

UNESCO

Topic: “Reviving Extinct Species: Exploring the Possibilities of De-Extinction””.

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I. COMMITTEE BACKGROUND

The United Nations Educational, Scientific and Cultural Organization is a special group of the United Nations. Its main goal is to build world peace. It does this through work in education, science, and culture. UNESCO plays a vital role in safeguarding the social and cultural foundations that underpin stability, dignity, and recovery for communities affected by crises. By protecting these pillars, we help ensure that societies can rebuild not only infrastructure, but also trust, identity, and the collective capacity to move forward. UNESCO started after World War II. Allied leaders wanted to stop future wars through education, science, and culture. They signed the UNESCO Constitution on November 16, 1945, in London. The group officially began on November 4, 1946, after enough countries approved the plan.

II. HISTORY OF THE TOPIC

a. Introduction of the topic

Scientists have actively tried to revive extinct species through "de-extinction" or resurrection biology since the early 2000s, marked by the first attempted cloning of an extinct animal the Pyrenean ibex in 2003. Earlier conceptual efforts, like selective back-breeding projects, date back to the 1920s and 1930s. Scientists are trying to revive species by using advanced genetic tools like CRISPR, companies and research groups are working to recreate traits of lost animals in living surrogate relatives. These efforts raise important questions about the consequences for existing ecosystems and whether resources would be better spent on protecting endangered species. As technology advances, the potential for de-extinction remains a hot topic, balancing the desire to correct past mistakes with the need to conserve current biodiversity.

b. Evolution of the topic

De-extinction today is an active, controversial science where companies like Colossal Biosciences use CRISPR and cloning to engineer living "proxy" species with traits of extinct animals. Notable milestones include engineered gray wolves with dire wolf characteristics, alongside ongoing projects targeting the woolly mammoth, dodo, and Tasmanian tiger. Colossal Biosciences made headlines by using multiplex gene editing on gray wolf cells to produce proxy pups sharing physical traits of the long-extinct apex predator.

c. Relevant Events

d. Wolly Mammoth

Woolly Mammoth Revival Project is an ambitious de-extinction and conservation initiative led by Colossal Biosciences. The project aims to engineer an cold-tolerant elephant-mammoth hybrid often called a "mammophant" by splicing key ancient DNA traits into the genome of the Asian elephant, with a target of producing the first calves by 2028. Scientists pull fragmented DNA from well-preserved mammoth remains found frozen in the Siberian permafrost. Researchers compare the ancient DNA to the genome of the Asian elephant, which shares a 99.6% genetic match

Thylacine (Tasmanian Tiger)

The Thylacine Project is a complicated de-extinction initiative aiming to revive the Tasmanian tiger, an apex marsupial predator that went extinct in 1936. Led by Colossal Biosciences in partnership with the University of Melbourne's TIGRR Lab, the project uses preserved DNA, CRISPR gene editing, and marsupial surrogate technology to create a living proxy species. Scientists extracted high-quality DNA from a well-preserved juvenile thylacine specimen stored in alcohol at the Melbourne Museum to assemble a near-complete genome.

Dodo and Moa

The Dodo and Moa projects are high-profile avian de-extinction and conservation initiatives led by Colossal Biosciences, aiming to recreate functional proxies of the extinct dodo and South Island giant moa using ancient DNA, gene-editing, and synthetic "artificial egg" incubation technology. The Dodo and Moa projects are high-profile avian de-extinction and conservation initiatives led by Colossal Biosciences, aiming to recreate functional proxies of the extinct dodo and South Island giant moa using ancient DNA, gene-editing, and synthetic "artificial egg" incubation technology

III. **CURRENT ISSUES**

a. Panorama

This has become such a popular possibility in the last few years that every other scientist and leader seems to be discussing it. This committee will debate the pros and cons of trying to revive those lost animals and determine whether it would be beneficial or lead to further problems. If we feel that restoration of extinct species could be helpful, we will suggest ways in which this scientific work should be supported. This will involve funding research, working with scientists, and ensuring that the research is well conducted.

Alternatively, if we feel that such a resurgence of those species is not such a bright idea, we shall be devising ways to shut the process down. It could be an explanation of ethical concerns, the possible negative impact on the environment, and why it should be at the forefront of saving endangered species that are still present. Throughout our discussion, we'll consider how de-extinction applies to nature, ecosystem health, and our roles as humans. We will take the decisions here and use them to help us make future moves and

rules on this exciting yet complicated subject. Your insights and suggestions will be of great help as we ponder on.

b. Points of View

United States

The U.S. has been at the forefront of de-extinction research, particularly through private initiatives and scientific advancements in genetic engineering. Many support the idea of reviving iconic species like the woolly mammoth, viewing it as a way to restore ecosystems. However, there is concern about the ethical implications and potential ecological impacts, promoting calls for regulations and guidelines to ensure responsible practices.

Brazil

In Brazil, the focus is primarily on the conservation of the Amazon and its rich biodiversity- While some scientists are intrigued by the potential of the de-extinction, there is a strong emphasis on protecting existing ecosystems and combating deforestation. Brazilian viewpoints stress that any discussion of de-extinction must not overshadow the urgent need for habitat preservation and sustainable development.

Australia

Australia has a unique perspective due to its history of species extinction, particularly among native fauna. The country sees de-extinction as a possible tool for restoring lost biodiversity, especially for species that have cultural significance to Indigenous peoples. However, there is caution about the ecological ramifications and the need to prioritize conservation of existing endangered species before pursuing de-extinction.

India

India's perspective on de-extinction is influenced by its rich cultural and ecological heritage. While there is interest in reviving species that are culturally significant, there is significant skepticism regarding the feasibility and ecological implications of such projects. Indian authorities advocate for prioritizing conservation effort for existing species and ecosystems, emphasizing a holistic approach to biodiversity preservation.

Russia

Russian scientists and researchers often working with international partners and private backers have pursued efforts and built facilities aimed at bringing back Ice Age species like the woolly mammoth. Institutions like the North-Eastern Federal University in Yakutsk, Siberia, established dedicated paleo-genetic centers to study exceptionally well-preserved soft tissues, hair, and bone marrow of Pleistocene animals found frozen in the permafrost.

IV. UN & EXTERNAL ACTIONS

a. UN

UNESCO, as a UN agency focused on culture, science, and sustainable development, addresses the complexities of de-extinction—reviving extinct species—by emphasizing the need for a robust ethical framework. While the potential to restore biodiversity and ecological balance is intriguing, it poses risks to existing ecosystems and must consider the cultural significance of extinct species, particularly for indigenous communities. UNESCO advocates for their involvement in discussions to integrate traditional knowledge into decision-making. Additionally, the organization underscores that de-extinction efforts should not overshadow the urgent need to protect endangered species and their habitats. By promoting global collaboration and establishing governance frameworks, UNESCO aims to ensure that de-extinction is approached responsibly, ethically, and sustainably.

b. External actions

International Guidelines and Frameworks:

UNESCO works to establish global guidelines for de-extinction that emphasize ethical considerations, scientific rigor, and ecological integrity. This includes promoting collaboration among countries to develop standards for research and implementation.

Public awareness and educational:

UNESCO conducts outreach and educational programs to raise awareness about the implications of de-extinction. This includes workshops, conferences, and publications that inform policymakers, scientists, and the public about the ethical and ecological aspects of reviving extinct species.

Cultural Heritage advocacy:

By highlighting the cultural significance of extinct species, UNESCO advocates for the involvement of indigenous communities in de-extinction discussions. This ensures that their perspectives and traditional knowledge are respected and integrated into any revival efforts.

V. CONCLUSION

In conclusion, UNESCO recognizes the potential of de-extinction to contribute to biodiversity restoration and ecological balance, but it emphasizes the need for a cautious and ethically grounded approach. As discussions surrounding the revival of extinct species unfold, it is crucial to prioritize the involvement of indigenous communities and respect their cultural connections to these species. Moreover, the organization advocates for the protection of existing biodiversity and the preservation of endangered species as a

primary focus. By fostering international collaboration, establishing clear guidelines, and promoting public awareness, UNESCO aims to ensure that de-extinction initiatives are conducted responsibly and sustainably, ultimately benefiting both ecosystems and cultural heritage.

VI. QUESTIONS TO CONSIDER

1. What technologies show the most promise for de-extinction?
2. What laws are needed for de-extinction initiatives?
3. How do we ensure the survival of de-extinct species?
4. How can countries collaborate on de-extinction?
5. What are the pro's and con's of de-extinction?
6. What measures should scientists have at the moment of de-extinct species?
7. What happens if an experiment goes out of hand?
8. What protocols should be installed in case an animal escapes?
9. How might reintroduced species affect current ecosystems?
10. How do we ensure the survival of de-extinct species?

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