



19 June 2012

## **Joint Green Groups' Statement on Protection and Conservation of Tung Chung River, Estuary, Coastal Areas and Associated Habitats**

1. The undersigned groups are deeply concerned about the Government's plan to reclaim the Tung Chung River Valley and coastal areas for development under the "Planning and Engineering Study on the Remaining Development in Tung Chung", which will destroy Tung Chung River Valley's intact and integrated stream, riparian, estuarine and coastal ecosystems. These habitats support outstanding biodiversity. Tung Chung River is one of the few remaining major streams in Hong Kong which has not been overly affected by channelization or water pollution, and largely retains its natural state throughout the whole river course from headwater to estuary. The Tung Chung River system is unique in the local context. Its headwaters flow down from Hong Kong's second and third highest peaks, and run uninterrupted all the way to the shallow Tung Chung Bay. The high connectivity and continuity along its whole length from the montane area to estuary make it exceptionally rich in its aquatic and coastal biodiversity, including many rare and endangered species. The surrounding land area also contains diverse habitat types, supporting many ecologically important animal and plant species in Hong Kong.
2. We urge the Government to protect the Tung Chung River (both channelized and natural sections, and its tributaries), its estuary, the entire Tung Chung Bay and other remaining natural habitats within Tung Chung Valley, which are of high ecological, landscape, hydrological and cultural values, so as to preserve natural resources for nature conservation, community use and enjoyment, and fisheries. In addition, we have prepared a recommended Development Permission Area (DPA) plan incorporating our vision for a sustainable future for Tung Chung's remaining natural areas for Government's consideration.

3. Tung Chung has a special history and a unique setting. It has been settled since the fall of the Southern Sung Dynasty in 1279. The bay was the setting for a huge naval battle in 1810 when the Qing navy defeated the notorious pirate Cheung Po Tsai. The Tung Chung Fort and Tung Chung Battery dated from these times and are listed monuments. Lying between the forested slopes of Lantau Peak and Nei Lek Shan, the bay with the immensely photogenic fishing village on Ma Wan Chung, the historic Hau Wong Temple in its coastal setting, and the sea grass and mangrove stands, offers a unique panorama and insight for visitors and locals alike. These aspects would disappear if Tung Chung is further developed.
4. We would also note that the Convention on Biological Diversity was extended to Hong Kong with effect from 9 May 2011. The implication of the extension is a commitment to develop and implement best international practices for the conservation and sustainable use of biodiversity. There are now further obligations for our future development plans to effectively manage and protect our valuable ecological diversity within or outside the protected areas and ensure their conservation and sustainable use. Under Article 8 of this Convention, each contracting party shall:
  - Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
  - Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
  - Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;
  - Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;
  - Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;
  - Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;
  - Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components.
5. Therefore, compatible landuse should be extended to Tung Chung River, estuary, coastal areas and associated habitats which can serve as a green lung for the existing residents of Tung Chung. Our vision for the Tung Chung's remaining natural areas is as follows:
  - a. Protect and conserve high quality natural habitats which are of rich biodiversity and ecological value through conservation planning, management and monitoring. In particular, Tung Chung River, estuary, woodlands and the coast should not be exploited for any development and protected statutorily as "Site of Special Scientific Interest", "Conservation Area" and "Coastal

Protection Area” zones as illustrated in our recommended DPA plan for Tung Chung remaining natural areas. (See Appendix 1 regarding green groups’ recommended DPA plan for Tung Chung’s remaining natural areas.)

- b. Promote compatible community use and enjoyment in the Tung Chung River Valley and the estuary through environmental education and passive recreation activities. Ecologically-friendly facilities which encourage the public to assess Tung Chung River and the estuary can be considered, for example, eco-trails, a riverside park, a nature education centre, resting places and look-out towers.
  - c. Enhance the tourist appeal of Tung Chung River Valley based on its river landscape and cultural heritage through improved linkage to existing Country Parks in Lantau, as Tung Chung River Valley is located amongst existing tourist spots including Hong Kong International Airport, Ngong Ping Cable Car, Po Lin Monastery and the Tian Tan Buddha Statue.
6. In order to further support the ecological value of Tung Chung River, estuary, coastal areas and associated habitats, a number of conservation groups have commenced ecological surveys in these areas. The results will be released and submitted to the Government to facilitate environmentally and socially sound planning for Tung Chung’s remaining natural areas. The surveys cover a wide range of taxa groups and a summary of the results is presented below.

7. Tung Chung River and riparian zones

The preliminary results show that Tung Chung River is rich in freshwater fish species. Over 20 freshwater fish species (11% of total number of freshwater species) can be found in the Tung Chung River and five of them (including Beijiang Thick-lipped Barb (*Acrossocheilus beijiangensis*) and Giant Mottled Eel (*Anguilla marmorata*)) are considered to be of high conservation importance. In fact, Tung Chung River is one of the last local streams which still has a natural estuary. Tung Chung River and its riparian zones are also ecologically important for 25 amphibian and reptile species (22% of total number of amphibian and reptile species) including the endemic Romer’s Tree Frog (*Liuixalus romeri*) and Hong Kong Newt (*Paramesotriton hongkongensis*) which are protected by law. At least 48 butterfly species (18% of total number of butterfly species) can be found in Tung Chung’s remaining natural habitat, and a population of one rare butterfly species, Jhora Scrub Hopper (*Aeromachus jhora*) can be found within the marsh inside Tung Chung River.

8. Tung Chung Estuary and Tung Chung Bay

Tung Chung Estuary is characterised by mudflat, mangrove, saltmarsh and seagrass habitats and the San Tau seagrass bed SSSI is located on its western side. The estuary is home to various mangrove plant and animal species and is also the breeding and nursery ground for two horseshoe crab species, Chinese Horseshoe Crab (*Tachypleus tridentatus*) and Mangrove Horseshoe Crab (*Carcinoscorpius rotundicauda*) and one pipefish species, Seaweed Pipefish (*Syngnathus schlegeli*), demonstrating its high ecological value and importance in local context. Tung Chung

Bay is also exceptional in terms of economically important juvenile fish and crustacean species, which shows that Tung Chung Bay is an important nursery area of commercial fisheries resources. The bay is also an important foraging ground for some important wetland bird species like Swinhoe's Egret (*Egretta eulophotes*) and Pacific Reef Egret (*Egretta sacra*).

#### 9. Tung Chung Valley

Tung Chung Valley is largely covered with wooded areas and several Fung Shui Woodlands are identified. The secondary woodlands surrounding Tung Chung Valley are good in quality and are used by many fauna species. These woodlands also contain protected plant species like Incense Tree (*Aquilaria sinensis*) which are of conservation importance. Four butterfly species of conservation importance are recorded near the Tung Chung woodlands, including Oriental Striped Blue (*Leptotes plinius*), Peacock Royal (*Tajuria cippus*), Golden Birdwing (*Troides aeacus*) and Common Birdwing (*Troides helena*). (See Appendix 2 for some highlighted key ecologically important species recorded in the Tung Chung River, valley, estuary and bay.). Part of Tung Chung River, its riparian habitats and its estuarine habitats have been severely damaged by haphazard development over the last decade and it is time to provide appropriate planning and protection to the remaining key sites.

10. In view of the intactness, uniqueness and intricate ecology of Tung Chung River Valley, estuary and coastal areas and the social benefits of conserving these areas for public use and tourist attraction, any adverse impacts of development or incompatible uses in these areas must be avoided. Therefore, we strongly urge the government to:
- Prohibit civil engineering work, channelization and reclamation in Tung Chung River courses and banks, estuary and the entire Tung Chung Bay.
  - Prohibit any discharge of effluents and connection of outfalls to Tung Chung River channels and estuary. Any landuse and activity that brings about water pollution must be removed from Tung Chung River banks and the shores of Tung Chung Bay.
  - Rehabilitate the channelized/ damaged artificial river sections.
  - Adopt our recommended DPA plan to guide a sustainable planning and development in Tung Chung.
  - Terminate the present planning and engineering study on the remaining development in Tung Chung and not to fast-track the landuse planning, engineering feasibility and EIA study processes. We consider that the present proposed plan to reclaim Tung Chung Bay, with new town development as the decided objective, pre-empts the landuse planning and EIA process.

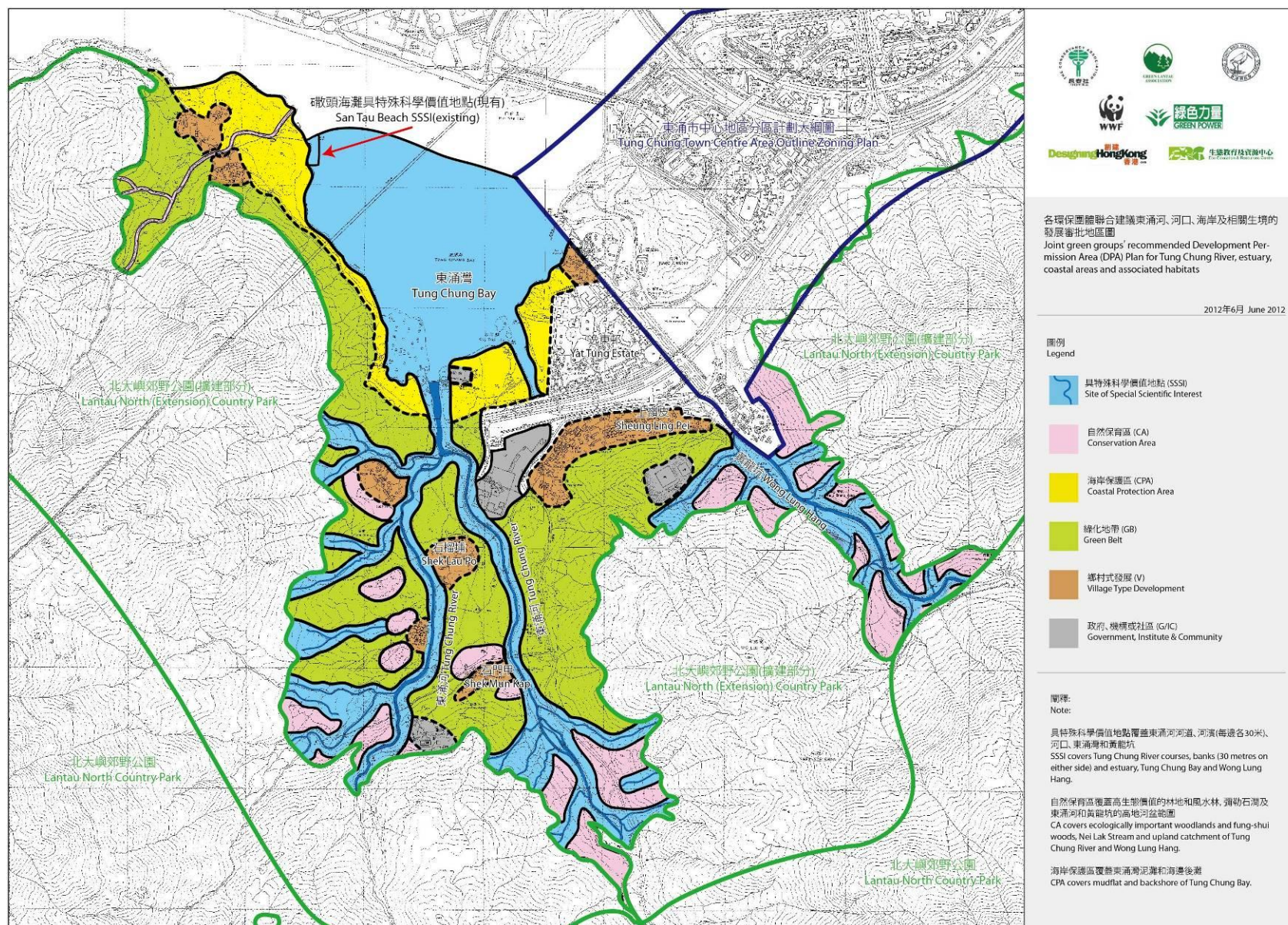
#### **Co-signed Groups**

Designing Hong Kong  
Eco-Education & Resources Centre  
Green Lantau Association  
Green Power

Hong Kong Bird Watching Society  
The Conservancy Association  
WWF-Hong Kong



## Appendix 1: Green Groups' recommended DPA plan for a sustainable planning for Tung Chung River, estuary, coastal areas and associated habitats.



**Appendix 2: List of some highlighted key ecologically important species recorded in Tung Chung River, Valley, estuary and bay.**

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
<b>Tung Chung River and Riparian Zone</b>					
Romer's Tree Frog	<i>Liuixalus romeri</i>	盧氏小樹蛙	Endemic to Hong Kong	Protected under Cap. 170 IUCN: Endangered <sup>1</sup> Fellowes et al. (2002): Potential Global Concern <sup>2</sup>	Riparian zones (woodlands/ vegetated areas; but also see below)
Hong Kong Newt	<i>Paramesotriton hongkongensis</i>	香港瘰螈	Restricted to coastal South China but fairly widespread locally	Protected under Cap. 170 IUCN: Near Threatened <sup>1</sup> Fellowes et al. (2002): Potential Global Concern <sup>2</sup>	Found in the main stream and tributaries of Tung Chung River System
Short-legged Toad	<i>Xenophrys brachykolos</i>	短腳角蟾	All confirmed records are from Hong Kong.	AFCD: Species of Conservation Concern <sup>3</sup> IUCN: Endangered <sup>1</sup> Fellowes et al. (2002): Potential Global Concern <sup>2</sup>	Small hill streams and wooded riparian zones; small tributaries associated with Tung Chung River provide suitable breeding habitats for this species.
Beijiang Thick-lipped Barb	<i>Acrossocheilus beijiangensis</i>	北江光唇魚	Populations considered to be native appear in only Hong Kong Island and Lantau; distribution highly	AFCD: Species of Conservation Concern <sup>4</sup> Fellowes et al. (2002): Global Concern <sup>2</sup>	Streams with natural bottom (gravel and sand); found in the main stream and tributaries of Tung Chung River System.

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
			restricted.		
Giant Mottled Eel	<i>Anguilla marmorata</i>	花鰻鱺	Rather restricted in distribution and population size very small; threatened by over-harvesting and population trend is likely to be decreasing	AFCD: Species of Conservation Concern <sup>5</sup> China Red Data Book: Endangered <sup>5</sup> China Species Red List: Endangered <sup>6</sup> Class II State Protected Species in China <sup>6</sup> Fellowes et al. (2002): Global Concern <sup>2</sup>	Diadromous species; inhabits streams with natural stream bed (gravel and sand); the stream-ocean corridor should not be blocked (i.e. channelization at certain section, culverted); stream flow and stream bed should remain natural (stream flow should not be further reduced); simply speaking, the whole stream should be preserved for protecting this species
Jhora Scrub Hopper	<i>Aeromachus jhora</i>	寬鐐弄蝶	Rare <sup>7</sup>	AFCD: Rare <sup>7</sup>	A population was found within the marsh inside Tung Chung River.
Hong Kong Spiranthes	<i>Spiranthes hongkongensis</i>	香港綬草	Threatened by overharvesting	Protected under Cap. 96 and 586.	Stream and riparian zone.
Pitcher Plant	<i>Nepenthes mirabilis</i>	豬籠草	Threatened by overharvesting	Protected under Cap. 96 and 586.	Riparian zone.
<b>Tung Chung Estuary and Tung Chung Bay</b>					
Burmese Python	<i>Python molurus</i>	蟒蛇	Widespread in Hong Kong but rare in South China	Protected under Cap 170 and 586 IUCN: Near Threatened <sup>1</sup> China Species Red List: Critically Endangered <sup>6</sup>	Woodlands, mangrove, saltmarsh, stream courses and vegetated riparian zone

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
				China Red Data Book: Critically Endangered <sup>6</sup> Class I State Protected Species in China <sup>6</sup> Fellowes et al. (2002): Potential Regional Concern <sup>2</sup>	
Chinese Horseshoe Crab	<i>Tachypleus</i> <i>tridentatus</i>	中國鬚	Restricted mostly to the Deep Bay and rare in other parts of Hong Kong <sup>10</sup>	IUCN - Data Deficient China Species Red List: Endangered Their abundance has declined substantially with low density on local shores in Hong Kong <sup>10</sup> .	Coastal bays, Intertidal soft shore, and the bottom of open sea
Mangrove Horseshoe Crab	<i>Carcinoscorpius</i> <i>rotundicauda</i>	圓尾鬚	Mainly in Deep Bay and Lantau Island. Also recorded in Luk Keng and Lai Chi Wo <sup>10</sup>	IUCN - Data Deficient China Species Red List: Vulnerable Their abundance has declined substantially with low density on local shores in Hong Kong <sup>10</sup> .	Coastal bays, Intertidal soft shore, and the bottom of open sea
Seaweed Pipefish	<i>Syngnathus schlegeli</i>	舒氏海龍	Juveniles were	IUCN – Not Assessed	Coastal bays, Intertidal soft shore, and the bottom of



English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
			discovered in Sha Lo Wan and Tung Chung bays	Mainly distributed in northern part of Lantau coastal waters, also known from Tung Ping Chau <sup>18</sup>	open sea
Alligator Pipefish	<i>Syngnathoides biaculeatus</i>	棘海龍	Adults were discovered in Sunny Bay, Tung Chung Bay, Hau Hok Wan and Sha Lo Wan	IUCN – Not Assessed  Mainly distributed in northern part of Lantau coastal waters	
Swinhoe's Egret	<i>Egretta eulophotes</i>	黃咀白鷺	scarce spring passage migrant	IUCN Vulnerable Class II State Protected Species in China Fellowes et al. (2002): Global Concern	mainly intertidal mudflats and marshes
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	Uncommon and localised resident	IUCN Near Threatened Fellowes et al. (2002): Local Concern	wetlands
Pacific Reef Egret	<i>Egretta sacra</i>	岩鷺	Uncommon resident	China Red Data Book: rare Class II State Protected Species in China	Coastal areas

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
				Fellowes et al. (2002): Local Concern	
No common name (A rare shrub species)	<i>Ligustrum punctifolium</i>	斑葉女貞	Very rare; found only at several sites in Hong Kong and has not been recorded from Mainland China; the other population was found in Vietnam.	Listed under “Rare and Precious Plants of Hong Kong” <sup>13</sup> .	Mangrove area; it should be noted that although the Tung Chung population is small, it is very far away from the one at NE New Territories, so it should be a distinct population requiring special attention.
Other key records: Fish larvae from 8 families including Callionymidae, Clupeidae, Engraulidae, Gobiidae, Lutjanidae, Sillaginidae, Sciaenidae and Syngnathidae and one crustacean larvae from Portunidae family are also recorded. Most of these families have species which are economically important fisheries resources.					
<b>Tung Chung Valley</b>					
Tokay Gecko	<i>Gekko gekko</i>	大壁虎	Uncommon and restricted in distribution <sup>15</sup>	China Red Data Book: Endangered <sup>15</sup> China Species Red List: Endangered <sup>4</sup> Class II State Protected Species in China <sup>4</sup> Fellowes et al. (2002): Regional Concern <sup>2</sup>	Cliffs or boulder piles surrounded by thick brush/ woodland.
Chinese Bull Frog	<i>Hoplobatrachus</i>	虎紋蛙	Uncommon	China Species Red List:	Active and abandoned agricultural lands; the riparian

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
	<i>chinensis</i>			Vulnerable <sup>4</sup> Class II State Protected Species in China <sup>4</sup> Fellowes et al. (2002): Potential Regional Concern <sup>2</sup>	zones along Tung Chung River system also provide suitable habitats.
Romer's Tree Frog	<i>Liuixalus romeri</i>	盧氏小樹蛙	Endemic to Hong Kong	Protected under Cap. 170. IUCN: Endangered <sup>1</sup> Fellowes et al. (2002): Potential Global Concern <sup>2</sup>	Woodlands, orchards, abandoned agricultural lands and even roadside plantation areas.
Emerald Dove	<i>Chalcophaps indica</i>	綠翅金鳩	China Species Red List: Near Threatened China Red Data Book: Vulnerable	CRDB vulnerable	Wooded areas
Eurasian Eagle Owl	<i>Bubo bubo</i>	鵂鶯	China Red Data Book: Rare Class II State Protected Species in China Fellowes et al. (2002): Regional Concern <sup>2</sup>	CRDB rare; PRC grade II protected animal	Hillsides with grassy/ shrubby vegetation
Golden Birdwing	<i>Troides aeacus</i>	金裳鳳蝶	Rare <sup>16</sup>	Protected under Cap. 586	

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
				AFCD: Species of Conservation Concern <sup>16</sup> Fellowes et al. (2002): Local Concern <sup>2</sup>	
Common Birdwing	<i>Troides helena</i>	裳鳳蝶	Uncommon <sup>16</sup>	Protected under Cap. 170 and 586 AFCD: Species of Conservation Concern <sup>16</sup> China Species Red List: Near-threatened <sup>4</sup>	Regularly recorded from one Fung Shui Woodland at Tung Chung
Oriental Striped Blue	<i>Leptotes plinius</i>	細灰蝶	Very rare <sup>17</sup> .	AFCD: Species of Conservation Concern <sup>17</sup> Fellowes et al. (2002): Local Concern <sup>2</sup>	A population was found in Tung Chung Valley
Peacock Royal	<i>Tajuria cippus</i>	雙尾灰蝶	Rare	Local Concern <sup>2</sup>	Wooded areas
Incense Tree	<i>Aquilaria sinensis</i>	土沉香	Used to be widespread in Hong Kong but many mature trees have been cut for the agar wood in recent years	Protected under Cap. 586 Listed under "Rare and Precious Plants of Hong Kong" <sup>13</sup> Near-threatened in China <sup>13</sup> China Species Red List: Vulnerable <sup>4</sup> Class II State Protected Species in China <sup>13</sup>	Lowland woodland

English Name	Scientific Name	中文名稱 Chinese Name	Rarity	Conservation Status	Required Habitats
Little-leaved Rourea	<i>Gmelina chinensis</i>	石梓	Common	Listed under “Rare and Precious Plants of Hong Kong” <sup>13</sup> Vulnerable in China <sup>13</sup> Considered to be rare and endangered in Guangdong <sup>13</sup>	Lowland woodland
White Yam	<i>Dioscorea hispida</i>	白薯莨	Rare	Nil	Lowland woodland
Toothed Black Tree-fern	<i>Gymnosphaera hancockii</i>	細齒黑桫欏	Very rare	Protected under Cap. 96 and 586 Listed under “Rare and Precious Plants of Hong Kong” <sup>13</sup> Vulnerable in China <sup>13</sup> Class II State Protected Species in China <sup>13</sup>	Has been recorded in Tung Chung; inhabits thick forest of valleys and stream sides.

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