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### De-extinction: A Hopeful Dream or Hopeless Nightmare

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## **De-extinction: a hopeful Dream or a hopeless Nightmare**

The Saber-toothed Cat, woolly mammoth, dodo bird, Great Auk, Steller's Sea Cow, Tasmanian Tiger, Passenger Pigeon, and the Pyrenean Ibex. What do all of these animals have in common with each other, since it does not seem like there is a common denominator between the eight? The answer is relatively simple if you dig a bit deeper. The answer is that they are all gone due to various extinctions. Extinctions are nasty on a minor and major ecological and environmental scale. Species that are wiped out that are never to be seen again on the earth.

These extinctions can have effects that can cause mass damage on a scale that we are currently unaware of. We saw this with the extinction of the Passenger pigeon back in 1914. Which then begs the question. Should recombinant DNA technology be used to bring back species that were made extinct whether by nature or by mankind or should we put effort into de-extinction projects. I am on the side of the argument that we should not be using technology to bring back extinct species.

First off lets dive into some of the basic cons of de-extinction programs to get a better understanding of what this is. De-extinction has a “A species brought back from extinction will require a home (habitat) and food. The void these species left when they became extinct has already been filled by new species, and as such, a clash between the two groups will be inevitable. And not to forget, the problem of man-animal conflict will only become severe.”<sup>1</sup>

Second, are the Creator and biblical arguments. Humans should not get the chance to play around with the lives of animals. We are not God and we should not even think about

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<sup>1</sup> “Pros and Cons of De-Extinction,” BiologyWise (BiologyWise, 2018), <https://biologywise.com/pros-cons-of-de-extinction>.

attempting to try and even become God. For we are not God but created by God. Therefore, we should not delude ourselves into thinking that we can have the ability to recreate life like Frankenstein by Mary Shelley. It would be considered unnatural

To start off with, there is a movie series that explores this particular premise granted with just dinosaurs. This series is “Jurassic Park”. A quick synopsis of the film series is that a group of scientists find some dinosaur DNA and decide to recreate the extinct predators and prey. After doing so, it all goes south from there. The zoo is then poorly run which causes the animals to run amok causing destruction and death. It then ends with all of the dinosaurs either dying out or being lost for an unknown amount of time.

So a very bad idea in the long run. Also if the smaller animals like Passenger Pigeons and the Dodo bird are brought back, who is to say that our pride will not stop us from wanting to bring forth more dangerous mammals like say mammoths or forbid it saber tooth tigers. Perhaps we should wait until science and humanity is able to properly handle such a thing. Which means we should not even dream of putting this into action for we are unaware of the consequences. With dives into the rules of consequentialism. The consequences of this decision may or may not outweigh the positives.

Secondly we were created by God in order to be stewards of the land and yet we failed to do so because of human greed and gluttony. The Laudosi from Pope Francis and first two chapters of Genesis from the Bible bring this up. In the Bible the book one of Genesis says, “God blessed them, and God said to them, "Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.”<sup>2</sup> By them, that means mankind otherwise known

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<sup>2</sup> Gn 1:1-28

as Adam, and then Eve. Adam and Eve were created as the stewards of the Garden of Eden. Which means that all of humanity that would follow after them would also become the stewards of the world.

Now Pope Francis has a similar mindset and also has some biblical views on the matter of the world. In his encyclical letter the *Laudato Si*, which was on the care for our common home. He says a few things on our role in the web of this world of ours. One of the things that was said in the *Laudato Si* was, "this sister now cries out to us because of the harm we have inflicted on her by our irresponsible use and abuse of the goods with which God has endowed her. We have come to see ourselves as her lords and masters, entitled to plunder her at will."<sup>3</sup> This explains how our actions have had a nasty effect on the environment and our brothers and sisters..

Another thing that is mentioned is, "the violence present in our hearts, wounded by sin, is also reflected in the symptoms of sickness evident in the soil, in the water, in the air and in all forms of life."<sup>4</sup> How this ties into the issue of de-extinction programs is interesting. This connects because due to our destructive behavior towards the earth and our animal brothers and sisters, we lost the title of earth steward.

Another important piece is the fact that, "We have forgotten that we ourselves are dust of the earth (cf. *Gen 2:7*); our very bodies are made up of her elements, we breathe her air and we receive life and refreshment from her waters."<sup>5</sup> Because of our sins of greed, lust, pride, and

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<sup>3</sup> Pope Francis, "Laudato Si' (24 May 2015) | Francis," [www.vatican.va](https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html), May 24, 2015, [https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco\\_20150524\\_enciclica-laudato-si.html](https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html).

<sup>4</sup> Ibid

<sup>5</sup> Ibid

gluttony; we have damaged our brothers and sisters. We even ended up eating a good few of them and ensured that their home was unable to properly sustain them.

Zoos and aquariums would soon start popping up. This could be a very dangerous idea to do so. There are a whole slew of reasons why this is a bad idea.

The first one is that the “animals are trapped in unnatural environments.”<sup>6</sup> This should be a given the zoo is not their natural habitat. There are usually bars, cages, plexiglass, and netting that keeps the animals in thus limiting their movement. This environment can leave behind some nasty side effects. The biggest issue is that the, “mental problems of animals in zoos are quite common.”<sup>7</sup> Which makes sense considering the fact that these animals are in places where they probably are not given much stimulation. Plus the zoo’s conditions could be unhygienic.

Lastly, “some zoos only exist for profit-maximization purposes”<sup>8</sup> Welcome the economic tether. These animals are not cheap to keep alive and well. They cost money and the money may be coming from those that pay taxes. Which can go wrong if the government decides to cut the money that flows into these zoos.

The third reason is disease. These extinct species have diseases that the world has not seen since their extinction and the reintroduction of these diseases could have nasty consequences. Also these animals may not be capable of handling modern day diseases. In regards to the avian species we have H1N1 and multiple strains of the bird flu. Biowise even goes into this stating that, “By bringing back these species, we might also bring back the viruses and pathogens that had become extinct with them, thus making a whole lot of extant species vulnerable. To make matters worse, we have no idea as to how these viruses and pathogens will

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<sup>6</sup> Andreas, “32 Important Pros & Cons of Zoos,” E&C, August 24, 2020, <https://environmental-conscience.com/zoos-pros-cons/>.

<sup>7</sup> Ibid

<sup>8</sup> Ibid

affect us humans.”<sup>9</sup> So in doing something that could be seen as good, we could just end up exposing humanity to things that we have not seen since the last Ice Age.

The fourth is the issues involving cloning animals in general. Cloning may not be the best way to bring back these animals for a couple of reasons.

The first reason is that the exploitative nature of man will likely kick in as soon as these creatures are brought back to the world. Miller states that, “we have lost many animals (and are on the verge of losing more) because we want to profit from what they have to offer. As such, poachers don’t care whether they slaughter a few or a many because they will definitely earn a lot by taking life away from precious animals.”<sup>10</sup> If we have an issue with poachers now even with the legislation, what happens when we bring new species in the world that can have a potential target on their backs as soon as we let them loose

Lastly, the environment is different from the one that these animals may have been used to. For the Dodo bird and the passenger Pigeon for example, the current world is not conducive to having them around. Power lines and high-rise buildings would be in their possible flight paths. Power lines could also possibly electrocute the birds should they decide to rest on them. So therefore the environment is not conducive for their continued existence should we decide to revive them.

Secondly, cars and pollution are another issue. The pollution levels since the extinctions of both the Passenger Pigeon and the Dodo bird have changed drastically since their existence on Earth. The Dodo bird was deemed extinct in 1690 while the Passenger Pigeon was in 1914. The pollution levels in 1914 were, “By 1900, industrial pollution explains nearly 60% of the urban

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<sup>9</sup> “Pros and Cons of De-Extinction,” BiologyWise

<sup>10</sup> Keith Miller, “6 Advantages and Disadvantages of Cloning Extinct Animals | FutureofWorking.com,” Futureofworking.com, 2018, <https://futureofworking.com/6-advantages-and-disadvantages-of-cloning-extinct-animals/>.

mortality penalty, with an impact that is twice as large as other factors associated with density.”<sup>11</sup> Meanwhile the current levels are, “...more than 90 percent”<sup>12</sup> That is about a 50% increase which means that the air is no longer as pure as it should be. This means that the birds would be unable to breathe and adjust. Because if the humans seem to have a problem with it, it is safe to assume that the animals would have a problem as well.

Lastly, we already messed up. Humans tend to desire their own survival over the survival of other species. The passenger Pigeon was hunted to extinction because humans were too gluttonous to leave them alone. Also it was because they were considered a delicacy at the time. Plus even though we have recreated species, that does not mean that we were able to keep them alive.

In the article from Forbes written by Kiona Smith titled “The Species That Went Extinct Twice” it was mentioned that, “The Pyrenean ibex became extinct in January of 2000, when a falling tree landed on the last surviving member of the species. Three and a half years later, the Pyrenean ibex became extinct for the second time, when a newborn clone gasped her first and last breaths in a Spanish laboratory.”<sup>13</sup> What does this reveal to us? This reveals that once again, humans were too bold and it ended up blowing up in the face of science. Because we did not make sure that the Ibex was safe in the wild, we ended up losing it. Then not even three years later, we lose them again.

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<sup>11</sup> Elizabeth Quill, “These Are the Extinct Animals We Can, and Should, Resurrect,” Smithsonian (Smithsonian.com, April 23, 2015), <https://www.smithsonianmag.com/science-nature/these-are-extinct-animals-we-can-should-resurrect-180954955/>.

<sup>12</sup> “WDI - the Global Distribution of Air Pollution,” datatopics.worldbank.org, September 12, 2019, <https://datatopics.worldbank.org/world-development-indicators/stories/the-global-distribution-of-air-pollution.html>.

<sup>13</sup> Kiona N. Smith, “The Species That Went Extinct Twice,” Forbes, accessed January 24, 2022, <https://www.forbes.com/sites/kionasmith/2021/01/23/the-species-that-went-extinct-twice/>.

Just as there are some that are on the side that humans should not have the chance to resurrect extinct species; there are those that believe that we should bring these species back to life. This is for a few reasons. The first reason is we could study them in zoos. There are several pros to zoos and aquariums.

The first support for the zoos is that, “zoos are quite popular.”<sup>14</sup> Because of the fact that zoos are everywhere it allows people to visit these animals. It would also allow for researchers to have hands on access to these creatures which makes it easy to get DNA and various samples necessary to keep on ice in case of cloning.

Second and finally, this would allow for the revival of animals that deserve to have a second chance. This would be done through the cloning process which has its own benefits despite the biblical arguments against it.

The first reason that cloning and bringing back an extinct animal is that bringing back an extinct animal can offer important scientific knowledge that we currently do not possess.

According to Keith Miller, he states that, “We do have a few but often times those aren’t quite enough to present a complete picture of animals long gone. When we can resurrect them successfully, we have access to insights we haven’t had before.”<sup>15</sup> Which is the main role of science. Science is supposed to be used to help us gain insight into a world that we have yet to fully understand.

The second reason being the cloning process ties well into the first. Cloning an extinct animal could be considered a huge step for mankind in the realm of genetic engineering. In regards to the Pyrenean Ibex, “The animal was declared extinct in 2000 when the last of its species was found dead in northern Spain. However, scientists were able to use skin samples in

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<sup>14</sup> Andreas, “32 Important Pros & Cons of Zoos,”

<sup>15</sup> Keith Miller, “6 Advantages and Disadvantages of Cloning Extinct Animals |

liquid nitrogen. Using that DNA, they cloned a female ibex but it died shortly after birth because of lung defects.”<sup>16</sup> So science was able to accomplish the impossible even with the unfortunate accidental death.

Lastly, the possibility of bringing extinct animals back can possibly help the environment. “The world we live in now is full of threatened or damaged ecosystems. Scientists believe that introducing extinct animals that can restore these ecosystems back to life would be very beneficial.”<sup>17</sup> This is why some want to bring back the woolly mammoth in order to send them to the tundra. The idea that the mammoth would work is probably not a good idea.

Extinction is an unfortunate affair. However, de-extinction programs are not the answer that we should go with if we wish to solve this issue. If we bring back these animals, then how will we be able to learn and remember the impact their deaths had on the world? By refusing to learn from our past actions, humanity is doomed to repeat them. Unless we can let go of our greed and desire to take more than we need, we will continue to create these extinction events until finally we are the last ones to finally go extinct. And all that will be left of us will be nothing more but our toxic imprint upon the world.

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<sup>16</sup> Ibid

<sup>17</sup> Ibid

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