Whales, Dolphins, Porpoises and Us

分類 Classification

哺乳類 Mammals 鯨豚類 Whales, dolphins & porpoises Order Cetacea (cetaceans) 鬚鯨亞目 Baleen whales 齒鯨亞目 Toothed whales 有鯨鬚而沒有牙齒的鯨魚

生態系統裏的角色 Ecological Roles²⁴

頂級捕食者 Apex predators

大部分鯨豚位於海洋食物網的頂端,進食大 量獵物,能控制海洋生物的數量,維持生態

Most cetaceans are at the top of the ocean food web and consume large amounts of prey. They help maintain a balanced marine ecosystems by controlling the populations of



★1800-7700kg 浮游生物 planktons

養分循環和改變生境 Nutrient cycling and habitat modification

● 鯨豚在不同地方覓食和排泄,促進海洋養 分移動和循環。 Cetaceans forage and excrete at different

locations in the ocean, promoting marine nutrient translocation and recycling. ② 一些在海底覓食的鯨豚會翻起沙土,改變

Some benthic-feeding cetaceans stir up significant amounts of sediments when

❸ 鯨豚死後沉落,為底棲生物帶來養分。 abundant nutrients for benthic organisms.

foraging, modifying the benthic habitat.

與其他動物共生 Symbiotic relationship with other species

● 鯨豚覓食時會引獵物到海面,讓海鳥和鯊 魚等動物能趁機捕食。 Foraging cetaceans force prey to the surface

of the ocean and facilitate feeding for other predators like seabirds and sharks.

2 一些動物附着在鯨豚身上:鯨虱專吃鯨豚 的皮膚和脂肪,藤壺則靠鯨游動覓食。 Some organisms live off of cetaceans: cyamid whale lice specifically feed on the skin and fat of cetaceans, while barnacles can attach themselves to bodies of cetaceans and rely on

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the movement of their host to bring in food. 1 Integrated Taxonomic Information System (ITIS). (2023). Cetacea Brisson, 1762. https://www.itis.gov/servlet/SingleRpt/
SingleRpt/Search_topic=TSN&search_value=180403#null 2 Ballance, L. T. (2009). Cetacean ecology. In W. F, Perrin, B, Würsig
& J. G. M, Thewissen (Eds.). Encyclopedia of marine mammals (2nd ed., pp. 172-180). Burlington, MA: Academic Press. 3
Kiszka, J. J., Woodstock, M. S., & Heithaus, M. R. (2022). Functional roles and ecological importance of small caceans in
Aquatic Ecosystems. Frontiers in Marine Science, 9. 4 Lascu, G. (2017, July 20). Antarctic Ecosystem - The Food Chain. Gabriel Adjact Cosystems, Finders in Marine Science, 9: 4 Lasou, G. (2011, Juny 20), Antactic Cosystems - The Proof Chain. Assult Lasou (Fraghtics) Multimedial Photography, Histoy://bogs.ubc.ca/gabriei/2011/10/120/antactic ecosystems—line-food-chain/

5 Centre for Food Safety, Food and Environmental Hyglene Department. (2021, June). Report of the Second Hong Kong

Population-Based Food Consumption Survey. https://www.cfs.gov.hk/english/programme/programme_limm/flies/2nd_FCS_

Report. 29_Jun_2021. pdf Fahlman A., Brodsky, M., Wells, K., McHugh, K., Meln, J., Barleyorn, A., Sweeney, J. C., Fauquier,

D., & Moore, M. (2018). Field energetics and lung function in wild bottlenose dolphins, Tursiops truncatus, in Sarasota bay ♠ 小樹林自然教育 Little Woods Nature Education

威脅 Threats 8,9,10,11,1

捕魚和養殖漁業 Fishing and aquaculture

捕魚會減少鯨豚獵物和獵物 的多樣性,養殖漁業則會排 放有機廢物污染附近海域。 Fishing reduces abundance and diversity of cetaceans prey, while aquaculture releases organic wastes that pollute nearby waters.

在2020年,香港人均魚類和 海鮮進食量約為

In 2020, the fish and seafood consumption per capita in Hong Kong was around

66 kg.

Entanglement in fishing gear and bycatch

被纏的鯨豚需花掉能量逃 脫,甚至會受傷和死亡。 Cetaceans that are entangled in fishing gear need to expend their energy escaping, and get may

估計每年有超過

300,000

cetaceans were injured by bycatch annually.14

大,身體長年吸收和累積大 量人工化學物和海洋垃圾。 通、定位和覓食,甚至造成 Noises from vessels. mining, construction, etc. disrupt cetaceans

Cetaceans live long lives, have a large fat storage, and are large in size. Their bodies absorb and accumulate large amounts of artificial chemicals: and marine debris over the

鯨豚壽命長,脂肪多,體型

污染 Pollution

一隻藍鯨每天可能攝取 A blue whale may ingest

10 mil 百萬

pieces of microplastics/day.15

collide with cetaceans. causing cuts or even bone fractures, limiting their 從1890年至2018年,全球大

型商業船隻的數量增加超過 From 1890 to 2018, no. of large commercial vessels globally increased more than

會造成鯨豚割傷,甚至骨

Vessels may accidentally

being, and so much more still deserve our attention.

7X. of the total land area.16

氣候變化 Climate change 海水温度上升令一些鯨豚棲

地變得不再宜居,尤其威脅 極地的鯨豚。冰川融化亦令 新航道得以開通,使鯨豚更 Ocean warming turns

容易受船隻干擾。 cetaceans' habitats unfavorable, greatly threatening arctic cetaceans. The melting of glaciers is also opening up new shipping routes, causing more frequent disturbances to cetaceans.

香港擱淺數據 HK Stranding Data

海上工程 Coastal and 中華白海豚 Chinese White Dolphin offshore development **江豚 Indo-Pacific Finless Porpoise** 其他鯨豚類 Other Cetaceans 地,並妨礙牠們遷徙 Development and land reclamation encroach

migratory routes Hong Kong's reclaimed land occupies around

cetaceans' living space and

2023年7月的西貢鯨逝事件已告一段落,不過其實一直有鯨豚在香港水域棲息,

Though the waves of the whale's death at Sai Kung during July 2023 have settled, it is important to know that cetaceans have always been residents of Hong Kong's waters. Their roles in our ecosystems, the effects of human activity on their well-

而鯨豚在生態系統的角色、如何受人類活動影響……都值得大家多加關注。

7% 為填海所得。

處理擱淺鯨豚 Finding a Stranded Catacean[®]

致電1823鯨豚攔淺熱線,向香港漁農自然 護理署提供相關資料。Call 1823 and inform the AFCD about the stranding.

海洋公園保育基金的鯨豚擱淺行動組便會進行拯救或解剖 工作。The Cetacean Stranding Response Team from OPCF will arrive and perform rescue and/or autopsy procedures.

不同動物受威脅*比例% of Diff. Animals Being Threatened*

*受威脅:該物種的IUCN保育評級為「易危」或以上 Threatened: with an IUCN status of "vulnerable" or above

Mammals Reptiles

鯨豚類

海洋噪音 Ocean noises

echolocation, hindering their

communication, navigation

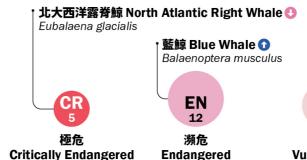
and feeding. It may even

cause them hearing and

psychological damage if

兩棲類 **Amphibians**

鯨豚滅絕風險 Extinction Risk of Cetaceans



Neophocaena phocaenoides 中華白海豚 Chinese White Dolphin 🕛 😘

† 江豚 Indo-Pacific Finless Porpoise 🕛 😘

↑布氏鯨 Bryde's Whale 🕢

數據缺乏 族群趨勢 Population trend: 🕥 上升 Increasing 🔮 下降 Increasing 🚱 不明 Unknown 🚱 全年在香港生活 Resident of HK 🔠 現存物種數量 Extant species no.: **92**

保育行動 Conservation Efforts



在台灣和其他地區,均有訂 民遇到鯨豚時的距離、航 速、航向和引擎使用等。 In Taiwan and other global

of the world's whales, dolphins, and porpoises. Conservation Biology, 37(5). **9** Department of the Environment, Water, Heritage and the Arts, Australian Government. (200

9, June). Conservations and Values Global Cetacean Summary Report. https://www.

澳洲與世界各地也開始試行 和使用經改良的捕魚裝置和 收穫方式,降低鯨豚被意外 捕撈或被漁具纏繞的機會。 Modified fishing gear and new harvesting methods are being implemented in Australia and around the world, limiting the chances of cetacean bycatch or their entanglement in

Cetaceans



美國設有專員監管在漁船上 意外捕撈的處理和漁具的使 用,減少捕魚時對海洋哺乳 類的影響。

In the US, on-board fisheries observers are responsible for regulating bycatch and managing proper fishing gear use, limiting the impact of fishing on marine mammals.22

紐西蘭環保局定期舉辦「海 洋哺乳類救護員課程」,培 訓公眾協助擱淺的鯨豚 The Department of

Conservation of New Zealand regularly offers a "Marine Mammal Medic Course", equipping volunteers from the general public to properly assist in cetacean stranding rescues.23

反思問題 Reflection

鯨豚目前面對各種威脅,這對生態環境有 甚麼影響?對你有甚麼影響? Cetaceans continue to be threatened. How does this affect the ecosystem and you? 觀鯨是否不好的行為?

你在生活中能作出甚麼改變,保育鯨豚? What changes can you make in your daily life to help conserve cetaceans?

Is whale watching necessarily bad?

Tragedy of the Sai Kung

Whale^{*}

Citizens witnessed a whale feeding at the surface of Sai Kung's waters. Experts speculated it to be a Bryde's whale. The sighting attracted the public to pursue the whale.

The whale was sighted again at Sai Kung after one week of disappearance.

propellers were seen on the back of the surrounding the whale at an extremely close distance circulated on the internet, prompting different organisations to urge the public not to

chase after the whale.

Department (AFCD) stated that it was not feasible to set up no boat zones.

牛尾海,懷疑因受船隻 撞擊而死。

The whale's carcass was found afloat on the surface at Port Shelter. It was suspected that the whale died from injuries sustained from vessel collision.

E5%A5%87%E5%AE%B3%E6%AD%BB%E9%AF%A8-%E5%85%A9%E5%91%A8%E5%89%BD%E8%A5%BF%E8%B2%A2%E6%B8%B8%E5%BC%8B%E6%88%90 %E7%84%A6%E9%BB%9E-%E9%AF%A8%E6%AD%BF%E7%89%9B%E5%B0%BE%E6%B5%B7-%E8%83%8C%E9%83%A8%E5%8F%97%E5%89%B5%E6%88%96% E8%A3%BD%E6%A8%99%E6%9C%AC/391362

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立明確的法則規範船隻和市 regions, clear guidelines and laws are set to limit people's and vessel's distance, speed, course, and engine use when

fishing gear. 10,20,21

14 Burgener, V., Elliott, W., Leslie, A. (2012). WWF-species action plan: marine and freshwater cetaceans 2012-2020. WWF. http://doi.org/10.13140/R6.2.2.14699.54567 15 Kahane-Rapport, S. R., Czapanskiy, M. F., Fahlbusch, J. A., Friedlaender, A. S., Calambokidis, J., Hazen, E. L., Goldbogen, J. A., & Saocca, M. S. (2022). Field measurements reveal exposure risk to microplastic ingestion by filter-feeding megalauna. Nature Communications, 13(1). 16 Lands Department, (2023, January 20). Hong Kong Geographic Data. https://www.lands.dg.ov. hk/en/resources/mapping-information/hk-geographic-data. https://www.acfd.gov. hk/english/conservation/con_mar_li ren from html 18 Ocean Park Conservation Foundation, Hong Kong. (n.d.). Local Marine

en/ 2U NUAN Fisheries, (2023, January 6). Protected species bear nesearch. Intus://www.insheries.noaa.gov/new-england-mid-altantic/science-data/protected-species-gear-research/on-demand-gear-to-reduce-large-whale-entanglement 121 Warren, B., & Wooden, M. (2020, December 31). East Coast Whale Entanglement Mitigation Project Final Report. Oceanwarch.org.au/wp-content/uploads/2021/03/East-Coast-Whale-Entanglement-Mitigation-Project-Final-report-pdf 22 NOAA Fisheries. (n.d.). Fishery observers. https://www.fisheries.noaa.gov/topic/fishery-observers 23 Project Jonah. (2022, August 2). Manine Mammal Medic Courses. https://www.projectjonah.org.nz/medic/ 24 西頁鰺魚 聚亡 *整合布氏除由按图照则反散 能容的多。7 Death of the Sai Kung Whale | From being watched to being und dead, who is responsible?]. (2023, August 10). am730. https://www.am730.com.hk/%E6%9C%AC%E5%9C%B0/%E5%A5%BD%

encountering cetacean.19 Florida. Royal Society Open Science, 5(1), 171280. 7 Savoca, M. S., Czapanskiy, M. F.,
Kahane-Rapport, S. R., Gough, W. T., Falhlusch, J. A., Bierlich, K. C., Segre, P. S., Di Clemente,
J., Penry, G. S., Willey, D. N., Calambokidis, J., Nowacek, D. P., Johnston, D. W., Pyenson, N. D.,
Friedlaender, A. S., Hazen, E. L., & Goldbogen, J. A. (2021). Baleen whale prey consumption docew.gov.au/stes/default/files/documents/global-cetacean-summary.pdf 10 Leaper, R., Calderan, S. (2018). Review of methods used to reduce risk to ectacean bycatch and entanglements (CMS Technical Sereies No.38). UNEP/CMS Secretariat. https://wwfwhales. org/resources/report-review-methods-reduce-cetacean-bycatch 11 Sanganyado, f., & Uu, W. (2021). Cetacean Health: Global Environmental Threats. In W, Leal Filho, A. M, Azul, L, Brandli, A, Lange Salvia, T, Wall (Eds.). Life Below Water (Encyclopedia of the UN Sustainable Development Goals) (pp. 1-14). Cham: Springer. 12 Schoeman, R. P., Patterson-Abrolat, C., & Plön, S. (2020). A global review of vessel collisions with Marine Animals. Frontiers in Marine Science, 7. 13 Our World in Data. (2020). Fish and Seafood Consumption per capita; https:// based on high-resolution foraging measurements. *Nature*, 599(7883), 85-90. **8** Braulik, G. T., Taylor, B. L., Minton, G., Notarbartolo di Sciara, G., Collins, T., Rojas-Bracho, L., Crespo, E. A., Ponnampalam, L. S., Double, M. C., & Reeves, R. R. (2023). Red-list status and extinction risk