PNW DIVER

MAGAZINE

January 2015

Featuring:

Rene Gauthier
Jan Kocian
The Annapolis Story

and more..

01 About the Magazine

Cover photo by Kerry Enns

Nikon, 1/160, ISO500, f3.8, 46mm

The Pacific NorthWest Diver Magazine is published bi-monthly and is a publication of the Pacific Northwest Underwater Photographic Society (PNWUPS), which is an organization formed to encourage interest and participation in underwater photography. The organization's central goals are: to provide an environment where photographers can help other photographers improve their skill; to promote Pacific Northwest underwater photographers; and to share the beauty of our underwater environment with the non-diving public. If you have an idea for a story or would like to present an article for consideration, please contact the editor/publisher.

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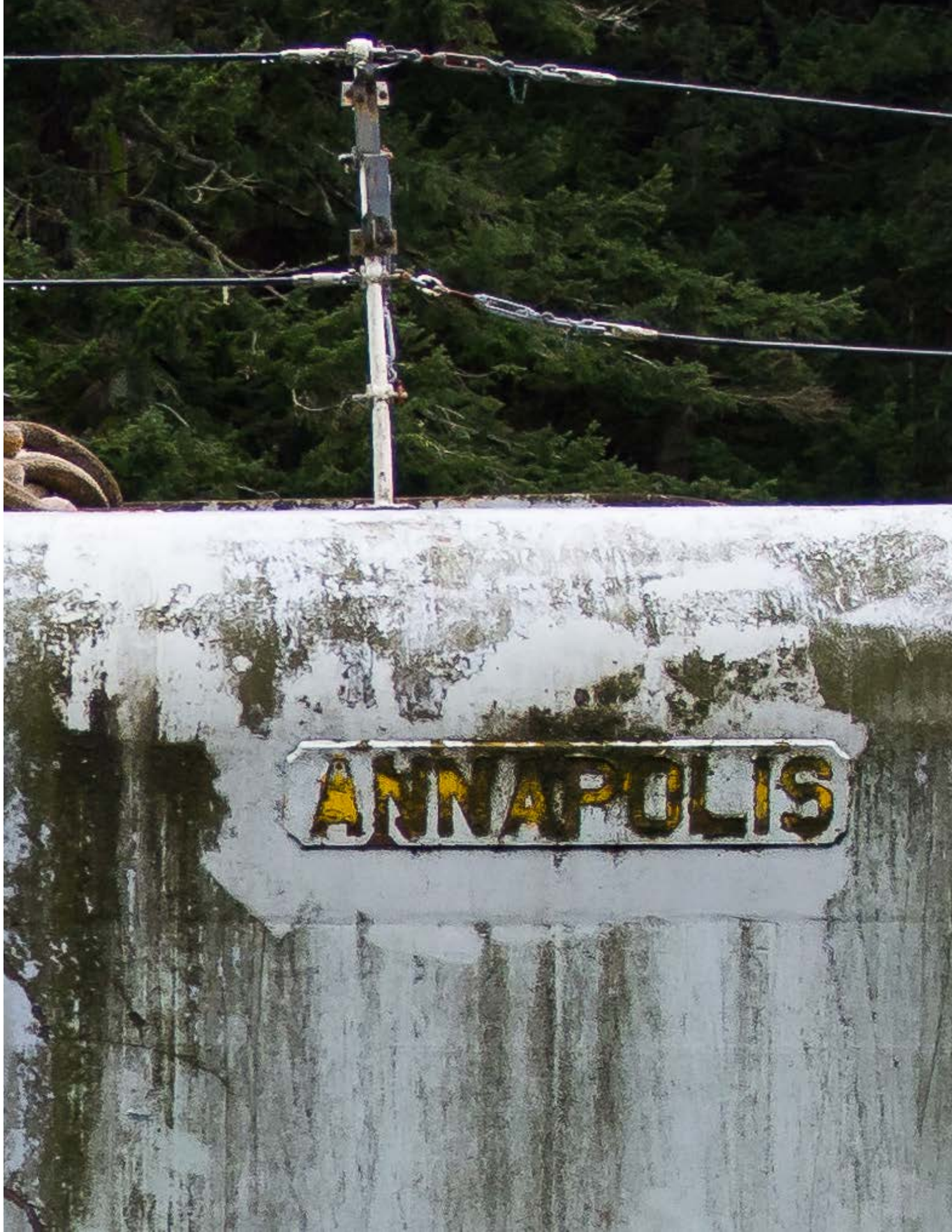

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Four years ago I started diving because I needed to. My job was driving me crazy and I needed the peace and quiet and intrigue that diving offers. After a few months of diving every week I thought that I would like to share the amazing underwater world with my friends – this was surely possible. I threw a housing on my point and shoot, bought a used strobe and went at it. A few months after that, Dan Clements noticed my photos and asked me to share them with this very magazine.

> *Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible.*
>
> *-Saint Francis of Assisi*

I find it impossibly exciting that I am now putting this magazine together. Even more impossible, the team that has come together is even more fantastic. Dale, a dive buddy from almost the very beginning offered to write about his passion – diving history. Then Talia, a graphic designer, volunteered her skills. Next came Ben, although not from this coast he loves everything ocean. I met him a few years back and he's helping with editing. During the Suzuki event, which you'll read about later, I met Donna from the Vancouver Aquarium. Dan, of course, continues to be his gregarious self with infinite connections. Meet the dream team.

So with the New Year, we start a new chapter in this magazine. The first of hopefully more changes. We start with a new look. A new team. And to that, two new sections that we hope you will enjoy. It is my hope that, with your input, we can make this magazine impossibly good.

~Kerry Enns
editor@pnwups.com

2015 January PNWDiver

Into The Archives: Fred Rogers – Diving Pioneer

The story of a man who lead the way to popularizing diving as it is known today.

Written by Dale Carlisle

Google "Fred Rogers" and you will get 38,000,000 hits, most having to do with that nice man in the cardigan sweater who wants to be your neighbour. Add "BC Diver" to the search, however, and you will get a few more hits about a local underwater legend of the same name.

Anyone who looks into the history of British Columbia diving, or has an interest in west coast shipwrecks, has likely heard of Fred Rogers. He was one of a number of avid early divers who began practicing the sport before it officially arrived on the BC scene. Like many of us, Fred became hooked on this "diving thing" from the very start. Over the years he amassed a profound wealth of information and experience researching, locating and often salvaging forgotten ships. He had that special ability of the period for resourcefulness and when he could not buy something he needed, he simply made it. For nearly two decades he and his partner, Ed Seaton, dedicated themselves to their underwater passion. Fred later recounted the results of those efforts in three informative books. This is a brief recounting of his story.

Early Years

Alfred "Fred" Rogers was born in Vancouver, British Columbia shortly after the end of WWI. As a boy growing up in the depression era, he had to leave Britannia High School early in order to help with his father's coal and sawdust business. Many of his friends left school at an earlier age, but rather than viewing himself as uneducated, Fred realized his interests and talents lay elsewhere. He then began a plumbing apprenticeship.

One of Fred's first underwater experiences occurred around the age of 16 when he made a shallow water diving helmet, along the lines of that used by William Beebe, noted New York Zoological Society naturalist. Created from a galvanized range broiler tank, the device was fed from the surface via a car tire pump and with it Fred and his friends explored the murky Vancouver shoreline.

After serving in the Canadian Navy, Fred settled down to work as a pipefitter/welder. In 1954 he accompanied two friends to a small Seattle dive shop. His curiosity was piqued. He soon began skin diving with the newly formed *Vancouver Skin Divers Club*, even winning its first spearfishing competition. By 1955 he acquired his own SCUBA gear and the course of his life was set.

The 1950's British Columbia Diving Scene

In the early 1950's, British Columbians who chose to dive in local waters did so with no certified instructors to teach them and no dive shops for service. Equipment was purchased through mail order or by traveling south to larger cities in the United States. They learned by trial and error, mentoring or reading "how to" books. Most divers started skin diving using mask, snorkel and fins and the activity generally revolved around spearfishing, a popular sport at the time.

The first local club formed in 1953 was the *Vancouver Skin Divers Club* (VSDC). This later split into the more SCUBA related *Vancouver Sub Aquatic Club* in 1956. Fred shared early membership in the VSDC with BC's first instructors Pat Molony and Gino Gemma (YWCA Program 1958) and dive pioneer, explorer and innovator Phil Nuytten. Because of his mechanical skills, Fred found a place in the early scene by making equipment for himself and others. In his garage, he creating SCUBA tanks from WWII surplus aviation fire extinguishers and even put together his own oxygen rebreather.

The parallel pathways of compressed air diving and oxygen rebreather use (popular due to easily available war surplus units) came to an abrupt end in 1955/56 with the untimely death of popular diver James (Jimmy) Willis. Almost overnight, surplus RB units disappeared off department store shelves and use amongst members was discouraged in favour of the far more predictable aqualung.

At that time, Fred Rogers had begun to do small salvage jobs and gradually moved away from spearfishing for his new and most enduring interest, sunken ships.

Becoming a Wrecks-pert and Historian

Wreck diving in pre 1950 BC did not resemble modern wreck diving. Because ships could only be salvaged by surface-supplied divers, interest was largely motivated by the value of the lost ship's contents measured against the difficulty of recovery. With the advent of SCUBA, smaller, less expensive operations could begin to seek out and work underwater sites. Fred Rogers and Ed Seaton were two of these pioneers and they spent much of the next two decades pouring over shipping reports, maps and newspaper articles.

Unlike many wreck divers of today, their interest was more pragmatic than aesthetic. In addition to the thrill of locating the last resting place of a lost ship, there was a financial incentive to pay for expenses and earn a modest living. Sometimes this might have been reclaimed cargo, equipment, fittings or materials like brass and bronze. The conservation model of wreck diving did not exist then, as very few people were able to dive to see them. Yet Fred's early activities eventually came to aid later divers.

His research of, and search for, west coast shipwrecks was prolific to say the least. Over the years he compiled an amazing collection of archival material much of which is now housed at the Vancouver Maritime Museum. After he retired from active salvaging in 1972, Fred entered into the next phase of his diving career – that of historian and author.

His Books

From his vast collection of records, Fred Rogers eventually wrote two books on the subject of British Columbia shipwrecks which are today still considered the pre-eminent source for information on the subject.

The first, published in 1973, *Shipwrecks of British Columbia* covers many sites from the Strait of Georgia and the Strait of Juan de Fuca, the southeast and western coasts of Vancouver Island, the northern Coast of

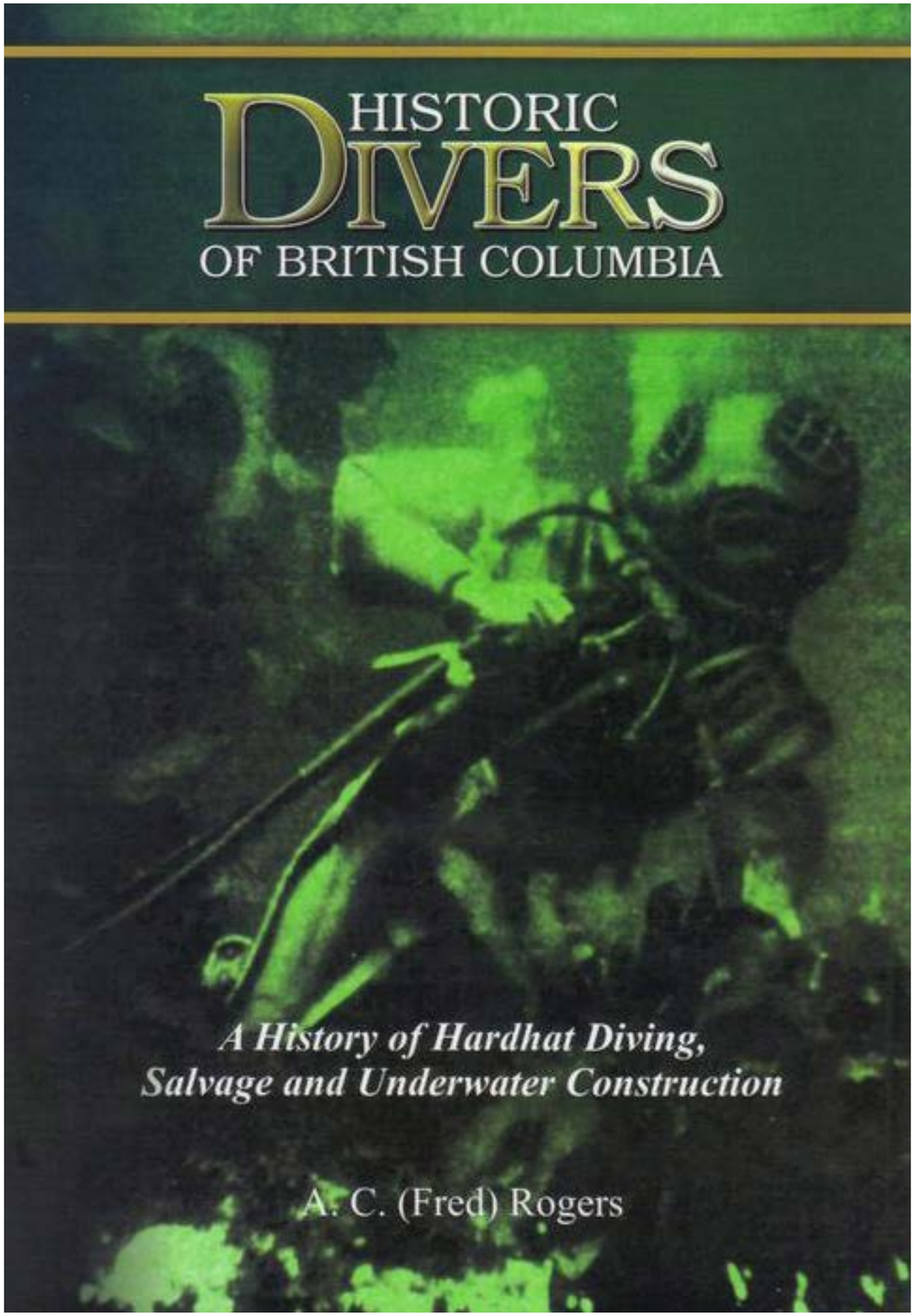
British Columbia, Fraser River, Burrard Inlet and deep water wrecks of the Howe Sound. There are also sections on early wrecks and treasure ships in BC waters.

In 1992 he followed with his second book *More Shipwrecks of British Columbia*. In this volume he expanded on previous geographic regions mentioned as well as new areas such as False Creek, the Sandheads area, Discovery Passage and Johnstone Strait, Queen Charlotte Islands and the lower Gulf Coast and Islands. Both books came with large pullout charts of the wreck sites listed.

In 2003, Fred revisited the archives to self-publish one of his more interesting books, *Historic Divers of British Columbia – A History of Hardhat Diving, Salvage and Underwater Construction*. This is a collection of early working divers related through short stories, period photographs and actual reprints of newspaper articles.

There exists, in unpublished manuscript form, a fourth book, *A Brief History of Sport Diving around the British Columbia Coast*. This work is currently retained by the Underwater Archeological Society of British Columbia.

Sadly, Fred Rogers passed away in 2012 at the age of 93. However we are fortunate to have as his legacy, the words of this pioneer, working diver and historian. Divers today continue to reference his records and be inspired by his adventurous and resourceful spirit.



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MLSS Teams with Squamish Nation to Honor David Suzuki

David Suzuki wrapped up his Blue Dot Tour in Vancouver this fall. The Squamish Nation welcomed him with a canoe ride and blanket wrapping ceremony.

Photos & Story by Roy Mulder

Marine Life Sanctuaries Society of BC conducted a Beach Interpretation Program for Squamish Nation in association with the David Suzuki Foundation on November 8th at Porteau Cove Park.

The MLSS team consisted of 22 volunteers keen on bringing up creatures from under the water to show to the guests. A wide range of sea life was brought up to containers while Beach Interpreters were on hand to talk about the biology of the creatures and their importance in the ecosystem. All creatures were ethically handled, were supplied with fresh cold-water circulation and returned to where they were collected from at the end of the program.

During this event, David Suzuki was personally honoured by Squamish Nation in a Blanket Wrapping Ceremony. Dr. Suzuki has put immeasurable energy into working on creating environmental awareness and protections for land and water. Squamish Nation took this opportunity to show their thanks for what he has done.

Marine Life Sanctuaries Society

An active group of concerned citizens aims to further protect the fragile ecosystem of the Howe Sound.

Photos and Story by Roy Mulder

Marine Life Sanctuaries Society (MLSS) was established in 1985 to proactively secure protected areas for Marine Life. The Society works at developing stewardship at a community level and believes that community engagement is best made at a direct level. Active education programs are very successful ways of creating engagement. It is clear from the Howe Sound Community Forums that there is a strong interest in the ocean and that it is important to the community. MLSS hopes that our programs will stimulate interest in joining our organization and supporting our voluntary marine sanctuary program.

Thanks to people like Lions Bay resident Glen Dennison, we are learning about some areas of critical significance like the cloud sponge reefs in Howe Sound. MLSS has been in recent talks with Fisheries and Oceans Canada to protect nine sponge reef sites in the Strait of Georgia. Unfortunately, many of the sponge reefs that Mr. Dennison has been studying were not included in the nine sites being discussed for protection. This will leave several important sponge reefs without safeguards from the damage associated with fishing activities.

These sponge reefs are incredibly delicate and cannot withstand fishing gear being dropped into them or towed across them. Activities that stir up the bottom near them, like traps, can hinder the sponges' filtration of water that is essential for their survival. This means that without protective measures there is a good chance that fishing activities could destroy the reefs.

MLSS is busy garnering public support to raise awareness that these areas are just as important as the nine sites currently under discussion for protection. MLA (Member of the Legislative Assembly/BC) Jorden Sturdy recently made a request in the House of Commons in support of more protections for the sponge reefs in Howe Sound.

The good news, however, is that Howe Sound is showing some signs of a rebirth. The divers who frequent Howe Sound have seen an increase in young lingcod and rockfish recently. Given that lingcod and rockfish cannot be harvested from Howe Sound, there may be a chance that they will rebound. Nevertheless, there are still many fishing activities that are putting stress on the fish stocks, especially given that there are no fully protected sites. The Rockfish Conservation Areas (RCAs), established by the Department of Fisheries and Oceans in 2007, was a good idea, although given that they do not provide protection from all fishing activities, they are proving to be ineffective in letting stocks to come back. It is hard to say if this is due to legal activities still allowed in RCAs or if it is a symptom of the poaching that goes on. It is clear that there is a constant threat from poachers who intentionally target the RCA sites given that enforcement has been severely diminished for the Howe Sound area.

MLSS has approached Lions Bay council to consider putting up signage for residents, so that they know who to call when poachers are seen. Our suggestion was well received by council. A champion from within Lions Bay will be needed to move this forward so that signage can be implemented.

MLSS welcomes anyone interested in joining our membership, which is a key element to our success. Membership can be done by signing in through our website at www.mlssbc.com

Sea Star Wasting Disease Discovered

by Ben Normand. Photos by Talia Cohen and Kerry Enns

In a previous issue, we explored a phenomenon, dubbed sea star wasting disease, which has plagued our coast in recent years. The disease causes lesions to appear over the skin of an affected sea star. Arms begin to fall off, allowing the spread of the lesions. Within days the star's internal organs exude from the lesions and the sea star dies. Typically, this disease acts quickly, killing a healthy sea star in a matter of days.

In light of this disturbing trend, which has affected sea stars all across the Pacific North West coast, scientists have been working to identify the cause of the disease. After extensive research, the cause has been identified as being a variety of densovirus. The virus occurs naturally in the oceans and on sea stars.

Ian Hewson, of Cornell University, says they suspected a virus to be the cause because sea stars living in aquariums which used un-treated sea water were becoming infected, whereas sea stars living in aquariums filled with water that had been treated using UV light (which kills viruses) were not. This hypothesis was further supported by the finding that sick sea stars had higher concentrations of the virus on and in them than did healthy ones. Finally, sea stars injected with material from infected sea stars, which had been treated to increase the concentration of the virus, became infected as well.

Currently, scientists do not believe this outbreak will lead to the extinction of any of the 20 affected species of sea star. They do, however, believe that the mix of species in sea star habitats will change, and that common prey species for the sea star (e.g. Mussels) will experience a population boom.

The cause for this outbreak is currently unknown. There is speculation that ocean acidification, a direct consequence of the rising levels of CO_2 in our atmosphere, could be damaging sea stars, creating weak spots through which the virus could enter.

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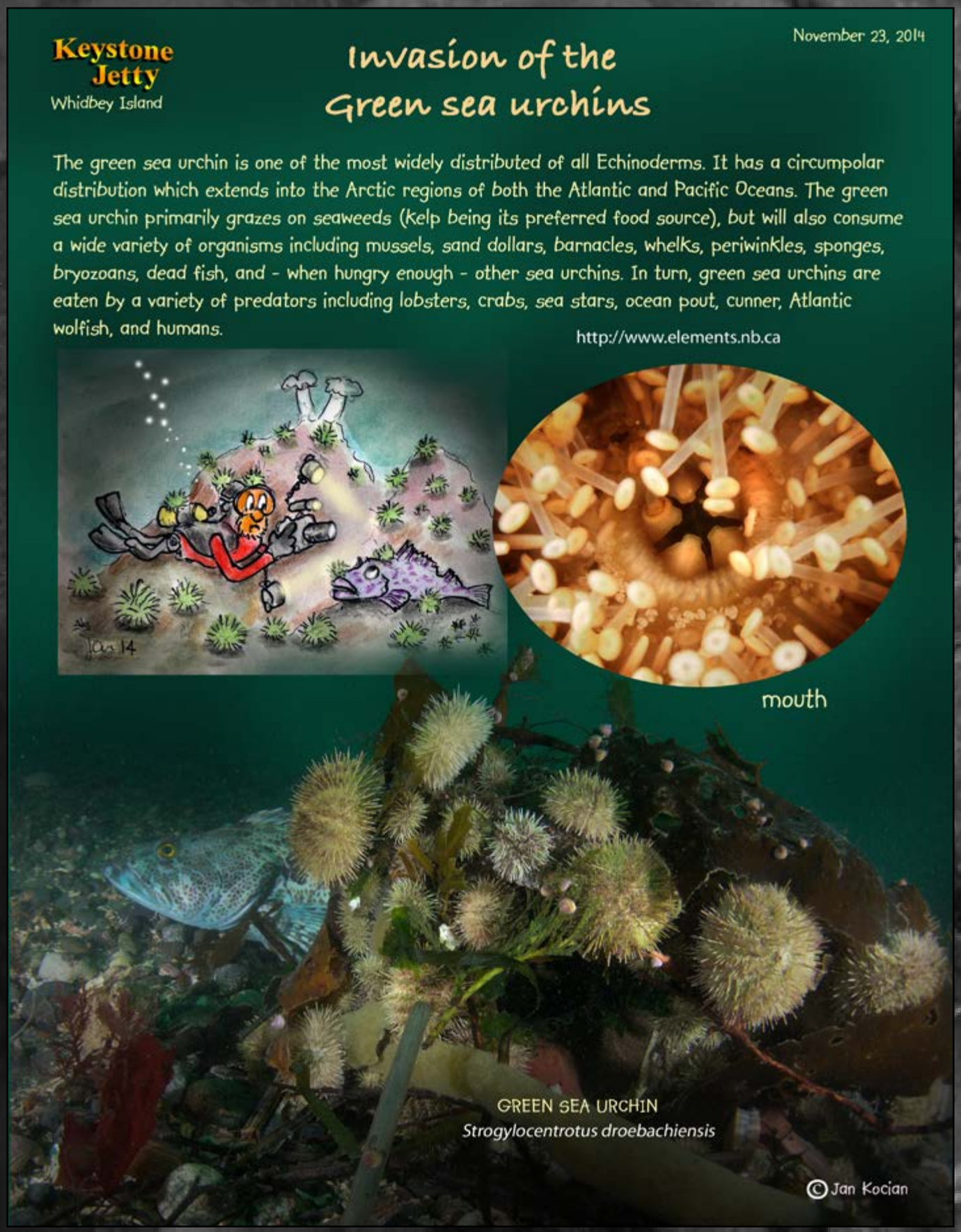
18 November, 2014. Web. 7 January, 2014.

Post Seastar Wasting: Changes on Whidbey Island

With our seastars diseappearing, we've all noticed changes. Jan tells us about some of his observations of this disturbing phenomena.

by Jan Kocian, Photos by Jan Kocian



I have been documenting the sea star wasting disease on Whidbey Island, and I wish I could say it is over, but I can't. I am still running into few infected animals in the Langley area. Sightings of infected sea stars have declined for the simple reason that there are not many sea stars left.

This is especially true about the Sunflower stars. Since they were the most noticeable predators of their family, their absence is startling. During my dives here on Whidbey Island, I was accustomed to see them feasting on everything from dead fish, to spiny sea urchins, and everything in-between, including their own species.

Observing and documenting the changes caused by sea star wasting is a work in progress. The replacement marine life will take time to develop. So far, the biggest change I have seen are Green Sea Urchins, whose numbers have noticeably increased at Keystone and Penn Cove. This does not appear to be the case at Langley, Possession Point and Deception Pass, however. At least not yet.

Scallops are the second species that caught my attention. Although we found them at Keystone with regularity in the past, the new ones are small and in higher densities. Recently I noticed that the few Sunflower stars I've seen, have at least one shorter arm. We'll see if they make it to full-sized.

I will continue to document the noticeable changes and see what Mother Nature has in store for our marine environment!

Editor's note: In a recent discussion with Donna Gibbs of the Vancouver Aquarium, there seems to be an increase in sightings of worms on nudibranchs. It is not known if this is connected to the seastar fall off, however.

The Annapolis Story

Photos and Story by Kerry Enns

The HMCS Annapolis will soon begin its new life in the sea, finally. Many years have been spent preparing the vessel and battling the courts, but the approvals from the Ministry of Environment and Ministry of Fisheries and Oceans are in place. The final preparations are being made. The diving community is beside themselves with excitement and frustrated by the delays. Vancouver divers are looking forward to wreck diving closer to home.

History of the Annapolis

Commissioned in 1964 in Halifax, Nova Scotia, the HMCS Annapolis was the last of a 20 shipbuilding program that began in 1948. With the Cold War in full swing, the need to search out and engage a submarine become of utmost importance. The HMCS Annapolis was designed to be a anti-submarine helicopter destroyer. However, the feasibility of landing a large helicopter like the CH124 Sea King from a small hull was in question. The Annapolis housed a device, called the ‘Bear Trap’ to enable a safe landing. This Canadian invention allowed for the helicopter to be tethered to the ship while keeping pace with it. When the cable was secure, it would winch the helicopter to the deck. Once landed, the helicopter would be gripped into place by steel jaws.

The design of the ship provided, in theory, some protection for chemical, biological and radiation protection. The ability to shroud itself in a mist served as a way to protect the crew and the rounded edges would give a way for excess water to roll into the sea.

Powered by steam, the HMCS Annapolis was 113.1 meters (371 feet) in length, a 12.8 m (42 ft.) beam and a draft of 4.4 m (14 ft.). She could reach speeds of 28 knots. At 14 knots, her range was 7354 kilometers (4570 miles). She served the Maritime Forces Atlantic initially and later served the Maritimes Forces Pacific as a training vessel. In her lifetime, she steamed over 750,000 nautical miles and was deployed to NATO Standing Naval Force Atlantic, Royal Yacht Escort, Great Lakes deployments, UN Embargo duties off Haiti and more.

In 1985 she went through an overhaul that added a variable depth sonar system and Mark 10 Limbo mortars so that the Canadian Towed Array Sonar System could be installed. She also had a ‘masker’ added to suppress machinery noise. In 1995 she was decommissioned and was stripped of her sensors and weapons at Canadian Forces Base Esquimalt. In 1998 she was paid off and was subsequently demilitarized in 2001. Seven years later, in 2008, she was acquired by the Artificial Reef Society of British Columbia (ARSBC) and was towed to Gambier Island where she awaits today. The plans are to sink her in Halkett Bay.

The Artificial Reef Society

The Artificial Reef Society began in 1989 and its purpose is twofold: to enhance the marine environment and to advance sport diving through education and the creation and preservation of artificial reefs. It is a non-profit organization with no paid employees. ARSBC is highly specialized and has an excellent worldwide reputation. The HMCS Annapolis is its ninth artificial reef. Other reefs include several destroyers and one Boeing 737 jet airplane.

The growth on vessels typically comes in stages. “Mother Nature will fill the void in her own time. Every ship has its own biological personality. We put no time line on how long it takes for the reef to mature” says Howard Robins, president of the ARSBC. There are two paths to colonization. The first is the introduction of local animals. Sea stars and perch, for example, will find a way to reach the ship on their own. The second path is when embryonic marine organisms, both plant and animal, in our currents are deposited throughout the nooks and crannies of the ship. It will provide an estimate of 20,000 square meters of new habitat space inside and outside the ship. The Annapolis will become a pinnacle within the flat mud-zone of Halkett Bay. The complex habitat of the ship’s structure will provide an oasis for life. From rockfish, to barnacles and shrimp, to lingcod and wolf eels, to sea stars and octopus, Annapolis will live on for decades providing a long term stable verticle relief allowing for many species to enhabit at various depths. The ship will act as a cave-like setting suitable for a variety of rock fish species.

A project like the sinking of the HMCS Annapolis begins long before the Sink Day. Cleaning up the ship involves up to a thousand volunteers putting in an estimated 11,000 hours of work. Salvaging much of the recyclable material such a copper, brass, steel and aluminum help provide some funding for the project.

The Canadian Environmental Protections Act (CEPA) strictly regulates the process of the removal of debris and oils and have been tracking the cleanup process. In 2014 the Reef Society has obtained all of its regulatory approvals. This includes Environment Canada, Transport Canada and the Department of Fisheries and Ocean as well as obtaining its park use permits from the provincial government to sink the ship in Halkett Bay. Both Squamish Nation and the Tsleil-Waututh Nation support marine restoration projects in their traditional territories.

Howe Sound was chosen for the site after many potential sites were surveyed. Halkett Bay, specifically, offers a hard-pack bottom with a veneer of silt which is beneficial for the Annapolis to sit upright on her keel, as well as be a protected environment for divers to enjoy year round.

Boeing 737 near Chemainus, BC

GB Church near Sidney, BC

Chaudiere Near Porpoise Bay, Sechelt, BC

Sinking Date

The Sink Day had been set for January 17th, dependent on weather, but at the 11th hour an injunction against Environment Canada was placed regarding testing made. The Sink Day has been ordered to wait until the hearing on January 27th.

Divers may be interested in knowing some of the details about the site. The Annapolis will be sunk to approximately 100 feet to the sea floor with main deck at about 55 feet. Plans are that she will be positioned in a roughly North-South direction. The helicopter hanger will be a unique cave-like environment and the doors and hatches have been either removed or welded open. There will be three large mooring floats at the bow, hangar roof and stern. The ARSBC has creatively solved the issue of overcrowded hands-on-the-ropes during safety stops. The Annapolis will have two aluminum safety stop stations. These are structures that will hang 20’ below the surface float, where divers can relax and do their decompression stop in style. Bravo ARSBC!

The many cut outs have been designed so that they are on opposite sides of the ship allowing for several swim-throughs, rather than in an alternating pattern. This will increase ambient light for wreck divers. There is the ‘Annapolis shaft’ which is a vertical descent from the main deck down to the boiler room. Another first, the large cut out to the engine and boiler rooms allow non-wreck divers the unique opportunity to see the inner-workings of these machine spaces. She is exceptionally clean: no wires, no pipes, no insulation. Volunteers have meticulously prepared the ship to meet and exceed Environment Canada standards for the disposal of vessels at sea. She’s the cleanest ship in the world.

What Next?

Discussions with the Province, The Vancouver Aquarium, DFO and other interest groups have taken place to initiate unique program at the site of the HMCS Annapolis called Project A.B.I.S. (Annapolis Biodiversity Index Study). This will be a citizen based science initiative to monitor changes of growth that will occur year after year. Photographers and videographers will have an apportunity tp participate in the gathering of data through this program and may volunteer their recorded material to a central data base for future study. Stay tuned to the ARSBC website for further information and announcements.

Photo by Alan Wong

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Featured Photographer: Jan Kocian

Photos and Story by Jan Kocian

Jan lives in Freeland on Whidbey Island, which makes an ideal base for diving. He is an exceptionally talented photographer, who also includes illustrations on his photos to add educational value to his shots. Like many of us underwater photographers, Jan dives solo. As you will see, he fled his native Czechoslovakia in 1968. In an unusual coincidence, I was living in Vienna in 1968-69, and most likely crossed paths with him during his "vacation" move from Yugoslavia to Italy. Here is Jan's story.

Living on Whidbey Island, I can simply look out my window and see if conditions are right for diving, and if so, where. This time of year winter storms often make the south facing shoreline too rough for entry, so I move my dive plan to locations offering better protection.

Favorite Dive Sites

During the last few years I basically stay on Whidbey. It might be because I am getting older and long distance travel is not as inviting as it used to be. My most favorite sites are, without a doubt, Deception Pass on the northern end of the island, Keystone in the middle, and Possession Point Fingers on the south end. Each one of them has its own special appeal.

Deception Pass offers the most colorful scenery. Keystone, however, has an unparalleled abundance of marine life, thanks to its protected status. As a result, critters here are used to divers with cameras and strobes and often ignore our intrusion into their world. In contrast, Possession ***Fingers has the stark beauty of clay walls and minimal currents, which are significant considerations at Deception Pass and Keystone.***

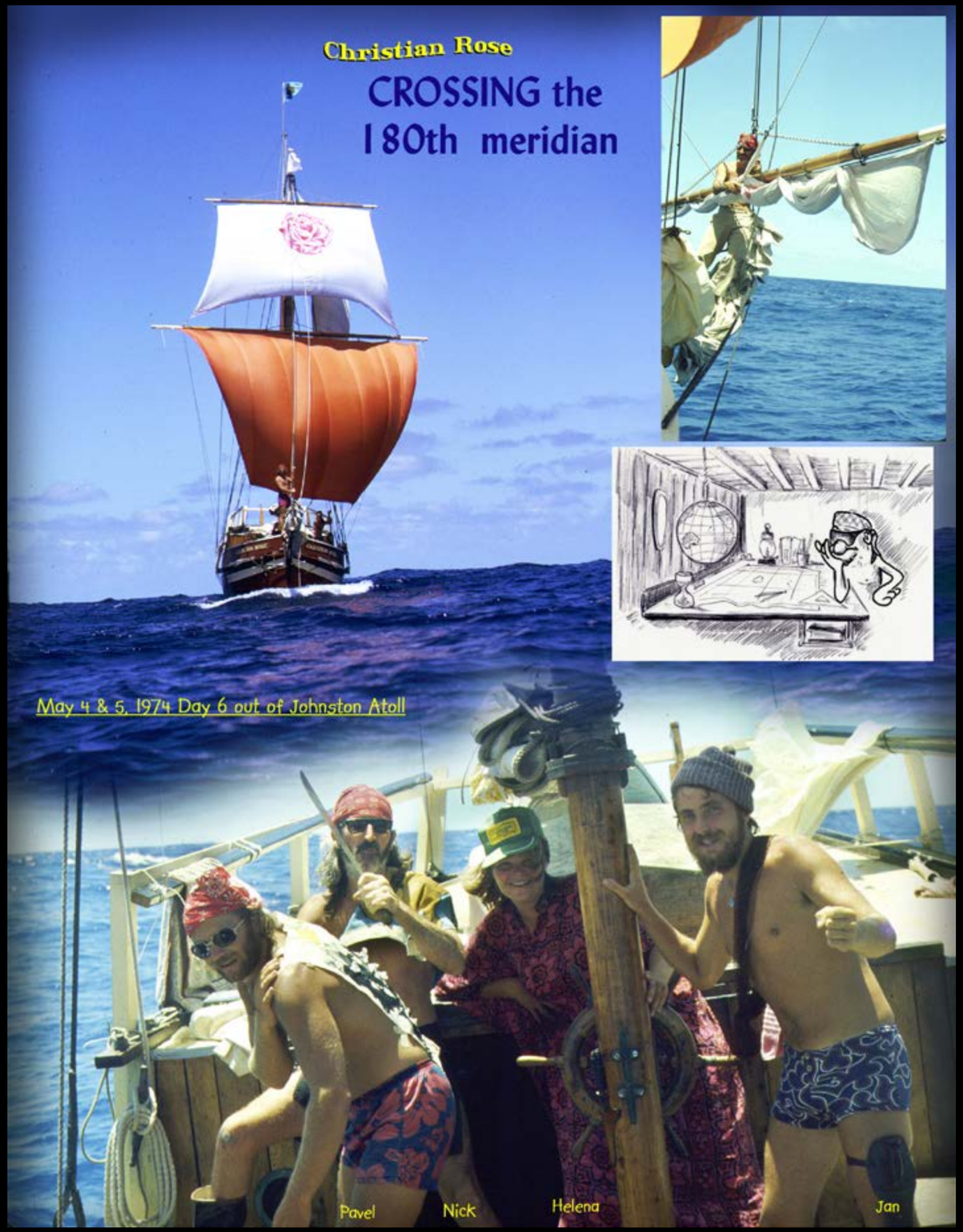
There are also a few not-so-great places where I occasionally dive: Lagoon Point, Holmes Harbor and Coupeville's Penn Cove. All three are muck diving sites. Most of the time there is nothing to get excited about, but from time to time I come upon a critter I cannot find anywhere else. Such is the beauty of muck!

Diving Background

My diving background parallels many of my generation. Introduction to the world of diving started with a small book filled with grainy black and white photographs: *The Silent World* by Jacques Cousteau. Being stuck behind the Iron Curtain in a landlocked country governed by comrades paranoid of everything, even remotely smelling of freedom and distant lands, did not dampen but increased my desire to visit places portrayed in those photographs. As a young lad in 1964, I was certified as a diver in a local flooded quarry. It was many years before I made it to the salt-water of the world oceans. Until then, I dove in lakes, caves and rivers.

In 1968 I finally made the move towards realizing my dream by leaving the communist "paradise". After time in a refugee camp in Italy, with only occasional dives in the Adriatic Sea, my new home in US made it finally possible to start realizing this dream in full. Diving was always big part of that dream; California offered the chance to fulfill it. I met great people, and one of them offered to take me along on a voyage across the Pacific Ocean on a sailboat.

LINGCOD
Ophiodon elongatus



Without the aid of engine, communication radios, or generator, under sail we visited Hawaii, the Marshall and Solomon Islands. It was not a dive trip, but it offered window into what the tropics have to offer. Later, when I found work aboard an oceanographic ship, I was able to return to some of these places to dive.

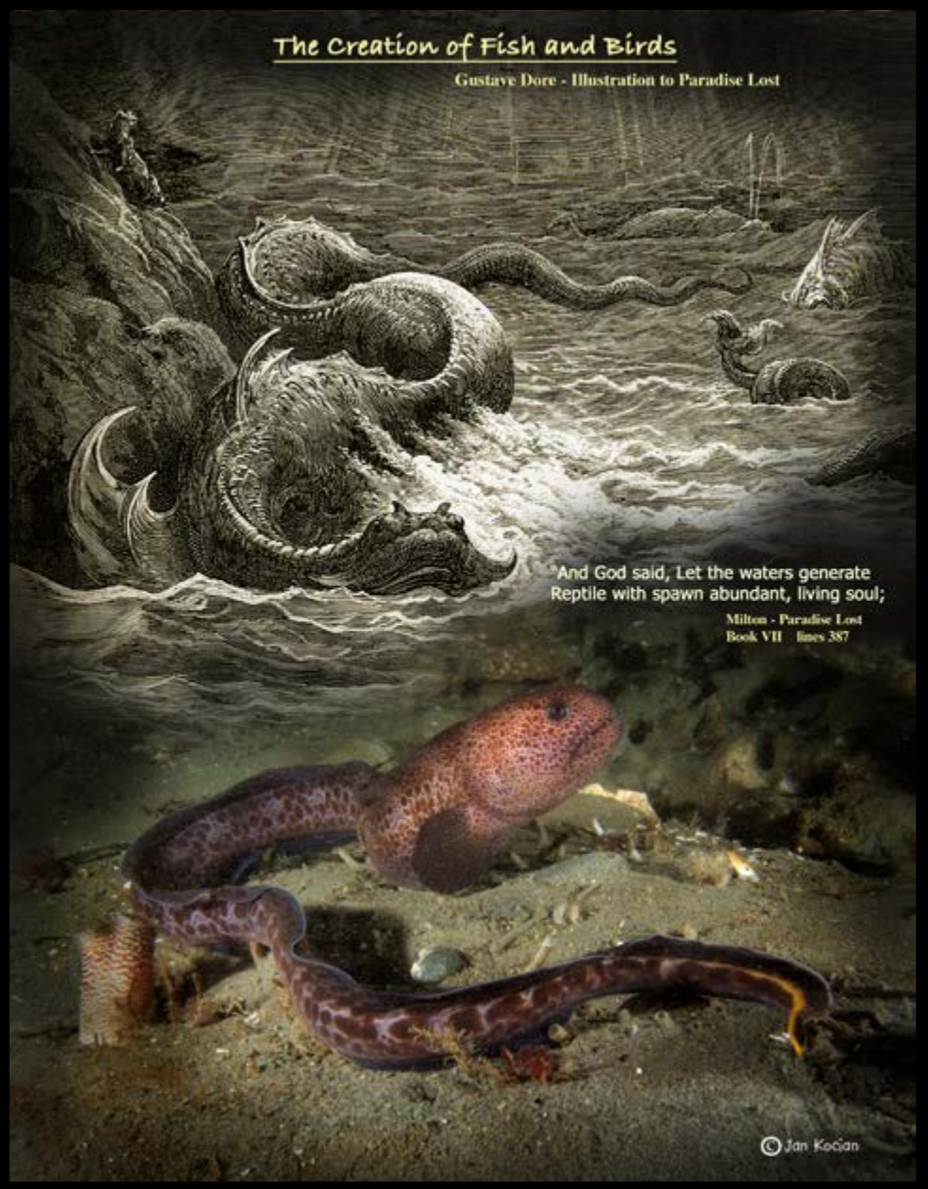
Sadly, underwater photography was not high on my priority list at the time, and I clicked here and there with my Nikonos camera trying to document some of the wonder I seen. More serious photography started after I retired and had already lost my "eagle" vision. When I was young, I was interested in sharks, wrecks, the big stuff. Now with old age, macro is my interest.

Words of Wisdom

I have one piece of wisdom to share: there is no substitute for frequent diving. While there is beginner's luck, like seeing a GPO on an Open Water certification dive, but chances increase when we get familiar with the dive site and its inhabitants.

Equipment

At the moment I am using Olympus MD-5 mirrorless camera in Nauticam housing, 8mm and 12-50mm zoom lenses, two Inon 240 strobes. I process my photos on Apple's iMac with Photoshop. I must add that I get great support from my local dive shop, Whidbey Island Dive Center.


The Creation of Fish and Birds
Gustave Dore - Illustration to Paradise Lost
And God said, Let the waters generate
Reptile with spawn abundant, living soul;
Milton - Paradise Lost
Book VII lines 387
© Jan Kocian


Fish facing reflections become feisty but fearful, Stanford researchers say
Fish faced with their reflection in a mirror get aggressive, but also show an unexpected element of fear, which they don't show when fighting a real foe. The discovery raises the possibility that other lower vertebrates such as frogs, lizards and birds may also be able detect nuances more subtle than they've been given credit for.
Stanford Report, May 17, 2010
September 18, 2013
At Possession Point, the fish looked briefly at the mirror and swam away ...
PAINTED GREENLING Oxylebius pictus
At Keystone, P.greenling approached the mirror slowly, maybe sizing the opponent who appeared on the scene. I used theside of the mirror which magnifies the image. The fish proceeded to touch the mirror again and again until I removed it.
Keystone Jetty
Whidbey Island
© Jan Kocian

Featured Photographer: Rene Gauthier

Photos and Story by Rene Gauthier

Photo © Rene Gauthier
Nikon D5100, 10mm, 1/40, f5.6

My first memories of the water are skimming the pool surface on my dad's back through the blue oblivion. I came up for air and I was hooked. From there it was only inevitable that I would one day dive.

When I was 19, I took my Open Water Diver Course. Over the past 20 years I dived periodically, but the diving bug really hit me 4 years ago. I started diving regularly and worked my way up to Divemaster. I then developed a need to dive deeper and longer, so then became a Technical Diver. Over the course of several dives, I discovered that the life down below the surface was far more interesting than the life above. With this great discovery, I decided that I wanted to photograph the life below and share with others what only a select few can see.

I am currently based in the Vancouver area. My favorite local diving sites are Porteau Cove, Whytecliffe, Furry Creek, and Kelvin Grove. However, the most incredible cold water dive sites I've been to are on Vancouver Island. These sites, like those on the North Shore have something special to offer – the Nanaimo wrecks and the world famous Browning Pass. These places have some spectacular underwater diversity to offer.

My underwater photography has really taken off in the last year and half. I have spent this time accumulating underwater photography equipment and familiarizing myself with tricks of the trade. Taking part in Technical Diving Fundamental Skills like Buoyancy Control and Finning Techniques, such as Backfinning have helped my underwater photography a great deal. I'm able to reduce backscatter in photos and the negative environmental impact.

I use a Nikon D5100, an entry level DSLR, but I spend my money on better lenses such as, Nikon 105mm, Sigma 10-20mm, and my all round go-to lens, the Sigma 18-35mm. They are housed in an Ikelite housing with Dual DS 51 strobes, a custom built Titanium +10 wet diopter that can be flipped down into place if I need it. All my post-processing is in Lightroom 5.

Photo © Rene Gauthier
Nikon D5100, 35mm, 1/200, f8

My favorite lens to capture other divers in the Emerald Ocean is the Sigma 10-20mm with the 8” dome port from Ikelite. This lens allows me to get in close to my subject and reduce unwanted backscatter. With this lens I use up to ISO 400 and open the aperture as wide as possible with a shutter speed of usually 1/50—this draws in light from the surrounding area while keeping the background in view. I position my strobe, with diffusers, angled outward so that the strobe light isn’t concentrated directly on the subject.

My go-to lens, however, is the Sigma 18-35mm f1.8 behind a 105 macro port. The Sigma 18/35mm is literally a light vacuum due to a constant f1.8 throughout the focal range. Here’s a little tip for Ikelite users – I discovered that an 18-35mm lens will fit in an Ikelight 105 macro port with the standard focus ring. This allows for full control of the lens’ 18-35mm focal range. Best of all, it allows me to capture a full spectrum of underwater photography, from divers to small shrimp.

I am looking forward to putting my equipment and newly honed photography skills to the test on my travels in South East Asia. The skills learned from the challenging photography in the Pacific NorthWest will prove invaluable in the warm waters of the tropics.

Photo © Rene Gauthier
Nikon D5100, 10mm, 1/40, f5.6

Photo © Rene Gauthier
Nikon D5100, 18mm, 1/60, f1.8

Photo © Rene Gauthier
Nikon D5100, 18mm, 1/40, f1.8

Photo © Rene Gauthier
Nikon D5100,10mm, 1/50, f4.5

Nudibranchs, Eggs and Worms

During the months of January & February we suggest looking for Barnacle Eating Nudibranch, Cooper's Dorid, Hooded Nudibranch, Red-gilled Nudibranch, Lingcod egg masses and worms on nudibranchs.

Written by Kerry Enns / Consultant Donna Gibbs

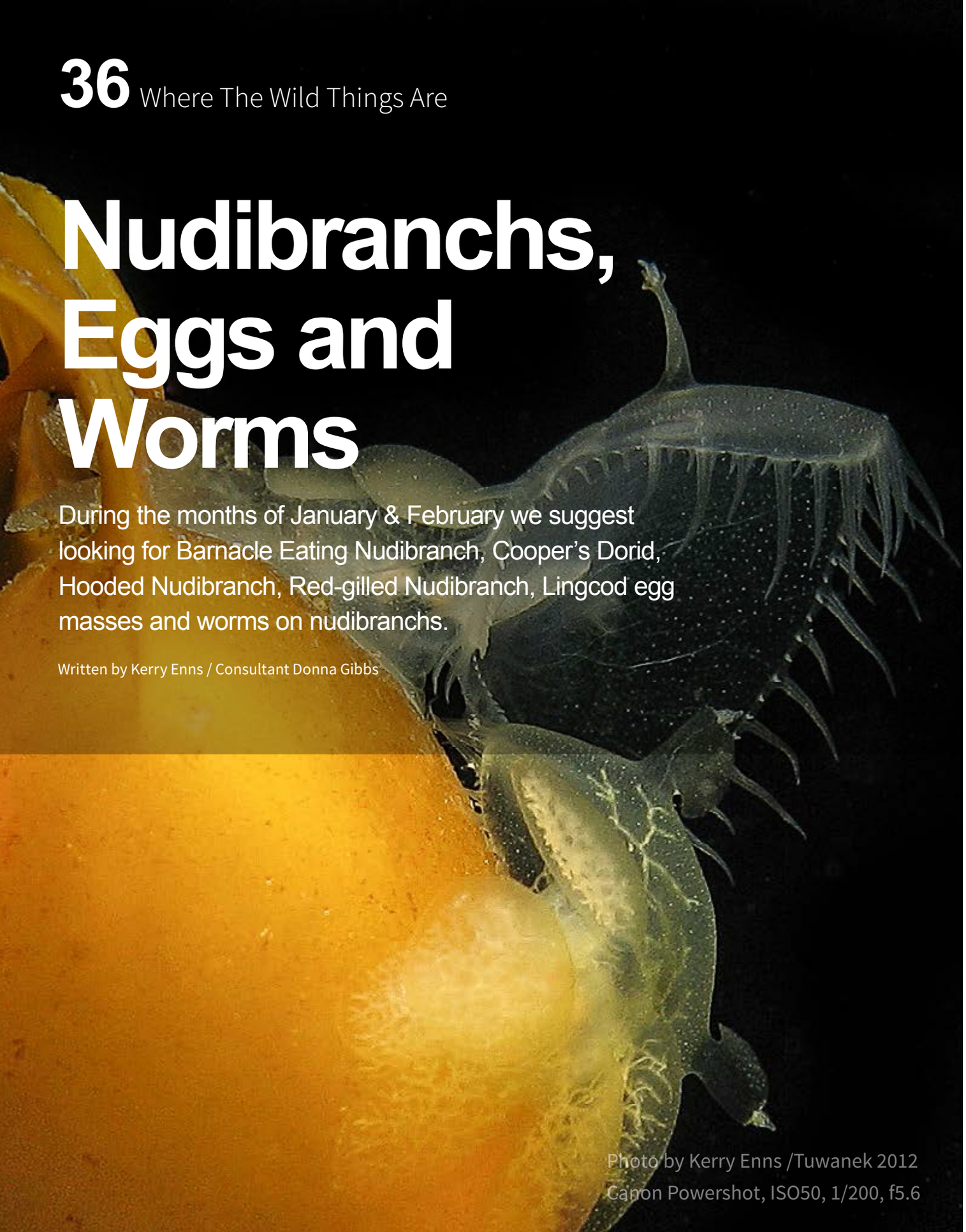


Photo by Kerry Enns /Tuwanek 2012
Canon Powershot, ISO50, 1/200, f5.6

In an effort to include more of our readers in the magazine, we are adding two new sections: Where The Wild Things Are and Your Story. In each issue we will suggest some creatures that you might be interested in finding – Where The Wild Things Are. In conjunction with Donna Gibbs from the Vancouver Aquarium, we will analyze charts of different animal categories found in the Strait of Georgia to determine what has been the most plentiful, historically. It is our hope that you will draw inspiration from this information and find your own sample images.

We are very excited about its paired section – '**Your Lens. Your Story.**' You will have the opportunity to share your samples with the magazine along with a story behind the image, including where you found it (please refer to the map) and using no more than 150 words. Your story can be educational in nature or simply tell the story behind the capture of this image. We also ask that you provide the EXIF data* from that image so that we can all learn from it. From these submissions we will choose photos that best illustrate the featured animals. It is our hope that many of you will participate in this section so that we can see the amazing photography from our readers. For this issue, some of our team members have submitted a photo and its companion story to illustrate what we are after in this section.

Barnacle Eating Nudibranch

(Onchidoris bilamellata)

Description: Reaching 2-4 cm in length it has a patchy brown color atop a cream body. Young ones can be completely white. The projections on its mantle or tubercles are club shaped and contribute to the roughed-up appearance. Its ringed rhinophores are typically white and its gills form a circular or horseshoe-shaped plume, which can retract. Its life cycle can range from one month to one year.

Habitat: It prefers rocky areas of the intertidal zone or the shallow areas of the subtidal zone. It eats, no surprise here, barnacles. It is well camouflaged but can often be found in clusters near their egg ribbons, feeding. It eats by drilling into the barnacle with its radula.

Photo tips: This dorid can be a challenge to photograph because of its preferred habitat. We would suggest using the macro setting or macro lens on your camera in order to get close enough to fill the frame. If possible, try to get an low angled view so that it gills and rhinophores are both visible. They can be seen more easily if the egg ribbons are included in the image.

Cooper's Dorid

(Aldisa cooperi)

Description: The Cooper's Dorid is very similar to the Red Sponge Dorid, except for the presence of tiny flecks on the dorsal or back, usually in a line. It has tiny tubercles over its mantle giving it a rough texture and can be yellow to orange reaching up to 2.5cm.

Habitat: The Cooper's Dorid, like its cousin Red Sponge Dorid, it likely to be found in the intertidal or high subtidal zone munching on and hiding in red sponge.

Photo Tips: This nudibranch is probably best taken with a macro setting or lens in order to fill the frame. Like the Barnacle Eating Nudibranch, this one is tough to spot and likes to be tucked into its food source. Most photos seem to be taken top down and with its gills retracted. It would be nice to see something taken from a side view and to wait until the gills unfurl. I wonder if a red light would make a difference? Thanks to Jan Kocian for the photo sample.

Hooded Nudibranch

(Melibe leonina)

Description: This nudibranch has a large hood which catches its food. The tentacles around the hood trap the food in the hood while it brings the tiny morsels to its mouth. It will eat small zoo-plankton, jellyfish and even small fish. It is mostly translucent with flat paddle-shaped rhino-phores on the hood. It also has several pairs of paddles (cerata) running down its dorsal or back.

Habitat: It prefers to hang out in the intertidal or shallow subtidal zone clinging to eelgrass, rocks or kelp. I have seen hundreds of these attached to the eelgrass at Edmonds Underwater Park.

Photo Tips: They are typically 10 cm long, so a macro or regular zoom lens should do the trick. Try getting below the hood for an interesting effect and possibly catch some surface ripples if its bright enough. Aiming for a black background will show off its translucence and gold colored cerata.

Red-Gilled Nudibranch

(Flabellina verrucosa)

Description: This nudibranch can reach up to 10cm in length but more commonly found between 2-3 cm. Its rhinophores are smooth rather than ringed. Its cerata are brighter in color than the Red Flabellina and tend to be in clusters. There seems to be conflicting descriptions of the cerata in my research. The body is translucent and often has a white stripe down its back or dorsal. It enjoys eating hydroids, particularly pink-mouthed hydroids.

Habitat: Although its depth range is large, it tends to prefer high-current locations. It can be found clinging to its food source – hydroids.

Photo Tips: This nudibranch is probably best photographed with a macro setting or lens. The challenge will be to stay still in the current. Keep the focal point on the rhinophores as those are the human equivalent to eyes. For an artistic look, try a shallow depth of field to provide a nice bokeh on the cerata. Thanks to Pat Gunderson for the photo sample.

Photo by Kerry Enns /Porteau ©2013
Sony NEX5N, 55mm ISO100, 1/125, f9

Lingcod Egg Masses

It's that time of year again when those females will be depositing their eggs. At Edmonds recently, we spotted very large gravid females. The Cabezons were already guarding eggs mid-December. Charging Lingcod and Cabezons are always good for a story or two.

Every year the Vancouver Aquarium conducts a survey of Lingcod egg masses with the help of the diving community. The survey runs from January 31 through March 8 this year. By taking part in the Annual Lingcod Egg Mass Survey, you are helping to gather important information about a valuable local resource. The purpose is to keep abreast of the population as compared with 100 years ago. Divers participating in this annual survey collect information on the number, size, condition, and position of egg masses, as well as whether or not a guarding male is present. Data such as these help to determine the health of local Lingcod populations. More Information can be found at http://www.vanaqua.org

Photo by Kerry Enns /Porteau ©2014
Nikon 7100, 105mm ISO250, 1/250, f25

Worms on Nudibranchs

The Vancouver Aquarium is very interested in any photos you may have of worms attached to nudibranchs. It seems that incidences of these are occurring more regularly, and as mentioned earlier, it is suspect that the sea star demise might be responsible.

Photo Tips: Don't do what I did and take one blurry photo from one angle. Get as close as possible from as many angles as possible. Submit one for the magazine and hold onto the rest incase the folks at the aquarium would like to study it further.

***EXIF data should include:**

- Your camera model
- Focal Length in mm
- Aperture (f-stop)
- ISO
- Shutter speed
- Location and year if possible
- Submit your photos to editor@pnwups.com or our Facebook page.

The Vancouver Aquarium invites all scuba divers to participate in the

22nd Annual Lingcod Egg Mass Survey

Join us in collecting important information about a valuable local species whose population is far smaller than it was a century ago.

Survey runs January 31–March 8, 2015.
Learn more at vanaqua.org/lingcodsurvey

Your Lens. Your Story.

Your turn to shine. We challenge you to submit your photo and story in the next issue.

This is our readers' turn to shine and to show what they have learned or experienced. In this issue we are giving you an idea of what we are looking for. Each of the Pacific NorthWest Diver Magazine Team members have scoured through our photos and videos looking for images with a story. It may be how we've captured the image, or how we found the illusive target, or the adventure behind the image.

For the next issue we would like to extend the challenge to you – our readers and fellow photographers/ videographers. In the article "Where the Wild Things Are" we have shared some tips about some of the special critters, how to find them, their habitat or what they are up to in January and February. Take a moment to share with us your image, then story about the image in 150 words or less. Include the EXIF data from your image so we can learn from your settings. If you don't know how to find this, don't let that stop you! Just contact one of us and we will gladly walk you through how to find it.

You may submit them to the editor or if you are too shy to post it to the magazine, you can share it on our Facebook page. We are super excited to see what you've got!

Talia Cohen

Vancouver, British Columbia

The beauty in documentary photography is that it permits the photographer the freedom to capture raw and candid moments. This, combined with the marked sense of exploration, discovery and fantastical environments that diving provides, awards the underwater photography with endless possibilities.

Though, in reality, living in the Pacific Northwest we are faced with often-poor visibility and low-light conditions. And if you're me, you're also battling the urge to shiver while trying holding the camera still. And so, it becomes difficult to combine these fantastical elements, while avoiding capturing any moment posed or explicit.

This image was taken at a site all too familiar to us in Vancouver, Porteau Cove. Pictured is Mark Jaholkowski who was remarkably surprised to know he was the focus point of the shot.

Shot with an Olympus OMD EM5, Sigma 8mm Fisheye Lens, Nauticam Housing, twin Sea and Sea Strobes.

Kerry Enns

Abbotsford, British Columbia

We've all been there. A sea lion swims by and you've got no camera. This photo represents one of those times. I was diving with another photographer in a small protected cove in Campbell River. The current was raging as we watched a freighter fight its way upstream, just outside of the bay. Our guide recommended this site and we were grateful.

The closer we got to the mouth of the bay, the more we felt the current take hold of us. That's when we spotted this wonderful octopus, out is the open during the day. And as Murphy's Law would have it, I had my 105mm macro lens. So, with p lenty of close ups of eye, I chose to photograph its arm. What I love about this photo is the appearance of Fibonacci's Spiral and the textures of its skin.

EXIF Data: Nikon D7100, Sea&Sea Housing, Dual YS-D1 Strobes, ISO160, 1/250, f11, 105mm

Dale Carlisle

Abbotsford, British Columbia

I like to tell stories. The challenge with diving video is to be aware of the subject I'm shooting at the moment while thinking ahead in terms of what angles and transitions I'll want to use later on. In this vignette I'm using vintage dive equipment at Pavilion Lake to observe a recent landslide, submerged karst springs and an underwater waterfall. I also observed rare microbialites that only occur in a few lakes around the world.

My travel through this landscape is the story. During editing, I cut nearly one hour of rough footage. After adding the song "Landslide" by Stevie Nicks, I refined it even further, trying to sync certain actions to particular phrases. Originally heavily narrated, most of the voice over was eliminated to let the imagery do the story telling, though I played with black and white settings to attempt a pseudo vintage look.

Shot with a stick mounted GoPro Hero 3 1080HD 60fps, ambient light and MS Moviemaker editing software.

Dan Clements

Everett, Washington

The style that I find most interesting in underwater photography are portraits. This requires getting close to photo targets, making them feel comfortable and knowing where their flight zone is. Proper lighting becomes very important, as does a pleasing background.

The image I would like to share is that of a Decorated Warbonnet taken at Seacrest, Cove 2, in West Seattle. It is one of my favorite photos in that it shows off the beautiful detail of this unique fish. The crab below and plumose anemone above add interesting contrast.

Those familiar with Seacrest know the resident Decorated Warbonnets are tough to photograph. It is mid-water shooting, usually down log ends that are about 10 feet off the bottom. Excellent buoyancy skills are required both to avoid kicking up silt, and spooking the subjects.

EXIF Data: Nikon D300, Subal Housing, dual Ikelite 125 Strobes, Hartenberger focus light, 105mm/2.8macro, ISO2 200, f11, 1/125sec

In Search of the Perfect Light

Video light and narrow beam in one small package.

by Kerry Enns

The tell-tale sign of a diver from the Pacific Northwest is an impressive array of lights. I recall starting out with a little 100 lumen (lm) light and thought that was great. It didn't take long for me to realize that it was but a flicker in our deep green waters. The next light I purchased was an 825 lm UK Light Canon: bright yellow, big and bulky. It would have served me well for a long time if I hadn't moved into the world photography. I needed a light that could attach to my hand or my rigging.

My next big purchase was the iTorch 4 at an incredible 1300 lm. I love the three levels of lights in both white and red. However, signaling my buddy became a problem. Since there was no hot spot, I was unable to flash a focused light beam to get their attention. What I loved about this light was the compact size and the Goodman- style glove, which I purchased later. The iTorch is amazing for video with its even lighting and weighting – but I missed the spotlight.

I recently purchased a new light from Bigblue. I already use their blue bullet-like focus light on my rigging which worked well and was reliable. My local shop told me about the Bigblue VTL2800 light. With a whopping 2800 lm on the video light, this thing lights the ocean, but what I love is the quick conversion to a spot light. Now I can signal my buddy and look into the crevices for those octopuses or elusive Brotulas. For the occasional video, I now have two lights: the iTorch on my rigging now functioning as a focus light, and the Bigblue on my hand. They even use the same style batteries. Bonus!

On a recent dive, I found a very shy Decorated Warbonnet hiding deep in the finger of a cloud sponge. As soon as my white light touched it, it backed into the sponge, barely visible. I switched my Bigblue and my iTorch to the red

lights. Past experience tells me that warbonnets are not afraid of red, and will actually come out of their hiding spot. And that's what happened. Happily, flashes from my strobes didn't seem to bother it at all, it seems just the constant white light is bothersome. The combination of these lights worked perfectly!

The Goodman-style glove leaves a bit to be desired, however. The light needs to be completely unattached from the glove in order to reach the battery compartment, which means making a quick battery change on the boat can be awkward. Also, since I dive with dry gloves, the Velcro that attaches to the wrist is difficult to put on behind the dryglove cuff. As a result, the Velcro has become unfastened underwater. The light barrel is slightly too long to put the rear Velcro strap to my actual wrist in front of the cuff. I have yet to come up with a satisfactory solution. Still, I'm happy it comes with a glove, even if it's not perfect. At a price point of roughly $450, you get a lot for your money.

Photo by Kerry Enns @ Whytecliff Park
Nikon D7100, 105mm, ISO160, 1/200s, f14

Photoshop's New RAW Filter

Now access to Camera RAW is easier and works for other formats

by Dan Clements

The October, 2014 Creative Cloud update contained a really useful new Photoshop feature: a Camera RAW filter. This enables users to edit RAW, JPG, TIFF, and other photo formats within Photoshop.

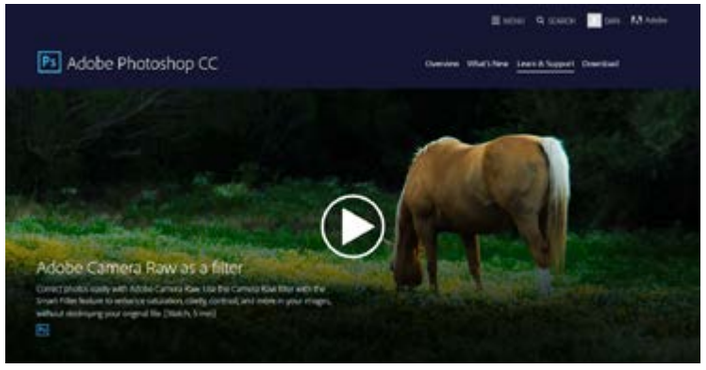
Prior to this change, Camera RAW tools and editing capabilities were accessible only through the separate Camera RAW program, so there was quite a bit of toggling back and forth between Photoshop and Camera RAW when editing photographs.

By way of background, the "Engine" that allows users to edit RAW photos in Lightroom and Photoshop is the same: same tools, same non-destructive editing. As noted above, it can also be used to edit JPG, TIFF, GIF, PNG, and other photo file formats.

While editing in Camera RAW is a key part of my post-processing work flow (white balance correction, major spot/backscatter removal, etc), there are certain adjustments that are either only available in Photoshop or Lightroom, or are much more efficient in these programs. Layers, cloning, patching, and content Aware Fill fit into this category.

By integrating RAW editing capabilities directly into Photoshop as a filter, instead of a separate program, Adobe has substantially improved the speed and efficiency of image post processing.

To help you better understand this tool, click on the image to view a short training video.



Travel Corner

Contact Dan Clements for more information or to sign up for one of these amazing trips.

Photo by Talia Cohen

Anilao's Crystal Blue with Marli Wakeling

March, 15-25, 2015

Trip estimate is $1,965/person

Critter expert and outstanding underwater photographer Marli Wakeling is combining forces with Crystal Blue's Mike Bartik for a Philippine adventure in the Spring of 2015. Price includes food, lodging, diving, surface transportation from Manila to the resort. Not included are air to and from Manila, and alcoholic beverages. A $500 deposit is required to hold a spot. If you are interested, please contact Marli Wakeling for details.

Objectives: Nudibranchs, frogfish, mimic octo, blue-ring octo, wonderpus octo, blue ribbon eel.

Eastern Mediterranean

April 1 - April 30, 2015

Trip estimate is $10,500/person

We rendezvous in Amman, Jordan, and after visiting Jerash and Petra board our charter in Aqaba. We then visit Eqypt, Cyprus, Antalya and Kusadasi in Turkey, Rhodos, Delos, Mykenos, Santorini, and Athers, Greece. We finish up in Istanbul, with a quick trip to Cappadocia. This is a combined visit to sites of historical interest with exploring the Eastern Mediterranean's underwater world.

Apologies, but this trip is currently full.

Objectives:
Antiquities photography, Eastern Mediterranean marine life. Contact Dan Clements for details.

Monterey Shootout

August 2014

Trip estimate $800

Want to improve your underwater photography, be inspired by some of the top marine videographers and photographers, and party with a great group of folks? If so, then join us for the NCUPS 2014 Monterey Shootout. Lots of diving, photographing, seminars, and socializing. The exact dates have yet to be finalized, but the event is normally held in early August. This year we are looking to charter a boat for our group.

Objectives:
Improve photo skills, harbor seals, sea otter, sea lion, rock fish, macro subjects. Contact Dan Clements for details.

Campbell River Area Salmon River and Salt Water Diving

September 6-12, 2014

Trip estimate $1,400/Person

This year we will return to Vancouver Island in September. Spend several days in the Gold, Nimkish, and Campbell Rivers photographing salmon and wide angle with Eiko Jones. Then spend the next few days diving around Quadra Island . The exact itinerary will depend on reiver water levels and fish migration. We will stay at Taku Lodge on Quadra Island. Costs include lodging, two days river diving with lunch, four days of two tank diving with Abyssal.

Objectives:
Salmon, wide-angle river canyon, sea lion, Salish Sea marine life. Contact Dan Clements for details.

Dan Clements

Washington, USA
Founder/Columnist

Dan is an adventurer who has a deep appreciation and respect for the world's natural wonders and life in its many varied forms. He has climbed, skied, sailed, SCUBA dived, and traveled throughout the world. He has made first ascents in North and South America, and run major white water rapids in Africa and the Western Hemisphere. He wrote the now sold out Critters, Creatures, and Kelp in 2009.

He was fortunate to have parents who exposed him to Hopi, Navajo, Seri, and Lacandon First Nations populations. Later in life he was privileged to be able to spend time among the Bushmen (San) of southern Africa, and Qechua and Aymara in the Andes. He is working to try and increase knowledge and appreciation of Pacific Northwest indigenous populations.

He holds an MBA in international finance and has sat on boards for United Way, Housing Hope, Cayenta Systems, Eden Systems, Snohomish County Public Facilities District, and Ibis Publishing.

When he is not underwater photographing he enjoys cooking, back country skiing, distance running, mountain biking, and opera. Everett, Washington is home base and where he and his wife Karen raised two sons.

Kerry Enns

British Columbia, Canada
Editor/Publisher

Kerry grew up in Brazil as a missionary's child and moved to Wisconsin at the age of 10. While her father worked on his studies, she entertained herself by cycling, swimming and fishing and earned spending money by delivering papers and babysitting. When her family moved to Winnipeg, she found herself heading to British Columbia to go to Trinity Western University. She married and stayed in BC rasing 2 children.

She holds a degree in Geography and is certified to teach elementary and middle school students. She currently works part-time as a Teacher on Call in order to fund her diving, photography and travel.

She enjoys travelling and has had recent visits to the UK and India visiting her daughter. She hopes to continue to travel as much as her finances allow it and would like to someday dives the beautiful tropical water world wide. She particularly wants to visit Brazil not only to dive but to work on her fluency of the portuguese language.

She is very excited about this magazine and looks forward to the opportunities it will bring.

Talia Cohen

British Columbia, Canada
Creative Consultant

Talia grew up in South Africa, and has lived in the Missouri, Rhode Island, New York, and now calls Vancouver her home with her husband and 2 dogs.

She is a Creative Director, and has attended the Rhode Island School of Design, Brown University, MIT and Babson. Talia has produced work for some of the world's leading companies and organizations including Unilever, General Mills, SportChek, and The BC Dairy Foundation.

Since a young age she has been enchanted with the world below the surface. And, when not at the studio, she takes every opportunity to explore the underwater world, camera in hand.

Ben Normand

Ontario, Canada
Co-editor/Columnist

Ben Normand is a keen explorer of the aquatic realm. He is constantly striving to expand his knowledge and experience. While all facets of oceanography, biology and geography interest him, his true passion lies with the study of, and interaction with, marine mammals. Notable marine achievements include diving the Great Barrier Reef and swimming with the Hector's dolphins in Akaroa.

He currently holds a B.A. With honours from the University of Toronto where he studied environmental policy and religion. He is currently taking steps towards obtaining a Masters degree on one of the coasts. He is hoping to study the impact of various fishing methods on the health of regional populations of the rorquals.

His personal interests include sailing, skin and SCUBA diving, hiking, reading and movies. He resides in beautiful Port Hope, Ontario with his wife, daughter and dog.

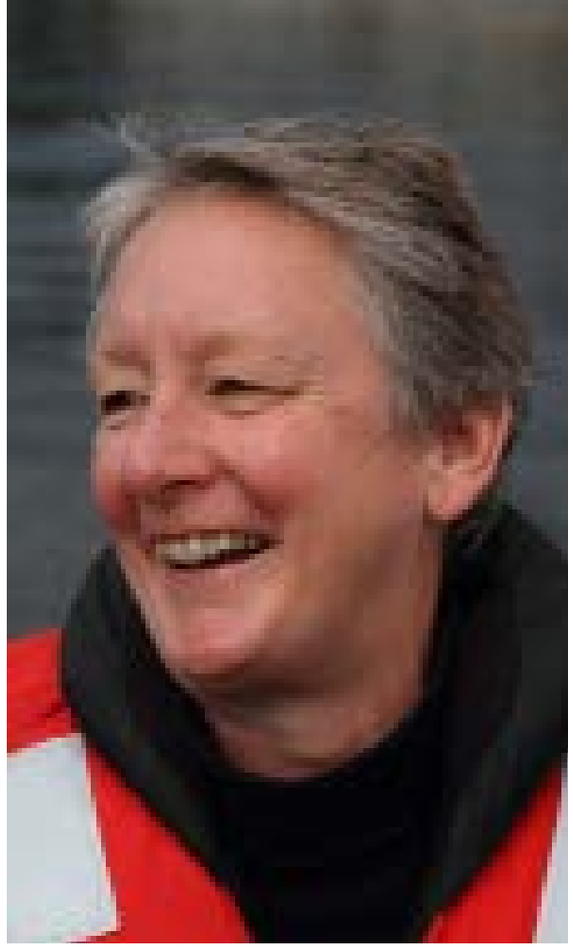
Dale Carlisle

British Columbia, Canada
Columnist

Certified in 2007, Dale is interested in several facets of diving. As a long time fishkeeper and naturalist, he loves being able to access the aquatic realm in order to better observe fish habitat and behavior. In 2010 he began a long term study of a local lake (The Cultus Lake Project) in order to learn more about an endangered species of fish that resides there.

Out of that interest he began learning how to capture images of his subjects and continues to develop his underwater videography as both a vehicle of communication and art form.

Dale also enjoys researching the historical aspect of diving and often uses vintage era gear and techniques himself which he shares with others at www.manfish.ca.



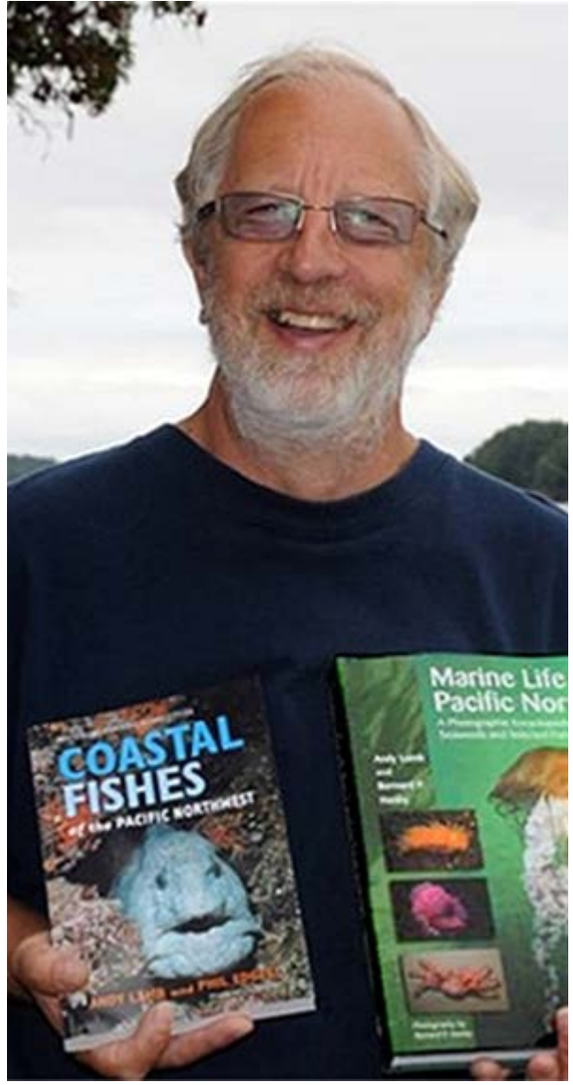
Donna Gibbs

British Columbia, Canada
Scientific Consultant

Research Diver/Taxonomist, Howe Sound Research Program, Vancouver Aquarium Donna Gibbs has been working at the Vancouver Aquarium since 1992 and is an expert in local marine taxonomy. She has over 2300 logged cold water research dives and has been diving for the Howe Sound Research Program for 20 years.

She has contributed to 7 scientific journal articles, and also played an integral role in producing Andy Lamb's Marine Life of the Pacific Northwest. Her work directly contributed to the discovery of the cleaner lebbeid (Lebbeus mundus), a previously unknown cold water shrimp.

Her recent work focuses on photo documentation of organisms in Howe Sound, and on training less experienced divers in marine taxonomy. Donna manages the Pacific Marine Life Surveys database.



Andy Lamb

British Columbia, Canada
Scientific Consultant

Andy Lamb is a marine nuaturalist and educator who has worked as Chief Collector at the Vancouver Aquarium and as a fish culturist with Fisheries and Oceans Canada. He is the co-author of *Coastal Fishes of the Pacific Northwest* and *Marine Life of the Pacific Northwest: A Photographic Encyclopedia of Invertebrates, Seaweeds and Selected Fishes*, both are found in almost every diver's library of the region.

Andy has served as the team for PNWDiver since the beginnimg and helps members identify marine life and keeps us abreast of news in the scientific community.
http://www.cedar-beach.com/about.shtml
andy@cedar-beach.com

Roy Mulder

British Columbia, Canada
Guest Columnist

Roy Mulder is a videographer and marine conservationist who uses imagery to stimulate an interest in the marine environment .

Currently he sits as president for both the Marine Life Sanctuaries Society of BC and Canadian Marine Environment Protection Society, and he is also the Global Panel Chair for the World Cetacean Alliance. In his 40 years of scuba diving he has observed first hand the ocean's decline of fish and this is what drove him towards his greatest goal, which is to see the creation of full no-take marine sanctuaries in Canada.

Roy believes that the conservation approach needs to be community driven with real live active programming, while also working with government".

Contact information:
rsmulder@shaw.ca
http://www.mlssbc.com