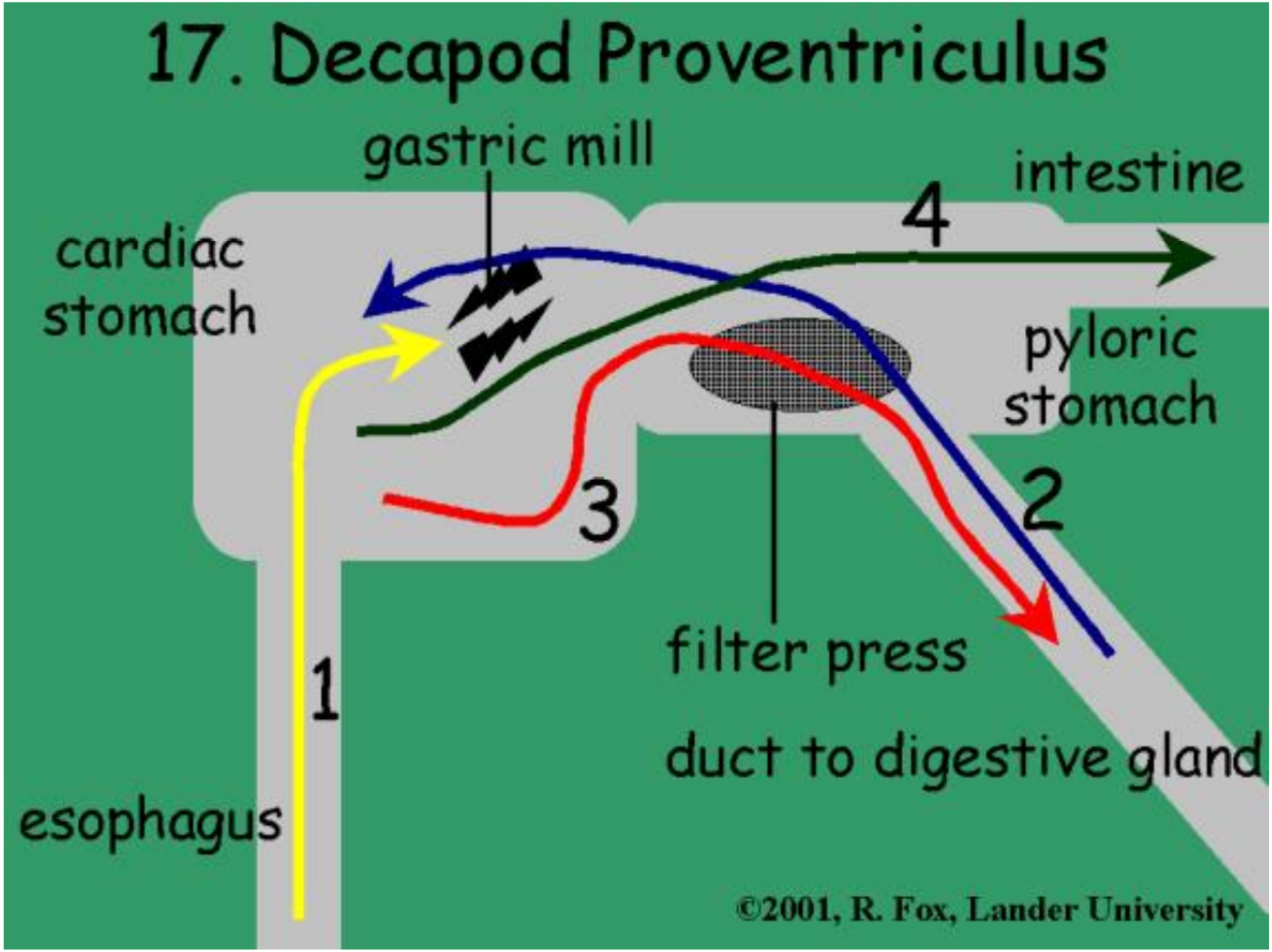
Potpourri


17. Decapod Proventriculus
gastric mill
intestine
4
cardiac
stomach
pyloric
stomach
3
2
1
filter press
duct to digestive gland
esophagus
©2001, R. Fox, Lander University

Fun Stuff

FISH310 retweeted

Bonnie J. Becker @pisastero 11h

Help identify this sponge, pop exploding in Dyes Inlet, Puget Sound. Smothering Oly #oysters. Spicules included.

FISH310 retweeted

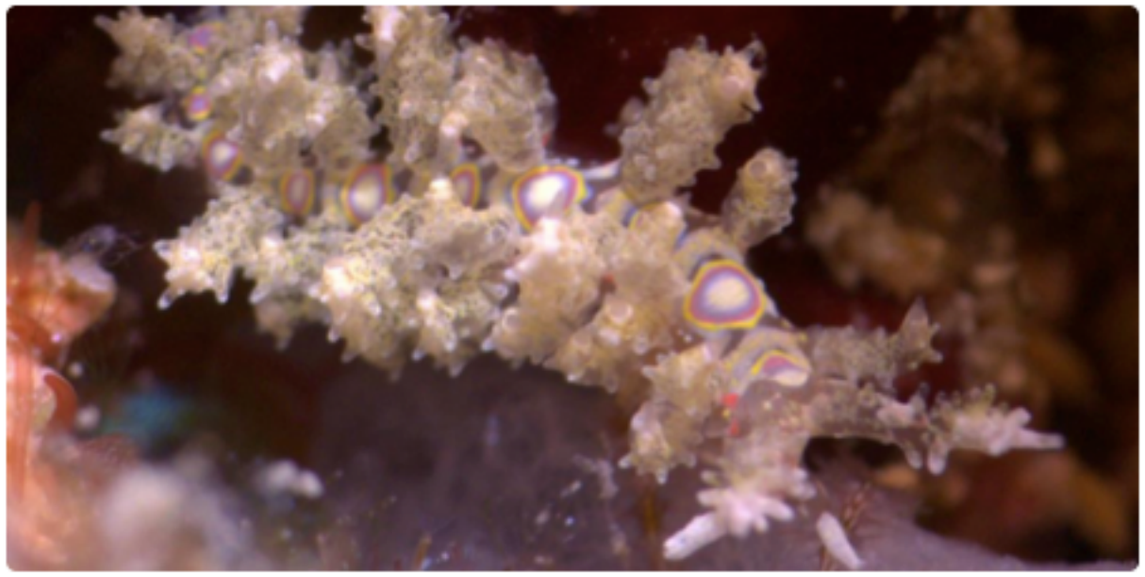
Christopher Mah @echinoblog 16h

Fossil #pentastomid - A 425-million-year-old parasite found attached to host bbc.com/news/science-e…

FISH310 retweeted

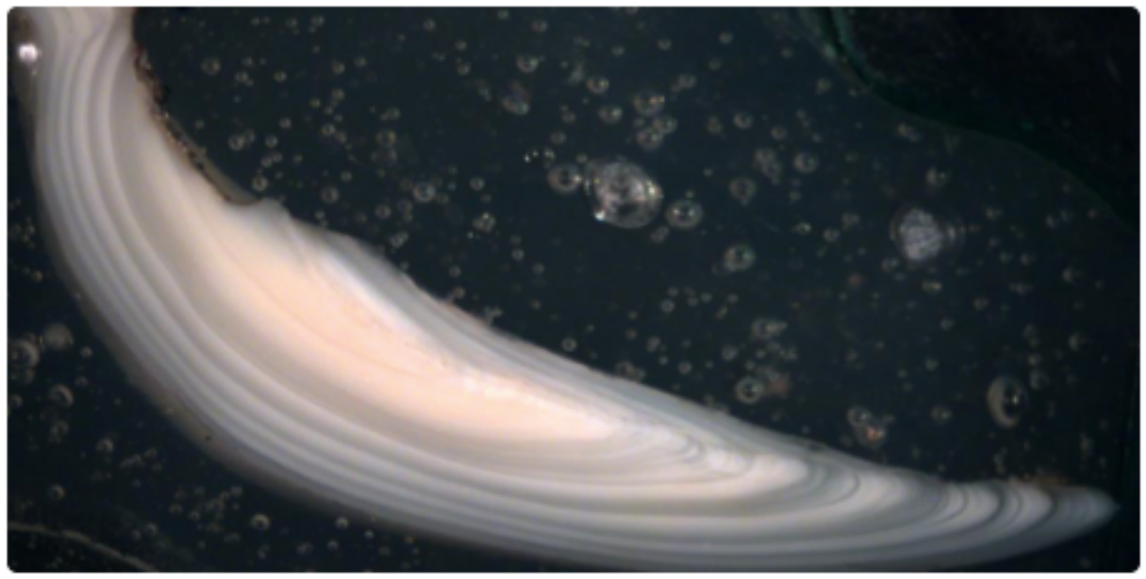
NAI'A @divenaia 4d

Can anyone identify this ridonkulous nudibranch?



Hakai Institute @HakaiInstitute 1d

How do you age clams?
Like trees, count growth rings!
New paper @PLOSONE by @jmsharding et al
journals.plos.org/plosone/articl…



FISH310 retweeted

Smithsonian's NMNH @NMNH 23h

New Shrimp Species in the Deep Ocean: s.si.edu/1JDTUN2 by @InvertebratesDC, Image via @oceanexplorer

FISH310 retweeted

Science News @ScienceNews 1d

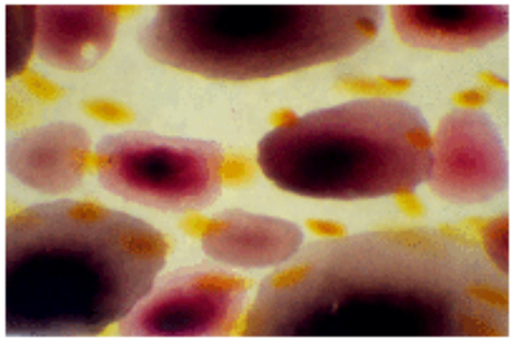
Octopuses can ‘see’ with their skin — no eyes or brain required: ow.ly/Nd9pk

INSIDE JEB

Expand

Cephalopods sense light with skin

Kathryn Knight⇑
kathryn@biologists.com



View larger version:
» In this page » In a new window
» Download as PowerPoint Slide

Chromatophores in the skin of *Doryteuthis pealeii*. Photo credit: Alexandra Kingston.

Evidence for distributed light sensing in the skin of cuttlefish, *Sepia officinalis*

Lydia M. Mäthger, Steven B. Roberts, Roger T. Hanlon

DOI: 10.1098/rsbl.2010.0223 . Published 13 September 2010

ARTICLE FIGURES & DATA

FIGURES

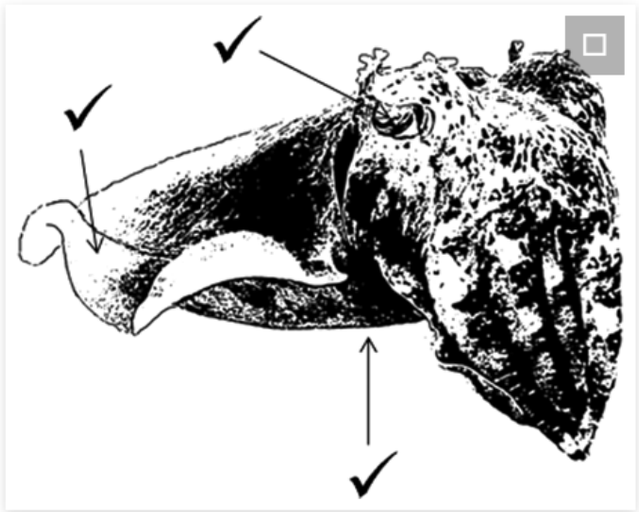
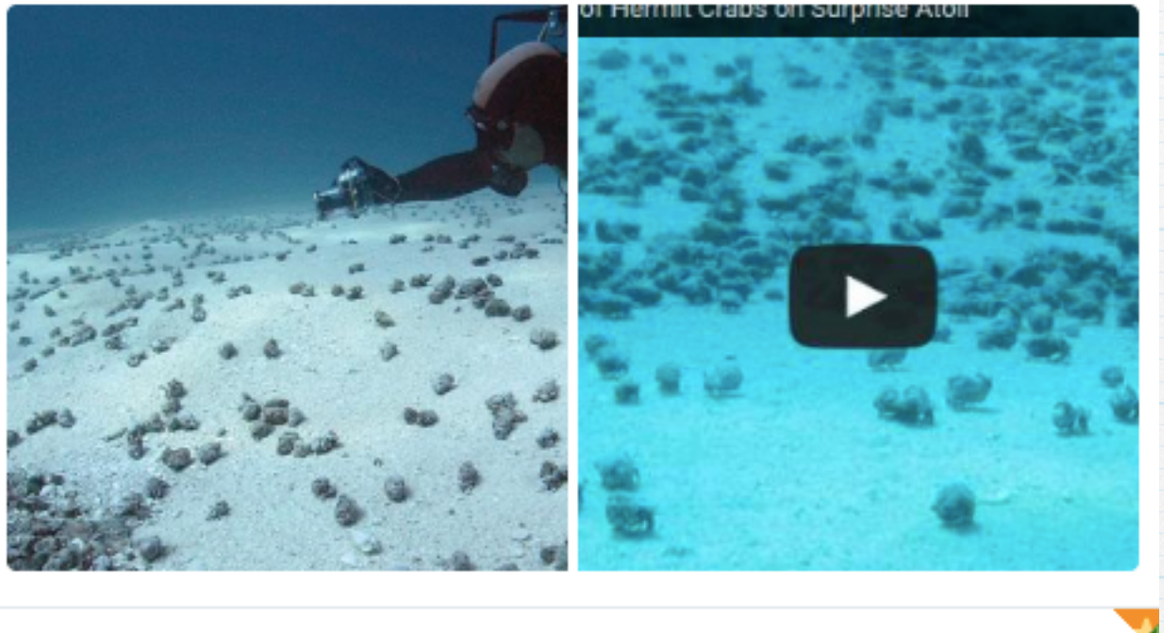


Figure 1.

Download figure | Open in new tab | Download powerpoint

October 2010
Volume: 6 Issue: 5

MT @LivingOceansFdn: Hermit crab aggregation, New Caledonia
bit.ly/1lOM5DB



FISH310 retweeted

Carina M. Gsottbauer @CarinaDSLR 2d
I'm just gonna leave this here.
#crab #love

Photo by budak
flickr.com/photos/budak/1…

https://youtu.be/LLooRwRCmUw?

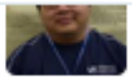
FlowerGardenBanksNMS @fgbnms 2d

New squat lobster species id'd among black corals in #GulfofMexico named for @fgbnms staff person.

FISH310 retweeted

Christopher Mah @echinoblog 2d

New Post! Cidaroid sea urchins & their weird spines! #deepsea echinoblog.blogspot.com/2015/05/what-i…



Sea urchin tests (their skeletons) esp. cidaroids are pretty cool here's some art: echinoblog.blogspot.com/2013/08/the-se…

FISH310 retweeted

NOAA Ocean Explorer @oceanexplorer 2d

On the move! Video of brittle star making its way (missing limbs & all) across seafloor: go.usa.gov/38Ma5

FISH310 retweeted

New Scientist @newscientist 5/13/15

This beauty is one of the aquarium trade's mystery stars. It turns out to be a new species ow.ly/MUfnu

FISH310 retweeted

UW CoEnvironment @UW_CoEnv 5/12/15

#AmplifySci on 5/19 will cover #openscience & #openaccess! Let's chat pros, cons, & implementation. Details & RSVP: ow.ly/MOYTH

FISH310 retweeted

Skylar Bayer @strctlyfishwrap 5/12/15

Sea Lice and Salmon farming video... interesting and informative. fb.me/4yIlAywOG

by Becca Cudmore

Published May 20, 2015

An ochre sea star is infected with sea star wasting disease. Photo by Kevin Schafer/Minden Pictures/Corbis

900 words / About 5 mins

Striking While the Water Is Warm

Last year scientists linked the actual symptoms of sea star wasting with a virus. But as those scientists noted in their study, that virus, a type of densovirus, was present in sea stars at least 72 years ago.

Clearly there's something different about this outbreak, one that has seemingly defied the geographic and seasonal limits of its predecessors. So what is it?

The key to historical die-offs always seems to be heat.

In 1978, wasting disease nearly eliminated the common sun star, an eight- to 14-armed species, in the Gulf of Mexico. At the time, Gulf waters were well above historical averages. The next recorded outbreak, in the early '80s, coincided with the ocean warming brought on by the 1982-83 El Niño. And in the summer of 1997, another El Niño saw a quarter of California's Channel Island stars disintegrated.

"We were calling it an echinoderm wasting back then," says John Engle, who studied the 1997 outbreak.

In the Channel Island outbreak, sea cucumbers, anemones, and brittle stars also succumbed to the warm water. In all of these past events, the epidemic ceased with the onset of autumn. It was like cool water somehow healed the stars, says Engle. In certain cases, you could even place sick stars into a bath of cold water and halt the disease.

Marine biologists are baffled by the current epidemic, says Engle, because the wasting has continued to spread through winter as well as summer. "It's just really curious that it's not closely tied to warm temperatures," he says.

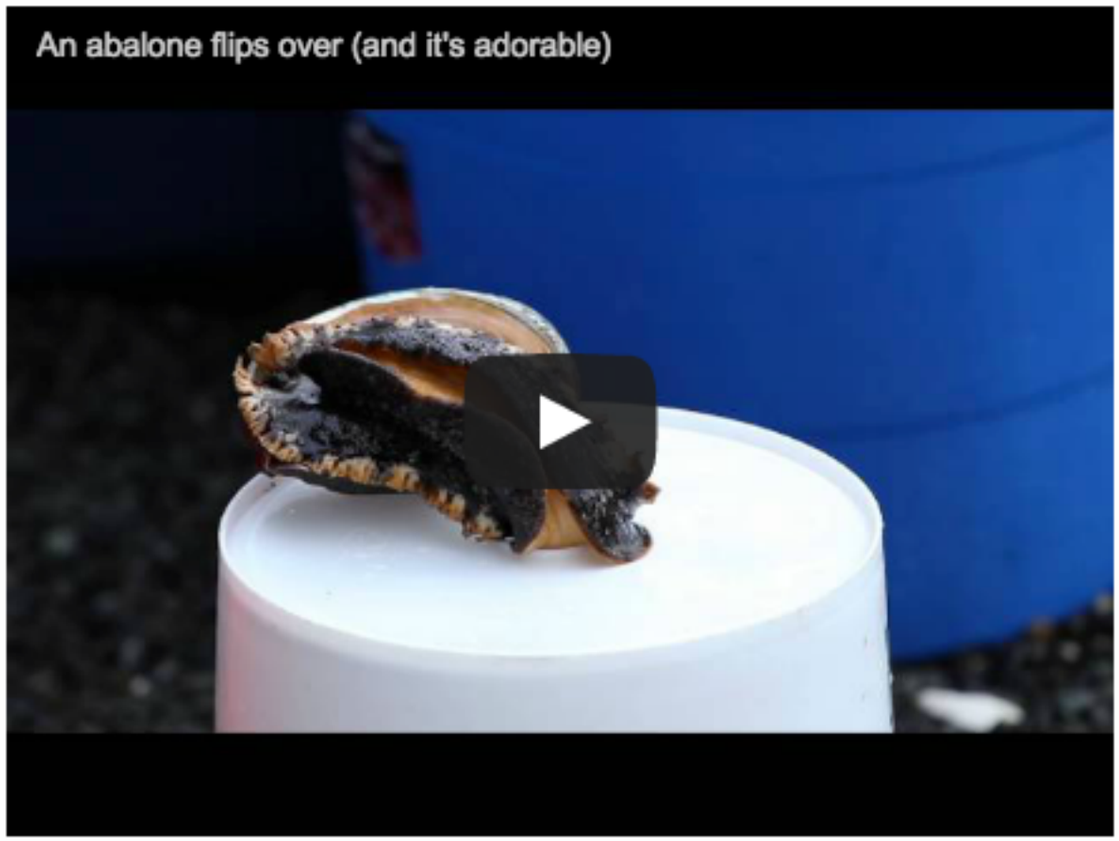
So has the virus adapted to cold water?

This Sea Snail Is Tasty, Pretty And Poached To The Brink

By **Ashley Ahearn**, kuow.org

May 17th, 2015

View Original



MUKILTEO, Wash. – In a dark fish tank at a government-run lab, a striking sea snail slowly inches from its hiding spot.

https://youtu.be/bbNYy41PzIw

of this species.

Wildlife managers believe Washington's population of pinto abalone has declined by more than 92 percent since the early 1990s.

"We're going places where there should be wild abalone and they're not there," said Bob Sizemore, a research scientist with the state Department of Fish and Wildlife. "We're not seeing any wild juveniles at all, and we haven't for 20 years."

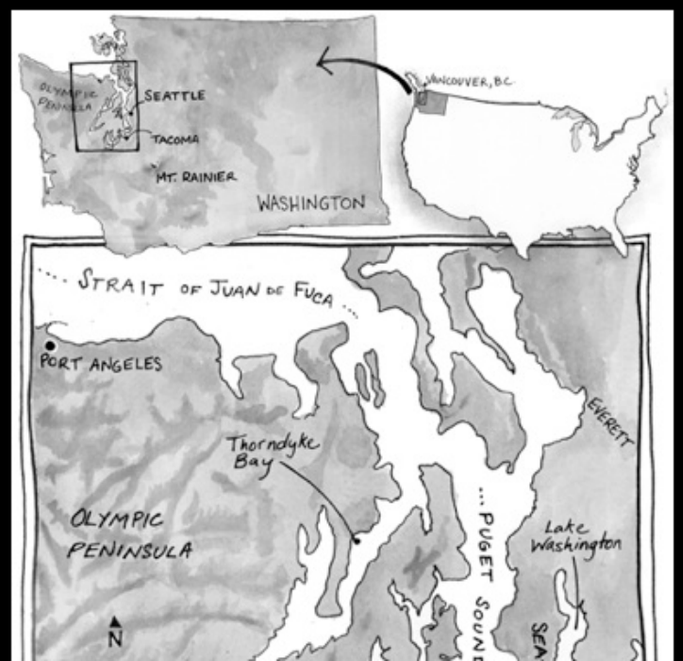
Shell Games

©2007 Natalie Fobes, www.fobesphoto.com

Shell Games is a unique blend of natural history and crime caper—a real-life drama about the theft of some of the world's most unusual creatures, set in one of the planet's most beautiful places. But it also serves as an exploration of North America's changing role in the global underground.

cover photo: Tom Reese

Craig Welch drops readers overboard into the frigid waters of Puget Sound, which sits south of the border between the U.S. and Canada. The Sound is home to the magnificent geoduck (pronounced "gooey duck"), the world's largest burrowing clam, a bizarre-looking creature than can live a century and a half. Comically proportioned but increasingly fashionable as seafood, the geoduck has been the subject of pranks, TV specials, gourmet feasts, and a legal commercial fishing industry. But this shellfish is so valuable it's also traded for millions of dollars on the black market—a world where outlaw scuba divers dodge cops while using souped-up



The book profiled a man named Dave Ferguson and how he profited from poached pinto abalone around Port Angeles. According to Welch, Ferguson made enough money to buy himself a new Jeep Cherokee and a fishing boat named the Abalone Made.

When Department of Fish and Wildlife cops busted him in 1994, Ferguson confessed and later became an informant, according to the book.

"Dave Ferguson was very good at it. He would get out on the water and sidle up to people and chat them up," Welch said. "He was rough around the edges and nobody would have suspected a guy like that was working with the cops and he started feeding them information."

One day, Ferguson's boat exploded when he was on board. He spent weeks in the hospital and swore that it was sabotage and that other poachers were out to get him. He eventually resigned as an informant, headed to Alaska and, Welch writes, "was never heard from again." Ferguson never paid a fine or did any jail time for his poaching.

Sizemore and Bouma put on dive gear and drop into the water off the back of the Clamdestine, tubes in hand. They'll install the tubes 30 feet or so below the surface and let the mollusks acclimate to their surroundings. In 24 hours, they'll return to remove the netting from the ends of the tubes and the abalone will be free to explore their new habitat, and hopefully, to multiply.

With the hatchery program in place, the pinto abalone population at this site has crossed a threshold and is expected to be large enough for natural reproduction to start occurring here.

"This is a culmination of lots and lots of work," Sizemore said before putting on his scuba mask.

But these small reproductive pockets of abalone are just be a drop in the bucket, Sizemore said; recovery from decades of poaching and overharvesting may still be years away.

https://youtu.be/fmfn0iL1WZc

Arthropoda

Molting

Muscles

19

Trilobitomorpha

Chelicerata

Mandibulata

Trilobita

Merostomata

Arachnida

Pycnogonida

Myriapoda

Insecta

Crustacea

20

Subclasses

Malacostraca

Branchiopoda

Ostracoda

Copepoda

Pentastomida

Cirripedia

Crustacea

21

Subclasses

Malacostraca → Orders

Isopoda

Amphipoda

Euphausiacea

Stomatopoda

Decapoda

Branchiopoda

Ostracoda

Copepoda

Pentastomida

Cirripedia

Crustacea

22

Subclasses

Malacostraca → Orders

Isopoda

Amphipoda

Euphausiacea

Stomatopoda

Decapoda

Infraorders

Penaeidea

Caridae

Astacidae

Palinura

Anomura

Brachyura

Branchiopoda

Ostracoda

Copepoda

Pentastomida

Cirripedia

Crustacea

23

Trilobitomorpha

Chelicerata

Mandibulata

Trilobita

Merostomata

Arachnida

Pycnogonida

Myriapoda

Insecta

Crustacea

24

Arthropoda

Molting

Muscles

Trilobita

Merostomata

Arachnida

Pycnogonida

Myriapoda

Insecta

Crustacea

Trilobitomorpha

Chelicerata

Mandibulata

Crustacea

Subclasses

- Malacostraca
- Branchiopoda
- Ostracoda
- Copepoda
- Pentastomida
- Cirripedia

Crustacea

Subclasses

- Malacostraca
- Branchiopoda
- Ostracoda
- Copepoda
- Pentastomida
- Cirripedia

Orders

- Isopoda
- Amphipoda
- Euphausiacea
- Stomatopoda
- Decapoda

Crustacea

Subclasses

Malacostraca

Branchiopoda

Ostracoda

Copepoda

Pentastomida

Cirripedia

Orders

Isopoda

Amphipoda

Euphausiacea

Stomatopoda

Decapoda

Infraorders

Penaeidea

Caridae

Astacidae

Palinura

Anomura

Brachyura

Trilobita

Merostomata

Arachnida

Pycnogonida

Myriapoda

Insecta

Crustacea

Trilobitomorpha

Chelicerata

Mandibulata