

Researchers in Spain to attempt to clone extinct mountain goat

November 25 2013, by Bob Yirka



Plate 22 (Spanish Tur) from the book 'Wild oxen, sheep & goats of all lands, living and extinct' (1898) by Richard Lydekker. From a sketch by Joseph Wolf in the possession of Lady Brooke. The ram in the foreground was killed in the Val d'Arras. Credit: Joseph Wolf / Wikipedia

(Phys.org) —A team of researchers in Spain, with the Centre for

Research and Food Technology of Aragon, has signed an agreement with the Aragon Hunting Federation (which they announced to the press) to begin testing the possibility of cloning a mountain goat that went extinct back in 2000.

The bucardo (*Capra pyrenaica pyrenaica*) was a sub-species of mountain ibex that lived in the Pyrenees—its numbers had been dwindling for years due to a number of factors, including a changing environment and hunting by humans. The last known survivor was a [goat](#) named Celia—she was killed by a tree falling on her—but not before researchers took tissue samples and froze them in liquid nitrogen. The hope was that as technology improved, eventually, cells from the samples could be used to clone new goats and thus resurrect the species.

The first attempt to clone a new burcardo was tried in 2003, but failed. Just one goat survived to term and it died of lung complications just after birth. In this new effort, the researchers plan to try to clone several of the goats, and if successful, to consider reestablishing the species. If successful it would be the first "de-extinction" of any organism.

In this new attempt, (to be paid for by the hunting club) the researchers will remove the nucleus of the DNA from several of the frozen tissue cells, and then insert them into embryos of a close goat relative (after its nucleus has been removed). The embryo, if viable, will then be implanted in the womb of a female goat, and hopefully carried to term.

There is a question as to whether cells that have been frozen (at -321F) for 14 years are still viable. There is also the problem of how to bring back the species if the cloning works out as planned—all of those born would female. One approach might be to mate such a female with a close ibex relative and then over successive generations, breed in burcardo traits, while breeding out the other goat traits. Another approach might be to use a bio-engineering technique that causes female

embryos to grow into male offspring—a technique that has met with some success in test mice.

More information: via [BBC](#)

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