THE QUAGGA BREEDING PROJECT - A TIMELINE

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August 1883
The last Quagga, a mare, died at the Amsterdam Zoo. Sadly, her passing went without man’s realization that she was the last of her kind. Because of the indiscriminate use of the term “quagga” for any zebra, the true Quagga had already been hunted to extinction in the wild.

1931
The extermination of the Quagga by Franz Roubal, 1931. Oil on canvas painting.

1969
Even in Africa, there was only one Quagga skin left...that of what has become known as the Cape Town foal. The specimen was in need of remounting, during which time Reinhold Rau, a taxidermist with the South African Museum, was able to recover valuable remnences of muscle, blood, and other tissue which he stored carefully for future use.

1971
Having toured museums throughout Europe in order to examine the majority of the preserved Quagga skins, and already being familiar with the high degree of variation amongst the southern plains zebra populations, Reinhold Rau was convinced that the Quagga was indeed a subspecies of the plains zebra. During this time, Reinhold discussed with Dr. Haltenorth, a mammologist at Munich, Germany, the feasibility of attempting to rebreed the Quagga. Dr. Haltenorth was very supportive and saw merits in such an endeavor.

Herein the question lies, since plains zebra from Zululand in the east have a tendency towards reduction in striping over the quarters while their counterparts from Etosha in the west have a notable tendency towards browning of base coat color, could it be possible that the southern population as a whole once included another subspecies in the form of Quagga on lands between?

1975
Reinhold Rau decided to work towards the implementation of a Quagga re-breeding program and contacted various zoologists as well as Park authorities in an effort to stimulate interest. Unfortunately, but not surprisingly, reactions were overall negative. Given the fact that most English scientific literature considered the Quagga a separate species of zebra, such logic would render any possibility of re-breeding Quagga useless.

1980
Reinhold Rau procured additional tissue samples from three more Quaggas as well as a Quagga-like plains zebra from specimens in need of remounting at the Natural History Museum in Mainz, Germany.

1984
The taxonomic status of the Quagga was finally resolved! From the dried flesh and blood samples procured previously from the four old Quagga skins during remounting, molecular studies of protein and DNA fragments confirmed the status of the Quagga as a subspecies of the plains zebra.

1985
Dr. J.F. Warning of Somerset West, a retired veterinarian and expert in animal husbandry who had been associated with horse and cattle breeding for more than 50 years in Germany and Namibia, contacted Reinhold Rau and lent his support to the theory that the genes of the Quagga were still present in the pool of southern plains zebra. Gradually a more positive attitude was taken towards the proposed Quagga re-breeding program.

March 1986
The Quagga Project was founded by a group of dedicated people in South Africa in an attempt to bring back an animal from extinction and reintroduce it into reserves in its former habitat. By selectively breeding individuals of the southern plains zebra, hopes are to retrieve at least the genes responsible for the Quagga’s coloration.

March 1987
The selection and capture of nine individuals out of approximately 2,500 plains zebra at Etosha National Park in Namibia marked the beginning of the Quagga Breeding Project. These zebra were chosen for their similarities to the extinct Quagga, such as brownish coloration, reduced striping, white tail brush, etc. Additional individuals selected from both Etosha and Zululand would be added during subsequent years.

April 1987
Arrival of the nine zebra at the specially constructed breeding camp complex at the Nature Conservation farm ‘Vrolijkheid’, near Robertson in the Cape, marked the commencement of the Quagga re-breeding project.

December 1988
The first foal was born to zebra within the project. It would be a full ten years from the time of the project’s conception before the first foal of the second generation offspring (F2 generation) would be born. Reproductive maturity is not reached until 2 to 3 years of age in mares and 4 to 5 years of age in stallions.

October 1992
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The increased number of zebras stretched the funds of the project to the point that the breeding venue at Vrolijkheid had to be abandoned. Six zebras were relocated nearer to Cape Town onto land which had sufficient natural forage.

1993

As the new site proved to be a success, the remaining zebras from Vrolijkheid were moved there and to two additional new sites.

February 1997

The first 2nd generation foal was born to zebra who were also born within the project. A number of the project zebra are already very close in appearance to some of the more extensively striped specimens among the 23 preserved Quagga mounts.

March 1998

Eleven Quagga project zebras have been released into the Karoo National Park at Beaufort West between the 16th and 19th March, 1998. These animals are more extensively striped and less brownish than most of the twenty three preserved Quaggas. They are nevertheless 'Quaggas in the making', and selective breeding will continue in this group. Their translocation marks the return of p’ zebra into the former range of the Quagga. More selected individuals will be added to this group. Additional groups will be established in other National Parks within the quagga’s former distribution area.

August 1998

The projects second F2 foal has been born on the 22nd August 1998 at Elandsberg of the same parents as the first F2 foal.

September 1998

Three more Quagga Project zebras have been added to the group at the Karoo National Park on the 8th September 1998. The mare, Mariette, which was born at Elandsberg and had been moved to the NationalAccelerator Centre to be sired by Megavolt, has been moved back to Elandsberg on 8th September 1998, together with her mare foal, after living at the Accelerator Centre for two years and seven months.

October 1998

This exciting male foal, Etienne, was born on 14th October 1998 at Groote Schuur Estate. It is one of the most Quagga-like individuals in the six breeding groups. It demonstrates the high degree of individual variation when comparing the foal to its mother, Theresa.

March 1999

Of the fourteen Quagga Project zebras that were released into the Karoo National Park during 1998, three mares have so far foaled. The latest foal was born on the 24th March 1999. The ‘quaggas in the making’ have adapted well to the habitat which was the home of the original Quaggas.

May 1999

Three young Quagga Project stallions have been added to fourteen selected Plains zebras, which had been established by South African National Parks at the Mountain Zebra National Park near Cradock. This park has also been enlarged and now includes extensive plains as well.

A new breeding group has been started by releasing a young pair of Quagga Project zebras into the game section of the farm “Kosiers Kraal” at Bredasdorp, owned by Mr. Mic D’Alton.

August 1999

At the private nature reserve, Elandsberg, a "very good" colt was born. This foal is the first to be sired by the young stallion Luke. He was then only three years seven months old, considerably younger when four and a half to five years old.
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been moved to this reserve where he will have the company of some other plains zebras. These zebras will be removed when more Quagga Project zebras are established at Sadawa, well before the Quagga Project zebras reach sexual maturity.

And yet another coup this month, premier Quagga Project mare, Howey, gives birth to a colt foal on September 2nd, sired by Alex (on left in photo below).

(photo courtesy of Reinhold Rau)

2000 and Beyond

Someday, not too far in the future, herds of Quaggas will once again roam the plains of the Karoo and inhabit the southern Freestate of South Africa... thanks to one man's dedication and your support! The Quagga Project Association receives no state funding and depends on your support to continue their endeavor. Any an every donation is appreciated! Contributions can be sent to:

Quagga Project Association
South African Museum
P.O. Box 91
Cape Town 8000
South Africa

Q: What do you get when your cross a zebra with an appaloosa?

A: A zorse with dotted lines!
by: Heidi J. McCarthy

Combined Immune Deficiency in Donkeys...

Judith A. Armes
Director of Operations
TURRO Institute for Animal Health

In 1995, we had the misfortune to loose a donkey foal to Pneumocystic Pneumonia. He was a genetically grey foal; while coated to the eye, but genetically grey – like the greying gene in horses. The greying gene had been identified and classified in 1993 and has been in breeding trials since.

With the loss of this foal and the events that surrounded his death, TURRO began to consider the possibility of an immune deficiency disease in donkeys, much like the one associated with Arabian horses.

Since our first documentation of this case, 5 similar cases from two breed lines have been noted. Current cases are under examination. Suspect foals produced came about when these two lines were crossed with each other or inbred or line bred – relative to relative. The immune deficiency presents a bit differently then the horse model, but that is not surprising since donkeys, although equines do vary in their systems and genetics.

TURRO continues to gather evidence of similar cases and has established a protocol for foal loss evaluations. We have talked with two genetic testing labs about possible testing for carriers of this lethal and are working on establishing a future test for breeders to use in identifying these carriers and hopefully discourage their use as breeding animals in the current population.

Breeding a carrier to a carrier may produce a lethal foal 25% of the time – that foal generally dies. What is more damaging to the breeding population is that 50% of the time, there is a another carrier produced and that carrier goes on to pass the lethal gene through the national herd.

The only way to eliminate the lethal is to eliminate the carriers from the breeding herd. A big commitment for breeders to take on, but necessary to produce the strongest, healthiest herd for future generations. This is the goal we all have, I believe.

TURRO will be happy to answer any questions for breeders wishing to learn more about this disease and possible symptoms, treatment/management, or foal loss evaluations. You can contact our office at 408-842-8171 – that number is available 24 hours a day, or you may email us at either info@turro.com or steve@purdyvet.com.