

South Africa revives 'extinct' zebra subspecies

12 February 2016, by Lawrence Bartlett



Rau quagga walk on Elandsfontein farm, in the Riebeeck Valley, on February 3, 2016, near Cape Town

In a spectacular valley less than two hours' drive north of Cape Town, a small herd of animals provides the chance to travel back in time over more than a century.

The animals roaming over a wide plain encased by jagged mountain ranges look like quaggas, a subspecies of the plains zebra—but quaggas are extinct.

They were wiped out by colonial hunters in the 19th century.

Now, a small group of scientists and conservationists believe they have recreated the quagga, which is distinct from other zebra mainly through the lack of the characteristic black and white stripes on its hindquarters.

Over a period of 30 years the Quagga Project has used selective breeding of plains zebra to produce, in the fifth generation, an animal they say is indistinguishable from those that roamed the same plains centuries ago.

The last of the original quagga, found only in South Africa's Western Cape region, died in an Amsterdam zoo in 1883.

So why try to resurrect it?

"It's an attempt to try and repair ecological damage that was done a long time ago in some sort of small way," Eric Harley, a retired professor of chemical pathology at the University of Cape Town, told AFP.

"It is also to try and get a representation back of a charismatic animal that used to live in South Africa."



The last of the original quagga Zebra, found only in South Africa's Western Cape region, died in an Amsterdam zoo in 1883

DNA clues

The [project](#) was founded by the late Reinhold Rau, a German-born South African natural historian, who had DNA samples from a quagga skin at the South African Museum analysed.

It was discovered that the DNA was the same as that of the vividly-striped plains zebra, and Rau set out to try to re breed the quagga.

Selecting plains zebra in which the stripes were less strong in the hindquarters, thus exhibiting some quagga genes, they bred them together.

Each successive generation exhibited more of the quagga colouring and now, on the fifth generation, the project is satisfied that it has recreated the quagga.

The only way in which the quagga was ever defined was by its appearance—the lack of striping over the rear part of the body and the darker brown colouration of the back part of the body, said Harley.



A small group of scientists and conservationists believe they have recreated the quagga, which is distinct from other zebra mainly through the lack of the characteristic black and white stripes on its hindquarters

"To all intents and purposes they are the quagga back again. The project has been a complete success."

Harley defended the project against critics who say it is simply a stunt or unnecessary interference with nature.

"We don't do genetic engineering, we aren't

cloning, we aren't doing any particularly clever sort of embryo transfers—it is a very simple project of [selective breeding](#)," he said.

"If it had been a different species the whole project would have been unjustifiable."

To appease the critics, however, the new animal is formally called a Rau-Quagga, to distinguish it from its forebears.

But in the Elandsberg private nature reserve in the Riebeeek Valley, a khaki-clad guide points to the herds drifting across the veld in the early morning light and names them simply as: "Wildebeest... springbok... eland... quagga."



Over a period of 30 years the Quagga Project has used selective breeding of plains zebra to produce, in the fifth generation, an animal they say is indistinguishable from those that roamed the same plains centuries ago

The guide—Quagga Project chairman and farm manager Mike Gregor—says about 100 zebra are in the reserve, with some six animals from the fourth and fifth generations accepted as true representations of the extinct animal.

Breeding criticism

"I think there is controversy with all programmes like this. There is no way that all scientists are going to agree that this is the right way to go," he

said.

"We are a bunch of enthusiastic people trying to do something to replace something that we messed up many years ago."

Harley rejected any comparison with breeding programmes run by some game farmers which have produced white springbok and golden wildebeest—which win higher market prices.

"What we're not doing is selecting some fancy funny colour variety of zebra, as is taking place in other areas, where funny mutations have taken place with strange colouring which may look amusing but is rather frowned upon in conservation circles.

"What we are trying to do is get sufficient animals—ideally get a herd of up to 50 full-blown rau-quaggas in one locality, breeding together, and then we would have a herd we could say at the very least represents the original quagga.

"We obviously want to keep them separate from other populations of plains zebra otherwise we simply mix them up again and lose the characteristic appearance."

The quaggas once more roaming the veld have also not been subjected to the sort of treatment that has resulted in creatures such as the zorse—a cross between a zebra and a horse—and the zonkey, whose name speaks for itself.

Those creatures, being hybrids, are usually infertile, while the quagga—with the time machine having been cranked up—are expected to reproduce themselves.

© 2016 AFP

APA citation: South Africa revives 'extinct' zebra subspecies (2016, February 12) retrieved 24 January 2022 from <https://phys.org/news/2016-02-south-africa-revives-extinct-zebra.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.