

Abstract

Bats are the only mammal that can truly fly. The habit of bats roosting in the day and active during the night lead to observation difficulty, especially when it comes to their mating behavior. The Formosan lesser horseshoe bat (*Rhinolophus monoceros*) is an endemic species and cave dwelling bat in Taiwan. Its impressive colony can contain hundreds or thousands of individuals roost in caves or tunnels. In the paper, we describe the mating behaviors of *Rhinolophus monoceros* observed at an artificial tunnel in southern Taiwan in February of 2012 and 2013. During mating, the male kept in upside down posture behind the female and pressed its abdomen closely against the back of the female. The male suppressed the female by its wings and bit its neck to control its posture while the female hung its legs in the air. The longest mating time of a pair Formosan lesser horseshoe bats in our observations was more than 30 minutes. Furthermore, we found that individuals seemed insensitive to our disturbance during mating than when not, as they usually flee upon our approach. In addition, we also observed some mating behaviors in other colonies in 2013. This paper provides the first published information on the mating behavior of *Rhinolophus monoceros*, and the first field observation and image evidences of mating behavior of bats in Taiwan. Based on our observation during 2012-2013 and review of relative literatures, we try to discuss the mating season and mating system of *Rhinolophus monoceros*.

關鍵詞：臺灣小蹄鼻蝠、交配行為、臺灣南部

Key words : *Rhinolophus monoceros*, mating behavior, southern Taiwan

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前 言

目前臺灣地區已記錄約有35種蝙蝠(鄭等 2010)，其中僅東亞家蝠(*Pipistrellus abramus*) (可 1995)、臺灣葉鼻蝠(*Hipposideros armiger terasensis*) (陳 1998, 2013)及摺翅蝠(*Miniopterus schreibersii*) (黃 2000, 陳 2013)等3種蝙蝠曾被研究者透過組織切片檢視其生殖組織發育現

象的方式，推測其生殖週期。可(1995)指出屏東地區每年1月至2月中可發現東亞家蝠的雌蝠排卵或受精現象；11月中可發現雄蝠產精現象旺盛，故推測交配期應發生於11月至2月間。陳(1998)發現臺灣葉鼻蝠的雄蝠於6月間產精達到高峰，8月底後則無精子儲存現象，而雌蝠排卵受精皆發生在7、8月間，因此認為其交配期應該在8月上旬。黃(2000)根據生殖切片