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保育研究： 團結區內力量 保育野生生態

Conservation and Research: Protecting Asian Wildlife in the Spirit of Partnership

要保護生物多樣性，我們必須準確掌握物種的現況、棲息地情況及所面對的威脅。我們的研究人員以科學方法深入探索及了解不同物種，協助保育工作者、決策者及各地的社群推動保育工作。我們的保育與研究項目，並非僅僅尋求短期的解決方案，而是旨在訂立可持續的保育管理計劃，長遠而有效地維持亞洲區的生物多樣性。

To protect biodiversity, environmental managers need accurate information of each species' current status, its habitat and the threats it faces. Through in-depth scientific studies, our researchers gain the insights necessary to enable conservation practitioners, decision-makers and communities to take action. The aim of our research projects is not only looking for short-term solutions, but also to support the development of sustainable conservation management plans that protect the region's biodiversity for future generations.



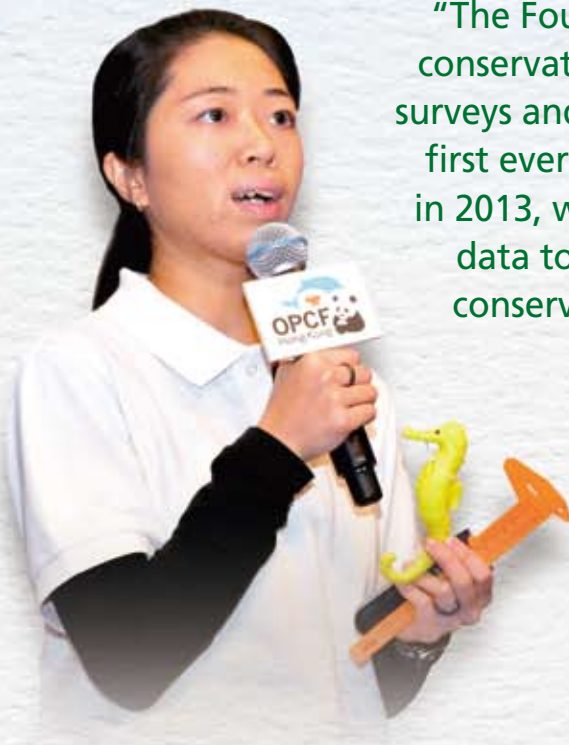


© Rico Chu



「保育基金的海馬普查，及於2013年推行的全港首個海馬標籤識別計劃，帶領香港的海馬保育邁向新里程。計劃所收集到的寶貴資料，有助規劃出更有效保護本地海馬族群及其生態環境的保育管理政策。」

“The Foundation led local seahorse conservation by conducting seahorse surveys and embarking on Hong Kong’s first ever seahorse tagging initiative in 2013, which will generate valuable data to help formulate effective conservation management plans for the species.”



洗映彤小姐

保育基金高級科學主任

Shadow Sin

Senior Scientific Officer

Ocean Park Conservation Foundation, Hong Kong

2012至2013年度保育項目



保育狀況 (根據世界自然保護聯盟瀕危物種紅色名錄)

Conservation Status (according to the International Union for Conservation of Nature (IUCN) Red List)

極危
Critically Endangered

瀕危
Endangered

易危
Vulnerable

近危 / 資料不足 / 未評估
Near Threatened / Data Deficient / Not Evaluated

* 涉及多個物種 Various Species

Conservation Projects in 2012/13



俄羅斯
Russia



西部灰鯨
Western gray whale

© Alexander Burdin / Far East Whale Research

香港
Hong Kong



中華白海豚
Chinese white dolphin

© Allen To



馬蹄蟹
Horseshoe crab

© Joe Cheung



黃海馬
Yellow seahorse

© Eric Keung

台灣
Taiwan



喙鯨
Beaked whale

© John Wang / FormosaCetus Research and Conservation Group



巴拉望龜
Palawan forest turtle

© Diverlie Acosta / Katala Foundation Incorporated



鯨鯊
Whale shark

© LAMAVE

菲律賓
The Philippines



海洋哺乳類動物*
Marine mammals

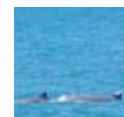
© Josh Silberg / Physalus

馬來西亞
Malaysia



霍氏絨狸
Hose's civet

© HOSCAP Borneo



鯨豚*
Cetaceans

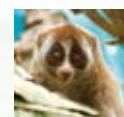
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印尼
Indonesia



婆羅洲紅毛猩猩
Bornean orangutan

© Yayasan IAR Indonesia



爪哇懶猴
Javan slow loris

© Richard Moore / Yayasan IAR Indonesia

海馬普查及全港首個標籤識別計劃



© Rico Chu

當研究員在水底發現海馬時，會拍下照片以辨認品種。 When sighting a seahorse, researchers took photos of it for species identification.

海馬資料

- 現時全球55個海馬品種中，已有11種被列為「易危*」或「瀕危*」物種，牠們面對的最大威脅是被濫捕作傳統藥材，和棲息地流失及受損
- 香港水域較為常見的黃海馬屬「易危*」物種
- 香港是海馬貿易的主要國際樞紐

目標

這全港首個系統性的海馬普查，主要記錄淺水珊瑚群落及鄰近地區的海馬數量、品種多樣性、大小、性別及分佈情況。2013年展開的普查更引入全港首個海馬標籤識別計劃，讓研究人員識別個別海馬，以監察牠們的長期存活、生長速度及棲息地範圍。

普查結果及影響

2012年的普查除了發現六隻黃海馬外，更意外地發現了三種在香港被首次記錄的魚類，包括帆鰭鰕虎魚、單列齒鯛和皇后神仙魚。

普查所得的結果將提供重要數據，讓政府在進行沿海發展規劃時，能將海馬保育列入考慮範圍，並制訂出更有效的海馬保育管理計劃。

啟發公眾 參與保育

我們與香港潛水總會及多家潛水店攜手成立「海馬蹤跡網絡」，鼓勵潛水愛好者一旦在香港水域潛水時發現海馬，可將海馬照片、海馬大小、發現地點、水深、日期及時間等資料，電郵至 opcf@oceanpark.com.hk 與保育基金分享。



© Shadow Sin

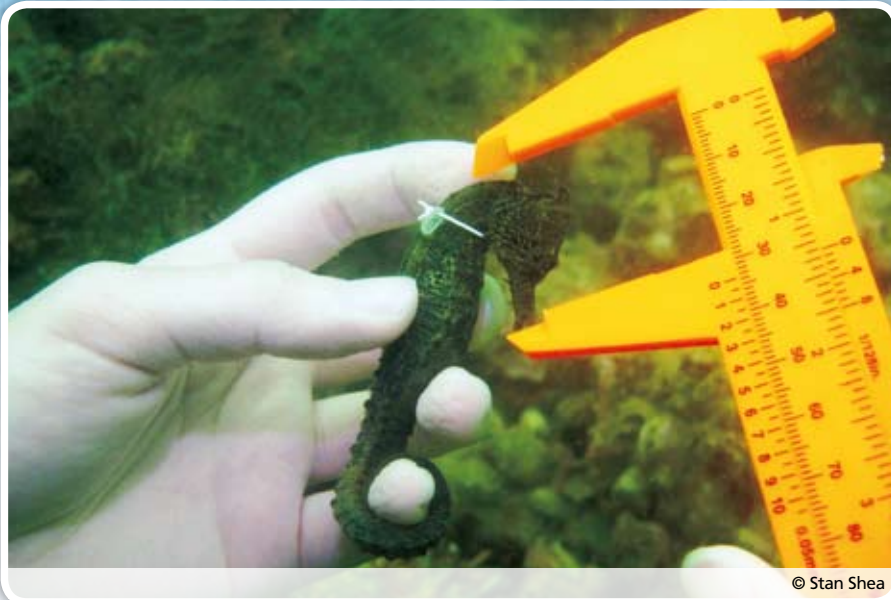
保育
小錦囊



停止購買和食用以乾海馬製作的傳統藥材。

* 根據世界自然保護聯盟瀕危物種紅色名錄

Seahorse Survey and Hong Kong's First Tagging Project



© Stan Shea



Seahorse Facts

- Eleven out of 55 seahorse species are currently listed as "Vulnerable*" or "Endangered*", and are typically threatened by overexploitation for their use in traditional medicine, and by habitat loss or degradation
- The yellow seahorse, which is relatively common in Hong Kong waters, is listed as "Vulnerable*"
- Hong Kong is a major regional hub for the seahorse trade

Objective

We conducted Hong Kong's first systematic seahorse survey to document the abundance, species diversity, size, sex, and distribution of seahorses in shallow coral communities and adjacent waters. This landmark project included a seahorse tagging initiative - also a first in Hong Kong - which is now enabling researchers to identify individual seahorses and monitor their long-term survival, growth rates, and home ranges.

Results and Significance

A total of six yellow seahorses (*Hippocampus kuda*) were found in 2012, and the team unexpectedly identified three fish species. They were the flagfin prawn goby (*Mahidolia mystacina*), humnose big-eye bream (*Monotaxis grandoculis*) and emperor angelfish (*Pomacanthus imperator*) that had never been recorded in Hong Kong waters before.

The survey provides valuable information for the development of effective conservation management plans, and assists the government so that they would take seahorse conservation into consideration when evaluating sites for development.

Inspiring the Public to Give Its Support

In partnership with the Hong Kong Underwater Association and local dive shops, we have launched a "Seahorse Sighting Network": when divers find seahorses in Hong Kong waters, they are encouraged to report their sightings to opcfoceanpark.com.hk with photos of the sighted seahorse, its size, the location and depth, and the time and date of the sighting.

Conservation Tip



Say no to seahorse traditional medicine consumption!

* According to IUCN Red List

中華白海豚保育



© Lin Wenzhi / Guangdong Pearl River Estuary Chinese White Dolphin National Nature Reserve

中華白海豚資料

- 珠江口（包括香港）的野外種群數量約為2,500條
- 台灣海峽東部種群屬於「極度瀕危*」，而其他種群則被列為「近危*」級別
- 主要威脅為遭魚網誤纏、生境流失及受損

繼往開來的中華白海豚保育工作

自2005年以來，保育基金已撥款超過500萬元資助逾40項中華白海豚保育項目，最近有研究指出，珠江口的中華白海豚數量正以每年平均2.46%的速度減少，更估計如白海豚數量持續減少，現存74%的中華白海豚將於60年內消失，中華白海豚的保育工作刻不容緩！

中華白海豚海洋樣本資料庫

繼2011年成立了中華白海豚基因數據庫，保育基金再度支持中山大學，將基因數據庫擴大，以成立珠江河口中華白海豚海洋樣本資料庫。研究團隊在珠江口採集擱淺中華白海豚、魚類和水質等樣本以進行分析，以了解珠江河口中華白海豚的居住環境和健康狀況。結果有助政府制訂更有效而長遠的保育策略。研究結果進一步確定，珠江水域的重金屬和污染物，正通過食物鏈進入並累積在中華白海豚體內。



© Wu Yiping / Sun Yat-sen University

* 根據世界自然保護聯盟瀕危物種紅色名錄

Chinese White Dolphin Conservation



© Leszek Karczmarski / HKU



© Grant Abel

Chinese White Dolphin Facts

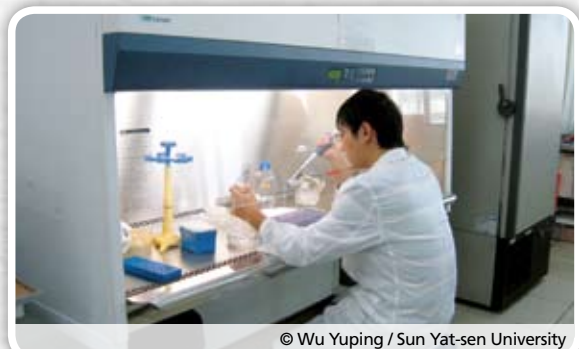
- Around 2,500 individuals in the Pearl River Estuary (including Hong Kong)
- The subpopulation in Eastern Taiwan Strait is listed as "Critically Endangered*", other subpopulations are listed as "Near Threatened*"
- Threatened by entanglement in fishing gears, as well as habitat loss and degradation

OPCFHK's Efforts Over The Years

Since 2005, the Foundation has allocated over HK\$5 million to support more than 40 Chinese white dolphin conservation projects. This work is especially urgent in the Pearl River Estuary where recent research suggests that the Chinese white dolphin population is declining at an alarming rate of 2.46% per year. If this decline continues at the present rate, 74% of the current population will be lost within the next 60 years.

Chinese White Dolphin Marine Specimen Bank

After establishing the Chinese white dolphin DNA bank in 2011, the Foundation supported Sun Yat-sen University this year to expand the DNA Bank to a marine specimen bank for Chinese white dolphin in the Pearl River Estuary (PRE). Tissue samples from stranded dolphins, fish and water samples have been collected by the research team for analyses, in order to understand the habitat and health status of Chinese white dolphins in PRE. These findings play an important role in helping the government formulate long-term conservation strategies. Results further confirmed that heavy metals from the PRE water have been accumulating in the dolphins' body through the food chain.



© Wu Yuping / Sun Yat-sen University

* According to IUCN Red List



「鯨豚擱淺行動組」成員正在解剖一具成年中華白海豚的屍體。
Our Cetacean Stranding Response Team was examining the carcass of an adult Chinese white dolphin.

守在前線 — 鯨豚擱淺行動組

在2012至2013年度，鯨豚擱淺行動組與漁農自然護理署合作處理了共28宗香港水域內的海豚擱淺個案，其中12宗為中華白海豚。所採集到的樣本讓我們掌握本地鯨豚的年齡、性別和死因等重要資料，以更有效地保育海豚及其棲息地。

綜合過去的海豚擱淺個案，行動組發現「遭魚網及漁具纏繞」是本地海豚的頭號殺手，其他死因包括「感染」及「遭船隻撞擊」。保育基金希望與其他機構合作，了解本地擱淺海豚的毒理學。

制訂可持續保育策略 — 海洋哺乳類動物存護工作小組

保育基金不但成立和管理全港唯一的鯨豚擱淺行動組，更一直是海洋哺乳類動物存護工作小組的成員，就中華白海豚及江豚的保育工作向政府提供意見。我們正積極建議政府考慮設立更多海岸公園，以保護這些珍貴的物種；同時呼籲市民減少對海洋的污染，協助保育海豚的棲息地。

首屆東南亞海洋哺乳類動物擱淺網絡研討會暨工作坊

保育基金與Ocean Adventure 及Wildlife in Need Foundation合作在菲律賓舉辦了為期六日的研討會及工作坊，集合了67位來自九個區內國家及地區的代表，一同探討東南亞海洋哺乳類動物的擱淺情況。

為繼續促進區內的資訊和技術交流，保育基金和海洋公園更落實支持成立區內首個「海洋哺乳類動物擱淺網絡」，以建設一個以科學為本的非政治平台，讓東南亞各國分享處理不同擱淺個案的最佳守則及指引。

請瀏覽以下網頁，了解我們的工作：<http://www.seammsn.org/>



保育
小錦囊

不負責任的觀豚活動會對野生海豚做成干擾，參與活動的市民在參加前應閱讀及遵守觀豚守則。



Conservation in Action - Our Stranding Response Team

In 2012/13, our Cetacean Stranding Response Team, in collaboration with the Agriculture, Fisheries and Conservation Department (AFCD), handled 28 stranding cases in Hong Kong waters, 12 of which were Chinese white dolphins. Samples collected from the stranded dolphins provide us with important information about local cetaceans, including age, sex and the causes of death, which enabled conservationists to better conserve the animals and their habitats.

Our investigations have confirmed that entanglement in fishing nets and other fishing gear is the number one cause of death for local cetaceans. Other major causes of death include infections and vessel collisions. The Foundation hopes to collaborate with other research institutes and study the toxicology of stranded dolphins in Hong Kong.

MMCWG: Developing Sustainable Conservation Strategies

In addition to establishing and managing the only Cetacean Stranding Response Team in Hong Kong, the Foundation is a long-time member of the Marine Mammal Conservation Working Group (MMCWG), which makes recommendations to the Hong Kong Government regarding the conservation of both

Chinese white dolphins and finless porpoises. We are actively lobbying the Government to establish more marine parks to protect the natural habitats of these animals. We also call on the people of Hong Kong to reduce marine pollution and to help protect dolphin habitats.

The Inaugural Southeast Asian Marine Mammal Stranding Network Symposium

The Foundation co-organised the first Southeast Asian Marine Mammal Stranding Network Symposium and Workshop in partnership with Ocean Adventure and Wildlife in Need Foundation. Held in the Philippines, the six-day symposium and workshop was attended by 67 participants from nine countries and territories in the region to better understand the marine mammal stranding situation in Southeast Asia.

The Foundation and Ocean Park are also leading the development of a regional, non-political science-based network dedicated to promoting best practices in the management of marine mammal strandings. The Foundation will continue to back the creation of this network in order to encourage the exchange of information across the region.

Visit the website to learn more about our work: <http://www.seammsn.org/>

Conservation Tip

Irresponsible dolphin watching activities can distress wild dolphins. Please read the code of conduct carefully before joining any Chinese white dolphin watching tour and act accordingly.

大熊貓保育



© Wang Fang / Peking University

大熊貓資料

- 野外數量約 1,600隻
- 被列為「瀕危*」物種
- 主要威脅為棲息地受損及破碎化

不遺餘力推動大熊貓保育工作

自1999年以來，保育基金已撥款超過1,400萬資助40多項大熊貓的保育項目。單在2012至2013年度，我們已撥出315萬元，支持九項在四川、陝西及甘肅進行的大熊貓研究及地震後的重建項目。

科研項目： 大熊貓走廊帶評估研究

在現存30個被分隔的大熊貓種群中，有13個數量偏少的種群，正面對在未來數十年間滅絕的重大危機。因此，修建大熊貓走廊帶的工作迫在眉睫，必須儘快將被民居、耕地及其他人類活動分割的棲息地連接起來，增加不同大熊貓種群的交流。

我們本年度資助了北京大學的一項研究，利用紅外線相機、樣線調查及基因分析等方法，了解走廊帶的特徵，以及大熊貓和其他大型哺乳類動物在不同保護區之間的活動情況。

研究團隊得到不少寶貴資料。此研究同時帶動和強化了保護區的監察工作，更有效地防止非法捕獵及非法採集森林資源。

* 根據世界自然保護聯盟瀕危物種紅色名錄

Giant Panda Conservation



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研究人員在陝西秦嶺的大熊貓走廊設置紅外線相機，並拍到一隻罕見的野生棕白色大熊貓。

The research team set up infra-red cameras at the giant panda corridor in Qinling, Shaanxi; and captured photos of a wild, rarely-seen, brown-and-white giant panda.

Giant Panda Facts

- Around 1,600 individuals remain in the wild
- Listed as "Endangered"
- Threatened by degraded and fragmented habitats

OPCFHK's Efforts Over the Years

Since 1999, the Foundation has allocated more than HK\$14 million to over 40 giant panda conservation projects. In 2012/13, we dedicated more than HK\$3.15 million to support nine research and rebuilding projects in Sichuan, Shaanxi and Gansu Provinces in China.

Scientific Research: The Assessment of Giant Panda Corridors

Thirteen out of the 30 isolated populations of wild giant pandas are so small that they have high risk of extinction in the coming decades. There is an urgent need to build corridors by planting bamboos between isolated habitats, which are separated by human activities like settlement, agriculture and other use. The corridors help to connect isolated panda populations from different areas.

This year, we funded Peking University to conduct a research on the attributes of a viable corridor and the movements of giant pandas and other large mammals across the landscapes between reserves. This was achieved using camera traps, transect surveys and DNA analysis.

The research team collected valuable information about wildlife corridors. The project also led to an increased frequency of patrols to prevent illegal poaching and collection of forestry products.

* According to IUCN Red List



© Wong Shou-cheng / Gansu Jianshan Provincial Nature Reserve Administration

保護區的前線工作人員接受野外培訓。 Front-line staff of nature reserve received field training.

重建項目： 支持大熊貓救護與疾病防控中心的建設

我們的地震重建工作重點項目之一，是協助位於四川省都江堰的大熊貓救護與疾病防控中心設計教育設施，及發展相關的教育項目。保育基金及海洋公園教育部，正協助臥龍自然保護區發展其教育項目。保護區亦已成立了公眾教育部門，當中的主要負責人均在2012年11月到港接受培訓，以香港的經驗為參考。

技術培訓： 支援甘肅省新建大熊貓保護區的 野外工作

為更有效保護大熊貓，甘肅省於2002年陸續新建了五個大熊貓自然保護區。但礙於前線工作人員的保育知識和野外實地工作經驗不足，影響了保育的成效。

保育基金撥款支持一項技術培訓項目，透過課堂講解和野外保護技能實踐，提高保護區前線工作人員的執行力。33位來自該五個新建保護區的員工接受了培訓，學習使用全球衛星定位系統技術、儀器操作及物種辨認等，以協助日常的大熊貓監察工作。完成訓練的工作人員更在專家的指導下進行了不同的小型保育項目。



© Wong Vian-guo / Gansu Axia Nature Reserve



© Jing Li-zhong / Longyou Environmental Conservation Association of Tianshui

Rebuilding: Supporting the Establishment of a New Giant Panda Conservation and Disease Control Centre in Wolong

As one of our major post-earthquake reconstruction projects, we facilitated the design of the education facilities at the new Giant Panda Conservation and Disease Control Centre in Dujianyan, Sichuan. We also participated in the development of its related education programmes. Both the Foundation and Ocean Park's education team are now helping Wolong Nature Reserve to develop its school education programmes. The nature reserve has already set up an education team, and key staff received training in Hong Kong in November 2012.

Capacity Building: Enforcement in the Field at New Nature Reserves in Gansu

To better conserve giant pandas, the Chinese government established five new giant panda nature reserves in Gansu in 2002. However, the front-line staff in these new reserves have varying education levels and field experience, which has impacted the effectiveness of their work.

This year, the Foundation supported a project to build the capacity of these staff through lectures and field training. During the year, 33 staff from the five new reserves were equipped with skills such as GIS techniques, essential monitoring-tool usage and wildlife species identification in their routine panda monitoring work. The newly-trained staff also completed small-scale conservation projects under the guidance of experts.

拯救瀕臨絕種邊緣的長江江豚



© Grant Abel

受到工業發展、航運、過度捕魚及非法漁業活動所威脅，長江江豚已被列為「極度瀕危*」。

The Yangtze finless porpoise is seriously threatened by industrial activities, boat traffic and overfishing with the use of illegal means of fishing, and is now listed as "Critically Endangered*".

長江江豚資料

- 長江唯一的水生哺乳類動物
- 受棲息地破壞、航運、過度捕魚、電打魚和定置網等非法漁業活動的嚴重威脅
- 僅剩約1,040條，被列為「極度瀕危*」的物種

物種現況

分佈在長江幹流的江豚只剩下500條，其數量正以每年13.7%的速度銳減。加上鄱陽湖和洞庭湖分別約450條和90條江豚，長江江豚現存種群僅餘約1,040條。若不立即採取有效的保育措施，牠們很可能會於十年內絕種。

合作項目

保育基金資助中國科學院水生生物研究所，於洞庭湖調查漁民誤捕江豚的情況。研究記錄了漁民在洞庭湖採用的主要捕魚工具及方法、誤捕江豚的數量及次數，和不同教育程度的漁民對江豚誤捕、受傷及死亡的看法和態度。

調查結果

大部分受訪漁民都察覺到近年江豚數量正在下降，他們估計這情況與漁業資源減少有關。調查結果向地方政府傳達了一個強烈訊息：要保育在洞庭湖棲息的江豚，必先保護當地的漁業資源，並有必要嚴厲執法，杜絕非法和破壞性捕魚活動，才可為江豚帶來生機。

「絕種」，是個不可挽救的結局；但「瀕危」，表示我們還有機會扭轉局面！

*根據世界自然保護聯盟瀕危物種紅色名錄

Save the Yangtze Finless Porpoise from the Brink of Extinction



© Zerlina Leung



© Richard Cheng / HKUST

Yangtze Finless Porpoise Facts

- The only remaining aquatic mammal in the Yangtze River
- Seriously threatened by habitat destruction, boat traffic, and overfishing with the use of illegal fishing techniques such as electro-fishing and single-trap set net fishing
- With only around 1,040 individuals left in the wild, the species is currently listed as "Critically Endangered"

The Situation

There are now only about 500 individual finless porpoises in the main stream of the Yangtze River, and their population is declining at an alarming rate of 13.7% every year! Along with the 450 individuals in Poyang Lake and the 90 individuals in Dongting Lake, only around 1,040 porpoises remain in the wild. This species could be extinct within the next 10 years unless urgent and effective measures are taken.

Joint Efforts

We supported the efforts of the Institute of Hydrobiology, the Chinese Academy of Sciences, to conduct a survey on the porpoise as fisheries bycatch in Dongting Lake. The survey documented the predominant fishing gear and methods used in the lake, the intensity and frequency of porpoise as bycatch, and the attitudes of fishermen with different education levels to trapped, injured and dead porpoises. These findings can be used to identify the proper actions that need to be taken as the next step.

The Outcome

Most of the fishermen interviewed have noticed a decline in the number of porpoises in recent years. One possible reason could be the decline of fish resources. The results of this survey sent a strong signal to the local government that the protection of fisheries is central to the conservation of porpoises in Dongting Lake. Strict enforcement of the law against illegal and destructive fishing practises is critical to bring hope to the species.

Extinction is forever, endangered means we still have a chance.

* According to IUCN Red List

減緩人類與亞洲象之間的衝突



© Dion Chow / HKAPA



© Zoe Wong / CUHK

保育基金支持的項目在當地推廣人象和平共存之道。
The Foundation supported a project to promote the peaceful co-existence of humans and elephants.

亞洲象資料

- 屬於「瀕危*」物種，現時約有40,000至50,000頭亞洲象，分佈於13個亞洲國家
- 牠們被視為動物保育上的護傘種，只要對亞洲象及其棲息地加以保護，就能夠保護到當地很多其他物種
- 受到棲息地減少、受損及破碎化的威脅，並因為非法象牙貿易而遭大規模獵殺
- 近年在印度，人和象之間的衝突不斷增加

物種現況

由於人類大量種植茶葉和開墾土地，令印度接近70%的森林被摧毀，導致大象的棲息地大幅減少，加劇了人類和大象之間的衝突，當中包括農作物損失及房屋毀壞，而人類和大象亦各有傷亡。

合作項目

我們資助當地野生動物保育組織Aaranyak進行了一項全方位的保育項目，以調解當地居民與大象間的衝突。項目不但研究及分析人象衝突模式，並與當地社群合作，推廣人象和平共存之道。

初步結果

研究結果顯示，在有記錄的180宗人象衝突事件中，超過半數與農作物受損有關。為針對解決這類型的衝突，Aaranyak訓練當地的支援隊伍在不會對大象造成傷害的情況下，如何有效地驅趕象群。超過4,000多名年青人、學生、村民及村長參與了有關會議和訓練。



© Ching Chan / CUHK

「我深信人類與其他野生動物能夠和諧共存！」

“I believe humans and other animals can live in co-existence and harmony.”

Aaranyak負責人Jyoti P DAS博士
Dr. Jyoti P DAS, Aaranyak

* 根據世界自然保護聯盟瀕危物種紅色名錄

Mitigating Human-Elephant Conflicts



© Jyoti Das / Aaranyak



© Udayan Borthakunz / Aaranyak

Asian Elephant Facts

- “Endangered*”; around 40,000 to 50,000 wild individuals living in 13 Asian countries
- Considered an ‘umbrella species’, which means that efforts to protect this species and its natural habitat will also protect many other species
- Threatened by habitat loss, degradation and fragmentation, and large-scale poaching for the illegal ivory trade
- Human-elephant conflicts in India have been increasing in recent years

The Situation

Almost 70% of the forest cover in India has been replaced by the cultivation of tea leaves and other plantations, resulting in a significant decrease in elephant’s natural habitat. This loss contributes to the increasing intensity of human-elephant conflicts, including crop raiding or property damage, and human and elephant injury or death.

Joint Efforts

We supported a project conducted by Aaranyak, a wildlife conservation organisation based in India, seeking to mitigate human-elephant conflicts. The project studied conflict patterns and worked with local communities to promote the peaceful co-existence of humans and elephants.

Initial Findings

The project’s findings indicated that over half of the 180 human-elephant conflict cases recorded during the study period were related to crop damage. To address this issue, existing support groups were trained to adopt methods to drive elephants away effectively and harmlessly. More than 4,000 local participants, including young people, students, villagers and headmen, attended the awareness meetings and training.

* According to IUCN Red List

監測被放歸野外的中國大鯢

物種現況

中國大鯢是世界上最大的兩棲動物，體長可達1.8米。面對棲息地破壞和被過度捕捉作食用等威脅，牠們現時在野外已知而可持續的種群只剩數個，並已被列為「極度瀕危*」物種。為增加中國大鯢的野外數量，我們必須將部分養殖的大鯢放歸野外。可惜由於缺乏詳細研究，我們對被野放的中國大鯢的情況所知不多。

合作項目

為了解野放後的中國大鯢狀況及對野生種群的影響，保育基金資助美國孟菲斯動物園、陝西省動物研究所及密西西比州立大學，監測被放歸野外的中國大鯢，以研究牠們的野外分佈、移動模式、存活情況及棲息地選擇等。

調查結果

研究團隊在陝西秦嶺選擇了兩個地點，將32隻植入了追蹤器的中國大鯢放歸野外，並利用無線電追蹤牠們的位置，比較放歸於兩個地點的大鯢的移動模式。研究人員發現，牠們會選擇棲息於酸鹼值稍低、水質較清澈的流域，而且多藏身於大石塊下。他們將繼續收集更多數據，以深入了解牠們對棲息地選擇及其繁殖與棲息環境之間的關係。研究結果將有利於規劃未來的野放工作。



© Andy Kouba / Memphis Zoo

了解氣候變化對揚子鱷的影響

物種現況

揚子鱷是中國特有的物種，被列為「極度瀕危*」級別，估計全中國野外數量少於150隻，成年的揚子鱷數量更不足30隻。由於揚子鱷是依靠孵化溫度決定性別的爬行類動物，因此牠們除了受到生境破壞的威脅外，亦有可能受氣候變化所影響。

合作項目

為求進一步了解氣候變化對野生揚子鱷後代性別比例的潛在影響，我們資助安徽師範大學進行了一項研究，以檢視外界氣溫對野生揚子鱷巢內溫度的影響，同時了解野生揚子鱷後代的性別比例轉變會帶來什麼影響。

初步結果

初步結果顯示，對比養殖場內的揚子鱷巢，野生揚子鱷巢的巢內溫度較高，但溫差較少，表示野生鱷巢的保溫及抗熱能力較佳。研究人員將會繼續統計野生鱷巢內的溫度變化幅度。如巢內溫差達0.3°C則表示氣候變化有機會對牠們的性別比例造成影響。項目預計於2013年完成。



© Shadow Sin

* 根據世界自然保護聯盟瀕危物種紅色名錄

Monitoring Chinese Giant Salamanders Reintroduced to the Wild

The Situation

The Chinese giant salamander is the world's largest amphibian and can reach 1.8 meters in length. Threatened by habitat loss and overexploitation for meat, the species is now listed as "Critically Endangered*" with only a few surviving populations known in the wild. In order to recover this species in the wild, reintroductions are necessary to supplement these dwindling populations. However, very little is known how well captive released salamander will survive in the wild.

Joint Exploration

To better monitor the conditions of the released animals and the long-term impact on wild populations, the Foundation supported the Memphis Zoo, Shaanxi Institute of Zoology and Mississippi State University to study the dispersal patterns of the released animals, their survival, and habitat selection after their reintroduction to the wild.



© Andy Kouba / Memphis Zoo

The Outcome

The team released 32 salamanders, each implanted with transmitters, at two sites in the Qinling Mountains, Shaanxi Province. The salamanders were tracked with radio transmitters and their dispersal patterns were compared between sites. The sites where salamanders were found had a lower water pH value and turbidity, and were closer to large substratum, which provides coverage. The team will collect more data to further investigate their habitat selection and reproductive ecology, the results of which will be beneficial for planning future releases.

Understanding the Impact of Climate Change on the Chinese Alligator

The Situation

The critically endangered* Chinese alligator is an endemic species in China, with a wild population of less than 150 that includes less than 30 mature individuals. This species is not only threatened by the destruction of its natural habitat but may perhaps be affected by climate change, as its gender is determined by the ambient temperature during its incubation.

Joint Efforts

We supported Anhui Normal University to conduct a study to better understand the potential impact of climate change on the male-female ratio of wild Chinese alligators. This urgent research project examined the impact of environmental temperature change on the temperature inside wild alligator nests. It also sought to investigate the potential impact of a changing sex ratio in the offspring of wild alligators.



© Shadow Sin

Initial Findings

The preliminary findings of this project have revealed that the nest temperature in the wild were higher than that in the alligator farm and experience a significantly smaller temperature fluctuation. These findings indicated the temperature insulation ability of wild nests is better than that of the artificial nests in farms. The research team will continue to monitor the changes of the nest temperature in the wild until the project completion by late 2013. If the nest temperature fluctuation is greater than 0.3°C, the sex ratio in the offspring maybe influenced by climate change.

* According to IUCN Red List

打擊野生中華穿山甲的非法貿易



© Sarita Jnawali / NTNC / Central Zoo

物種現況

中華穿山甲面對生境惡化及非法捕獵等威脅，是現時世界上最瀕危的哺乳類動物之一。但由於有關尼泊爾境內的中華穿山甲的生態、分佈、保育狀況及所面臨的威脅等方面的資料不足，局限了當地的保護工作。

合作項目

我們資助了倫敦動物學會，在喜馬拉雅山脈東部尼泊爾境內進行的一個保育項目，蒐集當地中華穿山甲的數量及面對威脅等資料，以提升當地保育穿山甲的意識。

項目成果

這是歷來首次收集到喜馬拉雅山脈東部中華穿山甲的數據。結果發現，區內對可用作傳統藥材的穿山甲鱗片的需求不斷增加。該項目積極提升公眾對有關法例的意識，並與當地主要持份者合作，對制訂及實行全國性的穿山甲保育策略作出了重大貢獻。

第三屆東南亞海洋哺乳類動物國際會議 — 連繫區內科學及保育專才

保育現況

東南亞不少地區在研究及保育水生哺乳類動物方面尚在發展階段，令保育工作受到一定限制。而加強保育人員在知識、研究技術、方法和研究成果的交流，能有效促進區內對水生哺乳類動物的研究，提高保育成效。

合作項目

第三屆東南亞海洋哺乳類動物國際會議於2013年3月舉行。來自不同地區的研究人員聚首一堂，就近岸、河口及水生哺乳類動物的保育及生態等多項議題交換意見。

項目成果

研究人員在會議上指出了多個區內水生哺乳類動物所面對的新挑戰和威脅，包括離岸石油及天然氣的開發、沿岸地區人口的迅速增長及氣候轉變等。來自12個國家的59位與會代表希望成立一個東南亞水生哺乳類動物組織，加強地區內研究人員的合作，及支援各成員的研究及保育工作。



© SEAMAMMS

Combating the Illegal Trade of Chinese Pangolins

The Situation

Habitat destruction and illegal poaching have made Chinese pangolins one of the world's most endangered mammals. The protection of the Chinese pangolin in Nepal is constrained by a lack of knowledge about the ecology, distribution, status and specific threats facing this species.

Joint Efforts

We supported a project led by the Zoological Society of London to obtain baseline information on Chinese pangolin populations and the threats they face, to raise local and national awareness for pangolin conservation, and to build in-country conservation capacity for pangolin conservation in the Eastern Himalayas of Nepal.



© Carly Waterman / Zoological Society of London

The Outcome

Data on the presence of this species in the Eastern Himalayas was collected for the first time. Findings suggest that commercial demand for pangolin scales, which are used in traditional medicine, is actually increasing in the region. By raising awareness of the law and engaging key stakeholders from the outset, this project has significantly contributed to the development and implementation of a nationwide conservation strategy for Chinese pangolins in Nepal.

SEAMAMMS III – Connecting the Region's Scientists and Conservationists

The Situation

We seek continuous improvement in aquatic mammal research and conservation in Southeast Asia to enhance the ability of conservationists to take appropriate action. The exchange of knowledge, research skills, methodologies and research findings will enable the growth of the region's marine mammal research capacity.

Joint Efforts

The Third International Southeast Asian Marine Mammal Symposium (SEAMAMMS III) was held in March 2013. We brought together researchers from across the region to discuss various issues on the conservation and biology of coastal, estuarine and aquatic mammals.



© SEAMAMMS

The Outcome

The symposium identified a number of new threats to aquatic mammals in the region, including offshore oil and gas developments, the rapid growth of human populations in coastal areas, and climate change. The 59 participants from 12 countries expressed their hope to establish a regional SEAMAMMS organisation to encourage closer working relationships between researchers in Southeast Asia, and to provide research and conservation support for all its members.