



**Cold Water Survival,
Hypothermia,
Rescue & Recovery**

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As you know, we've written about hypothermia many times here.* It is a subject that my son and I, members "back in the day", of a USCGAux Cold Water Team, were trained in. Recently, amongst the professional life-saving community, whispers started that we have had it all wrong, that data, from US Navy studies from the post WW-II era on "Time of Useful Consciousness" that came from molded dummies with internal brass skeletons, didn't calibrate to live testing conducted by various scientific and medical studies done in the last couple of years. Further, medical testing of the effects of cold water on the human physiology would lead one to believe that the standard "fireman's hoist**" of a stricken mariner, taught everywhere, could in fact lead to a worsening of the effects of cold water on the victim, even leading to death. This column, replacing ALL the columns I've written about this subject, is about that.

The Cold Facts - Back in August 2010, while attending the National Convention of the US Coast Guard Auxiliary in Phoenix, AZ, I attended a presentation on this topic by a Canadian organization called Cold Water Boot Camp (www.coldwaterbootcamp.com) which works in cooperation with many life saving organizations, including the US Coast Guard.

In the video part of the presentation, I saw a good friend and fellow member of US Coast Guard Forces - Mario Vittone, USCG Marine Safety Specialist and former Helicopter Rescue Swimmer Instructor - featured in the video as one of the guinea pig subjects. In the past, Mario would ping me with commentary on the aforementioned columns on hypothermia. "Vin, some of the this stuff is not lining up with the latest data. Be careful!" The problem I had was in sorting out that which was still good and that which was good to go - as it "outta here!" There was no official report to rely on. Well, not only was there now an official scientific report to rely on, but I could talk directly to one of the subjects - Mario Vittone, USCG. In fact, Mario has published a detailed article on the subject - <http://mariovittone.com/2010/10/the-truth-about-cold-water/> - which I want to acknowledge here as an underlying source document to this column.

Traditions Die Hard at Sea - It isn't easy convincing mariners that a life-time of tradition and practice is wrong. And not everything we know and practice on this subject IS wrong. Here are the facts: The first phase of cold water immersion is called the cold shock response. This we've had right and have written about before, (see SSP, "Going Down For The Third (and Last) Time", 7/15/09.) Data now shows that roughly 20% die in the first two minutes. They take on water in that first uncontrolled gasp, panic and drown, plain and simple. In some, the cold shock triggers a heart attack. Surviving this stage requires you to stay calm and get your breathing under control. If you don't, your life is measured in minutes and you won't need your other hand to count them. A further consequence of this phenomenon is that you will rapidly lose your physical capacity to swim. Even the strongest swimmer can't fight Mother Nature - your body's natural reaction to all this cold water is to protect the inner core. It does this by constricting blood flow to the outer extremities and keeping as much warm blood as possible around the inner core. We had this right too. I've described it as "being drunk without the booze." Fine motor skills go, followed by gross motor skills, followed by, well, death by drowning. You can't swim without arms and legs (*read: extremities*) working.

What we had completely wrong was this. To quote Mario Vittone directly: It is impossible to get hypothermic in cold water unless you are wearing flotation, because without flotation - you won't live long enough to become hypothermic.

This leads me to the next thing we had completely wrong - "that a 50 year old man would last 50 minutes in 50 degree water." All the timings are wrong - if you had a life-jacket on. The good news is that we last longer, far longer, before losing consciousness and ultimately reaching the point of no return.

Don't Lose Them During Rescue! One of the things we also got wrong, alluded to at the start, was how to rescue them. The presentation showed rescuers keeping the victim horizontal - not vertical, ever - while getting them into the boat! This is because of what is called post-rescue collapse. Hypothermia makes everything colder, which makes it slower and closer to the edge of collapse. The rescue itself is stressful to a fragile heart - potentially leading to cardiac arrest. They keel over right in front of you, as you haul them over the gunwales and try to get them out of wet clothes (a struggle in itself) and into dry ones. Quoting Mario Vittone again, "Until everything is warmed back up - out of the water and dry is good enough - mobility comes later."

BTW, if you are interested in being part of USCG Forces, email me at JoinUSCGAux2010@aol.com or go direct to John Blevins, who is in charge of new members matters, at FSO-PS@emcg.us and we will help you "get in this thing..."

* "Surviving Hypothermia", 2/14/07

** "Warm Air, Cold Water", 3/4/09

** "Warm Air, Cold Water, 2010", 3/3/10

** With two rescuers, one with each arm of the victim, would "bob" the stricken mariner up and down, "1-2-3 and HEAVE in" and use some the natural buoyancy of the human body to help the rescuers get the person out of the water, over the gunwales and into the boat.



■ by TONY SALERNO

FISHING WITH TONY

LOTS OF WIND EQUATES TO LOTS OF BASS

For most anglers gusty winds comes with disappointment as many planned fishing trips are either postponed or canceled usually due to rough seas or churned bay waters. However, for another clan of anglers, gusty or even gale force winds comes with open arms and rightfully so as striped bass will usually feed quite aggressively during wind storms.

This phenomenon will usually occur where gusty winds and strong tidal currents clash, creating choppy seas or breakers, which always occur along all the shallow sandy shoals just outside all the south shore inlets. In logic, strong gusty winds create great force against seawater. What occurs is as the force of the winds press against the oceans surface, it creates great wave effects, which move in either direction of inshore or offshore. Gusty winds out of the east, northeast and southeast are inshore winds and once these waves hit the shallow waters such as the sand bars just outside all of the south shore inlets, these great forces smacks the beaches hard creating large chops and breakers. At the same time, an myriad of baitfish get pushed onto the bars and shoals creating a feeding frenzy with stripers among these spots as well as along the beaches.

Anglers tossing plugs, tins or live bait into the breakers are often rewarded with plenty of bass action with some trophy fish in the mix. Let it be known that this style of fishing is not for everyone. If you are a boater that lacks the experience of navigating through rough water chops and breakers, then I strongly suggest you sail with someone who does have experience or hire a charter boat that specializes in such feats as this style of angling takes much skill and knowledge to catch fish safely.

Whichever route you may go, let it be known that the striped bass action has been on fire at every inlet along the south shore. Outside Fire Island Inlet has been especially hot on the West Bar with fresh clams at anchor during an outgoing tide during the daylight hours, while switching to eels after dark will keep the bass chewing. Along the bars and breakers outside Moriches and Shinnecock Inlets, it's been surface plugs and poppers as well as live spot that have been doing the job during the day, while eels dominate the night bite as well. The bite is on and should stay that way for at least another month. However now is the time to go out and play, but remember, always think safety first.



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