



KELP KRAWLERS DIVE CLUB

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Cobb Seamount Expedition

by Scott Boyd

From 1968 – 1977 nine research expeditions were conducted on the **Cobb Seamount** which is an ancient volcano located in the Pacific Ocean, **270 miles west** of Gray's Harbor, Washington. As part of project Sea Use, these expeditions performed a variety of scientific experiments, using divers to deploy and test different types of sensors and research equipment on the top of the Seamount, .

The Seamount was discovered in 1950 by the M.V. John N. Cobb. It rises from a base of 9000 feet to within 120 feet of the surface. Slopes averaging twelve degrees are indented by four terraces at 3000, 600, 480 and 270 feet. From the top terrace rises a basalt pinnacle 160 feet high with 45 degree slopes and a flat fissured top that is 200 by 400 yards at depths ranging from 130' – 150'. This flat top was the site of the dive operations on the Cobb Seamount, and Janet and I were fortunate to be able to talk with Spence Campbell (The Senior Dive Officer of the Expeditions) after a presentation he recently gave on their adventures at the Seamount.

Initial diver surveys (1968) were conducted by towing two divers at 90' with a Zodiac using a weighted rope. During this time, the divers were breathing 50% nitrox, and would dive for 30 minutes, then have a 5 minute surface interval and then dive for another 30 minutes. Yikes!

Subsequent dives to install and test the scientific gear were accomplished by diving with air from twin Navy 90 cubic foot tanks. The dives were conducted at average depths of 135 – 145' using the old Navy decompression tables, and the first few years the divers had a 5% "bends" rate. They had a tiny decompression chamber on the support vessel, which saw regular use.

Spence Campbell helped develop the Doppler ultrasound technology used to listen for bubbles in the diver's blood after dives, and by studying the information they obtained from testing the expedition divers after every dive, was able to modify the Navy tables to reduce the "bends rate" to 0%.

Every year when the divers returned to the

Seamount, they found that all of the research gear that they had deployed was gone. Even the gear they had bolted down to the basalt was missing and when occasionally found was often mangled beyond recognition. They eventually deployed 1200 feet of 2 ½" anchor chain going East-West across the top that they referred to as the "chain highway". This was used to orient the divers on subsequent dives. They tied a wave/surge recorder to the chain and the device was successfully recovered the following year and helped to explain all of the missing gear. The wave recorder had recorded several **110' waves** (can you imagine this in only 130' of water) and the site had an average wave height of almost 20'.

According to Spence and his dive buddy Vince, the most challenging part about diving on the Seamount wasn't really the conditions (which were horrible), but had to do with the wildlife at the site. The rockfish at the site were huge, had no fear of divers, and reminded the divers of Jewfish or large grouper. They were hungry, and would go after anything that was shiny. Spence related a story where he had just finished tightening a turnbuckle with a large adjustable crescent wrench, and he signaled to Vince that they needed to tighten the other side. Unfortunately, he did so by waving the wrench to attract his buddy's attention, when it was suddenly snatched out of his hand by a large snapper, which swam off rapidly with its shiny new prize.

They needed the wrench to finish their job, so Spence swam off in "hot pursuit" of the fish, which eventually figured out the wrench wasn't edible and dropped it. He picked up the wrench and turned back toward the project only to see massive amounts of air bubbles coming from his dive buddy. Worried that his buddy was in trouble, he quickly swam back, only to discover that the massive clouds of bubbles were escaping from Vince because he was laughing so hard at Spence!

Even the safety divers, snorkeling on the surface of the clear, 70° water were not immune from being tormented by the local critters. Often while keeping a sharp lookout for the great white sharks that would cruise through the area, they would get a painful peck on the back of the head from the huge albatross that liked to sneak up behind them and "have a taste"! Ouch! And to add insult to injury,

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after losing a bit of flesh to the goony birds, they would often see money changing hands between the crew of the Zodiac that had been betting on whether the bird would strike or not!

My favorite story from the expedition has to be the fancy “surge meter” they deployed on the top of the Seamount. The scientist that had designed and built the **odd looking device** was on board the support vessel, and was very worried about his “baby”. He fretted and fussed during the trip, and then gave the divers very strict instructions on placing the device so it was correctly oriented, and that it had to be perfectly level, and to be



very, very careful with the two Styrofoam balls that made the instrument work. These balls were bright orange, about 6 inches in diameter, and rode up and down on two v-shaped brass rods to measure the surge.

Spence and Vince carefully lowered the device to the bottom, and found a nice level spot for it. They spent a good ten minutes getting the device perfectly oriented and secured to the bottom, and then went to work getting it level. They carefully adjusted the device so the bubbles on the levels were perfect and then drifted back a little to admire their work. Just as they started to head for the surface they saw two giant Red Snapper swoop in and eat **both** of the Red Styrofoam balls. **Oops!**

Once the divers were on the dive boat, Spence instructed Vince that he was going to have to break the news to the worried scientist, as Spence just couldn't do it. Upon their return to the support vessel, the scientist immediately started grilling Vince. **“Did you get the device oriented correctly?”**

“Yes”, Vince replied, **“its heading is set perfectly North”.**

“Whew”, declared the Scientist, **“Did you get it perfectly level?”**

“Oh yes,” Vince replied, **“we found a nice spot for it, and it's perfectly level.”**

The scientist seemed greatly relieved, and started to walk off, but turned back to Vince, and almost as an afterthought asked, **“were the Styrofoam balls OK?”**

To which Vince replied, **“Fish ate em!”**

Dive Reports - Night Diving

After a stressful weekend of working too hard, Janet and I decided to do something different and went for a night dive at one of our favorite dive sites. We saw several red octopus out hunting for their dinner, and lots of sailfin sculpins prancing around the nightscape. Our local dive sites take on an entirely different persona at night, as the critters that hide during the day make their way out into the open. You'll see many different creatures at night that you just wont see during the day.



The highlight of our Sunday night dive was what looked like a snake, slithering across the bottom! It was very skittish, and would not let me get any closer than about 5 feet before darting off. I did manage to get one picture, and it turned out to be a Pacific Snake Prickleback! Very cool critter!

Tips for Night Diving

Start your dive at Twilight, you'll have the best of both worlds: Dim light to gear up in and full darkness will arrive while you are underwater. You'll also have the chance to see the critters make their transition from the day to night, one of the most exciting periods of underwater activity.

Treat your light like a loaded gun. Don't shine your light in your buddy's face (including your own) or you'll ruin their night vision (no matter how much fun it is to watch them run into things).

Hand signals will be very difficult to see, so use light signals instead. Circle your buddies light beam with yours to ask and respond to "OK," waving it side to side slowly calls for attention, and waving it up and down rapidly calls for help. If you do need to use a hand signal, shine the beam on your hand from above to illuminate traditional signals.

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Should you become **separated from your buddy**, you can often cover your light briefly, and you'll see the glow of your buddy's light in the distance. If that fails, shine your light outward while turning a full circle. Your buddy may see your light. Be sure to discuss a separation plan before starting the dive so you know how to proceed if these tips fail. Today's modern HID dive lights are very bright and can be seen from quite a distance underwater.



Stay close to your Buddy. Your partner can provide illumination for you while you have your hands full with those tasks that always seem to pop up (like hooking up your drysuit inflator).

Always dive with at least two lights. Have at least one backup light in case your primary light fails and make sure it is working before entering the water. Make sure your lights are fully charged, or have new batteries in them. Technical divers generally use a rechargeable HID light for their primary light, but rely on a traditional Ni-Cad battery powered backup light that will work even if the charger failed.

We often dive with two backup lights, one which is powerful enough to work as a primary light, which enables us to continue a dive even after a single primary light failure.

DIVE SHOP NEWS:

Capital Divers 866-3684
www.capitaldivers.com

Palau trip on the Palau Aggressor June 25-July 2 2006 (still 2 spots left). **Akumal, Mexico** trip November 6th through 17th. Nitrox, argon and hyper filtered air fills available.

Bandito Charters on **Saturday, Oct 23rd**, Nov 19 and Dec 18.

Hood Sport 'n Dive (360) 877-6818
www.hoodspordndive.com

The shop is now pumping nitrox while you wait, trimix, deco gases, and argon. Also, they are offering discounted access to the **Sund Rock Marine Preserve** for paid members.

September Meeting Notes:

What a great presentation! **Dr Roland Anderson** once again did a great job of both entertaining and educating our dive club about one of our favorite critters, the **Giant Pacific Octopus**. Fifteen members were present and seemed to enjoy the presentation. He had everyone in the room asking questions and continued a great discussion even without any pictures! One of the interesting items that was reported with the 2005 Octopus Census was that an **Octopus was observed being eaten by Wolf Eel**.

Oysterfest:

On October 1st and 2nd, the Skookum Rotary held its annual small town, **BIG** event at the Mason County Fairgrounds. The Aquanuts with assistance from the Kelp Krawlers were out in force to help educate the droves of people that came by to see the incredible display of marine creatures set up by the Aquanuts.

The touch tanks were a big hit with kids and parents alike, and everyone was mesmerized by the juvenile Octopus in the large tank, as well as a buffalo and grunt sculpin that were doing their best rock imitations.

Entertainment on the Microbrew stage was provided by Craig and Deb Brown and the debut of their band, "**Blue Ringer**"!



Underwater Sports 493-0322
www.underwatersports.com

The Olympia Shop is now pumping hyper filtered Air. Discounted air cards for Kelp Krawlers: 10 fills for \$25.

Blue Diamond Dive Tours (360)426-1267
BlueDiamondDiver@aol.com

Bonaire Trip at the Sand Dollar Beach Resort November 5-13.

Dive Safe and Play Nice!!!!