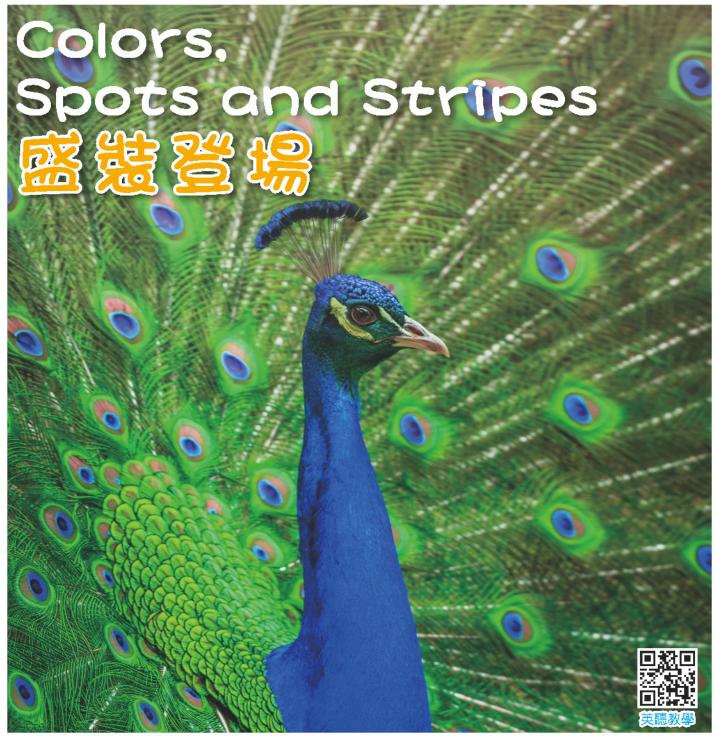


173期





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Animals' colors and patterns do more than just make them look pretty.

動物的體色和花紋不只為了「玩」美而打扮。

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超眩眼妝生存演化? 遊隼精準其來有自!

英文 / Leila Luo 圖 / 123RF



Animals have colors for many reasons that benefit them and help them live. For example, have you ever noticed that some animals look like they are wearing eye makeup? Scientists have. Researchers in South Africa teamed up to find out why a kind of raptor called peregrine falcons have dark 'eye makeup'.

動物繽紛的色彩,多是為了幫助牠們生存,在各方面取得優勢應運而生。舉例來說,你可曾發現有些動物像是畫著眼妝?對此,科學家們早已深感興趣。南非研究人員合作試圖找出猛禽家族中的「遊隼」,牠深色「眼妝」背後的奧秘。

By studying over 2,000 photos of peregrine falcons from bird watchers in 94 different regions or countries, the scientist found a connection between the size of the dark under-eye lines and the climate the birds live in. The falcons that live in sunnier habitats evolved dark lines below their eyes that reduce glare from the sun, so they can see better while they hunt.

在研究由 94 個不同地區、國家的鳥類觀察家所攝下,2,000 多張遊隼的照片樣本後,科學家發現遊隼眼下的深色頦斑與其棲地氣候具有關聯性。在日照強烈棲地中的遊隼,演化出眼下深色頦斑,藉此降低太陽眩光,有助於牠們能目光如炬、狩獵精準。





還給珊瑚喘息的空間

多國海灘拒防曬品入侵



Recently, Thailand has banned sunscreens that contain four common chemicals known to damage coral. The chemicals add to bleaching of coral reef systems and block coral from making new coral. The Pacific islands of Hawaii and Palau, and the Caribbean islands of Bonaire and Aruba have also banned these sunscreens.

近日,泰國針對4種有害珊瑚的化學物質,頒布了防曬產品禁令。這些成分 將加速珊瑚礁白化,並阻礙珊瑚繁殖。除了泰國,太平洋島嶼夏威夷、帛琉, 和加勒比海島嶼波奈、阿魯巴,都有此類防曬產品的禁令。



鎖定野火 ECOSTRSS 跨界遙控



英文 / Andrew Edmunds 圖 / 123RF

A thermal radiometer experiment on the International Space Station is providing American firefighters with valuable information about how the wildfires are moving and growing over time. In late July, ECOSTRESS helped firefighters contain about 53% of the fire in southern Oregon, which was the largest US wildfire at the time.



國際太空站上的生態系熱輻射測量儀 (ECOSTRESS) 試驗,持續提供野火移動軌跡和火 勢擴張等重要資訊,與美國消防員共抗野火。今 年7月下旬,借助 ECOSTRSS 的協助,消防員成 功地控制了俄勒岡州南部「靴筒山火」53%的火 勢,這是當月美國規模最大的野火。

damage (v.) 傷害

bleach (v.) 褪色

block (v.) 阻礙

valuable (a.) 有價值的

contain (v.) 遏制

斑馬外貌不馬虎

黑自分明不沾蠅

英文 / Leila Luo 圖 / 123RF



Why do zebras have black and white stripes? This question has been on scientists' minds for over a hundred years and they have many ideas why it could be. Recently, scientists have done research to explore some of the most popular theories. One such theory is that the stripes provide protection from biting flies.

為何斑馬是黑白紋?科學家們提出無數假設,耗時百年探詢解答。近年,科學家們完成研究,印證了幾項最知名的理論,例如:斑馬的條紋可以使牠們免受蒼蠅 叮咬。

In the UK in February 2019, an international team of evolutionary biologists and ecologists put solid white, solid black, and zebra-striped coats onto horses and studied them alongside real zebras. They discovered that far fewer flies landed on zebras or on the horses with the striped coats. The scientists think that something about the stripes creates trouble for the flies' eyes and brains.

2019 年 2 月於英國,一個由生物演化學家與生態學家組成的跨國研究團隊,為馬匹穿上純白、純黑和斑馬紋的外套,並與未著裝的斑馬進行比對研究。科學家們發現,停在斑馬紋或斑馬上的蒼蠅,遠少於披著純色外套的馬匹。因此,科學家們認為斑馬的條紋,有迷惑蒼蠅視覺與大腦的因素。



zebra (n.) 斑馬

theory (n.) 理論

protection (n.) 保護

solid (a.) 純的

trouble (n.) 麻煩



科普園地非理勿動

擬態智慧用心領悟

英文 / Leila Luo 圖 / 123RF

There are research facilities and educational centers around the world that aim to introduce the evolution of colors in animals to the public. The Thailand Institute of Scientific and Technological Research (TISTR) is one of those places. The research station is filled with insects, like the stick insect and orchid mantis, that mimic parts of their habitat or other insects or in order to survive and hunt.



世界各地有許多研究設施、教育中心,以向大眾介紹動物的色彩演化為己任,泰國科技技術研究院(TISTR)即是一例。研究中心富有大量如竹節蟲和蘭花螳螂的擬態昆蟲。牠們將自己偽裝成生活環境或其他昆蟲的樣子,藉此躲避天敵或捕捉獵物。

Researchers at TISTR welcome visitors, but hope that everyone understands it is a research station, not a zoo. By letting visitors learn a few things about insect and their biodiversity, the researchers hope people can better co-exist with these insects so that future generations can enjoy their beautiful colors.

TISIR 的研究員們歡迎訪客,但期望人們勿將研究院視為動物園。藉由參訪了解 昆蟲與其生態多樣性的知識,研究員們希望大眾能與昆蟲更融洽地共存共榮,讓 子子孫孫能欣賞到昆蟲們的美麗色彩。



facility (n.) 設施

center (n.) 中心

introduce (v.) 介紹

mimic (v.) 模仿

biodiversity (n.) 生物多樣性



1. Which animal was not mentioned in this edition? a. falcon b. horse c. rabbit d. zebra	4. Which word means a building that is built for a specific purpose? a. facility b. institute c. region d. research
 Which ocean was mentioned in this edition? Arctic Atlantic Indian Pacific What do you call something that is done as a test? a chemical an experiment information generation 	 5. How is TISTR beneficial? a. The zoo is open to all visitors. b. It educates the public. c. Researchers study the future. d. There are many beautiful colors. 6. How do black and white stripes help zebras? a. They confuse flies. b. They bite horses. c. They trick scientists' minds. d. They make zebras popular.
Cloze Test A	
Today, we're going to diving near the coral reef. If you wearing sunscreen, please wash it off in the bathroom. We have sunscreen you can put after the dive.	
Cloze Test B	
Birding is the act watching birds in their natural habitat as a hobby. A person enjoys this hobby is called a "birder". If you'd like to start birding, you might want to get a pair binoculars.	





- 1. c 2.d 3.b 4.a 5.b 6.a
- 1. 選項中唯有 (c) 兔子並未見於本期報導。
- 2. (d)pacific (n. 太平洋)。第3版第1則報導列舉數個太平洋島國。 其他選項, (a)n. 北極、(b)n. 大西洋、(c)n. 印度洋。
- 3. (b) experiment (n. 實驗)。第3版第2則報導提到,國際太空站的 熱輻射測量儀實驗,持續協助消防員對抗野火。其他選項,(a) n. 化學品、(c) n. 消息、(d) n. 社會或家庭的一代。
- 4. (a)facility (n. 場所),此字尤指具特殊用途的地方或建築。選項 (b)不正確, institute(n. 學院、研究所),是組織、機構,規模比 facility更大。
- 5. beneficial (a. 有益的)。TISTR 研究員歡迎遊客前來研究中心,學習有關昆蟲的知識,此舉對公眾有益,因此正確答案為 (b)。
- 6. 第 5 版報導指出,科學家經實驗後推斷,黑白條紋會迷惑蒼蠅的視 覺和大腦,因此正確答案為 (a)。

Cloze Test A

1.go 2.are 3.on

今天,我們要去珊瑚礁海域潛水。如果你已塗防曬,請先去浴室將防 曬洗掉。我們有準備供您潛水後使用的防曬用品。

Cloze Test B

1.of 2.who 3.of

賞鳥是以觀察棲地中的鳥類,作為嗜好的活動。以此為好的人,我們稱之為賞鳥者 (birder)。若想加入賞鳥的行列,首先你可能需要準備一副雙筒望遠鏡。





雪至名歸

腳本 / Leila Luo 漫畫 / 瀚昇





昊!」「衣喜鵲。





牠的眼斑實在太酷了,因而得

The Rest is History

深水地平線漏油

敲響能源警鐘

英文 / Andrew Edmunds 圖 / 123RF

On the 19th of Sept 2010, the Deepwater Horizon oil well was sealed. Oil began leaking on the 20th of April. It released over 780,000m3 of oil, making it the largest marine oil spill in history. This unfortunate accident serves as an important reminder why we must continue to develop eco-friendly energy.

深水地平線漏油事件(或稱墨西哥灣漏油事件)終於在2010年9月 19日,將油井封堵後暫時解除危機。自同年4月20日起至成功封堵, 深水地平線油井已洩漏超過 780,000 立方公尺,成為人類史上最大的 海底石油鑽探洩漏事件。這場不幸意外警示人類,必須持續開發環保 能源,切勿過度依賴石油。