

圈養亞洲公象狂暴期行為研究

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摘要：本文為台灣首篇亞洲公象狂暴期行為觀察研究報告。狂暴期是成年亞洲公象，在身體健康、營養良好條件下，定期出現的一種行為變化。圈養亞洲公象在成年後，亦有周期性狂暴期發生，本園於78年11月至81年3月，進行台灣唯一的亞洲公象「林旺」行為變化的各項細節觀察；並試圖印證狂暴期與繁殖之相關性。觀察結果顯示，狂暴期的行為變化可分三階段：「狂暴前期」分泌顛腺液、食慾降低、不安、攻擊性強、摩擦顛腺、拍打陰莖、親近母象「馬蘭」、不服從命令。「狂暴盛期」除了前述現象外，滴尿行為及食慾全無兩項最為特殊；並有明顯的消瘦、疲倦、搖擺、舉鼻、張口、洗嘴、揉眼、耳及顛腺等動作。「狂暴後期」滴尿停止、食慾漸增、顛腺液分泌漸少、搖擺、行為趨於正常。亞洲公象狂暴期行為特徵與性行為無關，與年齡及健康狀況則呈正相關。狂暴期公象攻擊性強、性情陰沈善變，造成管理上極大的危機。因應之道包括限食削減營養、提供水浴、注射動情素、抗雄性素等。

關鍵字：亞洲象、狂暴期、圈養、行為。

前言

亞洲象 (*Elephas maximus*) 是現存的兩種長鼻目動物之一，與非洲象 (*Loxodonta africana*) 同為華盛頓公約 (CITES) 附錄一的瀕臨絕種動物。90% 以上的圈養成年亞洲公象，在健康良好情況下，每年會出現一次狂暴期 (musth) (Jainudeen et al., 1972)。公象此時在生理和心理產生變化，時間長短隨個體而異，由數天至數月不等。其特徵是兩頰顛腺 (Temporal gland) 分泌顛腺液、持續滴尿、廢食、情緒不穩、不服從管理；對人、象

極具攻擊性 (Eisenberg et al., 1971; Jainudeen et al., 1972; Hromadka, 1986)。大多數狂暴期公象，被套上腳鏈固定於樹樁，只有少數 (12%) 不需限制行動 (Jainudeen et al., 1972)。有關狂暴期的研究僅限於圈養環境 (Eisenberg et al., 1970; Jainudeen et al., 1972; Cooper et al., 1990; Hethaus, 1990)，野外報告極為罕見。雖然公象在非狂暴期亦見交配行為，但一般人仍然認為狂暴期是一種性活動期 (Jainudeen et al., 1971)。

本園明星動物「林旺」，是台灣僅有的亞洲公象。雖已 60 高齡，仍然每年出現狂暴

THE BEHAVIOR STUDY
ON THE CAPTIVE ASIAN BULL ELEPHANT (*Elephas maximus*)

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ABSTRACT : The purpose of this study is to observe and record the behavior changes that occurred in our old male Asian elephant during his annual musth period. Three stages could be divided during the musth cycle. Temporal drainage, appetite decrease, restlessness, aggression, rubbing the temporal glands and penis tapping with tail could be found during the pre-musth. The bull also approached closer to the cow, sniffing her vaginal area and excretion, and showed aggressive behaviors toward the keeper during the pre-musth. In addition to the above-mentioned behaviors, urine dribbling and appetite loss were two distinguished characteristic behaviors, during the full-musth stage. In the meantime, the bull looked tired, and inactive and swayed steadily. During the post-musth stage, the urine dribbling ceased, appetite increased, temporal drainage decreased gradually, and the behavior mentioned in the previous two stages disappeared. The behavior characters during the musth period shows no interaction with sexual activities. But those behaviors are influenced by age and health condition of the bull. During the crisis of musth period several methods can be used, such as decreasing the food, offering bathing opportunity, and estrogen or antiandrogen injection in order to relieve the physiology stress of the bull. And to secure keepers' safety.

KEY WORDS : Asian elephant (*Elephas maximus*), musth, captivity, behavior.