# Endocrine Diagnostic Services

CONSERVATION AND SCIENCE

AT CHESTER ZOO

**At Chester Zoo we have over 20 years of experience in non-invasive wildlife endocrinology, providing regular diagnostic services to BIAZA and EAZA accredited zoos and we can help you and your institution. We use hormones associated with reproduction and adrenal function to answer general questions such as:**

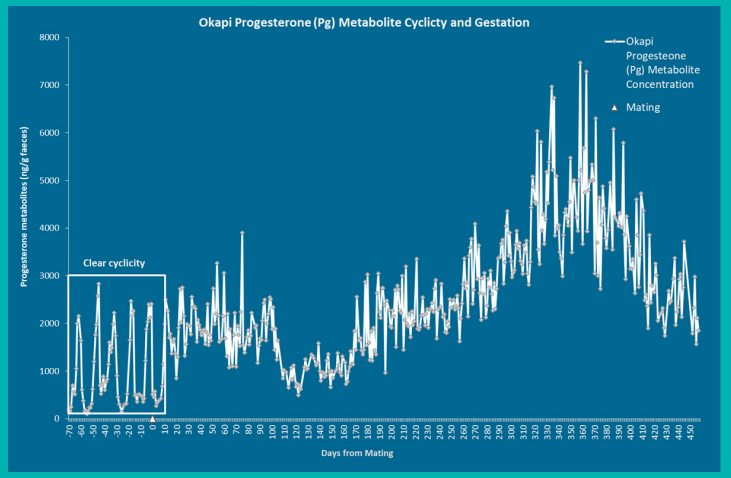
- Is an animal cycling regularly or is she acyclic?
- Is an animal a seasonal breeder?
- When is the best time to mix the male and female?
- Is an animal pregnant?
- When will an animal give birth?
- Has the application of contraception been effective?
- How have environmental/management changes affected an animal?

At Chester Zoo we use non-invasive sample collection methods, as we are able to extract hormones metabolites from urine and faeces. The endocrinology laboratory at Chester Zoo routinely uses reproductive data to aid husbandry/management of our animals.

We regularly monitor the reproductive status of key species at the zoo such as, Asian elephant, black rhino, okapi, giraffe and greater one horned rhino.

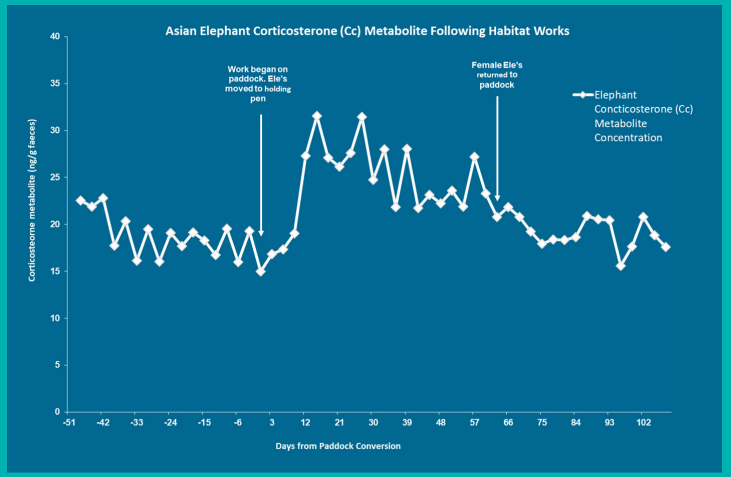
**For more specific requests please contact our endocrinology team for expert advice: +44 (0)1244 650747 or email endocrine@chesterzoo.org**

**Figure 1: Reproductive status for an okapi during cycles and pregnancy**




The laboratory also routinely uses adrenal data to aid husbandry/ management of our animals. Examples of this include monitoring individuals during transport for breeding purposes or relocation within the zoo itself.

**Figure 2: Changes in Corticosterone concentrations (from adrenal data) during a habitat move**



We have validated assays (progesterone, oestrogen, testosterone, glucocorticoids) in over 40 species from a range of taxa including mammals, birds and reptiles.

We currently provide regular diagnostic services to over 10 EAZA zoos and collaborate with several university partners.

## Why select to work with us?

We have experience of working with a range of taxa, and can help you plan the collection of samples and offer specialised interpretation of the data. We can supply protocols for sample collection and shipping.

**chesterzoo.org/whatwedo**

Registered Charity No.306077