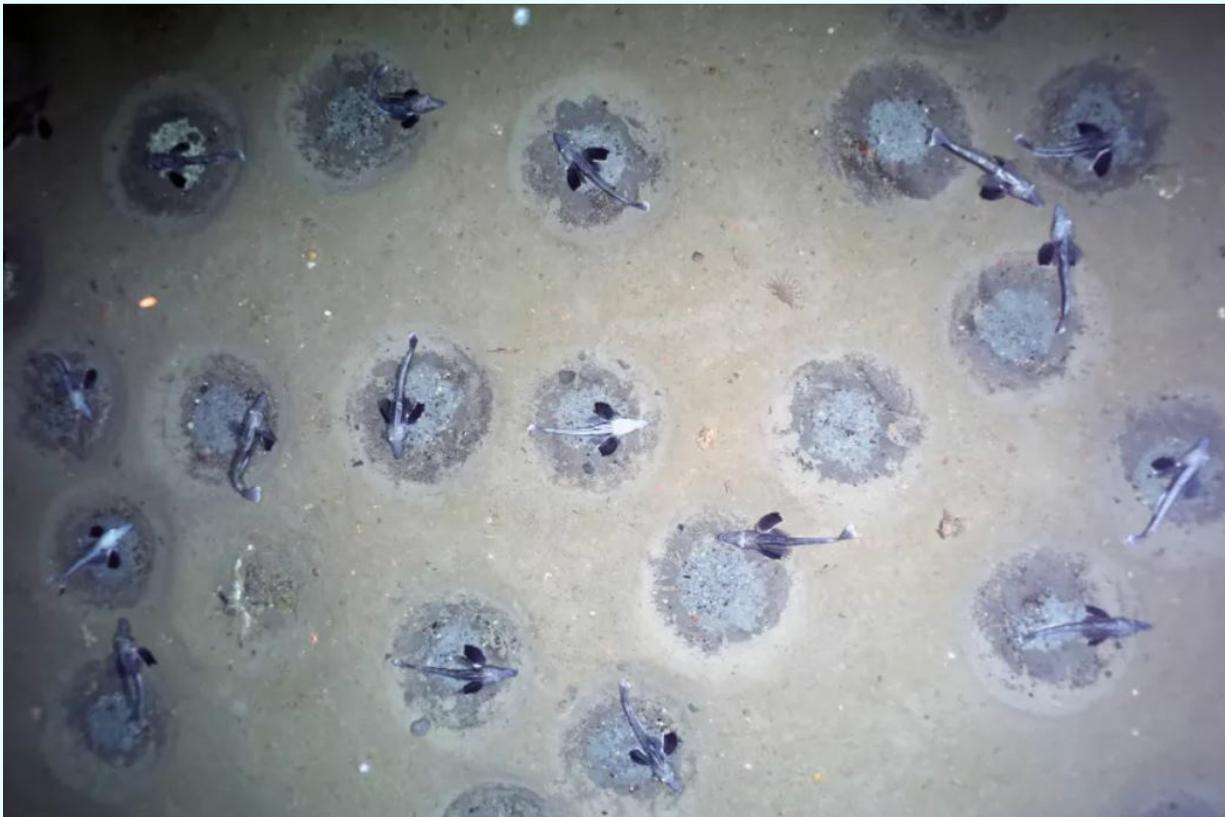




Dispatches From The Wild, Weird World Of Humanity And Its Biosphere

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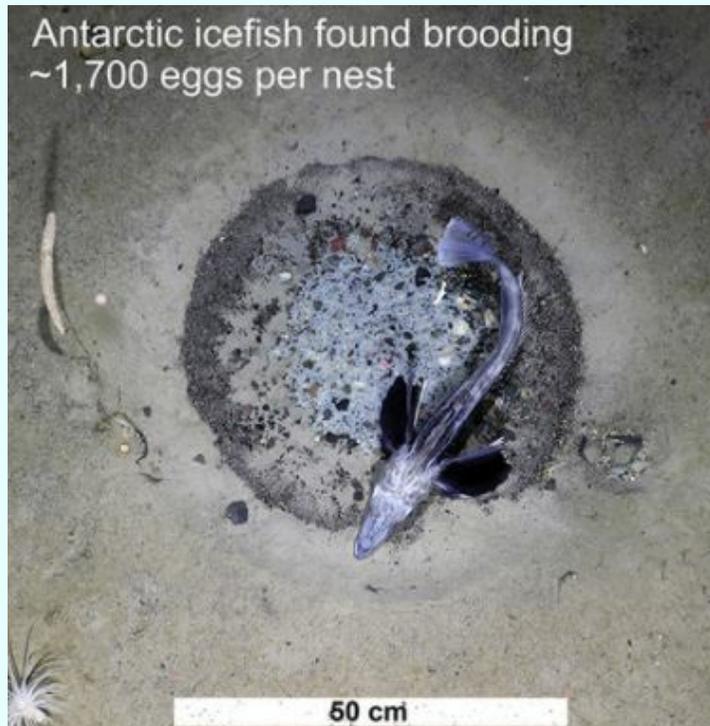
## Marvels of Earth: The Weddell Nursery



Researchers from the Alfred Wegener Institute recently used an icebreaker ship to tow a one-tonne sensor package (including cameras) over an area of the Southern Ocean known as the Filchner Trough, seeking to expand knowledge of this un-surveyed region of Antarctica's [Weddell Sea](#). The researchers thought it might be particularly biologically interesting because of a deep-water upwelling that makes it slightly warmer than the surrounding Antarctic waters, but were shocked when they found something completely unexpected, unprecedented and absolutely extraordinary: a dense ["city" of fish nests twice the size of Paris](#), where a species called Jonah's icefish (*Neopagetopsis ionah*) had built at least 60 million active nests (pictured above!) on the seabed in an area covering at least 240 square kilometers. That's about one nest every three square meters, and with an average of 1,700 eggs per nest, a probable total of at least [100 billion eggs!](#) Furthermore, this massive nursery is [probably supporting an entire Antarctic food](#)

[web](#), with starfish, brittle stars, octopuses, and sea spiders observed to be eating dead fish and eggs and Weddell seals eating the adult fish. ([Check out the full study for more, including a video!](#))

Jonah's icefish are [quite fascinating animals to start with](#): they're the only vertebrates known to lack hemoglobin, making them "white-blooded," and they're engaged fathers (unusual but [not unheard of](#) for fish); with most of the adult fish guarding the nests being males. Their nesting strategy was previously known to science, but before this discovery, the record for the most icefish nests seen in one place was approximately *forty*. The new Weddell Sea Nursery is the largest known fish breeding colony on Earth, and is a truly insane and awesome thing to find out of nowhere. This is [another great reason](#) to designate the Weddell Sea as an international protected area under the [CCAMLR](#) treaty convention, an idea that's been kicked around but not acted on for years. The Jonah's icefish is currently not a target of fishing vessels, and now that we've discovered that they're created one of the great citadels of life on Earth, it should definitely stay that way. The researchers plan to return to the Weddell Sea in April 2022 to learn more about this unique ecological formation. What an *incredible* planet we live on!



## U.S. Progress: Federal Action

While Congress struggles to pass new legislation, the **Biden Administration** continues to be a behind-the-scenes environmental and climate action champion. Under Trump, the EPA allowed facilities storing toxic coal ash in unlined impoundments (an incredibly dangerous practice that often lets toxic heavy metals seep into groundwater and soot blow into nearby communities) to request "extensions" to their lifespan, contra an Obama-era rule which demanded that these dangerous facilities close by April 2021. [Biden's EPA is now cracking down on coal ash](#), recently denying (or ruling ineligible/incomplete) eight of the 57 extensions filed, with many more decisions likely coming, and reaffirming their official position (a bit ambiguous under Trump) that coal ash must not be in contact with groundwater. "I've seen first-hand how coal ash contamination can hurt people and communities," EPA Administrator Michael S. Regan ([pictured](#)) said. "Coal ash surface impoundments and landfills must operate and close in a manner that protects public health and the



environment. Today's actions will help us protect communities and hold facilities accountable."



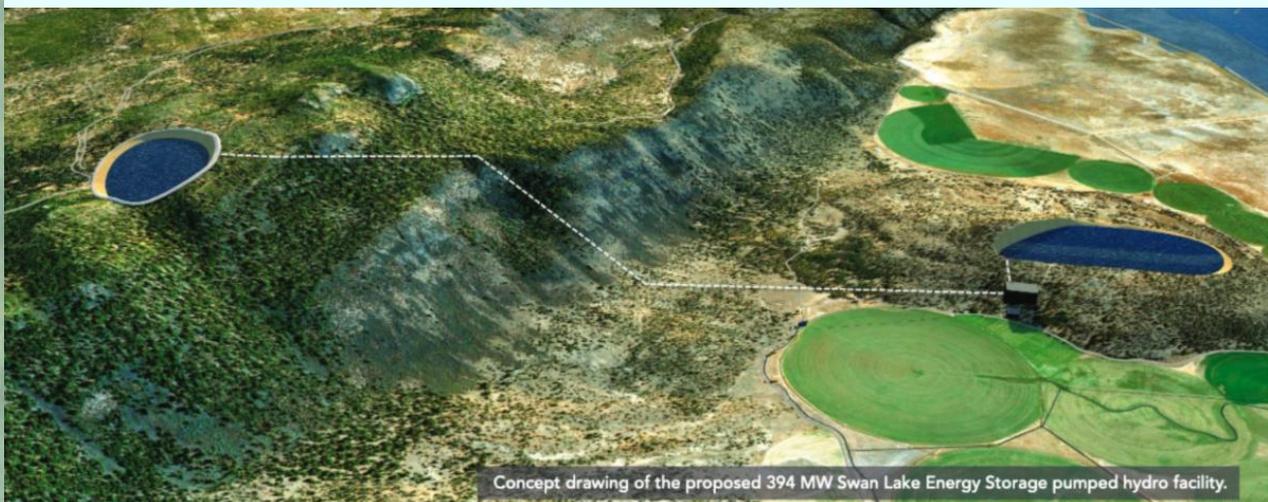
Furthermore, the Department of the Interior under trailblazing Secretary Deb Haaland will be holding on February 23rd the [biggest-ever auction of US federal waters for offshore wind power projects](#), offering 500,000 acres in six lease areas off the coast of New York and New Jersey for the use of offshore wind energy projects, that when fully developed will produce enough

electricity for 2 million New York and New Jersey homes.

"The Biden-Harris administration has made tackling the climate crisis a centerpiece of our agenda, and offshore wind opportunities like the New York Bight present a once-in-a-generation opportunity to fight climate change and create good-paying, union jobs in the United States," said Secretary Haaland. (Pictured: Secretary Haaland speaking at the groundbreaking ceremony for the already-in-progress Vineyard Wind facility off Massachusetts in November 2021). The lease sale also includes incentives for developers to use union labor and US-made wind turbine components, and the Interior Department plans to conduct a total of seven offshore wind lease sales by 2025, including auctions for sites off the Carolinas and California later this year. Superb news-this is what the renewables revolution looks like, and should be scaled up further and further!



## U.S. Progress: Kentucky and Washington



In **Kentucky**, a former coal mine is [set to be converted into a pumped-hydro energy storage facility](#) (concept drawing above!). An experienced hydropower company called Rye Development will be transforming a disused strip mine in Bell County into a "water battery" for long-term energy storage, using energy from the grid in times of surplus to pump water uphill, where it can then be released to flow downhill and turn turbines to feed energy back to the grid when it's running short.

Pumped hydro is an excellent partner for renewables, and this project will furthermore bring much-needed jobs to a former coal mining community! Great news.

And on Washington State's **Olympic Peninsula**, the state government, Native American tribes, and conservationists from Panthera are collaborating on the [Olympic Cougar Project](#), using radio collars to track the movements of wild cougars on the peninsula. ([Pictured: the team replacing the radio collar of a wild cougar named Lilu on December 14, 2021](#)). Their long-term goal is to use this data to find the best place to build a wildlife bridge over Interstate 5, a massive highway that is currently acting as a barrier preventing Olympic Peninsula cougars from interbreeding with their kin to the east. This is a superb example of proactive conservation, taking the initiative to make sure that wildlife can continue to coexist with humans in the Anthropocene!



**The Weekly Anthropocene**

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