

Overview of IRF/ AZA Rhino TAG Conservation & Research

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There will be a brief overview of the status of rhino taxa (species & subspecies) in the wild and captivity. It will be emphasized that IRF & the AZA Rhino TAG believe both in situ protection and ex situ propagation are integral components of rhino conservation. The IRF & TAG have been cooperating for almost 10 years on contributions to both components and linkages between them. IRF supports and manages major in situ programs; the TAG coordinates the captive management and propagation programs in North America. The TAG has developed and periodically revised a Rhino Conservation Research Masterplan. Using this Masterplan, IRF has developed research priorities and supported research projects, largely selected through two competitive, peer-reviewed RFP (Request for Proposal) processes. In the last, RFP process, another organization SOS-Rhino also participated. Over \$ 1 million has been provided for rhino research. The emphasis in the research priorities and projects has been toward solving problems necessary to achieving viability of captive populations and programs as a component of rhino conservation strategies. The central problems, research priorities, and major projects will be briefly identified. Finally, it will be observed that many of the other presentations at the Symposium are reports from these research projects.

Practical Applications of Operant Conditioning for Health, Research and Behavior in the Black Rhinoceros

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The use of operant conditioning for effective management of animals has been implemented with various species in the zoological setting. The principle behind this training technique is the use of positive reinforcement, which gives the animal a choice in participating in the behavior through a protected contact system. The Denver zoo training program was initiated due to an illness in a black rhino that required serial immobilizations for blood sampling. We initiated operant conditioning for the collection of biomaterials from our black rhinos as a comparatively non-stressful alternative to chemical immobilization. The training program targeted medical concerns which included blood and urine collection, rectal temperatures and footwork. Currently, a research project is underway to determine the correlation of environmental stressors and blood cortisol levels that will allow for improved management of this species in captivity. The application of operant conditioning has proved to be an invaluable tool for medical management, research and behavioral enrichment for our black rhinos.

Sumatran Rhinoceros Conservation Strategy in Sabah

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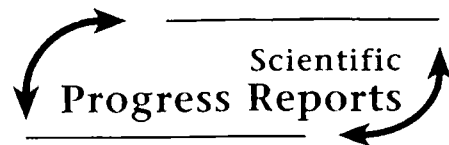
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In 1993, the Asian Rhino Specialist Group (AsRSG) estimated between 48-68 Sumatran rhinoceros (*Dicerorhinus sumatransis harrissoni*) in the East Malaysian State of Sabah, north of the island of Borneo. The Wildlife Department of Sabah has indicated that there may be less than 30 individuals in the wild. The IUCN has placed this species as critically endangered.

In 1985, the Government of Sabah formed a technical task force in studying the presence, distribution of Sumatran rhino, and to undertake manage breeding. The rhinos relocated for captive breeding were from doomed areas or pockets of forest caused by agricultural development. Although Sabah was successful with breeding the rhinos in 1995, there was no success in producing any offspring. Captive management of Sumatran rhinoceros is challenging and only a pair is left at Sepilok of this subspecies. From 1995 to 1998, the Wildlife Department Sabah received substantial funding for rhino conservation from the Global Environmental Facility of the United Nation Development Program. In order to continue the conservation of Sumatran rhino in Sabah, SOS Rhino, a Chicago-based non-government, non-profit conservation organization has offered to assist the Wildlife Department of Sabah and began operating as of November 2000.

SOS Rhino has appointed a local consultant and program officer, a US-based wildlife veterinarian as field scientist and 12 local Rhino Field staffs. SOS Rhino is sponsoring one Malaysian student in University Malaysia Sabah to undertake a study on demography and nutrition of Sumatran rhino. Within a short period, SOS Rhino has successfully correlated the Progesterone level to estrus cycle to facilitate breeding. The first attempt has yielded encouraging result. SOS Rhino field exercise at the 120,000 hectare Tabin Wildlife Reserve has gathered tremendous amount of pictures of wildlife via phototrap cameras. The most vital findings were fresh tracks of Sumatran rhinoceros. SOS Rhino will be embarking on its community outreach program to involve the people living around rhino habitat to protect their heritage. SOS Rhino is also arranging special tour groups to have a first hand experience on wildlife in Sabah with a focus on the Sumatran rhino. The *in situ* and *ex situ* conservation works of SOS Rhino in Sabah is progressing very well.

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Recent Research on Elephants and Rhinos

Abstracts of the
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