

# 保育研究

## Conservation Projects



我們致力保育香港及亞洲區的物種，從下頁地圖可見我們在亞洲區資助的保育研究範圍之廣。保育基金特意挑選了三個淡水物種，讓大家多點了解牠們面對的挑戰。

During the year, we worked diligently to protect a wide range of species in Hong Kong and across Asia. The following map provides an overview of how far flung across Asia our work is spread. To help you better understand the challenges facing freshwater species in the region, three projects are also explained in greater detail.

在複雜而微妙的地球生態系統中，每一物種都佔一重要席位。任何物種的消失，後果均難以估計，因此，尊重生態、保育物種就是最佳的對策。

“Every species has a role to play in the world’s complicated yet delicate ecosystems. We can’t predict the outcome of losing even a single species, so the best strategy is to respect and conserve.”

單錦城 Paul Shin

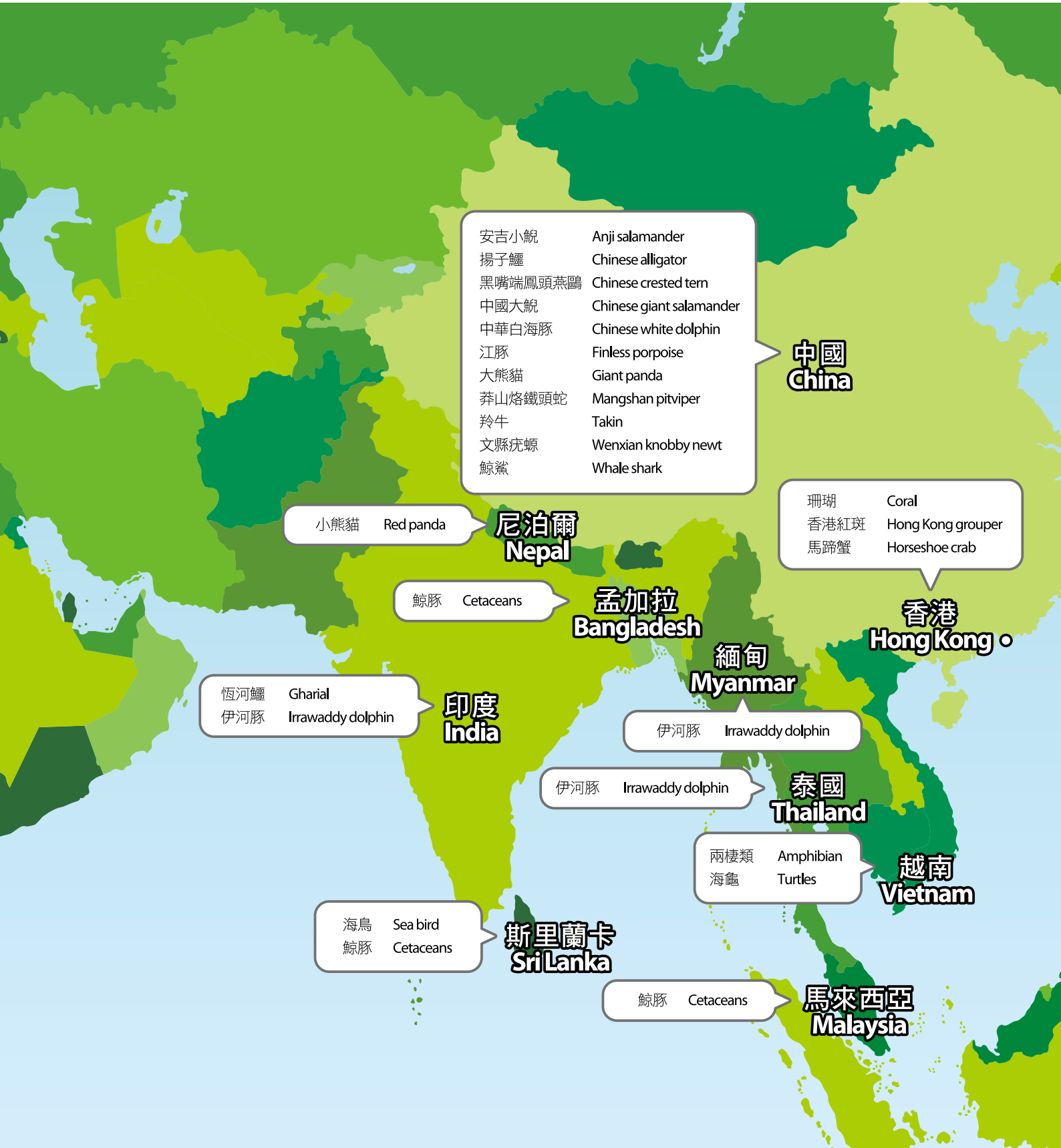
香港城市大學副教授  
致力改進本地馬蹄蟹的人工繁殖技術

Associate Professor of City University of Hong Kong,  
who refined an artificial breeding technique for horseshoe crabs  
in Hong Kong



# 研究物種

## Conservation by Species





俄羅斯  
Russia

西部灰鯨 Western gray whale

台灣  
Taiwan

中華白海豚 Chinese white dolphin

菲律賓  
Philippines

黑鵝鴟 Black shama  
伊河豚 Irrawaddy dolphin  
菲律賓鱷 Philippine crocodile  
食猿鵟 Philippine eagle  
海馬 Seahorses

印尼  
Indonesia

儒艮 Dugong  
科莫多龍 Komodo dragon



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## 恆河鱷

### Gharial (*Gavialis gangeticus*)

保育狀況:	極度瀕危
主要威脅:	生境受損及流失，包括河流乾涸
野外數量:	不足1,500條
分佈情況:	個別種群散居於印度及尼泊爾四條河流中
Conservation status:	Critically Endangered
Major threats:	Habitat destruction and loss, including rivers drying out
Population in the wild:	Less than 1,500
Distribution:	Isolated populations in four rivers in India and Nepal

印度國家級昌巴爾河保護區內，孕育著全球最大的恆河鱷種群。這項研究利用無線電追蹤野生恆河鱷，協助發展一個更有效的保育恆河鱷計劃。這項研究實在是刻不容緩，因為在2007年的冬季，保護區內曾有超過100條恆河鱷死亡，死亡原因估計是異常的嚴寒天氣，加上接觸到有毒物質所致。

By radio-tracking wild gharials in India's National Chambal Sanctuary – home to the largest remaining population in the world – this study helps conservationists develop a more effective conservation plan. This work is urgent: the winter of 2007 saw a mass die-off of more than 100 gharials in Chambal, presumably due to the effects of exposure to toxins, exacerbated by the unusually cold weather.



© Madras Crocodile Bank Trust



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當地保育團體與政府部門合作進行季節性數量普查，更有效地評估恆河鱷對生境的需求以及分佈情況。

The Madras Crocodile Bank Trust, in association with the government department, conducts seasonal surveys to better assess the gharial's habitat requirements and how these affect its distribution.

雌恆河鱷在深水的水域歇息，並在沙堤上築巢。

Females stay in areas of deep water and nest on sand banks.



© Jeff Lang

幼恆河鱷伏在雄恆河鱷頭上

Gharial hatchlings bask on the head of a male.



© Laurel Converse



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## 中國大鯢（娃娃魚） Chinese giant salamander (*Andrias davidianus*)

保育狀況:	極度瀕危
主要威脅:	過度捕殺、生境因河流修建水壩遭受破壞
野外數量:	不詳
分佈情況:	約12個種群零散分佈中國境內
Conservation status:	Critically Endangered
Major threats:	Over-exploitation and habitat destruction due to damming of rivers
Population in the wild:	Unknown
Distribution:	Around 12 fragmented populations in China

野外的中國大鯢數量在過去三十年已經驟減了百分之八十，訂定保育行動計劃已是刻不容緩，因此，我們贊助了一個在國內舉辦的國際性工作坊，與會者擬定的保育行動計劃，為重點分佈地區的中國大鯢保育工作定下了長遠的發展路向。

Wild populations of this species have declined by 80% over the last 30 years and an immediate conservation plan is now needed. To accelerate this process, we co-sponsored an international workshop in China. During the event, Conservation Action Plan recommendations were developed to set future directions for the protection of this species in key locations across its range.



© Ocean Park

中國大鯢是世界上體型最大的兩棲動物，身長可達1.8米。  
The Chinese giant salamander is the world's largest amphibian, measuring up to 1.8m in length.



© Ocean Park

由於國內市場對食用及藥用中國大鯢的需求，因此養殖場數目大增。若管理不善，有機會將病毒傳給野外種群，進一步威脅牠們的存活。

The demand for salamander meat for both food and medicine has led to the growth of breeding farms, which could introduce new diseases to wild populations if not carefully conducted.



© Zoological Society of London

由倫敦動物學會及陝西師範大學舉辦的國際工作坊，匯聚了研究人員、保育人士及其他持份者，共同制定中國大鯢保育計劃。

Organised by the Zoological Society of London and the Shaanxi Normal University, the workshop brought together researchers, conservationists and other stakeholders to develop a sustainable conservation plan in China.



© Winnie Man/USSP





© Prof. Lu Yuyan

## 安吉小鯢

### Anji salamander (*Hynobius amjiensis*)

保育狀況:	極度瀕危
主要威脅:	池塘乾涸導致棲息地流失
野外數量:	不詳、相信成年雌性數目約為250-300
分佈情況:	在中國浙江省的數個細小池塘
Conservation status:	Critically Endangered
Major threats:	Loss of habitat due to water ponds evaporation
Population in the wild:	Unknown, believed to have only 250-300 breeding females
Distribution:	A few small ponds in Zhejiang Province, China

這個研究透過了解安吉小鯢的數量及分佈，訂定合適地點將人工繁殖幼體放回野外，項目並包括教育活動，提升當地居民的保育意識。

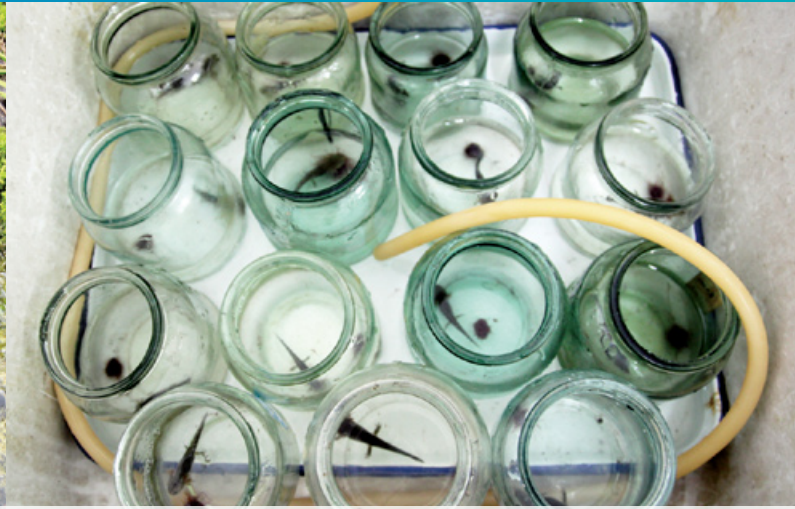
This project involved research to better understand the populations and distribution of Anji salamanders, as well as to identify sites for introducing captive-bred juveniles. An educational component was also included to raise local awareness of the need for conservation.



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體積最大的安吉小鯢僅長10厘米，在中國浙江省龍王山自然保護區的細小池塘生活，最大的池塘面積亦只是大概一平方米。

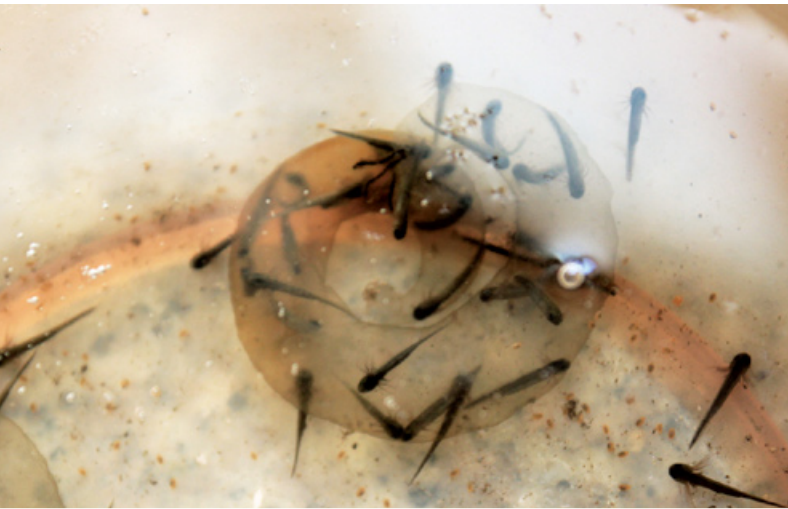
Reaching a maximum of 10cm in length, the Anji salamanders are found only in small water ponds (the largest is only 1m<sup>2</sup>) in the Longwangshan Nature Reserve in Zhejiang Province, China.



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瀋陽師範大學的研究人員以獨立容器養育安吉小鯢，避免牠們互相捕食。

Shenyang Normal University breeds juveniles in separate containers to prevent them from eating one another.



© Carol Yeh & Ketchup Wong/USSP

安吉小鯢的卵帶  
Egg mass of the Anji salamander



© Carol Yeh & Ketchup Wong/USSP

在2010年6月5日的世界環境日，研究員及保育基金贊助同學將四十條安吉小鯢放回野外。

To celebrate World Environment Day on 5 June 2010, the researchers and our sponsored students released 40 captive-bred Anji salamanders into the wild.



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# 本土保育工作

## Local Hong Kong Projects



### Marine mammal stranding response

In 2009-2010, we continued to collaborate with the Agriculture, Fisheries and Conservation Department (AFCD) to respond to dolphin strandings in Hong Kong. The average number of cases has ranged from 20 to 40 per annum over the years.

#### What you can do if you find a stranded dolphin

Call 1823 and provide your name, contact number and the following information:

1. Date and time of discovery and the location
2. Status of stranded animal (alive, slightly or heavily decomposed, etc.)
3. Length of stranded animal and characteristics (e.g. any dorsal fins / obvious beak, etc.)

### 跟進擱淺鯨豚個案

在2009至2010年度，我們繼續與漁農自然護理署合作，處理在香港水域內擱淺的海豚，近幾年每年約有20至40宗海豚擱淺事件。

#### 當你發現有海豚擱淺時：

請即致電熱線1823，提供你的姓名、聯絡電話及以下資料：

1. 發現的日期、時間及地點
2. 擱淺鯨豚的情況（存活、輕微或嚴重腐爛等）
3. 擱淺鯨豚的體長及特徵（如是否有背鰭、嘴喙是否明顯等）

#### 保育基金的行動：

1. 若屍體情況許可，海洋公園獸醫會進行解剖，了解鯨豚有否受到寄生蟲或細菌感染或其他創傷，以判斷致死原因。
2. 其他情況下，我們會收集樣本進行化驗（肝臟樣本研究重金屬含量；牙齒樣本以鑑定鯨豚的年歲；皮膚用作研究及了解種群的基因關係；皮下脂肪以檢驗體內的有機污染物，以及胃部內含物了解食物的選擇）。

#### What we do

1. If the carcass is fresh, Ocean Park veterinarians will help conduct a full necropsy for further analysis, including identification of parasites and bacterial infections or injury to determine the cause of death.
2. In other cases, we collect samples for testing (liver for heavy metals, teeth for age, skin for understanding the genetic relationship between populations, blubber for organic pollutants and stomach contents for food items).



Code 1  
Live stranding  
活體擱淺



Code 2  
Fresh  
屍體



Code 3  
Moderately decomposed  
部分腐爛



Code 4  
Badly decomposed  
嚴重腐爛



Code 5  
Mummified  
骸骨

## 野猴絕育計劃

雖然保育基金本年度的工作重點是水生生物，我們亦有跟漁農自然護理署及海洋公園獸醫建立合作伙伴關係，為金山、獅子山及城門郊野公園的猴子施行絕育手術。建基於早期計劃的成功，我們引入了永久性的絕育手術，並建立可靠的參考數據，以評估計劃的成效。內窺鏡微創手術，大大減少了手術的時間，較小的傷口亦能令猴子更快復原。



按時餵飼野猴有助減低牠們對捕獸籠的警覺性  
Routine feedings helped desensitize the monkeys to the trapping cage.

## Monkey contraceptive programme

Although our principal focus in 2009-2010 was aquatic wildlife, we also worked with the AFCD and Ocean Park veterinarians to administer contraceptives to wild monkeys in Kam Shan, Lion Rock and Shing Mun Country Parks. Building on the success of earlier monkey-control programmes, this project introduced permanent surgical sterilization, and established a reliable frame of reference for evaluating the efficacy of the contraceptive programme. The introduction of endoscopic tubectomy was found to greatly reduce the time needed for the procedure, and the smaller wound also enabled quicker healing.



檢查猴子牙齒數量，估算牠們的年歲。  
By checking the number of teeth, we can estimate the monkey's age.



內窺鏡微創絕育手術  
Endoscopic tubectomy



剛接受手術的猴子  
Monkeys after their operations



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