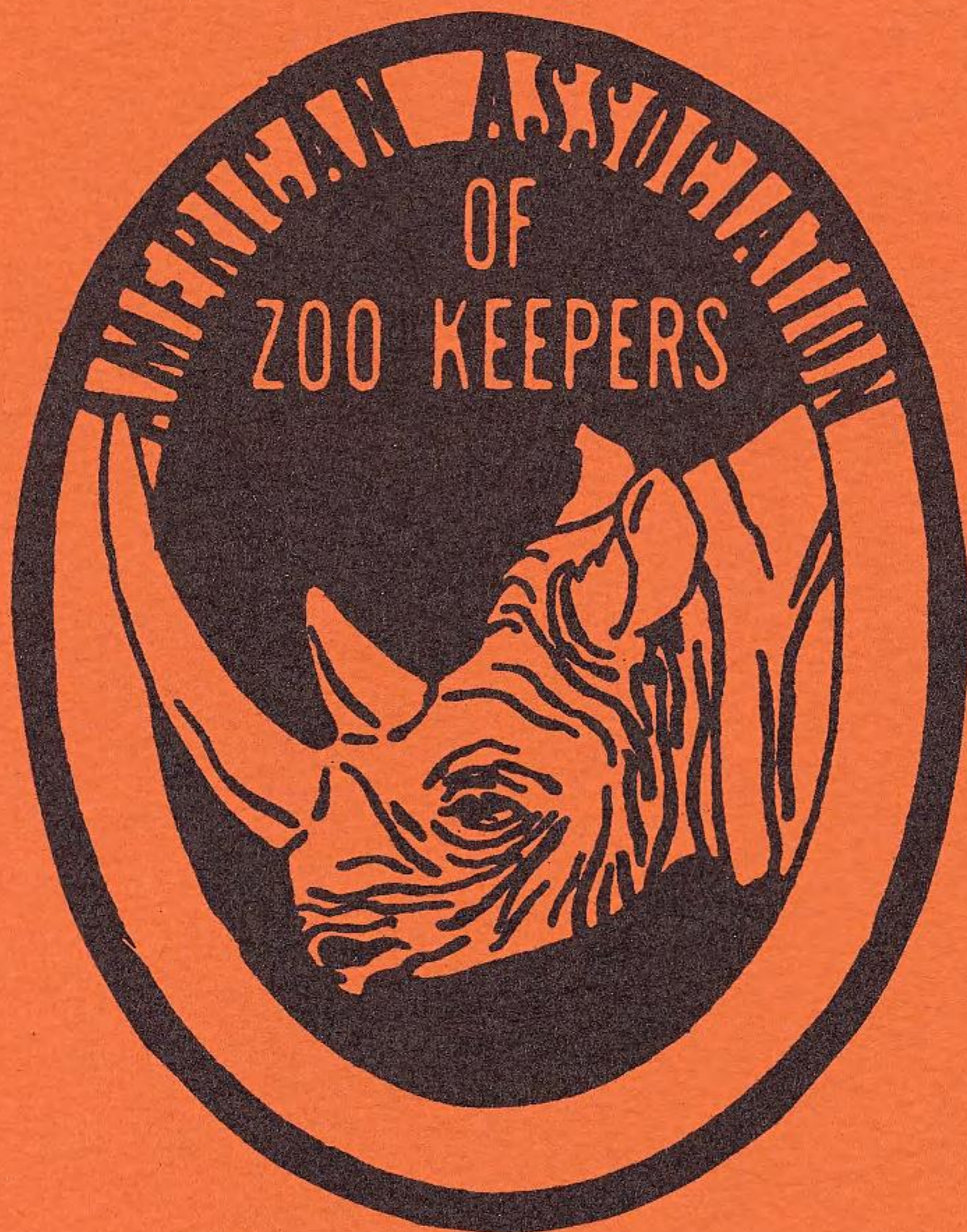


# THE **KEEPER**

BÉLA J. DEMETER

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TABLE OF CONTENTS

Editorial . . . . .	124
Hand-raising Hoofed Animals: Part I by Steve Taylor . . . . .	125
Keeping Kingsnakes by Ron Markel . . . . .	129
Tapirs in the U.S. by Robert and Sheryl Wilson . . . . .	131
Indian and Sumatran Rhinos by Michael Dee . . . . .	134
Keepers Korner by Ed Roberts . . . . .	137
Palawan Peacock Pheasant by Mickey Barrett . . . . .	139
Behind the Guardrail (Edited by Larry Sammarco) . . . . .	140
Notes from AAZK Headquarters . . . . .	141
1974 Tri-Zoo AAZK Conference . . . . .	142

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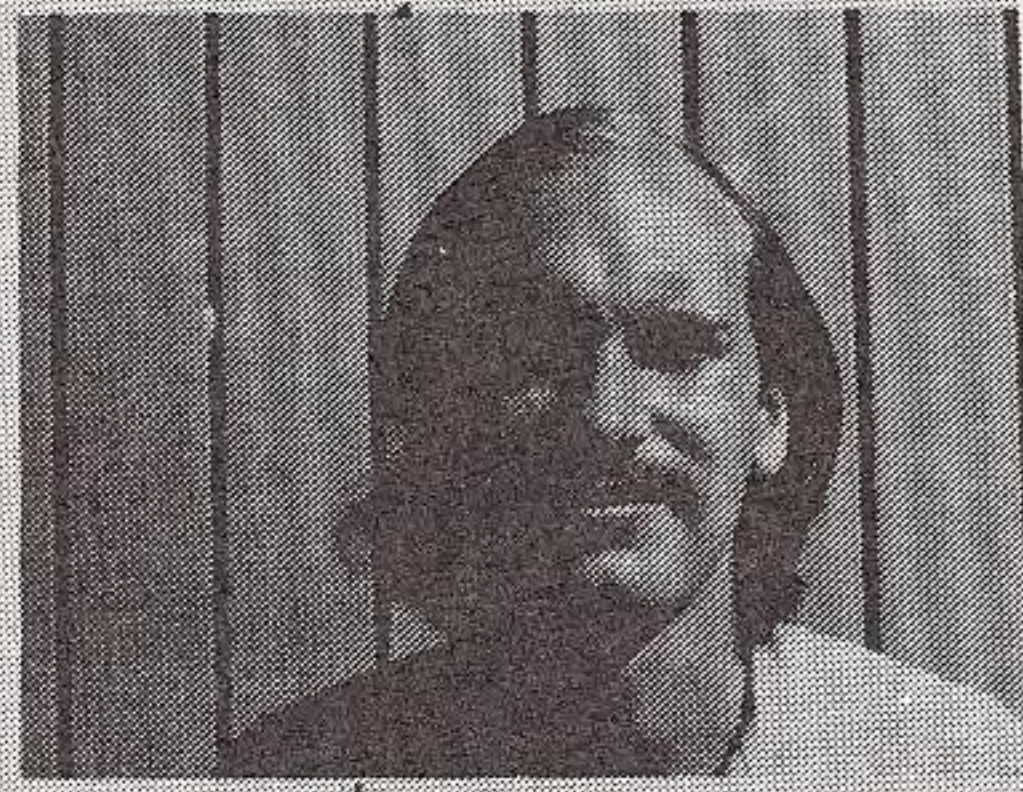
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## Indian and Sumatran Rhinos in Captivity

By Michael Dee, Los Angeles Zoo

The Indian rhino is one among many animals listed as an endangered species by the I.U.C.N. because of widespread habitat destruction. The belief that the horn has aphrodisiac qualities for man only adds to the problem.

Indian rhinos have been kept in captivity since Roman times. The first Indian rhino to be exhibited in a zoological park was purchased from P.T. Barnum's Great Roman Hippodrome by the Philadelphia Zoo in 1875. This particular animal lived 26 years in the zoo. This species can attain 50-plus years and weigh 8,000 pounds, with an average weight of 4,000 to 5,000 pounds. The males become sexually mature at 7-9 years and females at 3-4 years.

The young female at the Los Angeles Zoo came into oestrus for the first time in January of 1973. She was purchased in 1969 at the approximate age of 3-years (although I believe she was much younger due to her apparent small size and weight). This means she would be almost 7 years before she had a heat period; this differs from Lang's observations by 3 years. I've been the keeper on the Indian rhino string for over 3 years, and did not see any signs of a heat period until January. As far as I can determine, her cycles are every 48-days. At no time did she spray her urine horizontally as had been seen in our other female (now dead). The heat periods have only lasted 1-day and she makes the characteristic high pitched "whistle". During her heat periods, she is not interested in food, possibly one more sign to indicate oestrus.

The first recorded birth of this species in captivity was in 1925 at the Alipore Zoo in Calcutta, India. This animal did not live very long (a few hours) and it wasn't until 1956 that this species was bred and raised in captivity. Since then, about 20 have been bred in zoos worldwide. So far, the only birth recorded in the U.S. was a stillborn female at the Milwaukee Zoo in 1967. To my knowledge, this is the only "captive-bred" pair in the world to produce offspring, even though stillborn.

The average gestation is about 477 days, with fetal movements visible about 340 days (Lang). Because of this long gestation, females can only raise young every 2-3 years. At birth, juveniles weigh between 130 and 150 pounds. Milwaukee's stillborn weighed 125 pounds.

The Indian rhinos at the Los Angeles Zoo are fed once a day and they receive oat hay, apples, herbivore pellets, lettuce, selery, carrots and grapes. Crandall states alfalfa hay and bread plus assorted fruits and vegetables. Our male receives 6 large flakes of hay and the female receives 3 flakes.

The following U.S. zoos now have Indian rhinos on exhibit: Brownsville, Los

Angeles, Miami, Milwaukee, Omaha, Philadelphia, San Diego (San Pasqual), and Washington D.C. Other U.S. zoos that have exhibited Indian rhinos in the past but no longer do are: Cincinnati, New York, St. Louis, Busch Gardens (Houston) and Brookfield.

I would like to thank Mr. Marvin Jones and Mr. Russell Mittermeier for the translations of Dr. Lang's work.

The Sumatran rhinoceros is the smallest living rhino; mature specimens are rarely over 4½ feet at the shoulder. The weight is about 1 ton and 8 to 9 feet long, as compared to the Indian rhinoceros (*Rhinoceros unicornis*) at 2-3 tons and 14 feet long. This species is the only Asian rhino with two horns and hair clearly visible on the body, although the hair is reported to thin out as the animal matures. The anterior horn grows to a maximum of 15-20 inches in adult males, but the posterior horn is usually only a small protrusion or appears to be lacking altogether (the author has pictures of Sumatran rhinos taken in the wild that will attest to this). Three subspecies are recognized (Groves and Kurt 1972)

This species is one of the rarest mammals alive today; estimates vary between 100 and 170 individuals left. This is due, no doubt, to habitat destruction and again as all the rhinos (especially the Asian species) are being destroyed for the "fabled" value of the horn. Less than 100 years ago, this species was considered "common" in some parts of its range. Its former range included parts of India and Pakistan, all of Burma, Thailand, Cambodia, Laos, Viet Nam, Malaya, Sumatra and Borneo. Now, it can be considered extinct throughout most of its former range.

All rhinos love to wallow, and the Sumatran is no exception. Talbot (1960) observed wallows 6 to 12 feet long and 3-5 feet wide, most of which were found on steep slopes. A picture in *Animals Magazine* (no date) shows a Sumatran rhino that was captured at the same time as "Subur", the famous Copenhagen rhino in a wallow completely covered with mud, only the nostrils are plainly visible. These rhinos are reported to feed in the early and late hours of the day, spending the better part of the day in a wallow.

At the present time, there are no Sumatran rhinos in captivity. "Subur" of Copenhagen Zoo, died in 1972. "Subur" was captured in 1959, along with two other females and a male near Pekanbaru, Western Sumatra. The male escaped, and the females went to Basel (died in 1963), Bogar, Java (death date unknown), and Copenhagen. The last Sumatran rhinos to be exhibited in a zoo in the U.S. was the Bronx in 1902; it was on display for 9 months and then sold to the Ringling Brothers Circus. The Philadelphia Zoo bought a pair in 1952, but these both died before reaching the U.S. The species is somewhat unadaptable in captivity, most living only a few years, although one was reported to have lived for 32 years in the London Zoo.

Oddly enough, the Sumatran rhino was the first rhino to breed and produce offspring in captivity. This happened in 1889 in the Alipore Zoo in Calcutta, India. Two other births have occurred, to females bred in the wild; one of the calves was

born in the docks at London! Apparently, no one has the correct gestation period of this species; 7 months has been given which is much too short when comparing the other species (15-28 months).

Food consists of fruit, leaves, twigs and bark in the wild. In Copenhagen, "Suburs" diet consisted of beets, apples, alfalfa hay, a loaf of rye bread and a few bananas.

As previously stated, the Sumatran rhino is a very rare mammal; only 55 animals have been observed in captivity. The *Dicerorhinus* genus gave rise to all the living *Rhinocerotidae* and it closely resembles certain *Miocene*. In this, it can be regarded as a living fossil. How will mankind insure the survival of this rare and endangered species? Indeed, how will he insure the survival of all species of animal life?

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#### EUROPEAN ZOO KEEPER ASSOCIATION IN THE MAKING

Dick Sweeney, AAZK Hq., has been assisting Mr. Frans Witbols Feugen of Ederveen, Holland, in the initial steps of developing a European Keepers association. Mr. Witsbol Feugen will leave for England (from Holland) in December to meet with zoo directors and keepers to formulate an organizational committee. AAZK wishes EAZK a very successful beginning, and each of us affiliated with AAZK can be proud of this international influence that our organization has stimulated. News of EAZK will appear in future editions of THE KEEPER.