

生物策略表

類別	生物策略 (Strategy)
生物策略 STRATEGY	花朵欺騙性地模仿真菌 (Flowers deceptively mimic fungi)
生物系統 LIVING SYSTEM	木本馬兜鈴 <i>Aristolochia arborea</i>
功能類別 FUNCTIONS	#獲取、吸收、或過濾生物 #授粉 #Capture, absorb, or filter organisms #Pollinate (譚國塗加上)
作用機制標題	木本馬兜鈴的花朵模仿真菌以困住沒起疑心的授粉者 (Flowers of the <i>Aristolochia arborea</i> tree mimic fungi to trap unsuspecting pollinators)
生物系統/作用機制 示意圖	
作用機制摘要說明 (SUMMARY OF FUNCTIONING MECHANISMS)	
<p>木本馬兜鈴 (<i>Aristolochia arborea</i>) 是一種原生於薩爾瓦多、瓜地馬拉及墨西哥潮濕山腰處的小喬木。馬兜鈴有超過 500 個物種，大部分物種是在熱帶或亞熱帶地區找到。只有一小部分馬兜鈴為灌木狀或喬木狀。木本馬兜鈴十分獨特，因為它會在接近或是直接在森林地面長出花朵。另外，在花朵中心有一個蘑菇狀器官，看似是小皮傘屬 (<i>Marasimus</i>) 的菌傘，能吸引蕈蚋。</p> <p>這種模仿手法是花朵用來吸引特定授粉者的小把戲。在這個案例中，木本馬兜鈴在嘗試吸引蕈蚋，牠們會產卵在真菌菌傘上。馬兜鈴會模仿菌傘的外觀及氣味，沒起疑心的蕈蚋降落在花朵上然後產卵。而藏在馬兜鈴花朵裡面的，是一個類似豬籠草的陷阱。花朵的表面十分光滑，降落的蕈蚋會從花朵上滑落並沾滿花粉。當蕈蚋逃出之後，又會變成另一朵馬兜鈴花朵的獵物。因為沾滿了花粉，蕈蚋運送這些花粉到另一朵新的花而幫助其授粉，這確保了馬兜鈴的生生不息。</p> <p><i>Aristolochia arborea</i> is a small tree native to the moist mountainsides of El Salvador, Guatemala, and Mexico. There are 500 or so species of <i>Aristolochia</i>, with most species either found in the tropics or subtropics. Only a few are shrub or tree-like. <i>Aristolochia arborea</i> is special because it produces flowers close to or directly on the forest floor. In addition, at the center of the flower is what appears to be a mushroom-shaped fungus-gnat blossom from the</p>	

fungi family *Marasimus*.

This mimicry is a trick the flower uses to attract specific pollinators. In this case, *Aristolochia arborea* is trying to attract mushroom gnats, which lay their eggs on fungus-gnat blossoms. *Aristolochia* mimics the look and scent of the blossoms, and unsuspecting gnats land on the flower to lay their eggs. Hidden inside the *Aristolochia* flower is a trap similar to a pitcher plant. The surface of the flower is slippery, and gnats that land slide down the flower and get loaded with pollen. The gnat escapes, only to fall prey to another *Aristolochia* flower. Loaded with pollen, the gnat delivers the pollen to a new flower, helping to pollinate it and ensuring more *Aristolochia* flowers will grow.

文獻引用 (REFERENCES)

參考文獻清單與連結 (REFERENCE LIST)

Erbar, C., A. Heiler, and P. Leins. (2016). Nectaries in fly-deceptive pitcher-trap blossoms of *Aristolochia*. *Flora* 232: 128-141. (<https://doi.org/10.1016/j.flora.2016.10.007>)

延伸閱讀

生物系統延伸資訊連結 (LEARN MORE ABOUT THE LIVING SYSTEM/S)

https://en.wikipedia.org/wiki/aristolochia_arborea
https://www.onezoom.org/life/@aristolochia_arborea
<https://eol.org/pages/5103131>

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AskNature 原文連結

<https://asknature.org/strategy/flowers-deceptively-mimic-fungi/>