



Creating the Nation's first BioPark

National Zoological Park · Smithsonian Institution · Washington, D.C. 20008

Letter from the Desk of David Challinor  
January 1, 1991

As an inveterate visitor of other zoos, I am often surprised when I see an unexpected animal on exhibit. Last summer the director of the Dallas Zoo showed me a breeding group of okapis. We do not have them at the National Zoo, but we do have other equally exotic and endangered mammals such as maned wolves.

You may well wonder how a zoo decides what animals to acquire for exhibit, and how these animals are found. Until World War II, major zoos sponsored expeditions to remote places to augment their collections with wild-caught stock, many of which died in transit during long sea voyages. After the War, many exporting countries achieved independence and began to restrict the export of their rare fauna. At the same time, the U.S. Department of Agriculture started imposing increasingly stringent conditions on imported zoo animals to reduce the risk of the accidental introduction of animal diseases that might spread to domestic livestock and pets.

Faced with these new conditions, the U.S. zoos began to develop their own breeding programs as an alternative to imports. The cooperative breeding programs of the nation's zoos have become so successful that as of 1 December 1990 the percentages of zoo-bred animals in the National Zoo's collection is:

Amphibians	56%	Average for all animals is 71%
Reptiles	63%	
Birds	78%	
Mammals	88%	

A reasonable goal would be to increase this percentage 10 to 15 points in the next few decades. The successful breeding of zoo animals, however, has its own problems. For example, there are about 3,500 individual animals in the National Zoo inventory at any one time. The Zoo averages about 900 births and 800 deaths a year; the net increase is dispersed to other zoos by gift or sale. Needless to say, the demand for surplus animals varies greatly, and it is often difficult to find buyers for many of these animals.



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"...for the advancement of science and  
the education and recreation of the people."

When animals heretofore absent from our Zoo are considered for acquisition, the curators are guided in their decisions by a collection plan developed to reflect the NZP's goals; these plans were designed to insure that the nature of the collections could not be altered by a curator's whim. An important aim of the NZP is to increase breeding success, and long experience with specific animals is the best way to insure such a goal. Acquiring a new species is therefore a major decision.

Among the criteria used to judge whether a new animal should be selected for exhibit are:

- a) educational potential -- endangered species, etc.
- b) visibility to public, e.g., diurnal rather than nocturnal; arboreal rather than burrowing
- c) successful breeding potential
- d) research potential
- e) hardiness, longevity, activity
- f) program investment and interaction with other zoos

Today the last point is especially important because all zoo populations must now be treated as a unit. For example, all gorillas in U.S. zoos are managed as a national breeding population. With the increasing scarcity of wild animals to "stir up the gene pot" in zoo collections, the Species Survival Plan (SSP) is now the most widespread of all international zoo cooperative breeding efforts. Thanks to computer-stored data, we can keep track of the degrees of relatedness of all animals within the control of U.S. zoos. Such information reduces the risk of inbreeding and thus helps to maintain genetically healthy populations. The goal of the American Association of Zoological Parks and Aquaria (AAZPA) is to have SSP's for 2000 species by the year 2000 -- up from the 56 now operating nationally. The National Zoo is participating in 29. Examples of such SSP's at the Zoo are the Palm cockatoo, Asian wild horse, and Duméril's boa.

When a curator wants to acquire a new species, he/she prepares a brief Species Acquisition Proposal which addresses the criteria listed previously and describes any husbandry peculiarities, its social grouping, status in the wild and in zoos, and sources of stock. This proposal is circulated among the staff for comment, and before approval by the director, the Zoo's registrar, Judith Block, reviews the document to see if special permits or loan agreements are needed. She maintains the Zoo's inventory and kindly furnished the figures I have used in this letter. Veterinarians review health and quarantine issues and the keepers, commissary experts, and other relevant zoo staff all participate in the final decision.



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It is thus evident that the acquisition of new animals for exhibit is a time-consuming and complicated procedure, and so it should be. The very survival of many species, endangered in the wild, may depend on the collective decisions of zoos! Zoos therefore increasingly find themselves in the unenviable position of having to "play God," because only through their direct intervention can important components of biological diversity be maintained.

With this acknowledgment of the awesome responsibility we all face to help slow animal extinction rates, I wish each and every member of the Council a Peaceful and Happy New Year.