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Is De Extinction really a thing?

So I got into a fun debate with a friend today - he's convinced we could bring back any extinct species if we have the DNA, using cloning or CRISPR. I tried to explain that it's way more complicated: DNA degrades over time, you'd need a close relative to act as a surrogate, and there's no way all extinct animals' DNA is sitting in freezers somewhere. Neither of us are scientists, and it's been impossible to find solid info online without wading through conspiracy stuff. Anyone who actually knows how realistic this is, please weigh in!

Honestly, for like 99% of species - even just mammals - bringing them back is still pure science fiction. You could have all the DNA you want, but unless cloning magically works, you'd still hit a wall with stuff like chromatin packing, spindle proteins, chromosome sorting, and all those epigenetic details.

I'm a biotechnologist and looked into de-extinction for an essay. If we ever get a complete DNA sequence, we might revive a species, but getting that full sequence is really hard. Even humans aren't fully sequenced.

For a mammoth, we might only get 60 to 70 percent of its DNA with gaps. We could fill some gaps using elephant DNA, but it would be a lookalike, not a real mammoth. Ancient species with no living relatives, like dinosaurs, are even harder.

You also need DNA from multiple individuals to recreate a population, which is almost impossible for ancient creatures. The older and more distinct the species, the harder it is. Recently extinct species with enough DNA and a suitable surrogate, like mice, could be revived more easily.

Species go extinct because they can't survive in their environments. Even if you brought one back, it would likely die out again unless carefully managed or it somehow adapted to a modern habitat.

For ancient fossilized species, it's impossible. Fossilization destroys DNA, so "intact soft tissue" just means the structure is preserved, not actual usable DNA.

Short answer, it depends on the species. You could, for example, use a tiger as a surrogate for a lab-created sabertooth. It might survive and eventually repopulate if done repeatedly. But just growing an animal in a lab and then releasing it into the wild would be extremely difficult.

It is definitely possible. The more recent the extinction, the easier it is, though you still need money, a suitable surrogate, and the right tech. Older species like thylacines, dodos, or mammoths are much harder and usually require using close relatives and incomplete genomes filled in with genes from living species.