

Country Parks and Conservation

COUNTRY PARKS

Although Hong Kong is one of the world's metropolises, out of the total 1 108 square kilometres of land, about three quarters is countryside. Scenically, Hong Kong has a great deal to offer — a landscape rising from sandy beaches and rocky foreshores to heights of almost 1 000 metres, woodlands and mountain ranges covered by open grassland and a variety of scenic vistas rarely, if ever, matched in so small a territorial unit.

The Country Parks Ordinance provides a legal framework for the designation, development and management of country parks and special areas. It provides for the establishment of a Country and Marine Parks Board to advise the Director of Agriculture, Fisheries and Conservation on all matters related to country parks and special areas.

A total of 24 country parks have been designated for the purposes of nature conservation, countryside recreation and outdoor education. There are 22 special areas created mainly for the purpose of nature conservation.

The Parks: The country parks and special areas cover a total area of 44 300 hectares. The country parks comprise scenic hills, woodlands, reservoirs and coastline in all parts of Hong Kong. The Agriculture, Fisheries and Conservation Department (AFCD) manages the parks and is responsible for tree planting, plantation enhancement, conservation education, fire prevention and fighting, keeping country parks clean, development control and provision of recreation and education facilities. The country parks are very popular with all sectors of the community and spending a day in a country park is accepted by many as one of the best recreational choices in town. Some 13 million visitors were recorded in 2016 and most visitors engaged in hiking, leisure walking, fitness exercises, barbecuing, family picnics and camping.

Facilities: Park facilities provided in recreational sites include tables and benches, barbecue pits, litter bins, children's play apparatus, shelters, campsites and toilets — all carefully designed to blend in with the environment.

Footpaths and country trails provide easy access to the hills and the woodlands for visitors to enjoy the scenic beauty of these areas. Major paths are regularly improved and waymarked. The four long-distance hiking trails are very popular among hikers. The MacLehose Trail (100 kilometres) traverses the New Territories from Sai Kung in the east to Tuen Mun in the west. The Lantau Trail (70 kilometres) is a circular trail on Lantau Island. The Hong Kong Trail (50 kilometres) traverses all the five country parks on Hong Kong Island. The Wilson Trail (78 kilometres) stretches from Stanley in the south of Hong Kong Island to Nam Chung in the north New Territories.

Education and Visitor Services: Leaflets are published to help visitors to enjoy and understand the country parks. The Lions Nature Education Centre at Tsiu Hang Special Area in Sai Kung is a special attraction to visitors as it consists of both indoor and outdoor displays of vegetables, rocks and minerals and other local vegetation. The Woodside Biodiversity Education Centre at 50 Mount Parker Road in Quarry Bay introduces Hong Kong's precious nature resources and biodiversity. Along nature trails and tree walks, there are on-site interpretative signs for those who wish to study the nature. Websites and smartphone applications are developed to provide the public with information about hiking trails and tree walks in country parks.

Furthermore, community-involved conservation programmes such as the Nature in Touch Education Programmes, Hiking and Planting Days, "Take Your Litter Home" Public Education Programme, School Visit Programme, Country Parks Volunteer Scheme, Guided Walks and many other educational activities, have also been organised.

MARINE PARKS

The Marine Parks Ordinance protects and conserves the marine environment and a rich collection of aquatic animals and plants, such as corals, sea grasses and dolphins. The ordinance also provides the legal framework for the designation, control and management of marine parks and marine reserves. The Marine Parks and Marine Reserves Regulation provides for the prohibition and control of certain activities in marine parks and marine reserve.

The Parks/Reserve: There are five marine parks and one marine reserve covering a total sea area of 3 400 hectares. They comprise scenic coastal areas, seascapes and important marine habitats.

Marine parks are managed with an approach of multiple use for conservation, education, recreation and scientific studies. Only activities compatible with the objectives of marine parks would be allowed. Diving, snorkeling, canoeing, sailing, underwater photography and school visits are popular activities in marine parks. Activities destructive to marine environment and coastal features such as trawling, unauthorised fishing, hunting or collecting of marine life are prohibited. On-site information boards, mooring buoys and markers are installed. Educational activities such as guided tours and public lectures are regularly organised to enhance the public's sense of conservation of marine environment. The marine reserve is strictly protected for nature conservation and scientific studies, hence no recreational activities are allowed.

GEOPARK

The Hong Kong UNESCO Global Geopark is located in the eastern part of Hong Kong and extends from the northeast of the New Territories to the Sai Kung area. It is a single entity where sites and landscapes of international significance are holistically managed with the support of local communities and other geopark stakeholders.

Sai Kung Volcanic Rock Region: This region displays hexagonal volcanic rock columns, which are world class in terms of size and coverage.

High Island: A splendid array of hexagonal rock columns is exposed along the coast of High Island, and the Tai Long Wan coast nearby showcases a coastal landform of volcanic rocks.

Ung Kong Group: The islands that made up the Ung Kong Group showcase some spectacular hexagonal rock columns, precipitous cliffs and sea arches, such as those at Wang Chau and Basalt Island of 30 metres and 45 metres high.

Ninepin Group: The Ninepin Group is made up of East Ninepin, South Ninepin and North Ninepin, and several small rock islets. Imposing hexagonal rock columns of North Ninepin Island are particularly gigantic, with some measuring over two metres in diameter.

Sharp Island: The coasts of Jin Island and southwest Kau Sai are dominated by columnar joints of tetragonal or pentagonal shapes. Sharp Island is covered by different volcanic rocks such as lava and eutaxite.

Northeast New Territories Sedimentary Rock Region:

This region represents the most comprehensive stratigraphy of sedimentary rocks in Hong Kong, ranging from Devonian sandstone and conglomerate of about 400 million years of age to Tertiary siltstone of 65 million years old.

Double Haven: As a result of the rise in sea level 6 000 to 8 000 years ago, the river valleys in Double Haven were flooded, therefore forming indented shorelines with headlands and bays. Famous landforms here include Hung Shek Mun, Camp Cove and Double Island.

Tolo Channel: The rocks along the north coast of Tolo Channel are the oldest in Hong Kong. Ma Shi Chau represents the sedimentary rocks formed some 280 million years ago; various igneous rocks and sedimentary rocks at Lai Chi Chong of south coast were formed 140 million years ago.

Port Island and Bluff Head: Bluff Head (Wong Chuk Kok Tsui) has the oldest rocks in Hong Kong, formed by deposits at estuarine deltas about 400 million years ago. Port Island (Chek Chau) is best known for its red conglomerate, sandstone and siltstone resulted from the iron components that oxidized about 100 million years ago.

Tung Ping Chau: Tung Ping Chau has the youngest rocks in Hong Kong which are only 65 million years old. The island displays a unique sedimentary rock landscape in Hong Kong with various abrasion landforms, such as Lung Lok Shui (literally meaning a dragon entering into the sea).

CONSERVATION

The nature conservation policy is to regulate, protect and manage natural resources that are important for the conservation of biological diversity of Hong Kong in a

sustainable manner, taking into account social and economic considerations, for the benefit and enjoyment of the present and future generations of the community. The first city-level Biodiversity Strategy and Action Plan for Hong Kong was published in December 2016, to step up conservation efforts and support sustainable development.

The proportion of land area put under the protected area system in Hong Kong compares favourably with other cities/places at similar stage of economic development. Moreover, despite its small size and rapid development over the years, Hong Kong still enjoys a rich biological diversity. The AFCD, through its territory-wide survey programme, identifies and monitors the important components of biological diversity in Hong Kong. The AFCD also publishes field guides on various animals and plants of Hong Kong and maintains the Hong Kong Biodiversity Online (www.hkbiodiversity.net) and Hong Kong Live Eco-map (www.hkecomap.net) to introduce Hong Kong's biological diversity to the community.

Habitat Protection: About 40 per cent of land in Hong Kong has been designated as country parks and special areas which provide statutory protection for the habitats of diverse flora and fauna. In addition, 67 Sites of Special Scientific Interest (SSSIs) have been listed to recognise the scientific importance of these sites and to ensure that due consideration to conservation is given when developments in or near these sites are proposed. For example, Ma On Shan and Sha Lo Tung have been listed as SSSIs in recognition of the presence of the diverse populations of azaleas and dragonflies in Hong Kong respectively.

The AFCD also implements active conservation programmes to enhance important habitats. These include creation of wetlands and butterfly gardens in country parks and management of vegetation in forests and egeries.

Flora: The flora of Hong Kong is diverse in character and surprisingly rich in species. Many typical species of the Southeast Asian tropical flora are seen here at the limit of their northern distribution range. More than 3 300 species and varieties of vascular plants have been recorded in Hong Kong, approximately 2 100 of which are native and the rest are introduced or of exotic origin.

Hong Kong Herbarium: Established in 1878, the AFCD's Hong Kong Herbarium is responsible for the systematic collection, identification and curation of plant specimens of the Hong Kong flora. The Herbarium also publishes the Check List of Hong Kong Plants, herbarium leaflet series and other related technical publications (e.g. Flora of Hong Kong). It plays a significant role in supporting the studies on taxonomy, ecology and conservation of Hong Kong flora. Currently it houses approximately 44 400 plant specimens and is equipped with a specialised library and a plant database (herbarium.gov.hk) to support its function.

Conservation of Flora: Efforts have been made to conserve native flora in Hong Kong. In addition to habitat protection, they are also conserved through the following approaches.

Species Protection: Under the Forests and Countryside Ordinance, damaging plant in any forest or plantation on government land is prohibited. Some rare and attractive species such as *Camellia* species, *Enkianthus quinqueflorus*, *Iris speculatrix* and *Impatiens hongkongensis*, are specifically listed in the Forestry Regulations to control their sale and possession.

Propagation: Various methods such as seed collection, cutting, air layering, etc, have been used to propagate Hong Kong's native flora including rare and endangered species in the AFCD's plant nursery. The seedlings are planted in the countryside for enriching local biodiversity. Rare species successfully propagated include *Keteleeria fortunei*, *Camellia crapanelliana* and *Camellia granthamiana*.

Ex-situ Conservation: A base for flora conservation has been set up at the Shing Mun Arboretum. About 300 species representative to the native flora, including some rare and endangered species have been propagated and established there for conservation and education purposes. A greenhouse has also been set up for conservation of fragile species and orchids.

Terrestrial Mammals: Hong Kong has over 50 species of terrestrial mammals. Red Muntjacs are heard and seen in wooded areas from time to time. Large mammals like Leopard Cats, Small Indian Civets, East Asian Porcupines and Masked Palm Civets are often found at night in woodland areas. There are Eurasian Wild Pigs in the countryside areas, occasionally causing damage to crops.

Unlike others, Rhesus Macaques are easily seen in Kam Shan and Shing Mun Country Parks. Visitors are reminded not to feed these wild animals as uncontrolled feeding has led to unnatural growth of the monkey population and caused nuisances. A feeding ban has been implemented and enforced in the area since July 1999 to help the monkeys revert back to forage for natural food in the natural environment.

Smaller mammals such as Pallas's Squirrels, Chestnut Spiny Rats and Musk Shrews are commonly encountered in rural areas while certain bats like Himalayan Leaf-nosed Bats, Pomona Leaf-nosed Bats and Chinese Horseshoe Bats can be found in caves and water tunnels.

Birds: Hong Kong is a major stopover point of East Asia's migration routes for birds. The wide variety of local habitats including wetlands, grasslands, woodlands, seashores and farmlands contribute to the diversity of the birds. There are over 540 species of wild birds including residents, winter visitors, passage migrants, summer visitors, occasional visitors and vagrants recorded in Hong Kong. 61 of them are globally threatened or near-threatened species. About 100 resident species have been recorded breeding in the territory.

The Mai Po Marshes are listed as a Restricted Area under the Wild Animals Protection Ordinance and access is restricted to permit holders. This area comprises extensive mudflat, mangrove and gei wais which are the richest wetland habitats for migratory birds in Hong Kong. The Marshes form part of the 1 500-hectare Mai Po Inner Deep Bay Ramsar Site which was listed as a Wetland of International Importance under the Ramsar Convention in

1995. The Ramsar Site is also a site of the "East Asian-Australasian Flyway Site Network" for enhancing international communication and cooperation in the conservation of migratory waterbirds. About 400 species of birds, including a number of endangered species (e.g. Black-faced Spoonbill, Spoonbilled Sandpiper and Nordmann's Greenshank), have been recorded in the Ramsar Site.

Amphibians and Reptiles: Hong Kong has over 100 species of amphibians and reptiles. Among them, snake is the largest group, with 52 species. The largest snake is the locally protected Burmese Python, whose body length could reach up to 6 metres. On the other hand, the smallest member, Common Blind Snake, is only 15 centimetres in length. There are 21 native species of lizards, including the endemic Bogadek's Burrowing Lizard, which can only be found on a few outlying islands. There are 10 native species of chelonians in Hong Kong, among which the Green Turtle is of particular conservation interest in that it is the only species of sea turtles breeding locally. The nesting site of Green Turtles at Sham Wan of Lamma Island was designated as a Restricted Area in 1999 to minimise human disturbance and protect the species during the breeding season.

Hong Kong has a total of 24 species of amphibians. Three of them, Hong Kong Cascade Frog, Hong Kong Newt and Romer's Tree Frog, have been listed as protected wild animals under the Wild Animals Protection Ordinance. A site that supports one of the largest populations of the Romer's Tree Frog, part of Ngong Ping on Lantau Island, has also been designated as a Site of Special Scientific Interest (SSSI) in May 1999 to protect the habitat of the species.

Insects: Hong Kong has a rich insect fauna. There are 236 species of butterflies, including the beautiful Swallowtails. With wings that span up to 30 centimetres, the Atlas Moth is outstanding for its large size among the numerous species of moths found in Hong Kong. The Indian Moon Moth is eye-catching for the long tails on its hindwings. With 123 species recorded, there is also a great diversity of dragonfly fauna in Hong Kong. Some of the species are endemic to Hong Kong and even new to science.

Aquatic Animal: The marine fauna of Hong Kong is exceedingly diverse. Though primarily tropical, it is an admixture of tropical South China Sea and temperate Chinese forms because of the seasonal fluctuations of warm and cold water and monsoon weather conditions.

Of an estimated 1 800 species of fish on the South China continental shelf, clupeoids, croakers and sea breams are the dominant groups in Hong Kong waters. Farther offshore, golden thread, big-eyes and others are also of high value to fishermen.

Marine invertebrates are also abundant, ranging from corals, molluscs to crustaceans. There are 84 species of stony corals in Hong Kong. The richest coral communities prevail to the east of Hong Kong where the waters are both sheltered and free from the influence of Pearl River.

Chinese White Dolphins and Finless Porpoises are resident species and can be found year-round. All cetaceans

are protected in Hong Kong under the Wild Animals Protection Ordinance.

There are over 190 species of freshwater fish, of which about 70 primary freshwater species spend their entire lives in freshwater. Of the primary freshwater fish, cyprinids are dominant. Two other major groups of freshwater fish are brackish species and marine vagrants, each with about 50 species recorded in Hong Kong.

Hong Kong Wetland Park: The Hong Kong Wetland Park aims to promote nature conservation and education, as well as nature-based tourism. The 61-hectare park comprises a 10 000-square meter visitor centre with interactive galleries showcasing the functions and values of wetlands and an outdoor wetland reserve with a wide range of habitats, including freshwater marshes, mangroves, woodlands, shrublands, reedbeds and mudflats, demonstrating the diversity of Hong Kong's wetland ecosystem. With spectacular displays in a delightful natural setting, the park offers a rewarding experience for visitors to discover the wonderful world of wetlands.

The park also serves as a hub of nature conservation education organising numerous activities for the general public, schools and tourists, such as guided tours, workshops, lectures and volunteers' programmes. Visitors can reach the park by taking the Light Rail at Tin Shui Wai West Rail Station. The standard admission fee to the park is \$30. Concessionary tickets, including those for students, seniors (aged 65 or above) and people with disabilities, are also offered at \$15.
