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- 保護地球的生物多樣性
- 確保可再生的自然資源獲得善用
- 宣揚減少污染和避免浪費

**WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by:**

- Conserving the world's biological diversity
- Ensuring that the use of renewable natural resources is sustainable
- Promoting the reduction of pollution and wasteful consumption



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# 探索西貢

## Explore Sai Kung

海洋生物中心教育項目延伸活動-可持續發展教育  
Extension Activities for Marine Life Centre Education Programme  
- Education for Sustainable Development



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## 引言 INTRODUCTION

### 可持續發展教育

聯合國環境與發展世界委員會對「可持續發展」的定義是「既能滿足我們現今的需求，而同時不損及後代滿足其本身需要之發展。」（《我們共享的未來》，1987）

2002年12月，第57屆聯合國大會把2005至2014年定為「可持續發展教育十年」。可持續發展教育的目標是透過教育、培訓及培養公眾意識加快社會轉變，促使人們培養出建立一個可持續發展的未來所需的價值觀、行為及生活模式。這有助我們了解所處的地球環境，尤其是一些危害未來的複雜而互相關聯的問題（如濫用及浪費資源、環境狀況惡化、城市衰落、人口增長及資源耗竭等），認識人類在解決這些問題上所扮演的角色。可持續發展的三個組成部分包括環境、社會及經濟，這三個互相關聯的部分對的我們的未來同等重要。



### Education for Sustainable Development (ESD)

According to the World Commission on Environment and Development, Sustainable Development (SD) is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." ["Our Common Future", 1987]

The ten years between 2005 – 2014 was proclaimed as the Decade of Education for Sustainable Development (DESD) by the United Nations General Assembly in its 57th Session in December 2002. Education for Sustainable Development (ESD) aims to catalyse the process of social change required to foster the values, behaviour and lifestyles necessary for a sustainable future through education, training and public awareness. It enhances understanding of the world in which we live, and highlights the role people can play in addressing the complex and interdependent problems that threaten our future, such as wasteful consumption, environmental degradation, urban decay, population growth and depletion of resources. The three components of sustainable development, social, economic and environmental, are interdependent and equally important to our future.

### 在西貢推行可持續發展教育

香港以高樓聳立的都市之名聞名於世，但這片土地所擁有的高度多樣化生境地及野生動物種卻未能廣為人知。西貢大部分地區未被發展，因此多樣化生境也得以保持原貌及良好狀況，而且該區的文化價值也很高。然而，情況並非絕對樂觀，該區人口不斷上升，而旅遊及發展的壓力亦越來越沉重。這些發展需求與現存環境的對衡同時亦令西貢成為推行可持續發展教育的理想地點。

### 海洋生物中心教育項目前導/延伸活動

鑑於在香港推行海洋保育的重要價值，世界自然基金會香港分會於2004年海灣海岸公園內設立一所海洋生物中心。中心透過多項教育參觀項目重點宣揚保護海洋的信息，而其他有關可持續發展的元素則可透過在西貢區舉行的相關活動進行推廣。



建於水上的海洋生物中心  
Marine Life Centre above the water

### ESD in Sai Kung

Hong Kong is famous for its packed skyscraper cityscape. By contrast, there are highly diversified habitats and wildlife in the SAR that are much less well-known. The Sai Kung district is largely undeveloped and many of its diverse habitats remain intact and healthy. It is also well-known for its cultural heritage. There is little room for complacency however, as the district faces an increasing population, tourism and developmental pressures. The contrast between the existing environment and these development pressures provides an ideal site for ESD.

### Supplementary pre- / post-activities for MLC education programmes

Understanding the value of education in marine conservation to Hong Kong, WWF Hong Kong established the Marine Life Centre (MLC) in Hoi Ha Wan (HHW) Marine Park in 2004. The MLC focuses on the marine conservation message through its various educational visit programmes, whilst other components of SD can be emphasized through related activities in the Sai Kung district.



世界自然基金會鼓勵參加者在參觀海洋生物中心之前或之後進一步探索西貢珍貴的資源，令他們的學習體驗更加豐富。本資源小冊子根據西貢現存資源及文化遺產的調查結果，擬定以漁業、生態旅遊及自然探索為主題的建議活動（請參閱表 1.1 活動涵蓋的可持續發展教育範疇）。

## 目標

小冊子旨在協助帶領海洋生物中心參觀團體的導師安排可持續發展的相關實地考察及跟進活動。透過參與建議活動，參加者可：

- 增加對西貢的了解及認識平衡各種可持續發展元素的進度的重要價值；
- 欣賞及愛護我們的自然環境；
- 鍛鍊溝通、合作、批判性思考及解決問題等能力；及
- 加強認識香港的現狀及發展情況，培養愛護自然的責任感，以及與大自然和諧共處的意識。

WWF encourages participants to further explore the precious resources in Sai Kung before or after visiting MLC, which can further enhance their learning experience. Themes on fisheries, ecotourism and nature exploration are selected with suggested activities in this resource booklet based on a review of the existing resources and cultural heritage of Sai Kung (Please see table 1.1 for ESD coverage of the activities).

## Objectives

The booklet targets to help leaders of MLC visiting groups in arranging SD related field and follow-up activities. Through the suggested activities, participants can:

- gain a better understanding of Sai Kung and learn the significance in balancing the progress of the elements for sustainable development,
- enhance their appreciation and respect for our natural environment,
- cultivate various aptitudes such as communication, cooperation, critical thinking, and problem solving skills,
- hence understand more about the present situation and development in Hong Kong, and cultivate responsibility for and harmony with nature.

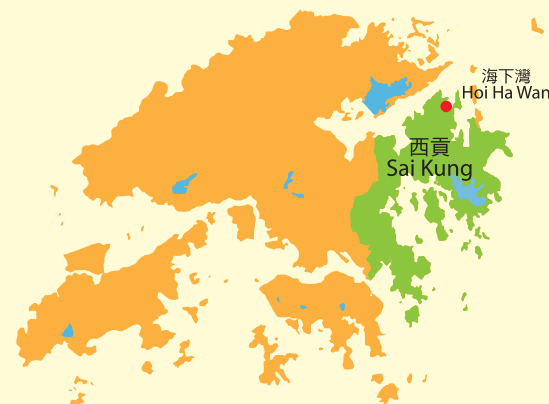


表 Table 各項建議活動所涵蓋有關可持續發展教育的範疇

1.1 The aspects in ESD that are covered by each of the following suggested activity

題目及活動 Topic and Activity		可持續發展教育的範疇 ESD aspects		
		環境 Environmental	社會 Social	經濟 Economic
海下灣海洋生物中心項目 HHW MLC programmes		✓✓✓	✓	✓
香港的漁業 Fisheries in Hong Kong	海鮮從哪裏來？ Where does the seafood come from?	✓✓	✓	✓✓✓
	在很久很久以前... Once upon a time...	✓	✓✓✓	✓✓
西貢的生態旅遊 Ecotourism in Sai Kung				
進一步探索自然 Further Nature Exploration	相關人士對生態旅遊發展的意見 Stakeholder dialogues on ecotourism development	✓✓✓	✓✓✓	✓✓✓
	大自然小幹探 Nature Detective	✓✓	✓	✓
	客家文化遺產 Cultural Heritage of Hakkas	✓	✓✓✓	✓✓
	萬宜水庫東壩 High Island Reservoir East Dam	✓✓	✓✓	✓✓
白沙澳至深涌 Pak Sha O to Sham Chung		✓✓✓		

✓ 各項建議活動所涵蓋有關可持續發展教育的範疇  
Strength of relation of the activity to the ESD aspect





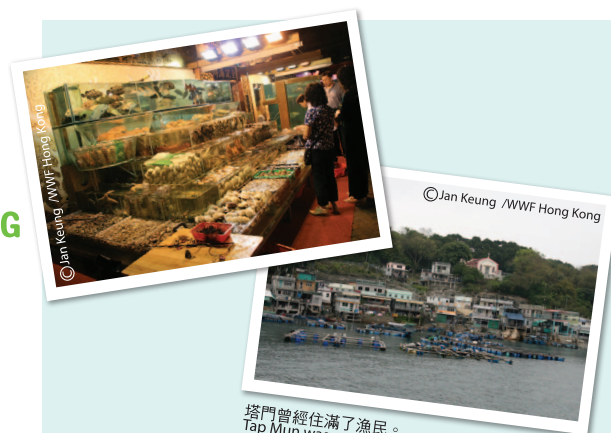
## 香港的漁業 FISHERIES IN HONG KONG

### 背景

香港的漁業在50年代發展蓬勃，包括西貢在內的各區碼頭的漁民及漁船數目不計其數。然而，過度捕撈及以不符合可持續發展原則的方法(尤其拖網)捕魚導致漁獲大幅減少，加上填海、挖泥及污染等其他因素的影響，令本港的海洋環境進一步受到破壞。因此，香港的漁業自70年代開始式微。

80年代初期，超過半數漁民轉職看管遊艇及駕駛小型船隻運載遊人到島嶼上觀光、游泳及進行釣墨魚等活動。西貢亦成為品嚐及零售海鮮的熱門地點，大部分店舖也是由前漁民所經營。此外也有漁民轉為從事海產養殖。隨著人類需求不斷增加，導致全球的野生魚量下降，海產養殖對海鮮供應更見重要。

由於本地供應量有限，難以應付本地的大量需求，本港的食用魚類大部分來自境外水域。事實上，香港是全球最大的活食用珊瑚魚的進口／零售地，其中包括很多全球瀕危物種如鯊魚<sup>1</sup>及蘇眉<sup>2</sup>。聯合國糧食及農業組織於2005年發表的報告指出，香港的漁業足印在亞太地區佔第四位，平均每年每人的食用量是58公斤，全球的平均食用量只是16公斤。



塔門曾經住滿了漁民。  
Tap Mun was once colonized by fishermen.

### Background

In the 1950's the fishing industry was prosperous in Hong Kong and there were numerous fishermen and their boats to be found around piers in different parts of Hong Kong, such as Sai Kung. However, the industry has been diminishing since the 1970s as the catch declined dramatically due to overfishing and unsustainable fishing practices (in particular trawling), in tandem with other impacts like reclamation, dredging and pollution that have further deteriorated the marine environment.

In the early 80s, more than half of the fishermen moved into managing yachts and driving small boats to ferry people to small islands for sight seeing and swimming; and others diversified into squid / cuttlefish fishing. Also seafood dining and retail are popular in Sai Kung and much of the business employed some former fishermen. Many other remaining fishermen switched their work into fish culture in the sea – mariculture. As wild fish stocks worldwide decline with growing human consumption, mariculture becomes more important in contributing seafood.

Since the local limited supply cannot satisfy the high local demand, much of the fish consumed in Hong Kong is caught overseas. In fact, Hong Kong is the largest live reef food fish importer / retailer in the world including many globally endangered species like Shark<sup>1</sup> and Humphead wrasse<sup>2</sup>. According to the Food and Agriculture Organization report in 2005, the fisheries footprint of Hong Kong ranked at 4th in the Asia-Pacific region with the average consumption of 58 kg/person/year whilst the global rate is only 16.

### 實地考察及活動

## FIELD STUDY AND ACTIVITIES

### 海鮮從哪裏來？

### Where does the seafood come from?

目標 Objectives	從海洋資源及過度捕撈等問題，增加認識香港市民的生態足印，宣揚以更環保的方式食用海鮮。 To enhance understanding of the ecological footprint of Hong Kong people in terms of marine resources; and the over-fishing problem in Hong Kong. To promote more conservative consumption.
考察地點名稱 Name of site	西貢海鮮街 Sai Kung Seafood Street
參加者級別 Level of participants	高小或以上 Senior primary or above
分組 Grouping	每組4至6人 4 to 6 people per group
所需時間 Duration	30分鐘實地考察活動 + 30分鐘跟進討論 30 minutes site activities + 30 minutes follow-up



1. 魚翅來自世界各地，包括印度、南非、亞拉伯聯合酋長國、印尼、新加坡及日本。

Shark fins are sourced worldwide like India, South Africa, the United Arab Emirates, Indonesia, Singapore and Japan.

2. 現時本港大部分零售的蘇眉全長不足60厘米(幼魚)，顯示在野生環境中成魚的數量不足以補充被濫捕的種群數量。這些物種被視為貴價的食品，代表野生數量因過度捕撈而減少時，牠們的市場價值會隨之上升，結果是即使種群數目下降，濫捕情況仍然持續。

Most Humphead wrasses in the Hong Kong retail sector now are less than 60 cm total length (juveniles), indicating that insufficient adults will remain in the wild to replenish the exploited populations. The status of these species as a luxury food means that its market value is likely to increase as it becomes less readily available from the wild due to overfishing, thereby encouraging continued exploitation even their populations decline.

在很久很久以前.....  
Once upon a time...



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在萬宜水庫興建期間，有部分原居於官門海峽的漁民被遷移到對面海居住。  
During the construction of the High Island reservoir, some of fishermen from Kwun Mun Channel were moved to Tui Min Hoi for settlement.



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前漁民張先生訴說他的捕魚歲月以及西貢捕魚業的歷史。  
A former fisherman, Mr. Cheung, telling a story of himself and the history of fisheries of Sai Kung.

目標 Objectives	增加認識漁業資源減少對捕魚業以及漁民的生計所構成的影響。 To enhance understanding of the impact of diminishing fisheries resources to the industry as well as the livelihood of people involved.
考察地點名稱 Name of site	漁民新村 Fisherman Housing Estates
參加者級別 Level of participants	中學 Secondary
分組 Grouping	每組5至8人 5 to 8 people per group
所需時間 Duration	30 分鐘準備 + 30 分鐘實地考察活動 + 1 小時跟進討論 30 minutes preparation + 30 minutes site activities + 1 hour follow-up
所需物資 Materials	調查問卷 (由各組自行設計，導師可參考附錄中表2的問卷範例) Survey / interview form (participants' own design, leaders can use the survey form example, Form 2 in appendix, as reference)

## 交通工具 Transportation

4號專線小巴 (於西貢小巴總站乘往對面海小巴總站)  
Minibus no. 4 (at Sai Kung minibus terminal to Tui Min Hoi terminal)

## 村落資料 About these Estates

漁民新村的居民都是以往在西貢捕魚的漁民。他們大部分已年老或退休。歷史最長久的是西貢伯多祿村，至今已超過40年的歷史。由於捕魚量減少以及興建萬宜水庫，漁民紛紛轉型，甚至居所也由船上遷往陸上。

Living in these estates are the former Sai Kung fishermen. Most of them are aged or retired. The oldest estate is the St. Peter's Village which has been established for more than 40 years. Due to declining fish catches and the construction of the High Island Reservoir, the fishermen switched their career as well as their home (from their fishing boat to the land).



西貢市及周邊  
Map of Sai Kung town and nearby area



## 怎樣做 How

1. 設計一份調查問卷並訪問村內的居民。問卷的目的是搜集第一手資料，了解漁業資源減少對以往的漁民構成的影響。  
Design a survey form, and conduct interviews with the residents in the estate. The aim of the survey is to collect first-hand information about the impact of diminishing fisheries resources to the former fishermen.
2. 為能更有效了解漁業資源減少對漁業帶來的改變及影響，問卷內容可包括下列的問題：  
In order to have a better understanding of the changes, the following question can be included:
  - 他們觀察到以往和現在的漁獲有何分別  
Their observation of fish catch in the past and at present
  - 他們轉型的動機  
Motivation for changing their trade
3. 參加者可考慮集中探討以下範疇的轉變或以其中一項為調查重點：  
Participants can consider the following aspects or choose one aspect to focus on:
  - 職業 career
  - 交通 transportation
  - 飲食習慣 diet
  - 住屋 housing
4. 根據調查結果撰寫報告、或透過短劇或短片，闡釋漁民的今昔生活。導師亦可安排討論環境影響(如這個個案中出現的過度捕撈問題)如何影響人們的生計。  
Based on the interview results, write an essay, or produce a short play or film to contrast the life of a fisherman in the past and at present. The leader could also facilitate a discussion on how environmental impact such as overfishing in this case will affect livelihood.



## 西貢的生態旅遊 ECOTOURISM IN SAI KUNG

### 背景

西貢被香港旅遊發展局譽為「香港的後花園」。政府分別於1978年及1996年，於區內劃出7,600公頃郊野公園及260公頃海岸公園。2004年城市規劃委員會的年報指出，西貢的城市規劃在保留現有特色的同時，也著意保存該區的自然景觀及自然古跡的重要價值。

隨著存護大自然的法例的推行，公眾對探索自然的意識及興趣也有所提升。人口較少、空氣清新及景色優美的地點吸引越來越多遊人遊覽。「生態旅遊」成為香港近年發展最快速的行業之一。「生態旅遊」有很多不同的定義，根據國際生態旅遊協會(The International Ecotourism Society)的定義，生態旅遊是「一種對環境負責任的旅遊方式，既能顧及保育，也能維護當地居民的福祉」。

然而，生態旅遊在監控、實行及管理上缺乏妥善的安排，會對自然環境以至本土居民的生活造成影響。因此，來自不同背景的人士對生態旅遊的發展往往採取不同的立場及態度。

### Background

Sai Kung was given the name "Back Garden of Hong Kong" by the Hong Kong Tourism Board. The district includes 7,600 hectares of Country Park and 260 hectares of Marine Park area, designated in 1978 and 1996 respectively. In the 2004 annual report of the Town Planning Board, Sai Kung Town development had been planned to preserve the existing character as well as to preserve the features of natural landscape and heritage significance.

Alongside these government actions, awareness of and interest in nature exploration has increased. More and more people are fond of visiting places with low population, fresh air and beautiful natural scenery. "Eco-tourism" is one of the fastest developing industries in Hong Kong in the recent years. There are different definitions of ecotourism, and The International Ecotourism Society defined it as "Responsible travel to natural areas that conserves the environment and improves the well-being of local people".

However, improper control, implementation and management of eco-tourism can cause problems for the environment and also local residents. Therefore, parties from different backgrounds often adopt a different standpoint on eco-tourism development in the area.



## 實地考察及活動

## FIELD STUDY AND ACTIVITIES

### 相關人士對生態旅遊發展的意見

### Stakeholder dialogues on ecotourism development



<b>目標</b> Objectives	<ul style="list-style-type: none"> <li>讓參加者了解可持續發展各個組成部分取得平衡的重要性，學習分析和考慮討論環境問題時出現的不同意見。 To allow understanding of the importance of balancing different components of sustainable development, and consideration of different points of view towards environmental issues.</li> <li>增加認識生態旅遊，了解其優勝之處及帶來的問題。 To enhance understanding of eco-tourism, its merits and problems.</li> </ul>
<b>考察地點名稱</b> Name of site	西貢郊野公園 Sai Kung Country Parks
<b>參加者級別</b> Level of participants	中學或以上 Secondary or above
<b>分組</b> Grouping	每組4至5人 4 to 5 people per group
<b>所需時間</b> Duration	前往／離開西貢途中進行觀察 + 1小時資料搜集 + 1小時跟進討論 Observation on the way to / from Sai Kung + 1 hour research + 1 hour follow-up
<b>怎樣做</b> How	<ol style="list-style-type: none"> <li>參觀海岸公園及郊野公園後設立研討會，就「應否鼓勵在西貢推行生態旅遊」進行討論。 After visiting the Marine Park and Country Parks, set up a forum on the topic "Should eco-tourism be encouraged in Sai Kung?".</li> <li>導師可先把組員分為4組，每組分別扮演以下其中一個角色： Then leaders could first assign participants into 4 groups, each playing a role as the members of one of the following parties: <ul style="list-style-type: none"> <li>西貢的村民／居民 Villagers / residents of Sai Kung</li> <li>旅遊代理 Tour agencies</li> <li>政府官員 Government officials</li> <li>環保團體 Green groups</li> </ul> </li> </ol>

### 怎樣做 How

- 組員須就獲分派的角色進行資料搜集，了解他們的立場及關注的事項。組員可參考以下問題：  
Participants are asked to research the position and concerns of their assigned role. Here are a few guiding questions:
  - 在鄉村附近發展生態旅遊有何好處和壞處？  
What are the advantages and disadvantages of developing eco-tourism near a village?
  - 生態旅遊對西貢的現狀帶來甚麼改變？  
How does eco-tourism change the current situation in Sai Kung?
- 如有需要，導師可協助組員識別有關議題的重點以及利弊。  
Leaders can help participants to identify the key points and pros and cons of the topic if needed.
- 研討會的程序 -  
Run-down of the forum -
  - 開始時每組以一分鐘時間表明立場，繼而  
start the forum by giving 1 minute for each group to state their position, then
  - 進行即場公開討論，就生態旅遊對各個界別的人士構成的影響搜集資料，以及建議可行的補償措施。  
hold an open-floor discussion for collating the possible impacts on each group of people, and any mitigation method that can be suggested
  - 嘗試達成共識並就議題作出總結。  
attempt to reach a compromise and draw a conclusion based on the topic.







西貢村民／居民  
Villagers / residents of Sai Kung

- 原居民的祖先大部分也是漁民。西貢對愛好郊野環境的本港及外籍居民尤其吸引  
there are indigenous people whose ancestors were mostly fisherman. The area is popular with those foreign and Hong Kong residents who prefer a rural environment
- 遊客造成的滋擾（噪音、垃圾及污水）  
disturbance (noise, rubbish and sewage) from tourists
- 假期出現交通擠塞  
traffic congestion during public holidays
- 提供服務、售賣食物及飲品所帶來的收入  
income from providing services, or selling food and beverages

### 背景及關注事項 Background and concern

旅遊代理  
Tour agencies

- 大部分是牟利公司  
mainly profit-making companies
- 開展能吸引公眾參加的旅遊團  
develop tours that are attractive for people to join
- 提供的領隊缺乏足夠培訓，對環境事宜的認識不足未能充分關注環境問題  
inadequately trained tour guides may not be knowledgeable or care about environmental issue
- 部分情況下領隊及遊客的比例過低  
guide to tourist ratio may be too low in some cases



政府官員  
Government officials

- 可能包括漁農自然護理署、環境保護署、香港旅遊發展局等代表，各有不同的背景及理念  
might include Agriculture, Fisheries and Conservation Department, Environmental Protection Department, Hong Kong Tourism Board, etc. and each party has different background and mission
- 負責規劃及裝置場地的輔助設施，如交通網絡及公眾洗手間等  
are charged with developing on site supporting facilities, such as transport links and public toilets
- 盡量減少對居民的影響及對環境造成的污染  
should act to minimize pollution for the benefit of residents and the natural environment
- 預防自然環境情況變壞  
should prevent excessive deterioration of the natural environment

環保團體  
Green groups

- 不同環保團體所關注的項目各有不同，當中包括環境保護、污染或環境教育  
different green groups adopt different concerns, such as conservation, pollution, or environmental education
- 部分環保團體發展生態旅遊，因為這有助提高公眾關注環境問題的意識，也有部分團體認為沒有調控的旅遊活動會增加污染及對自然環境造成滋擾  
some may support a development because of the increase of public awareness on environmental issue; while others may resist it over concerns for increased pollution and disturbance

## 進一步探索大自然 FURTHER NATURE EXPLORATION



絹斑蝶 Glassy tiger butterfly

### 簡短跟進活動

為豐富參加者的學習體驗，世界自然基金會鼓勵所有導師即使不能於參觀活動當日在西貢進行半日活動，也可在參觀海洋生物中心後進行簡短的跟進活動。

### Quick off-site follow-up

In order to enhance participants' learning experience, WWF encourages all group leaders to organise quick follow-up activities after the MLC tours, even if it is not possible to carry out half-day activity in Sai Kung on the visit day.

### 大自然小幹探 Nature detective

目的 Objectives	提高學習成效，推廣愛護大自然 To enhance learning effectiveness, and promote appreciation of nature  鼓勵參加者分享經驗 To encourage sharing of participants' experience  增加參加者對探索大自然的興趣及知識 To enhance participants' interest and knowledge of nature exploration
考察地點名稱 Name of site	在這個項目進行期間曾到訪的任何自然環境 Any natural environment visited during the programme
參加者的程度 Level of participants	高小或以上 Senior primary or above
分組 Grouping	每組4至6人 4 to 6 people per group
所需時間 Duration	拍照 + 半小時跟進討論 Taking photographs + half hour follow-up
所需物資 Materials	數碼攝影機／畫冊 Digital camera / sketch book

### 怎樣做 How



1. 參加者扮演生態小幹探，在自然環境中尋找下列東西，拍下照片或繪畫在紙上。  
Participants, playing a role of ecological detective, are asked to look for the following in the nature and take a photograph or draw on a piece of paper.

題目 Topic	例子 Examples	信息 Message
1. 可用作工具的自然物件 a natural thing which could be used as a tool	石頭、木材、貝類 stones, woods, shells	大自然如何惠及人類 how nature benefit humans
2. 可作為動物食糧的東西 something that might be food for animals	葉 leaves	探索生物間的相互關係 discover the interdependence between living things
3. 曾經存活的東西 something that was once part of a plant or animal	枯葉、貝類 rotten leaves, shells	探索物件在存活及死亡後所擔當的角色及功能 understand how life and death inter-relate in nature
4. 不屬於大自然的東西 something that is man-made	膠袋 plastic bags	了解人類活動如何影響大自然 understand how human activities can affect nature
5. 數量繁多的生物 a creature that has a huge population	河口的蝸牛、螞蟥 snails in estuary, ants	認識生物的多樣性 an example of the diversity of life
6. 50年後不再存在的東西 something that won't be here after 50 years	砂嘴、岩石 sand pit, rocks	認識大自然的浮動性 understand the dynamics of nature
7. 在照片上看不到的東西 Something that can't be seen in a photograph	能源：熱力、風；微生物 energy: heat, wind; microscopic living thing	大自然存在一些肉眼看不到，但卻十分重要的東西 parts of nature that are invisible but nevertheless important

2. 導師可要求組員展示拍下的照片（在數碼相機的屏幕上，或如情況許可，以投影機播放）或繪圖。組員須解釋他／她選取這些材料的原因。  
Leaders can ask the participants to present their photographs (on the monitor on their own digital camera, through a projector if available) or sketches. Participants should explain what the reason for his /her selection is.



### 延伸活動 Extension

1. 鼓勵組員分享在考察活動中最欣賞的照片。  
Participants are encouraged to share photographs that they appreciate from their field trip.
2. 透過撰寫簡報、創作詩辭或製作附有照片說明的相片集來表達活動後的感想。  
Write a news clip, poem or create a photo album with captions expressing the participants' feeling after the activity.

### 主題遠足

除上述的活動外，西貢區內還有一些有趣的地點及步行徑，供參加者進一步探索自然。這些活動或遠足所需的時間會較長。有關的遠足路線可參考西貢及清水灣地圖、地政總署測繪處出版的郊野公園系列刊物。以下提供了六位地圖座標以標明有關位置。

### Theme hiking

In addition to the activities suggested above, there are some interesting sites and trails in Sai Kung that participants could further explore. The duration of these activities or travel time may be more demanding. Details of hiking routes can be found in the map of Sai Kung & Clear Water Bay, Countryside Series published by the Survey & Mapping Office Lands Department. A six-figure grid reference is provided for specifying a location.



### 客家文化遺產：北潭涌自然教育徑 Cultural Heritage of Hakkas: Pak Tam Chung Nature Trail

自然教育徑途經具歷史價值的石灰窯後，不久便到達上窩民俗文物館(地圖座標：242788)。石灰窯及村落在19世紀中由居於該地的客家人興建。居民自近岸水域採集珊瑚及貝殼，加以燃燒後，成為石灰，用以製作水泥，這個行業一度發展蓬勃。參加者繼而可向北走，沿著上窩家樂徑返回西貢萬宜路。

The Nature Trail passes the historic lime kiln, and soon afterwards reaches the Sheung Yiu Folk Museum (grid ref. 242788). The lime kiln and the village were built by the Hakkas who settled here in the mid-nineteenth century. Lime for the production of cement was made by burning corals and seashells harvested from the inshore water, and was once a flourishing industry. Participants can then go north along the Sheung Yiu Family Walk back to Sai Kung Man Yee Road.



北潭涌自然教育徑  
Pak Tam Chung Nature Trail

<b>開放時間</b> Opening hours	0900 - 1600 逢週二及於聖誕日、聖誕節翌日、元旦日及農曆年初一至三休息 Closed on Tuesdays, Christmas Day, Boxing Day, New Year's Day and the first three days of the Lunar New Year
<b>所需時間</b> Duration	步行需1小時30分鐘 1 hour 30 minutes walk
<b>交通</b> Transportation	7及9號專線小巴；94、96R線巴士（只在假日行駛），於大路下車後，需步行15分鐘 Minibus no. 7, 9; Bus 94, 96R (public holiday) and 15 minutes' walk from main road

### 萬宜水庫東壩的地理特點

#### Geological Attraction: High Island Reservoir East Dam

在50及60年代，由於香港多次出現旱災，加上住宅及工業對食水的需求不斷增加，政府決定興建萬宜水庫。約50個家庭（約400名本土村民）因興建水壩須遷往西貢另一新衛星城市。約40個漁船家庭須另覓停泊位置及捕魚地點。

萬宜水庫是香港目前最大的水庫，其興建工程對西貢半島的發展帶來重大的影響。由於交通便利及在郊野公園委員會的規劃發展下，萬宜水庫成為本港其中一個最受歡迎的戶外康樂活動場地。

在水庫東壩末段，很容易觀察到呈六角形的火山凝灰岩。向東壩的東南面遠眺，可看到於破邊洲的海蝕柱上所形成的高達30米的柱狀節理結構。在破邊洲旁的海域有能進入的洞穴，是有趣的探索地點。

In 1950s and 60s, the government decided to build the High Island Reservoir due to the recurrence of drought and the growth of residential and industrial demands for water. The construction of the dam forced the relocation of around 50 families (some 400 local villagers) to a new satellite town in Sai Kung. Forty boat-dwelling families also had to move to new anchorages and fishing grounds.

High Island Reservoir is now the largest reservoir in Hong Kong and its construction had a great influence on the development of Sai Kung Peninsula. With easier accessibility and planned development under the Country Parks Authority, High Island Reservoir has become one of the territory's most popular areas for outdoor recreation.

Hexagonal volcanic tuffs can be easily observed and studied at the end of the reservoir East Dam. Look towards the south east of the East Dam, there are also columnar jointing structures well developed at Po Pin Chau sea stacks reaching 30 meters high. Next to Po Pin Chau are accessible sea caves that are interesting to explore.

所需時間 Duration	觀察需時1小時30分鐘 1 hour 30 minutes for observations
交通 Transportation	巴士：乘29R線由西貢墟前往西灣亭巴士總站，再步行往東壩約需2小時 Bus: 29R from Sai Kung town to Sai Wan Pavilion terminal and 2 hours walk from the bus terminal to the East Dam



萬宜水庫東壩  
East Dam of High Island Reservoir



## 昔日往市區的必經之路：白沙澳至深涌

### The way to the town in the past: Pak Sha O to Sham Chung

在水務署興建連接西貢和海下的道路，以方便前往村落附近的供水站之前，這條道路便是海下及白沙澳的居民到深涌碼頭乘船往大埔墟的必經之路。深涌海岸由於擁有獨特的地理特點及曾發現化石，於1985年被列為「具特殊科學價值的地點」\*。步行徑的起步點位於海下路旁的白沙澳（地圖座標：245853）入口，跟隨沿途方向標記步行約2小時便可到達深涌（地圖座標：202841）。

Before the building of the road from Sai Kung to Hoi Ha by the Water Services Department for the access of the water pumping station near the village, this was the only route that Hoi Ha and Pak Sha O villagers could walk through before getting the boat at Sham Chung pier to Tai Po town. Sham Chung Coast was designated as SSSI\* in 1985 because of its geological feature. Fossils were also found along the coast. The trail walk starts from the entrance of Pak Sha O (grid ref. 245853) beside Hoi Ha Road. Follow the directional signs and then take around 2 hours walk to Sham Chung (grid ref. 202841).



#### 所需時間 Duration

2小時步行 + 1小時觀察及進行活動  
2 hours walk + 1 hour observation and activities

#### 活動 Activities

1. 觀察河流 / 紅樹林  
Stream / mangrove observation
2. 實地地理考察  
Geography field study
3. 觀察昆蟲 / 植物  
Insect / plant observation

#### 所需物資 Materials

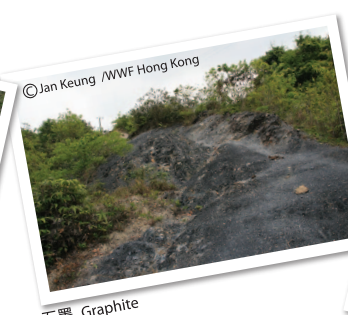
- 世界自然基金會生物辨識圖  
WWF Wildlife Identification Chart  
[http://www.wwf.org.hk/chi/education/edu\\_resources/edu\\_others.php](http://www.wwf.org.hk/chi/education/edu_resources/edu_others.php)
- 昆蟲箱、網  
Bug box, net



位於海下路通往白沙澳的入口  
Pak Sha O entrance at Hoi Ha Road



路線中有不同的地質結構。圖中為流紋岩。  
Different geologic structures can be seen along the route. This is rhyolite.



石墨 Graphite



沖溝 Gully

#### 交通 Transportation

- 離開深涌乘街渡或小輪前往馬料水公眾碼頭  
Leave Sham Chung by Kai To or ferry to Ma Liu Shui public pier  
<http://www.traway.com.hk>
- 繼續步行45分鐘到榕樹澳村，電召的士離開  
continue the walk for 45 minutes to Yung Shue O Village and leave by taxi (on-call service)
- 小型旅遊巴士（須自行安排）  
mini-coach (requires your own arrangement)

#### 其他步行路線 Alternative routes

- 白沙澳往荔枝莊（具有特殊地理價值的地點）；步行1小時  
Pak Sha O to Lai Chi Chong (SSSI of geological interest); 1 hour walk
- 白沙澳往深涌，再前往榕樹澳（紅樹林生境）；步行2小時30分鐘  
Pak Sha O to Sham Chung and then Yung Shue O (mangrove habitat); 2.5 hour walk



白沙澳至深涌  
Pak Sha O to Sham Chung





企嶺下老圍旅遊巴士停泊處  
Coach parking near Kei Ling Ha Lo Wai



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## 進行實地考察／研究的地點 Sites for field study / investigation

地點 Site	實地考察 / 研究 Field study / investigation
1. 海下灣西面海灘 (地圖座標: 864249) Hoi Ha Wan western beach (grid ref. 864249)	紅樹林、岩岸、沙岸、河口生境 (注意: 不可在海岸公園內收集任何標本) Mangrove, rocky and sandy shore, estuaries habitats (note: no specimens may be collected in the Marine Park)
2. 企嶺下紅樹林 (地圖座標: 194810) (具特殊科學價值的地點) Kei Ling Ha Mangrove (grid ref. 194810) (SSSI)	紅樹林生境 Mangrove habitat
3. 西徑 (地圖座標: 188818) Sai Keng (grid ref. 188818)	紅樹林生境 Mangrove habitat
4. 井頭海岸 (地圖座標: 828191) (具特殊科學價值的地點) Tseng Tau Coast (grid ref. 828191) (SSSI)	地理考察 Geographical study
5. 泥涌沿岸 (地圖座標: 831177) (具特殊科學價值的地點) Nai Chung Coast (grid ref. 831177) (SSSI)	岩岸 Rocky shore

\* 「具特殊科學價值的地點」指漁農自然護理署識別為由於其植物、動物或地理特徵而具有特殊科學價值，並且是在規劃署備存的具特殊科學價值的地點登記冊內列明的土地或水域範圍。(由1999年第331號法律公告修訂)

Site of Special Scientific Interest (SSSI) - an area of land or water of special scientific interest by reason of its flora, fauna or geographical features identified by the Agriculture, Fisheries and Conservation Department and listed in the register of sites of special scientific interest maintained by the Planning Department. (Amended L.N. 331 of 1999)



實地考察地點2-5圖示  
Field study site locations 2-5



## 附錄 APPENDIX

### 交通：

#### Transportation:

漁護署 - 郊野公園登山路線圖 (西貢區)  
AFCD - How to get to Country Parks (Sai Kung)

[http://www.afcd.gov.hk/tc\\_chi/country/cou\\_lea/files/transport\\_SK\\_E9\\_E13.pdf](http://www.afcd.gov.hk/tc_chi/country/cou_lea/files/transport_SK_E9_E13.pdf)

### 安全指引：

#### Safety Hints:

導師應帶備急救箱，以備不時之需。  
Leaders are advised to bring along a first-aid kit in case of emergency.

漁護署 - 在郊野公園遠足安全指引  
AFCD - Safety hints for Hiking in Country Parks

[http://www.afcd.gov.hk/parks/trails/Eng/hiking/hike\\_safety\\_e.htm](http://www.afcd.gov.hk/parks/trails/Eng/hiking/hike_safety_e.htm)



### 通訊：

#### Communication:

郊外部分地方只有微弱，甚至完全沒有流動電話網絡覆蓋。導師應留意緊急情況下可採用的各種通訊方法。  
Weak coverage or blind spot may be present in countryside for mobile phone. Leaders should know the various means of communications that can be used in case of an emergency.

電訊管理局 - 認識通訊方法，暢遊郊野公園  
Office of the Telecommunications Authority - Stay in touch in Country Parks

[http://www.ofta.gov.hk/en/ca\\_bd/stay-in-touch.html](http://www.ofta.gov.hk/en/ca_bd/stay-in-touch.html)

### 參考資料：

#### Reference:

香港仔漁護署漁業教育中心  
Aberdeen AFCD's Fisheries education centres

<http://www.hk-fish.net/fec/english/home.htm>

漁護署 - 郊遊路徑資料  
AFCD Walks and Trails information

<http://www.afcd.gov.hk/parks/trails/Eng/hiking/index.htm>

漁護署 - 遊覽郊野及海岸公園  
AFCD - Visiting Country Parks

[http://www.afcd.gov.hk/english/country/cou\\_vis/cou\\_vis.html](http://www.afcd.gov.hk/english/country/cou_vis/cou_vis.html)



土木工程拓展署 - Sham Chung Rhyolite (只提供英文版)  
Civil Engineering and Development Department - Sham Chung Rhyolite

<http://www.cedd.gov.hk/eng/about/organisation/jks.htm>

漁類統營處  
Fish Marketing Organisation

<http://www.fmo.org.hk>

香港魚網  
Hong Kong Fish Net

<http://www.hk-fish.net>

西貢獅子會自然教育中心 - 漁館  
Sai Kung Lions Nature Educational Centre - Fisheries Hall

<http://www.hknature.net/Inec>

香港文化博物館 - 上窰民俗文物館  
Hong Kong Heritage Museum - Sheung Yiu Folk Museum

<http://www.heritagemuseum.gov.hk>

國際生態旅遊協會 (The International Ecotourism Society) (只提供英文版)  
The International Ecotourism Society


[www.ecotourism.org](http://www.ecotourism.org)

### 圖例：

#### Legend:

 公廁  
Public toilet

 停車場  
Parking

 巴士／小巴站  
Bus stop / mini-bus stop

 休憩亭  
Pavilion

 公共電話  
Public phone

 緊急求助電話  
Emergency helpline

表格一. 海鮮資料記錄表格  
Form 1. Seafood information record form

香港的漁業  
FISHERIES IN HONG KONG

海鮮從哪裏來？  
Where does the seafood come from?

項目 Item	相片 Photograph	海鮮名稱 Seafood Name	來源地 Origin	世界自然基金會《海鮮選擇指引》類別# WWF Seafood Guide Category#
例 e.g.		蘇眉 Humphead wrasse	東南亞 South East Asia	避免 Avoid
例 e.g.		龍躉／花尾躉 Giant grouper	香港 Hong Kong	想清楚 Think Twice
1.				
2.				
3.				
4.				
5.				
6.				

#提議的3個類別是：建議、想清楚及避免。  
#Three categories are suggested: Recommended, Think Twice and Avoid.

如有需要請自行放大影印此表  
Please copy and enlarge the above form if necessary

表格二. 漁民新村調查問卷範例  
Form 2. Fisherman village survey form example

在很久很久以前.....  
Once upon a time...

1. 你是否住在兩個漁民新村其中之一？  
Do you live in one of these Fisherman Estates?

☐ 是，接問題 2  
Yes, go to question 2

☐ 不是，接問題 3  
No, go to question 3

2. 你在這條村裏居住了多久？  
How long have you lived in this estate?

☐ 少於5 年  
less than 5 years

☐ 5 至 20 年  
5 – 20 years

☐ 超過20年  
more than 20 years

3. 你或你的家人是否曾經以捕魚為生？  
Have you or has your family ever been a fisherman before?

☐ 是，接問題 4  
Yes, go to question4

☐ 不是，接問題 5  
No, go to question 5

4. 從前以捕魚為生的生活是怎樣的？  
Describe some key features of life as a fisherman in the past?

5. 據你了解，現在的捕魚量跟以往(數十年前)有甚麼分別？  
What is your observation or understanding on the present fish catch amount compared with that in the past (several decades ago)?

☐ 增加，接問題6  
Increase, go to question 6

☐ 沒有改變，接問題7  
No change, go to question 7

☐ 減少，接問題6  
Decrease, go to question 6

☐ 沒有印象，接問題7  
No idea, go to question 7

6. 這個改變對你的生計有何影響？  
Describe how these changes have affected your life?

7. 你認為以魚類作為食物有多重要？  
How do you rank the importance of fish as your food source?

不重要  
Not important

重要  
Important

1

2

3

4

5

iii

iv



## 賽馬會滙豐世界自然(香港)基金會

### 海下灣海洋生物中心之教育項目

Education Programmes at  
Jockey Club HSBC WWF Hong Kong Hoi Ha Marine Life Centre

### 社區海洋教育項目 Marine Education Programme for Community

透過一連串戶內及戶外以海洋為主題的互動活動，參觀者能欣賞和探索海下灣的海岸生物及環境。

Through a series of indoor & outdoor marine-themed activities, participants can explore the Hoi Ha coastal environment and marine life through interaction, appreciation and fun.

#### 對象團體 Target group:

制服團隊、社區中心和專上學院學生  
Uniform groups, community centres and students from tertiary education institutes

### 公司海洋教育項目 Marine Education Programme for Corporates

一個鼓勵公司員工參與海洋保育的教育項目。活動包括認識在海下的村落歷史、參觀石灰窯古跡及觀察海下灣的珊瑚群落。

A programme for engaging staff members on marine conservation. Activities include learning the village history, visiting the antique lime kiln and observing coral community in Hoi Ha Wan.

#### 對象團體 Target group:

世界自然基金會的公司會員  
WWF Corporate Members

### 中小學海洋教育項目 Primary and Secondary School Marine Education Programme

此教育項目配合學校課程。透過親身體驗的活動，如感官遊戲、海岸考察、資料記錄及實驗，學生主動地去探索及欣賞海下灣的海岸生物及環境，認識海洋生態及海洋學。

Programmes are linked with school curricula. Through the hands-on sensory activities, practical coastal field study, data-taking & experiments, students will take an active role in appreciating and exploring the coastal life & environment in Hoi Ha Wan, learning the ecology or oceanography.

#### 對象團體 Target group:

小四至中七學生  
Primary 4 to Secondary 7 students

每團參觀包括乘坐玻璃底船進行珊瑚考察活動，視乎當日天氣狀況而安排。

Each visit includes a Glass-bottomed Boat trip, subject to the weather condition.

所有參觀活動必需預約，敬請留意。  
Please make your reservations.

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