HARBOR WILDWATCH
3110 JUDSON STREET, PMB 99
GIG HARBOR, WA 98335

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Spring 2020

THE WILDSIDE

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THE WILDSIDE

March 2020

When you shop at smile.amazon.com, select Harbor WildWatch as your charity of choice and we will receive a donation. Thank you!

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UPCOMING EVENTS

Cocktails & Fishtales
March 18 at 6 p.m.
Gig Harbor Brewing
Environmental Trivia Night

April 15 at 6 p.m.
Gig Harbor Brewing
Ocean Acidification

May 20 at 6 p.m.
Gig Harbor Brewing
New Research on Gray Whales in the Pacific Northwest

Spring Break Camp
April 14-15 at Sehmel Homestead Park; ages 8-12

Mother's & Father's Day Beach Walks
May 10 (1 p.m.) and June 21 (11 a.m.) at Titlow Beach

WHAT AM I?

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CREATURE FEATURE

The Opalescent Squid: Everyone's Favorite Snack

Sara Woodward, Marketing Intern

There are 300+ known species of squid in the world. Most squid species grow to about 24 inches long and in the deep seas and oceans, giant squid can grow up to 43 feet long. One of the squid species found in the Pacific Ocean is *doryteuthis opalescens.* These opalescent squid are found from the tip of Baja California to southeastern Alaska. They spend most of their time in deep water within 200 miles of shore, but come to the surface to feed at night. They are attracted to light and will seek out the full moon or even artificial light sources.

Opalescent squid also come to shore to spawn, congregating in large schools year-round over sandy habitats. Males deposit a cluster of sperm cells into females and the eggs are fertilized as females release them. Females produce about 20 egg cases (see *Fall 2019 The Wildside, What Am I?*), with each case containing about 200 individual eggs. Females contribute their egg cases to large communal beds. Some egg beds can cover acres of the ocean floor. Eggs take 3-8 weeks to hatch, depending on temperature. Opalescent squid have a short life span of only 6 to 9 months with reproduction occurring near the end of their lifespan. The entire population of opalescent squid can replace itself annually!

Opalescent squid derive their name from their opalescent or iridescent milky-white color. Mixed with mottled brown, purple, and gold coloration, these squid have chromatophores which allow them to change color, often to dark red and brown, when excited, frightened, feeding, mating, or as camouflage in response to environmental conditions. Newly hatched eggs are called "paralarvae" and can begin swimming immediately. These paralarvae resemble miniature adults, but are about the size of a grain of rice!

Photo: Washington Fish & Wildlife

As an important link in the food chain, opalescent squid feed on small fish, krill, crustaceans, even other squid and serve as prey for a wide variety of fish, sharks, seabirds, marine mammals, and humans (think calamari). Basically, they are everyone's favorite snack. Common predators include Chinook salmon, lingcod, tuna, rockfish, blue shark and others. These squid, also known as market squid, are harvested commercially and by sports fishermen. U.S. wild-caught California market squid are more sustainably managed and responsibly harvested than other commercially fished populations of sea life due to their short lifespan and reproduction cycle. The practice of commercial harvesting after spawning has ensured that populations can replenish themselves.

Photo above: Mike Behrens, Science Advisor, at community science beach monitoring at the Old Ferry Landing in Gig Harbor.

GET YOUR FEET WET

Youth Volunteer Feature

Addie Chuhran, 8th Grader

Every year at Harbor WildWatch's Annual Meeting, we celebrate our wonderful volunteers and award volunteer pins (if you haven't received your 2019 rockfish pin yet, contact us!). Amongst the celebrations are awards for those who contributed significant volunteer hours.

Addie has been a volunteer with Harbor WildWatch for only a year and has made a big splash in that time with 66 hours of service! We are excited to recognize her as our Youth Volunteer of the Year with the most youth volunteer hours. We sat down with Addie for a quick Q&A to talk about her experience with Harbor WildWatch, what she's learned, and her favorite parts about being a volunteer.

Tell us about becoming involved with Harbor WildWatch: I joined Harbor WildWatch in February of 2019 because I had gotten really interested in marine biology and conservation. I wanted to be able to learn more about the local marine wildlife and I knew that volunteering here would give me that opportunity.

What programs have you volunteered at? I have done so many programs here, like Beach monitorings (summer and winter), touch tanks at our Farmers Market (and during the outdoor movie screenings), Pier Into the Night... and I also spend my time at the Skansie House helping visitors learn about skulls, touch tanks, and our Augmented Reality sandboxes. I love being able to answer questions from people.

What is your favorite part about volunteering with Harbor WildWatch? My favorite part about being in Harbor WildWatch is the learning experience. Not only do I get to learn facts about local marine life, I also learn how to take care of animals in touch tanks and how to handle scientific tools. I also love being able to teach people new things about the ecosystem they are surrounded by, because my hope is that they will have more respect for it.

Do you have any fun memories from volunteering that you would like to share? I have so many fun memories from volunteering here. My favorite activity is working at beach monitorings. My overall favorite memory is from a farmers market last year, when one of the interns, Michael, was celebrating his birthday. We were working, and we turned around and there was Stena, Rachel, Lindsey, and Carly sneaking up on us holding a cookie. They came out of nowhere! Even today it still makes me laugh to think about it.

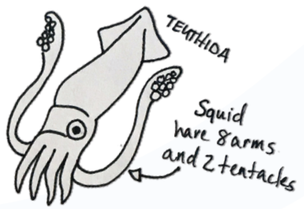
Is there anything else you would like to share? I am just so thankful to have Harbor WildWatch in my community. I love learning new things about the biology here and being able to be a teacher to people. I am always looking forward to new events and I would love to work on projects in the future.

KIDS CORNER

Squid Jokes

What do you call two quids that look exactly the same?
Itenticle

I just heard a really good joke about a giant squid...
It's Kraken me up!



MAKE WAVES
CELEBRATE ~ DONATE ~ EDUCATE

Save the Date

THURSDAY, OCTOBER 1
6:00-8:30 p.m.
Gig Harbor Yacht Club

$60 Early Bird member tickets through August 1
$80 after August 1; $100 non-member

Learn more at HarborWildWatch.org

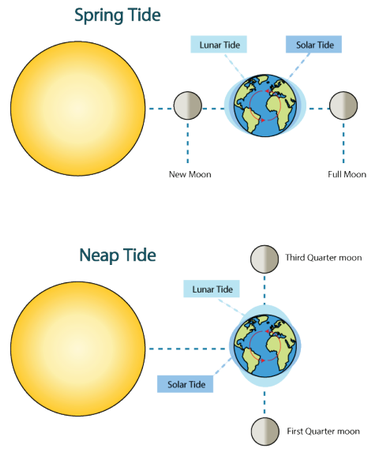
SCIENCE WITH STENA

Let's Talk Tides

Stena Troyer, Science Specialist

Here at Harbor WildWatch, we often joke about how our schedule is ruled by the moon. As much as we wish we could lead a beach field trip every day from ten to noon, the planetary-space-dance doesn't allow for such convenient, low-tide scheduling. That's because the tides change depending on the position of the moon in relation to the earth and sun. To better understand the tides, join me for a written planetary polka (in person, Rachel and I will actually teach you tide dances at beach walks if you ask).

The sun and moon pull on the Earth and everything on it; the water, the land, even you (thankfully gravity keeps us from being yanked out into space – phew!). This pull is what generates the world's tides and the strength of this pull, or gravitational attraction, depends on distance and mass. The sun is extremely massive, but it is also very far away from Earth (about 93 million miles). The moon is much smaller than the sun and is about 238,866 miles from Earth. The sun and moon appear to be the same size even though the sun is about 400 times more massive than the moon. This optical illusion is because the moon is nearly 400 times closer to our planet than the sun, which makes the tidal force of the moon more than twice as strong as the sun's tidal force. The moon's proximity is why the tides follow the lunar day, not the solar day, hence our low tide beach walk schedule is ruled by the moon (even though we know the sun is an important player in the intertidal dance too).



The key to tides is the varying strength of the moon's gravitational pull on different parts of the globe. Within a small body of liquid, such as a pond or bowl of soup, the gravitational attraction is infinitesimally small, so a "tide" would not be noticeable. The world's oceans, however, have a large enough mass that the moon can generate a tidal force. The moon's gravitational pull causes the Earth and its water to bulge out on the side closest to the moon and centrifugal force causes an opposite bulge furthest from the moon (now is a good time to check out the photo in the center of the page). These bulges of water are high tides. Low tides are found halfway between the high tides. The Earth's rotation carries us through these regions of high and low water.

But Harbor WildWatch, why can't you do beach walks every week!? Another factor that influences the tide, is the position of the moon in relation to the sun. We can observe this by noticing the different phases of the moon. When there is a full or new moon, the Earth, sun, and moon are aligned causing the greatest collective pull on the Earth's water, which results in the most extreme tidal fluctuations or spring tides. The extreme low tide as a result of the spring tide, makes for the best time to plan beach walks because more of the lower intertidal zone is exposed allowing us to explore where the slippery slimy sea creatures roam.

Another fun twist to our beach walk schedule is that the timing of the lowest low tide shifts throughout the year. In the summertime the extreme low tides occur during the day but in the wintertime, the extreme low tides are at night. There are extreme low tides in the fall and spring too, but they happen at hours of the night/morning that would be ridiculous for program scheduling (think 3 a.m.). Our favorite time to plan a beach walk happens several times a year during king tides which are exceptionally high tides (and consequently, exceptional low tides).

King tides typically occur between 6-8 times each year, when the new or full moon (spring tide) coincides closely in time with the point when the moon is closest to the Earth (perigee). The result of this alignment is slightly higher tides than average and is why king tides are also known as perigean spring tides. Wintertime king tides get extra attention because if a storm strikes during a perigean spring tide, flooding could be significantly worse than it otherwise would have been. Add sea level rise to the conversation, and we have ourselves a whole other article to write.

Tides are one of the most reliable phenomena in the world, and now you know the dance we do to schedule our low tide events at Harbor WildWatch. Speaking of, the summer beach walk schedule is nearly set - check out our website calendar to plan a low tide adventure with us, or you know, just check out the moon! See you on the beach.

What Am I? (Page 1):
Green Sea Urchin (Strongylocentrotus droebachiensis)