

published since 1926 by the Zoological Society of San Diego, Inc.

MAY 1978 • Vol. LI — No. 5

IN THIS ISSUE

Another Horn to Toot (Indian Rhino) . . . . . 4
At the San Diego Wild Animal Park—Shows . . . . . 9
Adopt an Animal—Himalayan
Black Bear—Axis Deer . . . . . 10
Book Reviews: Breeding Dolphins . . . . .
A Guide to the Birds of Venezuela . . . . . 12
Safeguarding your Membership Privileges . . . . . 12
Members' Night at the Zoo . . . . . 12
Saving the Arabian Oryx . . . . . 13
Meeting the Challenge as General Manager . . . . . 16
Hal Barr Retires . . . . . 16
On the Botanical Side—
Preservation of Plant Species . . . . . 18

Front

Great Indian or Greater One-horned Rhinoceros
Rhinoceros unicornis
Once extensively distributed in the Gangetic plain,
India; today restricted to parts of the Amazon
Bengal and Assam in India.

Inside front

Squirrel Monkey
Samiri sciureus sciureus
The Guianas and throughout most of the Amazon
basin down to Bolivia.

Inside back

Cycad
Dion spinulosum
Mexico

Back

Cinereous Vulture
Aegyptus monachus
Mediterranean basin to eastern Asia.

Executive Editor Charles A. McLaughlin, Ph.D.

Editor Edna Heublein

Publications Assistant Katharine Garstka

Art and Design Robert Perine

Membership/Subscription—Box 271, San
Diego 92112; Tel. 231-1515, Ext. 244. Single
copy 75c. Subscription direct order only:
\$8.00 per year, \$22.00 for three years.
Foreign including Canada & Mexico, add
\$1.00 per year. ZOONOOZ is included in
every Zoological Society of San Diego
membership: Dual \$25.00, Single \$20.00 per
year. Rates for renewal received two
weeks before expiration of membership:
Dual \$19.00, Single \$14.00 per year.

Koala Club, for animal lovers 12 and
younger, \$3.50 per year.

Photographs—Unless otherwise credited,
San Diego Zoo photographs. Ron Garrison,
photographic supervisor; F. Don Schmidt,
photographer; Terry Ashford, photo techni-
cian. For photo fees and order forms, write
Zoo Photo Lab, Box 551, San Diego 92112;
or call (714) 231-1515.

Second class postage paid at San Diego, California, U.S.A., and at
additional mailing offices.

Copyright © 1978 Zoological Society of San Diego, Inc. All rights reserved.
Title "ZOONOOZ" Reg. U.S. Pat. Office.

Address — Balboa Park, San Diego, CA 92103.

Mailing address: P.O. Box 551, San Diego, CA 92112. Founded October 2,
1916, by Harry M. Wegeforth, M.D., as a private nonprofit corporation.

BOARD OF TRUSTEES

- President
J. Dallas Clark
First Vice-President
George L. Gildred
Second Vice-President
John M. Thornton
Secretary
Sheldon Campbell
Treasurer
Albert Eugene Trepte
Trustees
Ivor de Kirby
E. Minton Fetter, M.D.
Lucy L. Killea, Ph.D.
Lt. Gen. V. H. Krulak, USMC, ret.
John P. Scripps
Robert J. Sullivan
Milton G. Wegeforth
Trustees Emeritus
Anderson Borthwick
Howard L. Chernoff
Carl L. Hubbs, Ph.D.
Lester T. Olmstead
Counsel to Trustees
R. Sherman Platt

STAFF

- Director
Charles L. Bieler
Director Emeritus
Charles R. Schroeder, D.V.M.
Administrative Assistant
Anne Hall
Design/Graphics
Charles Faust, Dir.
Bill Noonan, Graphics
Development
Patrick O'Reilly
Education
Charles A. McLaughlin, Ph.D., Dir.
Marjorie Shaw, Librarian
Finance
Richard L. Binford, Controller
Governmental Affairs
Frederick Childress
Merchandising
Barbara Y. Sallar, Dir.
Pathologist
Gerald E. Cosgrove, M.D.
Personnel
Stanley P. Thompson, Dir.
Public Relations
Jay Wilson, Director
Carole Towne, Manager—Zoo
Suzanne Strassburger, Coord.—Park
Research
Kurt Benirschke, M.D., Dir.
Bill Lasley, Ph.D., Endocrinologist
Research Associate
Kenheim Stott, Jr.

SAN DIEGO ZOO

- General Manager/Asst. Director
Clayton G. Swanson
Operations
N. Kendall Marvin, Director
A. M. (Bud) Cappello, Food Service Mgr.
Ernest B. Chew, Horticulturist
Thomas M. Saporito, Constr./Maint. Mgr.
Kenneth S. Warfield, Transp. Mgr.
Children's Zoo
John W. Muth, Jr., Manager
Security
Robert H. Kerr, Chief
Veterinary Services
Phillip T. Robinson, D.V.M., Dir.
Philip K. Ensley, D.V.M.
Jane E. Meier, D.V.M.
Curators
General Curator
Charles A. McLaughlin, Ph.D.
Conservation
Clyde A. Hill

Herpetology

- James P. Bacon, Jr., Ph.D.
E. Schultz, Prin. Keeper

Mammalogy

- Mark S. Rich, Associate
Mark H. Bogart, Zoologist
J. Ken Willingham, Prin. Keeper

Ornithology

- Arthur Crane Risser, Jr., Ph.D.
Kerry A. Muller, Assistant
Kenton C. Lint, Emeritus
Roby Hewitt, Prin. Keeper

SAN DIEGO WILD ANIMAL PARK

- General Manager/Asst. Director
Barry Upson

Operations

- Donald D. Carlson, Transp. Maint./San. Mgr.
Louis N. Franco, Chief of Security
James A. Gibbons, Horticulture Mgr.
James A. Hallien, Food Service Mgr.
Ray P. Michael, Constr./Maint. Mgr.
Jack Williamson, Transp. Supvr.

General Curator

- James M. Dolan, Jr., Ph.D.
William B. Crytser, Animal Care Mgr.
Robert H. Grams, Animal Care Mgr.

Veterinary Services

- Lester S. Nelson, D.V.M., Director
J. E. Oosterhuis, D.V.M.

COMMITTEES

Animal Collection/Conservation

- Sheldon Campbell, Chmn.
Lucy L. Killea, Ph.D., V-Chmn.
Frederick Frye, M.D.
Louis Gluck, M.D.
Marvin L. Jones
V. H. Krulak, LTG (USMC, ret.)
Lois K. Lippold, Ph.D.
Purvis L. Martin, M.D.
Chris Parker, Ph.D.
J. Pete Schroeder, D.V.M.
Patricia Scollay, Ph.D.
Michael Soule, Ph.D.
W. R. Virden
Milton G. Wegeforth

Buildings & Grounds

- John M. Thornton, Chmn.
E. Minton Fetter, M.D., V-Chmn.
Oberlin J. Evenson
George L. Gildred
David M. Miller
Willis C. Pflugh
William B. Rick
David Roberts
Edward T. Simms, Jr.
Joseph F. Sinnott
James B. Still
Robert J. Sullivan
Ross D. Wilson

Development

- J. Dallas Clark, Chmn.
George L. Gildred, V-Chmn.
J. Peter Fitzpatrick, D.D.S.
Paul L. Hoefler
Eileen Jackson
Joseph B. Jennings
Jerald P. Lewis
Maurice A. Machris
John A. McColl
William H. Muchnic
John P. Scripps
Fred Sharp
James Sheehan
Thomas N. Warner
Milton G. Wegeforth

Education

- Lucy L. Killea, Ph.D., Chmn.
John M. Thornton, V-Chmn.
Judith J. Carter
Martin N. Chamberlain, Ph.D.
Barbara A. Christensen
Stanley de Traville
Clifford T. Fredrickson
John K. Gessel
Thomas L. Goodman, Ph.D.
Evelyn R. Hauser
Robert L. Matthews, Ph.D.
Allen J. Repashy, Ph.D.

Education (cont.)

- John P. Scripps
Larry H. Upp
Robert A. Wade

Finance

- A. Eugene Trepte, Chmn.
V. Krulak, LTG (USMC, ret.), V-Chmn.
Ivor de Kirby
George L. Gildred

Membership

- Robert J. Sullivan, Chmn.
Fred Sharp, V-Chmn.
Sheldon Campbell
William M. Cartwright
Edwin T. Coman, Jr.
Edward H. Hinkle
Lillian Nielsen
John P. Scripps
Euphemia Warren

Personnel/Organization

- John M. Thornton, Chmn.
A. Eugene Trepte, V-Chmn.
Charles Blake
Fred S. Hage, Jr.
T. M. Heggland
Vincent Nares
Priscilla Simms
Devon Smith
Robert J. Sullivan

Public Relations/Marketing

- George L. Gildred, Chmn.
Ivor de Kirby, V-Chmn.
Albert Anderson, D.D.S.
Charles E. Brauel
Stephen P. Cushman
Bill L. Fox
Arthur J. Jacobs
Joseph E. Jessop, Jr.
Oscar J. Kaplan, Ph.D.
V. H. Krulak, LTG (USMC, ret.)
H. Carey Pratt, M.D.
Richard W. Tullar
Milton G. Wegeforth

Research

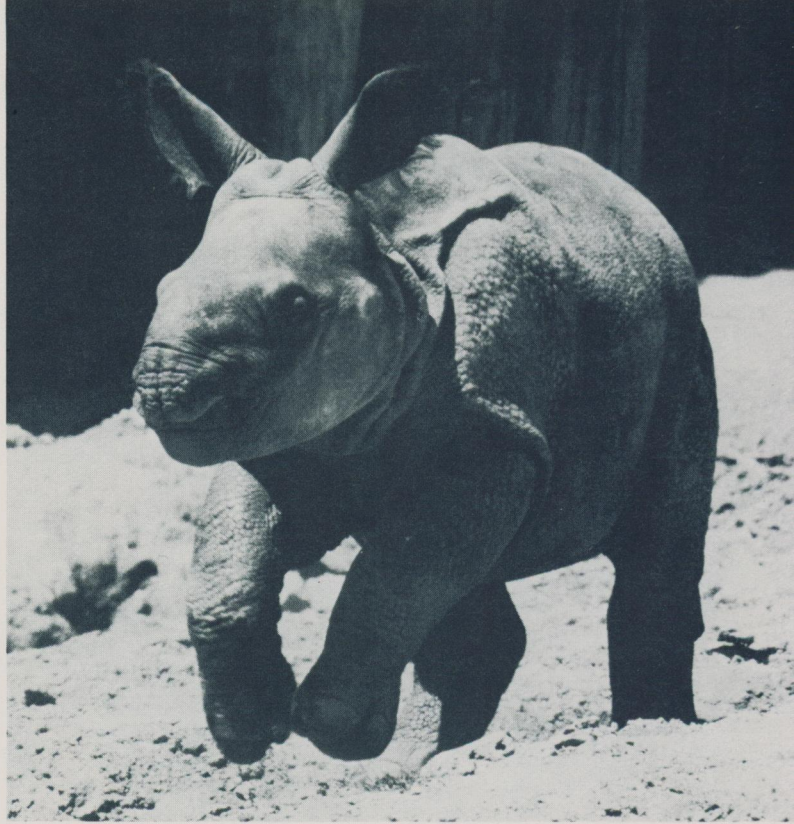
- E. Minton Fetter, M.D., Chmn.
Sheldon Campbell, V-Chmn.
Elizabeth Barrett-Connor, M.D.
Denis L. Fox, Ph.D.
Carl L. Hubbs, Ph.D.
Lucy L. Killea, Ph.D.
Donald Lindburg, Ph.D.
Lee S. Monroe, M.D.
Sam H. Ridgway, D.V.M., Ph.D.
Charles R. Schroeder, D.V.M.
John P. Scripps
Robert F. Smith
Bernice M. Wenzel, Ph.D.
Arne N. Wick, Ph.D.

Wild Animal Park Planning

- A. Eugene Trepte, Chmn.
Robert J. Sullivan, V-Chmn.
Elizabeth Adams
J. Ray Baker
Robert K. Cleator
E. Minton Fetter, M.D.
Frederick Liebhardt
Donald C. Smutz
John M. Thornton

Zoo Planning

- V. H. Krulak, LTG (USMC, ret.), Chmn.
Milton G. Wegeforth, V-Chmn.
Sheldon Campbell
Ivor de Kirby
Roy Drew
Scott A. Jones
Klonie Kunzel
Daniel G. McKinney
Harold B. Starkey, Jr.



---

*Kenhelm W. Stott, Jr.*  
RESEARCH ASSOCIATE

---

AT THE EDGE of a clearing in the forest, half a dozen tourist-laden elephants swayed nervously as they stood in a row. In the distance, we could hear the sounds of other elephants, trumpeting and crashing through the vegetation, and a second set of noises — the thumping of heavy feet accompanied by great chuffing blasts of air.

Suddenly, two Indian Rhinoceroses, *Rhinoceros unicornis*, burst into the clearing. A female with a youngster about the size of a Volkswagen Beetle paused in our view, seemingly aware of our presence or that of our elephants. Such detection must have been due to acute senses of smell and hearing, for rhinoceros vision is notoriously poor. Instead of displaying fear, mother and child appeared to suffer minor annoyance or a degree of righteous indignation. This sort of command performance in Royal Chitawan National Park in Nepal's Rapti Valley has been a regular affair for years. Tourists, upon arriving at the nearby airstrip, ride to Tiger Tops on elephants, while a second batch of elephants and their mahouts literally beat the bush, so the guests stand a good chance of seeing Indian Rhinos within moments of entering the park.

Huffing and puffing as they went, mother and her precious offspring trotted across the clearing, then plunged into the forest beyond. The "beater" elephants came into view and our own mounts seemed obviously relieved.

The Indian Rhino grows a single, short horn; 24 inches is a record for a large bull, but 15 inches is about average. Thus, the horn is not nearly so serviceable as a weapon as those of the long-horned African species. Instead, Indian Rhinos resort to biting with their large, broad teeth. They are capable of inflicting serious wounds upon any elephant so unwise as to venture

# ANOTHER HORN TO TOOT

too close or upon other rhinos during territorial or even romantic disputes. Both tame elephants and wild rhinos bear scars as evidence of past conflict. Riding elephants both in Nepal and in Assam's Kaziranga Wildlife Reserve must be specially trained not to bolt and run when a rhino appears nearby.

No matter how common a cliché it has become, the initial reaction of any person to a wild Indian Rhino must be a comparison with monsters of a bygone era,



"Gainda" is the Hindi word meaning rhinoceros. On Friday, 24 March, Jaypuri and her newborn female calf, Gainda, were released from the maternity boma into their exercise yard for the first time since Gainda's birth on 18 March. They remained outdoors for one hour and forty minutes, during which time they were both very active, Gainda spending the majority of her time exploring her new surroundings. Since their first release, the mother and calf have been allowed outdoors (weather permitting) for several hours each day. Like all young animals, Gainda is very playful, running, jumping, spinning and charging her mother during the outings. Gainda appears to be extremely healthy and the outlook is good for her to grow to maturity and someday contribute to the survival of the Indian Rhinoceros.



even that of the Great Age of Reptiles, for the Indian Rhino is a living relic. A great bulky creature that may stand six feet high at the shoulder, it appears to be constructed of carefully fitted sections of pebbled armor plating. It is the fourth-largest existing land mammal, exceeded in size only by Asiatic and African elephants, and the White Rhinoceros, *Ceratotherium simum*, of central and southeastern Africa.

The Indian, or Great Indian Rhino, as it is some-

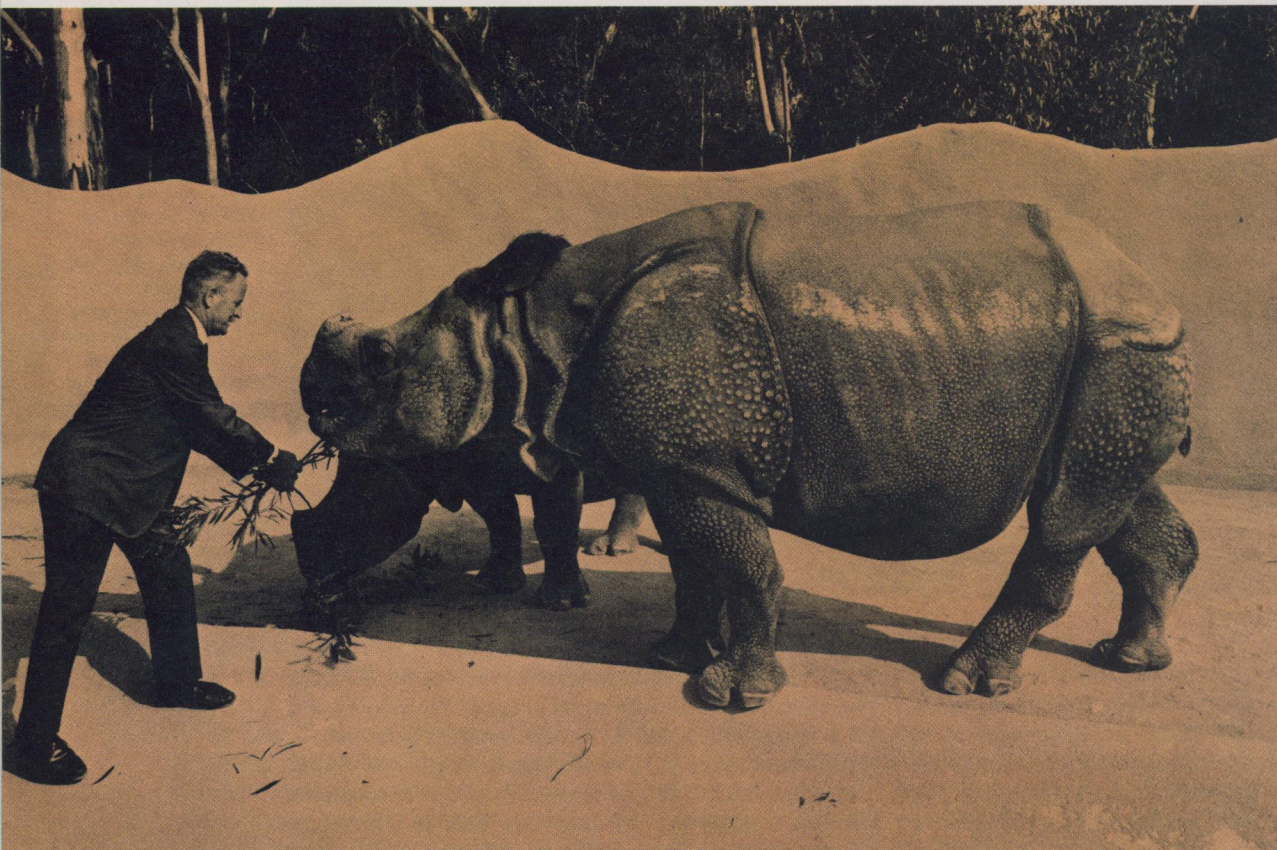
times called, once ranged from the foothills of Hindu Kush east across India's vast Gangetic Plain to Assam — and possibly beyond. To the north it occurred in considerable numbers in the terai country of Nepal and occasionally strayed (and still does) into southern Bhutan from North Bengal. The past extent of its eastern range is less easily established, due to the former presence of a similar and closely related form, the Javan or Lesser One-horned Rhinoceros,

*Rhinoceros sondaicus*. Now limited mainly to Java's Ujung Kulon sanctuary, the latter species within recent times occurred throughout southeastern Asia as far west as Assam. While the Indian Rhino prefers grasslands or swamps and is predominantly a grazing animal, the Javan opts for a forest habitat and is a browser. Each form, however, frequently invaded the preferred habitat of the other, but whether their ranges overlapped is questionable. Certainly, their physical differences were not obvious to the untrained eye. The Lesser One-horned is really not that much "lesser," a matter of a few inches, and its horn is not that much shorter. It, too, has armor-plating, though not so obviously pebbled, and its most distinguishing mark is a fold of skin on the front of the shoulders that completely crosses the lower nape. On the Indian Rhino, this fold is incomplete. Now the Lesser has all but disappeared from the mainland; it is represented primarily by a viable breeding population of 40 to 50 animals in Java.

---

*Prof. Dr. Ernst M. Lang for many years has been active in the conservation field. As director of the Basle Zoo in Switzerland, he started the propagation of the Great Indian Rhino in captivity over twenty years ago. This photo shows him at the San Diego Zoo on 30 April 1966, feeding Lasai, the father of Gaiinda. In the January 1967 issue of ZOOZ he told about Lasai's family background: The successful breeding colony of Indian Rhinos began at Basle with the arrival of a male, Gadadhar, in 1951, and his mate, Joymothi, in 1952. Lasai was born 31 August 1962 and arrived at the San Diego Zoo on 12 October 1963. Lasai means "chubby" or "the fat one."*

*Jaypuri, in the background, was born at Gauhati, Assam, on 10 July 1963 and arrived at the San Diego Zoo on 28 February 1965. The name Jaypuri has been translated as "untidy girl."*





*Gainda scampers around the exercise yard under the watchful eye of Jaypuri. In the background is a glimpse of the Arabian Oryx, see p. 13.*

The plight of the Indian Rhino is less critical. Recent estimates indicate that between 1000 and 1100 animals survive in the wild. Of these, about 700 exist in Kaziranga, 100 in other Indian reserves, and from 100 to 250 in Nepal, depending upon which estimate one accepts. The species is still subject to poaching, however vigilantly protected by various governments and game departments. The rhinos also fall victim to drowning in floods, and to diseases introduced by domestic stock that wanders into parklands regardless of illegality.

Always rare in captivity, the Indian species has been bred in several zoos including those at Whipsnade,

Stuttgart, Basle, the National Zoo in Washington, D.C., and now at last in San Diego's Wild Animal Park.

On Sunday, 18 March 1978, Jaypuri, an animal imported from Gauhati, Assam, on 10 July 1963, gave birth to Gainda, a 120-pound female calf. Jaypuri had given birth previously to two infants, neither of which survived due to a complexity of medical and meteorological conditions. The new infant is thriving under the care of its doting mother. Isolated in maternity quarters, it has not as yet been introduced to its father, Lasai, who was born in the Basle Zoo on 31 August 1962. Lasai would doubtless be quite "underwhelmed" by the youngster, since Indian Rhinos are non-

gregarious and child rearing is left entirely to the mother. In the wild it is not uncommon to see half a dozen rhinos in a relatively small swampy area, each behaving as if none of the others existed. More commonly, they are encountered singly or a mother with young, and more rarely a pair of adults.

With the arrival of Gainda, the Wild Animal Park has bred successfully three forms of rhinoceros. The African Black Rhino, *Diceros bicornis*, is represented, and innumerable Southern White Rhino, *C.s. simum*, infants have been born. Efforts to encourage the Park's two Northern White Rhinos, *C.s. cottoni*, to reproduce, may yet be successful.

It is heartening, during a period in which one form of wildlife after another has passed beyond the brink of extinction, that Indian and Southern White Rhinos are at present reasonably secure both in the wild and in captivity. Yet among all five species of rhino, relentless poaching continues. The Asian Two-horned or Sumatran Rhino, *Dicerorhinus sumatrensis*, only decades ago ranged from Chitawan east throughout southeastern Asia, as well as on the islands of Sumatra and Borneo. Now it, like the Lesser One-horned, has almost van-

ished from the mainland; on Borneo it may survive only in Sabah, and on Sumatra its numbers and habitat continue to shrink.

The principal factor in the rhino decimation process is a matter of mere superstition. Powdered rhino horn from any species is highly valued as an aphrodisiac by certain Chinese, though the horns from Asian species bring higher prices. Since the drastic decline in numbers of Asian rhinos, the continuing demand for rhino horn of any sort has accelerated, with the result that the recently abundant African Black Rhino has been sharply reduced numerically throughout its range. Hindus prize rhino urine as an antiseptic, and Gurkhas attribute special qualities to the animal's flesh, blood, milk, and even water poured from a rhino-horn cup. Well publicized scientific reports have unequivocally rejected any medicinal value of rhino horn or any other rhino parts or fluids. Yet superstitions die hard, and rhino poaching flourishes in almost every region where these magnificent creatures still occur. It is far from inconceivable that eventually rhinos of each species will be perpetuated only in such man-made sanctuaries as zoos or animal parks. ■

Above: Keeper David Gonzales feeds Lasai an apple. Lasai remains friendly toward his keepers and they usually carry a treat for him when they go out to the Indian Plains area. Below: Steven Joines (l) with Keepers Bill Boggeln and Dave Gonzales were checking on Baby Gainda and her mother when Lasai came over to greet the visitors.

