

Should we clone extinct species?

Have you seen the movie *Jurassic Park*? In this movie, dinosaurs are brought back to life after extracting their DNA from mosquitoes trapped in amber.

When the film was released, it was pure fiction, because the technology to achieve such a feat did not exist. But since then, scientists have found out much more about cloning. We may be closer to using the technology to bring back extinct species.

Preserved samples and carcasses, such as the woolly mammoth, are being found around the world. Should be trying to bring them back at all?

People have opposing points of view on the economic, scientific and ethical decisions involved in trying to resurrect extinct species.

Some biologists and conservationists think that it is currently not a practical technology and is not worth pursuing. An Australian Museum project exploring the possible use of cloning to resurrect a thylacine was scrapped in 2005, partly for technical reasons.

In this activity, you will be working in groups to research the problem and present advantages and disadvantages of cloning extinct species.

You will need:

- internet access
- website addresses given below
- materials for writing and presenting information

What to do:

1. Form a group of several students.
2. Access some of the websites listed below. Summarise the information or point of view presented. Make sure that the group accesses a variety of sites.
3. Share the information you have discovered with the rest of the group.
4. Consider all the information and points of view discovered by your group and decide whether or not we should be trying to clone extinct species.
5. Choose a representative of your group to present the group's answers to the class.

Websites

Cloning

- Howard Hughes Medical Institute:
http://www.hhmi.org/askascientist/answers/what_are_some_of_the_upsides_and_downsides_of_cloning_especially_the_cloning_of_endangered_or_extin.html
- Extinct animal.com: www.extinctanimal.com/cloning.htm
- Human Genome Project:
http://www.ornl.gov/sci/techresources/Human_Genome/elsi/cloning.shtml

Thylacine

- The Australian Museum: www.amonline.net.au/thylacine/index.htm
- Parks and wildlife service of Tasmania:
www.dpiwe.tas.gov.au/inter.nsf/WebPages/BHAN-53777B?open
- ABC: www.abc.net.au/science/news/ancient/AncientRepublish_1302459.htm

Woolly mammoth

- Discovery Channel:
<http://dsc.discovery.com/convergence/landofmammoth/eyecandy/main.html>
- How to clone a mammoth:
www.popularmechanics.com/science/research/1281866.html

For further investigation

- What do you think lies behind the desire to clone extinct species? Is it pure curiosity? Being to achieve a vast technological feat? Or perhaps human pride?
- If successful cloning of an animal took place:
 - how do you think their welfare would be considered?
 - what will they eat?
 - where will they live?
 - what if the environment is not conducive – would we have brought back an extinct species, only to see it become extinct again?
 - what will the animal breed with?
 - if multiple animals of a species are resurrected from only one specimen, what will this mean for genetic diversity and survival of the resurrected species?

Biotechnology Online School Resource

For further information contact the Gene Technology Information Service on freecall Australia-wide **1800 631 276**.
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