

West Coast starfish are dying, but why?

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Starfish cling to the edge of a tidal pool along the coast of Bandon, Oregon. Photo: Rick Loomis/Los Angeles Times/TNS

WASHINGTON — Millions of starfish are dying all along the West Coast, so Washington state Democrats in the U.S. House of Representatives say it's time for Congress to get involved and find out why.

The outbreak, first noticed in the state by rangers in Olympic National Park in June 2013, has hit 20 species of starfish, also known as sea stars.

After getting wounds on their bodies, the sea stars begin curling up and soon lose their legs, shriveling up and disintegrating into mush.

Researchers fear the epidemic may be the result of a virus caused by climate change. The disease is developing the fastest in warmer ocean waters blamed on global warming.

"There has never been an outbreak of disease in natural populations of animals that I know that's been this large," said Drew Harvell, a professor of ecology and evolutionary biology at Cornell University. Harvell has been studying the starfish deaths on the San Juan Islands in northwestern Washington state.

Research Money Is Needed — Fast

Representative Denny Heck wants the government to declare “sea star wasting syndrome” an emergency before the starfish becomes extinct. The five other House Democrats from Washington state have joined Heck's efforts.

“The truth of the matter is we have absolutely no system in place to respond. None,” Heck, a congressman from Olympia, said in a speech on the House floor.

Heck’s bill, or proposed law, is called the Marine Disease Emergency Act. It would require federal agencies to create a rapid response plan and free up research money for scientists. It is uncertain what it might end up costing.

For starters, Heck wants Congress to set aside \$12 million to coordinate research among federal agencies. His bill also would create a marine disease emergency fund in the Treasury Department to accept public donations for the effort.

They Are "Turning Into Goo"

Democratic Representative Derek Kilmer of Gig Harbor, Washington, who teamed up with Heck in 2013 to create the Puget Sound Recovery Caucus, said he wanted to back the effort because starfish were “turning into goo” and their survival was necessary for the health of the region’s waters.

“You take them out of the sound or out of the Pacific Ocean and it hurts animals like fish and whales that are higher up on the food chain,” Kilmer said, calling starfish a “keystone” species. “We can’t have essential species like starfish disappear. That would cause dire impacts.”

Harvell said dead starfish had been discovered all along the West Coast, from Alaska to Mexico. She said the epidemic had not been studied as extensively on the East Coast but that sea star deaths had been reported in many states, including Maine, Massachusetts, Rhode Island, Louisiana and Florida.

“It’s pretty horrific,” she said. “They develop large lesions in the body wall and their organs start to fall out of those and their arms walk away.”

The Pictures Are Tragic

Heck introduced a similar bill last year that did not pass. Supporters of this year’s legislation acknowledge that it will be a tough sell in a Congress that is getting little done beyond the basics.

“The biggest hurdle is not the bill. The biggest hurdle is that Congress is not exactly a legislative juggernaut right now, to say the least,” Kilmer said. “But I think there’s an understanding that this is an important issue.”

Heck, who held up a rubber starfish when he promoted the bill on the House floor last month, said that backers of the legislation had one big weapon on their side.

“We’re helped greatly by the kind of tragic visuals that come out of melting starfish,” he said. And he hopes that the public’s familiarity with starfish will boost the cause, too: “If you live anywhere near a coast, you’ve walked on that sand and picked one up.”

Why Do We Care About Starfish?

With 12 co-sponsors backing his bill — including members of Congress from California, Florida, New Jersey and Oregon — Heck said it was proof that the epidemic was a national issue. He said his bill would create a national place to hold information to quickly share any research linked to starfish deaths in all states. It also would set up a national volunteer working group to advise the federal government on marine disease emergencies.

“The origin of my passion dates to being a kid on the Washington coast and picking them up, seashells and sea stars,” Heck said. “If you grow up here and your parents go camping on the coast, it’s one of those wondrous things ... It tugs at my heart.”

Harvell is hoping Congress will create a way to address the problem.

“This is a start, and you’ve got to start somewhere,” she said. “I’ve certainly done a lot of soul-searching about this: Why should people care about starfish when we’ve got some really huge human-related issues internationally?”

Harvell mentioned war, poverty and food issues as just some. “But you know, starfish are sentinels about conditions in our oceans, which are a huge economic interest to us. Starfish are special.”

Quiz

- 1 Select the paragraph from the section "They Are Turning Into Goo" that suggests that starfish are important to ocean ecology.

- 2 Which of the following sentences explains what may be causing the starfish epidemic?
 - (A) "There has never been an outbreak of disease in natural populations of animals that I know that's been this large," said Drew Harvell, a professor of ecology and evolutionary biology at Cornell University.
 - (B) Researchers fear the epidemic may be the result of a virus caused by climate change.
 - (C) After getting wounds on their bodies, the sea stars begin curling up and soon lose their legs, shriveling up and disintegrating into mush.
 - (D) Harvell said dead starfish had been discovered all along the West Coast, from Alaska to Mexico.

- 3 Which answer option BEST explains how the article makes a connection between the starfish sickness and ocean ecology?
 - (A) quotes from scientists about the possible cause of the illness
 - (B) examples of what happens to the affected starfish
 - (C) analogies between the starfish and other sea animals
 - (D) information about the proposed legislation

- 4 The starfish legislation will have all of the following effects EXCEPT:
 - (A) making starfish a protected species
 - (B) establishing a federal agency rapid response plan
 - (C) providing research money for scientists
 - (D) creation of a marine disease emergency fund