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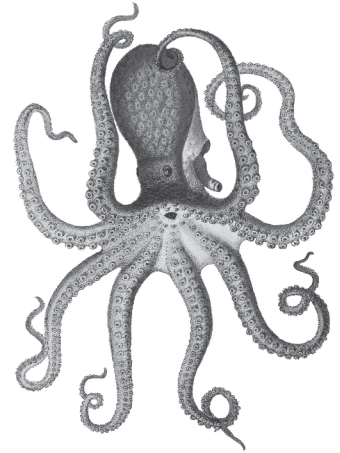
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第一回

詳解P1~P5

篇章結構

The octopus's reputation as a human-killer is not simply an exaggeration—it is a total myth. The octopus can indeed be a deadly hunter, but it attacks only its natural prey. Clams, mussels, crabs, lobsters, and an occasional sick or careless fish have reason to be frightened of this multi-armed predator, but a human being is much too large to interest even the largest octopus. 1. As for being large enough to engulf a submarine, as monster octopuses in movies have been known to do, the largest octopuses, which are found on the Pacific coast, actually weigh around 110 pounds and grow to a diameter of no more than 10 feet.



It is difficult to understand why so many people consider octopuses to be dangerous creatures. The hard, parrot-like beak of an octopus is not used to attack deep-sea divers but to cut open crabs and lobsters. Indeed, the octopus possesses such a tiny throat that it cannot even swallow large pieces of meat. 2. A clam, oyster, or scallop that finds itself in the grasp of an octopus has only a short time to live. But human beings are perfectly safe around octopuses. Still, people rarely care to venture close enough to these creatures to get a good look at them.

There are several challenging aspects in keeping an octopus at home. 3. And that is especially because octopuses' favorite foods like crabs and other crustaceans are expensive and hard to come by. They need some live food for enrichment and nutrition, but most also accept frozen shrimp and a few other foods. The staple for octopus diets is often thawed frozen shrimp, supplemented with live crabs. 4. Some find food along the shore, while others buy from bait shops or seafood stores.

- (A) Providing adequate food is the most difficult task.
- (B) Even a giant among octopuses is much smaller than most people imagine.

- (C) Octopuses are solitary creatures excellent at camouflaging and concealing themselves.
- (D) It feeds instead by pouring digestive juices into its victims and then sucking up the soupy remains.
- (E) Octopus-keepers living along the coast have an advantage because they have easier access to foods.

1 _____

2 _____

3 _____

4 _____

閱讀測驗 1

Sea otters are some of the most adorable creatures on the planet. Their heartwarming behavior and furry faces are enough to brighten the gloomiest of days. Anyone who has browsed through social media can attest to that after watching videos of sea otters holding hands while they float on their backs sleepily in the water. Sea otters lie on their backs even while enjoying a meal by smashing shellfish against their chests. Mothers attend to their young while on their backs as well.



Holding hands is one way sea otters keep themselves from drifting away from each other, but another method is to wrap themselves in kelp. This can be seen when they are resting together in large groups, called rafts. Some researchers have spotted rafts made up of over 1,000 sea otters, an encouraging number thanks to years of intervention and protection by the U.S. government.

In the early 20th century, sea otters were on the verge of extinction, having been hunted for their valuable fur. Yet, now with their numbers bouncing back, sea otters are being recognized as a keystone species, meaning they are crucial to maintaining healthy ecosystems and the overall health of the environment. Without them, kelp forests, which absorb enormous amounts of carbon dioxide and provide sustenance for fish and other sea animals, would be destroyed by hungry swarms of sea urchins. The sea otters help keep the sea urchin population in check by consuming them, allowing kelp forests to flourish.

Researchers have noted that the influence of sea otters extends to every species within the coastal marine environment. It seems this species was saved just in time, not only helping to save ecosystems but also aiding our planet by decreasing carbon dioxide levels.

_____ 5 According to the passage, why are sea otters considered a keystone species?

- (A) They were brought back from the brink of extinction.
- (B) They have the ability to protect other marine species from predators.
- (C) They are important to the health and stability of the nearshore marine ecosystem.
- (D) They can absorb vast amounts of harmful carbon dioxide from the atmosphere.

_____ 6 Based on the passage, which of the following is true regarding sea otters?

- (A) Sea otters are the only marine mammals to have developed tool use.
- (B) A large percentage of sea otters' mortality is attributed to infectious diseases.
- (C) They play a crucial ecological role in maintaining and improving the ocean soil quality.
- (D) Their presence indirectly helps to reduce levels of carbon dioxide in the atmosphere.

_____ 7 What is the first paragraph mainly about?

- (A) The images of sea otters tug on many people's heartstrings.
- (B) Without human intervention, sea otters would have been wiped out.
- (C) Sea otters were hunted to near extinction in the late twentieth century.
- (D) Sea otters feed on urchins, which exerts a strong influence on prey size and number.

_____ 8 Which paragraph does NOT indicate the numbers of sea otters have rebounded?

- (A) 1 (B) 2 (C) 3 (D) 4

閱讀測驗 2

Polar bears live in the Arctic—a forbidding land of ice and snow, where few creatures can survive. Polar bears do not hibernate; they stay active all year round, even spending a lot of time in the icy water. How do they do it? The answer lies in the fact that they have the enormous white fur coat and the special skin beneath it.

White fur allows polar bears to blend in with the snowy surroundings in the far north. The largest land predators disguise themselves to sneak up on their prey. It also provides **camouflage** when the bears find themselves being hunted. But in fact, the coat mainly acts as the first line of defense against the elements.

The outer layer of a polar bear's coat is made up of hair shafts. The shafts are

hollow and transparent, and look a lot like thin drinking straws. They reflect sunlight, making the coat look white. Being hollow allows air to stay trapped inside them, which provides much needed insulation. Another important thing about the hair shafts is that they do not get matted. This allows the bear to shake off water, snow, and ice from its coat easily. As a second line of defense, the bear has a thick, woolly undercoat of fur beneath this outer layer of hair shafts. This provides it with even more warmth.

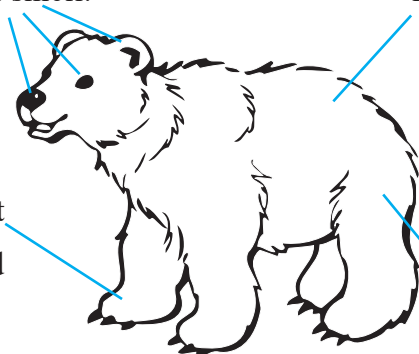
Underneath all that white fur, a polar bear's skin is actually black, which helps absorb the warmth from the sunlight and hold it in, instead of reflecting it away. Like whales and seals, polar bears also have a thick layer of fat called blubber under their skin. Blubber provides even more insulation.

All animals have to adapt to their environment, and polar bears face an especially tough challenge. Only the strong survive in the Arctic. But with a white fur coat, black skin, and a layer of blubber, polar bears are able to make this desolate place their home.

- _____ **9** Based on this passage, which statement best describes polar bears?
- (A) The survival of the fittest. (B) Appearances are deceptive.
(C) Animal instincts are inborn. (D) Extinction is around the corner.
- _____ **10** As used in the passage, what does the word “**camouflage**” in the second paragraph refer to?
- (A) A way to leave polar bears under attack.
(B) A way to make polar bears difficult to spot.
(C) A way to help polar bears find enough food.
(D) A way to allow polar bears to adapt to the environment.
- _____ **11** Which feature of a polar bear helps it to absorb energy from the sun?

- (A) Good eyesight and hearing with good sense of smell. (B) Thick, white, waterproof fur with hollow hairs.

- (C) Large webbed feet with strong curved claws. (D) Black skin under coat with fat under.



篇章結構

1.(B) 2.(D) 3.(A) 4.(E)

1. 下一句指出電影中的巨大章魚並不存在，因此選(B) 點出只是人類想像。
2. 前一句說明喉嚨問題，因此(D)接著說明章魚進食的特殊方法。
3. 接續前一句句意，本句就是養章魚的挑戰，後一句又提到牠最喜歡的食物，可見是食物問題，因此選(A)。
4. 從下一句取得食物的天壤之別，可以判斷答案為(E)。

【中譯 & 字詞提示】

章魚有著人類殺手的名聲不只是誇大不實，還完全是錯誤的迷思。章魚確實是致命的獵人，但牠只攻擊其他大自然的獵物，如蚌類、貝類、螃蟹、龍蝦及偶爾一些生病或大意的魚類都難免受這多手臂的獵食者驚嚇，但人類對章魚而言真的太大了，即使最大的章魚也對人類沒興趣。就算是章魚界的巨章也比大部分人們想像中要小的多，至於大到足以吞沒一艘潛水艇，像我們所熟知的電影中的章魚怪一般，事實上在太平洋海岸所發現的世界最大的章魚，重大約一百一十英磅，直徑頂多長到十英尺。

很難理解為何這麼多人認為章魚是危險的生物。章魚像鸚鵡嘴般的堅硬口器，並不是用來攻擊深海的潛水者，而是用來咬開螃蟹和龍蝦。事實上，章魚的喉嚨非常小，甚至無法吞下大塊的肉。所以牠進食的方式是將消化液注入受害者體內，然後再吸出糊狀的剩餘部分。無論是蚌貝、牡蠣或扇貝，只要被章魚抓住，就只有短時間可以活命。但人類在章魚周圍絕對是安全的，不過，人們仍然不太願意冒險靠近這種生物來好好地觀察牠們。

在家裡飼養章魚有許多不同方面的挑戰。提供充足的食物是其中最困難的任務。特別是因為章魚最喜歡的食物，像螃蟹和其他甲殼類動物價格昂貴且難以獲得。章魚需要一些活體食物獲取養分和營養，但大部分的章魚也接受冷凍蝦和其他食物。章魚飲食中的主食通常是解凍的冷凍蝦，並輔以活蟹。居住在海岸邊的章魚飼主就有優勢，因為他們比較容易取得食物。有些人在岸邊就找到食物，但有些人則是要到魚餌店或海鮮店購買食物。

reputation *n.* 名聲；exaggeration *n.* 誇大；
prey *n.* 獵物；clam *n.* 蚌；mussel *n.* 貝；
crab *n.* 蟹；lobster *n.* 龍蝦；have reason to *V* 難免；
predator *n.* 掠奪者；engulf *v.* 吞沒；
submarine *n.* 潛水艇；diameter *n.* 直徑；
beak *n.* 口器（此指章魚的嘴）；digestive *adj.* 消化的；
victim *n.* 受害者；soupy *adj.* 糊狀的；remains *n.* 遺體；

oyster *n.* 牡蠣、蠔；scallop *n.* 扇貝；grasp *n.* 抓住；
adequate *adj.* 充足的；crustacean *n.* 甲殼類動物；
come by 獲得；enrichment *n.* 肥料、增強的養分；
nutrition *n.* 營養；staple *n.* 主食；thawed *adj.* 解凍的；
supplement *v.* 補充；bait *n.* 誘餌

閱讀測驗 1

5.(C) 6.(D) 7.(A) 8.(A)

5. 根據本文，為何海獺被視為關鍵物種？
(A) 牠們從滅絕邊緣被救回
(B) 牠們有能力保護其他海洋物種免受掠食者侵害
(C) 牠們對於沿岸海洋生態系統的健康和穩定至關重要
(D) 牠們能從大氣中吸收大量有害的二氧化碳
6. 根據本文，下列有關海獺的敘述何者正確？
(A) 海獺是唯一發展出使用工具的海洋哺乳動物
(B) 海獺死亡率的一大部分歸因於傳染病
(C) 牠們在維持和改善海洋土壤品質方面扮演重要的生態角色
(D) 牠們的存在間接幫助減少大氣中的二氧化碳濃度
7. 第一段主旨為何？
(A) 海獺的影像觸動許多人的心弦
(B) 如果沒有人工干預，海獺將被消滅
(C) 在二十世紀後期，海獺被獵殺到幾近滅絕
(D) 海獺以海膽為食，這對獵物的大小和數量有很大的影響
8. 哪一個段落並未顯示海獺的數量已經回升？
(A) 第一段 (B) 第二段 (C) 第三段 (D) 第四段

【中譯 & 字詞提示】

海獺是地球上最可愛的生物之一。牠們溫暖的行為模式和毛茸茸的臉足以點亮最陰鬱的日子。任何瀏覽社群媒體的人在觀看過海獺手牽手漂浮在水上仰睡的影片後都可以證明這一點。海獺甚至連進食的時候靠著胸膛將貝類敲碎也是仰臥的姿勢。海獺媽媽也是採仰臥姿勢照顧孩子。

牽手是海獺防止自己從同伴身邊漂走的一種方式，另一種方式是將自己裹在海帶中。當牠們成群休息時，就可以看到這種稱為「筏」的景象。一些研究人員曾發現由一千多隻海獺形成的海獺筏，這歸功於美國政府多年的介入和保護才有如此振奮人心的數字。

在二十世紀初期，海獺因珍貴的毛皮遭到獵殺而瀕臨滅絕。但現在隨著牠們數量回升，海獺被公認為關鍵物種，意思是牠們對維持健全生態體系和整體環境健康至關重要。如果沒有海獺，吸收大量二氧化碳並為魚類和其他海洋動物提供食物的海帶林，將被飢餓的海膽群給摧毀。海獺以海膽為食有助於抑制海膽數量，使海帶林得以蓬勃發展。

研究人員已經注意到，海獺的影響擴展到沿海海洋

環境中的所有物種。看來這個物種及時被保存下來，不僅有助於拯救生態系統，也幫助我們的星球降低二氧化碳含量。

adorable *adj.* 可愛的；gloom *adj.* 陰鬱的；attest *v.* 證明；drift *v.* 漂浮；kelp *n.* 海帶；intervention *n.* 介入；verge *n.* 邊緣；extinction *n.* 絕種；bounce *v.* 反彈；keystone *n.* 基礎；crucial *adj.* 至關重要的；sustenance *n.* 食物；swarm *n.* 群；keep in check 抑制；flourish *v.* 茂盛；extend *v.* 延伸

閱讀測驗 2

9.(A) 10.(B) 11.(D) 12.(A)

9. 根據本文，下列敘述何者最能形容北極熊？
 (A) 適者生存 (B) 外表會騙人 (C) 動物本能是天生的
 (D) 滅亡即將到來
 deceptive *adj.* 欺騙的；inborn *adj.* 天生的
10. 根據本文，第二段中的 **camouflage** 所指為何？
 (A) 使北極熊受到攻擊的方法
 (B) 讓北極熊很難被找到的方法
 (C) 幫助北極熊找到足夠食物的方法
 (D) 使北極熊適應環境的方法
11. 北極熊的哪一個特徵有助於吸收太陽的熱能？
 (A) 好的視覺、聽覺、嗅覺
 (B) 厚厚的白毛皮有中空的毛桿
 (C) 大而寬闊的腳掌及強而彎曲的爪子
 (D) 毛皮下的黑皮膚，底下有脂肪（第四段第一句）
12. 本文暗指北極熊的哪一件事？
 (A) 北極熊的皮膚並不真的是白色的
 (B) 北極熊是北極唯一的動物
 (C) 北極熊通常會淪為海豹和鯨魚的獵物
 (D) 除了北極熊之外，所有的熊都會冬眠

【中譯 & 字詞提示】

北極熊住在北極，那是一個冰雪覆蓋的險惡之地，幾乎沒有生物可以在那裡存活。北極熊並不冬眠，一年到頭都維持活動力，甚至很多時間都泡在冰水裡。牠們是如何辦到的？答案就在於牠們有一大堆白毛外皮和毛皮下的特殊皮膚層。

白毛讓北極熊融入遙遠北方的雪地環境，讓這個陸地上最大的掠食者藉此掩蔽自己，悄悄靠近獵物；當牠們發現自己被獵捕時，白色毛皮同時也提供絕佳的偽裝。但事實上這層毛皮的主要功用是抵擋大自然威脅的第一道防線。

北極熊毛皮的外層由毛桿組成，它是中空且透明的，看起來非常像細細的吸管。它可以反射陽光，讓毛皮看起來是白色的；中空的特質可以讓空氣停留其中，成為絕佳的隔絕功能。另一項重要的特色是它不會打結，讓北極熊可以輕易地將水、雪或冰從毛皮上甩掉。在這

層外表的毛皮下還有一個厚毛的內裡層，可提供北極熊極大的溫暖，是北極熊的第二道防線。

在那些白毛皮之下，北極熊的皮膚其實是黑色的，可以吸收來自陽光的溫暖並且保持恆溫，且不會將陽光反射回去。如同鯨魚及海豹，北極熊的皮膚底下也有厚厚的脂肪層，稱為 blubber，提供更多隔絕功能。

所有動物都必須適應環境，而北極熊面臨的是特別艱難的挑戰，只有強者才能存活於北極圈。有了白毛皮、黑皮膚和一層厚脂肪，北極熊就能夠讓這片荒蕪之境成為牠們的家。

forbidding *adj.* 險惡的；hibernate *v.* 冬眠；enormous *adj.* 巨大的；blend *v.* 融入；predator *n.* 掠食者；disguise *v.* 偽裝；sneak *v.* 悄悄移動；defense *n.* 防禦；the elements 風雨等自然力；hair shaft *n.* 毛桿；hollow *adj.* 中空的；transparent *adj.* 透明的；trap *v.* 堵氣；insulation *n.* 絕緣、隔離；mat *v.* 糾結；absorb *v.* 吸收；seal *n.* 海豹；blubber *n.* 脂肪；adapt to 適應；desolate *adj.* 荒蕪的

閱讀測驗 3

13.(D) 14.(A) 15.(C) 16.(D)

13. 下列何者最適合作為本文標題？
 (A) 黑暗與亮光
 (B) 陸上和海底的生活
 (C) 閃燈魚和螢火蟲的交配
 (D) 生物亮光和動物溝通
14. 為何閃燈魚在夜間時發光？
 (A) 牠們要外出覓食 (B) 牠們想擺脫細菌 (C) 尋找同伴
 (D) 能接近其他閃燈魚
15. 根據本文，下列何者是螢火蟲發光的原因？
 a 吸引配偶 b 引誘獵物 c 找路回家
 d 釋出多餘能量 e 發出信號 f 逃離敵人
 (A) a, c, f (B) b, d, e (C) a, b, e (D) c, d, f
16. 以下關於螢火蟲的敘述何者正確？
 (A) 所有種類的螢火蟲都使用相同的信號
 (B) 螢火蟲利用頭燈來傳訊
 (C) 雄螢火蟲可能會用假信號欺騙雌蟲
 (D) 雌螢火蟲從地面回應雄蟲的信號

【中譯 & 字詞提示】

有些動物體內有可以發光的器官，事實上，這個光是氧氣與動物特殊器官內的發光物質所反應產生的。在黑暗中，牠們會一明一滅地閃爍亮光，向同類發出信號、引誘獵物靠近或是逃離狩獵者。

有些魚能在漆黑的海中發光。當夜晚降臨，體型細小的閃燈魚會浮至水面覓食，每隻魚都有一對「頭燈」，分別位在兩眼的下方。藉由附生在上面的細菌所產生的亮光，閃燈魚能相互溝通，避免彼此靠得太近，魚群