


生物策略格式

KJC, 2019/10/21

類別	生物策略 (Strategy)	
生物策略 STRATEGY	冰核捕獲水 (Ice nucleation captures water)	
生物系統 LIVING SYSTEM	地衣 有緣肚臍苔蘚 <i>Rhizoplaca</i> (Golden rimmed navel lichen)	
功能類別 FUNCTIONS	#獲取、吸收、或過濾液體 #Capture, absorb, or filter liquids	
作用機制標題	地衣藉由冰核捕獲水分，一旦溫度升高並且冰融化就吸收水分 (Lichens capture water via ice nucleation, absorbing the moisture once the temperature rises and the ice melts.)	
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)		
<p>「冰核的活動在溫度高於-5 °C時，可以藉由增強水分凝結或是在溫度低於 0 °C時，水蒸氣中的冰沉積發生得會更早，以增強對大氣水分的吸收。一旦形成冰晶格 (ice lattice)，進一步的沉積就更容易變得穩定。當溫度升高時，地衣葉狀體 (thallus) 便可以從融化的冰中吸收水分。」 (Kieft 1988: 1680)</p> <p>“Ice nucleation activity at temperatures warmer than -5°C may enhance the uptake of atmospheric moisture by enhancing condensation and/or causing deposition of ice from water vapor to occur earlier as the temperature drops below 0°C. Once an ice lattice is formed, further</p>		

deposition occurs more readily. When the temperature rises, the lichen thallus may then absorb moisture from the melting ice.” (Kieft 1988: 1680)

參考文獻清單與連結 (REFERENCE LIST)

Kieft, T. L. (1988). Ice nucleation activity in lichens. *Appl Environ Microbiol* 54: 1678-1681. (<https://pubmed.ncbi.nlm.nih.gov/16347678/>)

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/Rhizoplaca>

文章貢獻/編修者與日期:

黃芊綾翻譯 (2019/04/27)；朱天愛編修 (2019/12/19)；吳皓編修 (2020/01/04)；譚國銜編修 (2020/05/26)；許秋容編修 (2020/11/26)；紀凱容編修 (2020/11/26)

AskNature 原文連結

<https://asknature.org/strategy/ice-nucleation-captures-water/>