# 生物策略表

類別	生物策略 (Strategy)
生物策略	葉子在乾旱中存活
STRATEGY	(Leaves survive desiccation)
生物系統	松蘿鳳梨 Tillandsia usneoides
LIVING SYSTEM	(Spanish moss)
功能類別	#獲取、吸收、或過濾液體 #保護免受液體流失危害
FUNCTIONS	#Capture, absorb, or filter liquids #Protect from loss of liquids
作用機制標題	松蘿鳳梨的葉子吸收水分並且水分流失緩慢,因為它們被密集的鱗片覆蓋
	(The leaves of Spanish moss absorb water and have slow water loss
9 99 42 44 44 44 44 44 9	because they are covered in dense scales.)
生物系統/作用機制 示意圖	

## 作用機制摘要說明 (SUMMARY OF FUNCTIONING MECHANISMS)

#### 文獻引用 (REFERENCES)

「幾乎所有空氣鳳梨亞科的成員都是附生性的 (epiphytic)。在森林底層生長的許多薄葉的物種是例外。附生物種大多數都有發育良好的儲水槽 (tank),其功能與鳳梨亞科的附生植物相同,而且根部僅用於附著。有些種類的空氣鳳梨屬 (Tillandsia) 有不發達的儲水槽,但松蘿鳳梨 (T. usneoides) 已經到達了極端,完全放棄了儲水槽。它也放棄了根,以細小的葉子和許多分枝,如同一些地衣一樣覆蓋在樹梢和樹幹上。這種奇特植物的表面密集地覆蓋著重疊的鱗片(scales),在下雨時能夠快速吸收水分並減緩乾旱期間的水分流失。有時候,這種空氣鳳梨幾乎完全乾燥,但在下雨時又會復活,因此它是一種復甦植物 (resurrection plant)。」(Dawson and Lucas 2005: 43)

"Almost all the members of the *Tillandsia* subfamily are epiphytic. The exceptions are a number of thin-leaved species that grow on the forest floor. The epiphytic species mostly have well-developed tanks that function in the same way as those of the epiphytes of the Bromelia subfamily, and once again the roots are for attachment only. Some species of Tillandsia have much-reduced tanks, but Spanish moss (*T. usneoides*) has gone to the extreme and given them up entirely. It has also given up roots and, with its small leaves and many branches, drapes itself

over twigs and branches like some lichens. The surfaces of this curious plant are densely covered with overlapping scales that avidly absorb water when it rains and slow water loss during drought. At times, this Tillandsia dries up almost completely but revives when it rains, so it is a resurrection plant." (Dawson and Lucas 2005: 43)

# 參考文獻清單與連結 (REFERENCE LIST)

Dawson, J. And R. Lucas. (2005). *The nature of plants: habitats, challenges, and adaptations*. Timber Press, Incorporated.

#### 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/Spanish\_moss

#### 撰寫/翻譯/編修者與日期

呂學哲翻譯 (2019/04/24); 譚國鋈編修 (2020/04/14); 許秋容編修 (2020/11/26)

## AskNature 原文連結

https://asknature.org/strategy/leaves-survive-desiccation/