



*What are  
red tides/  
algal blooms*

?



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



## How do they bloom?

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

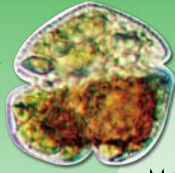
## What are red tides / algal blooms?

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

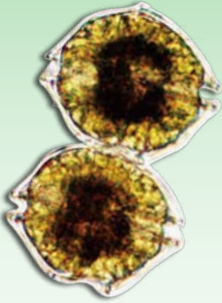
## Occurrence of red tides within Hong Kong waters

Red tides occur all year round in Hong Kong waters with an average of about 15 to 20 incidents per year.

米氏凱倫藻  
*Karenia mikimotoi*

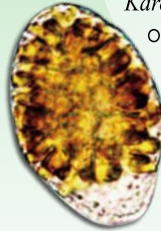


鏈狀亞歷山大藻  
*Alexandrium catenella*



## How many red tide species are found in Hong Kong?

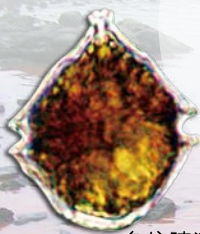
More than 70 red tide causative species were recorded in Hong Kong and most of them are non-toxic and seldom caused large scale impact. Few of the species are toxic/ suspected toxic (e.g. *Alexandrium*, *Karenia* and *Chattonella* species etc.) with only a few cases leading to fish kill or seafood contamination.



海洋褐胞藻  
*Chattonella marina*

## What are the common species?

There are about 20 common red tide causative species in Hong Kong, examples include *Noctiluca scintillans*, *Gonyaulax polygramma* and *Skeletonema costatum*.



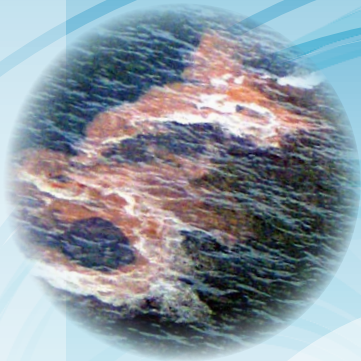
多紋膝溝藻  
*Gonyaulax polygramma*

中肋骨條藻  
*Skeletonema costatum*



夜光藻  
*Noctiluca scintillans*





## What are the potential impacts of red tides to fisheries?

Some algal species may produce mucus/toxin that impairs respiratory function of fish gill. Besides, massive algal growth will consume a large amount of dissolved oxygen during night time. Affected fish, especially those cultured in cages, may die of suffocation or oxygen depletion.

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



## What you should do in a red tide incident?

### Fish farmer

Check closely the dissolved oxygen levels in water, stop feeding to slow down the metabolism of fish and get ready to aerate the water when oxygen depletion occurs.

Prepare for early harvesting or raft relocation.



### Public

Call 1823 or report directly to AFCD (Tel: 2150 7124 ) details of red tide location, coverage and other observable conditions.

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

Seek medical advice if symptom appears after contacting red tide.



## **Information and Enquiries**

Hong Kong Red tide Information Network

<http://www.afcd.gov.hk/hkredtide/index.html>

Aquaculture Fisheries Division

Agriculture, Fisheries and Conservation Department

Tel : 1823 / 2150 7124