

第五章  
自然護理  
Chapter 5  
Nature Conservation

香港的地形及亞熱帶氣候，為種類繁多的動植物提供各式各樣的棲息地。本地有維管束植物逾3 100種，哺乳類動物約50種，鳥類約450種，爬蟲類動物約80種，兩棲類動物逾20種，另有超過230種蝴蝶及100種蜻蜓。

Hong Kong's topography and sub-tropical climate provide a wide range of habitats to support a rich variety of flora and fauna. There are more than 3 100 species of vascular plants, some 50 species of mammals, 450 species of birds, 80 species of reptiles, more than 20 amphibian species, over 230 species of butterflies and 100 species of dragonflies.





署長陳鎮源（左一）和世界濕地日參加者宣揚濕地護理信息  
Director Mr Thomas Chan (first from left) and participants spread  
the message of wetland conservation on World Wetland Day

## 香港的自然環境

香港的地形及亞熱帶氣候，為種類繁多的動植物提供各式各樣的棲息地。本港雖是彈丸之地，但自然景致卻多姿多采，沿海的沙灘、嶙峋的石岸、約1 000米高的山峰、茂密的林地與綠草如茵的山巒，互相映襯，構成獨特的風景。

香港有維管束植物逾3 100種（其中約2 100種為本地品種），哺乳類動物約50種，鳥類約450種，爬蟲類動物約80種，兩棲類動物逾20種。昆蟲的品種亦十分繁多，有超過230種蝴蝶及100種蜻蜓。

## 自然護理分署工作

- 就發展建議、規劃策略、環境影響評估等工作，提供有關自然保育方面的意見，及透過執行法例，進行研究和認定具特殊科學價值的地點，以保育本港的動植物及自然生境；
- 監察米埔內后海灣國際重要濕地的生態，並發展及管理香港濕地公園；
- 監管瀕危動植物的國際貿易，以保育這些物種；及
- 透過宣傳和教育活動，加強市民對自然保育的認識，以及鼓勵更多人參與自然保育活動。

## HONG KONG'S NATURAL ENVIRONMENT

Hong Kong's topography and sub-tropical climate provide a wide range of habitats to support a rich variety of flora and fauna. Scenically, it has a great deal to offer - a landscape rising from sandy beaches and rocky foreshores to a height of almost 1 000-metre high, woodlands and hilly areas covered by open grassland and a variety of scenic vistas rarely matched in such a small place.

In Hong Kong, there are more than 3 100 species of vascular plants – about 2 100 are native; some 50 species of mammals; 450 species of birds; 80 species of reptiles and more than 20 amphibian species. Insect diversity is also very high with more than 230 species of butterflies and 100 species of dragonflies.

## WORK OF CONSERVATION BRANCH

- To conserve local flora, fauna and natural habitats through offering conservation advice on development proposals, planning strategies and environmental impact assessment; law enforcement; research; and identifying Sites of Special Scientific Interest (SSSI);
- To monitor the ecology of the Mai Po Inner Deep Bay Ramsar Site; and to manage and develop the Hong Kong Wetland Park;
- To conserve endangered species of animals and plants through controlling their international trade; and
- To promote public awareness and participation in nature conservation through publicity and educational activities.



皇娥是香港最大的蛾  
Atlas Moth is the largest moth in Hong Kong



海馬  
Sea Horse

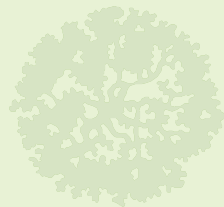


## 香港濕地公園

香港濕地公園分兩期興建，將位於天水圍面積約64公頃的生態緩解區，提升成為一個保育、教育及旅遊的設施，展示香港多樣化的濕地生態系統。第一期設施包括展覽館及園景地帶，由二零零零年十二月起開放給市民參觀。於二零零一至零二年度，參觀人數約有100 000人，其中更為330間學校及團體，安排教育導賞服務。

第二期工程包括面積約10 000平方米的訪客中心及60公頃的露天公園。訪客中心設有三個主要展覽館，館內將設有一系列的展品，展示世界各地的濕地情況及在香港濕地的大自然遺產。而露天公園中，有為水禽而設的人工濕地及重新建造的棲息地。

第二期的發展由建築署設計及規劃，工程預計在二零零五年完成。





## HONG KONG WETLAND PARK

The two-phase Wetland Park project will upgrade the 64-hectare ecological mitigation area at Tin Shui Wai to a conservation, education and tourism facility to showcase the diversity of Hong Kong's wetland ecosystems.

Phase 1 development comprising an exhibition pavilion and landscaped area has been open to the public since December 2000. During 2001-02, about 100 000 people visited the site. Educational guided tour had also been arranged for more than 330 schools and community organisations.

Phase 2 development of the Wetland Park will comprise a 10 000 square-metre Visitor Centre and a 60-hectare Outdoor Park. The Visitor Centre will have three main exhibition galleries, with full range of interpretive exhibits to showcase the world of wetlands and the natural wetland heritage in Hong Kong. The Outdoor Park will cover constructed wetlands and re-created habitats for waterfowls.

The planning and design of the Phase 2 development are being undertaken by the Architectural Services Department and the whole project is scheduled for completion in 2005.



中杓鷗  
Whimbrel

## 米埔內后海灣國際重要濕地

### 生態監測

漁護署自二零零一年八月推行米埔內后海灣國際重要濕地的生態監測計劃，目的是要收集此濕地的每年基線生態特徵資料，以作保育管理之用。

香港大學的生態學及生物多樣化學系，獲委派進行二零零一至零二年度的計劃，主要監測範圍包括抽樣調查海洋底棲動物、分析鳥類種群數據、生境分佈及狀況；亦會參考相關的環境數據，例如泥灘的沉積情況、水質、沉積物的質素、土地用途改變等，作為對照。

### 水鳥監測

在政府撥款資助下，香港觀鳥會每月點算在米埔內后海灣國際重要濕地的水鳥種群數目。在二零零一年十月至二零零二年三月期間，使用這國際重要濕地的水鳥數目高達53 050隻——當中包括4 400隻鷺鳥、19 000隻野鴨、13 000隻海鷗及燕鷗、10 200

隻涉禽、250隻秧雞及6 200隻鸕鶿。研究顯示，於冬季在此濕地棲息的水鳥種群數目，在過去五年均維持在50 000至60 000隻的穩定水平。

遊人可沿著米埔濕地的浮橋，觀賞兩旁的紅樹林  
Visitors may take a look at mangroves by the side of a floating bridge at Mai Po wetland



黑翅長腳鷸  
Black-winged Stilt



## MAI PO INNER DEEP BAY RAMSAR SITE

### Ecological monitoring

The AFCD has been implementing the Mai Po Inner Deep Bay Ramsar Site Ecological Monitoring Programme since August 2001. The programme aims at collecting baseline information of each year on the ecological character of the Ramsar Site for conservation management.

The Department of Ecology and Biodiversity of the University of Hong Kong has been appointed to carry out the 2001-02 programme. The main aspects of monitoring include sampling of marine benthic animals, analysing bird population data, habitat extent and conditions. Cross reference will be made to environmental data such as mudflat sedimentation, water quality, sediment quality and land use changes.

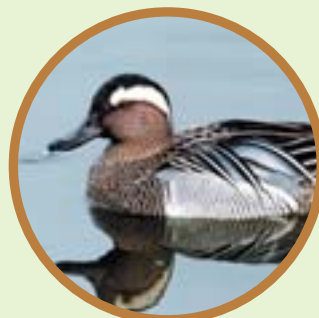
### Waterbird monitoring

The number of waterbirds in the Ramsar Site is counted monthly by the Hong Kong Bird Watching Society under government subvention. During the period from October 2001 to March 2002, the total peak count of waterbirds utilising the Ramsar Site was about 53 050—4 400 Ardeids, 19 000 Anatidaes, 13 000 gulls and terns, 10 200 shorebirds, 250 rails and coots, and 6 200 cormorants. Studies indicated that the population of winter waterbirds in the Ramsar Site has been stable at the range of 50 000 to 60 000 in the past five years.

琵咀鴨  
Northern Shoveler



白眉鴨  
Garganey



## 黑臉琵鷺護理計劃

黑臉琵鷺是一種瀕危雀鳥，全球僅餘960隻。在二零零一至零二年度冬季，約200隻(佔其全球總數20%)的黑臉琵鷺，在冬季或遷徙期間，以米埔內后海灣國際重要濕地作為棲息地或中轉站，令這塊國際重要濕地成為第二大黑臉琵鷺的冬季棲息地。

故此，本署於二零零一年為黑臉琵鷺籌劃一個五年保育計劃，該計劃的目的是維持此國際重要濕地的優良條件，為黑臉琵鷺提供過冬的地方。為達至此目標，執行的行動包括保護棲息地的措施、物種及棲息地管理、監察和研究、教育與訓練、區域合作等。

據一項在這國際重要濕地的黑臉琵鷺的年齡架構評估顯示，在二零零一至零二年度，成年及未成年的琵鷺的比例為59：41，黑臉琵鷺的數目將平穩增長。



出生首年的琵鷺翅膀末端呈黑色，而成鳥的羽毛則是全白色  
Juvenile Spoonbills in their first year have black wing tips,  
whereas in adults they are all white





一群黑臉琵鷺在基圍休息  
Black-faced Spoonbills in gei wai

## CONSERVATION PLAN FOR BLACK-FACED SPOONBILL

The Black-faced Spoonbill is a globally endangered species with only about 960 individuals in the world. In 2001-02, about 200 Black-faced Spoonbills, or 20 per cent of their global population, utilised the Mai Po Inner Deep Bay Ramsar Site as winter or stop-over site in their migration. This Ramsar Site is the second largest wintering site for Black-faced Spoonbills.

In this connection, a five-year conservation plan for Black-faced Spoonbills in Hong Kong has been drawn up in 2001. The plan aims at maintaining the Ramsar Site in a favourable condition for wintering population

of the Black-faced Spoonbill. To achieve this objective, actions have been taken - including site safeguard, species and habitat management, monitoring and research programme, education and training, and regional cooperation.

A study on the age structure of the Black-faced Spoonbill at the Ramsar Site found that the ratio of adult to non-adult Spoonbills in 2001-02 winter was 59:41, which suggested that the population of Black-faced Spoonbills will grow steadily.



自然護理員放生初生海龜  
Nature wardens releasing  
baby turtles

## 綠海龜保育計劃

南丫島深灣是瀕危物種綠海龜在香港唯一的產卵地方。綠海龜保育措施包括將深灣沙灘在每年六月至十月綠海龜產卵期間劃為限制進入區，清理沙灘上阻礙綠海龜上岸的植被，派自然護理員巡邏，以及教育公眾保育海龜的知識。

### 人工孵化

保留海龜蛋在巢中自然孵化，是常用的存護方式。但是，在某些情況下，有需要取去海龜蛋進行人工孵化，確保海龜蛋安全孵化。在二零零一年夏季，由於持續降雨，以致巢穴有積水的危險，本署移走巢內的121隻海龜蛋，進行人工孵化。兩個月後，成功孵出85隻小海龜，80隻海龜於夏季末放回大海，其餘5隻則保留以作保育教育之用。

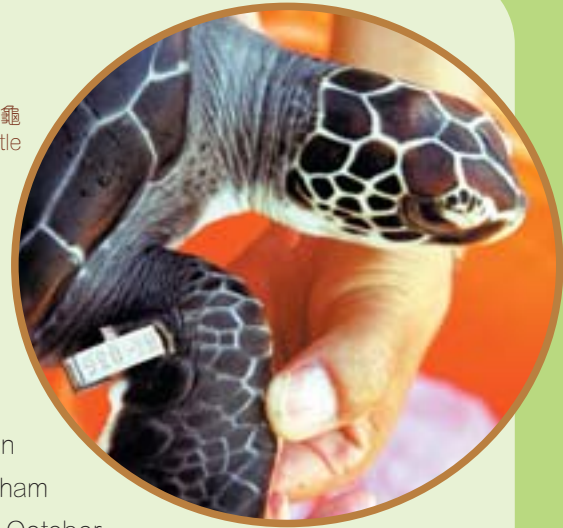
### 標籤及放生綠海龜

有關附加標籤工作方面，在二零零零年夏季，本署將刻有「HK」字樣、編號及本署地址的合金標籤，附加在一隻上岸產卵的母海龜的前鰭。當母海龜再次出現時，本署便可憑標籤作識別。長遠而言，附加標籤工作有助估計在香港產卵的海龜數目、習性、遷徙路線、覓食地等資料。

本署與海洋公園在二零零一年夏季末，把於二零零零年十一月人工孵出的另一批為數20隻小海龜附加標籤、植入微型晶片及放回大海。該批小海龜在孵出後未能即時放生，是由於當時海水溫度太低，故由海洋公園協助照顧海龜約一年，然後才放回大海。



附上標籤的綠海龜  
A tag attached to a green turtle



## GREEN TURTLE CONSERVATION PROGRAMME

In Hong Kong, Sham Wan on Lamma Island is the only nesting site of Green Turtles, a highly endangered species. The Green Turtle Conservation Programme adopted conservation measures including designation of the Sham Wan beach as a restricted area during the nesting period from June to October each year, clearance of vegetation on the beach that may obstruct Green Turtles from nesting, regular patrol and public education about sea turtle conservation.

### Artificial Incubation

While it has been general practice to protect turtle eggs in the nest for natural hatching, there are circumstances under which removal of eggs for artificial incubation is necessary as an alternative means to ensure safe hatching. A clutch of 121 turtle eggs was removed for artificial incubation in summer 2001 because of continuous heavy rain and the risk of waterlogging of the nest. After two months of incubation, 85 eggs hatched out baby turtles. Eighty were released back to the wild in late summer and the remaining five were kept for conservation education.

### Tagging and Release of Green Turtles

On the tagging programme, an alloy metal tag etched with the abbreviation of "HK", an identification number and the address of the AFCD was attached to the front flipper of a female turtle which nested in the summer of 2000. The tagging programme will enable the department to identify individual turtles if they are found again. In the long term, it helps information gathering on estimated population size, habits, migratory routes and feeding sites of the turtles that nest in Hong Kong.

In late summer of 2001, a batch of 20 juvenile Green Turtles artificially incubated in November 2000 were tagged, microchipped and released to the sea by the AFCD and the Ocean Park. As the sea temperature following the hatching time then in 2000 was too low for immediate release of this batch of baby turtles, the Ocean Park helped in taking care of the turtles for about a year before eventually releasing them back to the sea.



一群小海龜遊向大海  
A group of juvenile turtles heading towards the sea

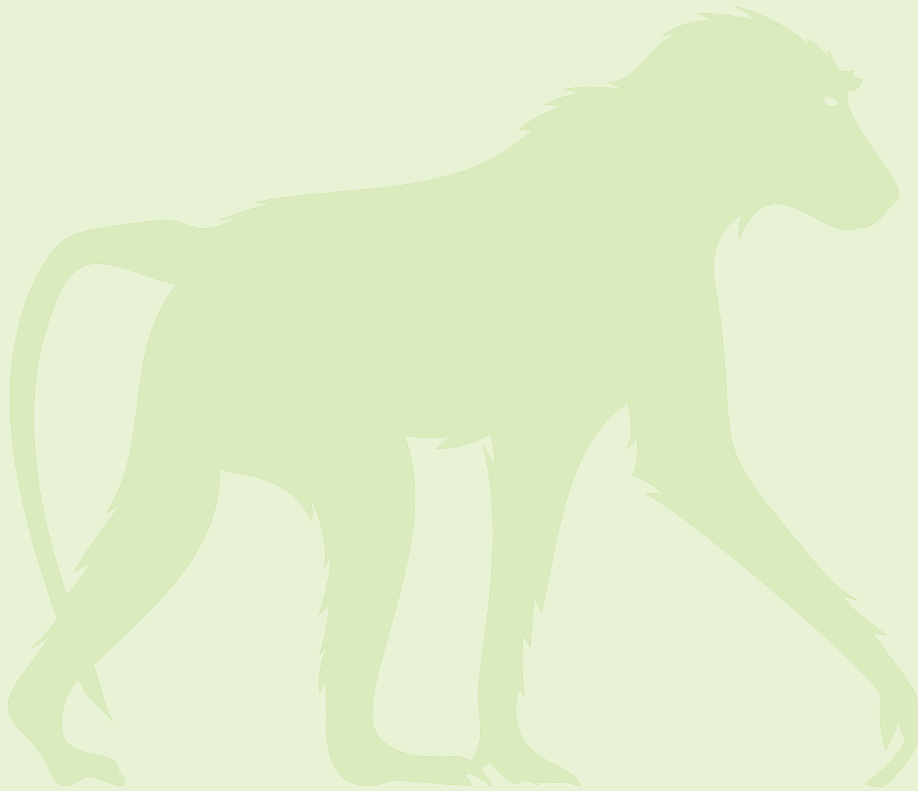


## 控制野生猴子數目

野生猴子主要在金山郊野公園、獅子山郊野公園、城門郊野公園及大埔滢自然護理區一帶出沒。估計於二零零二年初的猴子數目為1 300隻，其數目每年估計以5.5%至7.8%的比率增長。由於猴子數目持續增加，故有需要控制其數目，作為長遠管理措施。

漁護署在二零零二年初，為一些野生猴子進行避孕處理的野外試驗，探討以避孕方法控制野生猴子數目的可行性。被捕獲的猴子先被輕度麻醉，然後進行避孕疫苗注射，又在耳部作標記及植入微型晶片，以資識別，再注射預防狂犬病疫苗後，於即日放回所屬猴群。

本署會監察被注射避孕疫苗的猴子至少兩年，野外試驗結果將被用作制訂野生猴子避孕的大型長遠計劃。



## POPULATION CONTROL OF WILD MONKEY

Wild monkeys are mainly found in Kam Shan, Lion Rock, Shing Mun Country Parks and Tai Po Kau Nature Reserve. The estimated population in early 2002 is about 1 300, with an annual growth rate from 5.5 per cent to 7.8 per cent. In view of the continuous increase, population control is required for long-term management of the species.

The feasibility of implementing population control for wild monkeys by contraceptive treatment was explored by field trials which commenced in early 2002. The captured monkeys were lightly anaesthetised by injection, treated with contraceptive agent, ear-notched and microchipped for identification, vaccinated against rabies and then released back to their social group on the same day.

The treated monkeys will be observed in the field for at least two years. Field trial results will be used in planning a large-scale contraception programme for the wild monkeys in the long run.



## 管制瀕危物種貿易

在二零零二年二月，本署完成修訂香港法例第187章《動植物(瀕危物種保護)條例》，將更多瀕危物種納入管制範圍，包括畫眉及閉殼龜，以符合《瀕危野生動植物種國際貿易公約》締約國大會的最新決定。

年內，本署完成檢討現有的法例條文，以精簡管制程序，現正進行修訂法例工作。

由於香港是野生動植物的貿易中心之一，本署務必落實執行法例，確保只許合法貿易進行。本署於二零零一年十二月成功檢獲一批由新加坡非法入口的淡水龜，並與嘉道理農場暨植物園合作，開展大型拯救行動，在其後數月，將超過4 000隻淡水龜送往美國及歐洲，作保育用途。

## 清除薇甘菊

薇甘菊是外來的攀援植物，在一些受干擾和空曠地方如路旁及荒廢的土地較為常見。薇甘菊生長迅速，長期被其厚密的葉和莖所覆蓋的植物，會因無法接收足夠陽光而影響生長。而在郊野茂密的樹林內，由於樹木高大及林內光照較弱，不利薇甘菊生長，因此薇甘菊對樹林沒有構成不良影響。

為防止薇甘菊在保育地區蔓生，本署調配更多人手及資源，清除於郊野公園、特別地區及具特殊科學價值地點內的薇甘菊，並與廣東省林業局合作，研究更多有效措施，以控制及防治薇甘菊的生長。有關研究於二零零二年初開始，預計於二零零三年底完成。

## CONTROL ON TRADE IN ENDANGERED SPECIES

In February 2002, the Animals and Plants (Protection of Endangered Species) Ordinance, Cap. 187 was amended to give effect to changes that were adopted by the Conference of Parties to Convention on International Trade in Endangered Species of Wild Fauna and Flora. More species were added to the control list, including Hwamei and Asian Box Turtles.

To streamline the control procedures, a review of the current Ordinance was completed in the year. Process for legislative amendment is underway.

As Hong Kong is one of the trade centres of wildlife animals and plants, enforcement action is in place to ensure that only legal trade would be conducted. In December 2001, an illegal shipment of freshwater turtles imported from Singapore was intercepted. Under the joint effort with the Kadoorie Farm and Botanic Garden, a large-scale rescue operation was launched. In the following months, over 4 000 turtles were sent to the United States and Europe for conservation purpose.

## CLEAR MIKANIA EXERCISE

Mikania (*Mikania micrantha*) is an exotic climber which grows rapidly in open and disturbed areas such as roadsides and derelict land. Overgrowth of Mikania causes damage to other plants by cutting out the light and smothering them. However, Mikania seldom grows in the shade and it has not caused adverse impact on established woodland comprising large trees with close canopy.

To prevent the proliferation of Mikania in sites of conservation value, the AFCD has deployed more manpower and resources to clear Mikania found in country parks, special areas and Sites of Special Scientific Interest and is collaborating with the Forestry Department of Guangdong Province to explore more effective measures for controlling and preventing Mikania. The study commenced in early 2002 and is scheduled to be completed by the end of 2003.