

KARYOTYPE OF *CERATOTHERIUM SIMUM SIMUM* AND *EQUUS ZEBRA ZEBRA*: A PRELIMINARY NOTE.

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As part of a cytological survey on members of the order Perissodactyla preliminary observations on the karyotype of the White Rhinoceros, *Ceratotherium simum simum* Burchell, 1817 and the Cape Mountain zebra, *Equus zebra zebra* Linn., 1758 are recorded. The results were obtained by

studying spreads prepared from bonemarrow biopsies taken while the animals were chemically immobilized.

The chromosome number of the White Rhinoceros was found to be $2n = 82$. This figure is based on examination of 33 good spreads pre-

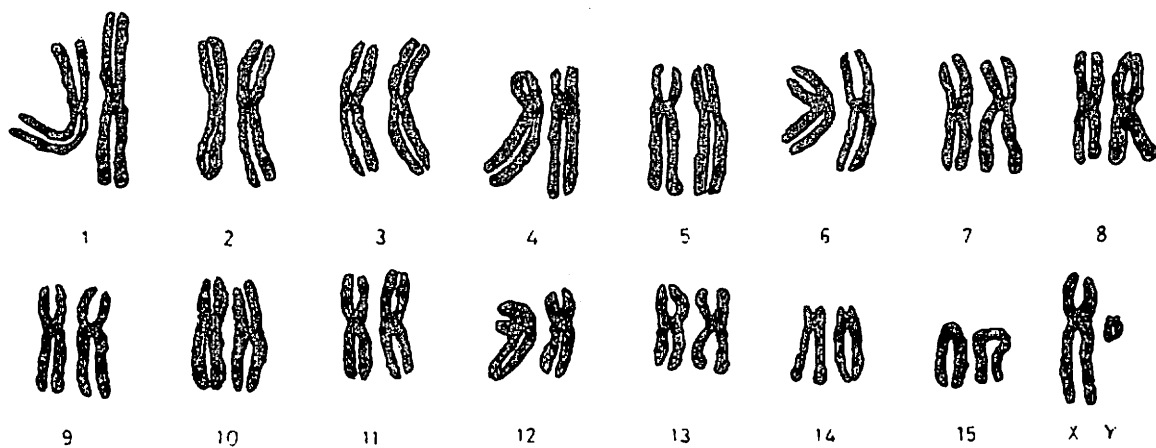
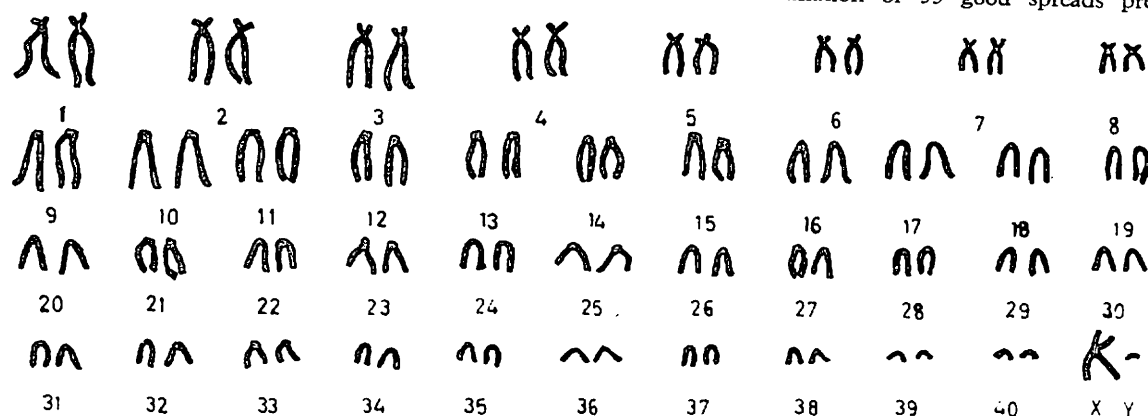


Fig. (Top) Karyotype of *Ceratotherium simum simum* (A Camera Lucida drawing).
(Bottom) Karyotype of *Equus zebra zebra* (A touched-up photo).

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pared from one male and a female and is supported by counts on leukocyte cultures¹. This is the highest figure yet obtained for the diploid chromosome number of any mammal, that of *Tarsius bancanus* ($2n = 80$)² and that of the dog ($2n = 78$)^{3,4} being second and third in line respectively.

The karyotype of the White Rhinoceros (upper fig.) shows group I to consist of 8 submetacentric pairs and group II of 32 acrocentric chromosome pairs with a large metacentric X- and a small acrocentric Y-chromosome.

The Mountain Zebra was found to possess the diploid number of 32 chromosomes. This number was present in 128 out of 150 spreads. This figure differs from the number 34 inferred by Benirschke⁵ for this animal. The karyotype of the Mountain Zebra (lower fig.) consists of one group of 13 pairs ranging from meta- to submetacentric chromosomes and a second group containing one telocentric and one acrocentric pair plus a metacentric X- and a submetacentric Y-chromosome.

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REFERENCES

1. Wallace, C. 1967 Personal communication
2. Klinger, H. P. 1963 *Cytogenetics* 2: 140
3. Moore, W. Jr. and Lambert, P. D. 1963 *J. Heredity* 54: 273
4. Gustavsson, I. 1964 *Hereditas* 51: 187
5. Benirschke, K. 1964 *Chromosoma* 15: 1

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The First Congress of the International Pig Veterinary Society will be held at Cambridge, England, from 17th - 21st June, 1968. It will include papers dealing with a wide variety of disease conditions in pigs and there will also be a full programme of visits to nearby research institutes and places of interest in the area.

Early application for the Congress is advisable and should be made to the Secretary, Mr. A. R. M. Kidd, Central Veterinary Laboratory, New Haw, Weybridge, England.