

生物策略表

類別	生物策略 (Strategy)	
生物策略 STRATEGY	物種多樣性將有限的營養資源最大化 (Species diversity maximizes limited nutrient resources)	
生物系統 LIVING SYSTEM	熱帶雨林 (Tropical rainforests)	
功能類別 FUNCTIONS	#獲取、吸收、或過濾液體 #分配液體 #Capture, absorb, or filter liquids #Distribute liquids	
作用機制標題	透過地表層根部系統立即蒐集可獲取的養分和水分，熱帶雨林的物種多樣性將有限的資源最大化 (Species diversity in tropical rainforests maximizes limited resources by collecting nutrients and water immediately upon availability via superficial root systems)	
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>「什麼東西能解釋熱帶雨林繁茂的假象？這答案結果是和地表上物種豐富的群落 (community) 更有關聯，而不是土壤的屬性。這些豐富物種的森林實在地孕育了他們自己的多樣性，創造了一個比熱帶土壤本身能承受的還要更加富足的地上群落。許多熱帶土壤的營養含量都太低，以至於這些繁茂的植物群落若是讓礦物質被這個區域每年三公尺 (或更多) 的雨量沖走，它們將無法生存。所以當關係到回收養分時，這龐大的多樣性創造了一個幾乎密閉的系統。舉例來說，樹在大多數熱帶森林中會在地表之下展開由細根 (fine root) 組成的緻密地墊 (dense mat)，所以當落葉中釋出養分就能馬上回收，以及在雨水被過濾成地下水前迅速收集。」(Baskin 1997: 121)</p> <p>“What explains the deceptive lushness of tropical rain forests? The answer, it turns out, relates more to the species-rich aboveground community than to any attributes of the soil itself. These species-rich forests literally nourish their own diversity, creating a far richer aboveground community than the tropical soil alone could support. Nutrient levels in many tropical soils are so low that lush plant communities couldn’t survive if they allowed minerals to be leached by the three or more meters of rain that drench the region each year. So the enormous diversity</p>		

creates an almost closed system when it comes to cycling nutrients. Trees in most tropical forests, for instance, put out a dense mat of fine roots on or just below the surface to retrieve nutrients as soon as they are released from the litter and to capture rainwater quickly, before it can filter down to groundwater.” (Baskin 1997: 121)

參考文獻清單與連結 (REFERENCE LIST)

(September 6, 2015). Ecosystems of the amazon rainforest. *Rainforest Cruises*. Retrieved from: <https://www.rainforestcruises.com/jungle-blog/ecosystems-of-the-amazon-rainforest>

延伸閱讀

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

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