

生物策略表

類別	生物策略 (Strategy)
生物策略 STRATEGY	額外的頷幫助抓住和運送獵物 (Extra Jaws Help Hold, Transport Prey)
生物系統 LIVING SYSTEM	網紋鯙 <i>Muraena retifera</i> (Reticulate moray)
功能類別 FUNCTIONS	#獲取、吸收、或過濾生物 #Capture, Absorb, or Filter Organisms
作用機制標題	鯙魚在嘴巴內部副頷的幫助下抓住並吞下獵物 (The mouth of moray eels grabs and swallows prey with the help of internal secondary jaws.)
生物系統/作用機制示意圖	
作用機制摘要說明 (SUMMARY OF FUNCTIONING MECHANISMS)	
<p>「網紋鯙 (<i>Muraena retifera</i>) 藉由從喉嚨中發射出捕食生物的咽頷 (raptorial pharyngeal jaw) 到口腔 (oral cavity) 中，克服了減少的吸入容量 (suction capacity)。頷骨抓住掙扎中的獵物，將其運回喉嚨並進入食道 (esophagus)。這是首次描述脊椎動物使用第二組頷骨來束縛和運送獵物的案例，並且是硬骨魚類 (teleost fish) 報導中唯一運輸水中獵物 (hydraulic prey) 的替代方法。海鰻咽頷擁有極大的可動性 (mobility)，是由於控制頷骨之肌肉的延長與相鄰鰓弧結構 (gill-arch structure) 的減少所結合而達成。咽頷可以從頭骨後方伸出以抓住口腔頷 (oral jaw) 中獵物的發現，揭示了一項重大的革新，這可能有助網紋鯙成功成為在複雜的珊瑚礁基質 (coral reef matrix) 中覓食的頂尖掠食者 (apex predator)。」 (Mehta 2007 : 79)</p> <p>“The moray eel (<i>Muraena retifera</i>) overcomes reduced suction capacity by launching raptorial pharyngeal jaws out of its throat and into its oral cavity, where the jaws grasp the struggling prey animal and transport it back to the throat and into the esophagus. This is the first described case of a vertebrate using a second set of jaws to both restrain and transport prey, and is the only alternative to the hydraulic prey transport reported in teleost fishes. The extreme mobility of the moray pharyngeal jaws is made possible by elongation of the muscles that control the jaws, coupled with reduction of adjacent gill-arch structures. The discovery that pharyngeal jaws can reach up from behind the skull to grasp prey in the oral jaws reveals a major innovation that may have contributed to the success of moray eels as apex predators hunting within the complex matrix of coral reefs.” (Mehta 2007:79)</p>	

文獻引用 (REFERENCES)
參考文獻清單與連結 (REFERENCE LIST) Harvard 或 APA 格式
Mehta, R. S. and P. C. Wainwright. (2007). Biting releases constraints on moray eel feeding kinematics. <i>Journal of Experimental Biology</i> 210: 495-504. (https://jeb.biologists.org/content/210/3/495?utm_source=TrendMD&utm_medium=cpc&utm_campaign=J_Exp_Biol_TrendMD_0)
延伸閱讀: Harvard 或 APA 格式 (取自 AskNature 原文; 若為翻譯者補充, 請註明)
生物系統延伸資訊連結 (LEARN MORE ABOUT THE LIVING SYSTEM/S)
https://asknature.org/system/fish?post-type=Biological%20Strategies
撰寫/翻譯/編修者與日期
黃嵩文翻譯 (2021/3/18); 譚國銜編修 (2021/04/13); 張勝凱編修 (2021/12/27); 陳柏宇編修 (2022/01/02)
AskNature 原文連結
https://asknature.org/strategy/extra-jaws-help-hold-transport-prey/