

**GEORGE MASON UNIVERSITY  
COLLEGE OF SCIENCE  
BIOLOGY DEPARTMENT SEMINAR  
Fall 2014**

**Natalia Prado-Oviedo  
Environmental Science and Policy  
George Mason University**

***“Role of Endocrinology in Conservation of Endangered Species”***

The conservation of endangered species is a multi-faceted endeavor that draws on many disciplines. Endocrinology research is just one way to assess the health and well-being of rare and endangered species. It can be used to assess reproductive status, diagnose fertility problems, improve or control reproduction, evaluate metabolic status, and assess stress. Furthermore, non-invasive endocrine monitoring allows us to assess an animal without anesthesia or handling, and permits longitudinal sampling in field studies. The elephants at the National Zoo have been a part of ground breaking endocrine and reproductive research including, the discovery of the double LH peak (only found in elephants!) and the development of an innovative artificial insemination technique; which since its implementation has been used to conceive over 40 baby elephants (and counting)!

My doctoral dissertation, “Hyperprolactinemia and Ovarian Acyclicity in Captive African Elephants”, aims to understand a health and reproductive disorder (chronically elevated prolactin concentrations) affecting a large proportion of female African elephants in North American Zoos. Thus, hyperprolactinemia is greatly impeding our ability to achieve a self-sustaining captive population. Only by understanding the causes, and consequences, of this disorder will we be able to develop mitigating strategies. Our goal is to improve the captive breeding of African elephants in order to ensure that future generations will continue to be amazed by this charismatic species.

**TUESDAY October 28, 2014  
3:00-4:15 PM  
Johnson Center Room 334 Meeting Room E**