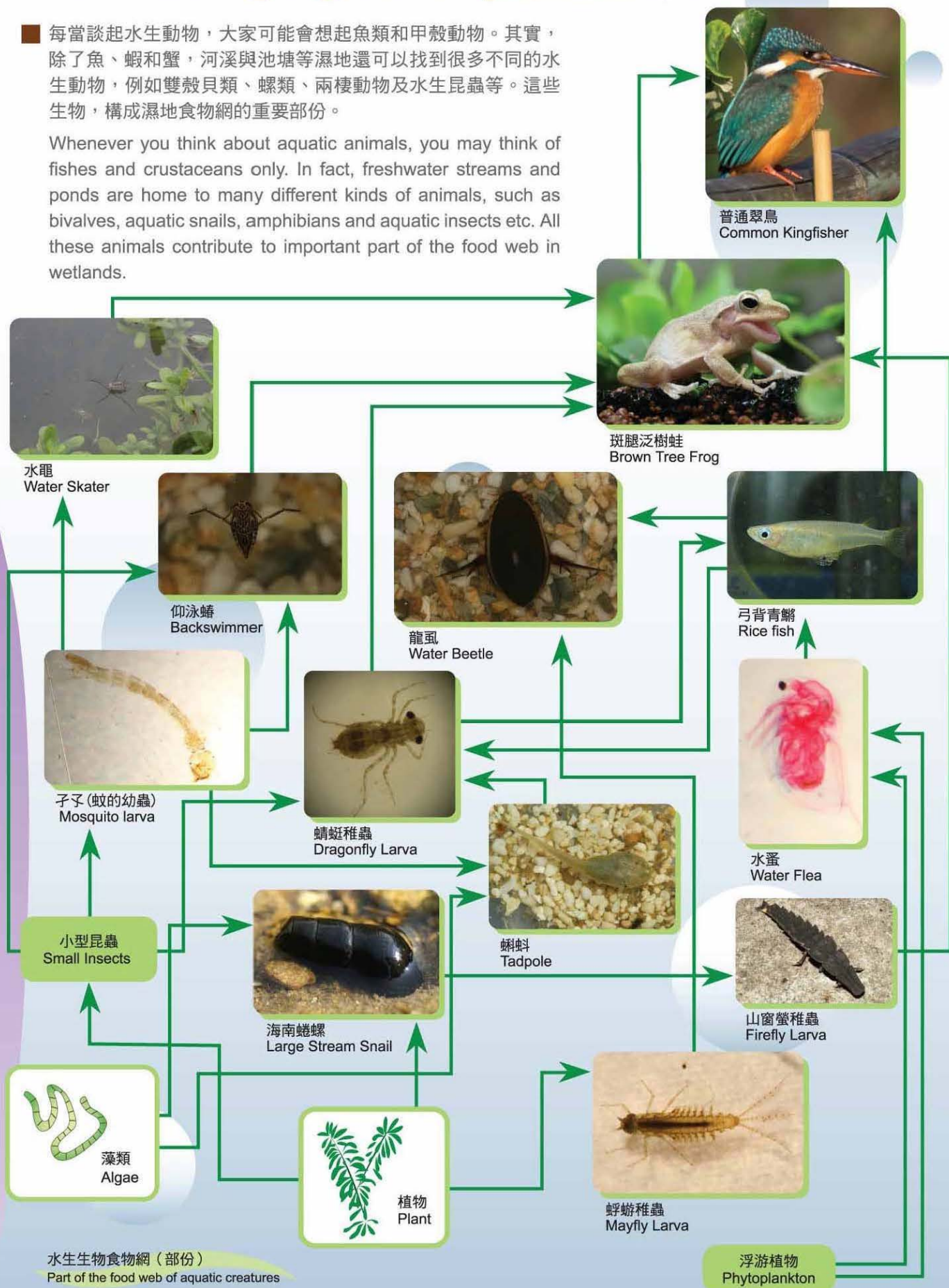


野生生物精選 - 水生生物 Wildlife Highlights - Aquatic Animals

■ 每當談起水生動物，大家可能會想起魚類和甲殼動物。其實，除了魚、蝦和蟹，河溪與池塘等濕地還可以找到很多不同的水生動物，例如雙殼貝類、螺類、兩棲動物及水生昆蟲等。這些生物，構成濕地食物網的重要部份。

Whenever you think about aquatic animals, you may think of fishes and crustaceans only. In fact, freshwater streams and ponds are home to many different kinds of animals, such as bivalves, aquatic snails, amphibians and aquatic insects etc. All these animals contribute to important part of the food web in wetlands.



魚 Fishes

魚類是典型的水生生物，無論是湍急的高山河溪，平靜的低地河溪及河口、以至海洋，都可以找到魚類的蹤跡。魚類以鰓呼吸，身被鱗片。牠們靠左右擺動尾鰭來產生向前的動力，以胸鰭幫助轉向，並以背鰭、腹鰭及臀鰭平衡身體。大部份魚類都不能離水而活，然而彈塗魚是少數能夠短暫停留於濕潤泥面的魚類。

在香港濕地公園，大家可以在各種水體中看到大大小小的魚在游弋。想一睹彈塗魚敏捷的身手，可以到訪紅樹林浮橋及香港濕地展覽廊。大家亦可在訪客中心的熱帶沼澤展覽廊，欣賞到多種色彩繽紛的熱帶淡水魚類。

Fishes are typical aquatic animals that live in fast-flowing hill streams, slow-flowing lowland streams, estuaries and ocean. They breathe with gills, propel forward by caudal fin, steering by pectoral fins, and maintain balance with the aid of pelvic fins, dorsal fin and anal fin. Most fishes could not live out of water, but a few species may stay on wet mud for a short period of time, for example, mudskippers.

In Hong Kong Wetland Park, you may see different types of fishes swimming freely in the diverse wetland habitats. If you wish to catch a glimpse of the nimble mudskippers, you may go to Mangrove Boardwalk or Hong Kong Wetlands Gallery. In addition, various kinds of colourful tropical fishes are displayed in Tropical Swamp Gallery of the Visitor Centre.



香港鬥魚棲息於水流緩慢的河溪和沼澤
Hong Kong Paradise Fish is mostly found in
sluggish and swampy water bodies



生活在潮間帶灘塗生境的大彈塗魚
Bluespotted Mud Hopper live in inter-tidal mudflat

甲殼動物 Crustaceans

常見的甲殼動物包括蝦和蟹，牠們有兩對觸角及一雙複眼，以鰓呼吸。部份蟹的成體能離開水體生活，但到了繁殖季節，牠們便會回到水邊交配及產卵，讓其幼體在水中慢慢成長。一般而言，長居在水中的甲殼動物腹部長了如船槳一樣的足部，方便在水中游泳；而穴居於水邊的甲殼動物則長著尖長的足部，以便牠們在陸地上快速行走。除了身手敏捷的蝦和蟹外，固生於紅樹莖部或石塊上的藤壺，亦是甲殼動物。



弧邊招潮蟹
Fiddler crab
(*Uca arcuata*)



在米埔基圍收獲的基圍蝦(刀額新對蝦)
Shrimps (*Metapenaeus ensis*) collected
from *gei wai* at Mai Po

Shrimps and crabs are common crustaceans. They have two pairs of antennae and a pair of compound eyes. They breathe with gills while some crabs may stay out of water for a long time. In breeding season, crustaceans return to the aquatic environment to meet their mates. They also spend most of their juvenile stage in the water. Crustaceans develop paddle-like legs at the abdomen for swimming. For those living in burrows on the edge of water, they have slender and pointed legs for running. Apart from the shrimp and crabs, there are some crustaceans that are sessile in nature, for example, barnacles.

水生螺類和雙殼貝類 Aquatic Snail and Bivalve

水生螺類和雙殼貝類都是軟體動物。螺類有一個呈螺旋形的外殼，而雙殼貝類擁有兩塊硬殼。除外型不同外，牠們的生活習性亦有異。

螺類以腹足爬行，遠觀仿如一夥會緩慢移動的螺絲釘。除了在泥灘上爬行，有些螺類甚至會攀附在石塊或植物上。牠們大多是素食者，主要攝食石塊上、莖、葉或河溪底層的藻類。在溪畔漫遊徑兩旁、濕地探索中心附近的生態探索區以及紅樹林浮橋，都不難看到水生螺類以及牠們留下的「足印」。

大多數的雙殼貝類都是固生動物。有些會將外殼黏在石塊或植物的莖部，但有些雙殼貝類會鑽進沉積物內，不容易觀察到。牠們利用鰓上的纖毛濾食水中的有機物質。淡水二枚貝是雙貝殼類的一種，大家可以到訪客中心的香港濕地展覽廊，觀察一下這種動物。

Molluscs are a group of animal including aquatic snails and bivalves. Snails possess one screw-like shell while bivalves have two plates-like shells. Apart from the differences in appearance, they have a very different living mode.

Snails always keep creeping with their muscular foot. Most of them are vegetarian, they graze on the microscopic algae on rocks and streambed. To observe these movable "screws", you may visit Stream Walk, Life Zone that is adjacent to the Wetland Discovery Centre, as well as Mangrove Boardwalk.

Most bivalves are sessile animals. Some of them attach themselves firmly on rocks or stems of plants. Some might fully or partly burry themselves in sediments, so they may not be easy to observe. Bivalves obtain organic particulates through the ciliated gills. Visitors may take a closer look at Swan Mussel (*Anodonta woodiana*) in the Hong Kong Wetlands Gallery.



螺類有一個呈螺旋形的外殼
Snails possess a screw-like shell

水生昆蟲

Aquatic Insects

水生昆蟲在整個或部分生命週期生活在水中。由於水的阻力較空氣大，加上受到水流的影響，水生昆蟲的活動較陸生昆蟲困難。

為免被湍急的水流沖走，有些水生昆蟲會利用爪或吸盤，把自己固定在石頭上或其他水生植物上。為了在水流中活動，牠們可謂各施各法，有的利用槳狀的足部划水、有的靠扭動自己的身體前進，有的透過腹部噴水向前推進。

生活在不同環境的水生昆蟲會以不同方式吸取氧氣。生活在水面上的昆蟲並沒有吸取氧氣的困難。有些潛泳捕食的昆蟲會利用吸管從水面吸取氧氣，有些則利用腹部的纖毛凝聚氣泡，再將氣泡帶到水裡慢慢吸取當中的氧氣。至於長時間在水裡生活的昆蟲，會利用鰓呼吸。

Some insects spend whole or part of their life cycles in water. They are commonly called aquatic insects. As the resistance of water is higher than that of air, it is relatively hard for aquatic insects to move in water when compared to their terrestrial counterparts.

Insects that found in fast-flowing water may use their claws or suckers to hold themselves on rocks or aquatic plants. On the other hand, insects adopt very different mode to move underwater. Some of them row around with their paddle-like legs. Some propel themselves forward by wiggling their bodies. Some create water propulsion to move forward by abdomen.

Another difficulty of aquatic insects is to obtain oxygen in the aquatic environment. Insects that live on the water surface may obtain oxygen easily. Some diving insects obtain air via specialised breathing tubes. Some insects may dive with air bubble which is trapped by the cilia on its abdomen for breathing under-water. Insects that always stay underwater breathe with gills.



水黽利用修長的中足和後足在水面划動，仿如不停開合的剪刀，因此俗稱「水較剪」
Water Skaters are fast-moving insects which use their slender middle-legs and hind-legs to row on the water surface



仰泳蝽腹部長有纖毛，有助牠們在水面形成氣泡，並將氣泡帶到水裡呼吸
Backswimmers possess tiny hairs on their abdomen, which trap air in the form of air bubble for breathing underwater



蜻蜓（左）與豆娘（右）的稚蟲在水中生活，牠們分別以直腸鰓和尾鰓呼吸
Naiads (larvae) of dragonfly (left) and damselfly (right) live in aquatic environments, they breathe by rectal gill and anal gill respectively

兩棲動物 Amphibians

兩棲動物屬脊椎動物，部分時間生活在水中，部分時間則生活在陸上。兩棲動物大多在靜止的水裡產卵，卵在水中孵化成為蝌蚪，蝌蚪在水中以鰓呼吸。當蝌蚪逐漸成長，會長出肺和腿部，尾巴亦慢慢消失（蠃螈除外）。兩棲動物的成體可以離開水生活，但必須保持皮膚濕潤，所以一般只會在潮濕的地方居住。由於大部分兩棲動物都是夜行性，所以並不容易在日間看到牠們。不過，在夏天的晚上，你可以聽見青蛙的叫聲。

Amphibians are vertebrates. They spend part of their life cycle in water and part on land. Amphibians lay eggs in still waters. These eggs hatch into tadpoles which live in water and breathe with gills. When the tadpoles grow up, lungs and legs developed, follow by their tail disappeared (except newt). Adult amphibians emerge from the water and stay mostly on land. However, as they have to keep their skin moist, they are restricted to damp areas. Most amphibians are nocturnal, you might not be able to see them in daytime, but you might hear frog calls during summer nights.



每逢繁殖季節，雄性花狹口蛙會發出像牛吼的求偶聲
Male Asiatic Painted Frogs bellow cow-like sound to attract their mates during breeding season

水生生物面對的威脅 Threats to Aquatic Organisms

土地發展以及天然溪流的渠道化工程都是水生生物所面對的威脅。當水生植物被清除，各種水生動物便隨之失去庇護，而水生動物亦沒法得到足夠的食物。為控制蚊患，有人會使用殺蟲劑，但是當殺蟲劑流入池塘或河溪，便有可能危害各種水生生物。此外，外來品種(例如：福壽魚)的入侵，也會令本地的淡水生態系統失去平衡。

Land development and channelisation of natural streams are threats to aquatic organisms. When aquatic plants are destroyed, aquatic animals lose their shelters, and aquatic herbivores no longer obtain sufficient food. Applying insecticide near streams and ponds might kill mosquitoes as well as other aquatic organisms. Invasive alien species such as the Nile Tilapia might also destroy the equilibrium of local freshwater ecosystem.



填土破壞河溪生境
Stream habitat being damaged by landfill



渠道化工程改變原有的河溪生態環境
Channelisation alters the original stream environment

我們能做甚麼？ What Can We Do?

為減輕對水生生物所造成的威脅，我們在到訪濕地時，應該避免污染水源。我們亦可以在公眾諮詢階段對濕地的發展工程提出意見，從而減少工程對濕地生境帶來的影響。

To minimise threats to aquatic organisms, we should protect our wetlands by avoiding water pollution when we visit there. We can take part in public consultation on wetland development projects to reduce the impacts exerting on wetland habitats due to development.