

# **MILK COMPOSITION OF THE WHITE RHINOCEROS (*CERATHOTHERIUM SIMUM*) THROUGH THE FIRST YEAR OF LACTATION**

***Michael M.L. Power, PhD,<sup>1\*</sup> Troy N. Tollefson PhD,<sup>3</sup> Caitlin M. Power,<sup>2</sup> Jason D. Green<sup>3</sup>***

***<sup>1</sup>Nutrition Laboratory and Conservation Ecology Center, Smithsonian Conservation Biology Institute, National Zoological Park, Washington DC***

***<sup>2</sup>Lewis and Clark College, Portland OR***

***<sup>3</sup>SeaWorld Parks and Entertainment, Tampa FL***

## **ABSTRACT**

Lactation is a fundamental adaptation of mammals with milk being the first food for all mammals and the diversity of mammals is reflected in the diversity of lactation strategies and in the composition of milks from different species (Hayssen 1992). Although all milks have the same basic nutrients in common, the proportion of fat, sugar, protein and minerals varies widely among species (Langer 2008). This has implications for understanding the reproductive strategies of different species, the differences in growth for the young, and practical implications for zoological parks that are often faced with the necessity to hand rear different mammalian species. We present data on milk composition for samples collected from three different white rhinoceros (*Cerathotherium simum*) cows (for one female there are samples from two different lactation events) from when the calves were 1 month to 1 year old.

## **REFERENCES**

Hayssen, V. 1992. Empirical and theoretical constraints on the evolution of lactation. *Journal of Dairy Science* 26:3213-3233.

Langer, P. 2008. The phases of maternal investment in eutherian mammals. *Zoology* 111:148-162.