

CREW ReView

Rhinos Drool for CREW

Melissa Nau, a 2011 P&G Wildlife Conservation Scholar, joined CREW scientist Dr. Monica Stoops and OSU Professor, Dr. Carlos Pinto this past summer to investigate the relationship between salivary and urinary hormones throughout the Indian rhino estrous cycle. To date, urinary hormone analysis has been used to time natural breeding and artificial insemination (AI) in the Indian rhino. However, collecting clean urine samples consistently can be a challenge and has limited the number of rhinos available for urinary hormone monitoring. Reproductive hormones can also be detected in saliva, and have previously been measured in a female Indian rhino. However, before saliva can be used as the sole biological sample to monitor reproductive activity in this species, it must be proven reliable and reflective of urinary hormone profiles. In CREW's endocrinology lab, Melissa conducted enzyme immunoassays to measure hormone concentrations in matched saliva and urine samples collected from female Indian rhinos. Melissa's research confirmed that salivary hormones do provide similar time-point predictors of ovarian function in the Indian rhino. These results, in turn, may benefit the numbers of individual Indian rhinos and institutions that can participate in endocrine analysis to time natural breeding or AI procedures. Now, that is something Indian rhinos can drool about!



Melissa Nau collecting rhino saliva

Something's Fishy - P&G Scholar Explores Bladder Cancer in the Fishing Cat



Emily Marshall with Minnow the fishing cat.

Emily Marshall, a P&G Wildlife Conservation Scholar and first year OSU veterinary student, devoted her summer vacation to exploring an unusual disease, bladder cancer, in an unusual species, the fishing cat (*Prionailurus viverrinus*). In this study, Emily was mentored by Drs. Tony Buffington of OSU and Bill Swanson of CREW as she investigated the overall prevalence and potential causes of bladder cancer in fishing cats in North American and international zoos. Emily also worked with Russ Kelley, Senior Scientist for P&G Pet Care, to conduct dietary and biological sample analysis to identify nutritional factors, such as lack of fish in diets, possibly affecting cancer occurrence. Emily documented 28 bladder cancer cases over the past 15 years in North American zoos plus additional cases in Europe and Australia, establishing this disease as a global concern. Although fish typically comprises less than 20% of zoo diets for fishing cats, a direct relationship to bladder cancer has not yet been shown. Nutritional analysis of diets and blood samples are ongoing and follow-up dietary studies are planned for 2012. As for Emily, she has decided to continue her fishing cat studies in a joint MS/DVM degree program at OSU with future aspirations of becoming a veterinary nutritionist.

P&G Wildlife Conservation Scholarship Program for Veterinary Students at CREW

A new summer scholarship program has been established with the support of Procter & Gamble Pet Care to give hands-on scientific training to veterinary students interested in pursuing wildlife conservation research as a possible career focus. In a partnership between CREW and the Ohio State University's College of Veterinary Medicine, the P&G scholarship will provide salary, research and travel support to two veterinary students each year to conduct wildlife research studies with mentoring by OSU and CREW scientists.