

香港濕地公園的外來物種 Alien Species in Hong Kong Wetland Park

外來物種是指在原有地理分佈區域以外出現的動物、植物或其他生物。它們可能是意外地從外地被帶進本地，也可能是故意地被引進，例如進口農作物、園藝植物、寵物、禽畜等。部份外來物種能夠適應新地方的環境並落地生根。他們可能會與原生物種競爭有限的天然資源，令某些本地物種的數量減少，甚至絕種。因此，監察和控制外來物種的入侵情況，是我們生境管理的工作之一。

Alien species are plants, animals and other organisms introduced either unintentionally or deliberately as crops, horticulture plants, pets and livestock to areas outside their natural geographical ranges. Some alien species can establish in their new homes. They may compete with native species for limited natural resources and even drive some native species to the brink of extinction. Therefore, monitoring and control of alien species invasion is an important task of habitat management in Hong Kong Wetland Park (HKWP).

外來物種的特性 Characteristics of Alien Species

入侵性的外來物種通常都有以下特點：生長速度快、繁殖力強、擴散速度快、能適應多種生態環境。

Alien species that are invasive usually have the following characteristics: high growth rate, high reproduction rate, strong dispersal ability, and tolerance to a wide range of environment.



薇甘菊是本地常見的外來物種，生長和擴散速度十分快，干擾原有的生態平衡

Mile-a-minute weed is a typical alien species with rapid growth and strong dispersal ability, which disturb ecological balance of the original habitat

外來物種對本地物種的影響：

Alien species affect native species through:

1. 與原生物種競爭有限的天然資源(包括陽光、水、食物、生存空間、繁殖地點等)
Competition for limited resources (including light, water, food, breeding sites, living space, etc.)
2. 部份原生物種成為外來物種的食糧
Predation or grazing on native species
3. 可以是寄生蟲或病原體
Introduction of parasites or pathogens
4. 可能進一步干擾原有的生態平衡，例如改變原來的食物鏈和養份循環系統等，使更多原生物受到影響
The invasion of alien species may further disturb the local environments by affecting the food chain and nutrient cycle, thus more species may suffer

香港濕地公園裡的外來物種 Alien Species in Hong Kong Wetland Park

在香港濕地公園，影響比較大的外來物種包括尼羅口孵非鯽、福壽螺、水燭、薇甘菊和巴西龜。

In HKWP, some alien species are of our particular concern, for example, the Nile Tilapia, Golden Apple Snail, Narrow-leaved Cat-tail, Mile-a-minute Weed, and Red-eared Slider.

尼羅口孵非鯽(福壽魚) Nile Tilapia (*Oreochromis niloticus*)

原居地：非洲

引進原因：作為食用魚類

生境：低地河溪、池塘

對本地生態的威脅：尼羅口孵非鯽的適應能力很強，即使在較惡劣的環境牠們仍能生存。牠們的繁殖能力很高，並和原生物種競爭食物和空間。一尾成熟的雌魚每年能產卵3至5次，每次可以產卵超過1000顆。而且，雌魚也會將卵留在口腔內孵化，藉此提高對魚卵的保護。成年的鯽魚主要進食植物和有機碎屑，因此牠們對水生植物造成很大破壞。

Origin: Africa

Purpose of introduction: Introduced as an aquaculture species

Habitats: Lowland streams and ponds

Threats: Nile Tilapia is able to tolerate disturbed habitats. It has high reproductive rate and competes with other native fishes for food and space. A mature female may lay eggs 3 to 5 times per year and lay more than 1000 eggs each time. The eggs are incubated in female's mouth for better protection. Adults eat plants and organic detritus, leading to the destruction of aquatic plants.



福壽魚
Nile Tilapia

福壽螺 Golden Apple Snail (*Pomacea canaliculata*)

原居地：南美洲

引進原因：作為食用螺

生境：低地河溪、魚塘和農地

對本地生態的威脅：福壽螺喜歡吃水生植物的嫩芽，也會捕食本地淡水螺的卵。福壽螺的繁殖能力很高，可以在一星期內產500顆卵。福壽螺的卵是粉紅色的，常黏在挺水植物露出水面的莖部或其他水中的物，因此很容易被發現。跟福壽魚一樣，福壽螺對水生植物造成很大的破壞。



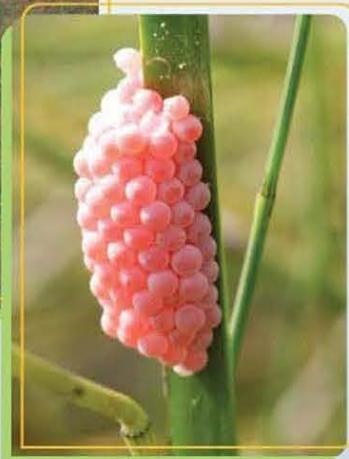
福壽螺
Golden Apple Snail

Origin: South America

Purpose of introduction: Introduced as an aquaculture species

Habitats: Lowland streams, fishponds and farmlands

Threats: Golden Apple Snail consumes buds and young leaves of aquatic plants. It also feeds on the eggs of other native freshwater snails. They have high reproduction rate of laying 500 eggs within one week. Pink egg-clusters are laid on stems of emergent plants and other objects above water, they are easily noticeable. Just like Nile Tilapia, Golden Apple Snail consumes aquatic plants vigorously.



福壽螺的卵是粉紅色的，常產在挺水植物莖部露出水面的部份
Golden Apple Snails lay their pink egg clusters on stems of emergent plants above water

水燭 Narrow-leaved Cat-tail (*Typha angustifolia*)

原居地：歐亞地區

引進原因：作為園藝植物

生境：沼澤、池塘及河畔

對本地生態的威脅：水燭能適應較深的水位，使它們能夠成為水邊植物群落的優勢品種。水燭會進行有性繁殖，透過風力傳播花粉並產生細小的種子，它亦會透過地下莖向四周蔓生作無性繁殖。由於它們繁殖迅速，往往能夠在短時間內將水體的淺水區域覆蓋減少水鳥的棲息地及覓食場所。

Origin: Eurasia region

Purpose of introduction: Introduced as ornamental plants

Habitats: Marshes, edges of ponds and rivers

Threats: Narrow-leaved Cat-tail is able to grow in relatively deep water and dominates the plant community along water edge. It reproduces sexually by wind pollination and forming tiny seeds. It can also propagate vegetatively by rhizomes. It is able to colonise rapidly and cover the shallow water bodies that are roosting and feeding grounds of waterbirds.



水燭
Narrow-leaved Cat-tail



薇甘菊
Mile-a-minute Weed

薇甘菊 Mile-a-minute Weed (*Mikania micrantha*)

原居地：中、南美洲

引進原因：未明

生境：低地樹林的邊緣及荒廢地方

對本地生態的威脅：薇甘菊是一種生長快速的攀援植物。如果樹木被薇甘菊纏繞，薇甘菊會在短時間內將其樹冠覆蓋，以致樹木不能吸收足夠的陽光進行光合作用而慢慢枯萎。所以薇甘菊又稱為「植物殺手」或「樹林癌症」。它的蔓延正廣泛影響香港的郊野地區。香港濕地公園運用人手清除法盡量減低它對公園內植被的破壞。

Origin: Central and South America

Purpose of introduction: Unknown

Habitats: Edges of lowland forest, abandoned areas

Threats: Mile-a-minute Weed is a fast-growing climber that grows rapidly to cover the canopy of trees from sunlight, and it inhibits normal photosynthesis of the trees. It is also called "the plant killer" or "the cancer of forest". Mile-a-minute Weed spreads rapidly in Hong Kong countryside. Clearance of this weed by hand is carried out to protect vegetation in HKWP.

巴西龜 Red-eared Slider (*Trachemys scripta elegans*)

原居地：北美洲

引進原因：作為寵物

生境：水塘及公園的池塘

對本地生態的威脅：巴西龜十分適應本地的環境，容易在香港的水塘發現牠們的蹤跡。牠們是雜食性的動物，當逃逸到野外後，除了進食水生植物，也會捕捉小魚和青蛙。牠們與本地的龜，例如烏龜競爭天然資源。

Origin: North America

Purpose of introduction: Introduced as pet

Habitats: Reservoirs, ponds in urban parks

Threats: It is adaptive to local environment and commonly found in reservoirs. It feeds on a wide range of food including aquatic plants, frogs, as well as small fishes. In the wild, it competes with native Reeve's Terrapin (*Chinemys reevesii*) for natural resources.



巴西龜
Red-eared Slider

■ 控制入侵的外來物種

Measures to Control the Invasive Alien Species

控制入侵的外來物種，主要採用“阻遏”和“清除”兩個方法。而決定採用哪些方法，則要考慮受影響物種和生境的特徵、受影響的範圍等因素。

現時，香港濕地公園主要以人手和設置陷阱等方法去清除入侵的動物。另外亦會投放鱧魚、大頭魚和烏頭(鱮)等原生魚類與尼羅口孵非鯽競爭，作為控制其數量的措施。至於入侵的植物品種，則會在該植物的花期之前以人手拔除。此外，亦會透過調節水體的深度來控制外來入侵水生植物的擴散。

The control of alien species involves containment and eradication. It depends on characteristics of the species and habitats, and the extent of coverage. In HKWP, the invasive animals are captured and removed by handpicking and traps. Moreover, native fish species, such as Silver Carp, Big Head Carp and Grey Mullet are released to compete with Nile Tilapia as a control measure. We remove invasive plants by hand picking before the flowering season to control its expansion. In addition, we control the spread of invasive aquatic plants by adjusting the water levels of wetlands in HKWP.



工作人員正在清除福壽螺
Staff is removing Golden Apple Snail

■ 我們能做甚麼？

What Can We Do?

外來物種的入侵是世界各地保育工作者面對的難題之一。如果我們輕視這問題，會造成生態災難，也可能帶來經濟、文化、景觀等損失。

事實上，當一種外來物種在本土歸化後，我們就很難將它根除。所以，最重要的工作是避免外來物種成功落地生根。當我們考慮引入外地品種作寵物和園藝種植時，我們應該非常謹慎，不要引進一些已證實為強入侵性的品種。另外，大家要做一個負責任的主人，不要將寵物放生野外，尤其是一些外來品種。我們也建議大家參加由香港濕地公園義工分組舉辦的清除雜草及其他類型的戶外保育工作。

Invasion of alien species is one of the thorny issues of conservation in the world. There is no quick and easy solution. If the problem is left untouched, alien species may severely alter a site's ecology, economic, aesthetic and cultural value.

To avoid establishment is the best method of control. Therefore, we should take extra care when planning to introduce an alien species. Before adopting a pet (especially an exotic species), we should bear in mind not to release it to the wild. In addition, we can help in weeding works and other outdoor conservation activities organised by Volunteer Unit of Hong Kong Wetland Park.



香港濕地公園義工參與清除濕地保護區內的薇甘菊
Removal of Mile-a-minute Weed by volunteers of Hong Kong Wetland Park in Wetland Reserve



義工們有時也會到其他濕地（例如：白泥）清除外來的大米草
Volunteers sometimes go to other wetlands (e.g. Pak Lai) to remove exotic *Spartina* sp.