利用糞類固醇激素監測圈養台灣黑熊的繁殖狀態

Monitoring Reproductive Status of Captive Formosan Black Bears *Ursus thibetanus formosanus* using Fecal Steroid Hormones

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摘 要

本研究之目的是監測圈養台灣黑熊(*Ursus thibetanus formosanus*)雌熊糞便中性類固醇代謝物雌二醇(estradiol)及孕酮(progesterone)的變化情形，藉以瞭解其繁殖狀態。經2002-2004年以3隻雌熊連續3年每週採取3次糞便，分批以酵素免疫分析法檢測結果，由雌二醇呈現最高峰期爲主且輔以孕酮升高情形，推測認爲台灣黑熊繁殖期(不含產期)的範圍是在2-8月，此期間概稱爲繁殖季，其間可能只有1次發(動)情期(estrus)而接受交配，初步認爲台灣黑熊屬季節性持續發情(seasonally constant estrus)，且爲單次發情(monoestrus)。另由孕酮檢測的結果，若於發情交配後其濃度仍呈現高峰起伏不定的情況，且未能在交配後約5個月或產前約2個月明顯迅速上昇，或產後未急劇下降，則懷孕及生產可能是異常的。

Abstract

The reproductive status of three female Formosan black bears (*Ursus thibetanus formosanus*) in captivity was monitored three times a week from 2002 to 2004, using fecal steroid metabolites, estradiol and progesterone. The breeding season (not include parturition) was found to be from February to August when estradiol was at peak, and the progesterone concentration was increasing. Apparently, there was a single estrus, the time for receptive mating, presuming that the Formosan black bear is an animal of