

Pacific Northwest Diver

PUBLICATION OF THE PACIFIC NORTHWEST UNDERWATER PHOTOGRAPHIC SOCIETY
BRITISH COLUMBIA | WASHINGTON | OREGON | JANUARY, 2012



Pacific Northwest Diver

BI-MONTHLY MAGAZINE & WEB SITE PROMOTING UNDERWATER PHOTOGRAPHY, EDUCATION, & TRAVEL IN THE PACIFIC NORTHWEST | JANUARY, 2012

In this Issue	3
Nanaimo to Corvallis	3
Subscribing to Pacific Northwest Diver	3
From the Archives: First Underwater Photo, 1893	3
Featured Photographer: Janna Nichols	4
News Corner	7
REEF	7
Andy Lamb Joins PNW Diver Team	7
Underwater Photo Workshops	7
Call for Critter Photos	8
Nudibranch ID App	8
Congrats to Pat Gunderson & Laurynn Evans	8
Featured Operator/Resort: Sea Dragon Charters	9
Photographers & Videographers	11
British Columbia: John Melendez	11
Washington: Mike Meagher	13
Oregon: Aaron Gifford	15
Dive Travel Corner	17
Grand Bahama Island: Dolphins, Sharks, & Cavern	17
La Paz: Whale Sharks, Sea Lions, & Hammerheads	17
Technical Corner	18
Subsee Super Macro	18
PNW Diver Team	20

like us on facebook



iPhone Users: Your PDF viewer does not support active links. To view video and use other links, we suggest the ap Goodreader <<http://www.goodiware.com/goodreader.html>>.



Pacific Northwest Diver: In This Issue

Welcome to the January issue of Pacific Northwest Diver! This issue's featured photographer is Janna Nichols. Janna is well known to the dive community, as she is the outreach coordinator for REEF. Not only is she an outstanding creature ID'er, she is an excellent photographer. Our featured operator is Sea Dragon Charters in Howe Sound and Nanaimo, and we will be checking out photos from John Melendez in Vancouver, BC, Mike Meagher in Bellingham (be sure to watch the newly hatched wolf eel swimming in front of dad), and Aaron Giffords from Corvallis diving off of Newport, Oregon.

In this Issue: Nanaimo to Corvallis



To Subscribe: PNWUPS Membership



Pacific Northwest Diver is a publication of the Pacific Northwest Underwater Photographic Society (PNWUPS).

In order to subscribe to this e-publication, please complete the [Subscribe fields on the PNWUPS home page](#). Membership is free, and e-mail addresses are not shared with other groups or businesses. We need an accurate count of subscribers to assist with sponsorships and travel.

We are all over-loaded with e-mail, tweets, etc, so communication from Pacific Northwest Diver and PNWUPS will be limited to one or two e-mails per month.

If you are interested in trips with other underwater photographers and videographers, please check out the Travel Section on page 15. In 2012 we will be photographing dolphins, sharks, and caverns in the Bahamas; whale sharks, sea lions, and hammerheads in La Paz; plus the annual spring kelp forest shoot in Monterey/Pt Lobos.

If you have any questions about subscribing, please contact publisher [Dan Clements](#).

From the Archives: First Underwater Photo: 1893



Louis Boutan was the first underwater photographer, who took pictures at a depth of 164 feet in 1893. Above — a self-portrait depicting Boutan in a full diving suit, airlines and metal helmet — was his first successful photo, and it offers us what a cumbersome chore it would have been to dive (and of course take pictures underwater) in those days.

He tried encasing his cameras in strongboxes (including barrels); he tried completely flooding the interior of cameras. Lastly, he built a watertight massive equipment that was able to withstand pressure (on land, three men were needed to lift it), and battery-powered underwater arc lights, he was able to take underwater photos.

But still, there was no high speed film and his exposures lasted 30 minutes. Boutan had to remain underwater for as long as three hours and suffered nitrogen narcosis. Eventually, Boutan used a magnesium powder "flash" that greatly hastened phototaking.

- [Iconicphotos](#)

Pacific Northwest Diver: Featured Photographer- Janna Nichols



Janna Nichols

Born and raised in the Pacific Northwest, Janna took up recreational diving and underwater photography in 1999. She became very involved doing marine life surveys for the REEF organization, (and has submitted over 630 surveys) and then became a PADI scuba instructor.

She has taught Pacific Coast marine life ID classes from San Diego to British Columbia and everywhere in between. She shares her love of our Pacific NW critters on her website (www.pnwscuba.com) and in classes that use her photos and experiences from her 900+ dives, mostly all in cold Pacific NW waters. She is REEF's Outreach Coordinator and has helped write and provide photos for their Pacific Coast curriculum.

She has served in the past on the board of the Washington Scuba Alliance, and has led volunteer diver observations for Hood Canal's low oxygen problem. She is a past Diving Safety Officer for Washington State University's scientific diving program in Vancouver. Her marine life photo catalog numbers well over 5000 photos, which she shares with



local marine life educators as well as being a collaborator with the worldwide online FishBase. She worked with the Sylvia Earle Alliance on the Google Earth (Oceans Layer) project and has several posts and videos there. Many of her photos have appeared in various publications, websites, newspapers ([Seattle P-I](#), [Seattle Times](#), [Oregonian](#), [Kitsap Sun](#), [Island Sounder](#)), reports and books, including Humann & DeLoach's, [Coastal Fish Identification: California to Alaska](#), Lamb and Edgell's [Coastal Fishes of the Pacific Northwest](#), and Milton Love's [Certainly More Than You Want to Know about the Fishes of the Pacific Coast](#). Janna has a BS in Engineering Technology from BYU and has four children and six grandchildren. When not diving with her built-in dive buddy and husband Claude, she enjoys ham radio, motorcycling, geocaching and moving mischievous little gnomes around the Pacific NW.

Janna started with a Sea&Sea MX-10 film camera with a fixed focus lens in 2000. In 2008 she went digital and switched over to a Canon G-9 in an Ikelite housing, and a little Ikelite DS-51 strobe. For a focus light she uses a little mini Q40 eLED light attached to a strobe arm. After a dive she uploads photos to a PC, and tag/edits them in Photoshop Elements 9.

Pacific Northwest Diver: Janna Nichols, continued



Vermilion Star and Alabaster Nudibranch

Pacific Northwest Diver: Janna Nichols, continued



Basket Star

Pacific Northwest Diver: News Corner

[REEF: Reef Environmental Education Foundation](#)



REEF is a grass-roots organization that seeks to conserve marine ecosystems by educating, enlisting and enabling divers and other marine enthusiasts to become active ocean stewards and citizen scientists.

REEF membership is free, and by joining you will be a part of an active community of divers, snorkelers and other ocean enthusiasts who want to make a difference for marine conservation. Our Photographer of the Month, Janna Nichols, has kindly provided the following information about REEF and REEF surveys.

REEF enlists the help of recreational divers to keep track of marine life they see on their dives. This data is entered into a public data base where it helps scientists and researchers.

What if I don't know the names of all the fish I see?

Don't worry! Just record the ones you DO know, even if it's just one. You'll learn as you go and get better with each survey you do. There are links to online Fishinars (short Webinar-style fish ID classes), online flashcards, a study list, and even an iPhone/iPod app on the PNW Critterwatchers website, listed down at the bottom of this page. Local Field Stations also teach classes and conduct survey dives.

What's my time commitment? Whatever length of time you want to spend in the water, plus the time it takes to enter your data online. (about 10 min)

What's the survey method? Just go on your dive or snorkel like you usually do – wandering around, looking in nooks and crannies, in any depth of water. You'll be recording the relative abundance of the total number of fish of each species you see, not exact counts.

How do I submit my data? It's all done online! Join REEF first (it's free!) and you'll be assigned a member number. Log in using that number and your last name to enter your survey data online.

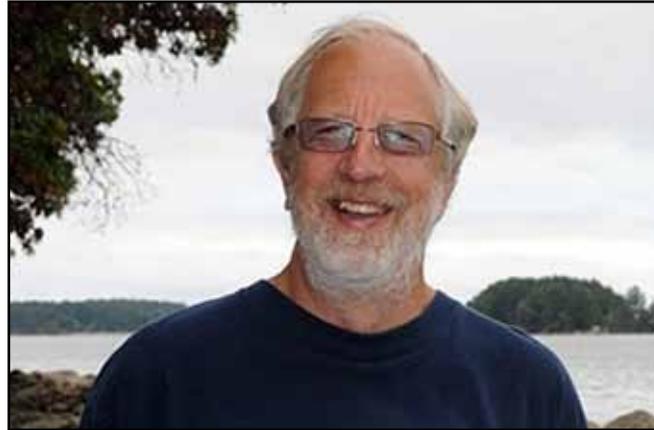
Where can I find more info? The REEF website, of course! www.REEF.org. Also, locally, the Pacific NW Critterwatchers website: www.pnwscuba.com/critterwatchers.

So get started today! Join REEF to get your member number and get rolling: <http://www.reef.org/user/register/member>.

Janna Nichols, REEF Outreach Coordinator
janna@reef.org 360-798-6414

[Andy Lamb Joins PNW Diver Team](#)

Well known author and marine expert Andy Lamb has joined the [Pacific Northwest Diver](#) team as a species identification resource for photographers and videographers.



Andy has co-authored [Coastal Fishes of the Pacific Northwest](#) and [Marine Life of the Pacific Northwest](#): must have books for identifying marine life in the Pacific Northwest.

Andy has a BS in Zoology from the University of British Columbia, and has worked at both the Vancouver Aquarium and BC Department of Fisheries and Oceans. He has been SCUBA diving for over 40 years, and has over 3,000 dives in the Pacific Northwest.



If you are looking for some outstanding diving and relaxation, Andy and his wife Virginia operate a [bed and breakfast](#) on British Columbia's Thetis Island.

So, if you are either looking for assistance identifying a marine critter in one of your photos, or thinking about great diving opportunities in BC's Gulf Islands, contact

Andy either by phone (250.246.9770), or via e-mail at andy_lamb@telus.net.

You may also choose to check out information about diving and the bed and breakfast at the Cedar Beach web site: <http://www.cedar-beach.com/index.shtml>.

[Underwater Photo/Video Workshops](#)

Looking to improve your underwater photography or videography? We have tried to list some of the top workshops taught by some of the top underwater photographers.



Stephen Frink
[Waterhouse Tours](#)

6-9/6-16 Digital Master, Key Largo
7-7/7-14 Digital Master, Bonaire
7-14/7-21 Digital Master, Bonaire

Instructors also include Photoshop guru Eddie Tapp and DSLR video expert Frazier Nivens.

Several of us have taken Stephen's workshops, and they were outstanding.



Dr Alex Mustard
amustard.com

1-14/1-21 Digital Madness, Grand Cayman
1-21/1/28 Creative Lighting, Grand Cayman

Local members have taken Alex's Digital Madness class and found it excellent. Less emphasis on post processing and more on shooting.



Berkley White & Others
[Backscatter](#)

1-28/2-4 Photo Expedition, Bonaire
6-16/6-23 Digital Shootout, Little Cayman

Backscatter runs dozens of training events all over the globe each year. Check their website for details on the program and instructors for each event. Don't let "Mad Scientist" Berkley frighten you!

If you would like a review of any of these workshops, please contact [Jim Boon](#) or [Dan Clements](#). These workshops are outstanding ways of improving your photo, video, and post-processing skills!

Pacific Northwest Diver: News Corner, continued

[Call for Critter Shots](#)

In the past few weeks we have received two calls for photos. Please read below if you are interested in helping provide photos and videos.

[Rick Harbo](#), author of *Whelks to Whales*, saw a shot of a horse clam siphon, and is interested in additional images to help define three species. A photo from *Critters, Creatures, and Kelp* appears below. Recall that horse clam siphons are the only PNW clam whose siphons are tipped with feathery flaps. Contact [Rick](#) if you would like to contribute.



The next request comes from [ReefID.org](#). Their first Most Wanted species hunt came to a close last month and yielded hundreds of new nudibranch images for their database used to help others identify what they see.

If you didn't submit images, you can still help by trying to identify some of the species they have captured. Simply use the comments field underneath any respective image to submit what you think each image is.

By providing unique events for ocean adventurers of all skill levels, it is ReefID's goal to heighten awareness of our ocean environment as well as educate others about the delicate marine life that lives there.

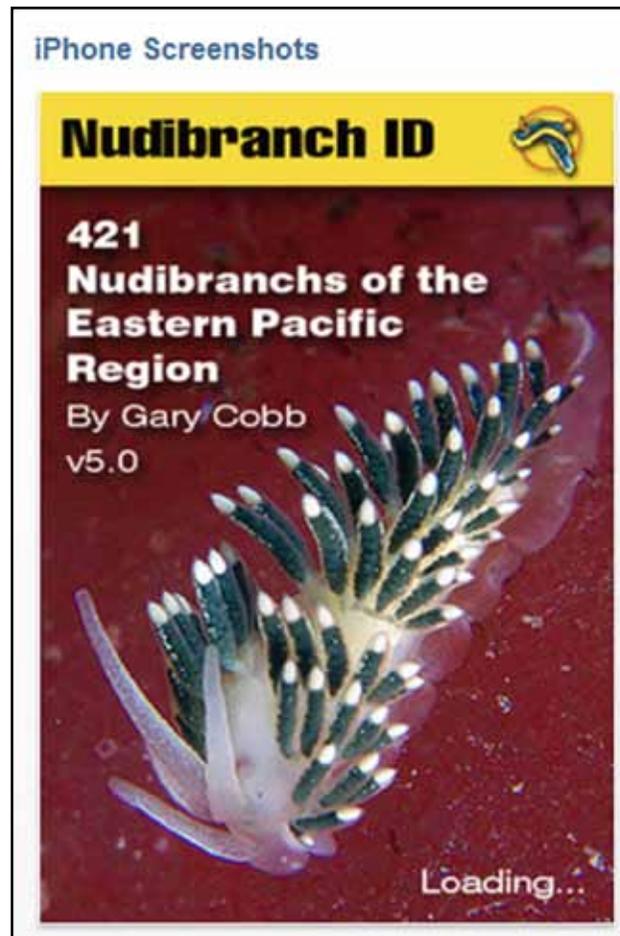
Log on and help them with their next most wanted event...SHARKS.

To help identify images, or post new photos, visit the ReefID web site at: [ReefID.org](#).



[New Nudibranch ID App](#)

For those interested in nudibranch identification, you may want to check out Gary Cobb's Nudibranchs of the Eastern Pacific Region for iPhones and iPads.



Gary has photos and descriptions of 421 Eastern Pacific nudibranchs. For those who travel outside the Pacific Northwest, Gary also has a similar app for the Indo-Pacific region.

While I find this a useful app, it would be even more useful if sorts were available for location, and common names were also included in the description.

This is available from the iTunes store, and is priced at \$7.99. The Indo-Pacific app is priced at \$12.99. Not available in Android or Windows versions.

[Congratulations Pat & Laurynn](#)

Congratulations to Pat Gunderson and Laurynn Evans (see Pacific Northwest Diver November, 2011)!

Pat's [Pacific spiny lumpsucker photo](#) won first place in the super-macro category of Underwater Photography Guide's 2011 Ocean Art contest! Pat says this is her first contest win!



Laurynn Evans had a great interview on KUOW radio about her [Watching Opal](#) octopus videos. To quote KUOW:

"Laurynn Evans' diving buddies call her "The Octopus Whisperer" because she's had several memorable encounters with the giant Pacific octopus in the waters of Puget Sound. But back in November of 2009, she encountered an octopus that intrigued her so much, she started making regular visits. When she discovered the octopus was laying eggs and preparing for a hatch, she decided to call the octopus Opal."



Pacific Northwest Diver: Operator/Resort Corner

For the past twelve years Sea Dragon Charters has taken divers to numerous dive locations in Howe Sound, just north of Vancouver. This past year Kevin and Jan Breckman expanded their operation to include a second boat based out of Nanaimo on Vancouver Island. The 40' Topline services Howe Sound, while the 40' Sea Dragon is based in Nanaimo. Both boats offer cover, are warm on cold days, and are excellent platforms for photographers.



Captain Kevin Entertaining Divers

Sea Dragon Howe Sound

Howe Sound and environs offers spectacular diving and scenery, and Jan & Kevin's operation is one of the best ways to explore the area. It is also very convenient: a few minutes from downtown Vancouver, and a two hour drive from Seattle. A bit longer trek for Oregon divers!

The varied marine life is perfect for photographers. Subjects range from sea lions, jellies, rockfish, cloud sponges at depths of 75 feet (23 meters), Puget Sound king crab, nudibranchs, and a variety of sea star.

Some of the dive sites that are visited include: Worlcombe Island, Bird Islet, Boyer Island, Gambier Island, Bowen Island, and Passage Island.

Since we are based in the Seattle area, our usual plan is to stay at the North Vancouver Hotel, which is reasonable priced and close to the Edge Dive Center, where it is possible to get air fills.

This location also saves slogging through downtown Vancouver traffic, which can be quite heavy. It is convenient to the many shore dives along the Sea to Sky Highway on the east side of Howe Sound.

Sea Dragon Nanaimo

Nanaimo has long been known as the wreck diving capital of the Pacific Northwest. Not only are the artificial reefs amazing, the walls, drift dives, and rocky reef areas are awesome to behold.

Many divers already know and love the Sea Dragon, as she was operating in Howe Sound for 5 years with Sea Dragon charters in Howe Sound.

The Sea Dragon in Nanaimo can accommodate up to 10 divers. Amenities include standing and seated tank racks, swim grid, walk-through transom, great dive ladder, head, galley, and nice upper decks for sunny days.

Artificial reefs available to dive in Nanaimo include the Saskatchewan, the Cape Breton, and the Rivtow Lion. To obtain more information about these artificial reefs, you can go to the Artificial Reef Society of BC's website, at www.artificialreef.bc.ca.



Captain Dan Ferris and Christine Brophy

Web: <http://seadragoncharters.com/>
e-Mail: info@seadragoncharters.com
Phone: 604.329.3486



Juvenile quillback and Cloud Sponge, 1/125th, f 13, ISO 250, 60 mm, Dan Clements



Water Jelly, 1/125th, f 12, ISO 200, 60 mm, Dan Clements

Pacific Northwest Diver Operator/Resort Corner, continued



Brittle Star, 1/100th, f 16, ISO 200, 60 mm, Dan Clements



Vermilion Sea Star, and Feather Star 1/125th, f 13, ISO 250, 60 mm, Dan Clements



Speckled Sanddab, 1/125th, f 12, ISO 200, 60 mm, Dan Clements

Pacific Northwest Diver: British Columbia



[John Melendez](#)

Born and Raised in Brooklyn NY, John jumped at every opportunity to live abroad and explore the world. Even as a kid, he was drawn to marine biology and photography. About five years ago he started combining these two loves.

In 2005 he moved to Vancouver BC, surrounded by nature's bounty of photographic opportunity and the inviting seas of the great Pacific Northwest. He began diving regularly and started shooting underwater photos, gradually building on skills acquired through trial and error, diligent practice and via books and articles by pros like Martin Edge, Jim Church and Alex Mustard.

John was certified in 1984, and has a deep love and respect for our oceans. He hopes to spend some time in Browning Pass, BC at The Hideaway this Spring and is organizing another chartered liveaboard for 7 days to the Similan Islands and South Andaman Sea (Thailand) for Feb 2013.

John shoots with a Canon 7D (previously with a Canon 40D), housed in an Ikelite housing with DS125 strobes. Macro shooting is with a Canon 60mm macro and wide angle with a Canon 10-22mm or a Tokina 10-17mm Fisheye.

On land, John is an attorney, negotiating technology purchases for a large multi-national firm. This Fall he moved to St Croix.

Web: www.livingcolourimages.com
e-Mail: johnmelendez@hotmail.com



Orange Anemone
Canon 40D, 60 mm lens, 1/50th, f5.6, ISO 400

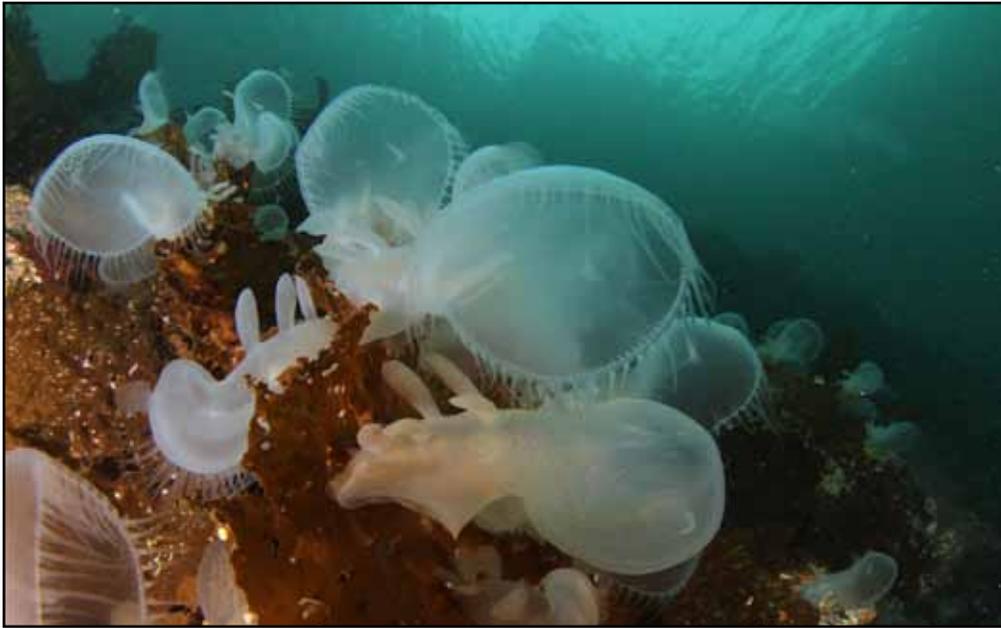


Red Flambellina
Canon 40D, 60 mm lens, 1/60th, f8, ISO 100



Opalescent Nudibranch
Canon 40D, 60 mm lens, 1/60th, f8, ISO 200

Pacific Northwest Diver: British Columbia, continued



Hooded Nudibranch "Convention"
Canon 40D, 10-17 mm lens (17 mm focal length), 1/60th, f14, ISO 400



Nakwakto Goose-Neck Barnacles
Canon 40D, 22 mm focal length, 1/60th, f6.3, ISO 400



Grunt Sculpin
Canon 40D, 60 mm lens, 1/125th, f18, ISO 200



Decorated Warbonnet
Canon 40D, 60 mm lens, 1/125th, f8, ISO 100

Pacific Northwest Diver: Washington



Mike Meagher & Jim Copher

Mike lives in Bellingham, and has been diving for 35 years, and has logged approximately 2000 dives. He began taking underwater still photographs at age 16 years old using a Nikonos III and a Housed Nikon F2, and for five years worked in a dive shop and was a PADI instructor.

Most of my life I shot 35mm slides and today have a collection of over 33,000 underwater Kodachrome slide images from the Caribbean, Southern California and the Pacific Northwest. For a while during the 80's I was a member of the Los Angeles Underwater Photographic Society and I won several awards in various photo competitions, and I had a few images published here and there in local dive publications.

About 20 years ago I relocated to our PNW area and began exploring the San Juans and Gulf Island. Then in 2008 I decided it was finally time to retire my film based camera systems and decided to switch to the new challenge of shooting video. I shoot videos using a High Def Sony HC9 tape based camcorder housed in a Gates housing using a quality Fathom wide angle port or a Century Optics closeup diopter behind a flat port. The Gates housings allow me full manual control, vital in many situations and the optics are the best in the market.

Whether shooting stills or videos, it's important to light a scene correctly to restore color, isolate the subject, and in our dirty waters reduce backscatter. This is where I've adapted my cold water still shooting techniques for video. I use a mix of Light and Motion Sunray LED lights, and Big Blue LED lights and sometimes as many as five light sources are used on a subject. I always set my white balance to a white slate while underwater and often

adjust exposure manually as its important to get the video as close to perfect as you can while underwater. The goal is to avoid as many post production corrections which can only do so much.

Since videos add the element of motion and time to the image it's important to try to steady the camera. Therefore I often make use a custom designed tripod which myself or my buddy carries along underwater.

I dive with a good buddy, Mr. Jim Copher, who is patient, a good spotter, and he assists with tripod and lighting setups on the bottom. A routine dive for us is locating a subject in the first 10 minutes of the dive, then setting up the tripod, often Jim holds supplemental lighting on a boom. We'll routinely will spend the entire dive at one spot.

Jim Copher came to Bellingham 19 years ago and began diving here in 2005. This was my second start after a very long surface interval. I actually began diving in rock quarries in Ohio in 1963. When I got married in 1968, I gave up my fins. In the 1970's my wife, Karen, and I owned and operated a commercial photography studio in Dayton, Ohio.

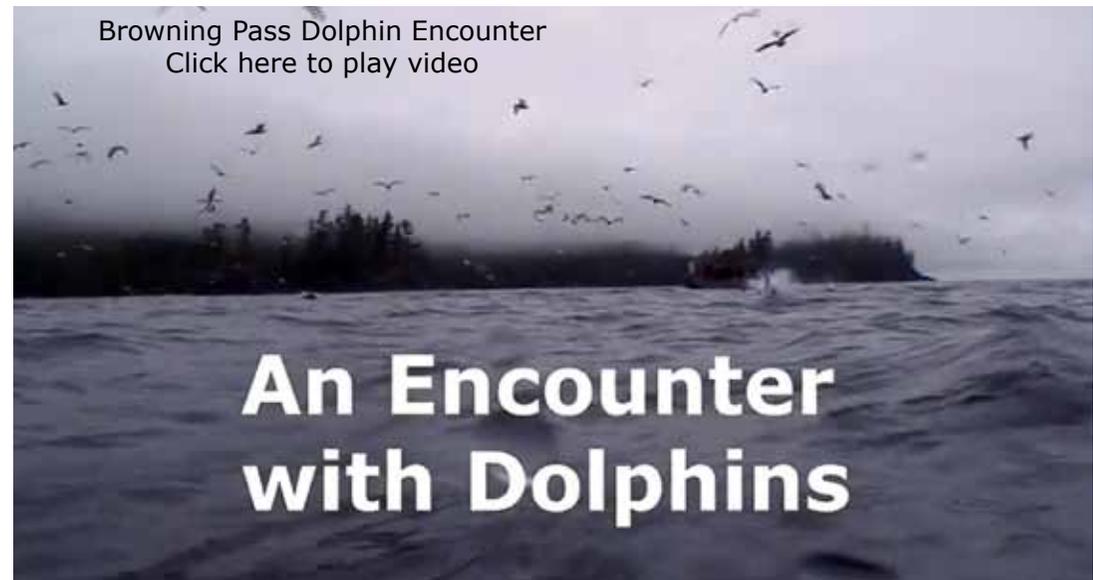
Although my experience is retro terrestrial, Mike's approach to underwater videography has some resemblance to the way I made photographs in the studio. His use of a tripod to "lock down" shots, and setting multiple lights to balance the composition and create interest are familiar techniques. Both of us enjoy the challenge of trying to set up a mini-studio at depth and often in the current. Mike is a good friend, as well as a conscientious, dependable diver. I am pleased if I can help with his videos.

e-Mail: mikem@jacoengineering.com



Mike Meagher Hood Canal Video

This video provides a beautiful look at some of Hood Canal's most interesting species. This was shot at the Pinnacle with Pacific Adventure. Check out the tiny baby wolf-eel swimming in front of Dad at the two minute mark. Amazing shooting!



Mike Meagher Dolphin Encounter

This past September Mike was in the Browning Pass, Vancouver Island area where he encountered a pod of Pacific white-sided dolphins. What does a photographer do? Put on a snorkel and jump into the choppy water and start filming!

Pacific Northwest Diver: Washington, continued



Tranquility at Eagle Rock, Browning Pass
[Click here to play video](#)

Tranquility at Eagle Rock

Mike and Jim worked together to produce this stunning video of underwater life at Eagle Rock, just north of Browning Pass, Vancouver Island. From barnacles feeding, to anemones, nudibranchs, cross jellies, rockfish, sea star, and giant Pacific octopus, the videography and lighting really show off this area.

Pacific Northwest Diver: Oregon



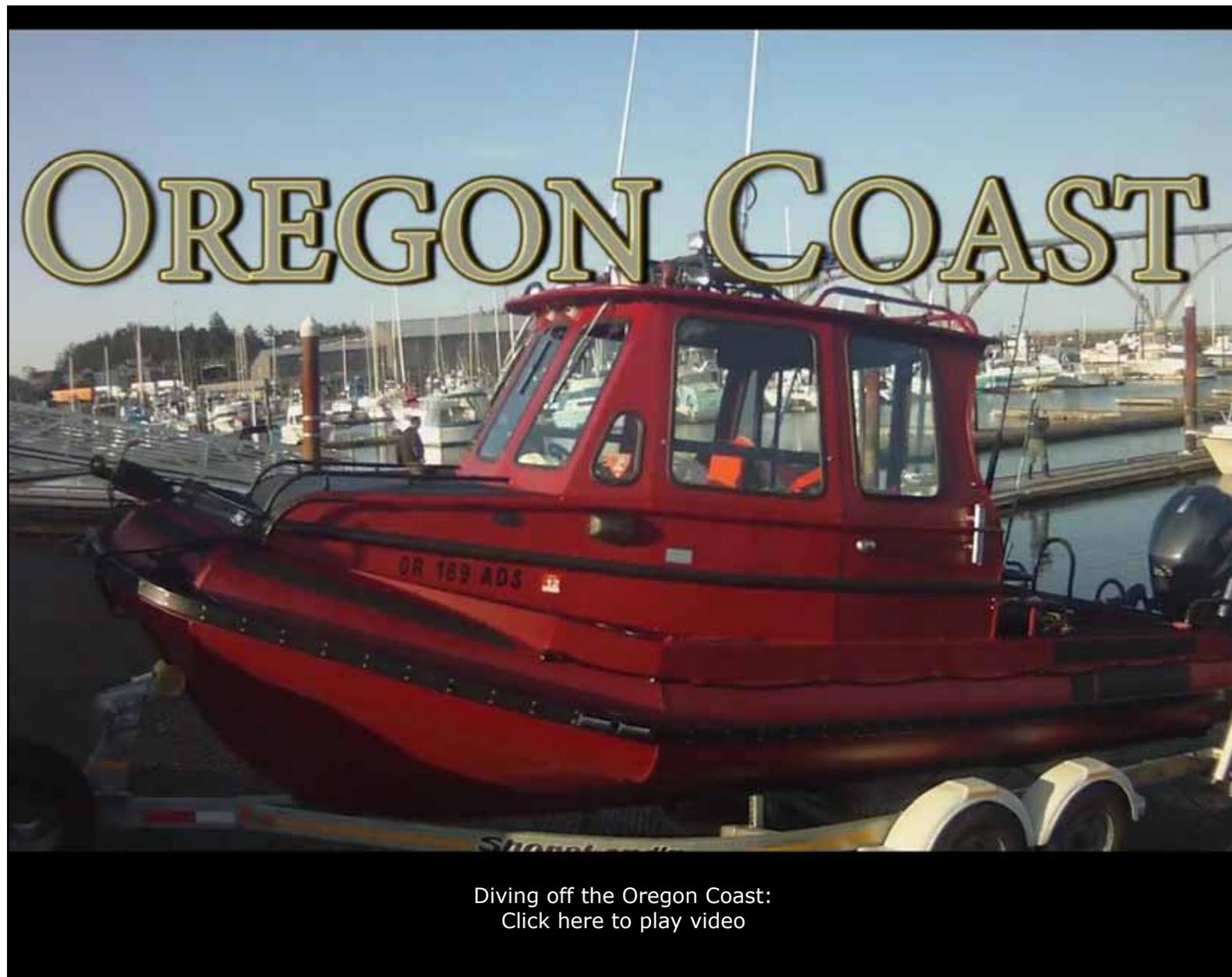
Aaron Gifford

Certified in 1999, Aaron enjoys diving all around the Northwest and abroad. He has made dive trips to Cancun, Cozumel, Bonaire, Galapagos, Channel Islands, Porpoise Bay, Nanaimo, and Hornby Island. He also enjoys diving locally on the Oregon Coast, in Puget Sound, and fresh water locations like Clear Lake.

Aaron notes: "One of the great things about the Northwest dive community is how friendly and welcoming everyone is. Where I live in Corvallis, OR there isn't a dive shop, so I tend to be a bit of a dive club nomad. I have had the chance to dive with great people from a variety of clubs around the area.

He started with a ContourHD helmet camera in a H2OV Housing. Recently, he purchased a GoPro HD in a BlurFix Housing and extended battery pack. For lighting he uses a 21 Watt Light Monkey HID with Video Reflector."

For software, Aaron uses Adobe Premiere for video editing and occasionally Adobe After Effects to add titles and effects.



Diving off the Oregon Coast:
[Click here to play video](#)

Diving off the Oregon Coast.

This past June Aaron took this video while diving off the Oregon coast out of Newport. The variety of marine life is outstanding, and taking video in the strong currents and nutrient rich water is also challenging!

Pacific Northwest Diver: Oregon continued



THE CHANNEL ISLANDS

Diving the Channel Islands, California
[Click here to play video](#)

California's Channel Islands.

For those of you who have not visited the Channel Islands off the Southern California Coast, Aaron's video will give you a feel of what diving this area is like. This is a great area to dive, with water temperatures a bit warmer than the Pacific Northwest, but still temperate diving.

Pacific Northwest Diver Travel Corner

2012 TRAVEL



At this time we have three out of area trips lined up: Monterey in April, Bahamas in June, and La Paz in October. Here are the details. If any of these trips are of interest to you, please contact [Dan Clements](#).

Monterey/Pt Lobos

We will be diving/photographing at Monterey/Pt Lobos from April 23-27. As currently structured, these will be shore dives. If there is sufficient interest, we will look into some boat diving. Lodging in Monterey it is approximately \$85/night.

Bahamas: May 31 - June 9

For the fourth year in a row we will be heading to Grand Bahama Island and diving with UNEXSO. The trip includes two dolphin dives, a shark dive, a cavern dive, and diving the coral and wrecks off Lucaya. You do not need to be cave certified to dive Ben's Cavern: the exit point is visible at all times.

This past year pricing was approximately \$1,560 per person, double occupancy, and it is anticipated this year's cost will be similar. Included are all dives, room, breakfast, and airport transfer. Not included is airfare, lunch, and dinner.

La Paz: October

We just returned from an October dive/underwater photography trip to La Paz, Baja California, Mexico with Scott Geitler. The diving was spectacular!

La Paz has resident whale sharks from September through March, and we saw 3-10 each time we went out to photograph them. Sea lions at Los Islotes, scalloped hammerheads, and many other photo subjects are present.

Dates are being firmned up, but Club Cortez has said they will honor 2011 prices for bookings made this year. Cost is approximately \$1,300, per person, double occupancy, for six day's diving, four whale shark trips, breakfast, lunch, room, and airport transfer. There is a media room for post dive photo/video review. Not included is airfare. Alaska Airlines has flights from LA to La Paz.



Grand Bahama Bottlenose Dolphins

This is an outstanding opportunity to photograph and interact with dolphins in their own environment.



Sea Lion Playing with My Fin at Los Islotes

Young sea lions approached divers to frolick and play.



Tropicals

And, of course, the Bahamas have a full array of tropical fish and wrecks for your enjoyment.

Pacific Northwest Diver Technical Corner: Subsee Super Macro

Super macro photography and videography is used to capture small creatures and details by using optics to magnify the subject. We have used wet diopters such as Woody's and Macromate, along with dry diopters attached to lenses inside housings. This past summer Dan started shooting with the [Subsee system by Reefnet](#), and this has proved to be an outstanding product.

The two photos opposite show the Subsee unit mounted on a 105 mm Subal flat port. The top photo shows a 5x diopter in the shooting position, and the bottom shot shows how the diopter can be moved out of the way so photos can be taken without magnification.

The Subsee System

The Subsee unit consists of a mounting bracket that attaches to a flat port with four set screws, a hinge that holds the diopter, and either a 5x or 10x diopter.

What is really nice about the product is that the brackets and hinge are via a rapid prototyping process: it is therefore available for many types of photo and video housings at a reasonable price.

The bracket can be purchased with either one diopter hinge, or two. Since I purchased both a 5x and 10x diopter, I elected to go with the two hinge model. After a few days of shooting I removed one of the hinges, as I found I was only using one diopter at a time.

Moveable Diopter Advantage

For me, the ability to move a diopter out of the way so I can shoot without magnification is invaluable.

It takes a great deal of practice to find and photograph subjects at high magnification levels. You have to be really close to the subject. Invariably an interesting creature will be in the area when I am shooting supermacro, and it is nice to be able to turn a knob, move the diopter out of the way, and snap a picture of a larger subject.

An issue with having two diopters mounted on the bracket was moving them both out of the way without interfering with lighting or other equipment.

The Macromate, which is another fine system, also enables photographers to flip the diopter out of way. However, the Macromate does not have a lever or knob that locks the diopter hinge in place. With time and wear, photographers need to be sure the Macromate diopter is properly positioned.

Subsee Advantages

Aside from the moveable diopter with locking mechanism, the Subsee offers a number of other advantages.

As mentioned earlier, 5x and 10x diopters are available. The Macromate offers 2x magnification, and the Woody's wet diopter is also a 2x. For my photo needs, a 10x magnification level is almost never required, but I prefer the 5x level over the 10x.

Like most underwater photographers, I started shooting super macro with a Woody's 2x wet diopter because of price. The Woody's is a magnification unit with a fitted plastic sheath that fits over a flat port. While I had some nice photos, I found the lens was very easily scratched, and in cold water diving, once removed, was impossible to place back on the housing.

The final advantage I found with Subsee was the use of rapid prototyping manufacturing. Subal slightly changed the design of their flat port, and the mounting bracket would not stay attached to the port. After speaking with Reefnet, they changed the design slightly and shipped me a replacement within a week.

Talking about a product is one thing: flip the page for some photos using the Subsee.

Resources:

[Reefnet Subsee Diopter](#)
[Bluewater Photo Subsee Diopter](#)
[Underwater Photo Guide/Super Macro](#)



Pacific Northwest Diver Technical Corner: continued

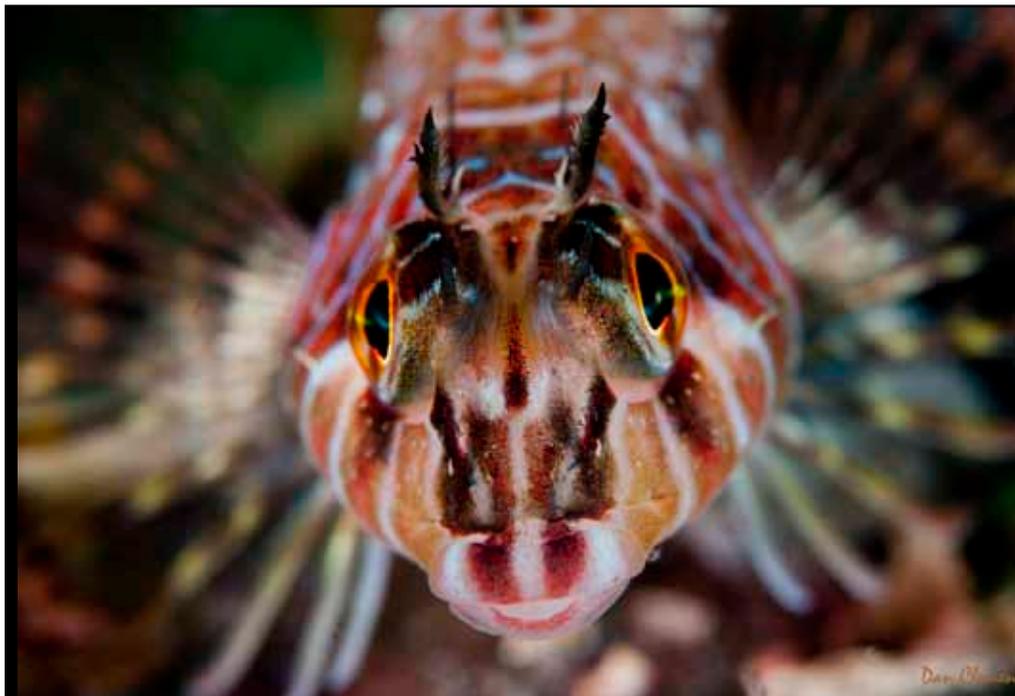


Marli took the two outstanding super macro photos to the right with the Subsee 5x diopter.

The top shot is a brown cheek blenny taken in the Sea of Cortez (1/100th, f22, ISO 100), and the lower photo is a magnificent anemone shrimp photographed in the Lembeh Straits, Indonesia (1/125th, f29, ISO 100).



This past August the PNWUPS crew were on a photoshoot at Keystone. It was one of those lucky times when a very small long finned sculpin (below) saw his reflection in the 5x diopter and posed in front of my camera trying to frighten the "intruder" off. Right after this photo a Painted Greenling showed up, and the diopter was flipped out of the way (1/125th, f14, ISO 200).



Pacific Northwest Diver: Our Team

The Pacific Northwest is a large, diverse region with diverse interests in underwater photography and videography. In order to make it easier for you to submit information about photographers, dive clubs, and operators/resorts in your area we have key contacts for British Columbia, Washington, and Oregon. Since we are all volunteering our time and efforts, we also hope to spread the work-load so we will all have ample time for diving and photography!

Below are our contacts, please either get in touch with one of the regional contacts listed below, or contact editor [Dan Clements](#) directly.

British Columbia: Marli Wakeling



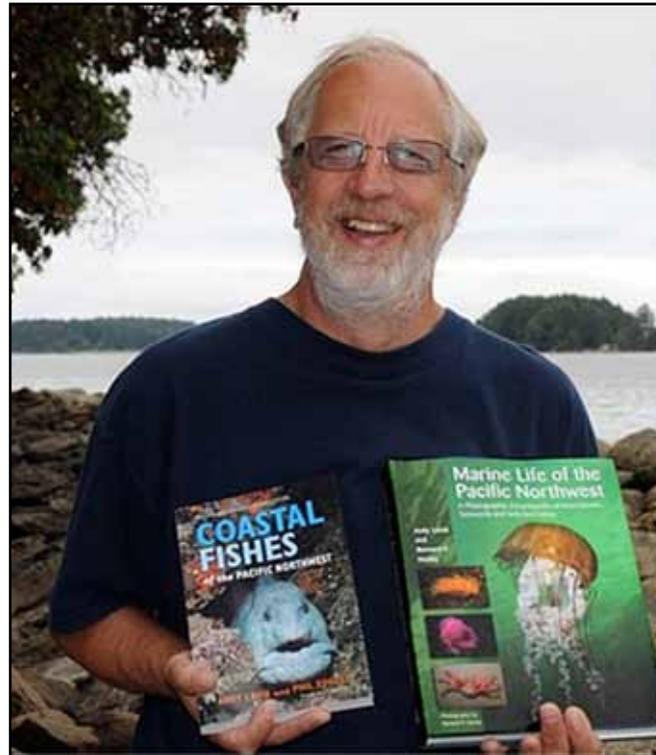
604.549.0095 | scubamarli@gmail.com
www.marliwakeling.com

Washington: Jim Boon



206.947.0297 | jamesboon@me.com
www.jimboon.com

Species ID: Andy Lamb



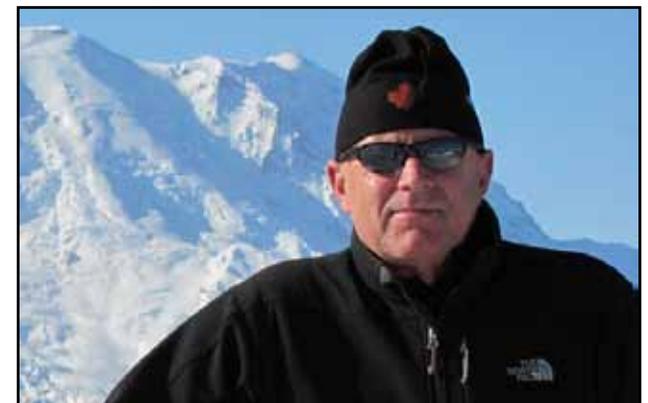
250.246.9770 | andylamb@telus.net
<http://www.cedar-beach.com/index.shtml>

Oregon: Steve Billings



503.452.5197 | stevenbillings@yahoo.com
<http://www.flickr.com/photos/55273250@N00/>

Editor/Publisher: Dan Clements



425.418.8755 | dan@e-clements.com
www.e-Clements.com