

Researchers study ocean canyons in marine sanctuary

Exploring unseen habitats, cultural sites

By **ROB OLLIKAINEN**
Peninsula Daily News

PORT ANGELES, Wash. — From one underwater canyon to the next, the EV Nautilus is shedding new light on the Olympic Coast National Marine Sanctuary.

After a brief personnel transfer at the entrance to Neah Bay, the 211-foot expedition vessel set sail for the Juan de Fuca Canyon to look for organisms and changes in ocean chemistry 1,000 feet below.

The Nautilus is midway through a 2½-week study of the mostly unexplored Quinalt, Quillayute and Juan de Fuca canyons off the coast of the Olympic Peninsula.

The underwater surveys are being broadcast in real time at www.NautilusLive.org.

"The highlight reels are going to be amazing," said Jenny Waddell, Olympic Coast National Marine Sanctuary research coordinator and one of 31 members of the EV Nautilus science team.

Using state-of-the-art remotely operated vehicles Hercules and Argus, the Nautilus crew is exploring unseen habitats, geological features

and cultural sites.

Just prior to the transfer of four scientists, the ROVs inspected the USS Bugara, a Navy submarine that sank while under tow in 800 feet of water off Cape Flattery in 1971.

"We've seen a lot of really cool stuff," Waddell said during a tour of the research vessel.

The Nautilus transmits real-time video from its ROVs to a satellite, allowing anyone with an internet connection to see the dives as they happen and to ask questions of the scientists.

"We've had a lot of people engaged," said Samantha Wishnak, Nautilus communications coordinator.

"We've had thousands of people watching our dives."

The dives are focused on the 3 percent of the Olympic Coast National Marine Sanctuary that is considered hard-bottom habitat, mainly rocky slopes of the canyons that support long-living species such as coral and sponges.

These surveys provide scientists with a sense of biological distribution, a "who's who in the zoo," Waddell said.

"We have seen a couple of attempted predation events, which are always fun to catch," Waddell said, "but nothing super-crazy surprising."

The communications technology on the Nautilus

allowed former USS Bugara Commanding Officer Ed Etner, 96, to participate in the livestream and to share stories about his time on the sub.

"It was a really big production," Waddell said.

"We had a lot of super senior people from the Navy helping to narrate."

The Nautilus is owned and operated by the Ocean Exploration Trust, a nonprofit founded by oceanographer Capt. Robert Ballard.

The 2017 survey of the Olympic Coast National Marine Sanctuary is a partnership between the National Oceanic and Atmospheric Administration, Ocean Exploration Trust and Quinalt Indian Nation.

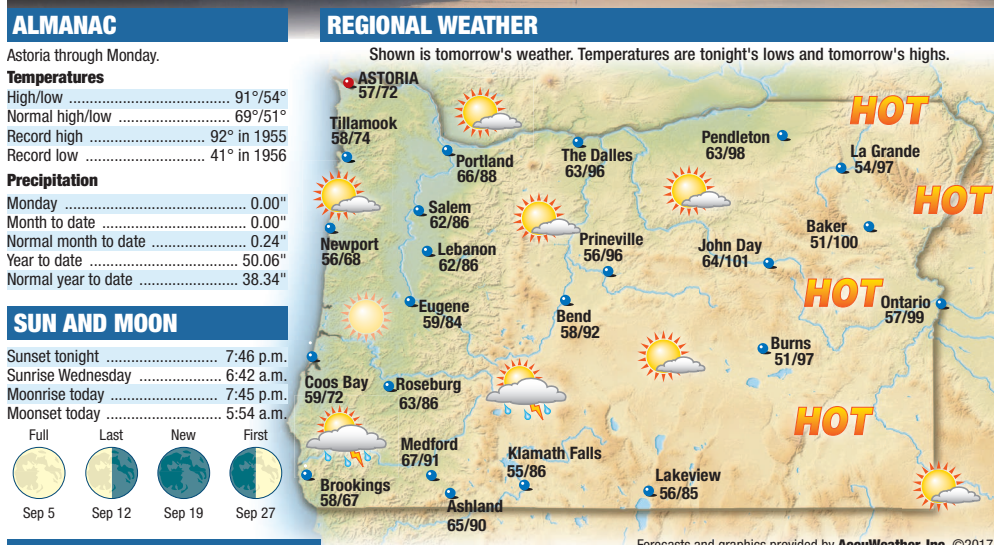
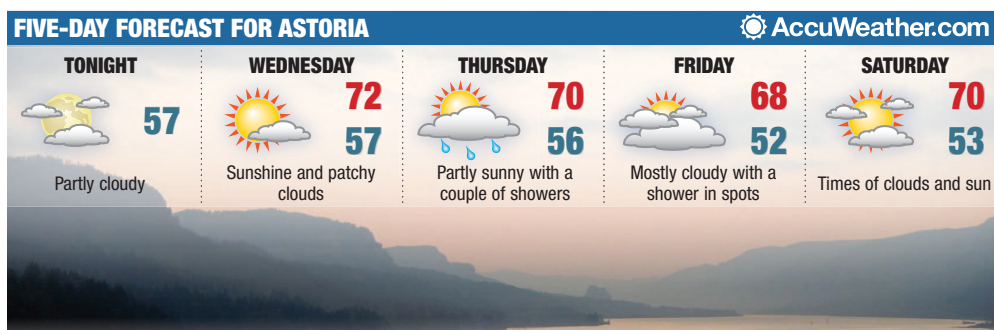
The Quinalt and other tribes will use information from the study in salmon recovery efforts.

"The tribes are very much engaged in this process," Waddell said.

The ROVs and high-definition cameras are controlled from a command center on the Nautilus in a pair of inconspicuous shipping containers.

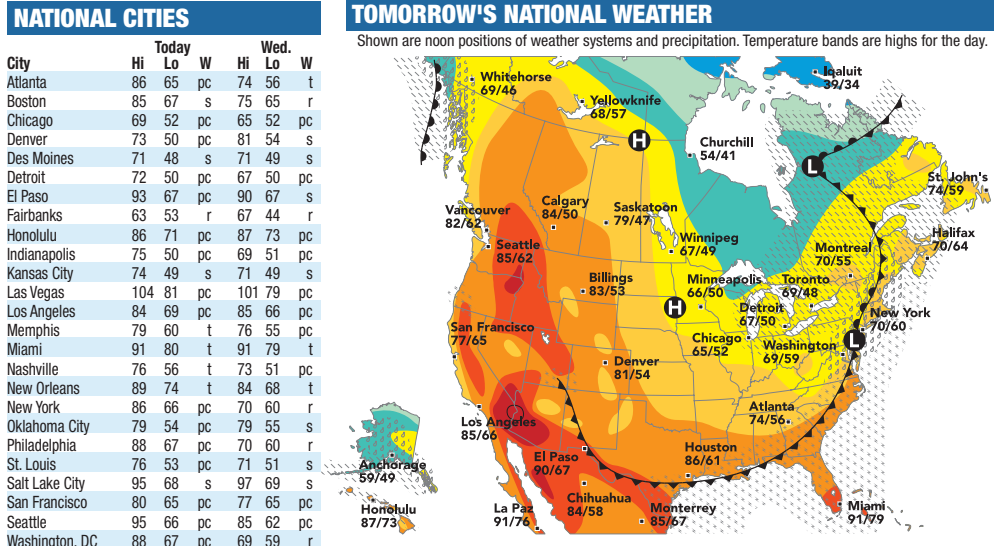
Most of the dives in the Olympic Coast National Marine Sanctuary occur at night between 8 p.m. and 8 a.m.

"The general public has the same experience that we're having here on the ship," Wishnak said.



City	Today	Hi	Lo	Wed.	W	City	Today	Hi	Lo	Wed.	W		
Baker City	98	51	pc	100	51	s	Olympia	96	57	pc	85	57	s
Bend	95	58	pc	92	60	pc	Pendleton	96	63	pc	98	66	s
Brookings	69	60	pc	69	59	pc	Portland	97	66	pc	88	64	s
Eugene	92	59	pc	84	58	pc	Roseburg	94	63	pc	86	63	pc
Ilwaco	73	59	pc	67	59	s	Salem	98	62	pc	86	62	s
Klamath Falls	95	55	pc	86	52	pc	Seaside	78	59	pc	72	60	s
Medford	98	67	pc	91	63	pc	Spokane	91	62	pc	95	64	pc
Newberg	96	60	pc	85	63	s	Springfield	93	61	pc	85	61	pc
Newport	68	56	pc	68	56	s	Vancouver	96	64	pc	85	64	s
North Bend	70	57	pc	71	57	pc	Yakima	97	59	pc	100	63	pc

City	Today	Hi	Lo	Wed.	W	
Atlanta	86	65	pc	74	56	t
Boston	85	67	s	75	65	r
Chicago	69	52	pc	65	52	pc
Denver	73	50	pc	81	54	s
Des Moines	71	48	s	71	49	s
Detroit	72	50	pc	67	50	pc
El Paso	93	67	pc	90	67	s
Fairbanks	63	53	r	67	44	r
Honolulu	86	71	pc	87	73	pc
Indianapolis	75	50	pc	69	51	pc
Kansas City	74	49	s	71	49	s
Las Vegas	104	81	pc	101	79	pc
Los Angeles	84	69	pc	85	66	pc
Memphis	79	60	t	76	55	pc
Miami	91	80	t	91	79	t
Nashville	76	56	t	73	51	pc
New Orleans	89	74	t	84	68	t
New York	86	66	pc	70	60	r
Oklahoma City	79	54	pc	79	55	s
Philadelphia	88	67	pc	70	60	r
St. Louis	76	53	pc	71	51	s
Salt Lake City	95	68	s	97	69	s
San Francisco	80	65	pc	77	65	pc
Seattle	95	66	pc	85	62	pc
Washington, DC	88	67	pc	69	59	r



Weather (W):	s-sunny	pc-partly cloudy	c-cloudy	sh-showers	t-thunderstorms	r-rain	sf-snow flurries	sn-snow	i-ice
T-storms	***	***	***	***	***	***	***	***	***
Rain	0s	0s	0s	0s	0s	0s	0s	0s	0s
Showers	0s	0s	0s	0s	0s	0s	0s	0s	0s
Snow	10s	10s	10s	10s	10s	10s	10s	10s	10s
Flurries	20s	20s	20s	20s	20s	20s	20s	20s	20s
Ice	30s	30s	30s	30s	30s	30s	30s	30s	30s
Cold Front	40s	40s	40s	40s	40s	40s	40s	40s	40s
Warm Front	50s	50s	50s	50s	50s	50s	50s	50s	50s
Stationary Front	60s	60s	60s	60s	60s	60s	60s	60s	60s
	70s	70s	70s	70s	70s	70s	70s	70s	70s
	80s	80s	80s	80s	80s	80s	80s	80s	80s
	90s	90s	90s	90s	90s	90s	90s	90s	90s
	100s	100s	100s	100s	100s	100s	100s	100s	100s
	110s	110s	110s	110s	110s	110s	110s	110s	110s

OBITUARIES

Doris Olive Snodgrass

Seaside

Feb. 8, 1920 — Aug. 22, 2017

Doris Olive Hungerford Snodgrass, 97, of Seaside, passed away Tuesday, Aug. 22, 2017, at Providence Seaside Hospital. She was born Feb. 8, 1920, in Moscow, Idaho, the daughter of the late Charles W. Hungerford and Ruth Patridge Hungerford of Moscow.

Doris was raised in Moscow, and was involved with the school orchestra and chorus in high school. She went to college at the University of Idaho, where she majored in music and belonged to the Gamma Phi Beta sorority.

Doris toured with an all-female orchestra and choir during the war, and also had the opportunity to meet Eleanor Roosevelt when Eleanor visited the University of Idaho. Although Doris was a piano major, she also played the cello in orchestra, and continued to play cello, along with piano, her entire life. She met Walter Howard Snodgrass when he took up bassoon in order to sit next to her in the orchestra. They were married in June 1941, the same spring they both earned their bachelor of music degrees.

Doris and Walt moved to Orofino, Idaho, where Walt taught school music, then took a teaching job in Sandpoint, before Walt was called into service for World War II. Doris moved back to Moscow, where she re-enrolled at the University of Idaho and went on to earn her master's degree in music education. When the war was over, Walt and Doris moved to Rosalia, Idaho, where Walt resumed teaching school.

In 1953 they moved to Moscow, where Walt taught music in the public schools. Doris taught private piano for many years, and even a second generation of piano students. Former students remembered her kind countenance, patience and in-home recitals that were frequent events. For many years Doris belonged to the "Friends of Music," a local organization of musicians. She was also a founding member of the alumnae chapter in Moscow for Sigma Alpha Iota.

In 1977, they both retired and moved to Oregon to fulfill their lifelong dream of living near the ocean. They began their retirement in Elsie, Oregon, and moved to Seaside in 1991.

They both enjoyed playing piano, two side-by-side baby grands, and had a library of two-piano music.

Both Walt and Doris were active in the Seaside Lions Club, the AARP, the SMART program and Senior Commission. When Walt passed away in 2002, Doris continued to belong to the organizations, but expanded her community involvement with a local book club, volunteering at the Seaside Library, and the local garden club, when she played background piano music at the annual Sweet Affair for several years. Doris became a member of the Friday Music Club, participated in monthly meetings and continued playing with them until her death.

Doris enjoyed a lifelong affair with plants. She planted countless trees as tributes, as well as beautifying whatever location she resided in. She often volunteered in city planting projects, and donated many starts of iris and other plants to help her local flower beds. She was passionate about the Seaside Library, and volunteered with the new building. She was an avid reader, and played her piano almost every day of her life.

In her later years she lived at the Suzanne Elise Retirement home in Seaside, Oregon, and enjoyed many of their social programs.

Doris is survived by her children, Lynn Schmidt of Reedsport, Dianne Thrailkill (Grant) of Florence, Montana, and Mark (Jennifer) Snodgrass, of Moscow, Idaho; four grandchildren; and three great-grandchildren. She is also survived by her sister-in-law, Pat Hungerford.

Doris was preceded in death by her husband, Walt; sister-in-law, Gayle Hungerford; daughter-in-law, Martha Snodgrass; son-in-law, Philip Schmidt; her brothers and sister-in-law, Roger (Carol) Hungerford of Tucson, Arizona, and Kenneth Hungerford of Moscow, Idaho.

There will be a private family memorial.

The family suggests that memorials be made to the Friday Musical Club, c/o Laurie Drage, P.O. Box 706, Warrenton, OR 97146; the Sou'Wester Garden Club; or the Seaside Library.



Doris Snodgrass

Coast Guard rescues hiker from Olympic National Forest

The Daily Astorian

WARRENTON — A Coast Guard helicopter crew from Air Station Astoria rescued an injured hiker from the Olympic National Forest near Washington's Lake Quinalt Monday.

Coast Guard watchstanders at Sector Columbia River in Warrenton were contacted Monday afternoon by the Air Force Rescue Coordination Center requesting assistance rescuing a 40-year-old male

with an injured leg about 4 miles east of Lake Quinalt.

The hiker had been injured Sunday and spent the night on a mountain. The Olympic Mountain Rescue team treated him Monday morning.

A Coast Guard MH-60 Jayhawk helicopter crew from Warrenton hoisted the man and transported him to Bowerman Airport in Hoquiam, Washington. Emergency services took him to Grays Harbor Community Hospital in Aberdeen.

BIRTH

Aug. 11, 2017

BALLARD, Alyssa, and MORGAN, Patrick, of Astoria, a boy, Lincoln Douglas Lee Morgan, born at St. John's Medical Center in Longview, Washington. Grandparents are Doug and Kathy Morgan, Sharon Olson, James and Konni Ballard and Mike Olsen, all of Astoria. Great-grandparents are Linda Morgan of Gladstone, Patti and Milton White-side of Astoria and Alice Bar of Prineville.

MEMORIAL

Saturday, Sept. 9

GOODENBERGER, Rev. John Longstaff — Memorial service at 2 p.m., First Presbyterian Church, 1103 Grand Ave.

LOTTERIES

OREGON

Monday's Pick 4:

1 p.m.: 0-0-4-8

4 p.m.: 3-4-1-2

7 p.m.: 0-5-7-3

10 p.m.: 9-7-6-5

Monday's Lucky Lines: 01-05-10-13-19-24-28-32

Estimated jackpot: \$53,000

Monday's Megabucks: 2-5-14-33-41-45

Estimated jackpot: \$6.9 million

WASHINGTON

Monday's Daily Game: 3-9-3

Monday's Hit 5: 05-06-27-36-39

Estimated jackpot: \$120,000

Monday's Keno: 01-02-04-05-07-10-11-16-19-20-27-29-36-43-46-48-51-70-73-76

Monday's Lotto: 06-08-26-30-39-41

Estimated jackpot: \$2.6 million

Monday's Match 4: 07-11-12-13

PUBLIC MEETINGS

TUESDAY

Port of Astoria Commission, 4 p.m., Port offices, 10 Pier 1 Suite 209.

Miles Crossing Sanitary Sewer District Board, 6 p.m., 34583 U.S. Highway 101 Business.

Astoria City Council, 7 p.m.,

City Hall, 1095 Duane St.

Cannon Beach City Council, 7 p.m., City Hall, 163 E. Gower St.

WEDNESDAY

Warrenton Urban Renewal Agency-Warrenton Urban Re-

newal Advisory Committee, 3:30 p.m., joint meeting, City Hall, 225 S. Main St.

Seaside Improvement Commission, 6:30 p.m., City Hall, 989 Broadway.

Gearhart City Council, 7 p.m., City Hall, 698 Pacific Way.

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The Daily Astorian publishes paid obituaries. The obituary can include a small photo and, for veterans, a flag symbol at no charge. The deadline for all obituaries is 9 a.m. the business day prior.

Obituaries may be edited for spelling, proper punctuation and style. Death notices and upcoming services will be published at no charge. Notices must be submitted by 9 a.m. the day of publication.

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