

# Weekly Update

## 1. Scientists Discover Unusual Ancient Fish 900 Miles North of Its Previous Known Range

*The Australian brook lamprey, a non-parasitic jawless fish, has been found in Queensland, expanding its known range. The Australian brook lamprey (Mordacia praecox) belongs to the group of primary jawless fishes; it grows up to 15 cm long and has rows of pointed teeth. Unlike most lamprey species that use their teeth to suck blood, this species is non-parasitic.*

*Source:* **SciTech Daily**

<https://scitechdaily.com/scientists-discover-unusual-ancient-fish-900-miles-north-of-its-previous-known-range/>

## 2. DARPA intends to wirelessly charge drones while in flight by power-beaming

*One obstacle to this research is preventing the scattering of electromagnetic rays and the loss of power over long distances. The signal may travel in undesirable directions. The goal is to engineer the waveform to minimize path loss. Nikola Tesla is known to have spent much of his time and money from the 1890s to 1906 on a series of projects trying to develop the wireless transmission of electricity.*

*Source:* **New Atlas**

<https://newatlas.com/technology/darpa-far-field-wireless-power-beaming-charges-drones-in-flight/>

## 3. What Does an AI Do When It Sees an Optical Illusion?

*How do artificial intelligence models react to illusions and visual errors that deceive the human brain? Researchers have conducted experiments that cause visual errors, and the results of these experiments have revealed some interesting aspects of AI.*

*Source:* **Scientific American**

<https://www.scientificamerican.com/article/optical-illusions-can-fool-ai-chatbots-too/>

## 4. Airline pilots can observe Starlink satellites as UFOs

*The main goal of the new study was to obtain recommendations for satellite manufacturing companies on ways to reduce their reflectivity. One of the ways to reduce the brightness of satellites that are put into orbit every day is to change their design in such a way that they reflect sunlight not downward, but into space.*

*Source:* **Universe Space Tech**

<https://universemagazine.com/en/airline-pilots-can-observe-starlink-satellites-as-ufos/>

### **5. The high-tech hunt for a lonely plant's partner**

*This discovery involved just one male plant, and all subsequent propagated specimens have been male clones – meaning that, at this time, it is impossible for *E. woodii* to reproduce naturally. Artificial intelligence is being used to find a mate for an endangered male plant described as the world's loneliest plant.*

**Source:** University of Southampton

<https://www.southampton.ac.uk/news/2024/05/the-high-tech-hunt-for-a-lonely-plants-partner.page>

### **6. 8 Animals (and Plants!) Surprisingly Genetically Related to Humans**

*Chimpanzees and humans are the closest animals to each other when it comes to genetics. 98.9% of chimpanzees' genes are exactly like humans. In a 2009 study published in the journal Science, scientists reported that 80 percent of the 22,000 genes in cows are similar to human genes.*

**Source:** a-z-animals

<https://a-z-animals.com/articles/things-genetically-related-to-humans-that-might-surprise-you/>

### **7. Elon Musk's xAI to build supercomputer to power next-gen Grok**

*"xAI will continue on this fast-paced path of progress in the coming months, with a number of exciting technical updates and product launches coming soon." It plans to procure 100,000 Nvidia semiconductor chips for this purpose and plans to implement it by next year. The proposed device will be at least four times larger than the current largest GPU cluster, using Nvidia's flagship H100 graphics processing unit (GPU).*

**Source:** Network World

<https://www.networkworld.com/article/2126693/elon-musks-xai-to-build-supercomputer-to-power-next-gen-grok.html>

### **8. New deep learning model is 'game changer' for measuring embryo development**

*Equipping the wider scientific community with methods that will enable them to better understand how a species evolves under the influence of different factors. The use of video means that Dev-ResNet reliably detects features ranging from the first heartbeat or crawling to shell building or egg laying, and shows the sensitivity of different features to temperature.*

**Source:** University of Plymouth

<https://www.plymouth.ac.uk/news/new-deep-learning-model-is-game-changer-for-measuring-embryo-development>

### **9. NASA's James Webb Space Telescope Finds Most Distant Known Galaxy**

*NASA's James Webb Space Telescope broke its previous record by discovering a galaxy 290 million years after the Big Bang. The job of the James Webb Space Telescope is to observe the early state of the universe and provide scientists with clues about a very young universe, where the first stars and galaxies formed.*

**Source: NASA Webb Space Telescope**

<https://blogs.nasa.gov/webb/2024/05/30/nasas-james-webb-space-telescope-finds-most-distant-known-galaxy/>

### **10. Origins of Welsh dragons finally exposed by experts**

*A major fossil discovery has helped shed light on the history of dinosaurs in Wales. Researchers have found that early Welsh dinosaurs lived in a tropical low-lying area bordering the sea more than 200 million years ago. Two discoveries made by the team during fieldwork at Lavernock included the fossilized remains of a placodent osteoderm and a coelacanth gular bone.*

**Source: University of Bristol**

<https://bristol.ac.uk/news/2023/may/origins-of-welsh-dragons.html>