



## **ARGULUS 2016**

debris on the front lawns and all over the street  
fish washing ashore at the inlet  
people are still speculating what it is  
reams of dead fish rolling in with the tide  
scientists say they don't know what killed them  
and those are just the events covered by media so far  
many stories are never made public  
look to your left  
it's a beautiful day  
feet dangling over pool water  
kids playing in the sprinkler  
a mouth biting a slice of watermelon

a blue crab walking sideways under shallow water

I'm here with this year's miss Crustacean, Miss Sally White, Sally how do you feel about being Miss Crustacean, "its every girls dream to be Miss Crustacean"

people fishing off the back of a motorboat

teenage girl slipping off the edge of the pool to cool off

two dead bodies found in the inlet with strange bites, not shark bites, not jellyfish or manowar bites

oceanographers from the university looking thru a pile of seaweed

"this red algae does indicate bacterial growth, we've never seen so much, we think it's feeding off the nutrients in the water from the chicken runoff"

the mayor says talk to the EPA

the EPA says the governor has defunded local cleanup projects

and the governor hasn't been returning their calls

the president of the sierra club says who knows what they're killing

oceanographers from the university placing droplets of water on a microscope slide

"mercury levels way above standard, OCBs, PCBs, endocrine suckers, viagra, estrogen, giardia, and trace amounts of pretty much you name it"

a surfer-activist dressed in all black, climbing the fence of the chicken farm

"one of these chicken sheds has 32,000 chickens in them, they eat about 10,000 pounds worth of food, which leads to 45 million pounds of chicken shit dumped into nearby rivers and streams each year, and that shit has the hormones and steroids fed to the chickens for their breast growth"

"we grew up in the water, we swim in the water, we fish in the water"

the desalination plant uses the brackish water of the river and converts it to drinking water

the mayor says it increases the amount of chickens that can be grown

"our lawns benefit from that, we have pools full of it, and its the best darn water anywhere"

the mayor drinks a glass of it, a hesitant, labored gulp

A woman in a white lab coat from National Oceanic and Atmospheric Administration points to a radar screen

"the toxins are moving north"

Miss Crustacean in a bathing suit sitting atop the dunking booth, boys lining up all day to throw balls, to see her dunked

cut to Miss Crustacean dunked

cut to Miss Crustacean breaking out in a weird rash

cut to 8 people vomiting blood after a crab eating contest

"Mark, I'm being told doctors checked to see if it was EBOLA, but it wasn't, and now the CDC is being brought in. Also, the health department has issued a warning suggesting children, elders, and people with compromised immune systems spend minimal time in the water."

cut to young woman with the same rash, speaking into her iPhone camera

"my name is LaMia Jezcik, and I'm in the Emergency Room of Sebastian General Hospital"

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Personal Log of Captain Mike Delpech. Treasure Coast, Florida. Excerpts from 2015.

Crustacea the Argulus, King of the Sea Bacteria, Common Name: Sea Lice. The dome-shelled, beady-eyed vampire of the sea, antennae modified into huge barbed suckers, uses a set of scraping mouthparts to dig through the flesh of his host and inject a digestive enzyme, breaking down digestive tissues into a drinkable sludge.

I know Argulus better than any human. I have spent my life observing its habits. I once put a pig carcass in a cage in the water and let a bucket of sea lice have at it. It only took four days for the lice to reach bone. They entered the pigs orifices in droves to feast on the animal from the inside out and congregated on the cage bars to prevent other arthropods, like shrimp, from getting a bite. By the end of the fourth day, the sea lice had left and the pig was reduced to a pile of bones.

Shrimp arrived to pick at the skeleton, eventually removing all the cartilage. I kept the bones for further study, and strangely, when I removed them from the water they went jet black for a period of 48 hours. I've never seen that before. Then the bones returned to their typical ivory color. I tried to see if I could find any microorganisms that might have caused the unique chemistry, what would produce such a change. But it remains a mystery.

Then the Argulus began to grow in both size and numbers. Some say it was the sludge from the chicken plant, some say it was a relationship to the increase in bacterial growth conditions due to ocean warming. I know longer ask why. I just want to stop it.

When I was kid we lived on a boat and I swam every day. I used to snorkel. Every day I would go down and look to see how many crabs our cages had caught for dinner. I used to climb out of the water, up the ladder, with a crab in each hand, and small sea lice would drop off them and bite the webbing between my toes.

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Opening paragraph to a story in the *Broward County Herald*, September 10, 2013

Finding a dead body in the ocean may be gruesome, but for forensic scientists it is simply perplexing. Although the way a body decomposes on land is well understood, much less is known about how human remains fare underwater. "We have had a lot of disarticulated feet wash up on our shores in running shoes lately," says Anderson. "This work is showing the public how crab and shrimp activity can result in severed limbs and that's it's a normal process."

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Tape 121-0090  
July 13, 2013

"Oceanographers have found an increase in infected fish. Inside the fishes mouth they find small lice-like creatures sucking the blood out of the fish's innards. It's parasite larvae, said one, the eggs are swallowed by fish and then they hatch inside the fish's belly, it's fun stuff, but I've never seen larvae like this though, and so many, I reported it to the environmental council and they're looking into it."

[tape deteriorates, cannot hear for 20' 33" at this point]

"...the lice rapidly became several centimeters thick and became so numerous they covered the entire shoreline and were able to fight off all other arthropods such as the Giant Three Spot Shrimp. In just a few days there was nothing left but sand, water, and a black cloud floating close to the water's edge. Then the sea lice lost interest and left. Then a few Three Spot Shrimp returned. After a few days several much larger sea lice crawled up out of the ocean, dragging behind them the limp carcass of a Giant Octopus."

[tape fades and crackles for the remaining reel]

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News One Florida WESH, October 9, 2012

Last spring, an elderly woman named Marlene Spatafora was found with her tongue and lips cut out and her tongue replaced with a strange crustacean. Police blamed her husband, a commercial fisherman, for the cruel murder, but neighbors said that seemed impossible and most of them still do not believe that story.

Earlier this month workers at several fisheries started having strange boils and lesions on their hands, the media didn't cover it until one workers hand fell off and his wife videoed it with her iPhone and put it on YouTube and it went viral. Soon after that, the husband died, and a strange lobster-tail-like crustacean had replaced his tongue.

Today, the Mayor delivered a statement, saying, "We all know that during warmer weather bacteria levels can rise, some people get digestive problems, sometimes rashes, that's been going on for years now, it looks like it's just a bad year, but let's not start telling scary stories, cause that won't serve us, that won't serve our town. If you have sensitivities, just follow special precautions and you can go in the water today. Have a Happy Fourth of July."

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September 14, 2011

Sea lice, a type of crustacean that is easily incubated by captive fish on farms, have become a significant problem and have been blamed for declining numbers of wild pink salmon, as well as the species that eat them (bears, eagles, orcas and others).

Sea lice are the scourge of salmon farms, they fasten themselves to the caged fish, live off their mucus coating, adversely affecting both the health and appearance of the salmon. In attempts to kill off the parasite, aquaculture operators have developed ways to treat affected fish with pesticides that critics say are harmful to the marine environment in general and to lobsters in particular.

Lobsters, like sea lice, are crustaceans and have the same vulnerabilities to the pesticides that the sea lice do, according to lobster industry officials. If the pesticides are not applied properly, environmentalists and lobster industry officials have said, the chemicals could kill lobsters that are near the pens where salmon are being treated.

Traces of cypermethrin, a pesticide approved in Maine for combating sea lice but banned in Canada, was found in early 2010 in a huge washup of dead lobsters on Deer Island, within a few miles of the American border. According to the Bangor Daily News, the agency Environment Canada, is investigating the mysterious lobster deaths.

And the problem is an economic one.

In 2010, Maine lobstermen earned \$313 million  
and caught 94.7 million pounds of lobster  
Aquaculture operators earned \$76.7 million

and produced 24.5 million pounds of farmed salmon

Researchers are looking into plan using mussels to combat sea lice by placing a fully loaded mussel aquaculture raft at an undetermined salmon aquaculture site. The mussels will be attached to ropes that hang down 15 feet into the water, which he said is the maximum depth at which sea lice are commonly found. Mussels will eat the lice before they can get to the salmon. It's a win-win, says the lead researcher, because the aquaculture operators can also sell the mussels. He added, seaweed could be cultivated in a larger area surrounding the mussel rafts. Seaweed growth is enhanced by nitrogen and phosphates that are found in salmon effluent, and could also be cultivated and sold for human consumption. "You would have a whole ecosystem where you would have four or five crops, each filtering the toxins out of the other. Of course, this would not completely eliminate the use of pesticides in salmon aquaculture, but it could reduce it significantly. We won't know until we actually get the trials done."