

JANUARY 2023 | EDITION #3



The Natural World in 2022...

January

An UNESCO-supported research mission uncovered one of the World's Largest Coral reefs off the coast of Tahiti. Located across depths of 30-65m the reef does not match the expected depth of known Coral reefs(up to 25m) yet its distance from the surface has preserved the natural wonder in "Pristine Condition" offering hope for the future of other undiscovered "Twilight Zone Reefs".



February

On February 11th the Australian Government officially listed the Koala as an Endangered species under national legislation and while it is unfortunate the marsupials have been reduced to such numbers. The law places them under elevated protection.

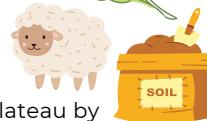
March

The "Christmas Island Rat" extinct since 1908, following the accidental introduction of disease, carrying Black-rats from European ships. Was considered as an ideal candidate for "De-extinction" by a team of Paleogeneticsists at the University of Copenhagen whose research into the possibility of using CRISPR gene-editing to reconstruct the entire genome of the extinct species was published in the Current Biology Journal of March 2022.



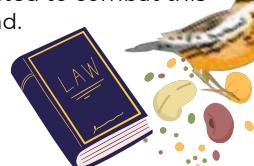
April

A study of the Antrim plateau by N.Ireland's very own Queens University researchers found evidence of an extraordinary rural community at site Sliieveanorra which had "survived an Millenia of Environmental Change". Archaeologist Dr Gill Plunkett suggested that their analysis of peat core samples in the area found this specific community "was able to either escape the effects of environmental change, or to rebound quickly." as a result of Flexible farming and trade practices. A study which Plunkett argued provided vital insight into "what conditions make communities vulnerable to cultural collapse in the face of environmental change."



May

A study published on May 5th by multiple institutions including, Manchester's Metropolitan University in the Annual review of Environment and Resources, found that to researchers dismay 48% of Bird species Worldwide are expected to be undergoing population decline. However on a more positive note the studies partnership with Birdlife International and the Nature Conservation Foundation, mean that Land protection and sustainable resource management policies can now be implemented to combat this negative trend.



Nature News

Keep up to date

"Ferret trapping Co-ordinator" Doesn't exactly sound like your run of the mill "dream job" right? Nevertheless recently RSPB NI has listed this job placement for their reserve on Rathlin island. Initially being offered on a 2 year contract, the role has been created as part of the organisations "LIFE raft" project. Aiming to eradicate invasive rat/ferret populations on the Island which the RSPB currently believe to be a serious threat to ~25 species of bird. On the surface level what would seem to be a "Grisly" occupation in reality will serve to (quote the RSPB); "safeguard the Islands Wildlife" and "Strengthen local pride in, and stewardship of, the Islands natural heritage". However what perhaps pleased me the most about this job listing was the RSPBs commitment to identifying "Integrity, honesty and mutual respect" within any successful candidate. Highlighting how important it will be that the position is filled by an individual who can embrace island life and the customs of Rathlin's tightly knit community.

ERGS ECO-UPDATE

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Early this month NI's Live Here Love Here campaign's Top entries from their ["Pointless Plastic" Photography competition](#) were revealed. Winner Daniel Clarke, whose picture is to the left, captured the tragic image of an Little Glebe that had built it's nest in the river Lagan from single use plastic bags and other carelessly discarded litter. The top photograph's taken by entrants can be found on the Live Here Love Here Facebook page and truly highlight the negative impact our heedless littering has on our local wildlife. It's easy to forget the consequences of our own carelessness when we aren't the ones paying the price.

June

A Stanford University-led study published on June 1st, used advanced satellite imagery to map Nitrogen oxide levels along with crop production (greenness) on a global scale. The study findings highlighted yet another way our use of fossil fuels is to the detriment of more than "just wildlife". Researchers suggested reducing NO_x emissions by about half in each would improve yields by about 25% for winter crops and 15% for summer crops in China. A change that would significantly improve food availability in a country home to 1.4 billion people.

July

Bees, we all know them as Earth's pollinators but what about the sea? Does 70% of our planet just not get pollinated? The French National centre of Scientific Research think otherwise. In findings published on July 28th researchers identified Idoteas (small sea crustaceans) as our Oceans algae pollinators. Foraging amongst algae, Idoteas shuttle the male Gametes from one algae bloom to another.

August

During the winter months we're all used to sniffing more then usual, but have you ever heard of "Sneezing Sponges"? Well researchers funded by the European Research Council have used time-lapsed videos of marine sponges to capture the 20-50 minute long contractions believed to function to clear the Sponges filtration system. (forcing out filtered viruses, bacteria and

phytoplankton etc.) The best thing is if you'd like to see these sneezing sponges in action researchers have included high quality videos along with their August 10th report published in the journal- Current Biology.

September

Two Islands previously confined to Welsh folklore/poetry were revealed to be plausible on September the 2nd following studies by Oxford and Swansea University. Using the Gough map (the earliest map of Britain) and Geological evidence from the coastline and sea-bed researchers agreed that the lost Islands could be part of a now submerged low-lying landscape formed during the last Ice Age.

October

This October a group of researches from a range of Universities (including the UK's University of Sheffield,) found that Forests across "Asia, Africa and the Americas" that were found on Protected Indigenous land were amongst the most "healthiest, high functioning" and "Ecologically resilient". However the study also recognised the success of forests also depended on these indigenous lands being granted adequate protections. Which highlights the importance of recognising Indigenous communities rights.

November

I think it is safe to say most people will be aware of the devastating impact Ivory poaching has had on rhino populations. But research conducted by Cambridge

Universities Zoology department published this past November now suggests the size of rhinos horns has also been impacted. By studying photos and horn measurements held by the Rhino Research Centre, researchers found that between 1886-2018 intensive hunting is the most likely causation behind a decrease in the size of Rhinos horns. (across a variety of species). Their study suggests that by hunting rhinos with the longest horns (thus removing them from the breeding pool) only those with "smaller horns" are left to reproduce (passing on their traits). While this may not seem an immediately pressing change, rhinos utilise their horns for "grasping food" and "defence against predators" which these researchers believe could have an detrimental impact on rhinos survival.

December

Where mud and soil is involved earthworms are almost always taken as a given. However after analysing >100 years of various soil invertebrate records the British Trust of Ornithology concluded that our earthworm populations may be declining and without dedicated research to monitor soil invertebrates more closely, our soils health could be in jeopardy too. Earth worms provide more than "worm manure" for our soils their burrowing creates for the most part better soil-drainage and a more oxygenated soil. However dependent on species, one Worm can result in a more compact soil and another more porous, making them valuable engineers in soil-structure too.