A secretive marsh bird faces existential threat from rising seas

Louisiana wetlands are eroding faster than almost anywhere in the world – and endangering the wildlife that call them home

Emily Holden *in Cameron, Louisiana, The Guardian* Thu 30 May 2019
https://www.theguardian.com/us-news/2019/may/30/a-secretive-marsh-bird-faces-existential-threat-from-rising-seas

They have tramped through tall cordgrass for two hours, trying to stir the creature up by shaking cans of bolts and metal pellets. A few hundred feet away, the stretch of Louisiana marshland gives way to the Gulf of Mexico. Closer to their faces, mosquitoes swarm.

Now they have their prize in hand and are carefully measuring and weighing it: a small eastern black rail with piercing red eyes – a female, they think. She's been caught before. A thin wire transmitter attached with fake eyelash glue juts off her back.

Erik Johnson, director of bird conservation for the Louisiana Audubon Society, is gentle with the animal, knowing its kind may not be around forever.

"It's sort of like, the privilege of a lifetime to be able to, one, see it, and, two, hold it in your hand and feel its heartbeat," Johnson said. He jokes that he was cautious about taking on this project – a partnership with the state and the US Fish and Wildlife Service – because he thought black rails might be a myth.

There may be fewer than a few thousand of the eastern black rail left. Its habitat is shrinking because of development, pollution and global heating. In time, the salty gulf will inundate this field in south-west Louisiana. In nearby Texas, some black rails probably lost their homes to Hurricane Harvey, which dumped more rain because of rising temperatures.

The bird's plight also highlights the challenges the government is already facing in safeguarding species against climate breakdown and the tension between fighting global heating and the wants of industry. Soon Donald Trump's interior department will overhaul the rules for protecting species, with changes that could make it even harder to consider the current and long-term threats of global heating. Many campaigners see this as a potential disaster with far-reaching implications beyond any single species.

By the end of the year, the US Fish and Wildlife Service is expected to list the black rail as threatened, a move that could protect its dwindling numbers but has taken nine years to complete. That's faster than the average timeline of 12 years but slow enough that the rail population has continued to significantly decline.

“The numbers are not good, and frankly we’re on the cusp of learning. A lot of the recent black rail work has happened in the last decade,” said Woody Woodrow, a US Fish and Wildlife Service biologist in Texas. “It’s probably the least studied and least understood bird in North America.”

Now the bird could theoretically go extinct before scientists know much about it, Woodrow added.

Testing ground

The black rail was once in 35 states, in coastal and inland wetlands. Its population has probably declined 75% or more in the last 10 to 20 years, although data is limited because the bird hides so well. Most remaining black rails are thought to be in the south-east US, which is particularly vulnerable to climate change.

The Center for Biological Diversity, an advocacy group, in 2010 petitioned for the government to protect the eastern black rail and hundreds of other species in the region. Most are stuck in a backlog, said Noah Greenwald, endangered species director at the Center for Biological Diversity.

“That sort of reflects just the problems – the listing program is just terribly underfunded and then plagued by political interference,” Greenwald said.

Republicans have long had the opposite concern – that the program makes it too hard to lift restrictions on industry near the habitats of recovering species.

In many ways, Louisiana is the testing ground for how humans will adapt to the climate they have tipped off balance. The state is eroding faster than almost anywhere else in the world, losing a football field of land every 100 minutes.

The coast is sinking because of natural forces, and the gulf is rising because of how humans live. Heat-trapping pollution from power plants and cars is warming the oceans, making them swell and melting land-based ice into them from far away in the Arctic.

The rails here may have a more immediate problem too. Bright orange industrial lights shine nearby, where an oil and gas company is applying to build a liquefied natural gas (LNG) facility. The construction could ultimately flood the birds’ habitat, according to John Allaire, the private property owner who shares the land with them.

Allaire has worked for oil and gas companies for years but thinks the plant is unnecessary. It would be just miles from another plant Donald Trump recently visited to promote the industry.

Sitting at the kitchen table of his trailer, Allaire recalls that this spot was eight feet under water during one hurricane. He says the plant would speed the destruction of a species-rich area that is already facing rising waters and tougher storms.

Asked if he thinks the government will be able to protect the bird and those other species that call his land home, he says: “I have my concerns at this point. An LNG plant is more important than the black rail.”

Disappearing wetlands

US wetlands have long been troubled. They have been vanishing since European colonization, first due to human destruction and now also because of a human-caused climate crisis. Half of wetlands have disappeared from the lower 48 states in the last few centuries, said Megan Lang, chief scientist for the Fish and Wildlife Service’s wetlands program.

At the same time, about half of the species considered threatened or endangered depend on the remaining wetlands, which are just 5.5% of the contiguous US, she added.

Most of the wetlands loss from coastal watersheds is happening near the Gulf of Mexico, Lang said. Her job is to map that loss, and she sees it getting faster.

Development encroaches on one side while open water creeps into the marsh from the other, she explained. That threatens not only at-risk species but freshwater supply, flood protection and carbon dioxide absorption by plants.

Climate breakdown is threatening habitats far beyond the marsh too. Up to a million species are at risk because of a mix of habitat degradation, direct exploitation and rising temperatures, according to a recent report from the world’s top scientists and diplomats.

Defining ‘foreseeable future’

In a recent rollback of protections for a rare beetle, a Fish and Wildlife Service official said current laws don’t allow the government to protect species based on long-term risks from climate breakdown.

Service spokesman Brian Hires, responding to this story, disagreed. Through a “comprehensive and scientifically rigorous process we examine and account for the effects of climate change”, he said.

The service considers threats to habitat, as well as overutilization, disease and predators, among other factors.

In the proposed listing for the black rail, the service used sea-level rise projections from the National Oceanic and Atmospheric Administration to specify threats to the black rail.

But future decisions might now give less weight to that data. The interior department, which houses the Fish and Wildlife Service, is seeking to ease regulations for protecting species, backed by congressional Republicans.

Rob Bishop, the ranking Republican on the House natural resources committee has called the Endangered Species Act “a tool by activist groups and the federal government to shut down development and place limitations on land use”.

A proposed overhaul would limit the definition of “foreseeable future”, which allows the service to consider future climate breakdown threats.

It also would make it easier to delist a species that has started to recover and would streamline consultations with other federal agencies – including those with climate breakdown data.

Brent Keith, a senior policy adviser for the Nature Conservancy, said that “when you read between the lines and you understand the direction the administration is going, it could absolutely be used to curtail how far into the future” the service considers.

“Fundamentally, the [Endangered Species Act] was not designed to protect species from climate change, and it’s a significant problem,” he said.

Birds at least have one advantage over other creatures. Most can fly away if they can find another suitable habitat. In other parts of Louisiana, and around the country, bird populations will change significantly because of climate breakdown.

Bird populations would see less change if humans reduced their fossil fuel use. But for the eastern black rail and its fans that may happen too late.

Jennifer Wilson, another biologist for the Fish and Wildlife Service in Texas, said the rail, “just in terms of biology is a very, very, very amazing little species”, that humans on the Atlantic and Gulf coasts and inland unknowingly lived alongside for years.

“It’s possible that if no action were taken that we could lose it during our lifetime and that would be a terrible shame,” Wilson said.