

Welcome to Around the Horn

and what we hope will prove to be a valuable resource for everyone concerned with rhino conservation. For the past several months a number of us have been quietly massaging the idea of putting together a communication device - a newsletter, if you must - which could be placed in the hands of everyone directly involved in rhino conservation projects.

A few years ago, at an African Rhino Workshop in Cincinnati, specialists and managers from field projects, zoos and academia came together to exchange information and discuss ways to confront the threat of extinction looming on the African horizon. Out of that gathering emerged a new sense of respect for the roles each of us must play. We know that the problems are complex, the solutions elusive, and the implications of failure totally unacceptable. The last few years have seen a number of new initiatives - the Sumatran Rhino Trust, the proliferation of captive management programs in Great Britain, Europe, Australasia and Japan, cooperative arrangements with the government of Zimbabwe designed to both protect rhino in situ and provide animals for captive propagation. More ideas, more resources and more initiatives will be committed in the months ahead.

The effort to preserve the rhinos of the world is not the province of a few - rather it hinges on the coordination and dedication of many. Communication is an overworked and overused term, but it describes what is necessary to the coordination and success of the rhino effort. There is nothing more frustrating and embarrassing than for someone intimately involved in one respect of rhino conservation to be suddenly confronted by the realization that he hasn't the foggiest idea of what someone else is doing. There is also nothing more destructive of a team effort. Around the Horn hopes to do something about that.

This newsletter will be published biannually and will have the capability of rapidly disseminating critical information to its readership through a companion piece, Around the Horn - Update! We intend for Around the Horn to provide a forum for news, views, questions and ideas, all of which must come from you. Ultimately, Around the Horn belongs to you, and its success will depend on you.

Robert W. Reece, Editor



The sign on the shipping crate read "WELCOME TO COWTOWN RHINOS". Many people gathered at the Dallas-Ft. Worth Airport last July 16 to watch as 10 southern black rhino were carefully unloaded from the Lufthansa 747 which carried them there from Zimbabwe. (Photo by Robert W. Godfrey)

ZIMBABWEAN CONNECTION

By Edward J. Maruska

On July 16, 1989, ten black rhinos of the southern subspecies (*Diceros bicornis minor*) arrived in Texas from Zimbabwe. They came on breeding loan to the AAZPA and have been dispersed to six different zoos and ranches participating in the black rhino SSP program. These animals represent just the "first installment" of what we hope will be a continuing effort to build up the number of founders in the now separately managed North American SSP Propagation Group for the Southern African subspecies of black rhino. The rhinos arrived in North America as part of a tripartite agreement involving the AAZPA, Zimbabwe and Game Conservation International (Game Coin)

In return for the shipment of black rhinos, the AAZPA agreed to provide technical assistance to the government of (continued on page 2)

ZIMBABWEAN CONNECTION

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Zimbabwe in the development of captive propagation and field conservation efforts in that country. In partial fulfillment of that commitment, Tom Foose, Tony Starfield and I travelled to Africa last July to participate in a government-sponsored workshop in Harare, Zimbabwe. The purpose of the workshop was to develop a national strategy for rhino conservation and to acquaint the game department and scientific staff with recent developments in captive and small population management. While in Harare we also had the pleasure of meeting with Mrs. Victoria Chitepo, Minister of Natural Resources and Tourism, Dr. William Nduku, Director of National Parks and Wildlife Management (DNPWM), and Dr. Rowan Martin, Deputy Director for Research for DNPWM.

Home to one-half of the world's remaining 3,800 wild black rhinos, the small country of Zimbabwe is working hard to preserve this valuable national resource. Today, the Zambezi Valley region of Zimbabwe is the only area of the world where the wild black rhino population exceeds 500 animals.

We visited two camps in the Zambezi Valley, Chekwenya and Manapools, but were not lucky enough to spot any rhinos. In a meeting with Manapools game warden Mark Brighton, we learned the sobering fact that, despite the intensive anti-poaching patrols in that area, they are losing one rhino per day to poachers. Although there is some local poaching, they believe the vast majority of the poachers come in from Zambia. With assistance from Ingrid Schroeder and Babette Aliferi of SAVE, Zimbabwe is trying hard to raise \$25 million to beef up their anti-poaching patrols and protect the remaining rhinos.

We went on to visit two of the large privately owned ranches in the midlands of Zimbabwe. The government has relocated a substantial number of rhinos to the 60,000+ composite acres which comprise these private ranches where the animals are contained by solar-powered electric fences and vigorously protected by the ranch owners, many of whom are members of Game Coin. It was on the ranch of Eleanore Lowe where I finally saw my first black rhino of the trip.

I went on to the Hluhluwe Reserve in Natal, which has the distinction of being the only place in the world where the wild population of black rhino is actually increasing - 7-10% per year. There I met Keith Mikeljohn who is in charge of their successful and well-run game-catching operation. Hluhluwe catches over 7,600 species of live game every year, and sells them to ranchers. I had a chance to go out with some beaters and witness some game netting first-hand.

Hluhluwe is the point of origination of seven rhino that have come to the U.S. over the last decade. While there, I also met with Director of Parks, Dr. George Hughes, and Rodney and Barbara Henwood, and we laid the groundwork for further increasing the number of founders for our North American southern subspecies black rhino program.

VIABLE POPULATIONS FOR RHINOS

By Thomas J. Foose

The five extant species of rhinoceros provide spectacular examples of the rapid and accelerating disappearance of wildlife on the planet. Fewer than 10,000 total rhinos survive in the wild today.

The immediate causes of the endangerment and extinction of wildlife are habitat destruction and unsustainable exploitation. In the case of the rhinos, the second cause, in the form of decimation by poachers, is the primary problem. Rhinos, like so many of the megavertebrates, actually vanish well before their habitat disappears. To preserve species of rhino, it is obviously necessary to protect them from poacher activity and habitat destruction.

However, while such protection is necessary, it is not sufficient. Surviving rhino populations must also be managed if they are to survive over the long-term. The reason is yet a third threat to survival of the five rhino species: the problems of small populations.

Small populations, even if well protected, are vulnerable to a number of environmental, demographic and genetic problems that can imperil their survival, especially over the longer term, i.e., the next several centuries. These problems are random or stochastic in nature. Hence, they are impossible to predict with any certainty. However, there are remedial measures possible through management. These problems of small populations apply to species in both the wild and in captivity,

although much of the management methodology is being developed in zoos.

Genetically, small populations lose genetic diversity at a rapid rate. All species appear to possess some amount of genetic diversity, known as their gene pool. Genetic diversity is important for species at both the population level and the individual level. At the population level, genetic diversity is vital to permit species to adapt to continually changing environments (e.g., the appearance of a new disease). At the individual level, genetic diversity is necessary to maintain fitness or vigor, i.e., the ability to survive and reproduce adequately under existing environmental conditions. When populations are reduced to very low numbers (a few tens or hundreds), their gene pools are converted into gene puddles! Sooner or later, there is scientific reason to expect that this loss of genetic diversity can and will jeopardize the survival of the species.

There are also problems of demographic and environmental uncertainty. Demographically, small populations are at risk because of such factors as random failures in birth or survival rates, distorted sex ratios, or unstable age structures. As an example, consider sex ratios. In larger populations and over long periods of time in the wild, sex ratios at birth will frequently be even (i.e., equal numbers of males and females) or at least will represent some average that has evolved as adaptive for the species. However, in very small populations, these averages may not be realized and sex ratios can become