

公眾
PUBLIC

致電1823或直接向漁護署報告（電話：21507124）發現紅潮的地點、影響範圍及其他詳情。

Call 1823 or report directly to AFCD (Tel: 21507124) (e.g. details of red tide location, coverage area and other observable conditions etc).

避免於有紅潮的泳灘游泳或接觸紅潮。

Avoid contact/swimming at bathing beaches when red tide occurs.

如接觸紅潮後有異常徵狀或感到不適，應盡快求醫。

Seek medical advice if symptoms appear after contacting red tide.

如欲進一步了解紅潮？

WANT TO KNOW MORE ABOUT RED TIDES?

香港紅潮資訊網絡

Hong Kong Red Tide Information Network

<http://www.hkredtide.org>

甚麼是紅潮/藻華？

What are Red Tides / Algal Blooms?



漁農自然護理署
Agriculture, Fisheries and
Conservation Department

<http://www.afcd.gov.hk>

<http://www.hkredtide.org>

政府的角色： GOVERNMENT'S ROLE:

紅潮跨部門工作小組的成立是為管理在香港所發生的紅潮及有害藻華。小組成員包括漁農自然護理署(漁護署)、食物環境衛生署、衛生署、康樂及文化事務署、環境保護署、政府飛行服務隊、政府化驗所、政府新聞處、香港天文台、海事處及香港警務處。漁護署在紅潮事件中負責有關政府部門的統籌及協調工作，包括接收紅潮報告及作出調查，評估紅潮會帶來的風險，向養魚戶發出警報及發放資料給有關部門作出跟進。

A Red Tide Interdepartmental Working Group (RTIWG) has been established for the management of red tides/harmful algal blooms in Hong Kong. RTIWG's members include representatives from Agriculture, Fisheries and Conservation Department (AFCD), Food and Environmental Hygiene Department, Department of Health, Leisure and Cultural Services Department, Environmental Protection Department, Government Flying Service, Government Laboratory, Information Services Department, Hong Kong Observatory, Marine Department and Hong Kong Police Force. AFCD is acting as the co-ordinator among various government departments on red tide occurrences to receive reports of red tide, conduct investigation to assess the risk involved, issue warnings to mariculturists and forward the information to concerned departments for appropriate actions.



攝於海下灣
Photo taken at Hoi Ha Wan

紅潮出現時應採取的行動？ WHAT IS DONE IN A RED TIDE INCIDENT?

養魚戶 FISH FARMERS

懸掛旗幟機制，向養魚戶發出預警報告。

A flag system is used to facilitate dissemination of early warning messages to mariculturists in fish culture zone.



黃旗：無毒但可能引致海水缺氧的紅潮。

For non-toxic red tide but with a chance to cause oxygen depletion, a **YELLOW FLAG** is raised.



紅旗：有毒的紅潮。

For toxic red tide, a **RED FLAG** is raised.

密切監察海水溶氧量及停止餵飼魚糧，減低魚類的耗氧量，準備開動增氧設施，提高水中含氧量。

Closely check the dissolved oxygen levels in the water, stop feeding the fish to slow down the oxygen consumption of fish and get ready to aerate the water when oxygen depletion occurs.

準備將可收成的魚類盡快賣出或遷往沒有紅潮的水域，減低損失。

Prepare for early harvesting or raft relocation to avoid toxic red tide and reduce loss of fish.

甚麼是紅潮/藻華?

WHAT ARE RED TIDES / ALGAL BLOOMS?

紅潮/藻華的形成是由於海水裏一些含有色素的微型浮游藻類快速地大量繁殖而引致海水變色，是一種自然現象。

Red tides or algal blooms are natural phenomena of discolorations of seawater caused by rapid multiplication of microscopic algae in the sea water.

為何會大量繁殖?

HOW DO THEY BLOOM?

浮游藻類的生長會受多種環境因素如光度、水溫、鹽度、營養水平及地理位置所影響，當條件合適便會迅速繁殖，形成紅潮。

Under favourable conditions, microscopic algae may multiply rapidly and form red tides, which could be influenced by various environmental factors such as light intensity, water temperature, salinity, nutrient level and geographic location etc.

在香港水域內出現的紅潮:

OCCURRENCE OF RED TIDES WITHIN HONG KONG WATERS:

紅潮一年四季都有機會在香港水域內出現而且頗為頻密，每年平均約有二十五宗個案。

Red tides occur quite frequently and all year round in Hong Kong waters with an average of about 25 incidents per year.

香港有多少個紅潮品種?

HOW MANY RED TIDE SPECIES ARE FOUND IN HONG KONG?

直至現在，香港共錄得70個紅潮品種，大部份都是不含毒性及甚少造成大規模的影響。

Totally, 70 causative red tide species have been recorded in Hong Kong. Most of them are non-toxic and rarely caused large scale impact.

小部份本地紅潮品種含有毒性/懷疑含有毒性(如亞歷山大藻、凱倫藻及褐胞藻等)，只有數個個案曾經引致魚類死亡或海產受污染。

Few of the species are toxic/suspected toxic (e.g. *Alexandrium*, *Karenia* and *Chattonella* species etc.) with only a few cases leading to fish kill or seafood contamination.



鏈狀亞歷山大藻
Alexandrium catenella



米氏凱倫藻
Karenia mikimotoi



海洋褐胞藻
Chattonella marina

哪些是常見的紅潮品種?

WHAT ARE THE COMMON SPECIES?

根據本署紀錄，常見的20個品種中，以夜光藻的出現機會最高。

Amongst the 20 common species, *Noctiluca scintillans* accounts for the highest chance of bloom in our records.



叉角藻
Ceratium furca



夜光藻
Noctiluca scintillans



中肋骨條藻
Skeletonema costatum



攝於城門河
Photo taken at Shing Mun River

紅潮/藻華可能造成的影響?

WHAT ARE THE POTENTIAL IMPACTS OF RED TIDES?

水產養殖：有些藻類會分泌毒素或刺激魚鰓分泌黏液，阻礙魚的呼吸。另外，晚間大量藻類繁殖會大量吸取水中的氧氣，受影響的魚類（尤其是網箱養殖）可能會因此而缺氧或窒息死亡。

Aquaculture: Some algal species may produce toxin or induce mucus secretion that impairs the respiratory function of fish gills. Besides, massive algal growth will consume a large amount of dissolved oxygen at night. The affected fish, especially those cultured in cages, may die of suffocation or oxygen depletion.

人類健康：有些藻類會產生毒素或生物毒素，能直接殺死魚類或積聚於貝類體內。應避免進食被有害藻類殺死的魚類或曾經暴露於有害藻類的貝類。

Human: Some algal species may produce toxins that can directly kill fish or biotoxins that are accumulated by shellfish. Avoid eating the fish that have been killed by toxins or the shellfish that have been exposed to harmful algal blooms.



攝於東平洲
Photo taken at Tung Ping Chau