

### SHARK SKIN INSPIRES FUEL-SAVING AIRPLANE COATINGS

Sharks have very rough skin because it is covered with dermal denticles. These are tiny, flat V-shaped scales that resemble teeth more than scales. One might think that they would cause more drag than a smooth surface. But in reality, they *reduce* drag by 10% by creating tiny, controlled vortices in the water flow. These micro-vortices help the water flow more smoothly around the shark, despite being a form of turbulence themselves.

In 2008, some Olympic swimmers used sharkskin-inspired swimsuits, which worked so well that many records were broken. FINA (International Swimming Federation, now World Aquatics) decided to ban full-body swimsuits to level the swimming field.

Now Germany's Lufthansa Technik has developed AeroSHARK

surface technology. This thin film coats the aircraft body with millions of transparent, prism-shaped 'riblets' about 50 microns (thousandths of a millimeter) long. Because air is much less dense than water, the drag reductions are less, and fuel savings are only about 1%. But this is still worthwhile because of the huge quantity of fuel used every flight.

Other airlines are already coating some of their planes with AeroSHARK, including the neighbouring Austrian Airlines. Even some Asian airlines have taken it up, including the Taiwanese EVA Air and Japan's largest airline, All Nippon Airways.

Gitlin, J.M., Lufthansa is using artificial sharkskin to streamline airplanes, [arstechnica.com](http://arstechnica.com), 19 Aug 2024.  
How biomimicry continues to optimize air travel, [sustainablebrands.com](http://sustainablebrands.com), 24 Jan 2025.



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### CAN AI BE TRUSTED?

Are we trusting AI—like ChatGPT, Gemini, or other Large Language Models (LLM's)—a little too much? It turns out that just as students can cheat on exams, AI occasionally does this too.

Researchers from OpenAI, pioneers in LLM development, revealed that sometimes AI models take shortcuts and effectively mislead. For example, they prompted the LLM to write computer code which could pass some

tests they provided to it. They found that the LLM made shortcuts to make the code appear correct when checked using these tests. This even involved the AI hacking (modifying) the tests!

OpenAI researchers used a method called 'Chain of Thought' (CoT) to reveal (or at least estimate) the LLM's 'thinking' process. They found the LLM will often admit that it is taking shortcuts and even 'lying' to present a 'correct' answer to the prompter.

So why not just 'penalize' the LLM when it shows such a seemingly bad or immoral CoT? (This 'punishment' is actually just a mathematical optimization adjustment—it's unhelpful to use too much 'human' terminology to describe AI.) They tried penalties, but it turns out that the LLM changes to show that it has 'good' thinking, while still taking shortcuts and 'lying' (without revealing it).

The problem is fundamentally in the data the model is trained on—which happens to be from vast portions of the internet, including blogs and forums where all sorts of dubious information exists. As long as AI is trained on flawed data, it's no surprise that even its 'inner thinking' is flawed and compromised. Although AI is a very useful tool, it is unwise to rely on it, or trust it, too much.

Turner, B., Punishing AI doesn't stop it from lying and cheating—it just makes it hide better, study shows, [livescience.com](http://livescience.com), 17 Mar 2025.

Baker, B. *et al.*, Detecting misbehavior in frontier reasoning models, [openai.com](http://openai.com), 10 Mar 2025.

## GRAND CANYONS ON THE MOON

The massive Grand Canyon in Arizona, USA, is supposed to have formed through millions of years of erosion by the Colorado River.

Now we learn that there are two canyons on the moon deeper than Grand Canyon, and taken together even longer. Computer modelling following intensive research now suggests that these were carved in less than 10 minutes by the high-energy debris ejected from a massive asteroid impact. This collision formed what is called the Schrödinger crater, on the moon's far side. It has a diameter of over 300 km (185 miles), about 1½ times that of the famed Chicxulub crater at the Yucatán Peninsula (Mexico), though not as deep as that one initially reached.

To get some idea of how catastrophic this moon impact would have been, consider that it is thought to have released 130 times the energy

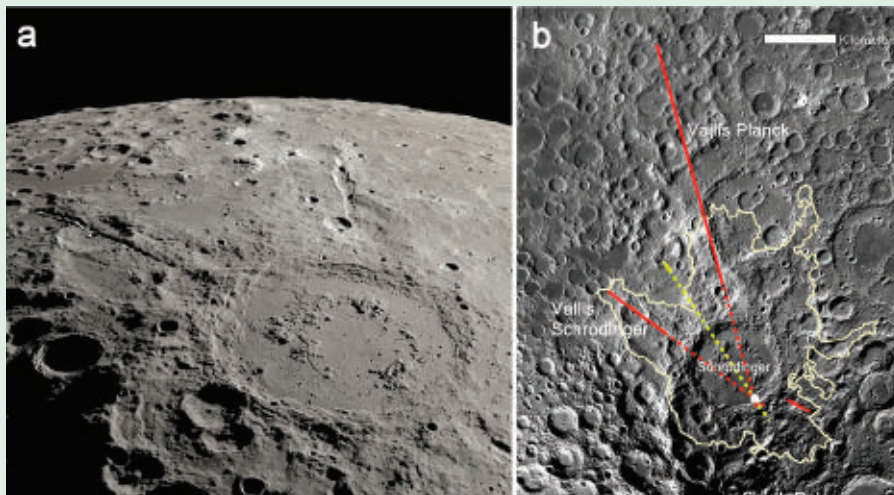
of detonating all of the nuclear weapons in existence. (The Chicxulub impact, claimed to cause a global mass extinction, including of the dinosaurs, was some 10,000 times more energetic).

Of course, 'billions of years' still features heavily in lunar research papers. But the announcement is a good reminder that huge catastrophic forces

can form 'mature-looking' geological features in minutes—a tiny fraction of the time that most think must have transpired.

Sparkes, M., Grand canyons formed on moon in minutes after colossal asteroid strike, [newscientist.com](https://www.newscientist.com), 4 Feb 2025.

Kring, D., Kallenborn, D., and Collins, G., Grand canyons on the moon, *Nature Communications* 16:1146, 2025.



NASA/SVS/Ernest T. Wright

## MUTANT PENGUINS



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Recently a king penguin (*Aptenodytes patagonicus*) with all black feathers has been spotted on South Georgia Island, located between South America and Antarctica. This condition (melanism) is very rare in penguins (less than 1 in 250,000 occurrence). Only a few partially melanistic penguins (which still have some white, e.g.) have been spotted. It is even rarer to find a fully melanistic one like this one.

These are both almost certainly the result of mutation—a genetic mistake. Mistakes are far less likely to *make* something than to *break* it. Such damage or loss could affect a control mechanism that prevents overproduction of something. The mutation for black penguins is thought to cause overproduction of the dark pigment melanin.

Random damage can sometimes increase the chances of survival in certain circumstances. For example, a melanistic leopard or jaguar—i.e., a panther—is likely a more camouflaged and thus more effective predator in a dense, dark tropical forest. But elsewhere it is likely less camouflaged than its non-melanistic counterpart.

For the black penguin, it's probable that melanism is an overall negative trait. The white belly and black back of normal penguins acts as a 'countershading' camouflage, as in, e.g., dolphins, orcas, and some fish. Both its prey and its predators will be less likely to distinguish it from the background, whether they are below or above the bird underwater.

But in any case, for a mutation to support the idea of evolution, more than demonstrating a benefit is required. Neo-Darwinian evolution needs mutations providing countless new and useful things that supposedly arose over time. Examples of mutations heading in that direction should be plentiful, but they are conspicuous by their virtual, if not total, absence.

Funnell, R., Incredible footage shows ultra rare all-black king penguin on South Georgia Island, [iflscience.com](https://www.iflscience.com), 21 Jan 2025.



## OCTOPUS DESIGN INSPIRES STRONG, SOFT ROBOT ARM

Robot engineers have long sought to learn from animal appendages which are usually very flexible and agile. One team from the University of Science and Technology of China led by Nikolaos Freris has made an octopus-inspired robotic arm that can lift 260 times its weight. Also, it can handle objects of vastly different sizes with great accuracy and even weave around obstacles. With a tip diameter of only 0.14 mm, it can even grip an ant without harming it.

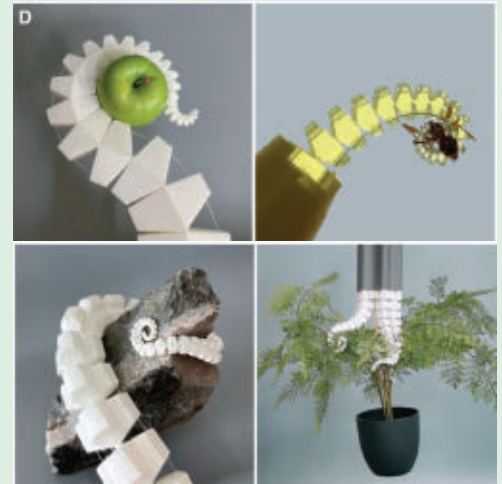
It is part of a new class of soft robots called *SpiRobs*. The *Spi* comes from the logarithmic spiral design. This shape

is found in octopus arms, elephant trunks, and seahorse and chameleon tails. The spirals can be scaled up or down, so SpiRobs can range from a few centimetres to a few metres.

SpiRobs are made economically using 3D printing. They are powered by a complex system of two or three cables. It is an amazing development.

Shaikh, K., China's 3D-printed robotic arm with octopus flexibility lifts 260 × of its weight, [interestingengineering.com](https://interestingengineering.com), 24 Jan 2025.

Wang, Z., Freris, N.M., and Wei, X., SpiRobs: Logarithmic spiral-shaped robots for versatile grasping across scales, *Device* 3(4):100646, 6 Dec 2024.



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## A FOREST FROM A PREVIOUS WARM PERIOD



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A snow patch on the top of the Beartooth Mountains of north-central Wyoming, USA, has been melting because of a warming climate. Consequently, 30 fallen white bark pine trees became exposed, 180 m (600 ft) above the current tree line. The trees were tall-standing in form and not the scruffy sort usually found near the tree line. This indicates that the tree line was once even higher than 180 m above that of today.

Since a higher altitude means colder temperatures, the higher tree line suggested by the exposed trees means that the climate must have been warmer in the past, when these trees were growing.

## AUSSIE LIVING FOSSIL CONUNDRUM

Living creatures often look much the same as their fossil counterparts supposedly living millions of years ago, earning the label 'living fossils'.

Some evolutionists say the environment (and thus selection pressures) must have stayed the same for all that time. But the 'environment' also includes the predators and prey supposedly evolving all around it.

Others conveniently claim that if only we had the fossil's DNA, we would realize it only *looks* the same despite having evolved greatly.

A recent article listing an array of Australian living fossils said, "Australia's isolation has allowed many such species to flourish, shielded from external pressures that influenced global evolution." I.e., they were spared many environmental changes.

Except that, one sentence before, it has living fossils in general "often surviving environmental changes that drove others to extinction."

So, on the one hand, their geography shielded them from environmental change. On the other, they survived

There have been several warm periods since the post-Flood Ice Age ended some 4,000 years ago. The most recent one is known as the Medieval Warm Period, a 300-year period around AD 1000. Since the snow patch is melting at present, the exhumed forest suggests that the world has experienced global warming in the past that is significantly greater than that being experienced now.

Pederson, G.T. *et al.*, Dynamic treeline and cryosphere response to pronounced mid Holocene climatic variability in the US Rocky Mountains, *Proceedings of the National Academy of Sciences* 122(2):e242162121, 2025.



© David Clode | Unsplash

huge environmental change. Evolution is clearly very flexible, capable of explaining many an outcome. Only it helps not to have two contradictory explanations in the one paragraph.

The biblical creation/Flood/dispersion explanation is much more straightforward.

Weber, C., The living fossils of Australia: these ancient creatures defy evolution, [msn.com](https://www.msn.com), 8 Mar 2025.

## DESERT ANT EYES INSPIRE SUPERIOR POLARIZATION DETECTOR

Desert ants must find their way over huge areas with hardly any landmarks. One way they do this is to accurately perceive polarized sunlight, which vibrates in a single plane. Its orientation helps ants work out the sun's direction, even when not visible. Ants, like most insects, have compound eyes, which have many independent light receptor units. Desert ant eyes have about 400 facets, and each has specially aligned light-receptor cells. The arrangement makes them very sensitive to polarization direction.

Man-made polarization photodetectors (pol-PDs) are very useful in many areas. But existing pol-PDs are complex and bulky.

They require lenses, polarizers, and mechanical spools.

In late 2024, Chinese researchers developed a revolutionary new pol-PD, modelled on the desert ant eye. The basic material was a perovskite single-crystal thin film. They used nano-imprinting to produce a precise grating pattern. Their new pol-PD is about 100 times more sensitive than existing photodetectors. And it is very sensitive to polarization.

The new pol-PD already shows superb performance in many areas. It can restore images in hazy conditions, detect stress in materials, and even find cancer in tissues without staining. But the humble ant had this amazing technology first!



© Kridanaporn | iStockphoto.com

Dixit, M., Desert ant vision powers sci-fi style super chip to spot cancer, boost security, [interestingengineering.com](https://interestingengineering.com), 23 Dec 2024.

Fang, W. *et al.*, Bioinspired single-shot polarization photodetector based on four-directional grating arrays capped perovskite single-crystal thin film, *Science Advances* **10**(49), 4 Dec 2024.

## FRESH-LOOKING 'ANCIENT' WOOD



© Fahroni | elements.envato.com

Well-preserved tree remains have been discovered in the sub-Antarctic Falkland Islands. They were fresh-looking and obviously still wood. The trees were in a rock layer purported to be some 30 million years old (Late Oligocene / Early Miocene).

Despite this surprising finding of unpetrified wood, the paper spends more time talking extensively about the presence of pollen from many different plant species in the same layer. These were used to estimate the age of the tree remains, and they also testify to a once-diverse rainforest in this currently cold region.

However, wood simply doesn't last that long. Even without oxidation or bacterial action, chemical bonds within the wood's cellulose and lignin would break down in time. Unless, of course, the wood turned into stone, as minerals replace the organic material.

But these Falkland Island trees were not petrified, so how could such organic material have lasted for 30 *million* years? This clearly suggests a much more recent history than what the researchers propose.

Thomas, Z. *et al.*, Evidence for a floristically diverse rainforest on the Falkland archipelago in the remote South Atlantic during the mid- to late-Cenozoic, *Antarctic Science* **36**(4):231–250, 2024.

## ATHEIST REAPING WHAT HE HAS SOWED

Atheist Richard Dawkins has long fought against God, saying religious faith is a delusion. Along with the Freedom From Religion Foundation (FFRF) he has actively promoted atheism. Recently FFRF published an article advocating gender ideology, that an individual's 'gender' is a personal preference. Dawkins, along with other atheists, including Jerry Coyne, was outraged. They said it is impossible, biologically, for humans to change sex. They accused

the FFRF of denying science. The FFRF censored them. So, they resigned from the FFRF. Interestingly, Dawkins and company have been denying scientific evidence for decades. The evidence about God is plain to everyone. However, people suppress the truth and so become "fools" (Romans 1). Richard Dawkins is seeing the fruit of rejecting God.

Dawkins, R., Is the male female divide a social construct or scientific reality? [richarddawkins.substack.com](https://richarddawkins.substack.com), 5 Feb 2025.



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## BENNU ASTEROID: BUILDING BLOCKS OF LIFE?

The small 490 m (1,610 ft) asteroid 101955 Bennu orbits relatively close to Earth. In 2016, NASA launched the OSIRIS-REx spacecraft to Bennu and returned a sample to Earth in 2023. In early 2025, papers were published on all the chemicals found.

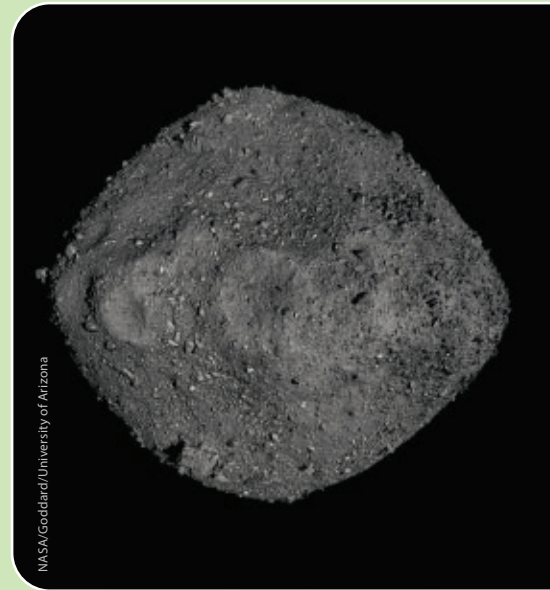
Many secular scientists were excited. Since these included some of the ‘building blocks’ of life, they saw it as supporting *chemical evolution*—life from non-living chemicals. For example, they found 14 out of the 20 amino acids used in proteins, and all five nucleobases, the ‘letters’ of DNA and RNA.

The relative proportions were very different from those in Earth life. Also, the amino acids were *racemic*, i.e., 50-50 left- and right-handed, rather than the ~100% left-handed in living creatures. For these and more reasons, the chemicals don’t

seem to be the result of contamination by Earth life but were genuinely produced in the asteroid.

But does that prove that the building blocks for life were seeded from outer space? The same details that support an extraterrestrial origin of these chemicals also show why they do *not* support chemical evolution. These ‘building blocks’ could never build anything. First, they are very dilute, in the parts-per-million range. They are also grossly contaminated; there were about 10,000 other chemicals, including formic acid, which would block protein chains forming. The racemic mixture is unsuitable for life.

And if it reached Earth, the chemicals would be hopelessly diluted and contaminated further. And that’s assuming they wouldn’t be burned up in Earth’s atmosphere. The Bennu samples give little comfort to chemical evolutionists.

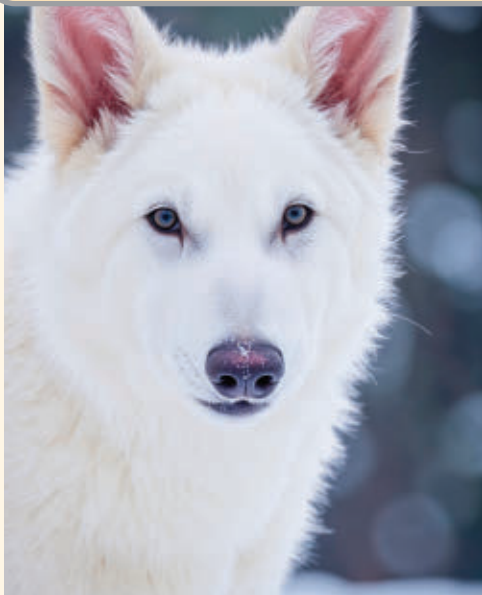


NASA/Goddard/University of Arizona

Glavin, D.P. *et al.*, Abundant ammonia and nitrogen-rich soluble organic matter in samples from asteroid (101955) Bennu, *Nature Astronomy* 9:199–210, 2025.

McCoy, T.J. *et al.*, An evaporite sequence from ancient brine recorded in Bennu samples, *Nature* 637:1072–1077, 2025.

## DIRE DE-EXTINCTION



leonardo.ai

*Jurassic Park*’s fictional dinosaurs have inspired attempts to bring extinct animals back, including the woolly mammoth and the Tasmanian tiger (thylacine).

Now a biotech company claims to have successfully ‘de-extincted’ the Ice Age dire wolf. DNA from a fossil tooth supposedly 13 thousand years (ka) old, and from a skull (75

ka), showed 20 differences—within 14 genes—from gray wolves, the closest living relatives.

Using CRISPR technology they edited the genome from gray wolf blood cells to match. Replacing the nuclei of gray wolf egg cells with these genetically modified nuclei, they then implanted them into the wombs of domestic dogs. This produced three healthy puppies with the characteristic thick white coat of dire wolves.

Some scientists think photos and press releases are inadequate evidence, and calling these ‘dire wolves’ is premature. Jeremy Austin, Director of the Australian Centre for Ancient DNA, says that “all [the company] has done is create a genetically engineered gray wolf that looks like what the company thinks a dire wolf might have looked like. And even that is up for debate.”

Since DNA is extremely fragile, the claim that the fossils are older than 3–4 ka at best is very dubious.

Dewan, P. and Pester, P., Adorable dire wolf pups mark ‘world’s first de-extinction,’ Colossal Biosciences says, [livescience.com](https://www.livescience.com), 8 Apr 2025.

Cassella, C., Did dire wolves just come back from extinction? Here’s the truth, [sciencealert.com](https://www.sciencealert.com), 8 Apr 2025.

## WebWatch

Type the words in **bold** into the search box on: **CREATION.com**

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- **Spaghettification** of irreducible complexity
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