

WHAT'S NEW IN THE LITERATURE

de Haas van Dorsser F.J., Green D.I., Holt W.V., and Pickard A.R. (2007). Ovarian activity in Arabian leopards (*Panthera pardus nimr*): sexual behaviour and faecal steroid monitoring during the follicular cycle, mating and pregnancy. *Reproduction, Fertility and Development* 19: 822-830.

The Arabian leopard is a critically endangered subspecies endemic to the Arabian Peninsula. A fundamental understanding of the ovarian activity of the leopard is important to enhance the success with which it breeds in captivity. The objective of the study was to characterise the endocrinology of the follicular cycle, ovulation and pregnancy in captive females using faecal steroid hormone analyses and observations of sexual behaviour. The follicular cycle of the leopard was shown to last 18-23 days based on the interval between consecutive peaks of faecal oestrogen conjugates, and the occurrence of silent heats was high. Puberty had commenced at 2 years of age, but faecal steroid profiles did not match those of the adult female until 3 years of age. No seasonal change in ovarian steroid excretion was observed, although behavioural oestrus was suppressed in summer. Significant rises in faecal progestagen concentrations were only recorded in mated leopards, indicating that these females were strictly induced ovulators. However, only 60% of these mating periods were ovulatory. Progestagen concentrations during pregnancy were significantly higher.



Arabian leopards (*Panthera pardus nimr*) mating
(© Florine de Haas van Dorsser).

Ostrowski, S., Blanvillain, C., Mésochina, P., Ismail, K., and Schwarzenberger, F. (2005) Monitoring reproductive steroids in feces of Arabian oryx: toward a non-invasive method to predict reproductive status in the wild. *Wildlife Society Bulletin* 33: 965-973.

We measured metabolites of progesterone (progestins) in faecal samples collected from captive Arabian oryx (*Oryx leucoryx*) females in postpartum (n=8), nonpregnant (n=9), and pregnant (n=8) reproductive stages between 1996 and 1998. We analysed progestins using enzyme-immunoassays for pregnanediol and 20-oxo-pregnanes, respectively. Progestin concentrations were elevated for 3 days after parturition and then decreased to basal anoestrous concentrations. Ovarian cyclicity resumed 25 plus or minus 2.4 days after parturition in 5 of the 8 females monitored. In nonpregnant females, excretion of faecal progestins followed a cyclic pattern increasing 6- to 12-fold from the follicular to the luteal phase. Faecal progestin concentrations allowed discrimination between pregnant and nonpregnant females after 3 months of gestation ($P < 0.01$), mean concentration of the tested hormone metabolites being at least 3 times higher during mid and later stages of gestation (>3 months) than during early pregnancy (0-3 months). These data were subsequently used to set criteria for designation of a cow as pregnant in 55 free-ranging Arabian oryx in the reserve of Mahazat as-Sayd, Saudi Arabia sampled in 1998-1999 and 2003. The proportion of pregnant and nonpregnant oryx correctly identified by the test was 81%.



Arabian oryx (*Oryx leucoryx*) (© Tom Bailey).

Rostami, A., Dehghan, M.M., Masoudifard, M., Memarian, I., Shahi Ferdous, M.M. (2007) A report of periapical abscess in a carnassial tooth of a Eurasian lynx (*Lynx lynx*). *Proceedings of the European Association of Zoo and Wildlife Veterinarians*. May 2007, Edinburgh. Pp 300-304.

The Eurasian Lynx (*Lynx lynx*), was once considered a subspecies of the bob-tailed cat complex. The Eurasian Lynx has been reported in different areas from North-west to North-east provinces of Iran. The scientific literature cites numerous types of pathological dental conditions that occur spontaneously in free-ranging populations. Abscessed teeth occur frequently. An adult female Eurasian Lynx was referred to the Faculty of Veterinary Medicine, University of Tehran. On examination a wound with purulent exudates on the face was observed. Also in the left upper carnassial tooth and molar, dental caries and severe gingivitis were determined. The radiographic evaluation was indicated of periodontal (periapical) abscess of the left upper carnassial tooth.



Eurasian Lynx (*Lynx lynx*) (© Iman Memarian).

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