CrossTalk

CROSSROADS Language Studio's Newsletter April, 2025

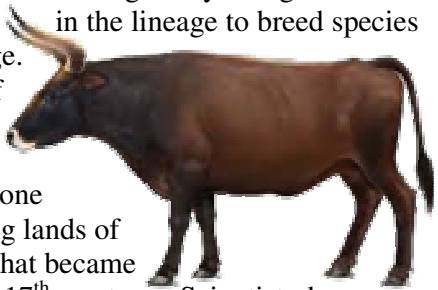
Recent climatic events around the globe seriously threaten the survival of many species of animals. In 2020, widespread wildfires in Australia killed almost 3 billion native animals, with reptiles accounting for around 90% of losses, pushing many species to the brink of extinction.

Each subsequent cataclysm of this kind brings us closer to a further collapse of biodiversity and the extinction of key species in such environments.

Naturally, much is being done to prevent the gene editing of nature through conservation, raising awareness of the issue and protecting vulnerable habitats.

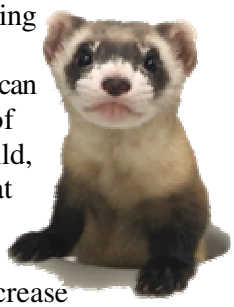
Developing technologies, such as drones, help monitor and collect important data on the scale of human-induced environmental damage, like pollution, illegal poaching and human habitations encroaching on natural ecosystems.

Another technology that's improving at an astonishing rate is DNA cloning and gene editing. Driven by AI and the immense computational ability of current technology, scientists are now able to come so much closer to bringing extinct animals back to life. There was a recent news report on the successful breeding of three Dire Wolves, a top predator from North American continent that went extinct 10,000 years ago. Technically, they are actually grey wolfs with genes edited to change the morphology of the canine (white fur and larger skull), but still, it is regarded as a success in genetic engineering that brings us much closer to ensuring that potential losses in animal biodiversity can be minimized to some degree by using the DNA of existing animals in the lineage to breed species extinct in that lineage.



One example of this is the case of the Auroch, a species of wild cow, a keystone species in the grazing lands of continental Europe that became extinct in the mid-17th century. Scientist, however, have managed to identify remnant DNA in the cow's descendants, and are now attempting to "back-breed" it into existence.

Thanks to current technology, we can now trace animals' origins to their ancestral roots. This greatly improves the odds of successfully cloning endangered species.



For example, a species of North American black-headed ferret, a descendant of just 7 individuals that lived in the wild, was successfully cloned from cells that were taken from a deceased ferret.

This particular example highlights a very important condition that can increase the chances of success, and that is, the cell used for genome editing has to be healthy and intact, to guarantee results. Unfortunately, when an animal dies, the cells in the body degrade rather quickly and DNA becomes fragmented, rendering it useless for any experimentations. And for that very reason, it is not possible to bring dinosaurs or animals lost to time back to life. The subject also brings about a question of ethics, safety and the wellbeing of resurrected creatures.

Firstly, the natural environment, in the absence of these creatures, has been greatly altered and often no longer supports their living requirements. Secondly, a large pool of genetic variation is needed to support a healthy population. In the absence of that large pool, we can use genetically related species and modify their genetic traits to arrive at a desired relative, but the rate of success is still very low, marred with premature deaths and tumours in newborn offspring.

On the other hand, even if we succeed in sustaining a thriving population of a saved species, it potentially takes away from the efforts to conserve vulnerable habitats, i.e., curing the symptoms rather than the root cause of the problem.

Another issue, standing in the way of success, is that what works for one species, doesn't seem to work for others. We are getting better at cloning mammals, but birds are, at least for now, impossible to replicate. And unfortunately, we don't really know why.

Science never sleeps, so let's hope for the best.

Article by Marek

Net News

NET LESSONS: Too busy to come to CROSSROADS? …. Try our ***lessons on the net!***
To read an interesting case of cloning an animal, visit:
https://www.bbc.com/news/science-environment-25052233

Some Thoughts for the Month

Joshua: I have noticed a very interesting development recently among our students (and others) regarding the use of AI to translate languages. While it cannot be denied that AI translator software is very useful at times, it is proving less than perfect for many who regularly use it. It's the difference between "soft skills" and "hard skills" – the difference between "emotional intelligence", empathy, etc, on the one hand, and technical skills on the other. And the latter is not enough.

Junko Says: It is said that the human brain is the seat of consciousness and generates the thoughts that become our experiences. Intellect is the process of reasoning, interpreting and judging those experiences. AI, on the other hand, is limited to the data it is given and lacks conscious experience. I realize that AI can analyze data and even come to problem-solving decisions but has no sense self-awareness.

Marek Says: These days, as the weather gets warmer, it is a real pleasure to observe various trees in my garden flowering with vigour and unfurling fresh leaves. I am particularly pleased to see my almond tree and peach tree prolifically flowering and, now, producing fruit. I hope that I will be able to harvest my first fully-grown peaches from a 5-year-old tree that naturally sprouted from a seed.

Mandcy dit: L'e-sport est-il un sport ? En effet, récemment l'équipe de France est devenue championne du Monde à League of legends. En 2027, les Jeux olympiques vont accueillir les premières coompetions de jeux vidéo de sport. En Amerique, les joueurs sont considérés comme des athlètes, ont un coach, un salaire et une salle d'entraînement. Alors, pour vous est-ce un sport ? Utilisez-vous aussi les jeux vidéo pour apprendre une langue étrangère ?

Play A Game!

Find the answers on P1

ACROSS

7 preservation of the environment
8 usually refers to a dog (or tooth)
11 a small part that remains
14 brought about or caused
16 complete, not damaged or missing
17 distinguishing features
18 branch of biology in science
19 segment of DNA
20 great in size

DOWN

1 reduce in worth, level
2 make changes to
3 lengthen or extend in duration
4 broken up, divided
5 made imperfect
6 illegal hunting
9 cause something to become
10 invading without permission
12 reproduce or make an exact copy
13 following in time or order
15 an event resulting in great loss

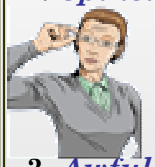
(print version here)

Here are a few more words that have changed or lost their original meaning over time. Can you guess their original meaning?

1. ***Naughty*** now means behaving badly, mischievously. It originally meant:

a) To worry too much.
b) To have nothing, to be poor or needy.
c) Someone who has a high opinion of themselves.

2. ***Spinster*** now means an older, unmarried woman. It originally meant:



a) A woman whose occupation was spinning yarn.
b) An early form of break-dancing.
c) An expert at making up, spinning fantastic stories.

3. ***Awful*** now means especially bad or displeasing. It originally meant:

a) A very frail, weak person.
b) A very strong, convincing argument.
c) Worthy of "awe", wonderful, amazing

4. ***Pretty*** now means good looking, usually in a feminine way. It originally meant:

a) Crafty or cunning.
b) Almost, nearly.
c) Tight with money.

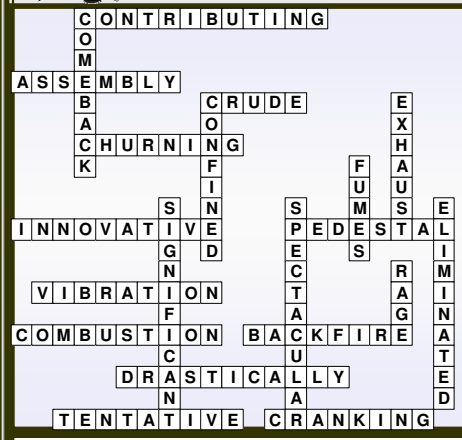
5. ***Bully*** now means a person who deliberately intimidates others. It originally meant:

a) Sweetheart, darling.
b) The biggest, strongest cow in the herd.
c) A comedian good at telling funny jokes.

6. ***Prestigious*** now means respected, having a good reputation. It originally meant:

a) Having strong religious faith.
b) A very gifted, talented artist.
c) An illusion, conjuring or trickery.

Check your answers ⟶ 1.B 2.A 3.C 4.A 5.A 6.C



Last Month's Puzzle Solution

ACROSS

1 making something happen
2 put something together
3 not yet processed
5 produced by vigorous action
10 ahead of the times
11 a position of great importance
13 a shaking motion
14 the act of burning something
15 a loud noise from exploding fuel
16 significantly, greatly
17 hesitant, uncertain
18 rotating a lever

DOWN

1 return to a successful activity
3 restricted
4 gases ejected by an engine
6 ejected gases
7 important
8 sensational, thrilling
9 terminated, ended
12 a strong trend or fad