THE PRIORY ACADEMY LSST

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THE PRIORY FEDERATION OF ACADEMIES TRUST

Environmental News

Rachel Ballantyne

De-extinction: is it necessary, is it a good idea?

A large effort for the environment currently is conservation; people have been putting in more and more effort into preserving species which are in danger of extinction in order to maintain biodiversity. One step further than conservation is de-extinction – the process of bringing an extinct animal back to life. To clarify, de-extinction is not currently creating complete replicas of extinct animals, as the DNA would not be exactly the same.

However, selective DNA splicing is a relatively new method which would mix DNA from an extinct animal with a living species, creating a hybrid that would have genetic similarities to the extinct animal. A prominent example of this is happening in the US; the company *Colossal Biosciences* aims to resurrect the woolly mammoth by 2027. It's closest living relative is the Asian elephant, which it shares approximately 99.6% DNA with. DNA editing and splicing (mammoths frozen in ice can have DNA preserved) would hypothetically create an embryo that resembles the woolly mammoth. The long term goals of the project involve eventually reintegrating the woolly mammoth into its original home of the Arctic. In this case, reintegration may not be a massive problem. Mammoths were known as gardeners, because as well as being herbivores, their presence led to increasing plant life, as mammoth droppings acted as fertilizer. But in other cases, reintegration can be tricky. If habitats have evolved over time, extinct animals may not slide back into the food web so easily. Even with herbivores it can creates an increase in competition for food. So that begs the question – is de-extinction a good idea? *Colossal Biosciences* have invested hundreds of millions of dollars into their efforts, but if de-extinction may be as likely to cause environmental problems as benefits, is it worth it?

Social News

Poppy Willoughby-Crow

The Stonewall Riots

As Pride month begins, it is important we celebrate whilst knowing the harsh roots that this powerful movement has stemmed from. The Stonewall Riots took place from June 28th to July 3rd 1969, following a police raid of the Stonewall Inn in the Greenwich village in lower Manhattan. Patrons of Stonewall, also backed by lesbian and gay bars, trans-activists and unhoused LGBT people, were involved in these riots, as well as protests and marches for LGBT rights. It is commonly referred to as the catalyst for gay rights in America. On the night of 28th June 1969, the bar was raided by police officers that had come with a warrant. They beat up patrons and arrested thirteen people, including employees and people violating the state's so-called 'gender-appropriate clothing'. People who were suspected to have committed this crime were taken to bathrooms and checked. Rather than leaving as initially demanded, protestors stayed outside, tired of the constant harassment by police and they made a stand against it all: against the abuse, harassment and discrimination within society.

Surrounding passers-by heard the shouts from people being forced into police vans and threw pennies and other objects they had on them at police officers. These riots lasted for 5 days, and although this did not directly begin the Gay Rights movement, it is seen as a pivotal moment in LGBTQ+ history. In 2016, President Barack Obama declared the Stonewall Inn and the surrounding streets a national monument, recognising its role in progressing LGBTQ+ rights and gay history.

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Natural News

Max Stothard

Asian hornets beat the cold as they survive UK winter for the first time in their species' history

Genetic analysis carried out by the National Bee Unit has found three Asian hornet Queens were the offspring of a nest destroyed on 15th November.

Asian hornets threaten honey bees and insect pollinators – and can eat up to fifty honeybees a day – but their risk to human health is not greater than our native hornets.

The Department for Environment, Food & Rural Affairs had already indicated the insects' survival over the winter could be a possibility ahead of the Chelsea flower show last month.

"National Bee Unit continues to take action to eradicate the Asian Hornet in the UK , and this spring rolled out trapping in areas where there was an increased risk That Asian Hornet Queens may have overwintered," a spokesperson said at the time. This is supported by the genetic analysis now confirming overwintering for the first time. Last year, there were record sightings of the hornet in the UK. The Wildlife and Countryside Link, a network representing 83 British nature organisations, say recent flooding and warming temperatures have increased the risk of 'problem species' populations in the UK growing and spreading .

Space News

Kacper Ciuba

New most distant and oldest galaxy to date discovered

Recently, on 30th May, scientists using NASA's James Webb Space Telescope (JWST) have been enabled to discover a new galaxy. This has been named JADES-GS-z14-0, with JADES derived from the JWST Advanced Deep Extragalactic Survey (JADES) team who made this discovery. However, this is not your typical galaxy, due to the fact that it is the furthest galaxy to Earth ever discovered. Due to the way light travels, this means it is also the oldest galaxy discovered. More specifically, it is speculated that the galaxy was made a mere two-hundred and ninety million years after the Big Bang, which may initially seem like a lot, but when taking into account the fact that the Big Bang happened almost fourteen billion years ago, it makes this galaxy unfathomably ancient. This is quite a big step up compared to the previous record holder, which is believed to have been created three-hundred and twenty five million years after the Big Bang.

Languages News

Isaac Eccles

Do Duolingo and Babble actually work?

Many people across the world use Duolingo and other language learning apps to improve their understanding of a foreign language – however, it is often debated how effective this is at helping people to learn a language. The apps are often described as too much of a game and there are also many reports of apps teaching unimportant material. With Duolingo, there is a running joke about how it is threatening and forces you to continue your daily streak. Something that you may notice is that almost all of the apps use a streak system. This is because it is a very effective method to promote consistency, as it is difficult to remember to practise at the start. Eventually, it becomes part of daily life and finds its way into your routine. This is useful because daily practice in small quantities adds up. By practising just eighteen minutes per day, you could rack up to a hundred hours per year. Duolingo promotes this by stating that just six minutes a day, thirty four hours per year, could get you to a conversational level where you can speak on multiple topics with confidence. This is obviously useful, and its effect can be even more effective when paired with other methods such as watching shows in the other language or moving or visiting to the country where the language is spoken. So what do you think? Are language apps effective?

Psychology News

Isaac Eccles

Do people spend too much time on their phones?

How long is your daily screen time? If you said over six hours then you would be about average.

What do you think the recommended time is? The answer is under two hours.

This statistic shows how much people use devices (mostly phones) without even realizing. Picture this, you have 365 dots each representing a day, 122 of them are the time you spend sleeping, 53 of them are about the time you spend at school, 18 of them you spend eating, 8 of the days is the time spent in the bathroom, and 91 of them are on your phone (this is if you use your phone for six hours a day). This is a shocking visual. The total amount of time in the bathroom, at school and eating is still less than the total time you spend on your phone. If you accumulate the times, you get 292 of the 365 days in a year, leaving you with just seventy three days. If you reduce your daily screen time to two hours a day then you will only spend the equivalent of thirty days using your phone across the year. From this, you would have an extra sixty one days to do other activities. These could include: studying, mastering a new skill, playing a sport or anything else. This could all lead to increased quality sleep, lower chance of having vision problems and an overall improved wellbeing. This change is obviously not easy to do, so it is often useful to set time limits on your phone and have someone else set the password or do some other activity to distract yourself. Many of the hours spent on screens are on social media apps, which have negative effects on mental health, such as a lower attention span and lower self esteem.

Geography News

Finley Wilkes and Poppy Willoughby-Crow

Who truly owns Antarctica?

Antarctica. The home of penguins, the South Pole and loads of scientists. But who truly owns this massive landmass? There isn't quite a single answer to this. This continent is owned by multiple countries which are…

- Australia
- Argentina
- France
- Norway
- New Zealand
- Chile
- United Kingdom

France originally claimed the Adelie Land in Antarctica it in 1840, making it the first to own this snowy wasteland. This came as a result of French explorer Jules Dumont d'Urville discovering the coastline, and naming it after his wife! The newest member of the Antarctic club is Argentina, claiming it 1943. There are also large areas of land on the continent that are owned by nobody; if any countries wanted it, they could, in theory, just claim it right now. Despite this, most countries, including the USA, do not recognise these claims.

Space News

Max Stothard

Astronauts could be on Mars by July

A NASA-funded Pulsed Plasma Rocket concept aims to send astronauts to Mars around mid-July this year. An innovative rocket system could revolutionize future deep space missions to Mars; this is now reducing travel time to the red planet to being just a few months time. The goal of humans being sent to Mars has been greatly difficult to achieve due to all the necessary safety precautions and challenges needing to be overcome. These include the need to transport large payloads to and from the distant planet in quick time, which depending on the position of Earth and Mars, could take an increasingly long time. It has been estimated to take up to two years for even just a round trip using the current propulsion technology of today. The Pulsed Plasma Rocket (PPR), under Howe Industries development, is a propulsion system designed to be way more efficient and enabling the long journey to the rocky planet from Earth to be made in just two months time. The rocket will have a high specific impulse. This improvement in technology could therefore mean astronauts and cargo are enabled to travel to and from the red planet in a more efficient and speedy manner than existing spacecraft, according to a statement from NASA themselves who are in charge of the whole project. They say: “The exceptional performance of the PPR, combing high specific impulse and high thrust, holds the potential to revolutionize space exploration.” The statement reads: “The system’s high efficiency allows for manned missions to Mars to be completed within a mere two months“. The concept itself of the PPR is now being moved to phase II of the NASA Innovative advanced concept (NIAC) study, having moved past Phase I after completion, which focused on the neutronics of the propulsion system, the designing of the spacecraft, power system and necessary subsystems, analyzing the magnetic nozzle capabilities, determining benefits and trajectories.