

# IRF RESEARCH PROGRAM

## Overview

The International Rhinoceros Foundation is continuing and expanding its support for research that is directly applicable to management, propagation, and conservation of all rhinoceros species in captivity or under intensive protection and management in the wild. A Request for Applications (RFA) has been widely distributed to solicit proposals for research in these areas.

The major areas of research that will be supported include: health, husbandry, nutrition, reproduction, behavior, genetics, systematics, and ecology. Proposals are encouraged that will provide information contributing (1) to a comprehensive and integrative understanding of rhinoceros biology and therefore (2) development of practical techniques to assist management, propagation, and conservation of rhinos.

Proposals will be reviewed by the IRF Scientific Advisory Board comprising distinguished scientists in the major areas of research to be considered. This council will submit recommendations for funding to the IRF Board which will have the final decision.

Decisions on projects to be supported commencing 1995 will be announced by 1 October 1995 with funding to commence immediately.

Projects in the range of \$ 5,000 to \$ 75,000 per year will normally be considered. Exceptions to these limits may be considered. The IRF will not pay administrative overhead. Projects with matching fund support may be considered attractive. Conditional support will be committed for subsequent years of multi-year projects at that time contingent upon satisfactory review of first year performance. All projects will be subject to yearly review.

## IRF Rhino Research Priorities

The IRF Research Priorities are predicated on the considerable activity in rhino conservation management and research over the last several years:

- The AZA African Rhino Workshop - Cincinnati - 1986
- The Indonesian Rhino Conservation Strategy Workshop - 1991
- A series of meetings and discussions on Rhino Reproductive Biology
- African Rhino Workshop - Cincinnati - 1986
- Rhino Endocrinology Workshop - Cincinnati - 1989
- Discussions D. Wildt, E. Blumer, R. Reece, T. Foose - The Wilds - September 1994
- Discussions among D. Wildt, M. Fouraker, L. Bass - Fort Worth - October 1994
- An International Workshop on Assisted Breeding to Save Endangered Species - Western Plains Zoo - November 1994
- The Strategy Session of AZA Rhino TAG Research Council - Cincinnati - June 1993
- International Symposium on Diseases of Black Rhino - White Oak Conservation Center - September 1993
- The Rhino Health Masterplan Meeting - St. Louis - December 1993
- The AZA Rhino TAG Crisis Meeting - Columbus - January 1994

- The AZA Rhino TAG Behavior Group Meeting - Columbus - January 1994
- Population and Habitat Viability Analyses Workshops:
  - Javan Rhino - Indonesia - 1989
  - Black Rhino - Kenya - 1991
  - Sumatran Rhino - Indonesia - 1993
  - Indian Rhino - India - 1993.

Currently the IRF perceives a number of general problems impeding intensive management of rhino species:

- (1) At least two species, the Black and Sumatran, have problems with poor survivorship/high mortality under intensive management.
- (2) Reproduction in all 4 of the species that have been maintained in captivity is less than optimal. One species, the Sumatran, has not reproduced in recent times under intensive management. Skewed sex ratios are endangering the captive population of at least one taxa.
- (3) The populations of three taxa of rhinoceros (the Sumatran, the Javan, and the Northern White Rhino) are in demographic crisis in the wild. All taxa of rhinos are in some degree of demographic difficulty in captivity. The demographic problems are causing genetic difficulties because some lineages are at risk of being lost because their representatives are not reproducing. Recovery from these demographic and related genetic problems could be greatly facilitated by better application of scientific techniques and technology.
- (4) Compared to many other groups of organisms under intensive management, the basic biology (nutritional, reproductive, behavioral) of rhinos is poorly known.
- (5) The definition of conservation units has significant impact on the biological and economics of rhino conservation.

-- Tom Foose

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10. Paglia, D.E. R.E. Miller: Erythrocytes of the black rhinoceros: susceptibility to oxidant-induced hemolysis. *Int. Zoo Yrbk.* 32:20-27, 1994.
  11. Penzhorn, B.L., N.P.J. Kriek (Eds.): Rhinos as game ranch animals. Onderstepoort, South Africa: University of Pretoria, 1994.
  12. Ramsay, E.Z. Z.Z. Zainuddin: Infectious diseases of the rhinoceros and tapir. In *Zoo and Wildlife Medicine*, M.E. Fowler (ed.), Philadelphia: W.B. Saunders Co., Pp. 458-466, 1993.
  13. Silberman, M.S., R.B. Fulton: Medical problems of captive and wild rhinoceros - a review of the literature and personal experience. *J. Zoo An. Med.* 10:6-16, 1979.
  14. Van der Westhuizen, E.: African rhinoceros bibliography. Pretoria, South Africa: University of Pretoria, 1994.
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