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Climate Change Is Coming for a Chesapeake Bay Island. Is It Worth Saving?



By Scott Calvert Follow | Photographs and video by Kristen Zeis for The Wall Street Journal

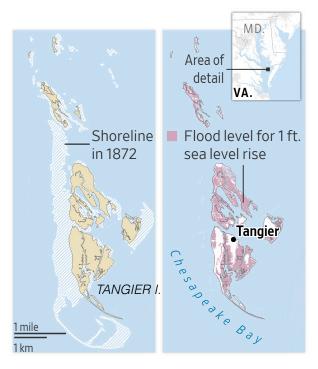
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TANGIER ISLAND, Va.—Cameron Evans, from his boat about a hundred feet offshore, hauled a wire mesh trap out of the water and shook wriggling blue crabs into a basket. Barely a decade ago, he said, that spot was solid ground. He used to hunt there for arrowheads.

"It's hard to see it continue to wash away," said Evans, 23 years old, motoring on to his next submerged crab pot.

Gnawed by the Sea

Tangier island has lost 70% of its land since 1850. Today, the island continues to be at risk of increasing sea levels.



Source: National Oceanic and Atmospheric Administration Carl Churchill/THE WALL STREET JOURNAL

The Chesapeake Bay is swallowing Tangier Island, a remote spot where golf carts ply narrow lanes, a handful of surnames dominate, and many of the roughly 380 residents still speak with a distinctive accent, thought to be a legacy of English settlers.

Tangier represents a broader problem as the world grapples with climate change: low-lying small communities along the East and Gulf coasts of the U.S. face uncertainty over whether

lawmakers, and their fellow citizens, will deem their homes worth protecting.

A double whammy of rising seas and erosion imperils the island, according to scientists, and at least some researchers estimate that rising waters could make Tangier unlivable by the 2050s without expensive intervention. While locals

dismiss that timeline, there is a consensus among scientists and residents that the island needs help. Still unsettled is what form that help might take—and what it would cost.

"If you're going to make decisions solely on a strict costbenefit analysis, the Tangiers, the small towns all over the U.S. coast, will lose, and all of our money will get directed toward shoring up big cities," said David Schulte, an Army Corps of Engineers marine biologist, who says the town of Tangier will need to be elevated to stave off oblivion.







Crabbing is one of several ventures for Cameron Evans, who returned to Tangier Island after completing a business degree on the mainland.

Tangier Island has given up 70% of its land since 1850 and covers the equivalent of 1.1 square miles, Schulte said, providing a stopover for migrating birds and supporting the sea grass that crabs need. A 2021 study he co-wrote found that homes and roads will need to be raised by 10 feet over the next few decades. Such an effort, plus protecting vulnerable shoreline with rocks, could run \$250 million to \$350 million, the study said.

Waves have gnawed on the island at about the same rate for a century, said Matthew Kirwan, associate professor at the Virginia Institute of Marine Science. A 5,700-foot-long rocky sea wall built in 1990 on the shore west of town halted erosion there. An area that remains exposed is Canton to the east. Some houses there are 200 feet from shoreline that is generally dwindling at less than a foot a year, he said.

Scientists say the bigger concern is the current rate of sealevel rise, which they attribute to climate change and sinking land. Water levels are rising about a quarter-inch a year, Kirwan said, one of the highest rates on the East Coast. That sounds small, he said, but it adds up on an island whose highest point doesn't reach 6 feet above sea level.



Tangier Island is cherished by residents for its safety and sense of community.

A rocky sea wall can help prevent erosion but not sea-level rise, he said, because water can flow through the gaps. Kirwan predicts that most dry land will convert to marsh by around 2100. Schulte thinks full conversion to wetlands could take just 30 years, and says water is also rising up through the ground.

One option for coastal communities is moving to higher ground. That is already happening in Louisiana's Isle de Jean Charles, where barely 1% of the land remains. The state since 2016 has worked with residents to develop a new planned community about 40 miles north, according to officials, and so far 34 families have voluntarily moved there.

On Tangier, there is no talk of collective retreat. "We're very savable, and I believe we'll get there," said Mayor James "Ooker" Eskridge, 65, a waterman who said his roots on the

island go back to the late 1700s. He said the town most needs a rocky sea wall on its east flank to combat erosion.

The Corps of Engineers is looking at bolstering a fast-eroding area on the north called Uppards—Evans's boyhood haunt—by pouring dredged material at a site that would be hemmed in by stone or some other material. "This wouldn't be a salvation," said Keith Lockwood, a Corps water-resources official. But it would help protect the town and buy time, he said.

Further complicating Tangier's outlook: It is losing people. The town shed around 40% of its population between 2010 and 2020, census data show. Those who remain skew older.



Passengers aboard the Joyce Marie II leaving Tangier Island and heading to Onancock, Va.



Barry Parks and Ed Parks, who are second cousins, watch as the mail boat serving Tangier Island arrives.

Enrollment at Tangier Combined School, Virginia's only remaining public K-12 school, has plunged more than 60% over the past two decades to 42 pupils. Banners on electric poles celebrate each of the four 2023 high-school graduates.

A lack of jobs beyond crabbing and tourism has spurred an exodus of younger residents. Many local men work on tugboats, spending two- to three-week stretches in places including New York City. Meanwhile, opioid addiction is a growing problem, according to officials.

"We're going to be depopulated long before it washes away," said Tangier native Rudy Thomas, 41 years old, shortly before his brother, Brett Thomas, 35, piloted the family-owned mail boat on its daily 45-minute run from Crisfield, Md.

"You could save the island itself," Rudy Thomas said, "but I mean, for what?"

Many island residents reject or play down rising seas as a factor, saying erosion is a larger concern.

One skeptic is 87-year-old Ed Parks, the Thomas brothers' grandfather. "When I was a little boy, when you had storms and stuff, the tide come up on the land. Now I'm an old man, the tide comes up on the land. About the same," he said.

Tangier, whose residents overwhelmingly vote Republican, has enjoyed powerful support in Washington. Eskridge said he got a call from President Donald Trump in 2017 after telling CNN he loved Trump like a family member. Virginia's two Democratic senators last year secured funding for a continuing Corps of Engineers study related to shoring up the island with dredged material.







Teresa Jo Tyler and her husband, James Tyler, are raising their children on Tangier Island but are concerned about the future.

Evans, a member of the town council, returned after completing a business degree at Virginia Wesleyan University and has a range of ventures besides crabbing, such as boat tours.

"I feel like it's up to me partially to help get us to a more safe spot," he said.

Another resident, Teresa Jo Tyler, teared up as she pondered her adopted home's future, where she and her husband, James Tyler, are raising their four children, ages 6 to 12. Tyler loves the sense of community and safety. Tangier hasn't had a police officer since the last one died a few years ago. But the patch of beach where she wed in 2015 is now water, she said.

"I talk to my husband about it all the time. I'm like, you've got to come to the realization we're building something that's not going to last," said Tyler, 34, who does landscaping and works at a food and ice cream shop.

Wanda Parks, 55, said she never used to see water in her family's Canton yard except during hurricanes. Now a high tide that coincides with an ordinary storm can swamp half the yard.

"It's just slowly getting worse," said Parks, who has been in her home for about 30 years. "Our whole life is invested here. Of course we want it saved."



Tangier Island needs help, according to the consensus of scientists and residents.

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