

## 延伸選讀 | Hot News

環境教育

# A Green Solution for Coastal Protection

## 海沙通電防侵蝕 天然防波堤取代消波塊



Climate change is causing sea levels to rise, which leads to **coastal erosion**<sup>1</sup>. Many places use **tetrapods** to stop erosion. However, this might not be the best solution. Scientists are now looking for better ways to protect coasts and the environment.

In the US, a new method was inspired by sea creatures like **clams**<sup>2</sup>. These animals use **minerals**<sup>3</sup> from seawater to form shells. The new method works by applying electrical energy to wet sand. This causes the minerals in the water to form natural **cement**<sup>4</sup>.

The new method of using electricity to create natural cement costs less than using tetrapods. It also causes less harm to the **ecosystem**<sup>5</sup>. Moreover, the solid sand can be **dissolved**<sup>6</sup> at any time if needed. These benefits make it a promising solution for future coastal protection.

氣候變遷正造成海平面上升，進而導致海岸侵蝕。許多地區會使用消波塊來減緩侵蝕，但這可能不是最好的方法。科學家正在尋找更好的方案以保護海岸和環境。

在美國，一項新技術以蛤蜊等海洋生物為靈感而誕生。這些生物會利用海水中的礦物質形成外殼。這項新技術的原理為對浸濕的沙子通電，以促使水中的礦物質形成天然水泥。

這種透過電力製造天然水泥的新技術比傳統使用消波塊的成本來得低。它對生態系統造成的傷害也更小。此外，固化的沙子在必要時可以隨時解體。這些優勢使它有望成為未來保護海岸的解方。



tetrapod [ˈtɛtrəˌpɑːd] (n.) 消波塊能吸收並減弱海浪的衝擊，保護海岸不受侵蝕。

## Reading Comprehension

- What is a likely problem with using tetrapods to protect coastlines?
  - They are not easy to move.
  - They might damage the ocean environment.
  - They cannot stop sea levels from rising.
  - They only work on certain shores.
- What is the word "it" in the third paragraph talking about?
  - The method of using tetrapods.
  - The sea creatures' mineral-forming method.
  - The rising sea levels caused by climate change.
  - The new natural cement method.

解答請參閱 p. 70

1. **coastal erosion** [ˈkɒstl̩][ˈrɔːʒən] *n.* 海岸侵蝕

2. **clam** [klæm] *n.* 蛤蜊；蚌

3. **mineral** [ˈmɪnərəl] *n.* 礦物；礦物質

4. **cement** [səˈment] *n.* 水泥

5. **ecosystem** [ˈiːkəʊsɪstəm] *n.* 生態系統

6. **dissolve** [dɪˈzɒlv] *v.* (使) 溶解；(使) 解體