

# **UNDERWATER** *Journal*

A Diving Adventure Magazine

## **Fiji: Beyond Expectations, Within Reach**

**Making Sense of Side-Mount  
Off the Jersey Shore  
A Manatee Haven**

**Chicago: Downtown Diving  
DAN: Getting Your First  
Aid Kit Together**

This publication is  
underwritten in part by:



**Issue 25- 2012**

Explore, Discover, Challenge



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Clownfish cover by Walt Stearns  
Pair of Fijian orange-finned anemonefish (*Amphirion chrysopterus*) nestle together in the center of their host anemone. Image captured with Nikon F3 equipped with a 55mm Micro lens and Kodachrome 25 film with camera settings at 90sec/f11 and lighting provided by a pair of Sea & Sea YS-200 strobes at full power. **Nothing like old school.**

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“I have simply never seen a place as beautiful as Wakatobi. Each day I would wake up, look at the palms, the crystal clear sea and the golden-white beaches and think that this had to be the most beautiful place on the planet.”

- Duncan Zillman, Sept. 2011



# Making Sense of Side-mount

## Understanding the Reasons Why Divers Wear Tanks on the Flank

Photos and story by Walt Stearns

In the past few years, there's been a growing interest in side-mount diving – the practice of wearing tanks on the side of a diver's body rather than on the back. Side-mounting is not new; cave divers have used various versions of this configuration for more than 20 years to wriggle into small spaces. What is new is the migration of this gear configuration into the broader diving community.

Skeptics dismiss the expansion of side-mounting as just the latest fad for tech wannabes, but advocates insist that there are uses for the system that go beyond accessing underground crevices. Before discussing potential applications, and practicalities, it's helpful to look at how side-mounting originated, and how it has since evolved.



Copyright © Walt Stearns 2012

## Into Small Spaces

According to Dive Rite owner Lamar Hires, who's been involved in side-mount diving for more than 20 years, this gear configuration was devised by second generation cave explorers in the 1980s. "The pioneers had already pushed a lot of the systems as far as possible with back-mounted tanks," he recalls. "side-mounting gave us access to smaller caves and going passages beyond restrictions."

Woody Jasper became one of the early proponents of the side-mount technique, which originally involved modifying jacket-style BCs by adding waist-level attachment points and inner tube slings. Though far from perfect, this system provided the lower profile needed for tight passages, and also allowed the diver to quickly remove and reattach tanks – a technique sometimes needed to access truly small passages.

*Cave diving pioneer, Lamar Hires using sidemount moves freely through narrow passages of North Florida's underground cave systems.*



Photo © Jill Heinerth  
IntoThePlanet.com

## Refining the Design

The first major improvement to the side-mount rig came with the development of harness systems such as the Dive Rite TransPac. Replacing the jacket BC with a adjustable harness and modular air cell provided a more secure, adjustable foundation for mounting hardware, and streamlined the back profile by reducing potential snag points. Unlike converted jacket BCs, which tied lift to jacket size, a system such as the TransPac allowed divers to start with a properly sized harness, then select the appropriate wing to match lift capacity to the diving mission.

On these second-generation rigs, the primary load-bearing attachment point for tanks remained at the hip. Instead of inner tube sections, purpose-made bungees were used to secure tank valves, but aside from this material change, the basic configuration remained unchanged. Various pin-and-receiver style mounting systems were developed for the waist connection. The intention of such fasteners was to facilitate the quick

removal and replacement of don tanks, but ultimately most users returned to some type of clip attachment at waist level that was less prone to failure at inopportune moments.

As divers began to push cave exploration to new lengths, it became apparent that, while effective, this waist-and-chest mounted tanks configuration was not particularly streamlined. Even when tanks were tucked snugly into bungee loops, they tended to angle upward, often resting at a 45-degree angle along the diver's flank. Cave Explorer Brett Hemphill



is generally credited with the next evolution of the side-mount rig: moving the lower mounting point from a waist or hip belt to a "butt plate" as illustrated in this sidemount harness manufactured by Hollis Gear, which sits below the small of the back.

This modification allowed the tanks to rest almost parallel to the diver's body, creating a cleaner and more streamlined overall position.

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## From The Top



One of the latest innovation in side-mounting hardware – and one that is still not universally adopted – involves the replacement of the upper bungee sling with a ring-and-clip attachment point. Miami-based diver, Howard Packard is thought to be the one to first develop and use this system, with Lamar Hires to first incorporate it into the Nomad harness.

Securing the top of the tank into a more fixed attachment point further streamlines a side-mount rig. It also provides some logistical benefits that were not obvious until side-mount came out of the caves. This became obvious as divers started using side-mount rigs aboard dive boats, especially when tanks were passed to a diver once in the water.

“I’ve seen diver’s struggle to attach a side-mounted tank bottom-first, and then try to slip the bungee loop

over the neck,” Hires says. “If it doesn’t go smoothly, the tank may pivot down and hang upside down from the bottom clip before the diver can get it in place.” On a rig that includes a top clip and mounting ring, the diver can first attach the tanks at the top, he says. The bottom clip can then be attached with greater ease, or the diver could move away from the staging area to make final adjustments. Another advantage of using upper mounting rings is the ability to accommodate different sized tanks without making adjustments to the rig, as would be the case with simpler bungee loops. Tanks that are clipped rather than looped in place typically provide more protection for valves and regulators, leaving valves to run either the inside or outside of the body.

Also noteworthy is the Profile system, which was



developed by Bill Routh, and marketed by OMS. The heart of this system is a tough fabric shroud that attaches over the wings of a traditional backplate-and-harness system, allowing divers an economical way to convert existing double-tank rigs to side-mount rigs. This system becomes even more streamlined when used with wings that incorporate elastic retention bands, as a simple re-rigging of mid-section retention bands pulls the wing in and down as it is inflated.

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## Side Benefits

Having addressed the specifics of configuration and rigging, the broader question remains: why would anyone who is not diving in small spaces want to move to side-mounted tanks? For some, the answer is as simple as comfort. Divers who find the weight of back-mounted double tanks uncomfortable – or who can no longer shoulder the load due to back problems – have found relief in side-mount systems that allow them to don and remove tanks on the swim platform or while in the water. Some wreck divers have adopted side-mounting for the same reasons the system is used in caves, though tank management can be somewhat more challenging on the deck of a crowded or moving boat than on the banks of sinkhole. In some cases, critics of the system have accused side-mount proponents of simply giving in to the latest gear trend with no clear reason for the switch.

Regardless of one's opinion on the practicalities of side-mounting in open water, the trend has taken hold, and

boat operators are working or accommodate these systems. "We'll get side-mount divers on our boats from time to time," says George Purifoy of Olympus Dive Center. "We don't discriminate against them, but it can be more difficult to get side-mount divers on and off the boat, and passing tanks up and down isn't always an option. New-Jersey-based wreck diver Dave Oldham is less favorable of side-mount systems aboard boats. He feels the system is somewhat of a fad, and is ultimately not well suited to the realities of the type of open ocean diving practiced on the Eastern Seaboard.

At the other end of the spectrum, Routh, who is the owner of Lake Jocassee Dive Shop, has gone completely to side-mount when performing trimix dives in South Carolina's deepest lake. His methods involve clipping tanks to overboard downlines for in-water donning and removal – something that is much easier to accomplish from the broad deck of a pontoon boat operating in calm lake waters rather than in the ocean.



## Practical Applications

While opinions differ regarding the practicality of side-mount systems for primary gas supplies, it's generally accepted that a properly-rigged tank worn at the side provides a more streamlined and more-easily-accessed alternative to back-mounted pony or deco bottles. And the ability to quickly and easily transfer side-mounted tanks from diver to diver provides safety advantages in advanced diving scenarios.

Perhaps the true beneficiaries of new side-mount techniques are rebreather divers. Off-board

gas supplies and bail-out bottles are an important component of most all closed-circuit diving systems. Technical divers have actually been attaching additional tanks to BCs and web harnesses for years – a practice known as staging. But, like early forms of the side-mount rig, traditional stage bottles often present a less streamlined profile, as attachment points were at the waist and a chest-mounted D-ring. By adopting the rigging techniques of a modern side-mount system, both open and closed circuit divers can now tuck deco, travel and bailout gas supplies closer to the body.

The key to a streamlined, user-friendly side-mount system lies in the details, and especially the finer points of clip and strap routing and placement. And as side-mount rigs continue to evolve, there will undoubtedly be more innovations and design refinements. Rather than attempt to cover all such details in a single article, we will continue to revisit the subject in the months to come, providing more detailed information on the specifics of a gear system that will likely continue to gain in popularity and practicality as divers continue to expand their diving horizons. ❖

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# TDI



## Dive Rite's New XT Tech

*For those who follow the philosophy "less is more" Dive Rite now offers a more tech version of their famous TransPac, the XT Tech.*

Some of the design changes include removal of the shoulder buckles in favor of a continuous piece of webbing that runs from the shoulder pivot plate, down and through a set of stainless slides on the lower back exiting as a waist belt. Very close to what you would see in a basic harness and back plate. The pack itself is made of 1000 denier ballistic nylon for maximum tear and abrasion resistance, with stainless steel hardware and grommet mounting holes in the back for the installation of doubles or rebreather.

While maintaining its soft pack origins, the XT also incorporates several properties of a true mountaineer's backpack with the addition of high-tech, specially molded contour shape foam lumbar pad that conforms in all the right places on the diver's back.

Designed for use with any of Dive Rite's newer wings in their XT and EXP line up, the XT Tech's dual cam straps have been slightly repositioned to give plenty of head room for easy maneuvering in the water. Together with XT's chest-support strap and removable 1.5-inch crotch strap provides outstanding stability and comfort in the water.



Furthermore, the transition plates at the shoulders still allow for quick addition/deletion of hardware.

Neutrally buoyant in water, the XT packs flat for travel weighing less than 5 lbs (2.29kg) dry, featuring a mesh airflow channels for instant draining topside, which also doubles as a lift-bag sleeve with an integrated pocket.

Additional to these features, it is also among the few dive harnesses made in the U.S.A.

To find out more about the XT Tech and other Dive Rite products, visit [www.diverite.com](http://www.diverite.com)

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*Almost no one would think of New Jersey as a dive destination.  
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# *Off the Jersey Shore*

*If we take a look at what we might be  
missing, we could be pleasantly surprised.*

*Story and photos  
by Herb Segars*

## He Swims with the Fishes

Herb Segars has been a photographer for more than thirty years - specializing in nature, wildlife, scenics, boating and travel photography, with an emphasis on the eastern coast of the United States and tropical locations in the Caribbean. He is a fellow in the Explorer's Club, and his work has appeared in Geo, BBC Wildlife, National Geographic, National Geographic World, Natural History, National Wildlife, Newsweek, Ranger Rick, Smithsonian, The World and I, Outdoor America and many other national and international publications.

A resident of Brick, New Jersey, and a scuba diver since 1981, Herb's his favorite area for underwater photography is the Atlantic coastline of the Northeastern United States. Along with wife Veronica, Herb has spent countless hours viewing and photographing the area's local shipwrecks and marine life.

## Veronica M Tugboat (Preceding Page)

On November 10, 2004, the former McAllister tug, Captain Bill, was sunk on the Axel Carlson Artificial Reef off Bay Head, New Jersey, in 75 feet of water. The site has been renamed the Veronica M after Veronica Segars, my wife. The Veronica M was built in 1950 at the Jacobson Shipyards in Oyster Bay, Long Island, New York. It is 100 feet long with a 27-foot beam and a draft of 12 feet. It has a gross tonnage of 199 tons and could reach a top speed of 12 knots.



Blue Mussels



Black Sea Bass

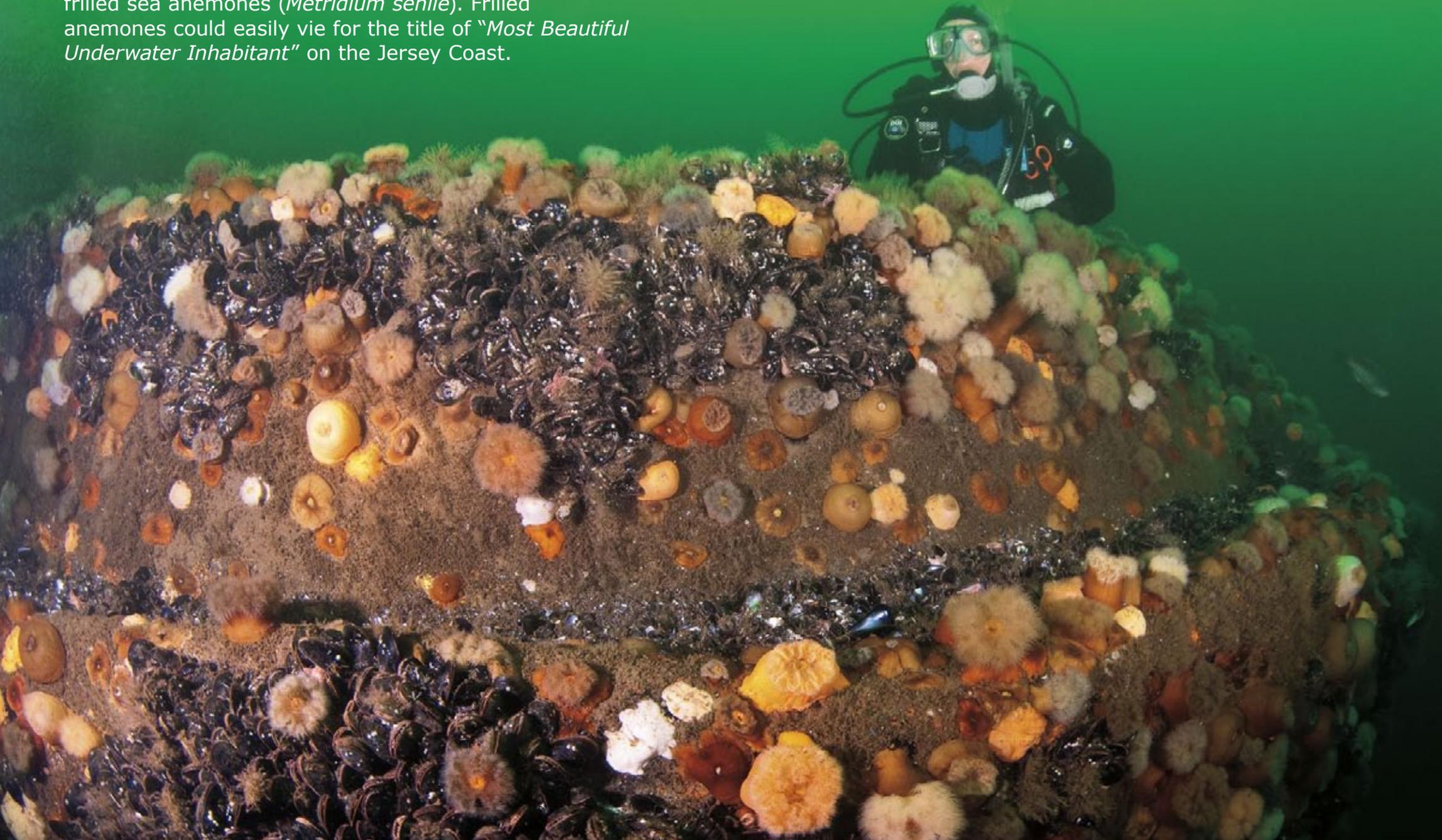
Like all artificial reef sites, the Veronica M is the home to vast quantities of blue mussels, frilled anemones, sea stars, blackfish (tautog), cunner, and black sea bass (pictured above), so this is a good place to begin my tour to life off the New Jersey Shore.

## Blue Mussels

Blue mussels (*Mytilus edulis*), are a common site on pier dock support columns and wrecks of the Jersey coast. These mollusks attach themselves to substrates with tiny thread-like mooring lines called byssal threads. At the end of each of these threads is a tuft of adhesive, which sticks to a substrate when wet. To move, mussels cast threads in their intended direction of travel, release those holding in the opposite direction and pull themselves along. This is an extremely slow method of locomotion. It may be the primary reason that mussels do not stray very far.

## Frilled Anemones

Competing with the mussels for space on many of the wrecks located off the coast are the flowerlike frilled sea anemones (*Metridium senile*). Frilled anemones could easily vie for the title of "Most Beautiful Underwater Inhabitant" on the Jersey Coast.





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Color variations include white, cream, brown, and gold. Frilled anemones get their name from the great number of tentacles situated around the anemone's central disk. Large specimens can possess up to one-thousand tentacles. Frilled anemones are the most common anemone along the New Jersey coast, making their homes on shipwrecks and artificial reefs as well as in inlets and rivers.



*Frilled Anemones*



## North American Lobster

The most popular member of the nook-and-cranny family is the North American lobster (*Homarus americanus*). Many know this lobster as the Maine lobster. Many also have the misconception that all clawed lobsters come from Maine.

In reality, the North American lobster is found from Labrador to Virginia. They reach a length of 3 feet and a weight of 45 pounds. They are harvested commercially throughout much of their range. They back into their hole with claws facing outward. These claws

are their armament against enemies. The larger of the claws is called the "crusher" and it is aptly named. The smaller claw is the "feeder" or "ripper" claw. It is used as its name implies.

The lobster's early warning system is chemical receptors on the lobster's antennae and body that sample the water, detecting scents and chemicals given off by other underwater inhabitants. The lobster then uses its antennae to touch and positively identify the underwater intruder.



## North American Lobster Eggs

Identifying a lobster's sex is easy. Turn the lobster over and look at the first set of swimmerets, where the tail meets the body. If the swimmerets are hard and bony, the lobster is a male. A female's swimmerets are soft and feathery. Female lobsters carry their eggs on the underside of their tails. This is the first area that a lobster-hunting scuba diver or commercial lobsterman checks. Females with eggs must be released.



## Sea Raven

The sea raven (*Hemitripterus americanus*), is difficult to spot when it is perched on a shipwreck or artificial reef. Its camouflage is extremely effective. The sea raven's body color varies from red, reddish-purple, and yellow-brown to chocolate. The belly of the fish is yellow, and the body colors may be solid or mottled. It reaches a length of about 2 feet and a weight of seven pounds. The red members of the species are very drab when viewed underwater because of the filtering effect of the water column. Shining an underwater light onto the sea raven or lighting it with an underwater flash reveals the pretty red color.

A real oddity in the waters off the New Jersey/ New York coast is the strikingly colorful yellow sea raven. Its color is so bright that it seems out of place in a somewhat drab environment.

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It is said a goosefish can swallow a fish equal to its own weight. Its mouth encompasses 180 degrees of the fish's head, making it look not only very menacing, but giving it the means to do so. Its method of hunting is by burying itself in the sand, where it extends a "fishing lure" appendage on its head, and waits for a meal to take the bait.

On a dive on the Keel Wreck off Manasquan, New Jersey, I encountered a 3-foot-long goosefish lying underneath the highest portion of the wreckage. I was surprised to watch it catch a black sea bass.

As I watched, the goosefish pushed itself up onto the two little fins that protrude from the underside of its belly, opened its mouth, and ate the black sea bass.

I continued to lie there and watch this odd-looking fish to see what might happen next. A few minutes later, it rose up again, opened its mouth and appeared to belch. I laughed so hard, my regulator almost fell out of my mouth.

## Goosefish (Monkfish)

The goosefish (*Lophius americanus*), also known as the monkfish, headfish, and allmouth fish is the most aggressive sand dweller of the North Atlantic. Goosefish are found from Maine down to North Florida and can reach a length of 4 feet.

One thing that is for certain, they have an enormous appetite and will eat almost any kind of fish or invertebrate, with one of its favorites being the North American lobster. There has even documentation that their diet even includes young sea turtles to even sea birds on occasion.





## Ocean Sunfish on the Mohawk

The Mohawk was a 387-foot Clyde-Mallory Lines passenger liner (sailing under the Ward Lines) that sank off the coast of New Jersey in 1935 after colliding with the Norwegian freighter Talisman. There were forty-five casualties. An ocean sunfish, *Mola mola*, swims over the wreckage of the Mohawk. It lies in 75-80 feet of water off Mantoloking, New Jersey.

One would not think that large open ocean nomads would come calling on a wreck, but they do on occasion as I found during a dive on the Mohawk when a large ocean sunfish gave me a flyby.

The ocean sunfish (*Mola mola*) is an odd-looking fish whose tail seems to have been cut off with a chain saw. It has a pectoral fin shaped like a shark's, and often is mistaken for a shark. The pectoral fin is not as rigid as the sharks and sort of flops from side to side as the ocean sunfish swims near the surface. They have extremely thick skins, which provide a home for forty species of parasites, some of which are parasites of other parasites. Ocean sunfish feed on algae, squid, jellyfish, comb jellies, Portuguese men-of-war, soft-bodied pelagic invertebrates, and larval fishes.

Their favorite food is the moon jellyfish. Their diets may not seem nutritious, but they may be the growth kings of the ocean.

An ocean sunfish larva begins its growth at a size of one tenth of an inch and reaches an adult size



of over 10 feet in length, a height from the tip of the anal fin to the tip of the dorsal fin of 11.25 feet.

The average adult weight of a sunfish is 2,200 lbs./1,000 kg, and are able to hit a top weight of 4,400 lbs./ 1995.8 kg, making it the heaviest boney fish in the world.



## Blue Shark

Blue sharks (*Prionace glauca*), are also found off the coast of New Jersey, although to see them, you have to go pretty far offshore and then put out a chum slick to attract them. To get my blue shark photos, I traveled to Rhode Island and took a trip with Captain Charlie Donilon on the Snappa. We were about twenty-four miles off the coast when we were joined by five blue sharks that spent almost two hours making us feel really inadequate in the water.

## Leatherback Turtle

The leatherback turtle (*Dermochelys coriacea*), is an incredible sight to behold on the surface. Seeing one underwater is extraordinary. Although they are found off the coast of New Jersey, my underwater sighting occurred off the coast of Cape Hatteras, North Carolina. Leatherback turtles reach a length of 84 inches and weigh between 600 and 1600 pounds. Their range includes the Atlantic and Pacific oceans, mostly in tropical waters, but they do travel as far north as Newfoundland and British Columbia during the summer months. The leatherback turtle is a critically endangered species.



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### Lined Seahorse

Encounters with large marine animals are the most dramatic, but encounters with small members of the marine community can be equally rewarding. Seaweed and kelp floating on the ocean's surface provide a haven for a wide variety of marine life. Here is where you are likely to find the lined seahorse (*Hippocampus erectus*). The lined seahorse reaches a height of 6 inches and is found from Canada to Argentina, including the Gulf of Mexico. The lined seahorse swims erect, its head pointed sharply downward and its tail curled.



## Naked Sea Butterfly

It's the beginning of October and the surface-water temperature has dropped from the mid-70s to the low 60s. The water column is still filled with various species of jellyfish, gastropods, and colonial hydrozoans. Ovate jellies have diminished in number, while the angled hydromedusae population has increased. Angled hydromedusae look very much like the white cross hydromedusa but have up to 80 tentacles, each with a sharp bend at the end and a microscopic sucker at the angle. The population of many-ribbed hydromedusae is still abundant.

One of the more beautiful species seen is the naked sea butterfly (*Clione limacina*). It is an opaque gastropod. It has a slug-like body with a pair of wing-like appendages at its front end. Naked sea butterflies reach a length of 1 inch and are found from the Arctic south to Delaware Bay. ❖



To view more of Herb Segars images visit his website at: [www.gotosnapshot.com](http://www.gotosnapshot.com) – which has more than 20,000 photos – many of which are underwater images taken off the northeastern coast of the US.



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# Blue Springs, Deland, Florida Collisions

## A Manatee Haven with a Glimpse into the Aquifer

*by Pierce Hoover*

*Photos by Walt Stearns*

**T**he state of Florida is pockmarked with sinkholes, flooded caves and artesian springs. Of the numerous springs that are available to the diving public, Blue Springs State Park remains a favorite, as it offers relatively easy access and a unique underwater adventure.





**T**here are a number of water sources in the state that bear the name Blue Springs. This one is located near the town of Deland, which is about half way between Orlando and Daytona Beach. Here, a fissure in the limestone substrate allows ground-water to well up to the surface and flow down a short spring run to mingle with the tannic flow of the St. John's River.

### **Thanks, Jacques**

Now rich in natural beauty, Blue Springs has a history of human impact. Native Americans built Middens, steamboats landed, settlers settled, a fish camp once occupied the river bluff, and generations of Floridians fished and frolicked in the spring waters – too often leaving behind the detritus of their good times in the form of submerged trash and shore erosion.

Through all these human changes, another population of large mammals continued to frequent the spring. The St. Johns River is home to a significant population of West Indian Manatees. These slow-moving vegetarians forage the river through the warmer months, then seek shelter in the consistent 72-degree waters of Blue Spring when river water is chilled by winter cold fronts.

Historically, interactions between humans and manatee didn't end well – at least for the manatee. As Florida's human population swelled, collisions with boats, propeller injuries and habitat degradation all took a toll on the manatee population. In 1971, Jacques Cousteau and his crew arrived to film the plight of the local manatee population. Before filming began, they spent three days cleaning beer cans from the run. The resulting film, *The Forgotten Mermaids*, sparked a movement that eventually led to the acquisition of the land by the state, and the establishment of a park and a manatee refuge.





## Occupy Blue Springs

Today, the balance of spring ownership has shifted in favor of the manatees. The lower portion of the spring run is permanently off limits to boat traffic, swimmers and divers, and in winter months, this area may draw as many as 300 manatee. Human aquatic activity is limited to the upper portions of the run and to the warmer months. Scuba diving in particular is prohibited from November 15 to March 1, but available to certified divers the remainder of the year.

Blue Springs is one of the state's more popular parks. Its proximity to two

major tourism hubs ensures a steady stream of visitors in winter months, when resting manatee draw crowds to the shore-side observation platforms. Summer weekends also pack the park to capacity, but these crowds tend to focus on swimming, drifting the upper spring run with inner tubes and grilling things in the adjacent picnic areas.

When the human count reaches capacity, the park rangers put a hold on the front gate, and on popular weekends, it's not uncommon to find a line of idling cars at the park entrance, awaiting their turn to enter when another group leaves.

To avoid delays or a shut-out, divers should arrive early, at or even slightly before the park's 8 am opening time. Identify yourself as a diver, and the gate attendant will direct you to an adjacent parking lane where you can stop long enough to walk to the office window and fill out the obligatory paperwork. Scuba divers are required to show proof of certification. An added benefit of an early arrival is a better chance at a prime parking spot and a jump on the mid-day heat and afternoon thunderstorms that are common in Florida's summer months.



The actual entry point for divers and swimmers branches off 100 feet before the spring overlook, providing a ramp and secure stairs for final gear checks and water entry. Once in the water, divers still have a bit more legwork to complete to reach the point of submersion. Rather than don fins and attempt to swim up-current in the shallow run, most savvy divers grab their fin straps and wade up the right-hand side of the waterway, rounding the bend and then pausing on one of the fallen logs near the spring head to don fins and make final adjustments before taking the plunge.



## Walk Before You Swim

Getting to the water in dive gear will require a bit of effort, but boardwalks, stairs and railings make the process safe and relatively easy. A properly-fitted BC will ease the 300-yard hike from parking lot to entry point. Divers begin their exploration by staging at the first parking lot, adjacent to the concession building and swimming area. From there, a raised boardwalk runs some 200 yards to an overlook above the spring basin. Upon arrival, first-time divers might want to take this walk and have a good look at the spring from above, then return to gear up.

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## Into the Aquifer

The waters of Blue Spring actually display a bit of a green tinge, and overall clarity is not quite as high as some of the North Florida springs. The actual spring vent is a vertical cleft in the limestone that pumps out more than 100 million gallons of ground water each day.

The strength of the flow can vary somewhat based on seasonal rainfall, but is typically strong enough to require a solid kick to descend.

It's usually a good idea to add a couple extra pounds of ballast to the belt, but significant overweighting isn't needed or recommended.

The central shaft is oval to teardrop shaped, and softer layers of limestone have eroded to create a series of scalloped ledges and chambers. The shaft continues vertically to a depth of about 80 feet, then angles downward to a terminal room at 125 feet. Even on sunny days, most light is lost in the 60 to 70 foot range, and it's here you will find a warning sign that proclaims "Prevent Your Death, Go No Further" - an ominous but familiar sight to anyone who has dove Florida's popular caverns. These signs serve as notice that the diver is transitioning from an open water environment to a cavern or cave environment - aka an "overhead environment."

Certified cave and cavern divers are permitted to carry lights in Blue Springs. Open water divers are not. This simple exclusion all but eliminates any chance of becoming lost in the "underground labyrinth," - though this isn't actually a reality within the single tunnel of Blue Springs. More important is monitoring depth and ascent rates, as an unskilled or inattentive diver could easily be propelled towards the surface by the outflowing current.



## An Easy Plan

The typical dive plan at Blue Springs involves a controlled descent to the 60 or 70-foot twilight, then a slow, methodical exploration of the various side chambers and ledges on the ascent. Even a leisurely exploration of the shaft's middle levels will leave most divers with ample air reserves by the time they return to the 15-foot ledge for a safety stop. There are typically one or more logs spanning the upper opening of the shaft, and while these present minimal entanglement hazard, divers should look up and watch for them on ascent to avoid bumping heads.



After surfacing, divers can use their remaining air to explore the spring run. Rather than disembarking on the boardwalk stairs, most divers drift in the 3 to 5-foot deep run, ending up in the swimming area, where they can mount a broader stairway that is a much shorter walk to the parking lot. Nearby showers and bathrooms make cleanup easy, though there's not much need to rinse gear after it's been soaking in fresh spring water.



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## **Gearing Up**

Water temperatures are a consistent 72 degrees. Air temps average from crisp 50-degree mornings in March or November, to a more typical 80-degree mornings in summer that escalate into the 90s by noon. Many divers can get by with a 3mm suit for a single dive, but a hood or a bit more rubber might help cooler-blooded divers stay in a bit longer to enjoy the downstream drift. Open water divers may not carry lights, solo diving is not permitted, and above all do not go beyond the sign at the bottom of the main shaft. Surface markers and diver down flags are likewise unnecessary. It's usually a good idea to carry only what you need in the water when traversing the boardwalk, unless you have a non-diving support person to watch and retrieve those items.



## Blue Spring State Park

Blue Spring State Park covers more than 2,600 acres, including the largest spring on the St. Johns River. For centuries, the spring area was home to Native Americans. In 1766 it was visited by Colonial American botanist John Bartram, but it was not until 1856 that it was settled by Louis Thursby and his family. The Thursby house, built in 1872, remains standing.

Blue Spring is a designated Manatee Refuge and the winter home to a growing population of West Indian Manatees. The spring and spring run are closed during Manatee season, mid-November through March. Swimming or diving with manatees is not permitted; this rule is strictly enforced.

In addition to diving and snorkeling the spring, the river it feeds into is a popular spot for fishing, canoeing, and boating. River boat tours are available; for reservations, call St. Johns River Cruises at (386) 917-0724.

## Getting to the Park

Blue Spring State Park is located in Orange City (just south of Deland), roughly halfway between Daytona Beach and Orlando.

The most direct route is take interstate highway I-4, which connects Daytona Beach with Orlando to Exit 114 and then follow the signs around to E. Graves Ave all the way to where it meets US 17-92. At the intersection, go north on US 17-92 to West French Avenue where you then make the turn and follow it to the Park's entrance at 2100 W. French Avenue, Orange City, Florida 32763, a few miles down the road.

The park has plenty of picnic areas and a hiking trail. For overnight stays, air-conditioned cabins, and a full-facility campground are available. This is a very popular park on weekends. To ensure entrance into the park, we recommend arriving early; otherwise, the parking area will be full and you may not be able to enter. ❖

***To find out more about the park visit:***

**[floridastateparks.org](http://floridastateparks.org)** and

**[www.en.wikipedia.org/wiki/Midden](http://www.en.wikipedia.org/wiki/Midden)**

**[www.floridastateparks.org/bluespring](http://www.floridastateparks.org/bluespring)**

**[www.nature-talk.com/locations/](http://www.nature-talk.com/locations/)**

**[florida/blue-spring-state-park/](http://florida/blue-spring-state-park/)**

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This is Fiji, a dream destination for divers. And as more visitors are discovering each year, this is one dream that can come true. There are many reasons why a Fiji dive vacation is more affordable and achievable than you might think. Here are just a few:

**EASY ACCESS** – Unlike many Indo-Pacific destinations, Fiji is easy to reach from North America, with daily non-stop flights from Hawaii and California and easy connections from the International Airport on Viti Levu to outlying island destinations.

**EXCELLENT VALUE** – With resorts in all price ranges and all-inclusive packages that provide flights, accommodations and diving, Fiji delivers great value for the dollar. Many divers are surprised to discover that a Fiji dive vacation costs just a bit more than a mid to upper-end Caribbean destination.



**VACATION DIVERSITY** – In addition to world-class diving, the Islands of Fiji offer idyllic topside scenery, cultural adventures and a wide range of land and watersports activities. These factors combine to create an environment that is ideal for divers traveling with families or non-diving partners.



**SOCIAL AND SECURE** – Fijians are world-renowned for their warmth and hospitality. Visitors are treated as honored guests, smiles are genuine, and friendships are forged at traditional kava ceremonies and lovo feasts.

# Vitu Levu

## Northern Exposure



Traditionally, the northern coast of Fiji's largest island, Viti Levu, did not attract the same interest from divers as did sites to the south and on other islands. This oversight has become a thing of the past as a growing number of divers are discovering the world-class diving opportunities to be found at the island's northern tip. Along the shores of the Rakiraki district lies an undersea garden known to locals as the Ra Waters; it is a realm of dramatic reefs and pinnacles that hold rich populations of marine life. Several established dive resorts serve this region, but there are still many miles of untouched reefs awaiting discovery. New sites continue to be explored and added to the dive roster each year. Another exciting opportunity awaits offshore, as operators have recently invested in larger boats capable of ferrying divers into the Bligh Waters, which contains some of the healthiest and untouched reefs in Fiji. Once the exclusive playground of liveboards, the Bligh Waters are swept by nutrient-rich currents that nurture a bountiful food chain, providing fish watchers and underwater photographers an opportunity to engage every

manner of creature from macro subjects to outsized pelagics. Because every flight to and from the Fijian Islands stops at nearby Nadi International, divers bound for other destinations in Fiji can easily add a few days to their itinerary to experience the unfolding opportunities in the Rakiraki district.

Wananavu Beach Resort and Dive Wananavu offers access to Vatu-i-Ra dive sites as well as spectacular local dive sites. Stunning views over the Bligh Waters are visible from the main lodge and many bungalows situated on a tropically landscaped hillside. All "bures" are air-conditioned, and most offer indoor/outdoor showers. A small beach is available as well as a fresh water pool with waterfall. Fijian entertainment is offered regularly including "kava" ceremonies and a weekly "lovo" feast and "meke" dance performance. Dive Wananavu is right on site offering daily boat dives as well as shore diving. Nitrox is also now available for certified divers. Trips out to Vatu-i-Ra are offered regularly (weather depending).

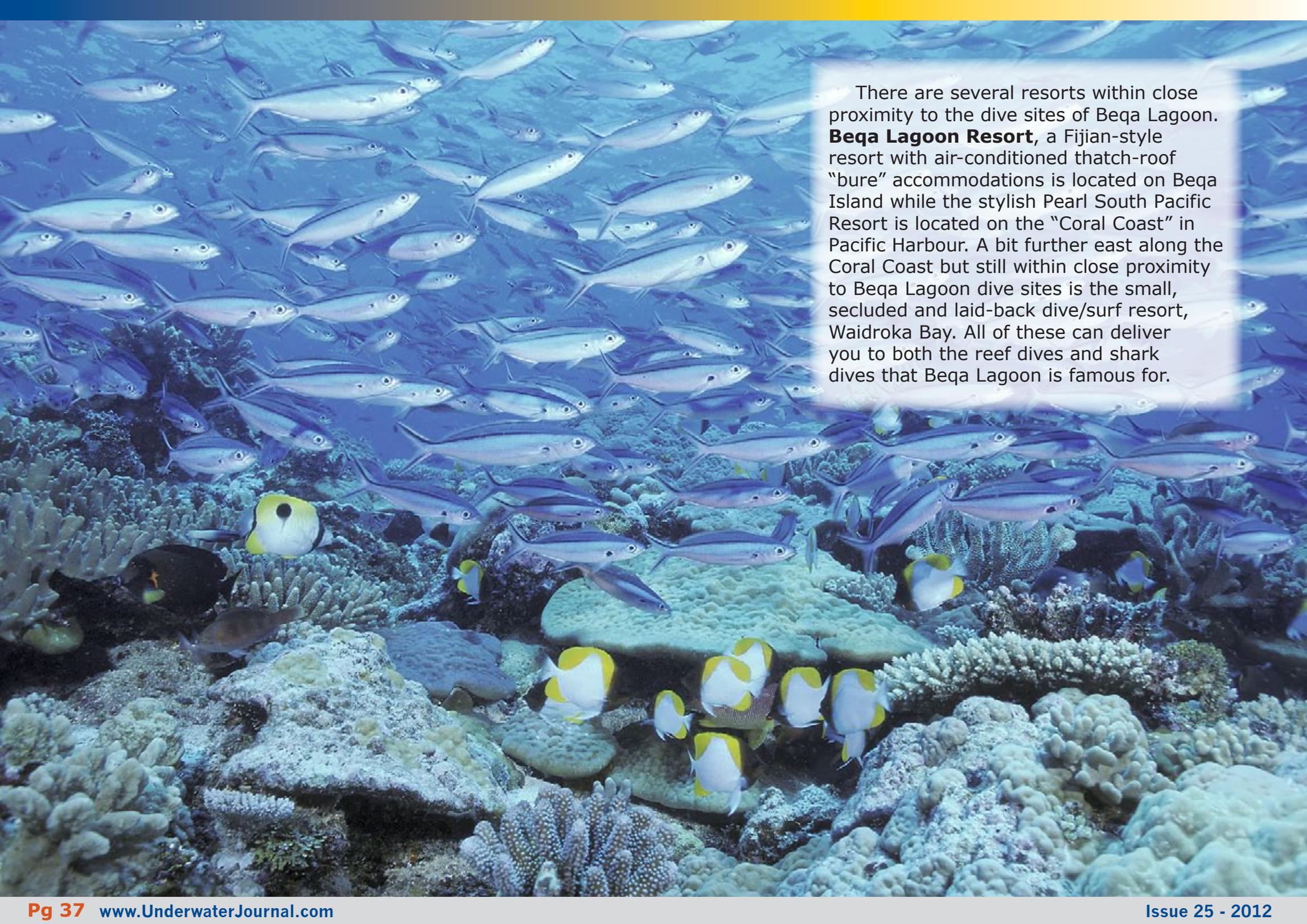


# Beqa Lagoon

## Return to Mecca

With no need for connecting flights, Viti Levu's Coral Coast offers a wide variety of resort options. Divers typically direct their attention to the east, where operations based around Pacific Harbor or on the small nearby island of Beqa provide access to the famous sites of Beqa Lagoon. Once known as "The Mecca of Pacific Diving," the expansive yet sheltered waters of the lagoon remain a favorite destination where divers can sample more than 100 named sites and enjoy a varied underwater topography that includes fringing reefs, bommies, pinnacles and several wrecks. The lagoon is also home to one of the most famous shark dives in the world. Visitors to the Shark Reef Marine Reserve are immersed in a controlled feeding that attracts as many as eight species of shark to the table, along with large numbers of jacks, snapper and grouper. On any given day, divers may encounter bull, lemon, silvertip, gray reef, whitetip, blacktip and tawny nurse sharks, and majestic tiger sharks are also known to make an appearance. Ashore, Viti Levu's southern coast offers a full range of resort amenities and cultural experiences, along with natural attractions such as waterfall and cave tours and excursions on the Sigatoka and Navua rivers.

*Continued on page 37*



There are several resorts within close proximity to the dive sites of Beqa Lagoon. **Beqa Lagoon Resort**, a Fijian-style resort with air-conditioned thatch-roof "bure" accommodations is located on Beqa Island while the stylish Pearl South Pacific Resort is located on the "Coral Coast" in Pacific Harbour. A bit further east along the Coral Coast but still within close proximity to Beqa Lagoon dive sites is the small, secluded and laid-back dive/surf resort, Waidroka Bay. All of these can deliver you to both the reef dives and shark dives that Beqa Lagoon is famous for.

# Savusavu

## Diving Diversity

Fiji's second largest island – Vanua Levu – provides a smorgasbord of underwater adventures. Resort and diving activities center around the village of Savusavu, on the island's southern coast. Here, divers will find a submerged playground of reefs, walls and caves, all decorated with every manner of hard and soft coral and populated by a diverse assortment of reef dwellers and open water species. The sheltered waters of Savusavu Bay provide benign conditions, while the rich waters of the Somosomo Strait and Namena Marine Park (accessible on extended day trips out of Savusavu) provide a more adrenaline-pumping experience in healthy currents. Divers can search for small stuff on shallow coral heads, explore hidden grottoes and swim throughs at sites such as Canyons and Shark Alley, soar over precipitous drops at Jacksons or Hole in the Wall or join the fray at Barracuda Point, where massive schools of the site's namesake fish are sometimes joined by cruising hammerheads and passing pelagics. Favorite surface intervals include sea kayaking in the bay, snorkel tours of the pearl factory and a soak in Savusavu's hot springs.



The uber-luxurious Namale Resort & Spa, owned by inspirational life coach Tony Robbins, is located on 325 stunning acres of oceanfront just outside of Savusavu and is the perfect place for the ultimate dive vacation indulgence. Closer to the village of Savusavu, the Koro Sun Resort and Rainforest Spa offers spacious bures and villas (some partially over water). Also in Savusavu is the Jean Michel Cousteau Fiji Island Resort which specializes in both romantic and family vacations. All of these Savusavu resorts have top-notch dive operations right on site as well as luxurious spas and an amazing array of topside adventure activities.

# Taveuni

## Soft Coral Splendor

Fiji has been called the Soft Coral Capital of the World, and nowhere is this moniker more justified than in the waters of the Somosomo Strait, which runs between the islands of Vanua Levu and Taveuni. Liveaboards and land-based resorts on Taveuni provide access to famous sites such as Rainbow Reef and the Great White Wall, where divers can ride currents that typically envelop rather than overpower, and glide over reefs festooned with rich carpets of corals in a pallet of pink, yellow and brown. The Strait attracts both reef dwellers and passing pelagics, and there's always a chance for sharks and rays at sites such as the Zoo. Taveuni-bound divers can also explore the northern sites near the adjacent islands of Qamea and Matagi, where only a few dive operations visit providing a truly "exclusive" diving experience. Ashore, Fiji's third largest island delights with its rugged volcanic terrain, nature preserves, waterfalls and an inland lake. Many visitors find that Taveuni – often referred to as the Garden Island – provides an ideal blend of civilized comforts and natural attractions.





**Paradise Taveuni** is a boutique resort on the southern end of Taveuni offering traditional Fijian thatch-roof "bures" or "vales" (some with air-conditioning), all with outdoor shower and Jacuzzi and a house reef for shore diving right out front. For a private island experience easily accessible via speedboat from the north shore of Taveuni, Qamea Resort & Spa is situated on a stunning palm-fringed white sand beach and offers luxury "bures" and villas.





# Kadavu – A World Apart

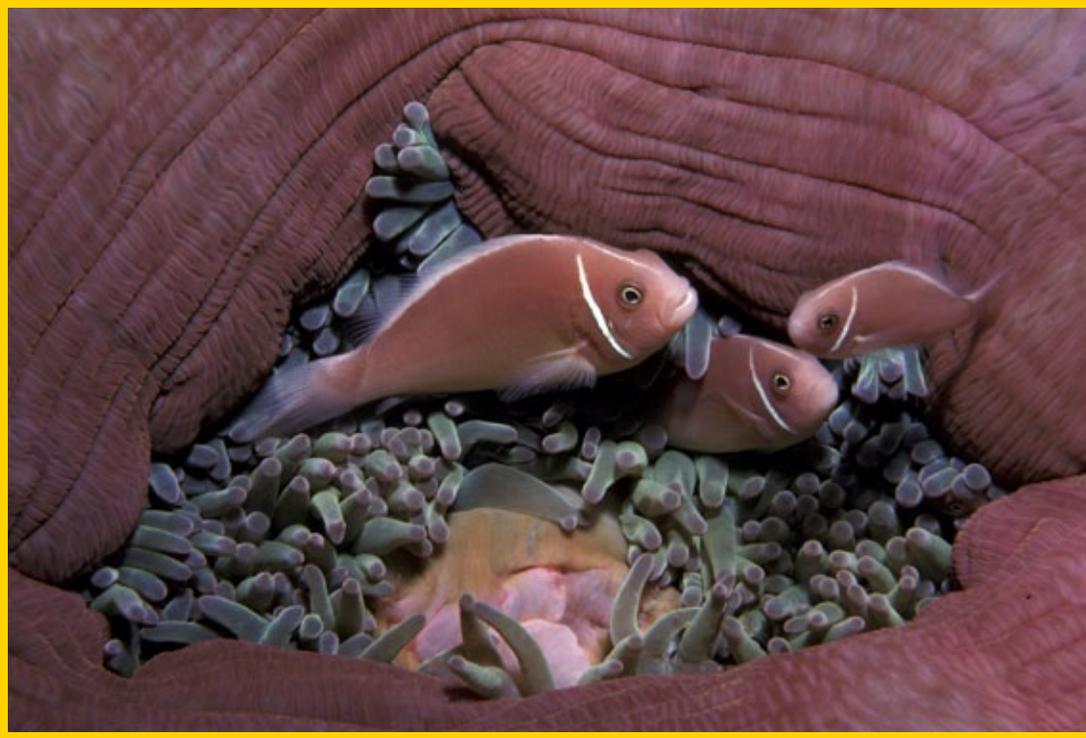
A half-hour connecting flight from Nadi International brings you to a place where nature takes center stage. Few roads mar Kadavu's lush green landscape, and most of the quiet resorts tucked into the pristine coastline are accessed by boat rather than automobile. Nature lovers are drawn here for eco adventures ranging for bird watching and hiking to sea kayaking and big game fishing. Divers have the added incentive of the world-renowned Great Astrolabe Reef – the planet's fourth-longest barrier reef. Stretching some 60 miles along the south and east coast of the island, Astrolabe offers a wide variety of underwater environments that include hard coral slopes, submerged pinnacles, manta ray cleaning stations and precipices festooned with rich carpets of colorful soft corals. In recent years, divers are also discovering a rich bounty of life on Kadavu's fringing reefs. Namalate and Tavuki Reefs to the north, and South Sea Reef to the south are rich in a diversity of fish life and provide benign conditions with minimal currents and typically calm seas.





**Matava Eco Resort** has won numerous awards for its highly successful and sustainable practices and operations. Tucked into a jungle environment along a beautiful stretch of the Kadavu coastline, Matava offers visitors an incredible vacation experience while maintaining an admirably low impact on the environment.

Their dive operation, **Mad Fish Dive Center**, is equally impressive having earned Fiji's first Project Aware Environmental Award.



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ISLAND EXPOSURE

# Downtown Diving

## Chicago's Waterfront Has Something for Wreck Enthusiasts and Relic Hunters Alike

Though not generally known as a wreck-diving mecca, southern Lake Michigan offers enough historic shipwrecks to keep Chicago-area divers busy though the warmer months. There are more than two dozen accessible wrecks within range of the city's waterfront, some little more than debris fields, but others that remain largely intact.

"This is the shallower end of the lake, so most of our wrecks are within recreational limits – anywhere from 30 to 100 feet," says Mike Pedersen, operations manager for Dive Right In Scuba. "It's a good place to cut your teeth on lake diving, and some tech divers from our area will build their skills on local wrecks before heading up north to the deep stuff."

*Southern Lake Michigan is a good place to cut your teeth on lake diving.*





In addition to wrecks, the Chicago waterfront offers a unique diving opportunity for artifact hunters at a site known as the Caissons. After the Great Chicago Fire of 1871, a sand-bottom area some 200 yards east of today's Navy Pier provided a dumping ground for debris and relics of the disaster. Today, this site provides divers with endless hours of relic hunting and the possibility of unearthing historical keepsakes.

"It's not uncommon to find vintage bottles, and one diver found a dozen old handguns that were probably dumped by the police," Pedersen says. One of his favorite finds to come out of the Caissons debris field was an antique shotgun dating to the time of the Great Fire. This artifact is now on display at Dive Right in Scuba.

"The great thing about the Caissons is that it's a quick, easy dive that anyone can do," Pedersen says. Depths are in the 30-foot range, and it's right off the Pier." Despite it's proximity to shore, the site does require a boat for access, he says, and charter operators often offer single- or two-tank afternoon excursions to the site after completing morning wreck dive trips.

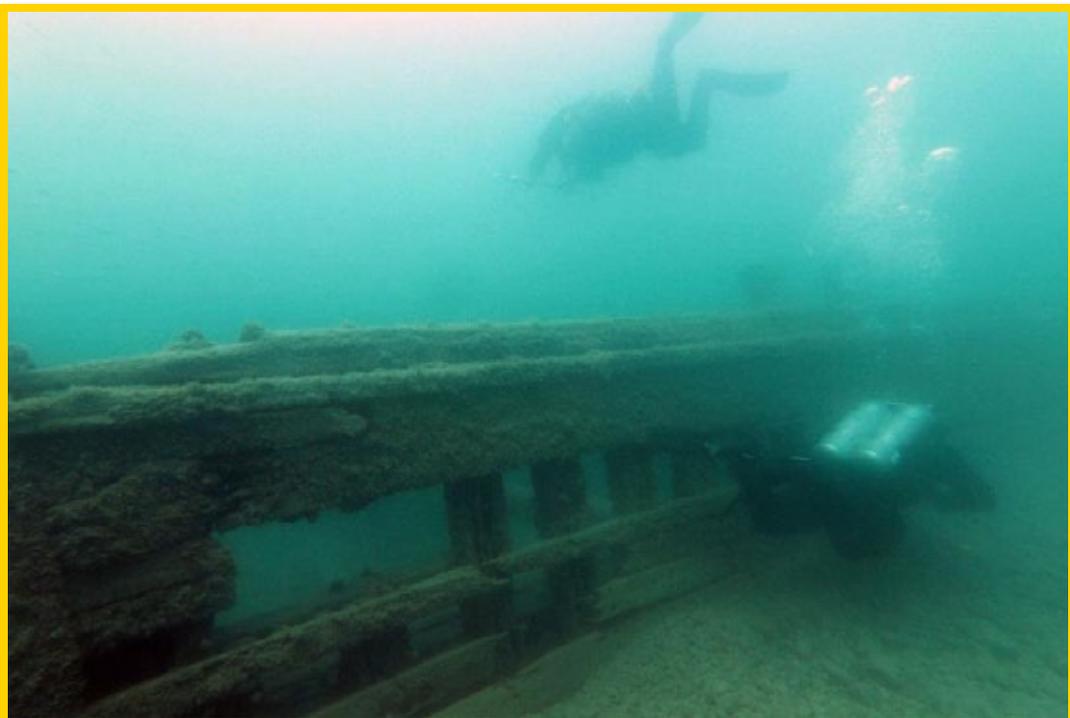
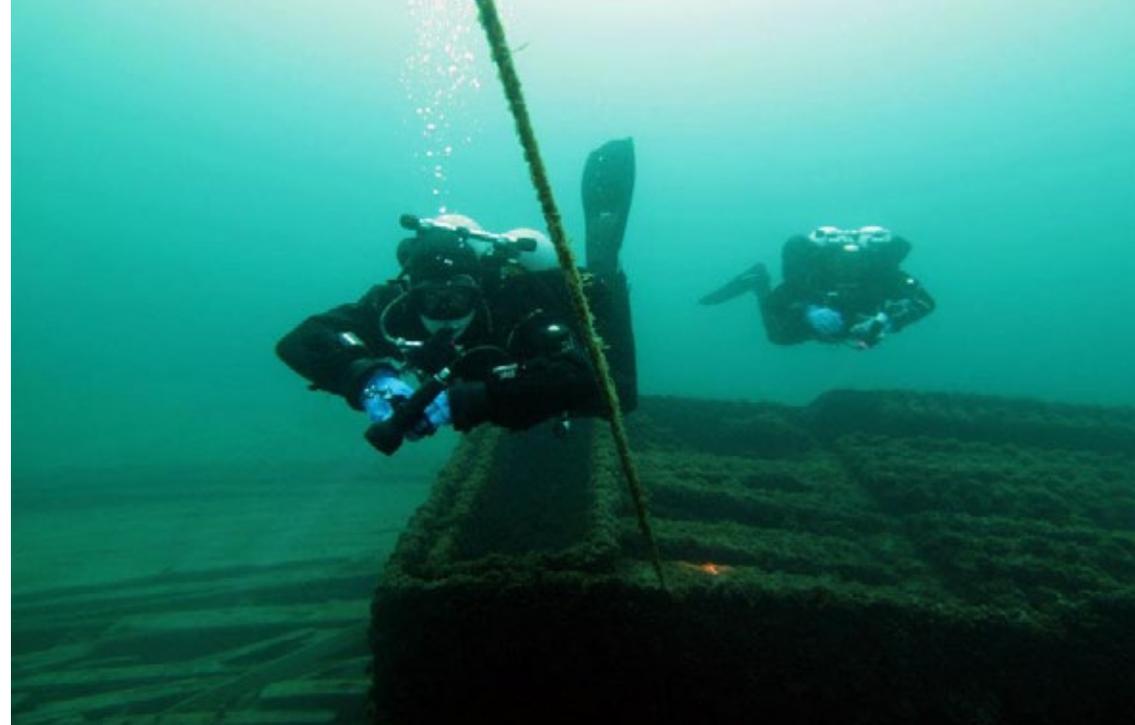


"If you are really wanting to log some serious bottom time, you could do a two-tank wreck trip, then come in for two more dives on the Caissons," Pedersen says.

Several operators offer charters in the Chicago area, and Dive Rite In Scuba is putting their own twin-engine boat into service for the 2012 season. Summer weekends typically fill up well in advance, so reservations are suggested.

### Local Conditions:

Chicago's local diving season typically runs from May through October, with water temperatures ranging from the mid 40s to highs in the mid 70s. Water clarity is somewhat dependent on wind strength and direction and can range from 40 to as much as 100 feet during early summer. ❖



### Charter Resources

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[divechicago.com](http://divechicago.com)

[windycitydiving.net](http://windycitydiving.net)  
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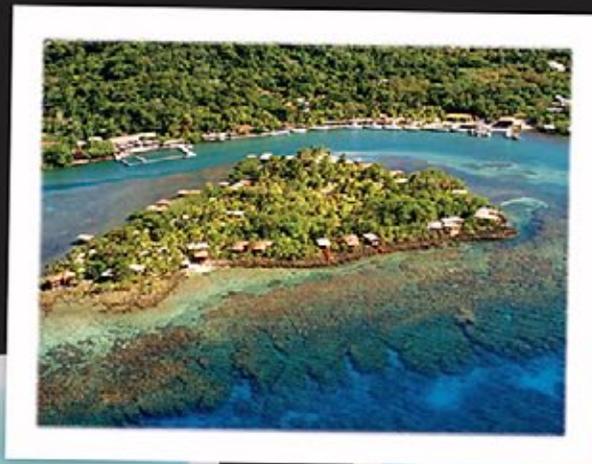
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# Getting Your Kit Together

## Tips on How to Assemble an Effective Diver's First Aid Kit

First aid kits are considered a necessity for any outdoor activity. An excellent place to start is with a commercially assembled kit. Manufacturers consult with experts who are active in their respective sports and activities to design kits specifically for sports like hiking, boating and diving; this helps to develop high-quality kits designed with the intended use and environment in mind.

### Begin with the Basics

The more hostile the potential environment, the more weather resistant the kit needs to be. The containers in which a kit is contained should be well suited to the potential environment and the needs of the individual. For hikers, portability is a major consideration, while divers should consider water-resistant construction an essential. Increasingly, commercial kits use clear, compartmentalized internal pockets or pouches to categorize the contents, making them easier to find in an emergency.

Once you have a pre-made kit, you can customize it for more specific needs. For example, if you are hiking you probably want to include extra supplies to manage blisters. If diving in the ocean, you may want to include vinegar and extra instant hot packs for marine life stings. The size and contents of a first aid kit should reflect the number of people in the party, their level of medical training, the length of the trip and the environment.



There are a few items that are a welcome addition to any first aid kit:

- Small flashlight or penlight
- Writing implement
- Notepad or information slate
- Stopwatch or similar device for documenting vital signs (a watch with a second hand is suitable)

### Protect Yourself

Personal protection equipment should be an essential part of any complete kit. The simplest and most effective items are gloves. Non-latex gloves are recommended due to the number of individuals reporting latex allergies. Gloves protect both parties. As a caregiver you do not want to infect a wound or be at risk yourself. The use of gloves is almost expected and using them provides a sense of authority to the caregiver and can increase the patient's confidence.

## Soft Tissue Injury Management

The most common injuries are those to soft tissue, and they can occur in any environment. The primary first aid goal is to control bleeding. This is usually accomplished with direct pressure. To do so, you will need an ample supply of gauze pads or similar absorbent dressings. Some kits contain products designed specifically to help clot and control serious bleeding, though these items can be added later if desired. Once bleeding is under control, wounds must be cleaned. Scrubbing the area around a wound with soap or antiseptic wipes helps keep bacteria on the skin from contaminating the wound. The soap can be the same deodorant or antibacterial soap you would use at home. Irrigation with a stream of water from a syringe is the best way to minimize the risk of infection and to remove debris or contaminants from the wound.

After wounds are cleaned they must be kept covered. As a point of clarification, dressings are applied directly to the wound to cover it; bandaging is used to secure the dressings in place. Wounds must be redressed regularly, so pack shears for bandage removal and plenty of dressing materials. This should include additional gauze pads, gauze rolls and a variety of commercially available "non-stick" dressings. Another product very good for securing dressings is rolls of Coban® which is used often by veterinarians. Water-resistant tape is also a worthwhile item to include. Any topical antibiotic cream should be applied over the wound to help prevent infection. For small wounds, ready-made adhesive strips (Band-Aids®) are often the best to apply.

## Securing Musculoskeletal Injuries

Musculoskeletal injuries are also common. They are best treated with a mechanism to provide support, limit movement and provide padding and protection to the affected area. A common device used to limit movement is a splint. Commercially made splints are made from a variety of materials. Improvised splints can also be fashioned easily from materials on hand such as fins, rolled magazines, towels and even heavy cardboard. Most commercial kits include triangular bandages or cravats. These are some of the most versatile tools you can have. They can be used as slings, secure splints, bandaging, wash cloths and more. For less severe musculoskeletal injuries an elastic wrap can be used to provide support and serve as a reminder to limit the use of the affected area.

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## Medication Considerations

First aid kits should include some basic medications, though you should never administer any medication without proper training and checking for allergies. Some basic medications useful to include are pain relievers such as aspirin, ibuprofen or acetaminophen. If your trip will take you offshore you may want to consider having over-the-counter seasickness medications available. A common complaint when traveling is "traveler's diarrhea." Medications such as Loperamide are useful and can help reduce fluid loss. If any pain, fever or diarrhea does not resolve easily or is severe, seek medical assistance as soon as possible. If you have prescription medications, be sure to pack those as well.

## Inspect Your Kit

Prior to any trip make sure you inspect your first aid kit thoroughly. This is the opportunity to restock any depleted supplies and to become reacquainted with the contents and their location. Check medications to see if they are past their expiration dates and replace as needed. If you have a supply of sterile gauze pads and rolls, inspect them to see if the packaging is discolored, damaged or in any way compromised. If there is any doubt, replace them. Too often our first aid kits are kept in the car trunk, gear bag or other places that are not highly visible. With routine inspection they will less likely be an afterthought and, instead be truly valuable items that can skillfully be put to use when needed.

## Seek the Proper Training

Having the proper equipment to handle an emergency is one thing, but having the knowledge to manage and treat injuries on the scene is another. DAN offers several courses to equip divers with the skills needed to manage diving injuries, such as **Basic Life Support** and **First Aid, First Aid for Hazardous Marine Life Injuries, Oxygen First Aid for Scuba Diving Injuries** and **Diving Emergency Management Provider Program**. Visit [www.DAN.org](http://www.DAN.org) to learn more about how you can enhance your dive safety skills and knowledge.

For more information about assembling, customizing and maintaining your first aid kit visit [www.AlertDiver.com](http://www.AlertDiver.com). ❖



**Divers Alert Network (DAN)** is a nonprofit organization dedicated to the safety and health of scuba divers. DAN operates a **24-hour Emergency Hotline (+1-919-684-9111)** to help divers in need of medical emergency assistance for diving or non-diving incidents.

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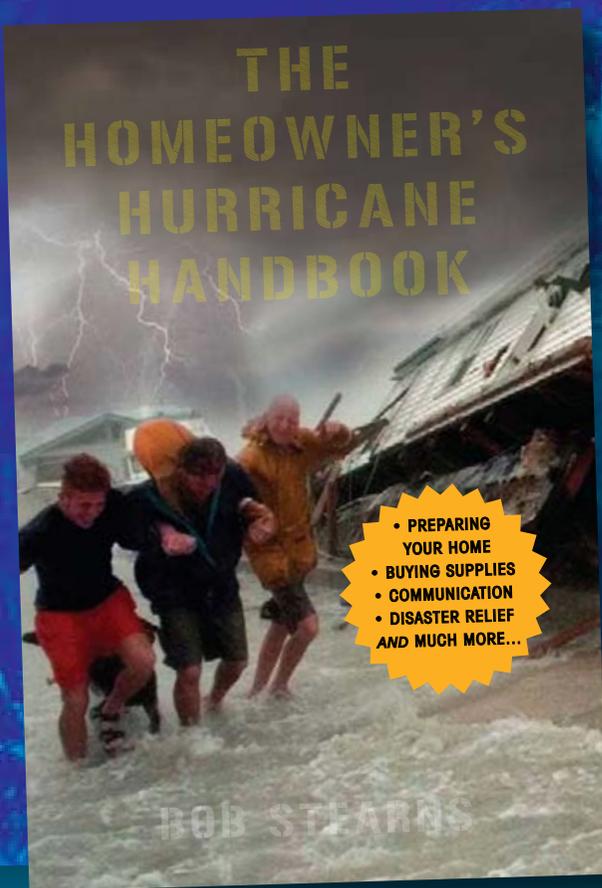
# Air Scare

**T**his story took place many years ago. I was in my early 20s, and most of my diving involved spearfishing off Florida's east coast, with the occasional vacation trip to the Keys. My buddies and I were hard-core, testosterone-filled underwater hunters, and we'd spend almost every summer weekend taking our center console offshore to hit small limestone ledges in the 80 to 90-foot range. It was demanding – we'd dive solo from a live boat, usually with low viz, a current and the occasional bull shark sniffing around the catch bags. The newer guys in our group learned from the veterans, who had developed a number of techniques and practices not found in any dive manual. Being young and cocky, we assumed that mastery of these local conditions meant we were world-class divers, able to handle anything.

In July of that year, we loaded the cockpit of a 38-foot sport fisherman with tanks and beverages and headed for the Bahamas. For two weeks we fished and dove our way from Walker's Cay down through the Abacos, then back to West End. This was the pre-computer era, but we didn't spend a lot of time worrying about the tables, because most of our dives were on reefs in the 40 to 50 foot range.

Honestly, I wasn't exactly sure of the depths, because I didn't have a working depth gauge at that point. Mine had crapped out the previous season, and I hadn't felt the need to replace it promptly. In home waters, we'd just drop to the sand on the 75-foot ledge or the 90-foot ledge. With these square profiles, all you really needed was a cheap dive watch to know when to come up – which in my case usually coincided with the 1,000 psi mark on the pressure gauge. Not PC by agency standards, but it worked for me.





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I also got away with this sort of admittedly irresponsible form of dive planning during our Bahamas vacation – right up until the final day of the trip. After leaving West End, we decided to make one more dive before heading back to Florida. We anchored on the edge of Little Bahama Bank in 50 feet of water, strapped on our last full tanks and rolled overboard. I followed the reef downward to a coral-covered outcropping that went vertical, then undercut. After a few minutes spent searching in the shadows at the base of this formation, I caught a glimpse of a familiar profile – a huge gag grouper. As I closed in, the fish angled deeper. I followed out onto the sediment slope below.

Back home, the typically low viz created dark conditions on the bottom. Here, the clear water transmitted more light, and even at a depth that must have been at least 100 feet, things looked pretty bright and inviting. I kept swimming after that fish.

Something startled the grouper. When it disappeared, I finally took note of my surroundings. Below was darkness, above was a very long slope that angled upward a long way before fading into a blue haze. I was deep, really deep. This concept took a few moments to register and a few more to translate into action. After ascending a bit, my head seemed to clear, as if a fog was lifting.

Then the regulator got stingy.

A belated check of the pressure gauge confirmed the problem: I was out of air, and still a long way from the surface.

Oddly enough, there was no sense of panic, and this might be why I'm still alive to tell the story. I sucked one final lung full of air from the mouthpiece, and continued a determined but controlled swim for the surface. Just before the point where the need for air turned into stomach convulsions, I saw one of my buddies swimming down toward me, with octopus held at the ready. We met and shared air, though by then he was also down to a final few hundred PSI. After ascending to 10 feet, we hovered until his tank was sucked dry, which wasn't a long time. At the transom, the guys striped my gear and had me float in the water for a few minutes, then lay in the cockpit and do deep breathing.

Based on what they remembered of the site, we figured I'd started my chase around the 110-foot mark and followed the grouper down at least another hundred feet. The entire dive lasted just over 25 minutes, but not knowing the actual depths involved, it was impossible to tell how severely I might have violated the tables. All I could do was wait for the dreaded symptoms of a hit.

Several nervous hours later, it seemed like I'd managed to dodge the DCS bullet, and as that anxiety faded, I had more time to contemplate the stupidity of my actions. I was a victim of my own bad habits and overblown beliefs in my abilities. Back home, I'd been diving the same profile for so long that I'd become complacent with regards to time and depth. You'd need a shovel to get beyond the 90-foot mark on most of our sites. Additionally, I was so used to bottom times in the 20 to 25 minute range that my brain didn't register the relationship between greater depths and shorter dive time. The clear water must have added a false sense of security, further lulling my numbed senses. For despite all my accrued bottom time, I was unaccustomed to depths below 100 feet and had clearly been narked. Back in Florida, I invested in a new depth gauge and started paying more attention to the tables. ❖

## Share Your Confessions

*Do you have an underwater adventure – or mis-adventure you'd like to share? Send us a story and we promise we won't judge, but we might publish it.*

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# To the Rescue

by Kair Keller

## *A Trip To Italy Provides an Opportunity for Wounded British Veterans to Perfect Their Diving Skills*

Five members of the British Limbless Ex-Servicemen's Association (BLESMA) recently earned PADI Rescue Diver certification during a five-day course staged in the waters of Italy's Gulf of Naples. These former soldiers were part of a team of 10 divers – 9 BLESMA members and a PADI instructor – who traveled to Italy for training, where they were hosted by the British community in Naples and the staff of the Centro Sub Campi Flegrei. After completing Emergency First Response training and completing classroom portions of the PADI Rescue Diver Course, participants then used the Campi Flegrei base in the town of Pozzuoli as a staging point for the in-water exercises.



*Kair Keller (fifth from left) with BLESMA divers*

*Kair Keller started diving in the lakes of northern Germany in 1999. She is now a Master Instructor with PADI. Since 2007 Kair has been a permanent member of staff at Centro Sub Campi Flegrei, a 5\* IDC Diving Center located near Naples, Italy. This particular training course with BLESMA is a project for disabled and blind divers initiated last year to become active in 2012 as part of Centro Sub Campi Flegrei's 20-year anniversary. The group, having attained their Rescue Diver status, concluded their visit in unique fashion by diving amongst Roman ruins, home of numerous statues and mosaics, within the underwater Archaeology Park of Baiae.*



The diving center's beachfront location allowed students to put all their theory into practice against the scenic and historic backdrop of a coastal region known as the Phlegraean Fields, an area rich in both volcanic features and submerged cultural heritage. In addition to an intense but ultimately rewarding training program, the BLESMA team enjoyed a number of social events with the local community.

The Centro Sub Campi Flegrei is one of Italy's premier dive tourism and training centers, with two shorefront locations that provide shore diving access to the Underwater Archeology Park of Baiae, as well as boat service to sites along the islands of Ischia, Procida and Capri. Guided services provided by the center allow divers to tour the 2000-year-old sunken city of Baiae. The Center also offers a full range of PADI, CMAS and PTA courses, and a range of services and support that includes nitrox and trimix fills. To learn more, visit: [www.centrosubcampiflegrei.it](http://www.centrosubcampiflegrei.it) ❖



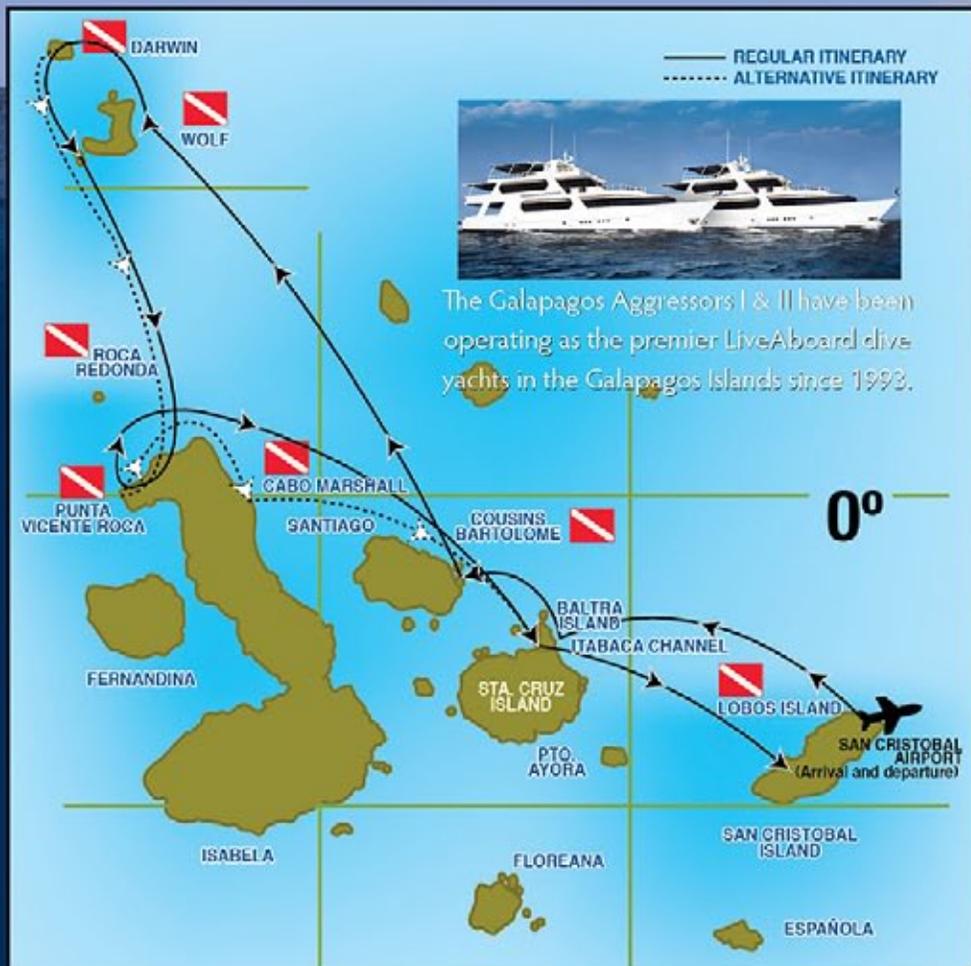
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**A group of white-tip  
reef sharks stretch out on  
one of Roca Partida's tiny  
shelves for a mid-day nap.**

Camera info: Nikon D200 and Tokina 10-17mm lens at 12mm inside a Subal housing  
Settings: RAW, ISO 200, at 125/sec. at f5.6, lighting by pair of Sea & Sea YS-120 at half power

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