AAZPA LIBRARIANS SPECIAL INTEREST GROUP - BIBLIOGRAPHY SERVICE

The bibliography is provided as a service of the AAZPA LIBRARIANS SPECIAL INTEREST GROUP (LSIG) and THE CONSORTIUM OF AQUARIUMS, UNIVERSITIES AND ZOOS (C.A.U.Z.).

TITLE:	The White Rhinoceros ( <u>Ceratotherium simum</u> ) - A Bibliography
AUTHOR &	
INSTITUTION:	Roger William Iles & Elizabeth Smallwood Comeaux [for Dr. Martha Ward, University of New Orleans]
	Provided by Wendy Stroud, Audubon Park and Zoological Garden
DATE:	March 1, 1984

The following bibliography on the white rhinoceros (<u>Ceratotherium simum</u>) is subdivided into the following categories:

General-----page 2

Morphology and Physiology-----page 2

Social Behavior-----page 5

Pathology and Medical Care-----page 6

Reproduction and Growth-----page 9

Immobilization and Translocation---page 10

Miscellaneous-----page 12

## BIBLIOGRAPHY ON THE WHITE RHINOCEROS (CERATOTHERIUM SIMUM)

#### GENERAL

Anonymous. 1978. Northern white rhinoceros. <u>IUCN Red Data Book</u>.

Foster, W.E. 1960. The square-lipped rhinoceros. Lammergeyer, 1:25-35.

Groves, C.P. 1972. Ceratotherium simum. Mamm. Species, 8:1-6.

A general discussion of Ceratotherium simum including data on distribution, fossil record, form, function, reproduction, ecology, behavior and genetics.

-----. 1975. Taxonomic notes of the white rhinoceros (<u>Ceratotherium simum</u>). <u>Saeugetierk Mitt</u>, 23(3):200-212.

A discussion and description of the differences between the two subspecies of Ceratotherium and analysis of the evolution of the species.

Jones, D.M. 1979. The husbandry and veterinary care of captive rhinoceroses. <u>International Zoo Yearbook</u>, 19:239-252.

General husbandry, nutrition, breeding, handling and transportation, clinical pathology, parasites, and systemic medicine for captive rhinoceroses.

Owen-Smith, R.N. 1975. The social ethology of the white rhinoceros (<u>Ceratotherium simum</u>). <u>Zeischrift fur</u> <u>Tierpsychol</u>, 38(4):337-384.

Comprehensive results of a three and one half year study of the social system of two thousand white rhinoceroses in Zululand's Umfolozi Game Reserve. Included are discussions on evolution, physiology, ecology, morphology, nutrition and reproduction.

Player, I. and J. M. Feely.1960. A preliminary report on the<br/>simum).square-lipped rhinoceros (Ceratatherium<br/>1:3-22.

Steele, N. 1969. Our zoological collections - Mammal operations - Rhinoceros. <u>Zoo</u> (Antwerp), 35(11):5-10.

# MORPHOLOGY AND PHYSIOLOGY

Alexander A. and I.C. Player. 1965. A note on the nucal hump of the ( <u>Ceratotherium simum</u> ). <u>Lammergeyer</u> , 3(2):1-9.	square-lipped rhinoceros
Allbrook D.B., A.M. Harthoorn, C.P. Luck and P.G. Wright. 1958. rhinoceros. Journal of Physiology, 143:51-52.	Temperature regulation in the white
Aumonier, F. and A. J. E. Cave. 1959. A note on the visceral histology <u>Microscopical Society</u> , 78:120-122. This is the first presentation of histological details of the visera of <u>Cerator</u>	of <u>Ceratotherium</u> . <u>Journal of the Royal</u> herium.
Cave, A.J.E. and D.B. Allbrook. 1959. The skin and nuchal eminence of the Zoological Society of London, 132:99.	the white rhinoceros. Proceedings of
and F.J. Aumonier. 1962. Elephant and rhinoceros lymph node <u>Microscopical Society</u> , 8O:209.	histology. Journal of the Royal
1962. The pedal scent gland in rhinoceroses. <u>Proceedings of</u> 139:685-690.	the Zoological Society of London,
1964a. The thymus gland in three genera of rhinoceros. <u>of London</u> , 142(1):73-83.	Proceedings of the Zoological Society
1964b. The processus glandis in the Rhinocerotidae. <u>Processus</u> <u>London</u> , 143(4):569-586.	edings of the Zoological Society of
and F.A. Aumonier. 1964. Lymph node structure in <u>Ceratotherium</u> . <u>Microscopical Society</u> , 83:425-431.	
The range of normal histological variation shown by the several node-grou All nodes proved to be of the haemolymph variety.	ps is given for <u>Ceratotherium simum</u> .
1966. The preputial glands of <u>Ceratotherium</u> . <u>Mammalia</u> , 30:153 A description of certain preputial glands found in <u>Ceratotherium</u> but not constructed of a dense mass of lymphoid tissue with a large eccrine sweat g depression on the papilla lies the ostium of the gland duct.	found in <u>Diceros</u> . These glands are
1969. Hairs and vibrissae in the Rhinocerotidae. Journal of	<u>Zoology</u> , 157:247.
1974. The epiphoryngeal buras in the Rhinocerotidae. Journal of	<u>Zoology</u> , 172(1):133-145.
1975. Postcava structure in elephant and rhinoceros. Journal of	Zoology, 176(4):559-565.

1976. The thryoid and parathyroid glands in the Rhinocerotidae. <u>Journal of Zoology</u>, 178:413-442.
1977. Observations on rhinoceros tongue morphology. <u>Journal of Zoology</u>, 181(2):265-284.

-----. 1979a. The rhinoceros faucial and laryngo-pharyngeal tonsils." <u>Journal of Zoology</u>, 187(4):471-504. A description and discussion of the tonsillar formations in the lateral food channel of the rhinoceros including <u>Ceratotherium simum</u>. Also discussed is the anatomy and morphologic significance of the hitherto unrecognized organ, the laryngopharyngeal tonsil which is functionally supplemental to the faucial tonsil.

Journal of Zoology, 185:13-26.

-----. 1979b. The mammalian temporo pterygoid ligament. <u>Journal of Zoology</u>, 188(4):517-532. A structural and functional account of the generally unrecognized fascial ligament, the temporo-pterygoidium found in eutherian mammals, including <u>Ceratotherium simum</u>. This ligament is responsible for the development of the Eustachian process and hammular process to which it is attached.

-----. 1980. The rhinoceros lingual intrinsic musculature. <u>Mammalia</u>, 44(1):123-128. A description of the anatomical relationship between the intrinsic and extrinsic muscles of the rhinoceros tongue. The relationship is one of continuity and in this respect resembles the horse tongue.

1981. Observations of the rhinoceros cardiac receptor system	m." <u>Journal of Zoology</u> , 195:243-254.
1982. Note on rhinoceros salivary glands. Journal of Zoolo	ngy, 196(1):53-61.
and D. B. Allbrook. 1958. Epidermal structures in a rhinoce 182:196-197.	ros ( <u>Ceratotherium simum</u> ). <u>Nature</u> ,
and F.J. Aumonier. 1966. Parathyroid histology in the	Rhinocerotidae. Journal of the Royal

Dove, William Franklin. 1935. The physiology of horn growth: a study of the morphogenesis, the interaction of tissues, and the evolutionary processes of a Mendelian recessive character by means of transplantation of tissues. Journal of Experimental Zoology, 69(3):347-405.

Groves, Colin P. 1971. Species characters in rhinoceros horns. Zeitschrift für Saugetierkunde, 36(4):238-252.

Microscopical Society,

84(1):51-57.

-----. 1978. Observations upon rhinoceros cervical lymphatics.

Hanson, K.M. 1976. Q bands of some chromosomes of the white rhinoceros (Diceros simum). Hereditas, 82(2):205-208.

Heinichen, Irmgard Gudrun.1967. Karyotype of Ceratotherium simumand Equus zebra zebra:preliminary note.Journal of the SouthAfrican Veterinary Medical Association, 38(3):247-248.

-----. 1969. Karyological studies on southern African Perissodactyla. Journal of the South African Veterinary Medical Association, 40(1):99-100. Hiley, P.G. 1977. The thermo regulatory response of the rhinoceros Diceros bicornis and Ceratotherium simum and the zebra Equus burchelli to diurnal temperature change. East African Wildlife Journal, 15(4):337-338. Hutchenson, G.E. and S. Dillon Ripley. 1954. Gene dispersal and the ethology of the Rhinocerotidae. Evolution, 8(2):178-179. Kloes, H.G. 1969. On the period of horn replacement in the square-lipped rhinoceros (Ceratotherium 36(4-5):246-250. simum). Zool. Gart., Lynch, L.J., V. Robinson and C.A. Anderson. 1973. A scanning electron microscope study of the morphology of rhinoceros horn. Australian Journal of Biological Sciences, 26(2):395-399. Osterhoff, D.R. and Michael E. Keep. 1970. Natural variation in the blood proteins of white and black rhinos. Lammergeyer, 11:50-53.

[See also Groves 1972 and Owen-Smith 1975 in the General Section.]

### SOCIAL BEHAVIOR

Bigalke, R.T., D. de Vos, and K. de Waard. 1950. Observations on a juvenile female square-lipped or white rhinoceros (<u>Ceratotherium</u>) in the National Zoological Gardens of South Africa. <u>Proceedings of the Zoological Society of London</u>, 120:519-528.

Bigalke, R. 1960. White rhinoceroses at the Pretoria Zoo. <u>Int. Zoo</u> <u>Yearbook</u>, 2:43-44. A short discussion about the white rhinoceros at the Pretoria Zoo including data on weight, food consumption, wallowing behavior and defecation.

Condy, P. 1973. The population status, social behavior and daily activity pattern of the white rhinoceros in Kyle National Park, Rhodesia. M.S. Thesis, University of Rhodesia.

Foster, J.B. 1967. The square-lipped rhinoceros (<u>Ceratotherium simum cottoni</u>) in Uganda. <u>East African</u> <u>Wildlife Journal</u>, 5:167-170.

Field notes on the white rhinoceros located in the White Rhino Reserve in Uganda, including data on herd size, structure, movements and feeding.

Owen-Smith, N. 1971. Territoriality in the white rhinoceros (Ceratotherium simum). Nature (London), 251:294-296.

A discussion of the territorial system of <u>Ceratotherium simum</u> which is based on a space-correlated dominance

relationship in which breeding bulls defend individual areas against rivals, but will share these areas with subordinants.

Owen-Smith, N. 1972a. Dominance, territoriality and social organization in the white rhinoceros. <u>American Zool</u>., 12(4):644.

A brief summary of a motion picture that shows the results of the field study of white rhinoceros social organization and territoriality.

-----. 1974. The social system of the white rhinoceros. In V. Geist and F. Walter (eds.), <u>The Behaviour of</u> <u>Ungulates and Its Relation to</u> <u>Management</u>. IUCN Special Publications, 1(24):341-351.

-----. 1972b. Territoriality - the example of the white rhinoceros. <u>Zool Afr.</u>, 7(1):273-28O. Territoriality discussion including data on range exclusivity and sharing, dominance interactions, scent markings, reproductive exclusivity and methodological criteria for territoriality.

-----. 1975. The behavioral ecology of the white rhinoceros. Ph.D. Dissertation, University of Wisconsin.

Savridge, J. 1961. The introduction of white rhinoceroses into Murchiason Falls National Park, Uganda. <u>Oryx</u>, 6:184-189.

Stutterheim, C.J. 1980. Cleaning symbiosis involving pied crows and white rhino. Lammergeyer, 30:61.

Walther, F.R. 1974. Some reflections on expressive behavior in combat and courtship of certain horned ungulates. In: V. Geist and F. Walther, eds. <u>The Behavior of Ungulates and Its Relationship to</u> <u>Management</u>. IUCN Publications, New Series, #24.

[See also Groves 1972 and Owen-Smith 1975 in the General Section.]

### PATHOLOGY AND MEDICAL CARE

Bigalke, R.D., M.E. Keep, P.J. Keep, and J.H. Schoeman. 1970. A large

'<u>Babesia</u>' sp. and a '<u>Theileria</u>'-like piroplasm of the square-lipped rhinoceros. <u>Journal of South African</u> <u>Vet. Med Assoc.</u>, 41(4): 292-294.

A discussion of the parasitization of <u>Ceratotherium simum</u> by two different species of piroplasims. The parasites are (1) either a Theileria or a small Babesia sp. and (2) a large Babesia. This is the first recorded incidence of a large Babesia in white rhinoceroses.

Condy, J.B., J.O.K. McCullock, and J.W. Thompson. 1963. The treatment of eight square-lipped rhinoceroses (<u>Ceratotherium simum</u>) with an antihelmithic. <u>Journal of S. African Vet. Med. Assoc.</u>, 34:99-101. A discussion of the treatment of eight square-lipped rhinoceroses with dimethyl-hydroxytrichloroethyl phosphonate and the parasitical evidence obtained from pre- and post-treatment fecal egg counts.

DeVos, V. 1975. Death due to volvulus in a white rhinoceros (Ceratotherium simum) from the Kruger

National Park. <u>Koedoe</u>, (18):199-202.

Frape, D.L., M.G. Tuck, N.H. Sutcliffe and D.B. Jones. 1982. Use of inert markers in the measurement of the digestibility of cubed concentrates and of hay given in several proportions to the pony horse Equus caballus and white rhinoceros <u>Diceros simum</u>. <u>Comp.</u> <u>Biochem Physiol</u>. and <u>Comp. Physiol</u>., 72(1):77-84. The rate of passage of chromic oxide was similar in the pony and rhinoceros. Using 4N-HCl-insoluable ash, higher amounts digested were found. Normal conditions were maintained when rhinoceroses received 109KJ apparent DE per kg bodyweight daily.

Glover, Philip Earle and Daphne Sheldrick.1964. An urgent researchproblem on the elephant and rhinopopulations of the Tsavo NationalPark in Kenya.Bulletin of Epizootic Disease of Africa, 12(1):33-38.Haigh, J.C.1975. Case of a constipated rhino.Veterinary Record,97:282.

Harthoorn, A.M. and I.P. Player. 1964. The narcosis of the white rhinoceros, a series of eighteen case histories. <u>Proc. of the 5th</u> International Symp. Dis. Zoo Animal, 1963. Tyd Diergen, 89:225-29.

Hickman G.G. 1979. An inverted tooth in a white rhinoceros. Lammergeyer, 27:46-47.

Jones, E.M. and L.R. Thomselt. 1972. A short review of the diseases of the rhinoceros skin with case reports on an exudative dermatitis of the white rhinoceros (<u>Ceratotherium simum</u>). <u>Proc. Int. Symp. Zoo</u> Animal Diseases, 14:227-231.

A description of some skin abnormalities of the rhinoceros followed by a description of two severe cases of exudative dermatitis in a young female

<u>Ceratotherium simum</u>. Also included are the laboratory findings, the possible aetiology and treatment.

Keep, Michael E. 1970. A checklist of the blood parasites recorded from the larger wild mammals in Zululand. Lammergeyer, 11:54-57.

-----. 1971. Observable criteria for assessing the physical condition of the white rhinoceros (<u>Ceratotherium</u>) in the field. <u>Lammergeyer</u>, 13:25-28.

Miller, R.P. and Aehnelt. 1977. Application of ovine luteinizing hormone radioimmunoassay in the quantitation of luteinizing hormone in different mammalian species. Endocrinology, 101(3):760-768. A discussion on the use of a sensitive double antibody radioimmunoassay for quantitating luteinizing hormone in various African mammals.

Mugera, G.M. and J.G. Wandera. 1967. Degenerative polymyopathies in East African domestic and wild animals. <u>Veterinary Record</u>, 80(13):410-413.

Nandi, S.N. and S. Kumar Deb. 1972. Horn cancer in rhinoceroses.Indian Vet. Journal, 49:881-882.A description of a case of typical horn cancer in a captive rhinoceros in order to update the lack of literature on

neoplastic diseases of wild animals.

Nelson, Lester. 1978. Rhinocerotidae. In: Murray E. Fowler (ed.), Zoo and Wild Animal Medicine: xvi, 951. Philadelphia: W.B. Saunders.

Osterhoff, D.R. and M.E. Keep. 1970. Natural variation in the blood proteins of white and black rhinoceroses. Lammergeyer, (11):50-53.

Pilaski, J., K. Schaller, P. Olberdeng, and H. Fink. 1982. Characterization of a pox virus isolated from white rhinoceroses (Ceratotherium simum). <u>38th Meeting of the German Society of Hygiene and Microbiology</u>, Oct. 1981.

Rapley, W.A. and K.G. Mehren. 1975. The clinical usage of Rompun Xylazine in captive ungulates at the Metropolitan Toronto Zoo. <u>American Assoc. Zoo Vet. Annual Proc</u>. 1975:16-23. A discussion of the use of Xylazine and Rompun as a sedative for ungulates including <u>Ceratotherium simum</u>. Included are recommended techniques, darting procedures, general effects, disadvantages, problems, and combinat ons with other drugs.

Schmidt, Robert E. and D.A. Hartfiel. 1976. Disseminated bacterial infection in an infant rhinoceros. Journal of Zoo Animal Medicine, 7(2):15-17.

Seal, U.S., R. Barton, L. Mather and C.W. Gray. 1976. Baseline laboratory data for the white rhinoceros (<u>Ceratotherium simum</u>). Journal of Zoo Animal Med., 7(I):11-16. An analysis of the hematology, serum chemistry, plasma proteins and serum hormones of <u>Ceratotherium simum</u> <u>simum</u>.

Silberman, M.S. and R.B. Fulton. 1979. Medical problems of captive and wild rhinoceros - a review of the literature and personal experiences. Journal of Zoo Animal Medicine, 10(1):6-16.

Young, E. 1965. Lesions in the vicinity of the eye of the white rhinoceros. Int. Zoo Yearbook, 5:194-195.

Zumpt, Fritz. 1964. Parasites of the white and black rhinoceros. <u>Lammergeyer</u>, 3(1):59-70.

[See also Jones 1979 and Owen-Smith 1975 in the General Section.]

### REPRODUCTION AND GROWTH

Anonymous. 1970. Second white rhino born. <u>International Zoo News</u>, 17(5):168.

-----. 1971. White rhino born. International Zoo News, 18(5):175.

-----. 1973. Intensive care for baby rhinos. <u>Zoonooz</u>, San Diego, 46(2):16-18.

-----. 1976. White rhino birth. Zoonooz, San Diego, 49(12):15.

Bigalke, R. 1947. Pretoria Zoo has a baby rhinoceros. <u>Animal Kingdom</u>, 50(2):48-55.

Dittrich, L. 1971. Observations on the early growth of a white rhinoceros (<u>Ceratotherium simum</u>) in the Hannover Zoo. <u>Z</u> Koelner Zoo, 14(2):73-81.

-----. 1972. Birth and growth of a male white rhinoceros at Hanover Zoo. <u>Int. Zoo Yearbook</u>, 12:122-123. Discussion and tabular comparisons of the growth during the first nine months of a male whi&e rhinoceros born at Hanover Zoo, a male black rhinoceros born at Hanover and a female white rhinoceros born at Pretoria. Included in the tables are height, length of body, horns, ears, head and tail, girth, and weight.

-----. 1974. Teething in the black rhinoceros (<u>Diceros bicorni</u>) and the white rhinoceros (<u>Ceratotherium</u>). <u>Saeugetierk Mitt</u>, 22(4):289-295.

A description of the order and eruption times of the milk-teeth of a male black and a male white rhinoceros. In German.

Eriksen, Erik. 1977. Birth of two white rhinoceroses (<u>Ceratotherium</u> simum) at the Copenhagen Zoo. Zool Garten. N.F., Jena, 47(1),S:33-44.

A description of the mating and parturition of two white rhinoceros females and a discussion of the first three months post-partum behavior of the females and that of their calves. Emphasizes that the facilities at the Copenhagen Zoo are more restricted than the facilities that have had successful rhino births.

Fairall, N. 1968. The reproductive seasons of some animals in the Kruger National Park. <u>Zoologica</u> <u>Africana</u>, 3(2):189-210.

Hill, Clyde A. 1973a. Third white rhino baby born. International Zoo News, 20(1):23.

-----. 1973b. Fourth white rhino baby born. <u>International Zoo News</u>, 20(2):52.

Lang, Ernst M. 1972. Fertility problems in captive animals. <u>British</u> Veterinary Journal, 128(9):433-438.

Rawlins, G.G.C. 1977. The breeding of white rhinoceroses in captivity. <u>Proceedings A. Conf. iudzg</u>, 32:31-36.

Roney, Ernest E. Jr. 1972. White rhino birth at San Antonio. <u>AAZPA</u> Newsletter, 13(11):5.

Schaurte, W.T. 1969. On the birth of a square-lipped rhinoceros (Ceratotherium simum) in the

Krugersdorp Game Preserve in Transvaal S. Africa. <u>Saeugetierk Mitt</u>, 17(2):158-160. A discussion of the birth of a white rhinoceros and lists the exact gestation period to have been 484 days. In German.

Smith, L.J. 1968. A note on the birth of a white rhinoceros (<u>Diceros</u> simum). <u>Int. Zoo Yearbook</u>. A short review of the birth and post-natal behavior of a male calf at Pretoria Zoo.

-----. 1970. White rhino born. International Zoo News, 17(1):3.

Wallach, J.D. 1969. Hand rearing and observations of a white rhinoceros. <u>Int. Zoo Yearbook</u>, 9:103-104. A description of diet, body measurements, tooth eruption, heart rate and temperature of a captive female white rhinoceros calf.

[See also Groves 1972, Jones 1979 and Owen-Smith 1975 in the General Section.]

#### IMMOBILIZATION AND TRANSLOCATION

Anonymous. 1965. Rhinos come to Swaziland. Oryx, 8:32.

-----. 1968. Editors note on movement of square-lipped white rhinoceroses (<u>Ceratotherium simum simum</u>). Lammergeyer, 9:23-25.

-----. 1970a. White rhinos in Mozambique. Oryx, 10(4):257.

-----. 1970b. White rhinos at Whipsnade. <u>Oryx</u>, 10(5):325.

Bigalke, R. 1963. The extermination of the square-lipped or white rhinoceros (<u>Ceratotherium simum</u>) in Transvaal and its reintroduction: a historical and critical review. <u>Fauna and Flora</u>, Pretoria 14:5-14.

Bridges, William. 1962. Two square-lipped rhinoceroses come to the zoo. <u>A n i m a 1 K i n g d o m</u>, 65(5):146-150.

Condy, J.B. and E. Davison. 1964. The importation of eight square-lippedrhinoceroses (Ceratotherium<br/>sinum) to Southern Rhodesia. AfricanWildlife, 18:13-21.Ebedes, H. 1966. M99 and M285: gemsbok and rhino immobilisation.M-Series, Veterinary Application<br/>M-Series, Veterinary Application

Harthoorn, A.M. 1962. The capture and relocation of the white (square-lipped) rhinoceros (<u>Ceratotherium</u> simum). Lammergeyer, 2(2):1-9.

Hofmeyr, J.M. and J.R. DeBruine. 1972 or 1973. The problems associated with the capture, translocation and keeping of wild ungulates of South-West Africa. Lammergeyer, 18:21-29.

Keep, M.E. 1971. Etorphine Hydro Chloride antagonists used in the capture of the white rhinoceros (Ceratotherium simum simum). Lammergeyer, 13:60-68. The methods of capture, dosages of various drugs used and the efficiency of each antagonist in allowing white rhinoceroses to rise after administration is discussed. -----. 1972. The use of Rompun VA-1470 Bayer on the white rhinoceros. Lammergever, 17:31-35. Discussion and data on the use of Rompun alone and Rompun with a combination of M99 in the sedation and immobilization of white rhinoceroses. -----. 1975. The use of Etorphine Hydrochloride (M-99 Reckitt), Fentanyl (Janssen) and Hyoscine HydroBromide combination for the field capture of white rhinoceroses. Lammergeyer, 19:28-30. Discussion and data on the use of various immobilizing drugs and their antidotes on white rhinoceroses. Player, I. 1967. Translocation of white rhinoceroses in South Africa. Oryx, 9:137-150. Savidge, John M. 1965. Catching and carting white rhinos in Uganda. <u>Oryx</u>, 8(2):89-93. Verwey, J.E.M. 1969. White rhinos brought to Kruger National Park, South Africa. Biological Conservation, 2(1):17. Vincent, J. (.1969). Movement of square-lipped rhinoceros (Ceratotherium simum) relocations. Lammergeyer, 10:12-21. -----. 1970a. Movement of square-lipped rhinoceros (Ceratotherium simum) relocations. Lammergeyer, 11:80. -----. 1970b. Movement of square-lipped rhinoceros (Ceratotherium simum simum). Lammergeyer, 12:73. -----. 1971. Movement to zoos of square-lipped rhinoceros (Ceratotherium simum simum). Lammergeyer, 13:55. Wallach, J.D. 1966. Immobilization and translocation of white (square-lipped) rhinoceroses. Journal of American Vet. Med. Assoc., 149:871-874. A description of immobilization and translocation procedures and the subsequent reactions of white rhinoceroses.

[See also Jones 1979 in the General Section.]

### MISCELLANEOUS

Anonymous. 1970a. Disaster for the Congo's white rhinoceros. Oryx, 10:208.

-----. 1970b. Rare white rhino herd. International Zoo News, 17(3):75. -----. 1973. White rhinos at Kabalega. Oryx, 12(1):30. -----. 1979a. World-wide campaign to save the rhinoceros. International Zoo News, 26(6):20-21. -----. 1979b. Census of rare animals in captivity in 1978: Southern and northern white rhinoceros. Int. Zoo Yearbook, 19:415. A list of the number of southern and northern white rhinoceroses in captivity and their locations. -----. 1980. Run rhino run. African Wildlife, 34(3):5-6. A short discussion on the dwindling number of rhinos due to poaching and political struggles. In Uganda, the population is down from five hundred in 1971 to two. South Africa, where the situation is much better, now refuses to supply Kenya with more whites because of the risks. Bradley Martin, E. 1979. The international trade in rhino products. Oryx, 15:322-323. Broom, Robert. 1946. The first white rhino in captivity. Natural History, 55(9):432-433. Cave, A.J.E. 1963. The white rhino in Uganda. Oryx, 7:26-29. Curry-Lindahl, K. 1972. War and the white rhinoceros. Oryx, 11(4):263-267. Dolan, James M. 1971. Southern white rhinoceros. Zoonooz, San Diego, 44(5):12-19. -----. 1972. Survival.....Southern and Northern white rhinos. Zoonooz, San Diego, 45(12):5-6. Goddard, John. 1969. Rhino spotting difficult from a plane. Oryx, 10(3):146. Grobler, J.H. and M.A. Jones. 1980. Populations statistics and carrying capacity of large ungulates in the Whovi Wild Area, Rhodes Matopos National Park, Zimbabwe Rhodesia. South African Jour. Wildlife Res., 10(1):38-42. Guggisberg, C.A.W. 1966. An appreciation of African rhinoceros. Animal Kingdom, 67(4):115-121. Heinz-George, Klos and Reinhard Frese. 1978. Population trends in African rhinoceroses (Diceros bicornis

and <u>Ceratotherium simum</u>) living in zoos and safari parks. <u>Int. Zoo Yearbook</u>, 18:231-234. Growth rates of <u>Ceratotherium simum simum</u> decelerated in captive stock since the explosive growth rate during 1971-72, but, there has still been a two-fold increase in cap1ive stock. The Jan. 1977 International Studbook lists 351 white (Northern and Southern) rhinos in captivity. The birth rate in whites is increasing with the most success at San Diego Wild Animal Park (11.9) and Whipsnade Park (6.5) where whites are kept in large naturalistic environments. With increased birth rates few animals need to be taken. The average age of captive rhinos is low, expecially for females, which means that the captive birth rate should continue to rise.

Hill, Andrew. 1979. Taking the rhino by the horns. New Scientist,	182:843-844.
Hillman, Kes. 1980. Action to save Africa's rhinos. IUCN Bulletin,	(N.S.), 11(1/2):5-7.
Jenkins, Peter. 1971. Wanted: a herd of white rhino. Africana,	4(7):27.
Johnson, P. 1979. Success story of Africa's white rhinoceros. <u>Wildli</u>	<u>fe</u> , London 21(5):28-30.
Klos, Heinz-Georg and Reinhard Frese. 1981. International Studbook of 31.12.1980:52.	the Square-lipped Rhinoceros.
Kleska, D. 1970. Cerebralization evolution of the brain and changes in within the order Perissodactyla and a comparison with the order Art <u>Evolutionsforsch</u> , 11(2):81-103. A discussion and comparison of brain weight to body size. In German.	brain size as a cause of domestication iodactyla. <u>Z. Zool. Syst.</u>
Letley, O. P. 1962. Square-lipped rhinoceros, <u>Ceratotherium simum</u> : 2(1):67.	note on feeding, no. 31. Lammergeyer,
Owen-Smith, R.N. 1972. The contribution of radiotelemetry to a study of <u>on Biotelemetry</u> , Pretoria 1971. CSIR, Pretoria.	the white rhinoceros. Sympo.
Parsons, J. 1743. The natural history of the rhinoceros. <u>Phil.</u> Player, Ian C. 1962. Square-lipped rhinoceros, <u>Ceratotherium</u> <u>simum simum</u> . <u>Lammergeyer</u> , 2(1):67.	<u>Trans. R. Soc</u> . (abridged), 8:692-698.
Reynolds, R.J. 1961. White rhinos in captivity. <u>Int. Zoo Yearbook</u> , A list of the white rhinoceros in captivity in 1961 by location, sex and orig	2:42-43. ginal date of captivity.
Richter, Wolfgang von. 1973. Black and square-lipped rhinoceros in 5(1):59-60.	Botswana. Biological Conservation,
Savidge, John M., Michael Woodforf and Harvey Croze. 1977. White rht 14(1):4-5.	ino increase in Zaire. <u>Oryx</u> ,
Seaton, Bill. 1971. Twenty white rhinos for San Diego. International	<u>Zoo News</u> , 18(2):51.
Sherfield, Paul. 1969. White rhino calf. <u>Black Lechwe</u> , 7(5):16.	
Spinage, C.A. and R.D. Fairrie. 1966. Removal of a snare from a white	rhinoceros in the West Nile White

Rhino Sanctuary. East African Wildlife Journal, 4:149-151.

Thomas, H.L. 180	1. An anatomical description of a male rhinoceros.	Phil. Trans. R. Soc., 91:145-152.
Tomlinson, D.N.S.	1977. White rhinos return to Rhodesia. Oryx,	14(2):145-150.

Toovey, John. 1979. African plains exhibit at Whipsnade Park. <u>Int. Zoo Yearbook</u>, 19:270-274. Discussion, description and diagrams of the African Plains exhibit at Whipsnade Park in London which houses twenty rhinoceroses.

Vincent, J. 1969. The status of the square-lipped rhinoceros in Zululand. Lammergeyer, 3(10):12-21.

This information is provided as a service of **The Consortium of Aquariums, Universities and Zoos (C.A.U.Z.)** Donna FitzRoy Hardy, Ph.D., Network Coordinator Consortium of Aquariums, Universities and Zoos Department of Psychology California State University, Northridge Northridge, CA 91330