-metre depth north of the bridge.

RCMP divers recovered the shoes, a skull and about half the skeletal remains of a body. The remains sat unidentified in a box at the coroner's office for years. Mounties suspected they might belong to Thomson or one of 10 other people who'd gone missing.
Cpl. Lisa Cullen took over the file in 2006. "Here we have a found body and we can't tell people who it is," she said. "It's one of those things that gnaws at you."

Experts in 1987 estimated the body had been in the water for up to 10 years and was that of a 20-year-old male about five-feet-one-inch tall.

After Cullen and Fonseca began working on the case, the first DNA analysis suggested the body was that of a female. But after yet another review, they concluded the remains were that of a five-foot-seven-inch man who was 40 years old.

Verifying the identity was still a challenge. Analysts had to generate a specific DNA profile to compare to family members. They took about seven samples of the remains but failed to produce a satisfactory profile.

In 2008, Fonseca's team tried another lab that used a new technique better-suited to degraded remains. The lab produced a partial profile, but enough to compare with relatives.

Thomson's children provided blood samples this year and the results showed an indisputable match. Its the second such mystery solved in the Okanagan this year.

In April, remains were found inside a 1960s-model Chrysler discovered at the bottom of Skaha Lake. The woman's personal identification was also found, making contacting her now-adult son much easier than in the Thomson case. The woman had been missing since 1972.

For Miller and Thomson, the news about their father was exhilarating and bittersweet.

Their mother, Madeline Thomson, died in 1996 and never knew what happened to her husband. "Too bad she couldn't put closure to this too," said Miller, who is now 56 and has three grown boys and lives in New Westminster, B.C., with her husband. "The science is amazing and it benefited our family," she said. "I hope other families will experience the same benefits."

Authorities presumed Thomson was dead, but never issued a death certificate. His wife was unable to apply for a military pension or death benefits.

The coroner's office has now registered the death with Vital Statistics and Fonseca has signed the death certificate.
Police capture murder suspect Leyba arrested at Davis Camp
http://www.mohavedailynews.com/articles/2010/10/14/news/local/doc4cb6a01f734df703438359.txt
October 14, 2010 By HEATHER SMATHERS/The Daily News

BULLHEAD CITY — Police arrested the man suspected of pulling the trigger in last week’s murder of a Bullhead City man.

Arthur Andrew Leyba, 33, was arrested at approximately 11:30 a.m. Wednesday at Davis Camp. Bullhead City Police Department spokeswoman Emily Montague said police received information that Leyba was staying inside a fifth-wheel travel trailer at Davis Camp. The trailer belonged to an unidentified friend of the suspect.

During the course of the investigation, police learned Leyba’s whereabouts, Montague said. The Mohave Silent Witness money that had been offered for Leyba’s capture, up to $1,000, will go to a tipster who helped police locate Leyba, pending approval from the Mohave Silent Witness board.

Montague said police divers recovered the suspected murder weapon, a .22 caliber Ruger handgun, from the Colorado River, as well as the clothing Leyba is suspected to have been wearing during the crime.

Ronnie Wayne Trainer 32, was shot in the face Oct. 7 at his home on Santa Maria Road. Montague said a friend of Trainer made the initial call to 911 around 5:45 a.m. that morning. Police still have not released a possible motive in the shooting.

At approximately 6 p.m. on Oct. 7, police arrested Leyba’s former girlfriend, 39-year-old Rebecca Dee Grabowski. Grabowski initially was arrested on charges of accessory to first-degree murder; however, the Mohave County Attorney’s Office has since filed charges of hindering prosecution and tampering with evidence against Grabowski.

Montague said Grabowski allegedly assisted Leyba after the shooting by allowing him to change his clothes at her house and reportedly drove him to the Colorado River, where Leyba discarded the gun, and to the Desert Foothills area, where he dumped the clothes he was wearing at the time of the shooting.

Leyba was booked into the Mohave County Jail Wednesday.
Forensic entomologist trains La. cops

October 17, 2010 BOB ANDERSON The Advocate

HAMMOND, LA— Maggots and flies are clues for Erin Watson.

A beetle scurrying from beneath a corpse provides one more puzzle piece. Watson recently led a group of detectives and veteran crime scene investigators down a wooded path in Tangipahoa Parish to a body she'd planted.

It was a pig's. Watson, a forensic entomologist, was teaching investigators how to get bugs from bodies, and pigs' bodies attract the same sort of insects that people's bodies do, and on about the same schedule.

Watson, an assistant professor at Southeastern Louisiana University, has worked on 30 homicides in Louisiana and other states. She said she is most often called when authorities need the day of death of a corpse that has begun to decompose.

A key is determining the age of maggots and other insects in, on and under the body, Watson said. She meshes that information with temperature data to provide a time range of when the person died.

Watson knew when the pig had died — five days earlier. Its stench made its presence known before the group reached it. A mob of blowflies buzzed around it. Watson pulled out a fold-up butterfly net and showed her gun-packing students how to catch flies. Then she demonstrated how to "snatch and grab beetles."

Next came the maggot exam. It's not as urgent because flies and beetles are faster to make a getaway.

She took the air temperature, then shoved a digital thermometer into a mass of maggots. It was about 30 degrees warmer than the outside air. During lunch, Watson described herself as something of a "girly girl." That from a woman who had rolled the pig over and pulled back a leg to find its precious clues.

"You want to get a representative sample of all the sizes of maggots," she told her charges, who had positioned themselves upwind. "The largest maggots will be most important in determining the time of death."

Watson then equipped the group members with gloves and showed them how to manipulate larval forceps.

She taught them how to preserve one set of samples and make corresponding living samples using vermiculite, ground meat and the squirming organisms they collected.
"Don't overcollect and put them into a small container," Watson warned. "If you do, you're going to have a nightmare in a few days."

Not one crime scene investigator asked for details.

Once officers finished collecting maggots, Watson told them to move to the dirt. "Grab some of that stuff under the body," she said. "Stare at the dirt. You'll see something moving. Even if you're not sure what it is, collect it."

Later, back in a classroom, Watson showed the investigators samples of hairy maggot blowflies, green blowflies, flesh flies, dump flies, black solider flies and more creatures that might visit the underbelly of a dead pig or human.

Then she sent her students away and told them to call if they arrive on a crime scene and need a refresher course by phone.

After the officers left, Watson answered the question she must be asked ad nauseum: How did she ever get into a job like this? "It was an accident," she said.

As an undergraduate, Watson said she was studying biology and needed another science course. She took entomology, thinking it had something to do with plants. Then her professor started drawing pictures of bugs on the board.

She said she quickly fell in love with the subject and earned a doctorate in entomology from Louisiana State University.

Watson is the only forensic entomologist in the state, said Rene Abadie, head of public information for SLU.

Her forensic biology course usually fills early. Her students study hair samples, exhume animal graves and handle mock crime scenes.

For some reason, most of the students who took the course in the beginning were women, though the gender difference has started to even out, Watson said. Still, most of those who follow up by working in forensic entomology laboratories are women, she said.

Anna Clark, who is studying with Watson in preparation for her master's degree and eventual work in a crime lab, said forensic biology was her favorite class.

Clark, who assisted Watson in the instruction of the investigators last week, also works in Watson's lab growing beetles to help determine the length of time it takes them to get through their life cycles under different temperatures.

"My family still thinks it's crazy I do this," Clark said.
British man has ear, two fingers and three toes chopped off during 13-day torture in Portugal over 'unpaid drug debt'

21st October 2010 By Tom Worden

A British man had an ear, two fingers and three toes chopped off during an horrific 13-day kidnap ordeal over an alleged drug debt.

The 26-year-old, named locally as James Ross, was held captive in a villa on the Algarve by a gang of fellow Britons.

In a scene reminiscent of Quentin Tarantino movie Reservoir Dogs, Mr Ross' ear was sliced off by his captors as they tortured him over a £10,000 debt.

But he managed to escape despite two broken legs and was found bleeding heavily in the street at 9am on Monday in the village of Alfontes, near Loule.

Passer-by Carlos Pereira said: 'He came staggering towards me asking me to stop, waving his arms in the air. 'He had no left ear and was missing two fingers on his left hand, one from one foot and two from the other. He also had a leg wound.'

Mr Ross told Mr Pereira he had been involved in a road smash. The local man said: 'He was very white. He said "please, please, telephone". 'I decided to put him in my van and drove him to a square, near a cafe, and called the police.'

Newspaper Correio da Manha said Ross owed Briton John McLean £10,000 over a cannabis deal.

He was lured to the Algarve on October 5 when McLean told him he could pay off his debt working on a cannabis farm.

But he was kidnapped soon after landing at Faro airport at 9pm. Two days later his concerned wife Donna received a call from the kidnappers. She recognised the voice as John Maclean's, Correio da Manha said.

Mrs Ross was told her husband was being held in a cage in the woods, unconscious and with broken legs, arms, feet, ankles and ribs. The caller said her husband would be executed if she called the police.

But British police were monitoring the phone line and tipped off their Portuguese counterparts, who traced the call to a phone booth on an industrial estate near the capital Lisbon.
Over the weekend armed officers from Portugal's National Counter Terrorism Unit arrested Mclean and three other men, named in reports as Terrence MacGurk, Calum McAleod and Ronnie Rose.

Three of them were held at a house near the popular holiday resort of Albufeira.

At the time detectives were convinced Ross had been murdered and they were looking for his body. They found a burned out Mercedes said to have been used by the gang in a reservoir in nearby Santana da Serra.

Police divers were brought in to look for a body. A police source said: 'Everything suggested he was dead.'

Detectives were stunned when Ross turned up in the street pleading for help on Monday. On Monday afternoon police found the villa where Ross had been held in the village of Boliqueime.

The house is surrounded by a six-foot high wall and a large iron gate, has a large garden with a wooden shed and a swimming pool.

British neighbour Jack Mculigan told reporters he had seen a number of people coming and going in expensive cars. He said: 'They have been like smoke, they've been in and out, you didn't know when they were here. 'I saw various people and cars. I'm talking about expensive cars, Audis and Mercedes.'

The four Britons are being held on remand on the orders of investigating magistrate Carlos Alexandre, after appearing at the Examining Magistrates Criminal Court in Lisbon.

They are said to be aged 20 to 50, all with police records and living in Portugal, where they were believed to be involved in cannabis trafficking.

Detectives are concerned Ross will refuse to co-operate with the investigation, as he and his family have received numerous death threats.

The Manchester home he shared with his wife was raided by men armed with knives in August demanding payment of the debt.

Ross has been transferred from the Faro Hospital to another hospital in the capital Lisbon, where he is being kept under armed guard.

A spokesman for the Judicial Police in Lisbon said: 'I can confirm the arrest of four British men over the weekend in relation to a kidnapping of another British man. 'We cannot give out any more details at this stage.'
Stolen Vehicles and Garbage Contaminate Popular Rec Areas
Oct 21, 2010 By Natalie Tolomeo

A stolen truck is discovered submerged in a Springfield pond. But some say it’s just a symptom of a bigger problem - a popular city park could be a dumping ground.

Springfield police divers have been finding stolen vehicles at the bottom of city ponds. CBS 3 was the only station with police as they pulled another one out of the water near Boston Road. The vehicles are just some of the junk that's ending up in the water.

Five years worth of mud coat a Dodge Ram pick-up that was pulled out of Five Mile Pond Thursday. "It was reported stolen in 2005," says Lieutenant John Slepchuk of the Springfield Police Department. "We discovered the vehicle as a matter of routine patrols of the waterways of Springfield to make sure they're safe for swimmers, the recreation people and the boaters."

In the last month, S.P.D. divers have discovered three vehicles in Five Mile Pond and Lake Lorraine. "The visibility in these waterways is very difficult," Slepchuk says.

State officials were called in to clean up oil and gas that spilled from the pick-up into the water. But stolen, submerged cars aren't the only source of contamination.

Garbage litters walking trails and the forest. "People come down here all the time to clean up. My mom's come down here, the neighbors come down here and clean it all the time. It just gets worse," says Angela Pafumi, who lives near the rec area.

The garbage she's talking about is close to wildlife and the public beach. "It's not a well kept up park. We don't go swimming here," says fisherman David Mayo, of Belchertown.

Some say they avoid the Five Mile Pond Rec area altogether and hope officials come clean up. "We used to come down all the time because it was really nice. It's not like it used to be," Pafumi says.

Tuesday CBS 3 reported city officials caught illegal dumpers on camera. We wanted to know if the city plans on putting hidden cameras in popular rec areas, like Five Mile Pond; however, we were not able to reach city hall.

Forecast: global warming may bring giant drought

Click HERE to read the story!
Divers Recover Body Of Dutch Ferry Skipper

Divers have recovered the body of the skipper of a Dutch passenger ferry killed when his vessel collided with a German freight ship on a busy waterway near Amsterdam.

National police spokesman Frans Zuiderhoek said the skipper is believed to be the only victim of the collision, which capsized the much smaller ferry. "We're assuming that there was nobody else on board at the time of the crash."

Divers had combed the water for hours using sonar to find the skipper's body.

Zuiderhoek said a school vacation this week may be a major reason why the usually busy ferry was empty.

The incident took place Friday morning near the town of Nieuwer Ter Aa, roughly 6 miles (10 kilometers) south of Amsterdam.

Dutch RTV television has identified the victim as 56-year-old Hendrik Plomp.

Zuiderhoek said two crew members of the German freighter Duisburg Ruhrort have been detained for questioning.

He said breath tests show they had not consumed alcohol. The cause of the crash was not known.

Questions remain as family mourns death of banker

As family and friends of Mount Clemens bank president David Widlak gather today to say farewell, the Macomb County Sheriff's Office is intensifying its investigation into the mysterious circumstances surrounding his death.
The body of the 62-year-old former CEO of Community Central Bank was found Sunday evening in Lake St. Clair. It was later determined he died from a gunshot wound to the back of the head, but it’s uncertain as to who pulled the trigger — Widlak or someone else. “This is where we’re at — we have no suspect and we have no person of interest,” said Sheriff Mark Hackel on Thursday.

The sheriff said he hopes to consult with Oakland County Medical Examiner Dr. L.J. Dragovic, who conducted an autopsy at the family’s request independent of the official autopsy conducted by Macomb County Medical Examiner Dr. Daniel Spitz.

It was Dragovic’s autopsy that discovered a bullet in the victim’s head, which had been overlooked during Spitz’s examination of the badly decomposed body.

Dragovic said Widlak was shot "execution"-style. The bullet wound was "mid-back" of the neck, he said. A person is able to shoot himself execution style, he said Thursday. "Theoretically (it can be done) with a little contortionism," he said.

Police found a handgun near the death scene Wednesday, but no one has determined if the death was caused by suicide or homicide.

Dragovic called himself a “helper” in the autopsy process. He said he is not declaring the manner of death, meaning homicide or suicide.

He advised investigators in the case to continue searching. “You cannot assume anything,” he said. “You have to turn over every rock. No one should assume, not in this line of work.”

After Dragovic’s stunning discovery, police divers returned to the scene where the body had been found by a pair of duck hunters near Jefferson and Ballard in Harrison Township. The divers found a .38-caliber handgun about six feet from where the body was found. The weapon, which is registered to Widlak, had been missing from his home. “We have reached out to confer with him,” Hackel said of Dragovic. “I don’t rely on any one person’s input. I’m trying to talk to anyone I can who can help me determine who was responsible for David Widlak’s death.”

Spitz told reporters earlier this week that he had failed to detect the bullet during the autopsy he conducted because the county morgue lacks a specialized x-ray machine that the Oakland County morgue has.

But Dragovic was quoted in news reports on Thursday as saying the bullet had been found during a manual inspection, not with the x-ray device.

The sheriff said while gunshot wound was a “critical piece...
of evidence that should have been brought to us the first time,” he did not want to cast blame on Spitz. He said the overall focus of the investigation has not changed, even with the new finding. “All we want to know is who caused David Widlak’s death,” he said. “Our investigation is going to be thorough. We are going to look at motive, opportunity and means.”

Widlak, CEO of Community Central Bank in downtown Mount Clemens, had been missing since Sept. 19 until his body was found Sunday evening in a marshy area of Lake St. Clair in Harrison Township.

Dragovic said the family of Widlak requested the second autopsy, and that a funeral home delivered Widlak’s body to the Oakland County Medical Examiner’s Office. “I examined the body (Wednesday) morning,” said Dragovic.

Dragovic said he “immediately” contacted Spitz with his findings. “I said, ‘Let’s continue this together,’ ” Dragovic said. “When there is ground for suspicion of foul play, by law first notification goes to the investigating agency.”

He said the Oakland County Medical Examiner staff often conduct second autopsies. “We have had bodies sent for second opinions from California, Florida and elsewhere,” he said. “We are public servants and this is part of our job.”

The county establishes fees that are then paid to the county for such services, he said. As for bringing Oakland County into the investigation, Dragovic said, “People are making much about it,” he said. “Everybody makes mistakes. The greatness (of an official) is being able to rectify it, and he (Spitz) demonstrated that.”

Sheriff’s investigators have been working with a number of federal agencies including the FDIC, the FBI, and the border patrol on the case.

He said a number of physical factors are under study including toxicology tests on Widlak; ballistics tests to determine if the bullet that killed the banker came from his own gun; and DNA and fingerprint analysis from evidence collected at various scenes.

Widlak, of Grosse Pointe Farms, was last seen working on the weekend at the bank on the night of Sunday, Sept. 19. Police have said a business colleague had spent some time in the office earlier in the night.

Investigators plan to enhance a security videotape that shows Widlak coming and going from the bank. The business colleague’s image is also captured in the footage, but Hackel stressed the colleague has been cooperative in the probe as have other bank and family figures.

Hackel also detailed how the body was removed from about 2 feet of muddy water on Oct. 17.
He said two divers held the body in the water as a plastic tarp was placed under the body, which was then placed on metal basket-like gurney. Hackel and a sheriff’s captain entered the water to help lift the body out of the lake.

Then the officers lifted the gurney up to a rocky shore and waited for a medical examiner’s investigator to arrive to conduct a cursory search of the body.

A funeral service for Widlak is scheduled for 11 a.m. today at SS. Peter & Paul Jesuit Parish, 438 St. Antoine Street, Detroit.

Wekiva trash is mix of old and new


October 23, 2010 Kevin Spear, Orlando Sentinel

Among the complaints about Wekiva Island, a popular but controversial outdoor bar and canoe outpost on the Wekiva River, is that the customers trash the river.

Owners Bill and Mary Sue Weinaug take exception to the allegation; not only do they strive to prevent littering, they say, they regularly scour the Wekiva for cans and bottles tossed into the water long before their business opened two years ago.

"Go put on scuba tanks and gear, and you swim along the bottom of the river, which we do — we’re on the river — and 99.9 percent of this stuff is stuff that was put in there in years past."

Good idea. Sentinel photographers love underwater work, and veteran Red Huber said we didn't need air tanks. Snorkels and masks would do.

We hit the water Wednesday, just a few weeks after a river-bottom cleanup by 40 police divers. Still, we hadn't paddled 20 feet before passing a beer can in the water next to a Wekiva Island seawall. Farther on, we spotted the glint of cans here and there; eventually, we pulled up to a downed tree, used it like a dock and dove into water 6 feet deep.

The label on the first can we encountered was faded, not badly but enough to know that it hadn't found its way into the river yesterday.

What I hadn't seen from above was the brown butt of a Bud Light Lime bottle partly buried in the muck. Its lettering was unblemished: "100% NATURAL LIME FLAVOR." Nearby it was another "BL."

The lime-green label of the lime-flavored Budweiser is part of the decor at Wekiva Island, where everything from the canoes to the sunglasses is also lime green. The beer debuted the same year Wekiva Island opened.
A few feet away from those Buds on the river bottom was a 10-ounce bottle without a label. The raised letters on the bottom were a reminder: "Dispose of Properly."

An arm’s length away, resting under a submerged tree limb, were two clear-plastic cups with "NatureWorks" and "COMPOSTABLE" printed on the bottom. They were exactly like the eco-friendly cups served at Wekiva Island, made of corn-based material that decomposes faster than ordinary containers.

This wasn't a methodical survey. All Red and I did was test the Weinaugs' claim that fresh litter or Wekiva Island litter would be hard to find. But we also got a sense that buried in the Wekiva riverbed are generations of cans and bottles ripe for an archeological dig in some future age.

A lot of the river's beauty is only skin deep: It's choking on an overdose of nitrogen compounds from sewage and fertilizer, and the springs feeding it have shriveled as the region's demand for water has increased. Those are issues no one person has direct control over — unlike when someone decides to treat a treasured ribbon of Florida water like a recycling bin.

"Does somebody grab a beer from the bar and do they sneak it into the canoe and do they go down the river and dump it into the river?" Weinaug said. "We fight really hard to make sure that does not happen."

"Every once in awhile, when we're pulling stuff out of the river, you will find a newer beer can and, did it come from us? Well, it might look like one of our beer cans. Is it ours? I don't know."

Dive team will disband
http://www.inspiredhomeomaha.com/article/20101026/NEWS01/710279953/1006
October 26, 2010 By Mike Brownlee WORLD-HERALD NEWS SERVICE

COUNCIL BLUFFS — In addition to Halloween, Oct. 31 will bring the end of an era for the Lewis Township Fire Department.

The volunteer department’s water rescue team will disband on Sunday after four decades of saving lives and searching lakes, rivers, quarries and other bodies of water.

LaVerne Goss, who joined the dive team shortly after it was formed in the early 1970s, said it’s sad to see the team go. "We had one of the better
dive teams in the area,” the former dive team captain said. “You hate to see it end.”

The team’s end is the result of a lack of funds, lack of space for equipment and lack of search-and-rescue calls, said Goss, who retired from the fire department and dive team in 2000. “They’re running out of room at the fire station,” he said. “And the trustees say it’s too expensive for the small amount of calls they get.”

The township board of trustees contacted the county about adding to the township fire hall off U.S. 92, but was unable to do so because of zoning laws.

Kay Mocha, director of planning and development for Pottawattamie County, said the fire hall falls within an urban residential zoning district, and if the building were expanded it would violate setback requirements. Setback refers to the amount of land between a building and the property line.

Goss said the team was one of the best because of practice. “We were in the water at least once a week, year round,” he said.

And it responded to more than the Lewis Township calls. “We went anywhere,” Goss said, “all over in western Iowa and eastern Nebraska, even Missouri a few times as well.”

The disbanding means those calls will go to dive teams in Omaha or Red Oak, Iowa, now. “We put a lot of hard work into this. Had a lot of fundraisers – pancake feeds, spaghetti dinners, auctions, to raise money for equipment and such,” Goss said. “I hate to see it end.”

Region's Oldest Dive Team To Disband - Space, Lack Of Calls Cited As Board Decides To Shut Down Team

http://www.ketv.com/r/25514635/detail.html
October 26, 2010 VIDEO ON SITE

COUNCIL BLUFFS, Iowa -- One of the Omaha metropolitan area’s oldest water rescue teams is disbanding. The Lewis Township Board of Trustees said it makes financial sense to shut down the Lewis Township Dive Team.

The group has been involved in search and rescue missions for nearly 40 years, but the dive team has taken less than 10 calls over the past year.

LaVerne Goss was one of the original dive team members in the late 1960s. He’s compiled a scrapbook of some of
the efforts the group has been involved in. "Well, we had a lot of success," he said. "I think that made a name for ourselves."

Lewis Township became the go-to department for nearly every water rescue or recovery operation in the region. But things have changed and the calls aren't coming as often. The team has also run out of space to keep its gear. "We checked through the county to see if we could add on to our building and they said we've just used up all the space they will allow us," said Bob Hargis, president of the Lewis Township Board of Trustees. Hargis said the dive team's trailer and boats just don't fit in the fire station anymore and the township's Fire Department needs the space for new fire vehicles. "It was a very difficult decision to make," said Hargis. "Naturally, I hate to see it come to an end, but I can see why," said Goss. "They don't get the calls they used to get."

The team will officially disband on Oct. 31. It's possible the dive team could continue its work if someone were to donate space or a new building. For now, the team intends to sell its equipment to another dive team.

PALM BEACH COUNTY, Fla. — Two Palm Beach County Fire Rescue captains were disciplined this month for their performance on the scene of the Feb. 12 car crash in rural Wellington that cost the life of 23-year-old Scott Wilson and could send polo mogul John Goodman to prison.

Captains Anthony Cinilia and Scott Bielecky supervised the emergency response to the middle-of-the-night accident.

None of the nine Fire Rescue employees found the victim's body in the car, which was upside down and partly submerged in a canal.

As Page Two first reported in March, the nine were notified soon after the crash that they were under investigation for failing to recover Wilson, who drowned. Only when the wrecker pulled out Wilson's Hyundai was his body discovered.

Goodman was charged with vehicular homicide and DUI manslaughter. Wilson's family is suing him.

County Attorney Denise Nieman declined to release the full report of the internal investigation, saying it is now part of a claims file.

Related Article: Fla. fire officials investigate missed body in canal search

Meanwhile, Cinilia, 51, an EMS captain, was issued a written warning two weeks ago for failure to perform his duty, according to employee records that the county did release.

2 fire captains disciplined in Fla. victim search —None of nine Fire Rescue employees on scene found the victim's body in a partially submerged car


11/ 05/ 2010 By Jose Lambiet The Palm Beach Post
The records say that Cinilia, a 22-year veteran with commendations for his work in a 2005 apartment fire and a 2000 commuter jet crash, failed to recognize the need to call in a dive team. He was ordered to pay "closer attention to detail" and remain "alert" on accident scenes.

The records also show higher-ups believe that even if Cinilia had called a dive team, Wilson would have died.

A written warning, said Fire Rescue Public Information Officer Don DeLucia, is the mildest form of punishment for firefighters. Bielecky, 50, a 32-year veteran, received a written reprimand, a more severe punishment just short of a suspension, for failure to perform his duty and violating department policies.

According to records, Bielecky, a diver and the first officer at the scene, entered the 60-degree water in the canal without the appropriate equipment. He was ordered to review emergency response regulations.

Cinilia didn't return a call for comment.

Said Bielecky: "We've been told not to talk about it. I wish I could, but not now. I hope to be able to call Scott Wilson's family one day to tell them we did the best we could."

FOUND ON THE WEB

Putting Teeth Into Forensic Science
http://www.sciencedaily.com/releases/2010/05/100519143405.htm
ScienceDaily (June 16, 2010)

In a large natural disaster, such as the Haitian earthquake earlier this year, or in an unsolved homicide case, knowing the birth date of an individual can guide forensic investigators to the correct identity among a large number of possible victims.

Livermore researcher Bruce Buchholz and colleagues at the Karolinska Institute are looking at victim's teeth to determine how old they are at the time of death.

Using the Lawrence Livermore's Center for Accelerator Mass Spectrometry, Buchholz determined that the radioactive carbon-14 produced by above-ground nuclear testing in the 1950s and 1960s remains in the The Forensic Teacher Online theforensicteacher.com

By using the bomb curve data from above ground nuclear weapons testing during the Cold War (inset), Lab scientists can determine a victim's birth date by examining dental enamel. (Credit Image courtesy of DOE/Lawrence Livermore National Laboratory)
In the study, 44 teeth from 41 individuals were analyzed using racemization (a chemical process in which one amino acid is converted to its counterpart) analysis of tooth crown dentin or radiocarbon analysis of enamel, and 10 of these were split and subjected to both radiocarbon and racemization analysis. Combined analysis showed that the two methods correlated well.

Carbon-14, or radiocarbon, is naturally produced by cosmic ray interactions with air and is present at low levels in the atmosphere and food. Although nuclear weapons testing was conducted at only a few locations, excess levels of $^{14}$C in the atmosphere rapidly dispersed and equalized around the globe.

Since 1963, as a result of a worldwide test ban treaty, $^{14}$C levels in the atmosphere have been decreasing exponentially with a mean half-life of 16 years. Carbon-14 levels have not decreased because of radioactive decay ($^{14}$C has a half-life of 5,730 years), but rather $^{14}$C has moved out of the atmosphere due to mixing with large marine and terrestrial carbon reservoirs.

"Because radiocarbon is incorporated into all living things, this bomb curve forms a chronometer of the past 60 years," Buchholz said.

The research appears in the May issue of the journal *Molecular & Cellular Proteomics* and is highlighted in a special issue dedicated to forensics in the journal *Surface and Interface Analysis*.

**Editor's Note:** This article is not intended to provide medical advice, diagnosis or treatment.
Package Evidence Safely
http://www.forensicmag.com/tip/package-evidence-safely

One of your biggest concerns in handling evidence at a crime scene should be safety. Find a way to secure evidence while also protecting yourself and others from dangerous objects. Package large, oddly shaped items like machetes in cardboard tubes designed for posters. Place other sharp objects like syringes, knives, and glass fragments in specially designed plastic collection tubes. If any of these items contain blood, other body fluids, tissue, etc., you must mark the outside of the package with a biohazard label.

When dealing with firearms, you must first make sure that the weapon is unloaded, cleared, and safe. The firearm should then be packed in a box specially designed to hold weapons in place. The outside package label must indicate that the weapon has been cleared. If the weapon has blood or tissue, mark the package with a biohazard label. This label is important because it will alert the lab to safety issues and will also indicate that biologic testing needs to be done before ballistic testing. Also remember that the ammunition from firearms should be packaged separately.

From: Evidence Packaging by Dick Warrington

Recovering Latent Fingerprints from Cadavers
Written by John Louis Larsen

IN A HOMICIDE CASE, the recovery of latent impressions from a body is just one more step that should be taken in the process of completing a thorough search. This article is directed at crime-scene technicians and the supervisors who support and direct evidence-recovery operations both in the field and in the controlled settings of the medical examiner's office or the morgue under the coroner's direction.

I have patterned my protocol for conducting latent-fingerprint recovery operations on a cadaver using an article by Dale Moreau, Supervisory Special Agent (SSA) of the Federal Bureau of Investigation (FBI) Forensic Science Training Unit at the FBI Academy: “Crime Scene
Search as a Process”. This protocol calls for the corpse itself to be looked at as a crime scene within the overall scene. Keeping this in mind, Moreau’s twelve-step approach works well for the overall latent-fingerprint recovery on a body. Here are the steps:

- Preparation of equipment
- Approach to the scene
- Preliminary survey
- Narrative description
- Scene photography
- Scene sketch
- Evaluation of latent-fingerprint evidence (including DNA)
- Evaluation of physical evidence
- Detailed search
- Collecting, recording, marking, and preserving evidence

Before proceeding further, I should point out that it is incumbent upon the crime-scene technician or investigative personnel responsible for the crime scene to have a good working relationship with the medical examiner or the coroner. The laws in most of the states prohibit crime-scene personnel from handling a corpse unless given specific directions by the medical examiner or coroner. To do otherwise is considered to be a criminal offense punishable by fine and imprisonment. Once permission has been obtained from the medical examiner or coroner, the following steps need to be taken to lift latent fingerprints from skin:

Step 1:
Preparation

Basic forensic supplies that should be on hand to make a fuming chamber:

- Twelve 3-ft. lengths of 0.5 in. PVC pipe
- Four 90° three-hole corner caps of 0.5 in. PVC
- Three “T” couplets of 0.5 in. PVC
- Two painters’ plastic cover sheets large enough to cover a single bed
- Scissors
- Micro-burst variable hot plate
- Some small disposable aluminum dishes for the fuming operation
- Liquid fuming agent (cyanoacrylate, such as Superglue)
- Roll of blue painters’ tape that is at least 2-in. wide
- Two 50-ft. heavy-duty electrical extension cords
- Spray bottle
- Fluorescent powder
- Semi-fluorescent powder
- Black-light lamp
- One bottle of Kodak Photo-Flo 200 solution

You will also need some equipment to conduct “pressure-transfer lifting” —a term coined by the author for easy reference. Here is that list:

- A roll of white adding-machine paper, fine grain, and 2- to 3-in. wide
- Magnetic black powder
- Magnetic wand
- Scissors
- Extra-fine retractable lead pencil
- Rifle and gun boxes

For the rest of the article  Click HERE
Medications, Drugs and Substance Abuse

http://scuba-doc.com/drugsdiv.htm
*Material provided is intended for information only and should be used only in conjunction with the advice of a physician.*

Guidelines useful in considering the relationships between drugs and diving:

Consider the condition/illness/disease for which the medication is being given. Go to our 'Fitness to Dive' web page and check to see if your condition could be dangerous underwater.

Are there any effects of the drug that alter consciousness or cause alteration in decision making ability.

Check in the linked 'Databases' below for any side effects of the drug that could be dangerous underwater.

Consider complex relationships between drugs, the individual, other medications, diet and the conditions for which the drugs are taken.

Write us if you still have a problem finding or deciding about a specific drug, condition or drug combination after using the process above.

Use these Databases to Search for Your Medication, then apply the above diving factors in your decision to dive!

Medscape Drug Search (Requires free registration)
Intelihealth Drug database
Health Touch
Drug Information Databases
Drug List
RxList of 1300 drugs

Substance Abuse
Alcohol
Kava
Diving and Drugs

LINKS
'Medications and Diving'
Bruce V. Voss, MD
Diving Medicine (Bove)
<table>
<thead>
<tr>
<th>Class of Drugs</th>
<th>Condition Adverse to Diving</th>
<th>Drug Effects Adverse to Diving</th>
<th>Other Factors Related to Diving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticoagulants</td>
<td>Various cardiovascular conditions</td>
<td>Hematomas from minor trauma, hemorrhage from barotrauma</td>
<td>Tendency to bleed from barotrauma (ears, sinuses, lungs - possibly worsens spinal DCS)</td>
</tr>
<tr>
<td>Analgesics</td>
<td>None</td>
<td>GI bleeding</td>
<td>Aspirin possibly beneficial by blocking effects of bubbles</td>
</tr>
<tr>
<td>Narcotics, Marijuana &amp; Alcohol</td>
<td>Substance Abuse</td>
<td>Decreased sensorium &amp; problem solving</td>
<td>Possible additive effect of nitrogen</td>
</tr>
<tr>
<td>Tranquillizers</td>
<td>State anxiety, panic</td>
<td>Decreased sensorium &amp; problem solving</td>
<td>Possible additive effect of nitrogen</td>
</tr>
<tr>
<td>Anti-depressants</td>
<td>Depression, mania, risk of suicide</td>
<td>Decreased sensorium &amp; problem solving</td>
<td>Risk of seizures</td>
</tr>
<tr>
<td>Decongestants &amp; Antihistamines</td>
<td>Upper respiratory infection</td>
<td>Sleepiness, nasal rebound congestion</td>
<td>Risk of ear and pulmonary barotrauma</td>
</tr>
<tr>
<td>Antacids and H2 blockers</td>
<td>Gastroesophageal reflux of ascent</td>
<td>None</td>
<td>Drugs beneficial due to effect on GERD</td>
</tr>
<tr>
<td>Motion sickness drugs Dramine (Dimenhydrinate)</td>
<td>Seasickness, dehydration</td>
<td>Sedation, loss of judgment, and aggravation of nitrogen narcosis</td>
<td>Scopolamine and Meclizine are additive (both cholinergic)</td>
</tr>
<tr>
<td>Calcium blockers</td>
<td>Hypertension</td>
<td>Postural hypotension</td>
<td>Fainting can occur.</td>
</tr>
<tr>
<td>Beta blockers</td>
<td>Hypertension Arrhythmias</td>
<td>Inability to respond to needs of stress</td>
<td>Constriction of blood vessels to hands, aggravate asthma</td>
</tr>
<tr>
<td>ACE inhibitors</td>
<td>Hypertension, heart disease</td>
<td>None</td>
<td>Produces cough &amp; airway swelling</td>
</tr>
<tr>
<td>Diuretics</td>
<td>Water and salt retention</td>
<td>Possible dehydration</td>
<td>Loss of potassium</td>
</tr>
</tbody>
</table>
*EVENTS*

Come out to a DUI DOG Rally & Demo Tour and Actually TEST DIVE DUI Drysuits, DiveWear Insulation and Accessories
http://www.dui-online.com/dog_main.html

All Public Safety Diver programs are held in conjunction with DUI DOG Rally & Demo Tour dates. In most cases, the event is held on Friday for public safety divers only with the DOG Rally event open to the general public on Saturday and Sunday.

Nov 12, 2010 Terrell, TX Clear Springs Scuba Park

UNDERWATER VEHICLES WILL TAKE CENTER STAGE

TSC’s Subsea Survey conference introduces Inspection, Repair and Maintenance (IRM) to this year’s event. Vehicle manufacturers are all beginning to introduce IRM versions of their work class ROVs designed to perform tasks in deepwater subsea fields.

But now, AUVs appear to be stepping up to the challenge of performing IRM tasks as well. Combine the two, ROV and AUV and look ahead a decade and you begin to see a new type of vehicle that may live in a subsea field performing work for months at a time. Not a new concept, but one that has yet to be implemented on this scale.

As the offshore oil and gas industry continues to drill and operate at deeper depths, extend tie-back distances, and install more remotely operated infrastructure on the seabed, IRM will become a critical challenge for the operators. Current estimates of worldwide offshore oil and gas infrastructure include 3,000 subsea wellheads, 180,000 kilometers of pipeline, and over 6,000 platforms. The high costs of vessels and their large intervention spreads may give way to new methods for performing IRM work—and a new class of underwater vehicle.

Subsea Survey IRM will host a panel to discuss The Underwater Vehicle 2020 - a Futuristic Look at IRM Operations in the Ultra-Deepwater Oilfield.

The panel, led by moderator Drew Michel, will consist of vehicle and subsea tool manufacturers, along with operators, service companies and technologists who are involved in the planning process for these subsea developments. Invited panelists include representatives from Oceaneering, Schilling Robotics, Cybernetix, Lockheed Martin, SMD, Perry Slingsby, Subsea 7, Marport Canada, ISE, DOF Subsea and others, plus guest panelist Graham Hawkes.

What do we envision?

At first this new breed of vehicle might be deployed autonomously from the surface, diving to great depths, inspecting subsea field and following pipelines from the field to the platform.

But they will need greater power to perform some tasks. So they may be reminiscent of the large workclass vehicle of today but will live on the seabed and plug into power sources provided by the subsea field. They might be cylindrical in shape or large open-frame vehicles with powerful hydraulics and manipulators. They may fly throughout the field with or without a tether. They will have state-of-the-art HD vision and lighting, laser scanning optical imaging and high-frequency imaging sonars that will send real-time information via fiber optics built into the subsea field. These so-called RUVs will be capable of depths greater than 10,000 feet, and designed to withstand months of subsea operations without surfacing. They will initiate emergency repairs as well as carry out routine inspection tasks.
The possibilities are endless, although the pre-planning and engineering required to accomplish this dream is no easy feat. But progress is being made at a fast pace with underwater vehicle, tool, software and communications pioneers producing solutions for the future today.

DEMA SHOW 2010
November 17-20 in Las Vegas, Nevada
Visit www.demashow.com to register.

November 19, 2010 - November 20, 2010
Cause and Manner of Death
Pittsburgh, PA  www.duq.edu/forensics
December 9-10, 2010

Forensic Symposium to Address Best Practices
The University of Tennessee National Forensic Academy will host a Best Practices Symposium for forensic and crime scene investigators, December 9-10 in Nashville.

The symposium, to be held at the Hilton Nashville Downtown, will allow attendees to network with other law enforcement officials while learning about the National Institute for Justice Rape Kit Backlog Initiative and the Forensic Technology Center for Excellence.

Among the speakers will be renowned forensic investigator Dr. Henry Lee. The UT National Forensic Academy is a program of the UT Law Enforcement Innovation Center headquartered in Oak Ridge, Tenn. For information: www.nfa.tennessee.edu.

January 11, 2011 - January 18, 2011
Evidence Photographer Certification
San Antonio, TX  www.evidencephotographers.com

January 16, 2011 - January 18, 2011
EPIC – Imaging USA
San Antonio, TX  www.evidencephotographers.com

The New Orleans Boat and Sportshow
From 27 Jan. 2011 to 30 Jan. 2011
New Orleans Morial Convention Center - New Orleans, LA, USA  Boat & Scuba - More information

February 8, 2011 - February 10, 2011
ACSR Annual Training Conference
Jacksonville, FL  www.acsr.org

February 21, 2011 - February 26, 2011
AAFS  Chicago, IL  www.aafs.org

If you have an event or know of an event that might be of interest to PSDiver Monthly subscribers send the information to: PSDiverMonthly@aol.com

The Skin Diver
A magazine for Skin Divers and Spearfishermen
Volume 1
December 1951

So long ago but Skin diver magazine was the definitive source of information when it came out in 1951.

Click the photo
1. When diving in a drysuit, you should always wear underwear.  
   a. True          b. False

2. Dive teams do not process crime scenes but they do process evidence. 
   a. True          b. False

3. At 66’, the air in a full aluminum 80 weighs 
   a. 1.25 pounds  
   b. 2.50 pounds  
   c. 5 pounds     
   d. Is neutral

4. A diver must refuse to dive if 
   a. the dive is dangerous  
   b. the dive is strenuous  
   c. there are only three other divers on site  
   d. the dive is beyond the divers ability.

5. Drugs that may have an effect on nitrogen in a diver’s bloodstream include 
   a. calcium  
   b. caffeine  
   c. tranquilizers  
   d. motion sickness meds.

6. In scuba courses they often teach you to do a hover upright, they can just as easily teach you how to 
   hover__________ in a drysuit. If you are trained properly diving a drysuit is no risky than using a wetsuit.  
   a. vertically  
   b. horizontally  
   c. without weights  
   d. upside down

7. If located together, a fire arm and related ammunition should be collected and stored 
   a. in zip lock bags  
   b. in paper bags  
   c. together  
   d. separately

8. Make sure drysuit zippers are lubricated. Before using, check the teeth to make sure they are in good condition and that the slider operates freely. Use only ____________ to lubricate the zippers.  
   a. silicone grease  
   b. silicone spray  
   c. petroleum based lubricants  
   d. wax lubricants

9. Divers do not need to use a BCD if they used a connected LP hose with their drysuit  
   a. True  
   b. False

10. The US Navy No Decompression limit for a dive to 60’ is  
    a. 55 minutes  
    b. 60 minutes  
    c. 65 minutes  
    d. Not used by anyone other than navy divers
Team Discussion:

1. As a team, review dive tables. Conduct dry dives that require preplanning **time and depth** as well as emergency scenarios that require **decompression tables**.

2. As a team, reevaluate your emergency procedures of an out of air, trapped diver. If possible, go to a pool and proactive the drills and modify them appropriately.

3. As a team, perform a complete inventory of ALL team dive gear. List items that need to be repaired replaced or decommissioned and take appropriate action.

4. As a team, identify three skills vital to the safety and effectiveness of your dive team. Develop a wet or dry training drill that will incorporate all three skills.

These training agencies have recognized PSDiver Monthly as a valued addition to their programs and Continuing Education requirements.

**Public Safety Diving Association** (PSDA) recognizes and approves the PSDiver CE program. Each month’s Q&A program credits 1 CEU for renewal up to a maximum of 3 CEUs from this source for each year’s renewal.

ERDI Recognizes and supports the PSDiver Monthly CE Program. Contact your ERDI Instructor for details.

**Lifesaving Resources**
Lifesaving Resources advocates the need for Public Safety and Rescue personnel to be trained in Water and Ice Rescue and recognizes the PSDiver Monthly CE Program for continuing education training and credits.

**Lifeguard Systems – TEAM LGS**

We welcome all training agencies and organizations to participate.

For details, email PSDiverMonthly@aol.com

PSDiver Monthly Issue 78 36
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>D</td>
<td>D</td>
<td>B</td>
<td>B</td>
</tr>
</tbody>
</table>

NOTES: