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Plants and animals everywhere rely on hardworking bees.

動植物無不仰賴勤奮工作的小蜜蜂。

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## 不光採蜜授粉 與花共生







英文 / Leila Luo 圖 / 123RF



Everyone knows that bees collect pollen from flowers to make honey in their hives, but that's not the only way that they interact with plants. Bees also bite the leaves. Scientists have discovered that bees bite the leaves similar to the way that gardeners prune their plants in order to make a plant grow in a certain way.

眾所周知,蜜蜂會採集花粉,並帶回蜂巢、製成蜂蜜;但蜜蜂和植物的互動可不僅止於此,牠們還會啃咬植物的枝葉。科學家們發現:好比園丁修剪植物,蜜蜂藉由啃咬枝葉的行為,促進了植物的生長。

Researchers tried to copy the bees to see if the same thing would happen. They made tiny little cuts on the leaves of some plants. It worked to make the plants flower earlier, but not as fast as the bee bites. The bee bites made a tomato plant grow flowers one month earlier than another tomato plant that was not bitten by bees.

為了驗證推論是否正確,研究人員仿效蜜蜂的行為,在一些植物的葉子上留下微小傷痕,測試植物是否能因此加速生長。實驗證實此法雖有助於植物提早開花,但催花效果仍不如蜜蜂啃咬來得快速有效。以番茄為例,被蜜蜂啃咬過的番茄植株較未被啃咬的,提前一個月開花。



bee (n.) 蜜蜂

hive (n.) 蜂巢

interact (v.) 互動交流

bite (v.) 咬

prune (v.) 修剪( 樹枝)



### 氣候在變時代在走

### 馬爾地夫環保城市跟著漂

英文 / Andrew Edmunds 圖 / 123RF

As our climate changes and sea levels continue to rise, people are adapting. In the Republic of Maldives, architects are creating a 200-hectare floating city. The design is modeled after the structure of coral reefs and includes a renewable energy grid to power the whole city.

隨著氣候變遷加劇、海平面持續上升, 人類必須學習順應環境的改變。馬爾地 夫共和國的建築師們正戮力打造一座 200 公頃的漂浮城市。該城市以珊瑚礁的結 構為設計原型,並以再生能源作為涵蓋 整個城市的供電網。



### 真人皮諾丘鯨口逃生

### 美麻州海岸實境上演

英文 / Andrew Edmunds 圖 / 123RF

Like something straight out of a fairy tale, a lobster diver in Massachusetts, USA was recently swallowed by a whale. Forty seconds later, the whale realized the diver wasn't a good meal and spat him back out. Lucky for him, humpback whales prefer to eat small fish.



彷彿童話故事真實上演,近日美國麻薩諸塞州 一名龍蝦捕撈潛水員,慘遭座頭鯨活吞。所幸 座頭鯨喜歡吃的食物是小魚,在牠吞下該潛水 員 40 秒後,便察覺此非一般美味大餐,於是 立馬吐出了這名幸運的潛水員。

level (n.) 高度 be modeled after (phr.) 仿造 fairy tale (n.) 童話故事 swallow (v.) 吞 spit (v.) 吐

## 誰道花香引蜂群





英文 / Leila Luo 圖 / 123RF \ illustAC



Flowers that have the sweetest nectar have the best chance of attracting birds and bees. It turns out that plants can actually 'hear' bees coming and make more sugar in their nectar in order to attract those bees. A scientist at the University of Tel Aviv discovered this in her experiments after playing audio recordings to flowers.

傳說花蜜越香甜,越有機會招鳥引蜂。一名臺拉維夫大學的科學家,播放數段錄音檔給實驗中的花朵聽,發現當植物「聽到」蜜蜂靠近,便會提高花蜜中的糖分以吸引蜜蜂的光隔。

The scientist played three kinds of sounds to flowers: silence, random computer noise, and a recording of honeybees buzzing. Although the flowers did not respond to silence or computer noise, they did respond to the buzzing of bees by making up to 20% more sugar in their nectar. This discovery helps us better understand the complex relationship that insects and plants have with each other.

實驗中,科學家為花朵們準備了3種聲音:寂靜無聲、電腦隨機噪音與蜜蜂振翅的嗡嗡聲。在無聲或電腦噪音中,花朵們並無任何反應;在蜜蜂嗡嗡聲的環境下,花朵們卻提高了花蜜中20%的糖分。這項發現有助我們進一步地了解昆蟲和植物



attract (v.) 吸引

audio (a.) 聲音的

silence (n.) 寂靜

random (a.) 隨機的

respond (v.) 回答、作出反應



## 友善築巢 教育鄉里

## 得獎設計盼喚蜂回

英文 / Leila Luo 圖 / 123RF

Because of pesticides, habitat loss and other reasons, the Irish black bee has been disappearing. This is a problem for farmers in Ireland who rely on bees to pollinate their plants in order to grow crops. Last year, a young Irish designer named Niamh Damery invented a solution so good that it won the James Dyson Award for sustainability.

由於農藥使用、棲地喪失及其他諸多原因,愛爾蘭的原生蜂種「愛爾蘭黑蜂」正面臨滅絕危機。對仰賴蜜蜂為農作授粉的愛爾蘭農民,這可是相當嚴重的問題。 去年,愛爾蘭的青年設計師妮亞姆·梅里發明了該問題的解決良方,也贏得詹姆斯戴森永續設計獎。

Damery has designed a new kind of beehive made from a mixture of mycelium along with recycled and sustainable materials. The bees like it because it's similar to the hollow trees in which they usually make hives. Damery hopes more local Irish will learn to care about their environment, so she created a calendar that explains bee behavior.



達梅里以菌絲體,混合回收及永續材料,設計了一款新型蜂箱。因新款蜂箱的結構類似黑蜂慣以築巢的空心樹木,使牠們很喜歡這樣的新家。達梅里還依據黑蜂的行為習性,設計了一份日曆,希望喚醒更多的當地愛爾蘭人關懷環境。



pesticide (n.) 農藥

disappear (v.) 消失

rely on (phr.) 依賴

crop (n.) 作物

hollow (a.) 空心的



1. What do bees do to the leaves of plants? a. bite them b. chew them c. consume them d. eat them	4. Which word means about the same as silence? a. loud b. noisy c. quiet d. quite
<ul><li>2. What do we know about humpback whales from page three?</li><li>a. They dive for lobsters.</li><li>b. They are a fairy tale.</li><li>c. They don't eat people.</li><li>d. They spit out fish.</li></ul>	5. Which word describes a kind of sound? a. buzz b. crop c. hive d. spit
3. What are architects in the Maldives doing? a. fighting climate change b. adapting to new reefs c. building a green city d. raising sea levels	6. What Damery's beehive NOT made of? a. recycled materials b. sustainable materials c. hollow trees d. fungus

#### Cloze Test A

Some ant species and aphids rely \_\_\_ each other to survive in nature. The ants protect the aphids \_\_\_ predators, so the aphids can continue collecting sap. In return, the aphids produce honeydew \_\_\_ the ants to eat.

#### Cloze Test B

Clownfish and sea anemones have a relationship \_\_\_ benefits each side. Clownfish are immune \_\_\_ the anemone's poison, so they can live inside the tentacles and be protected. \_\_\_ return, clownfish clean the anemone's tentacles and attract other fish for the anemones to eat.





- 1. 查閱第 2 版報導,蜜蜂會啃咬 (v. bite) 葉子,促使植物提前開花。其他選項,(b)v. 咀嚼、(c)v. (大量地)吃喝、(d)v. 吃。
- 2. 第3版第2則報導指出,座頭鯨的食物是小型魚類,並把潛水員給吐了出來。意謂著(c)座頭鯨不吃人。
- 3. 第 3 版第 1 則報導中可得知,新城市以再生能源發電。再生能源我們也稱為「綠能」,因此新城市也可稱為「綠色城市」。
- 4. (c)silence 和 quiet 意思雖不盡相同,但相較其他選項仍是最佳答案。 小心不要將 quiet (a. 安靜的) 和 quite (adv. 完全地;非常)搞混囉!
- 5. buzz 是指昆蟲振翅飛行的聲音。其他選項, (b)n. 作物、(c)n. 蜂巢、(d) v. 叶。
- 6. 從第 5 版報導提到,蜂箱是以菌絲體、回收材料與永續材料製成,其內部結構類似空心樹木,但空心樹木非蜂箱的製作材料。

#### Cloze Test A

#### 1.on 2.from 3.for

自然界中,某些種類的螞蟻和蚜蟲為求生存,彼此相依共生。螞蟻為蚜蟲抵禦天敵,蚜蟲得以無憂地持續吸取植物的汁液;而蚜蟲則分泌螞蟻愛吃的「蜜露」作為回報。

#### Cloze Test B

#### 1.that 2.to 3.ln

小丑魚和海葵存在著互利互惠的關係。小丑魚對海葵的毒性免疫,因此可以優游在海葵的觸手間躲避天敵;小丑魚則會幫忙清潔海葵的觸手, 作為回報,並引誘其他魚類進入海葵的領域,利其捕食。



# 各安蜂命





老闆!再一分鐘我就搞定了。



噢,這紅茶真不錯。



哎呀, 對不起!



H-O-N...

The Rest is History 迪士尼首發在加州 扶老攜幼閨家歡

英文 / Andrew Edmunds 圖 / 123RF

On the 17th of July 1955, the first Disneyland theme park opened in California, USA. When Walt Disney designed it, his intention was to make a theme park that would be fun for the whole family, not just the children. His new idea became hugely successful.

1955年7月17日,第一間迪士尼樂園於美國加利福尼亞州開幕營業。 華特 • 迪士尼企圖打造一座闔家同樂的主題樂園,而非專為兒童設 計。這嶄新的創意使得迪士尼樂園大獲成功。