



*A Diver's Paradise*  
**Bonaire**

Text and photos by JP Bresser



Bonaire

The small island of Bonaire is part of the island group called the Dutch Caribbean and is located in the southern part of the Caribbean Sea near the coast of Venezuela. Bonaire is formed by volcanic rock about 60 million years ago and later covered with coral stone. These processes created a landscape with hills in the northwest, terraces in the middle and flatland in the south.

The first inhabitants of Bonaire were Caiquetio Indians who reached the

island from Venezuela about 1000 A.D. On the east coast of Bonaire, remains of these Indians can still be found in the form of rock paintings. In 1499, the Spanish claimed Bonaire. Because there was no gold or other precious metal on the island and because the conditions meant no agricultural possibilities, the Spanish decided not to build a colony. The local Indians were captured and brought away as slaves to work on plantations in South America. In 1526, the Spanish brought cattle to the island, which is the main reason you can encounter donkeys and goats in the wild. In 1633, the Dutch conquered Bonaire from the Spanish and brought slaves to the island to work in salt extraction; the slaves lived in very small huts (about two meters high),





which can still be found near the seashore in the southern part of the island.

Bonaire is 40 kilometers in length and 12 kilometers wide and today has a population of around 14,500. The official language is Dutch. About 75 percent of the locals speak Papiamentu, which is a mix of Dutch, Spanish and Portuguese; but also English and Spanish are widely spoken. The main resources of income on the Island are salt extraction, which is done in the south of the island in an environmentally friendly way, and of course, tourism. Bonaire is well known for its underwater parks and popular with divers worldwide, so it is not surprising that all the license plates of the cars in Bonaire state: "Divers paradise".

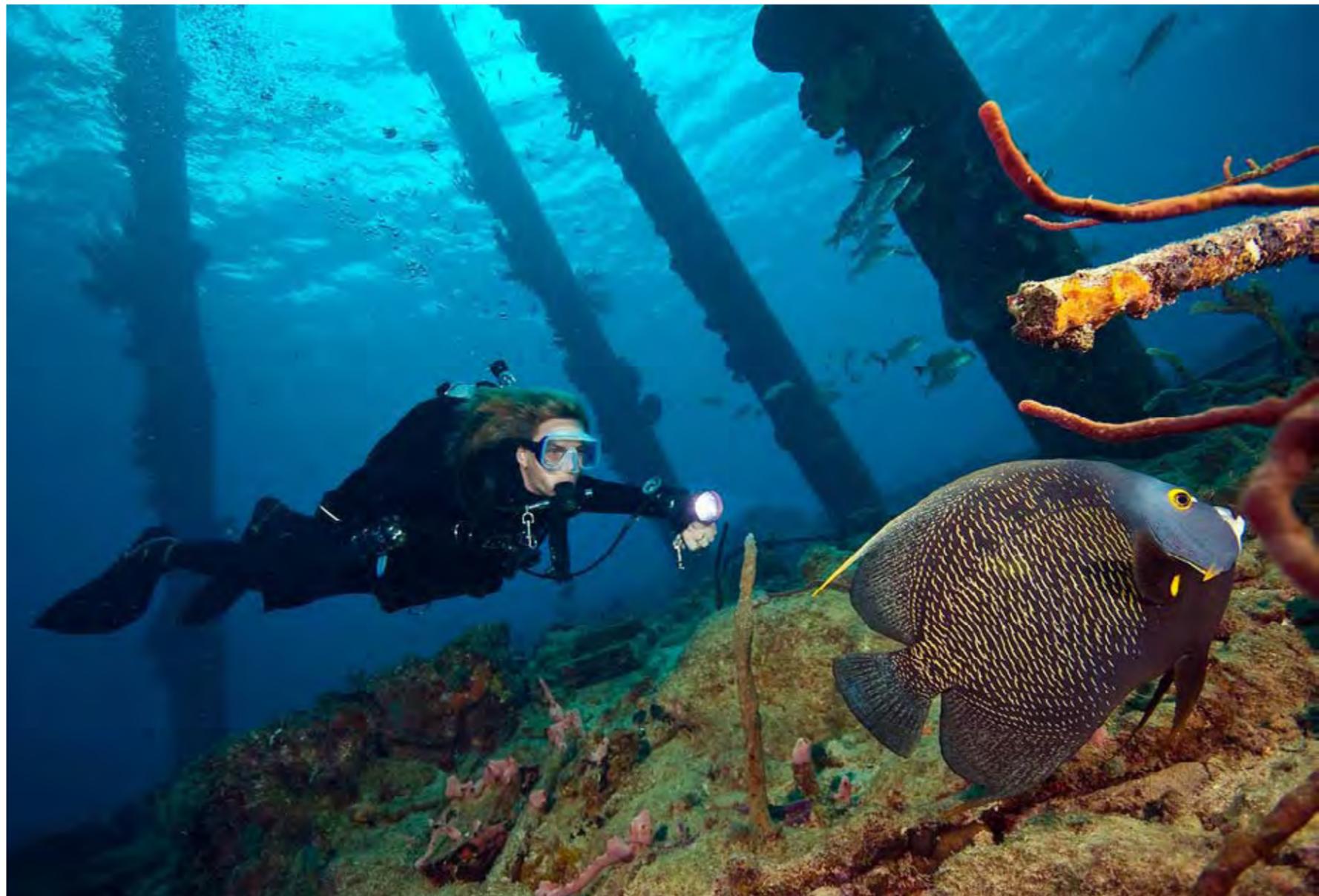
I've been coming back to Bonaire for several years now; the combination of the friendly climate, the relaxed atmosphere, the easy diving and the relative small size of the island make for a perfect hideaway



# Bonaire

to recharge one's battery. Do not expect a vivid nightlife or big tourist attractions; the sister islands of Curacao and Aruba are far better suited for this. What you do find on Bonaire is unlimited diving with a nice diversity in locations and conditions. Why unlimited? Unlimited because you can dive almost everywhere without going on a boat, or travel for lengths of time.

The coastline on the west part of the island is covered with dive sites that are all marked with yellow stones at the side of the road, printed with the names of the sites on them—names such as Alice in Wonderland, Pink Beach, Weber's Joy, Small Wall, etc, offer easy access



captions this page...





to a wide variety of dive locations. Just park your car near the water, put on your gear and walk in the blue and warm water.

The conditions near the shoreline are more or less similar on most of the west side of the island; a short and shallow area followed by a wall dropping down to an average depth of 30-35 meters where a sandy and less interesting bottom stretches out. At some locations, the area is followed by a second and deeper reef. In the shallow part, gardens of sea fans and Elkhorn coral can be found including a wide variety of smaller reef fish.

This shallow part can offer an unex-

pected encounter with a large barracuda, one or more sea turtles and even feeding eagle rays, which, if approached with care, can be an experience never to forget.

The wall is covered with an abundance of corals in a variety of colors and sizes. Big schools of fish travel this part of the reef and add to the sensation of flying through fairytale forests.

**Salt peer**

A very special place to dive but unfortunately officially forbidden is the salt peer. This dive site, which lies in the southern part of the island, is actually the location



where the salt extraction process is done and easy to locate by the big white salt pyramids breaking the landscape.

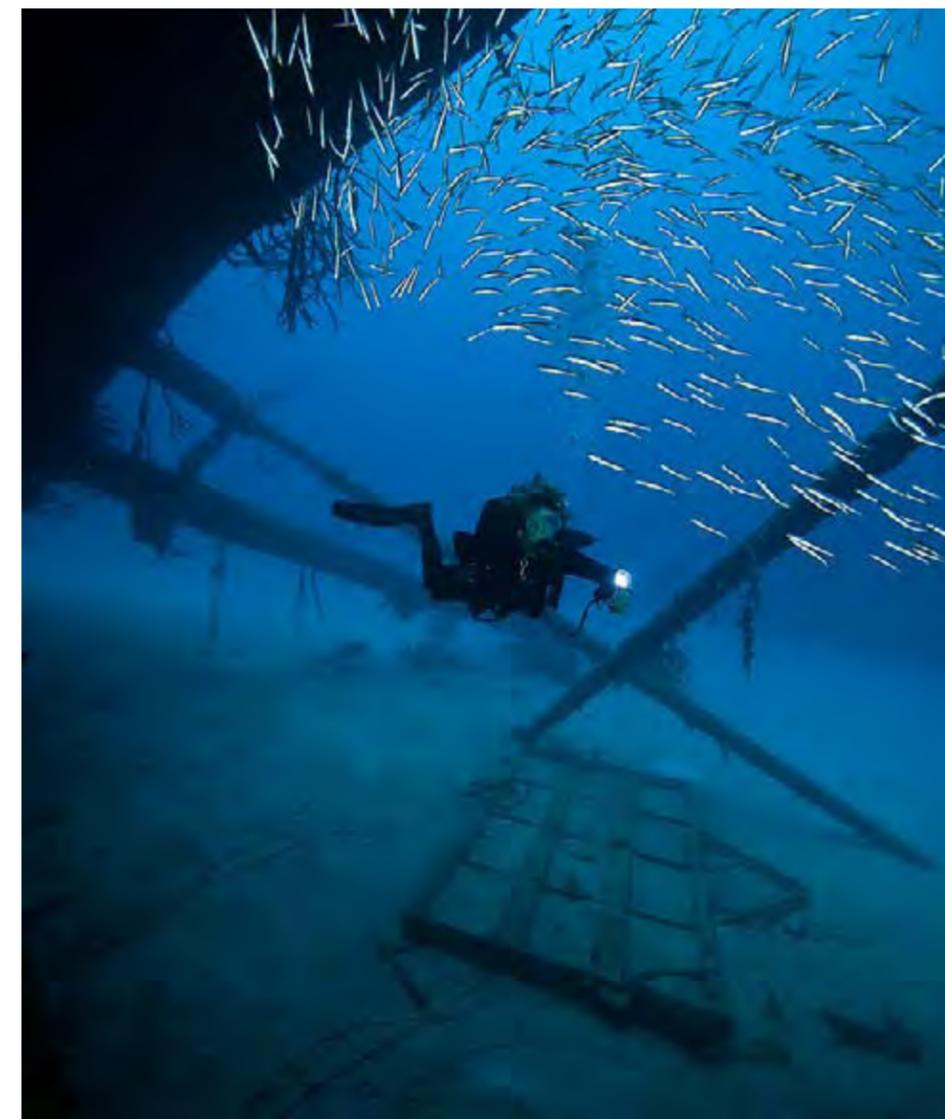
A long pier leads out from these piles of salt to where the water is deep enough for the huge tankers to come in and collect the salt. The countless number of pillars the pier is built upon form a cathedral underwater where huge schools of fish play in the scattered rays of sunlight that dance between the pillars, creating a surreal ambiance.

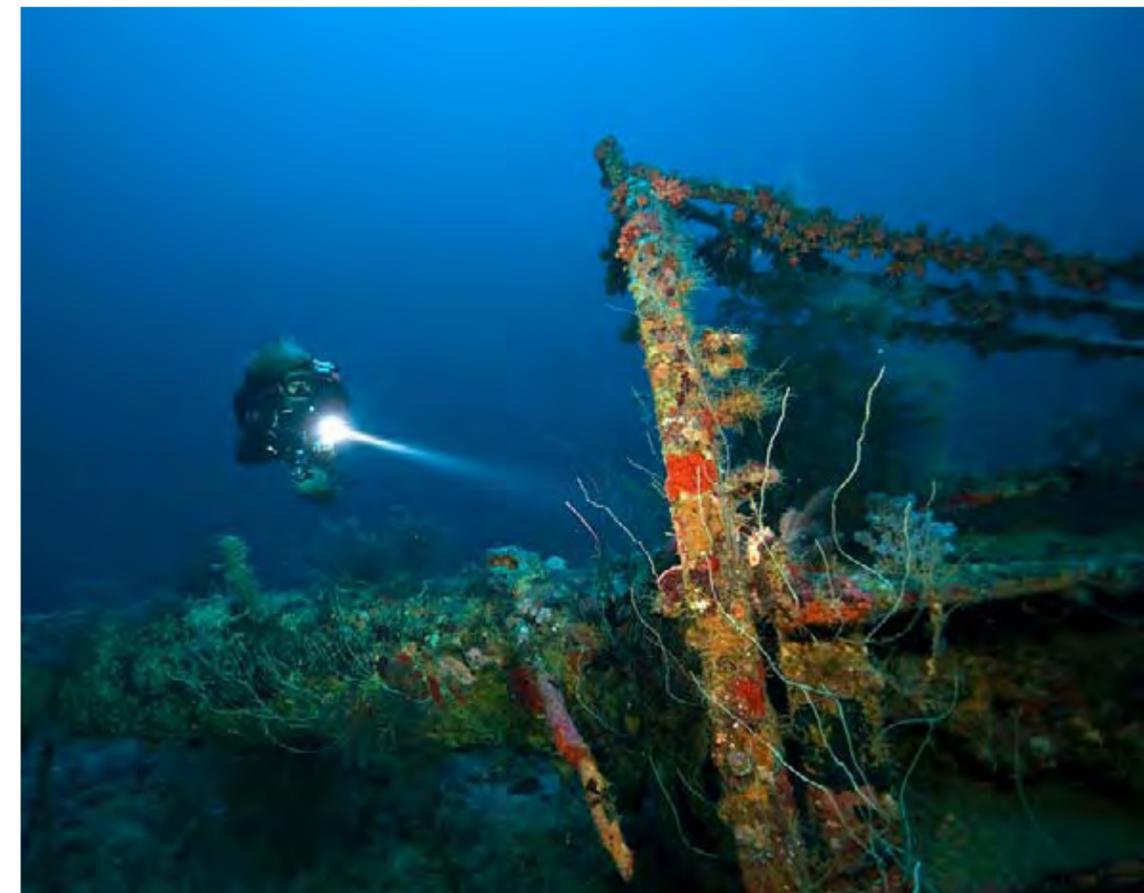
When really lucky, large schools of tarpons can be found here, hunting the smaller fish. Tarpons are big silver coastal fish that can grow up to two meters and weigh more than 150 kilograms. Any encounter especially with large groups of them can be an impressive and even intimidating experience. Normally, you would need an official guide to dive the salt pier, which can be booked by any of the dive schools around the island.

### Wrecks

Some wrecks can be found near the shore of Bonaire, and one, which is easily accessible and divisible, is the *Hilma Hooker*. She was sunk on purpose after a turbulent career which ended smuggling drugs and serves a second life as an attraction for visiting divers. She lies on her starboard side starting at a depth of 18 meters with her deepest point lying at around 30 meters, making up for an easy and relaxed dive. There are lots of nice spots on the wreck, which make great photo or video opportunities, and encounters with big barracudas, or tarpons, are no rarity.

A special location that offers great opportunities





for a more 'technical' dive is the wreck of the *Mairi Bahn*, better known as the Windjammer or Ghostship wreck. The *Mairi Bahn* sunk in 1912 after a questionable explosion to a depth of around 60 meters. She deserved the nickname Ghostship after stories of local islanders plundering the sinking ship, cursing the island with a revenge on the people and their families involved with these plundering.

Ghostship or not, even after her long retirement at the seabed she makes up for a great dive. If you want to make a dive on the Windjammer, be sure to contact Benji Schaub from Caribbean Gas Training. He is a GUE instructor and has a lot of experience diving the wreck and can set you up with all the required equipment and gasses.

You are not allowed to dive on the wreck

yourself but need an official guide, another good reason to contact Benji who will also take care of the necessary paperwork and permits for this dive. And believe me, the hassle is well worth it.

After a short swim from shore you descend in to the blue until the contours of the wreck, lying on the sandy bottom appear. The lady is still beautiful after all these years, although her age is starting to show. Parts of the hull are collapsed, but her shape still recognizable. After about 30 minutes of bottom time, we started our decompression, which is actually quite enjoyable ascending up the beautiful reef.

### Afterthoughts

So, to top it all up, Bonaire is quite a special place to visit, not as crowded as other

Caribbean islands. Oriented to nature and diving, it offers something different. The capital of Kralendijk has some really good restaurants and bars to spend those after-diving hours, watching the sun set behind the small island of Klein Bonaire.

Make sure to pay Washington Slagbaai nature sanctuary a visit. It is a safe habitat for the terrestrial native and endemic species of Bonaire. Parrots, flamingos, parakeets, iguanas and many other species of birds and reptiles can be found in this reserve. The beaches inside the park are an important nesting ground for all four species of sea turtles found in the Caribbean.

For more information, contact JP Bresser at: [www.jpbbresser.tv](http://www.jpbbresser.tv) ■

# fact file



## Bonaire, Netherlands Antilles



SOURCES: US CIA WORLD FACT BOOK, SCUBADOC.COM

**History** At one time, the Netherlands Antilles were the center of the Caribbean slave trade. But the abolition of slavery in 1863 hit island of Curacao hard and its prosperity was not restored until the early 20th century when oil refineries were constructed to service the newly discovered oil fields in Venezuela. Shared with France, the Netherlands Antilles island of Saint Martin—the smallest land mass in the world—is named Sint Maarten in its southern region and Saint Martin in its northern region. Government: parliamentary (each island has its own government). Capital: Willemstad (on Curacao)

**Geography** The Netherlands Antilles is comprised of two island groups in the Caribbean Sea. These islands include Curacao and Bonaire located off the coast of Venezuela, and Sint Maarten, Saba, and Sint Eustatius, which lie east of the US Virgin Islands. Note: the five islands of the Netherlands Antilles are divided geographically into two groups. In the south are the Windward Islands group (Bonaire and Curacao) and in the north, the Leeward Islands) group (Saba, Sint Eustatius, and Sint Maarten). Coastline: 364km. Terrain: generally hilly, volcanic interiors. Lowest point: Caribbean Sea 0m. Highest point: Mount Scenery 862m.

**Economy** The mainstays of the

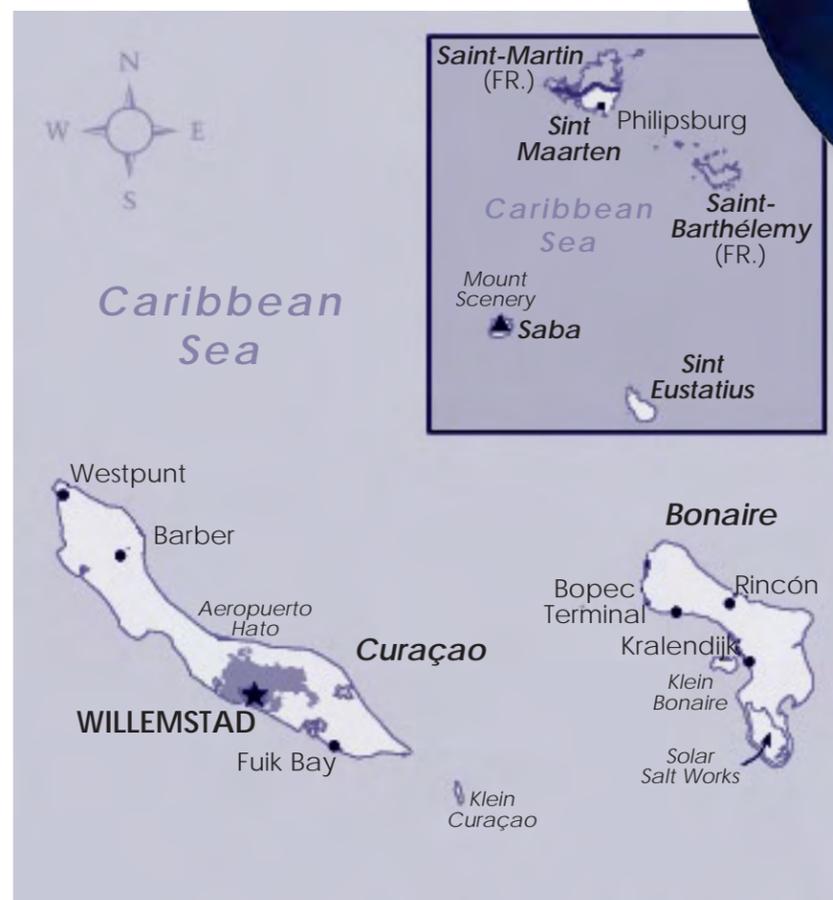
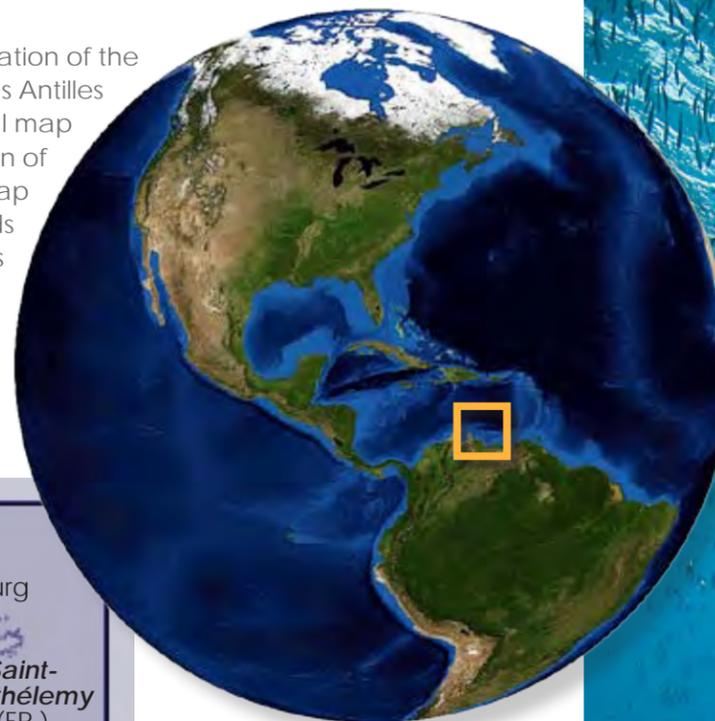
small economy of the Netherlands Antilles, which is closely tied to the outside world, include tourism, petroleum refining and offshore finance. Even though GDP has fluctuated slightly in the past eight years, the islands enjoy a high per capita income and a well-developed infrastructure in comparison to other countries in the region. Most of the oil refined in the Netherlands Antilles comes from Venezuela. Most consumer and capital goods are imported, primarily from the US, Italy and Mexico. Agriculture is hampered by poor soils and inadequate water supplies. Reform of the health and pension systems of an aging population is hampered by budgetary problems. Financial aid to support the economy is provided by the Netherlands. Natural resources: phosphates (Curacao only), salt (Bonaire only)

**Climate** The climate in the

Netherlands Antilles is tropical, relieved by northeast trade winds. Natural hazards: hurricanes from July to October on Sint Maarten, Saba and Sint Eustatius; Curacao and Bonaire are rarely threatened since they are located south of the hurricane belt.

**Currency** Netherlands Antilles Florin or Guilders (ANG). Exchange rates (tied to the USD): 1USD=1.78ANG, 1EUR=2.47ANG, 1GBP=2.92ANG, 1SGD=1.22ANG

RIGHT: Location of the Netherlands Antilles on global map  
BELOW: Location of Bonaire on the map of the Netherlands Antilles



**Population** 227,049 (Jul 2009) Ethnic groups: mixed black 85%, other groups 15% (including Carib Amerindian, white, East Asian). Religion: Roman Catholic 72%, Pentecostal 4.9%, Protestant 3.5%, Seventh-Day Adventist 3.1%, Methodist 2.9%, Jehovah's Witnesses 1.7%, other Christian religions 4.2%, Jewish 1.3%, other or unspecified religions 1.2%, no religion 5.2% (2001 census). Internet users: 2,000 (2000)

**Language** Papiamentu 65.4% (a Spanish-Portuguese-Dutch-English dialect), English 15.9% (widely spoken), Dutch 7.3% (official), Spanish 6.1%, Creole 1.6%, other languages 1.9% (2001 census).

**Recompression Chamber** San Francisco Hospital Kaya Soeur Bartola 2 Kraliendijk, Bonaire 4444 AB tel. +599 717 8900

**Links** Tourism Bonaire [www.tourismbonaire.com](http://www.tourismbonaire.com) ■





**Lucasdivestore.com**  
one site for all your divefun

www.lucasdivestore.com



**LUCAS DIVING**  
Bedrijvenweg 3a  
7442 CX, Nijverdal



The Netherlands  
Tel: 0031 548 615106  
Fax: 0031 548 611769

www.lucasdivestore.com

# PASCAL BERNABÉ

All the tek courses you need...

Why learn Tek?  
Explore deeper  
and longer...  
Explore the new frontier!



NITROX-TRIMIX-CAVE-CCR MEGALODON-MASTERCLASS-DEEP 120M/150M OR MORE...



## WORLD DIVING RECORD

330M

JULY 24<sup>TH</sup> TO 4<sup>TH</sup> OF AUGUST :  
DEEP 120M AND CAVES IN BAIKAL LAKE.

AUGUST 8<sup>TH</sup> - 15<sup>TH</sup> IN DAHAB ADVANCED TRIMIX  
AUGUST 16<sup>TH</sup> - 22<sup>TH</sup> DEEP 120 AND DEEP 160M  
AUGUST 23<sup>TH</sup> - 28<sup>TH</sup> ADVANCED NITROX  
DECO PROCEDURE

SEPTEMBER IN TUNISIA TRIMIX  
AND WRECKS EXPLORATION 60 - 100M

OCTOBER CAVE COURSE IN FRANCE  
DEEP WRECKS 60-120M IN  
ANDALOUSIA LEBANON DEEP 140M  
ON VICTORIA AND SOME WRECKS.

NOVEMBER NITROX TO TRIMIX  
COURSES IN CROATIA  
WRECKS IN BULGARIA

DECEMBER DAHAB :  
TRIMIX AND DEEP COURSES.

TRY THE BIG FIVE :  
HAVEN 82M  
MANCHESTER 82M  
VICTORIA 140M  
POLYNESIAN 65M  
BRITANNIC 120M  
THE 5 MORE PRESTIGIOUS MED WRECKS!

**pascalbernabe.com**  
<http://pascalbernabe.blogspot.com>  
[pascal.bernabe@libertysurf.fr](mailto:pascal.bernabe@libertysurf.fr)  
00 33 676 861 561

Photos: François Brun.com



*Sharks 'r circlin'!  
Aye, mateys beware!  
Peg legs a plenty,  
if 'n ye hasn't a care!*

*— from The  
Book of Old  
Sea Folk  
Cliches*

*Tantalizing Tales From*

# Turks & Caicos Islands

Text and photos by Scott Johnson

LEFT TO RIGHT: Heron lurking in flowers; diver over Barrel sponge; snorkeler walking the beach; sunset at Club Med Turkoise; Caribbean Reef shark cruising

Oh yes, the sharks are circling. Can you say 'Amen'? With an accent hinting of both Popeye the Sailor and Quint from the movie *Jaws*, I call to alert my own mateys. It is my best and worst pirate imitation. But, it is appropriate. Aye, it is right as rain.

Piers Van Der Walt and his wife Annette, co-captains for this *Turks & Caicos Aggressor II* voyage, guaranteed something special would happen this day. They certainly delivered. Within minutes of mooring at the French Cay dive site Rock n' Roll, dorsal fins began to break the water's surface.

This mouth-opening, heart-pounding, ego-busting spectacle harkened back to the days of Errol Flynn and his 1935

performance in *Captain Blood*. If we could turn this modern liveaboard into a pirate ship, find someone to walk the plank (I have a few nominees) and slip into hip Pirates of the Caribbean costumes, the scene would be complete.

Regardless, the sharks were definitely playing ring-around-the-boat and the heroic, swashbuckling Flynn never had the chance to dive with them.

As the initial shock began to dissipate,

curiosity conversely started to grow. What prompted these sharks to appear on cue?

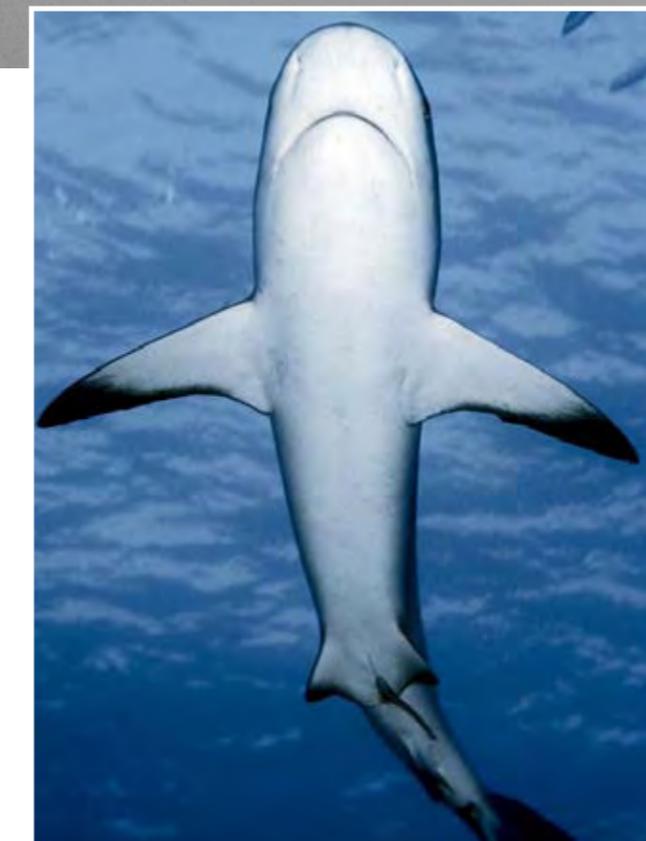
Like marooned pirates who are rescued and returned to port, sharks are primarily driven by the need for food and sex. Since I doubt Rock n' Roll is their sacred breeding ground, food must be the answer.

Perhaps divers were feeding these sharks on a regular basis. If so, this was

a staged set, a routine animal act, which certainly tainted the magic of the moment. I wanted to know the facts.

While giving Piers the fifth degree and threatening a walk-the-plank revival, he begs for mercy in his intriguing South African accent and then spilled the beans. His imaginative tale sounded fishy, but not beyond the realm of possibility. The only way to verify or discard his story was to suit up, jump in the water and see





for myself.

Standing on the edge of the dive platform, I waited for the next shark to swim clear. Otherwise, I risked the chance of creating a new, underwater, bronco-busting rodeo event that would likely leave yours truly branded. With ground zero vacated, I plunged into THEIR world.

Weilding a camera as a pirate might brandish a sword, I carefully located each of the patrolling residents and then descended 30 feet to begin the investigation. The first pieces of evidence that collaborated Pier's confession were the relaxed postures of the five Caribbean Reef Sharks. These hearty, six-foot showstoppers were alert, but exhibited no signs of aggression.

The second and more decisive kernels of proof were the large, integrating schools of big-eye jacks, horse-eye jacks and yellow tail snapper congregating directly beneath the boat. Apparently, these fish received the same compelling

invitation as their encircling entourage. As the progressive integration caused individual school boundaries to collapse, a dense, living cloud of eyes and fins was born.

During the interrogation, Piers whimpered something about how the continuous vibrations of the ship's motors attracted schooling fish. It sounded like a scaly version of Woodstock. In addition, the sharks supposedly associated the boat, its rockin' vibrations and the avid, swarming partygoers with a delectable smorgasbord of naturally served entries. After a preponderance of the evidence, I now

concur with the Captain. Call me a believer. I must tell the crew to release Piers, then attempt to make amends. Of course, sincere apologies and groveling could wait until after the dive was over.

Feeling more comfortable in the sharks' domain, I was hungry to

CLOCKWISE FROM TOP LEFT: Caribbean Reef shark with Bigeye jacks; diver looking at Tube sponges; Egret on the lookout; curious Caribbean Reef shark; underside of Caribbean Reef Shark



Divers watching Great barracuda under the boat (top); Christmas tree worm (bottom)



## Turks & Caicos



Variety of sponges (left inset); Coral grouper on sponge (above)

Olympic skaters or synchronized swimmers, I would've scored their performance a 10.0. Watching this action through my viewfinder, I composed and shot. Flashing strobes did not phase the sharks, so my compact flash card filled quickly.

Before I had the opportunity to ascend to change housings, Wendy McSwain, founder of Outback Divers in Houston, Texas, USA, crashed the party. Either in reaction to Wendy's neon, psychedelic suit or the splash of her entry, one of the sharks bolted up straight towards her. Clueless to the presence of her stealthy admirer, Wendy looked in every direction except to her rear. Laughing profusely while trying not to lose my mouthpiece, I gradually ascended, pulled one of her fins and pointed to the drooling

homeboy. Her shocked expression brought new tears of laughter as I rose to the surface.

After freeing a justifiably angry Captain Piers and being flogged by Annette and the crew, I painfully slipped beneath the surface to Rock 'n Roll one more time. Without totally ignoring the sharks, I decided to focus on other aspects of this dynamic site. Along with the mixed school of jacks and yellow tails, which alternately churned like a crowd of punk rockers, then stilled to utter tranquility, numerous stoic barracuda hovered as metallic mid-water sentinels. French, gray and queen angels rushed from one coral formation to another during energetic games of tag.

### Underwater terrain

The surrounding seascape was

### WELCOME TO TURKS & CAICOS AND PRISTINE FRENCH CAY

The Turks and Caicos Islands ("Turks" for the indigenous Turks Head Cactus and "Caicos" meaning a chain of islands) are located approximately 575 miles southeast of Miami, 39 miles southeast of Mayaguana, Bahamas and 90 miles northwest of the Dominican Republic. Eight major islands—Providenciales, East Caicos, Middle Caicos, West Caicos, North Caicos, South Caicos (these six are part of the Turks Group), Salt Cay and Grand Turk (members of the Caicos Group)—and numerous small cays span over 190 square land miles. The 22-mile wide Columbus Passage, which reaches depths of 7,000 feet, separates the Turks' Islands from the Caicos' Islands.

Turks and Caicos is famous for 230 miles of white sandy beaches and dependable sunny weather. Offshore, these islands feature the third largest coral reef system in the world. In addition, brilliantly colored water gradually changes from an exquisite turquoise hue in the shallows to a rich dark blue in open ocean. The healthy reefs, unlimited wall diving, abundant marine life and excellent underwater visibility keep divers coming back for more.

Like East Caicos, West Caicos and most of the minor cays, French Cay is uninhabited. Named after a 17th century French pirate, Nau L'Ollonois, who once called the island home, French Cay was designated as a protected sanctuary by the 1992 National Parks Order. Due to this extensive legislation, the Turks and Caicos Islands have more protected natural habitats than any other country in the world.

French Cay's remote location and the minimal human impact on its ecology result in some of the most spectacular diving in the north Atlantic. These waters offer divers the chance to encounter various species of sharks (Caribbean Reef, Lemon, Great Hammerhead, Tiger and Whale), whales (Humpback, Pilot, Beaked and Sperm), dolphin (Spotted and Bottlenose) and rays (Southern, Manta and Eagle). The ultimate method for exploring French Cay's amazing dive sites (Rock 'n Roll, Double D, G Spot, Half Mile and West Sand Split) and beautiful, unspoiled beaches is to charter space on a liveaboard. Even then, the opportunity to undertake the crossing to French Cay is dependent upon the weather. ■

photograph and observe these majestic inhabitants at point blank range. Slowly, slowly, ever so slowly, the sharks decided to check out the newcomer. Obviously, neither my bubbles nor substantial Aquatica housing system intimidated these guys. No longer circling the boat and targeting the schooling fish, the sharks were now swimming figure eight's in front of me. If they were



decorated with delicate strands of Elkhorn coral, towering formations of pillar coral, robust barrel sponges, bright yellow and orange tube sponges, luminescent rope sponges, white anemones and a vast array of gorgonians, such as sea whips, sea rods, sea plumes, sea fans, sea sprays and sea fingers. In tune with the beauty of this glorious terrain, a hawksbill turtle gracefully glided to the surface for air. Many feet below her, a broad southern stingray stirred up sand while feeding. This incredible panoramic view, a result of the 150-foot visibility, was breathtaking.

Suddenly, one of the sharks slowly passed within inches of my facemask. Caught entirely off guard, I was unable to position the camera for a decent shot. Tracking his movements in hopes of another swim-by, my eyes were drawn to a real life Three

Stooges—actually Two Stooges—comedy routine in progress.

A couple of overly eager divers, one a seasoned videographer and the other a new photographer, were swimming hell bent on a collision course as they zeroed in on the same shark. I could not help but hold my breath, wince, then enjoy another unquenchable belly laugh as the divers crashed head-on. I was sure I could hear the shark chuckling as it cruised past the stunned stooges.

While off-gassing during a much needed safety stop, I witnessed seven



CLOCKWISE FROM TOP LEFT: Flamingo tongue feeding; staring moray eel; Barrel sponge below the *Turks & Caicos Aggressor II*; Peppermint goby on Great Star coral; watchful Roughhead Blenny; two Sharknose gobies



LEFT TO RIGHT: Tonya Streeter examining Pillar coral; Yellowhead jawfish singing opera; scorpionfish frowning

big eye jacks feverishly rubbing against the largest shark's flanks. Whether utilizing its abrasive skin to remove parasites or relying on gang warfare tactics to drive it away from the school, the interesting behavior added to the dive site's well-deserved reputation. Without a doubt, Rock 'n Roll was aptly named... unless, of course, it could be changed to Pirates' Rock n' Roll Rendezvous.

### Topside

Captain Piers and I, now on drinking and speaking terms again, share some after-dinner rum and discuss what areas to explore over the next couple of days. Since no true diving pirate would travel to the Turks & Caicos Islands without visiting West Caicos, we decided to take our diving plunder (wonderful memories and pictures) north. The short 19-mile cruise over calm seas passed quickly.

As I gazed over the limestone cliffs and sand that outline the west coast of West Caicos, I thought about the 17<sup>th</sup> century pirates that used to ambush and seize unwary vessels in these waters. One could certainly bury hordes of looted treasure on this small island. Sand, scrub brush and more than 100 species of birds dominate the landscape. However, the limited number of landmarks would make mapping and treasure recovery challenging. Perhaps there is still unclaimed booty to be found onshore.

The land may be somewhat nondescript, but the



Beaches Resort turret (above); yoga at Club Med Turkoise (bottom left)



### A WHALE OF A TALE

From January through April, almost 3,000 Atlantic humpback whales migrate along the shores of the Turks and Caicos Islands to the Silver Banks. The Silver Banks is designated as the Sanctuary of the Marine Mammals of the Dominican Republic. Located 80 miles southeast of Grand Turk, it is the most extensive humpback breeding ground in the world.

Divers in the waters of Turks and Caicos during the first four months of the year are likely to hear the whales' enchanting song. Sightings are also a possibility. However, to experience the whales interacting with one another and observe a multitude of heartwarming social behaviors, a trip to the Silver Banks is a one of a kind opportunity.

Only a few liveaboards are licensed by the Dominican Republic to venture into the sanctuary. The most prominent of these are the *Turks and Caicos Aggressor I* and *II* and, through an affiliation with Captain Tom Conlin, the *M/V Turks & Caicos Explorer II*. Rebreathers and scuba gear are not permitted. However, during the typical seven-day charter, guests will spend at least five days snorkeling with humpbacks ranging from newborn calves to adults weighing in excess of 30 tons.

From inflatables, highly trained and experienced crewmembers will position guests near the whales. After gently and gradually slipping into the water, guests may encounter the mating performances of males (bulls) attempting to attract females. These explosive tactics may include breaching, lobtailing and/or finning. It is also possible to watch a mother pushing her newborn calve to the surface for his or her first breath. Calves are observed feeding, being taught to breach and learning the acceptable range of social graces. Life-altering, upclose encounters can last more than 20 minutes.

To start your own whale of a tale collection, contact one of these special liveaboards today. Space is often sold out a year in advance. So, do not delay. ■





## Turks & Caicos

head and lands in the sand before me. I am not used to seeing a scorpionfish advertise its presence, but this ten-inch specimen is not shy. I follow closely behind as it nonchalantly waddles across the sand. It eventually finds a new resting-place atop another outcropping and seemingly disappears.

### Afterthoughts

Though this adventure is at its end, there are still many more tales to be told. In fact, the tantalizing essence of the Turks & Caicos Islands lies in the tales waiting to be born during each and every dive. Be it schooling eagle rays, breaching humpback whales, circling sharks or monolithic pillar corals, the waters surrounding these islands are brimming with imminent encounters. And, while you may not find jewel-encrusted chests overflowing with gold doubloons, the experiences you will share with your own mateys are the real treasures of Turks & Caicos. ■



CLOCKWISE FROM FAR LEFT:  
Yellowtail snapper and sponges;  
Dusky jawfish startled by my Sea&Sea  
strobes; spreading sea fan

### DIVING IN PROVIDENCIALES

The Club Med Turquoise and Dive Provo are unique, excellent operations for exploring the waters around Providenciales, Turks & Caicos. Staying at the Club Med Turquoise is an incredible experience. This adult-only resort is all-inclusive and defines fun, community, food, dancing and sports. Twin 42-foot catamarans carry divers to more than 20 reefs located mere minutes from the village. You can make two dives, snorkel, kayak and then play basketball, beach volleyball, mini soccer, softball, pool polo and/or lift weights before a massive buffet dinner, followed by dancing under the Turks & Caicos moon.

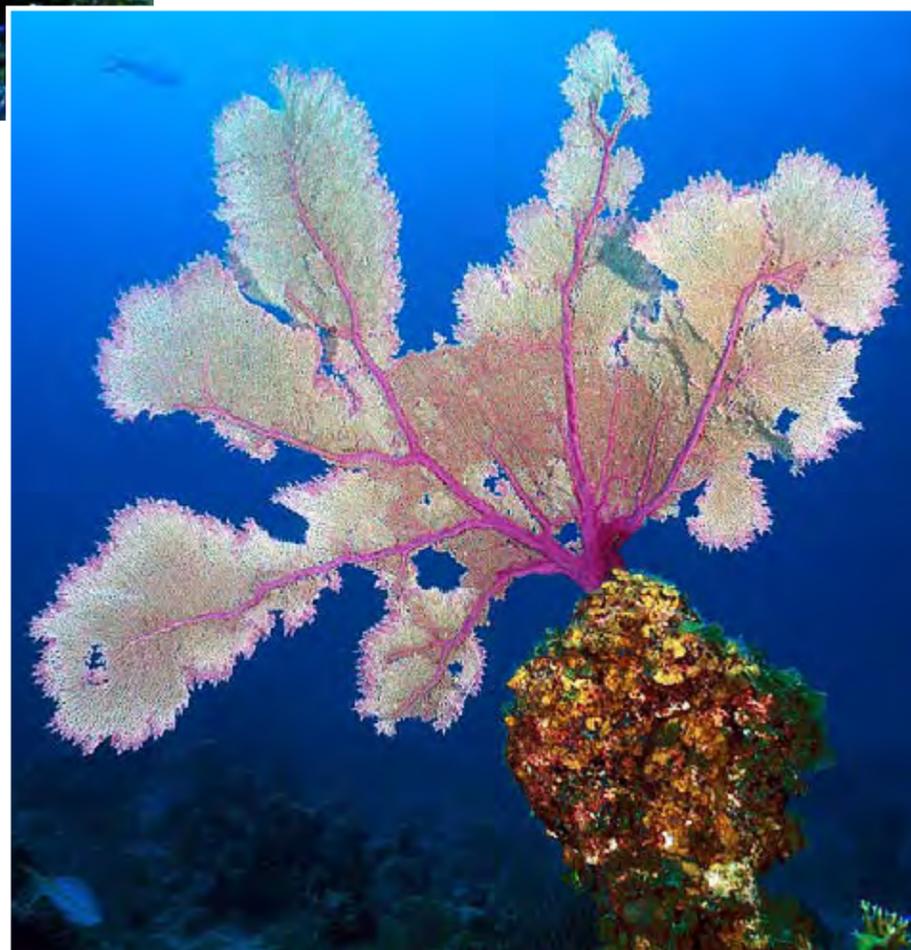
If you want more focused dive explorations, Dive Provo is the ticket. Dive Provo specializes in customized itineraries tailored to meet the needs of their guests. Professional, highly trained staff use a trio of modern boats to lead groups to the best sites in West Caicos, French Cay, Northwest Point, Grace Bay and Pine Cay. ■

underwater world of West Caicos offers radiant colors, eye-catching formations and non-stop action. At Gulley, named for the deep cut that divides the reef, I am captivated by the plentiful, large barrel sponges that accentuate the area. Their exterior texture is so intricately patterned. If you watch patiently, you will find that these rotund sponges host a wide variety of small, entertaining creatures, such as blennies, gobies, shrimp and crabs.

### Whiteface

The next dive is Whiteface, also known as The Anchor. The name Whiteface is derived from the shoreline's white cliffs, while The Anchor recognizes a legacy from the past. During the time that pirates were setting new records in ship-jackings, a vessel managed to embed an anchor into the side of a crevice at 70-feet. The anchor is still there, though it is easy to overlook as centuries of growth cause it to blend into the surrounding reef.

Not to be outdone by an ancient piece of steel, a living master of disguise hops down from a coral



### THE TURKS & CAICOS AGGRESSOR I AND II

The *Turks & Caicos Aggressor I* and *II* are 120-foot luxury yachts that were built for the comfort and safety of the diving community in 2003 and 2008. Accommodations include eight staterooms featuring either a queen size or two single berths, private heads and showers, air-conditioning, TV/VCRs and a port window. A ninth stateroom sleeps four. A computer station feature two Dell computers and flat screen monitors. E-mails may be sent via a satellite phone. Meals are prepared by a trained chef and served buffet style. The sun deck's chaise lounges, wet bar and hot tub attract divers like schools of fish draw sharks.

Each charter offers 20 guests the opportunity to experience tantalizing tales of their own. The focus of these seven-day, Saturday afternoon to Saturday morning, charters is seasonal. From January through March, 15-foot chase boats are used to position guests near humpback whales in the Silver Banks. During the remainder of the year, diving around French Cay, West Caicos and Providenciales is done directly from the dive platform.

For more information, visit the Aggressor Fleet website at [www.aggressor.com](http://www.aggressor.com)

# fact file



## Turks & Caicos Islands



SOURCES: US CIA WORLD FACT BOOK

**History** Until 1962, the Turks and Caicos Islands were part of the United Kingdom's Jamaican colony. Upon the independence of Jamaica, they assumed the status of a separate crown colony. Affairs were overseen by the governor of The Bahamas from 1965 to 1973. Upon the independence of The Bahamas in 1973, the islands received a separate governor. Even though independence was agreed upon for 1982, the decision

was reversed, so the islands remain a British overseas territory. Legal system: based on laws of England and Wales with a few adopted from Jamaica and The Bahamas

**Geography** Turks and Caicos Islands are located in the Caribbean. They are comprised of two island groups in the North Atlantic Ocean, southeast of The Bahamas and north of Haiti. Coastline: 389km. Terrain



includes low, flat limestone as well as extensive marshes and mangrove swamps. Lowest point: Caribbean Sea 0m. Highest point: Blue Hills 49m. Note: In all, the territory includes about 40 islands (eight inhabited)

**Economy** The Turks and Caicos economy is based on tourism, fishing and offshore financial services. Most food for domestic consumption and capital goods are imported. The majority of tourists come from the US,

making up more than 75 percent of the 175,000 visitors that came in 2004. Fees from offshore financial activities and customs receipts also provide major sources of government revenue. Natural resources: spiny lobster and conch. Agriculture: corn, beans, cassava (tapioca), citrus fruits and fish.

**Climate** Turks and Caicos Islands have a tropical marine climate, which is sunny and relatively dry while moderated by trade winds.

RIGHT: Location of the Turks & Caicos Islands on global map  
BELOW: Map of the Turks & Caicos Islands



Natural hazards include frequent hurricanes. Environmental issues include limited natural fresh water resources—private cisterns are used to collect rainwater

**Currency** US Dollar

**Population** 22,942 (July 2009 est.) Ethnic groups: black 90%, mixed, European, or North American 10%. Religion: Baptist 40%, Anglican 18%, Methodist 16%, Church of God 12%, other religions 14% (1990).

**Language** English (official)

### Recompression Chamber

Associated Medical Practices  
Leeward Highway  
Providenciales, Turks and Caicos. 24-hour tel: 331-HELP  
[www.doctor.tc/dive.html](http://www.doctor.tc/dive.html)

### Links

Turks & Caicos Tourism  
[Turksandcaicostourism.com](http://Turksandcaicostourism.com) ■

Waving flags on the *Turks & Caicos Aggressor II* (top) sunset at Club Med Turquoise (bottom)



Diver studying Tube sponges





Text and photos  
by Scott Johnson

As I stand on the upper deck of the *Midnight Express*, one of two dive boats operated by Olympus Dive Center, goose bumps cover my arms and a chill lies buried deep inside. Perhaps it is the weather or the dives awaiting me after the two hour cruise. More than likely it is both. This brisk November morning, under skies laden with dark, cumulus clouds, the seas are rough and a most ominous stage is set. It will not be long before I explore an underwater tomb, a reminder of the wages of war, a remnant of the follies of man.

A 10-foot sand tiger shark with an entourage of silversides encircling its head surveys its territory on the wreck site of the *U-352*

# North Carolina

*Diving into  
Mysteries Off*





I make my way to the bridge where George Purifoy, a respected pioneer in underwater exploration of the waters off Morehead City, North Carolina, and, along with his son Bobby, the owner/operator of Olympus, captains the boat. To his right, Lauren Hermley, the resourceful manager of this dive operation and my bright spirited model for the weekend, seeks the warmth of a nearby vent.

In search of answers to the mysterious sinking of *U-352*, the first German U-boat sunk in American waters in World War II that yielded prisoners of war and the subject of the upcoming dive, I ask George to share his considerable knowledge of the wreck and its history. So begins a pattern of asking questions and then furiously scribbling down George's responses on a yellow tablet that is speckled with the dried droplets of ocean spray. As I listen, the story unfolds.



LEFT TO RIGHT: Diver explores the wreck of *U-352*; Barracuda at the wreck site of the *USS Aeolus*; Octopus hunts for prey along a North Carolina reef

Location of North Carolina on global map

## North Carolina

### U-352

Commissioned by the German high command in October 1941, the *U-352* and its crew were ordered to set sail for the North American Atlantic coast in the spring of 1942. Their mission was to disrupt allied shipping off North Carolina in an area infamously nicknamed Torpedo Alley by the U.S. Navy due to the numerous merchant ships that were preyed upon and sunk by U-boats.

The *U-352*'s relatively inexperienced crew of 46 men included three officers, the leader of which was Lieutenant Hellmut Rathke. Knowing the United States had failed to protect its waters, as evidenced by the hundreds of tankers and cargo ships that were successfully torpedoed along the east coast, Rathke was hungry for "easy" kills and the subsequent glory such victories would yield.

After only one week of playing cat and mouse with spotter planes and other American anti-submarine forces and failing to score his first prey, Rathke ordered his crew to perform a daylight attack on what he thought was a large merchant ship on 9 May 1942.

After maneuvering into position, a single torpedo was fired and thereafter a satisfying explosion was heard. Victory dances were short lived however, as predator become prey when Rathke found out the merchant ship was really the U.S. Coast Guard Cutter *Icarus* and the torpedo had apparently drilled the ocean bottom.

Reportedly, Rathke not only erred in improperly identifying his target, he was also confused on the *U-352*'s actual depth. In an attempt to hide from the *Icarus* and avoid potential disaster, Rathke grounded the submarine in the vicinity of the torpedo detonation.

Unfortunately for him and the rest of the *U-352*'s crew, the *Icarus*' initial depth charges fell directly on top of the U-boat. What normally would have resulted in hours or even days of playing hide and seek with no guarantee of success, *Icarus*



Diver follows a school of spadefish

shot and scored triumph in minutes.

The *U-352*, with flooding in multiple compartments and having apparently lost both diesel and electric engines (though the officer in charge of the diesels was overheard stating that he could still get the engines to run), briefly surfaced, disgorged Rathke and 32 other frightened sailors, then sank to the bottom for good, entombing the remaining 13 crew members.

Sobering, puzzling thoughts arose during George's account of the *U-352*'s fatal voyage. So many questions were left unanswered: Why was Rathke so confused about his depth? What led to the misidentification of the *Icarus*? What

prompted him to break protocol by attacking during the day? How did the *Icarus* locate the *U-352* on the first try? Why did Rathke not try to fight back with the deck guns when he surfaced? What caused 13 crew members to go down with the ship? Why did U.S. intelligence officers allow three months to pass before interrogating the survivors? Why did I not know that U-boats were once so close to our shores that the crews could judge the distance to land at night by the intensity of the nearby lights (Thank God Hitler's U-boats were not equipped with nuclear missiles!)?

Except for a brief examination by U.S. Navy divers in late 1942, the *U-352* lay lost

in time, 35 miles off the Morehead City coast and untouched by human hands for over 30 years.

While her whereabouts were unknown, the *U-352* was definitely not forgotten. Claude Hull, often called the godfather of diving by many in the local community, spent countless hours researching and many years running grid patterns in hopes of finding the missing sub.

In a strange twist of fate, on the one day that Claude decided not to look for her, George, Rod Gross and Dale McCullough used his recommended coordinates and struck gold in April 1975. Now it is my turn to see what remains of *U-352*.



Sand tiger sharks patrol the seas and ocean floor off the coast of North Carolina

### Diving *U-352*

Due to recent storms and the overcast sky, the water I plunge into is green and murky. I estimate the visibility to be 20 feet. The trickle of 65°F water down my back sends chills throughout my body and causes the goose bumps to triple in size. Lauren's vibrant yellow fins serve as a homing beacon as I slowly descend the anchor line. Robust, curious amberjacks play ring around the roses with me at the center of their attention.

Suddenly, hauntingly, like a ghost ship beckoning to one more weary sailor, *U-352* comes into view. Resting upright on the bottom at 115 feet, she lists about 40 degrees to starboard. The effects of repeated depth charges and more than 60 years of lying submerged in salt water have not yet obliterated her

form. Though it is clear the outer hull has rusted away, she still looks like a sub.

Best of all, the *U-352* is seemingly alive and pulsating with fish. Atlantic Spadefish, seabass, various jacks, and large barracuda are abundant. Swarms of silversides dart and dance in unison to the rhythms of the sea, as if performing a ballet in homage to the slain vessel.

Though my tank is filled with nitrox, the depth and relatively flat dive profile mean our time to explore the wreck is short. Lauren motions for me to



follow her and then excitedly points up. At first, I can not tell what it is she sees. Then, as if the *U-352* has fired on the enemy one last, magical time, a torpedo shaped form materializes from the void.

A 10-foot sand tiger shark, with an entourage of silversides encircling its head and hitchhiking remoras attached to its belly, slowly, purposely swims toward me. Mouth agape, its hundreds of white, sharp teeth seem to sparkle in the gloom. Firing off frames as it passes a mere arm's length away, I think of the shark as a sentinel whose duty it is to investigate all intruders. What an awesome sight!

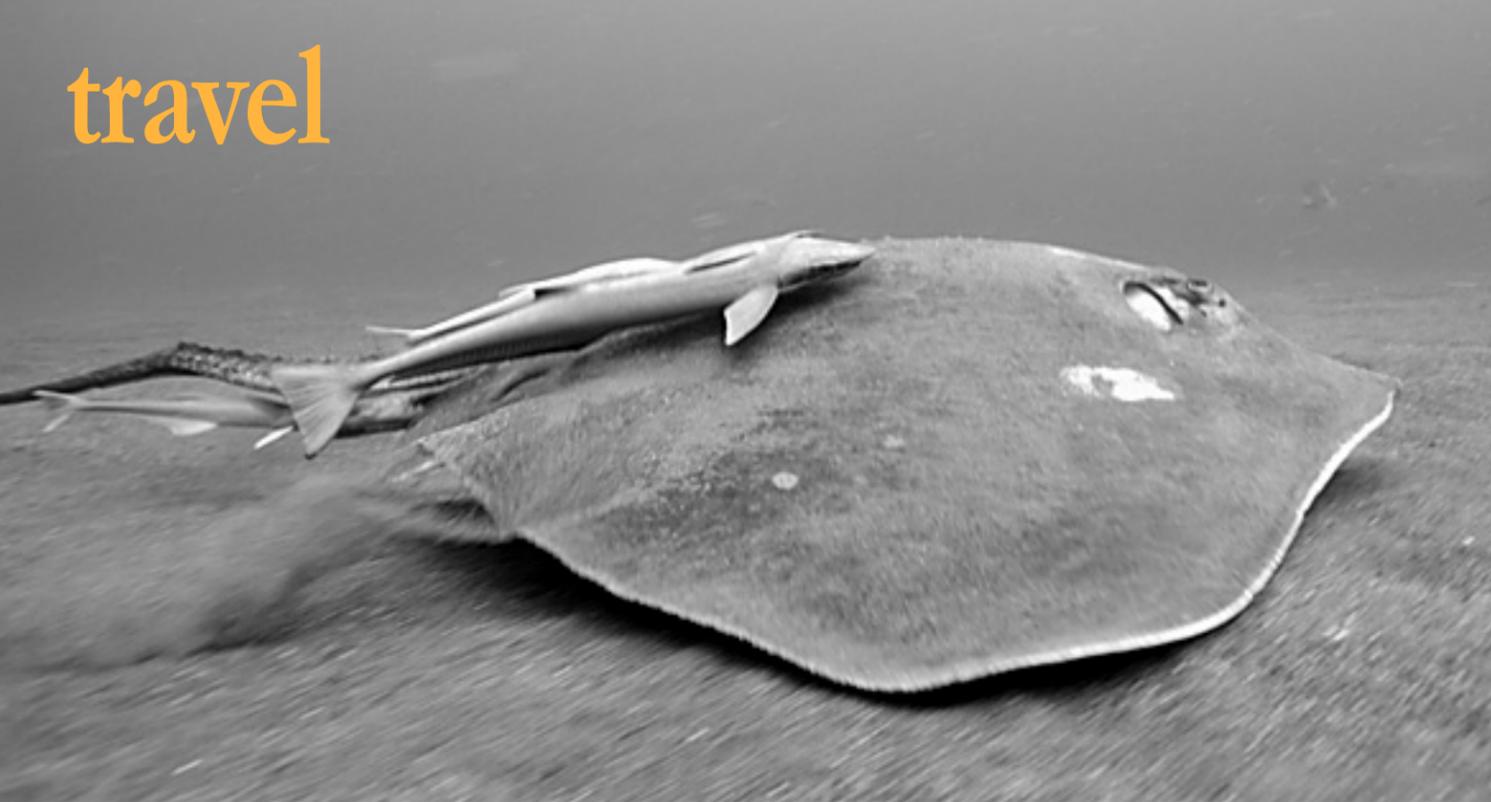
Conscious of the dwindling bottom time, Lauren and I move from the propeller and aft torpedo tube, the happening place for Atlantic spadefish, to the con-

ing tower, the most prominent feature of the wreck. Spotted moray eels have commandeered the tower and make their homes in its recesses. While trying to keep the backscatter to a minimum, I take pictures of Lauren as she shines her flashlight on the structure. After a peek inside the coning hatch, we move on.

While we are swimming above the magnetic compass mount, which is located between the coning tower and the forward gun mount, a southern stingray and seven three-foot cobia comprise a bizarre, almost surreal menagerie that quickly passes along the starboard flank. It is yet one more encounter that makes me wonder if my mind is playing tricks.

We quickly make a u-turn at the bow to examine the port side that tilts toward the surface. A complete circuit around

LEFT TO RIGHT: Diver explores the reef off North Carolina; Angelfish (inset); Brisk beaches along North Carolina's coast make for good strolls to stretch the legs and picnics by the sea



the *U-352* results in a flashing dive computer and the reluctant admission that it is time to begin our ascent.

Safely back aboard the *Midnight Express*, I secure my gear and try to recall all that took place over the past 40 minutes.

Meanwhile, after surfacing from his dive at the back of the boat, George clambers up the ladder, plops a net bag on the rear deck and excitedly proclaims, "I think I might have found a watch." Once free of his BC, he opens the bag to reveal a collection of items that look to be a mixture of crusty rocks and really old trash. I certainly do not see any watch.

George proceeds to use the handle of his dive knife to carefully chip away at one of the objects. In just a couple of minutes, what once appeared to be a nondescript rock now clearly resembles a pocket watch. Call me amazed and a bit jealous. The new mystery is how George got inside the control room (a place he estimates he has visited 1,500 times before), stick his hand in silt up to his elbow, feel around in the dark, pull out something that looked like nothing and know he had found a watch?



CLOCKWISE FROM TOP LEFT: Remora fish catch a ride on a swift stingray; Pocket watch found on the wreck of the *U-352*—could it have belonged to the U-boat's captain Ratke? Graceful ray glides over the wreck of *U-352*; A spent artillery shell lies on the ocean floor by the wreck; Toadfish makes use of effective camouflage as it blends into its surroundings



Upon more careful inspection, the back of the watch displays a German eagle and swastika. The watch might even have belonged to Rathke.

**More mysteries**

My visit to Morehead City has revealed more mysteries than answers. For example, it has recently been learned that three World War II wrecks were incorrectly identified when first discovered by divers (perhaps we should call it Rathke Syndrome) and the correct names have yet to be confirmed. This is not the first such case of mistaken identity, and I am sure inquiring minds would like the scoop.

Another topic that demands more attention is the influx of Pacific tropical fish, which have invaded the Atlantic via home aquariums. On one site, I counted almost as many lionfish (*Pterois volitans*) as I might

hope to see on a dive in the Red Sea or the Solomon Islands.

The predominant theory suggests that a strong hurricane and the Gulf Stream combined forces to carry the fry or eggs of the invasive species, which were produced by home aquaria specimens illegally released in the Florida Keys, to the Carolinas. Regardless of how the fish arrived, their current populations, range, ability to adapt and the absence of predators mean that it is too late to reverse the trend.

The big question is which endemic species will disappear due to the new competition. Groupers are thought to be at risk high since they feed on the same prey as the lionfish.

The mystery that lingers the most is why I waited so long to visit Morehead City. I have been blessed with the opportunity to dive and explore oceans around the world,



LEFT TO RIGHT: Lionfish on the wreck of the U-352; Prowling stingray; School of Spadefish at the Titan dive site

THE



# POWER OF DEMA SHOW

THOUSANDS OF OPPORTUNITIES...ONE GOAL:  
YOUR SUCCESS



## DEMA SHOW, THE POWER TO BE:

**INFORMED** by DEMA Show's comprehensive educational programs — presenting tested strategies, new insights for the new economy, and innovative ideas certain to breathe new life into your business.

**CONNECTED** with the dive community while you immerse yourself in the business of diving. Learn from experts and from your peers, and apply their ideas and successes to YOUR challenges.

**SUCCESSFUL** in boosting your bottom line with show-only promotions and specials offered by hundreds of exhibitors. In time AND money, DEMA Show provides a generous return on your attendance investment.

**DEMA Show is the place to refresh yourself and revitalize the way you do business so you can provide your customers with what they love** — diving, travel and adventure. Achieve your financial and business goals. In these challenging times, attending DEMA Show makes more sense than ever before.

Register for DEMA Show today at [www.demashow.com](http://www.demashow.com).

NOVEMBER 4-7, 2009 • ORLANDO, FL • ORANGE COUNTY CONVENTION CENTER

BE INFORMED. BE CONNECTED. BE SUCCESSFUL.  
[WWW.DEMASHOW.COM](http://WWW.DEMASHOW.COM)

Diver finds a school of Spadefish hovering over a wreck site off North Carolina

## North Carolina



always seeking the next big adventure, and yet, in all that I have seen and experienced in far away lands, diving off the coast of North Carolina has mysteries, stories and sights that would take a lifetime to savor. ■

*Special thanks to:*  
Morehead City Dive Operators  
Olympus Dive Center  
[www.olympusdiving.com](http://www.olympusdiving.com)  
Diver Down  
[www.diverdownscubadiving.com](http://www.diverdownscubadiving.com)  
Discover Diving  
[www.discoverydiving.com](http://www.discoverydiving.com)  
Atlantis Dive Charters  
[www.atlantischarters.net](http://www.atlantischarters.net)

IN MEMORY OF GEORGE George Purifoy, 63, owner of Olympus Dive Center located in Morehead City, NC, who is credited alongside his friends with the discovery in 1974 of the wreck of *U-352*, passed away on 14 September 2008 after collapsing on board his boat during a dive at the Queen Anne's Revenge shipwreck site. Purifoy is survived by his son, Robert, who continues the family business; his daughter, Sandra Purifoy Maschmeyer; a brother and sister and four grandchildren. A memorial fund was set up in Purifoy's honor through Diver's Alert Network. ■

Two sand perch guarding their territory





Going, going, gone...

# British Columbia's Reefs of Steel

## New Life for Canadian Military Ships

Text and photos by Barb Roy

I could hear a low rumble as detonated explosives echoed down long empty corridors and through multiple decks of steel. Three hundred and sixty-six feet of ship began to groan and creek while water rushed in to claim its above water existence. Watching from a safe distance, former crewmembers and excited divers marveled at enormous geysers of escaping air mixed with water while the *HMCS Saskatchewan* began its final objective—to become Nanaimo's next artificial reef of steel. As with previous retired Canadian military ships, the *Saskatchewan* gracefully accepted its place in Canadian history as the fifth Destroyer Escort to be transformed from a once powerful tool of war into British Columbia's newest dive site.

Twelve years have passed since the *Saskatchewan* was scuttled next to Snake Island, on the mid-eastern side of Vancouver Island in British Columbia, Canada. The *Saskatchewan* is one of two Nanaimo wrecks purposely put in place by the Artificial Reef Society of British Columbia (ARSBC).

It is the winter of 2009, and I have joined a few friends to make my annual inspection and photo documentation of the ship's wondrous conversion into a thriving living reef. My husband and fellow wreck explorer, Wayne Grant, and technical dive instructor trainer, Ron Akeson, have joined me. Ron has brought several of his technical diving students along to practice skills and check out their new deep diving gear.

"I would much rather have my students learn how to deal with any gear or performance problems on one of these ships, in a somewhat similar wreck environment, than on a natural, possibly more fragile wreck," states Akeson. "If a technique isn't right, we have the time and depth to practice the skill until it becomes second nature without worry of currents, entanglement or damaging a potentially historic wreck."

During the short journey to the site (about 15 minutes from

Departure Bay), retired Nanaimo dive instructor and charter operator, Ian Hall, told us how the *Saskatchewan* and the other two scuttled wrecks has helped Nanaimo's dive industry:

"Since *Saskatchewan* was scuttled in 1997, we were busy almost every weekend with dive charters for over ten years. From 1997 to 2004 we did over 8,916 logged dives on the *Saskatchewan* alone! People came from all over the world because we had something new and unique. Back then, and now, about 64 percent of our clientele wanted to dive on the *Saskatchewan* or the *Cape Breton*, a 400-foot (122 meter) ship similar to the Liberty-class Ships in the US Military."

Ian went on to tell us that over 50 percent of his customers were divers using double tanks or rebreathers. Technical divers however, seem to prefer the *Cape Breton* because of its depth (140 feet/42.5 meters) and the fact it has a vertical shaft from the main deck leading to the engine room.

Both underwater photographers and naturalist also enjoy the two ships because of the abundance of life attracted to them.

Before sinking both vessels were thoroughly cleaned of all wires and furnishings. Huge 4x6-foot (1.2 - 1.6

captions this page...



meter) holes were cut throughout all decks and hull to ease entry and exits.

### Diving the *Saskatchewan*

Once everyone was in the water we descend down the mid-ship line on the *Saskatchewan* (one of three lines). We were blessed with over 80 feet (23m) of visibility! At 30 feet (10m) a gray outline came into view. At 50 feet (15m), I paused to adjust my strobes just below the radar platform, catching a glimpse of a huge lingcod resting at the far end.

On my way to capture the shot, Wayne zoomed

by on his scooter, determined to see how it would handle inside the wreck. Two of the technical students began laying out their practice lines at 90 feet (27 meters). I could hardly wait to see what new critters

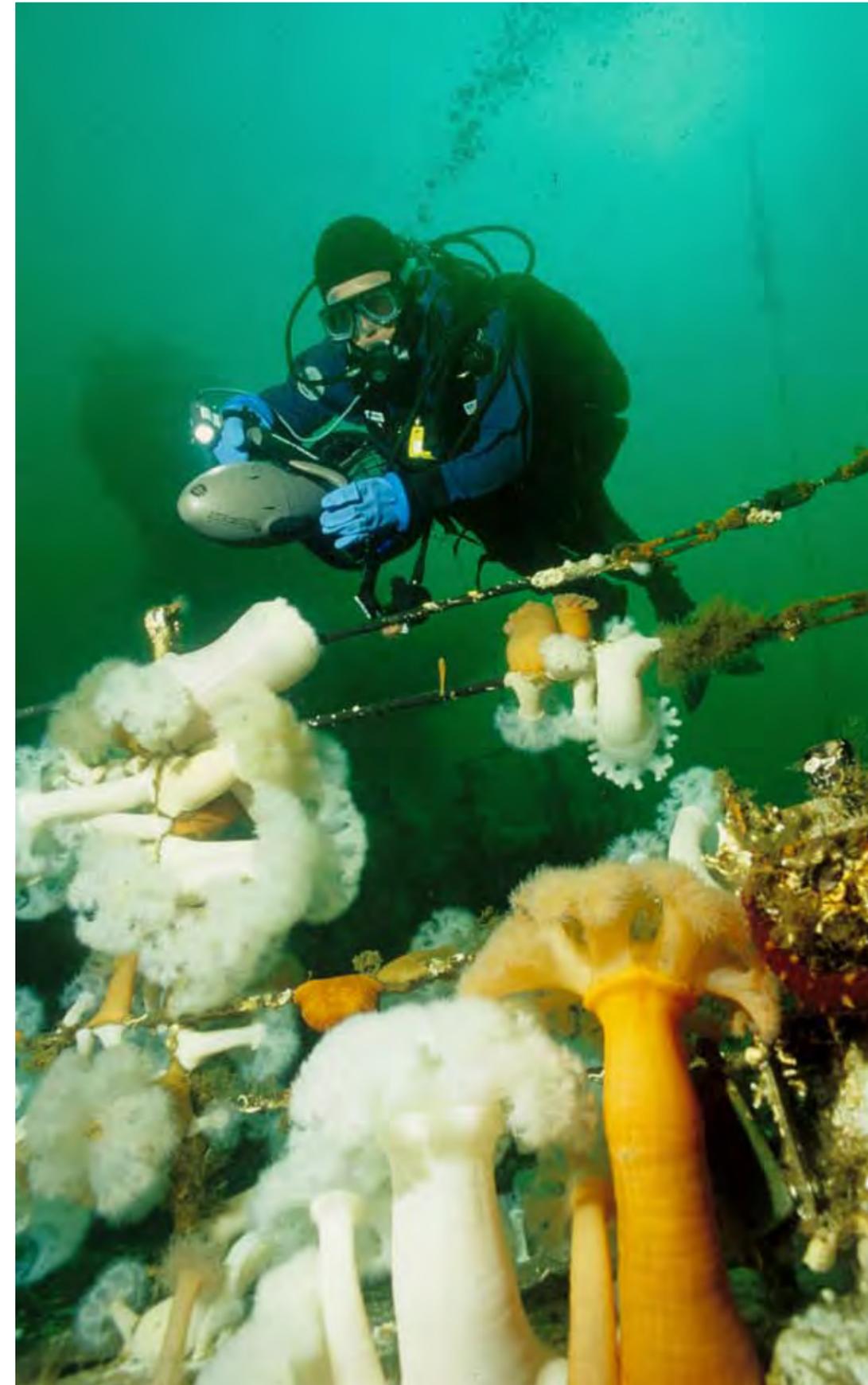
had decided to call the *Saskatchewan* home.

It was unbelievable how the rails, ladders and wheelhouse windows (once void of life) were now completely covered with barnacles, encrusting invertebrates, anemones, swimming

scallops and golden colored feather stars. A rainbow of tiny delicate hydroids and tunicates decorated the outer parts of the ship to gather nourishment in slight currents, which



captions this page...



captions this page...

can occasionally be felt by divers during extreme tides.

At this rate of growth it won't be long before the entire wreck is completely covered with life. Schools of juvenile rockfish and silvery clouds of tiny baitfish elegantly weaved across the upper deck, through the Captain's cabin and towards the forward twin 3-inch 70-caliber gun barrels. I found it hard to imagine these long slender devices supporting so many critters, were once used to fend off aerial attacks.

On the main deck, at the bow, cabezon and lingcod vigilantly guarded their personal territories between white and orange plumose anemones in hopes a passing female would consider their domain a suit-

able nesting site. Smaller sculpins, decorator crabs and shrimp had made their homes in the open spaces in-between the main deck plates, where access holes had been cut.

Every now and then Wayne would pop up through a hatch to check on me. He was like a kid with a new toy zipping in and out of the ship, followed by another diver with a scooter. On a prolific wreck such as this, it doesn't take long for me to burn through a 2GB memory card using video and stills!

After surfacing, everyone was beaming with enthusiasm. Wayne was pleased to find the scooter successfully pulled him through multiple rooms and down Burma Road (a corridor traversing the length of the ship)

without kicking up a trail of silt, as fins usually do. I had plenty of images to add to my documentation records and have noted seeing a new grunt sculpin, about the size of my hand. The students finished their skills in full Trimix gear with all potential problems alleviated or resolved.

"I really like these wrecks for keeping my techniques sharp," exclaimed Rob Wilson, visiting rebreather diver from the Marysville, Washington. "Winter weather conditions always yield excellent visibility and its good practice for when we dive on real wrecks. I can't stress it enough how important it is to stay up on safety procedures and to first do a dive to check out all new equipment. We want no surprises at 250 feet!"



## Artificial Reefs

### Artificial reef projects

Wreck projects of this nature, often called "Artificial Reefs," have always played an essential economic role in British Columbia's dive-tourism market. Positive environmental effects gained from providing additional marine habitat include increased fish populations, additional substrate which attracts algae and kelp—providing protection from predators.

To gain a better perspective, the City of Nanaimo's Economic Development Group did a local study in 2003, concluding dive tourism annually brought in an estimated three million dollars in tourism revenue.

The ARSBC actually began when a group of ambitious Canadian divers who loved to dive on shipwrecks, got together in 1990 over a beer in a local pub. Hence, the society was formed and the craft of sinking ships began in Canada to enhance existing destinations around BC.

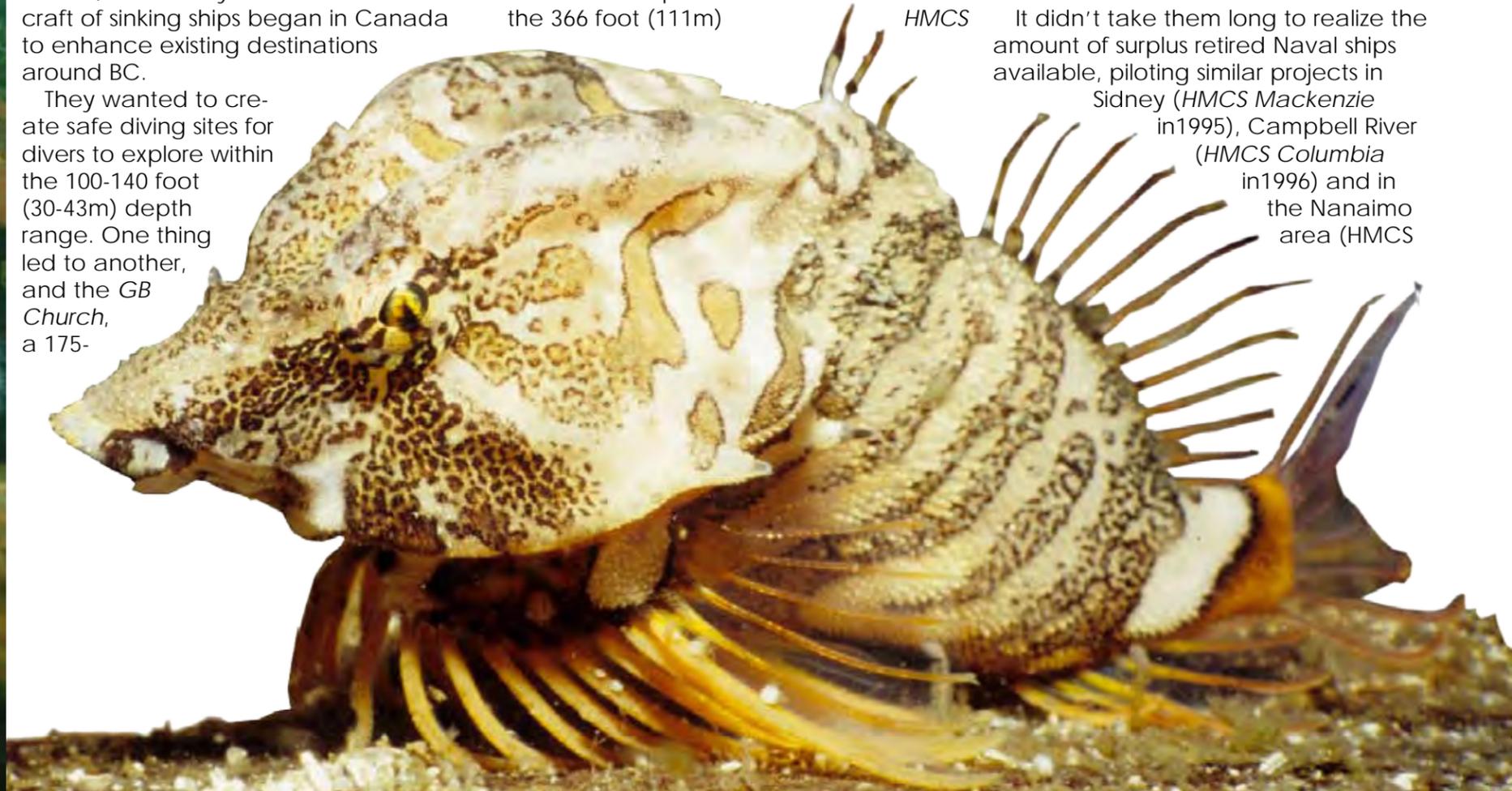
They wanted to create safe diving sites for divers to explore within the 100-140 foot (30-43m) depth range. One thing led to another, and the *GB Church*, a 175-



foot (53m) freighter was scuttled near Sidney, BC in 1991. This in turn led to the acquisition of the 366 foot (111m) *HMCS*

*Chaudiere*—another retired Canadian Navy vessel, which was scuttled in Sechart Inlet in 1992 near Kunechin Point.

It didn't take them long to realize the amount of surplus retired Naval ships available, piloting similar projects in Sidney (*HMCS Mackenzie* in 1995), Campbell River (*HMCS Columbia* in 1996) and in the Nanaimo area (*HMCS*





Saskatchewan in 1997, *HMCS Cape Breton* in 2001). California State and Mexico even collaborated with the ARSBC to acquire a few of these excess Canadian ships, with ARSBC representatives on hand to consult for cleaning and sinking procedures.

In 1992 eastern Canada followed suit starting the Nova Scotia Artificial Reef Society, scuttling the retired *HMCS Saguenay* in 1994 and the 122-foot (37m) trawler, *Matthew Atlantic* in 1998. The society also acquired the retired St Laurent Class *HMCS Fraser* in 1997, docking it on the LaHave River in Bridgeport and turning it into a museum.

"Originally we wanted to sink the Fraser," states Rick Welsford, a key member in obtaining the Nova Scotia vessels. "But later we decided to send in a proposal to the Canadian Navy to preserve the *Fraser* by turning it into a Naval Museum. Divers also have an opportunity to see how the ship is laid out before diving on its sister ship, the *Saguenay*."

Whether the reason is to provide substrate to attract marine life, provide a training platform, or for economic reasons, dive communities around the globe are now or have already pursued having a ship of their own to attract divers. Many even have plans for a series of ships, to be scuttled. In the United States: California, Texas, Florida, and many other coastal states have

## Artificial Reefs

similar artificial reef programs in place or are establishing them.

"I think that a lot of people forget about the environmental value of these artificial reefs," points out Mike Lever, owner and operator of the ocean-going live-aboard dive vessel *Nautilus Explorer*. "If it weren't for the protection these ships provide, all of those tiny critters now living on the wrecks might otherwise be fish bait. And the invertebrate life simply wouldn't be on a mud bottom. With the fish stocks under such enormous pressure in Georgia Strait, the wrecks provide some relief for natural reefs to recover and every bit of sanctuary helps."

### Consulting

In an effort to expand and help other countries around the world to start similar artificial reef projects, three members from the Canadian ARSBC branched off, forming a formal consulting company independent of the ARSBC. Canadian Artificial Reef Consulting (CARC) was established in





captions this page...

ing from the Canadian Navy are pre-cleaned of all hazardous material and dangerous substances. In the United States, however, restrictions from the Environmental Protection Agency (EPA) have proven in the past to be a hurdle of red tape. With new funding available from the Federal Government, cleaning to EPA standards should become more feasible.

"It's very important to us," comments Wes Roots, member of the CARC team and owner of WR Marine (company hired to clean and prepare several ships for the ARSBC), "That these ships are made as 'diver' and 'environmentally' safe as possible. We have a proven track record and a system that works from years of experience."

Currently Wes Roots and CARC are working with the ARSBC to prepare another Destroyer Escort—the 371-foot

2003 to offer expertise in financial matters, preparation and cleaning recommendations and also demolition.

"We have teamed up with groups

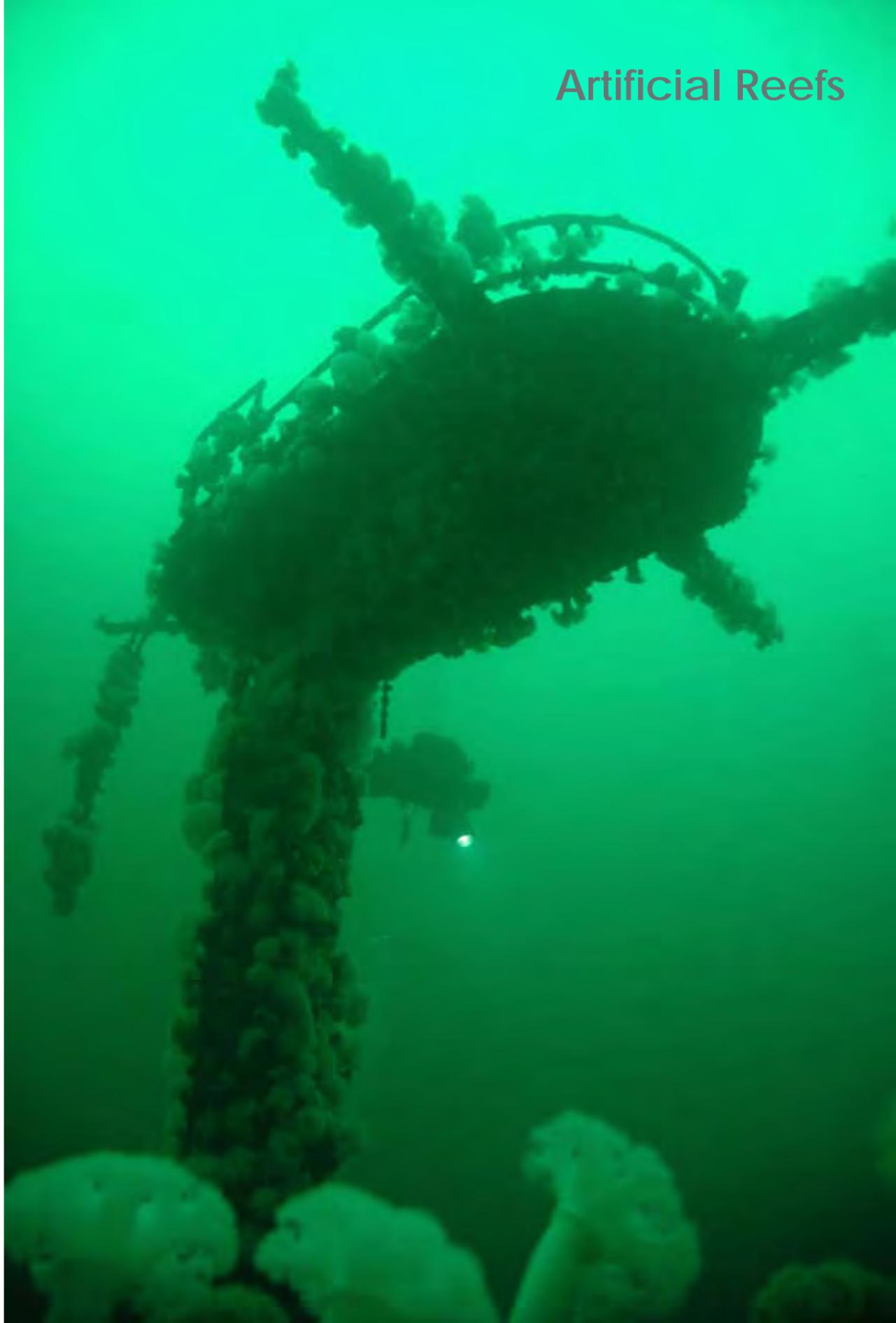
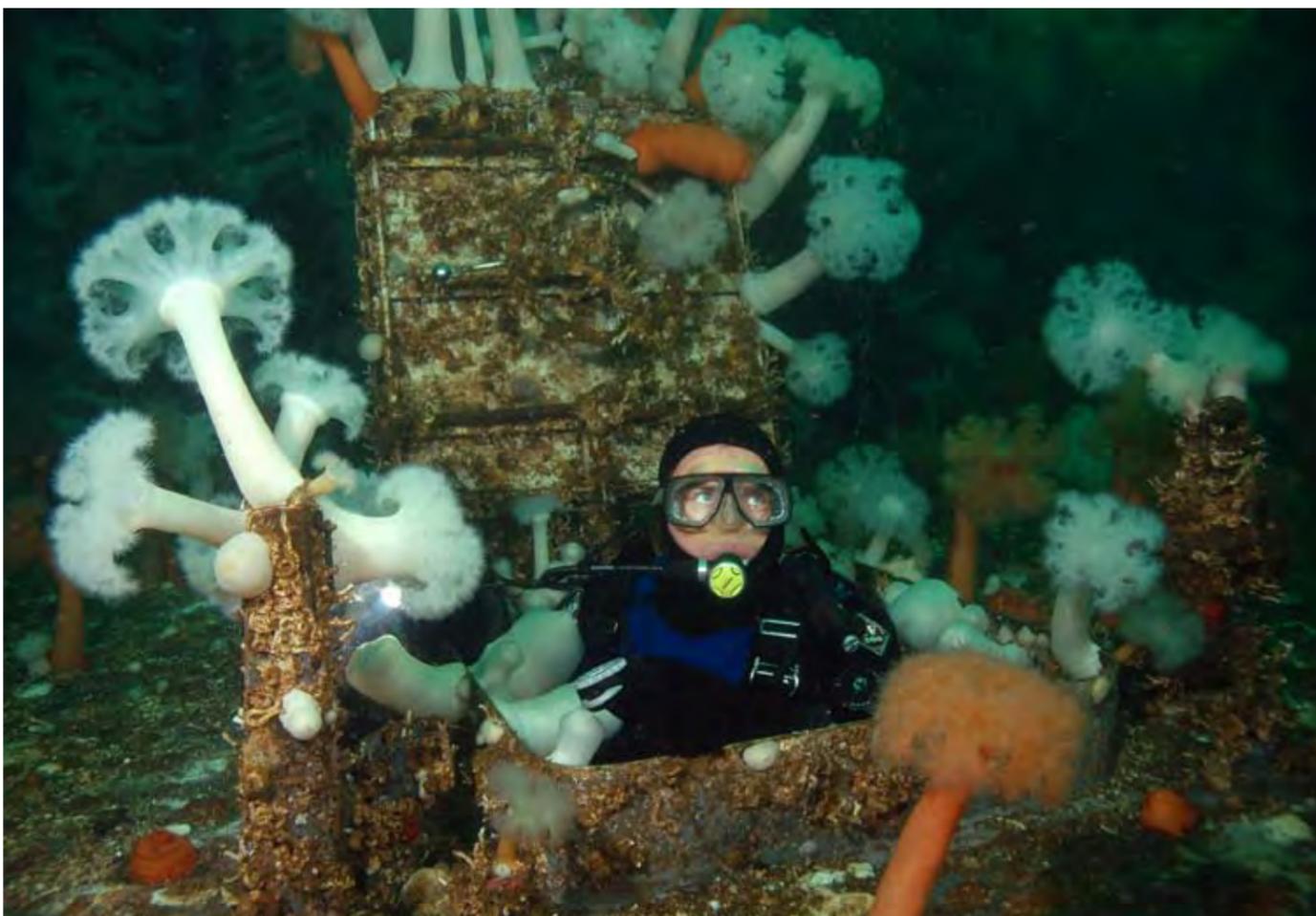
from around the world, helping them establish their own reef making programs," explains Jay Straith, former President of the ARSBC and current President of CARC. "We now have people capable of looking at long term ship stability issues, and issues relating to salvage, ship yards, diver risk mitigation and placement."

To date, team members of the CARC have assisted with projects in Quebec, the Caribbean, Australia, New Zealand, and the United Kingdom. Future projects include the United States and other parts of Europe.

### Preparation

The whole preparation process for a ship

takes anywhere from six to 12 months depending upon the extent of readiness required by the community receiving the ship. In BC, most of the ships com-



## Artificial Reefs

captions this page...



## Artificial Reefs

(113m) *HMCS Annapolis*, for sinking in Howe Sound. The ship was acquired in 2008 and brought to a cove on Gambier Island for preparation, from the Esquimalt Naval Base on Vancouver Island.

Although volunteers were used in preparation of previous ships, the *Annapolis* has used volunteer help almost exclusively. Since October of 2008, groups of 6-20 volunteers have gathered on weekends from supporting dive stores and clubs in British Columbia and Washington State to be transported by local dive charter operators on their boats to the ship. They bring tools, gloves, dust masks and coveralls to disassemble things,

carry items and sweep floors for the day.

Deirdre McCracken, Director of Public Relations for the ARSBC and co-owner of Ocean Quest Dive Centre in Burnaby explains more on volunteer ship preparations:

"The plan over the previous months was to mine as much metals as possible to sell as salvage, concentrating on just about every part of the ship. The only areas not mined as intensely is the engine room, boiler room and steering room, but that is yet to come. The accumulation of months of work to clean, clear, stack and strip all manner of materials literally began to choke productivity. Rooms were

stacked with sorted items such as light fixtures, gear boxes, fiber glass, aluminum racks, sinks, bed bunks, ventilation ducts, drawers and the list goes on.

"Getting this volume of work neatly organized and staged is due entirely to the volunteers who love to be a part of each step. We have some serious 'repeat offenders' some of whom have been aboard more than ten times and others are getting as close. When we reach this accumulation level, like in May, a barge is rented to support a 52-foot trailer and two container bins. The trailer is used for debris only, like the estimated removal of 600 bags of fiberglass insulation we

captions this page...



hailed out hand over hand from various parts the ship. The other bins are for metals, mostly aluminum parts."

Deirdre also explained that the *Annapolis* was the only ship acquired by the ARSBC with all of the wire removed, saving additional work. "We had an amazing support from our dive community," continues Deirdre. "With representation from every dive centre in the Lower Mainland, including store owners, managers, customers, various clubs, our American diving friends, as well as our local charter operators, working shoulder to shoulder to make this a truly collaborative effort from the dive community. This is a reflection of the passion, support and driving force behind this unique project, and is what has kept it going though all phases thus far."

"We still need volunteers every weekend up until sinking," adds Howard Robins, President of the

ARSBC. "Most of the permits are in place and after Environmental Canada gives their final approval, we will talk sink dates. If not in 2009, for sure in 2010. Halkett Bay Provincial Marine Park is the location we are currently looking at."

### Protected areas

The ARSBC also hopes to eventually establish protected areas around the all of their projects in British Columbia, falling under BC Parks jurisdiction and protection.

"ONLY THE FIT SURVIVE" is the motto proudly used to represent the former *HMCS Yukon* (now a reef in California) adapted from a Robert Service poem. One can easily find truth in these words when looking at the long-term survival of our oceans.

By placing these reefs of steel beneath the waters of our world today, perhaps natural reefs will have time to replenish. I can't think of a better way or a more suitable

final mission to honor the massive ships that once protected our loved ones during times of world turmoil, when the alternate choice for their use is to the scrap yard. As divers it's our job as oceanic ambassadors in the long run to work together to preserve this environment and ensure its continued existence for future generations.

### Reference Sites

- Artificial Reef Society of British Columbia: [www.artificialreef.bc.ca](http://www.artificialreef.bc.ca)
- Canadian Artificial Reef Consulting: [www.artificialreefs.net](http://www.artificialreefs.net)
- Something fun and educational for kids at National Geographic: [www.nationalgeographic.com/expeditions/lessons/08/g912/artificialreefs.html](http://www.nationalgeographic.com/expeditions/lessons/08/g912/artificialreefs.html)
- The Dive Industry Association of British Columbia: [www.diveindustrybc.com](http://www.diveindustrybc.com)
- Tourism British Columbia: [www.hellobc.com](http://www.hellobc.com) ■

captions this page...