

# Weekly Update

## 1. Why cats meow at humans more than each other

*Cats first encountered humans probably about 10,000 years ago, when people began living in permanent settlements. Their extreme level of social behavior is eventually restricted to mother-kitten interactions. Outside of this relationship, cats rarely meow to each other. Unlike dogs, which were bred by humans for specific qualities, cats essentially domesticated themselves. Cats that could tolerate humans and communicate with them effectively had a survival advantage.*

**Source: The Conversation**

<https://theconversation.com/why-cats-meow-at-humans-more-than-each-other-232865>

## 2. Yes, some animals can have babies without a mate. Here's how

*Is this a miracle or the result of a secret love affair? Probably none. In nature, some species have the ability to reproduce asexually without male sperm. This process is called "Parthenogenesis" or virginity, derived from the Greek words "virgin" and "birth." In virginity, a female egg cell can be transformed into an embryo without fertilization by a male sperm cell. After that, one of those cells acts as a sperm cell and fuses with the egg to "fertilize" it.*

**Source: AP news**

<https://apnews.com/article/parthenogenesis-snake-boa-ray-charlotte-ronaldo-da59a252f4a692faf31e78ee2c61be36>

## 3. Alaska's glaciers approaching irreversible tipping point

*Researchers have tracked ice levels in this roughly 1,500-square-mile glacial area since 1948, based on data dating back to the 18th century. The Arctic is warming four times faster than the rest of the planet, and Alaska has warmed 1.5 degrees Celsius since 1980. While white snow and ice reflect the sun's heat, dark rocks absorb it, warming the Earth and melting more ice, which in turn amplifies and accelerates the melting caused by warming.*

**Source: NewCastle University**

<https://www.ncl.ac.uk/press/articles/latest/2024/07/commentjuneau/>

## 4. Drugs like Ozempic, Wegovy linked to eye condition causing vision loss

*The rate of this eye disease, known as anterior non-arteritic ischemic neuropathy of the optic nerve (NAION), was 8.9 percent in people taking semaglutide for type 2 diabetes. The diabetes medications Wegovy, Ozempic and Rebulus, which are used for weight loss, all contain the same active ingredient called semaglutide and belong to a class of drugs called GLP-1 receptor agonists.*

**Source: Medical News Today**

<https://www.medicalnewstoday.com/articles/drugs-like-ozempic-wegovy-linked-to-eye-condition-causing-vision-loss#:~:text=The%20new%20study%20finds%20that,with%20diabetes%20on%20other%20medications.>

## **5. Thermal facial image analyses reveal quantitative hallmarks of aging and metabolic diseases**

*For years scientists have been trying to find ways to read this elusive measure of health over time. But apart from a few non-invasive options such as human eye scans, tests that measure physical signs of biological aging - particularly blood-based tests - are neither quick nor cost-effective. The researchers argue that the human face contains "too much information" that cannot be captured easily.*

**Source: Cell Metabolism**

[https://www.cell.com/cell-metabolism/fulltext/S1550-4131\(24\)00188-8](https://www.cell.com/cell-metabolism/fulltext/S1550-4131(24)00188-8)

## **6. New compound could supercharge naloxone in fight against opioid overdoses**

*A new compound called Compound 368 helps to enhance the effects of naloxone and increase its life saving potential while overcoming its limitations. Naloxone is effective in quickly reversing drug overdoses because it replaces the deadly drug on opioid receptors. The more we use this new compound, the better naloxone will be at neutralizing the effects of opioids such as fentanyl and morphine.*

**Source: Stanford Medicine**

<https://med.stanford.edu/news/all-news/2024/07/naloxone-compound.html>

## **7. Scientists just grew the 1st-ever 'minibrains' from multiple people's cells**

*For the first time, scientists have created three-dimensional brain models using stem cells from multiple people. These grafts, which the researchers have named "chimeroids," are brain organoids, or tiny 3D models made of tissue that mimic the structure and function of a full-size brain.*

**Source: Live Science**

[https://www.livescience.com/health/neuroscience/scientists-just-grew-the-1st-ever-minibrains-from-multiple-peoples-cells?utm\\_campaign=socialflow&utm\\_content=livescience&utm\\_medium=social&utm\\_source=twitter.com](https://www.livescience.com/health/neuroscience/scientists-just-grew-the-1st-ever-minibrains-from-multiple-peoples-cells?utm_campaign=socialflow&utm_content=livescience&utm_medium=social&utm_source=twitter.com)

## **8. 3,500-year-old 'canteen' discovered in Azerbaijan**

*A team of Italian archaeologists has discovered a 3,500-year-old dining hall in Azerbaijan, which still contains containers for storing pottery and fireplaces. For several years, joint excavations of the Azerbaijani-Italian archaeological team have been ongoing at the two-hectare "Tava Tepe" site, and every day its members dig up a piece of the forgotten history of the South Caucasus. It is believed that in ancient times, nomadic peoples from the South Caucasus used this place.*

**Source: Italian News Agency**

[https://www.ansa.it/english/news/2024/07/07/3500-year-old-canteen-discovered-in-azerbaijan\\_d15cfd8-8f41-4fdc-b1b1-0210e568dbec.html#:~:text=the%20extraordinary%20discovery%20was%20made,Affairs%2C%20the%20Camnes%20Institute%20of](https://www.ansa.it/english/news/2024/07/07/3500-year-old-canteen-discovered-in-azerbaijan_d15cfd8-8f41-4fdc-b1b1-0210e568dbec.html#:~:text=the%20extraordinary%20discovery%20was%20made,Affairs%2C%20the%20Camnes%20Institute%20of)

### **9. Sukhoi S-70 Okhotnik-B Hunter: Russia's Next-Generation Combat Drone Has Arrived**

*Ukraine has valiantly mastered drone warfare and has used a variety of drones against Russian targets. Since Russia has learned many lessons from the war in Ukraine, the S-70 Hunter plays a key role in future military strategies. This drone is based on the MiG-designed Mikoyan Skat and is equipped with some technology from the Sukhoi Su-57 fighter jet.*

**Source: The National Interest**

<https://nationalinterest.org/blog/buzz/sukhoi-s-70-okhotnik-b-hunter-russia%E2%80%99s-next-generation-combat-drone-has-arrived-211755>

### **10. James Webb Space Telescope provides first hints of evidence of the existence of an ocean exoplanet**

*It will take at least another year to confirm whether LHS 1140b has an atmosphere, and possibly two or three more years to detect carbon dioxide, the researchers said. The world of LHS-1140b, which has an ocean of water, resembles an iris; it's like the pupil of an eye staring at its host star. LHS 1140b, which was discovered a year ago, has a radius about 1.73 times that of Earth and a mass 5.6 times that of Earth. If its star were similar to the Sun, the planet would be very close to life.*

**Source: Centre national de la recherche scientifique (CNRS)**

<https://www.cnrs.fr/en/press/james-webb-space-telescope-provides-first-hints-evidence-existence-ocean-exoplanet>